

GENERAL RAILWAY SIGNAL COMPANY

1905

SECTION 2

MECHANICAL INTERLOCKING

Warren Y. Scott.

# CATALOGUE AND PRICE LIST

OF

# MECHANICAL INTERLOCKING AND SIGNALING DEVICES

MADE BY

THE GENERAL RAILWAY SIGNAL COMPANY  
OF BUFFALO, N. Y.

Owners of the Patent Rights formerly owned by The Taylor Signal Company of Buffalo, N. Y.; The Pneumatic Signal Company of Rochester, N. Y., and The Standard Railroad Signal Company of Troy, N. Y.

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Also Designers, Manufacturers and Erectors of Electric, Electro-Pneumatic, Electro-Mechanical, Pneumatic and Mechanical Appliances for Railway Protection; Crossing Gates; Automatic, Semi-Automatic and Manually-Operated Block Signals; Electric, Electro-Pneumatic and Mechanical Interlockings to suit conditions

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## GENERAL OFFICES

BUFFALO, N. Y.

### DISTRICT OFFICES

NEW YORK—Broad Exchange Bldg.

CHICAGO—Monadnock Block

### WORKS

BUFFALO, NEW YORK

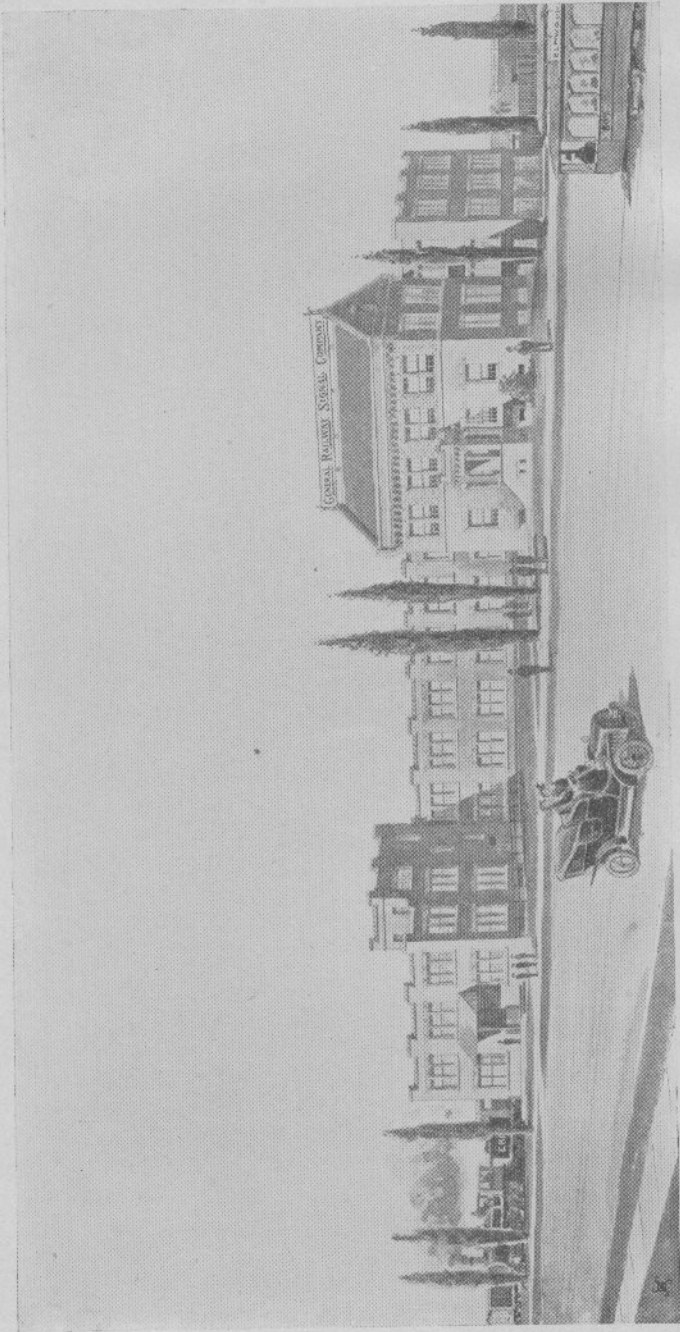
ROCHESTER, NEW YORK

1905

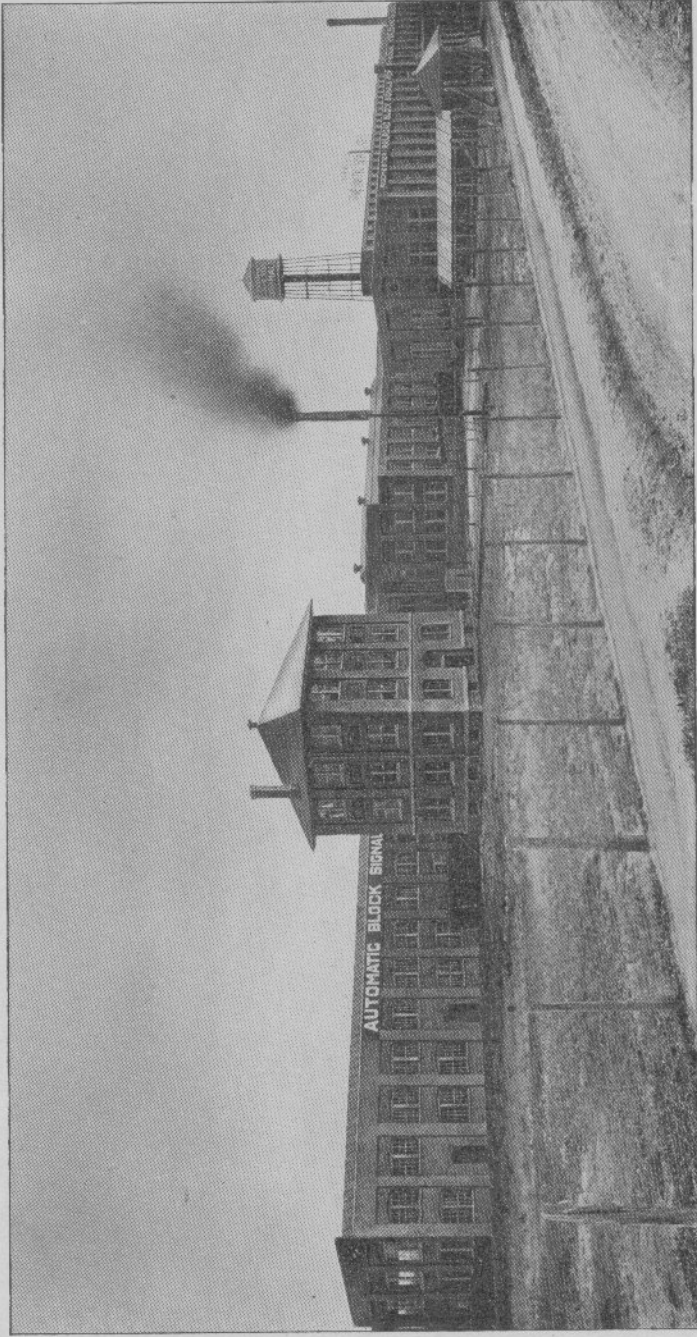
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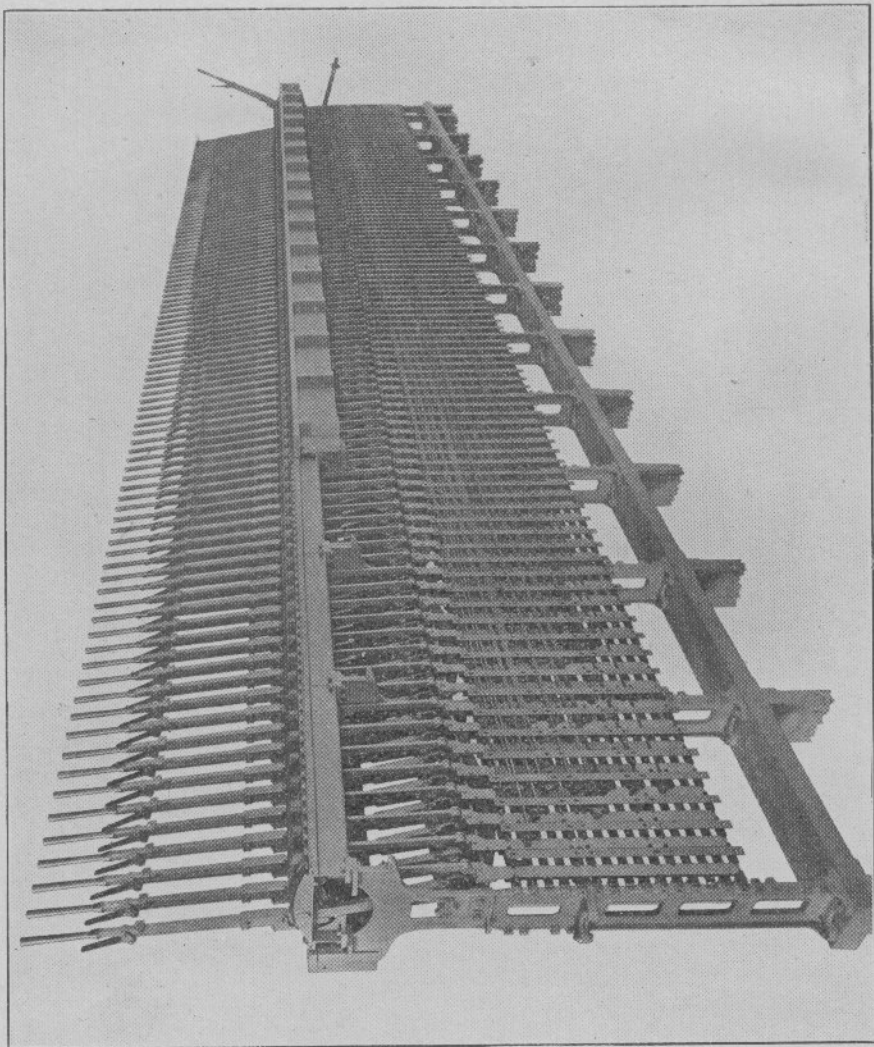
MECHANICAL  
INTERLOCKING DEVICES  
SECTION 2



GENERAL RAILWAY SIGNAL COMPANY'S BUFFALO, N. Y., WORKS



GENERAL RAILWAY SIGNAL COMPANY'S ROCHESTER, N. Y., WORKS



100 LEVER INTERLOCKING MACHINE WITH VERTICAL LOCKING.  
Erected at Providence, R. I., on the N. Y., N. H. & H. R. R.



## PREFACE

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**T**HIS section of our catalogue is the second of a series which it is intended to issue pertaining to Electric, Pneumatic, Electro-Pneumatic and Mechanical Interlocking Apparatus, Station Block, Automatic and other Signaling Devices manufactured by this company.

As our first section listed all parts that might be used in All-Electric Interlocking, this section will cover all the various devices that pertain to Mechanical Interlocking, and will include such electrical features as are now coming into common use with mechanical plants, such as Electric Locking and Electric Distant Signals.

In this section no attempt is made to describe the principles of Mechanical Interlocking Apparatus or the electrical features used in connection with same, but we have made every effort to present to our patrons an order catalogue which we believe to be complete in every detail. List prices have been extended opposite each item and list prices given for a great number of combined parts, which we trust will be of assistance in ordering. Where prices are not given, same will be furnished on application.

**GENERAL RAILWAY SIGNAL CO.**

# IMPORTANT

## HOW TO ORDER

On the following pages our latest devices, and many of those which the latest have superseded, are illustrated, described and listed in complete assembly and in detail.

Wherever feasible, we have shown assembled, or in groups, the parts that naturally belong together, and by so doing we have indicated, with greater clearness than could be obtained by description, the use and location of the individual parts. To each of these groups we have given, in heavy type, a number, which, if rightly used, will facilitate the finding of any small part.

In ordering apparatus or parts listed in this catalogue, give, in addition to the regular shipping instructions, etc., the *Order Number and Name appearing in LARGE type*, together with such additional specifications as may be necessary.

### PATTERN NUMBERS ARE NOT ORDER NUMBERS

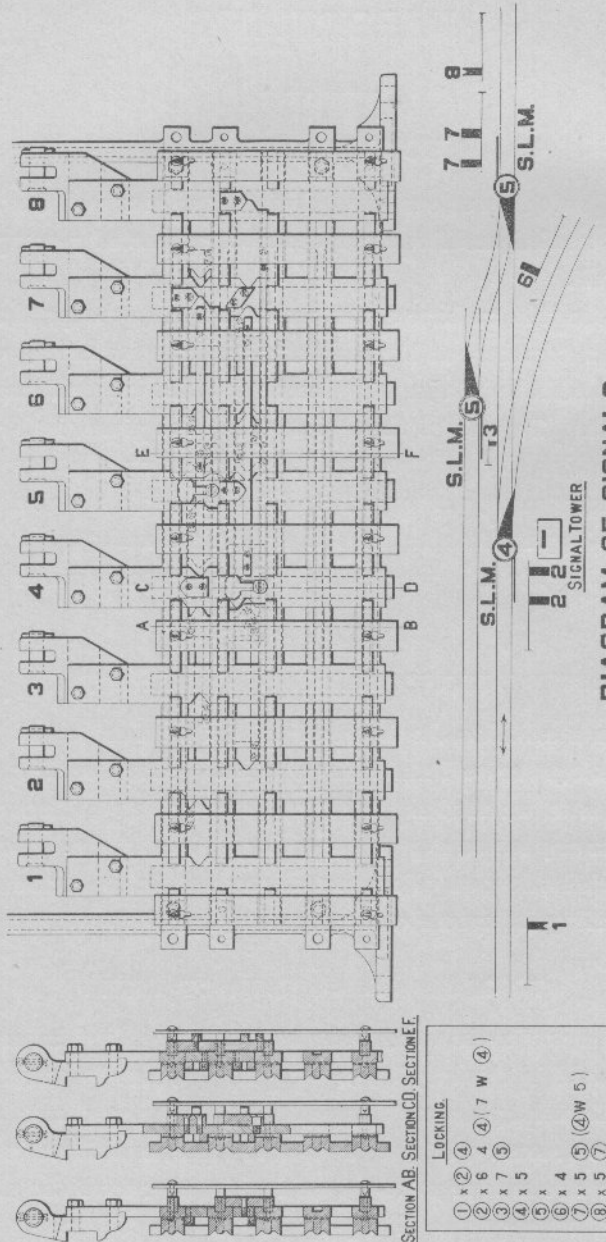
Attention is called to the fact that pattern numbers which occasionally appear on castings are *not* listed order numbers. Therefore, in ordering, care should be taken to see that the order number is given and not the pattern number. If for any reason a pattern number is given, it should be specifically stated that such is the case. For convenience, a list of pattern numbers with their corresponding order numbers is given on pages 464 to 477, inclusive.

### TO ORDER APPARATUS NOT LISTED

Some of the appliances which have been superseded by improved devices are not illustrated in this catalogue. We are, however, prepared to furnish duplicates of all such apparatus. In ordering a device, or part thereof, of this kind, it will be necessary to give its correct name, exact location, and such information as circumstances may warrant, together with the name of the plant for which it is required. The proper name may be found by reference to a like part that is illustrated in this or other catalogues.

STYLE "A" INTERLOCKING MACHINE

ELEVATION OF LOCKING



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

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ELEVATION OF LOCKING

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On the opposite page is illustrated an Elevation of Locking Plate for Style "A" Interlocking Machine.

With this type of Locking the most complicated Interlocking can be accomplished with every feature of each combination in full view, and it can be inspected at any time without the difficulty of disturbing or removing any of the parts for the purpose of testing or making examinations of Locking.

## STYLE "A" INTERLOCKING MACHINE

MACHINE ARRANGED FOR VERTICAL LEADOUT

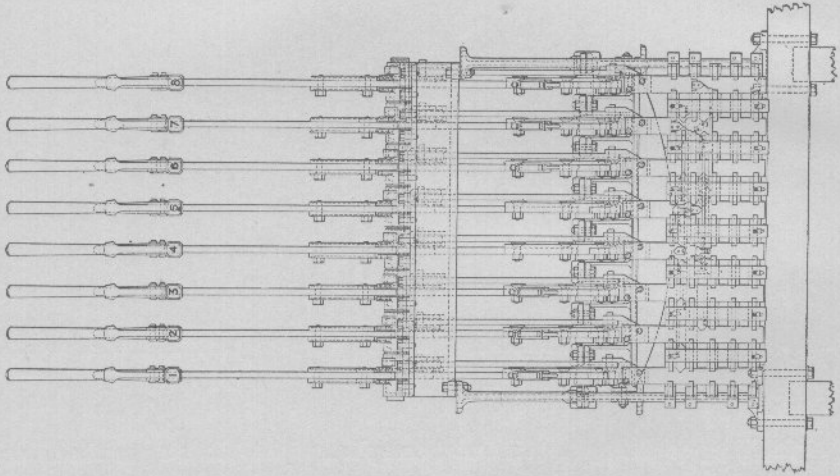


FIG. 2

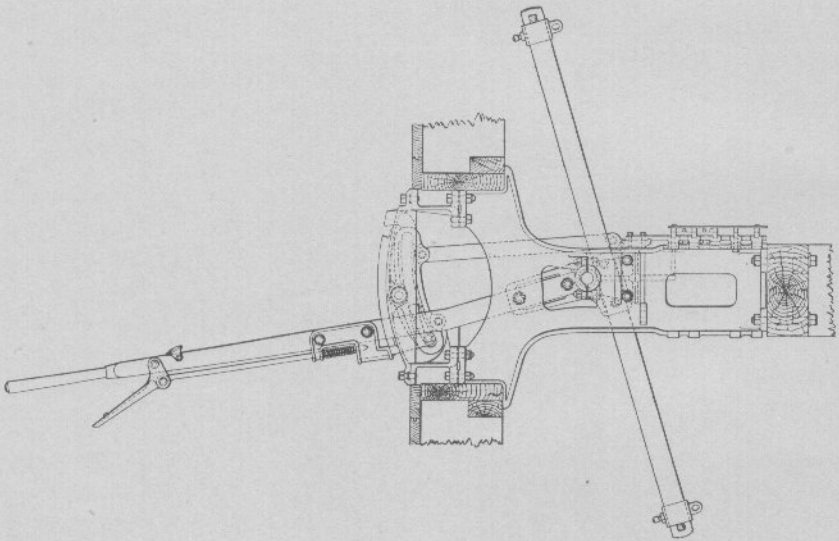


FIG. 1

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

MACHINE ARRANGED FOR VERTICAL LEADOUT

On the opposite page, Fig. 1 shows an End View and Fig. 2 shows an Elevation of our Style "A" Interlocking Machine with 8 Levers and the Locking necessary for ordinary conditions. This style of machine is favored because it occupies the minimum of space in the Signal Tower, and at the same time combines all the advantages of other types of Vertical and Horizontal Interlocking Machines, together with other special features.

The Locking can be placed on either or both sides of the machine, which is a considerable advantage in many instances.

In ordering Interlocking Machines, a Signaled and Numbered Track Plan, showing the arrangement of Switches and Signals, should accompany the order; the order should also clearly specify the number of Levers and Spare Spaces.

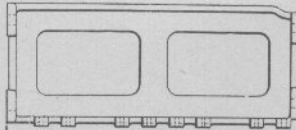
LIST OF PRICES FOR STYLE "A" INTERLOCKING MACHINE COMPLETE

CAPACITY OF MACHINE	LIST PRICE	
	Per Lever	Per Spare Space
4 to 12 Lever Frame.....	38.40	15.20
16 to 24 Lever Frame.....	40.00	15.20
28 to 48 Lever Frame.....	41.60	15.20
52 to 72 Lever Frame.....	43.20	16.80
76 to 100 Lever Frame.....	44.80	17.60

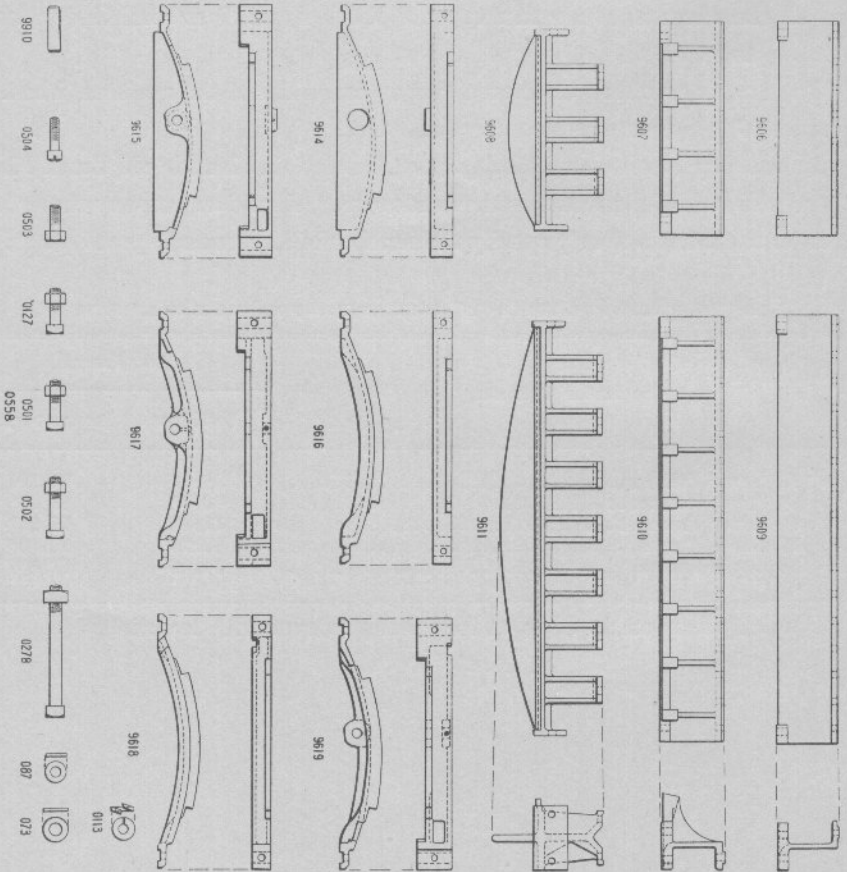
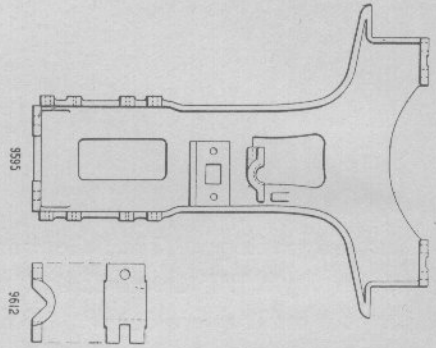
Special prices on application for machines over 100 Levers.

STYLE "A" INTERLOCKING MACHINE

LARGE DETAIL PARTS



9596	-	4 SPACE EXTENSION LEG	1-2 1/2
9597	-	9	2-3
9598	-	14	3-3 1/2
9599	-	19	4-4
9600	-	24	5-4 1/2
9605	-	29	6-5



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# STYLE "A" INTERLOCKING MACHINE

17

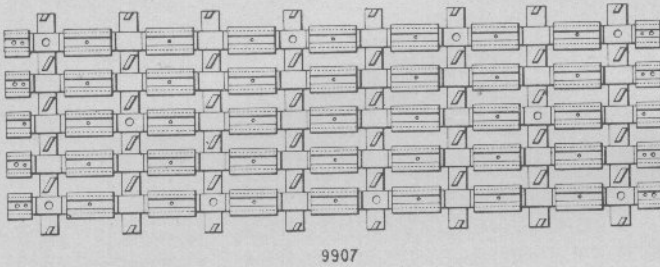
Order No.	LARGE DETAIL PARTS	List Price.
073	$\frac{3}{4}$ " WASHER for 0278 and 0558.....	.02
087	$\frac{1}{2}$ " WASHER.....	.01
0113	$\frac{3}{8}$ " LOCK WASHER.....	.02
0127	BOLT AND NUT, $\frac{5}{8}$ " x $2\frac{1}{4}$ ", for fixing Bearing Cap to Bottom Girder and Machine Leg.....	.07
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7", for fixing Machine Leg and Extension Leg to Timber Framing.....	.14
0501	BOLT AND NUT, $\frac{5}{8}$ " x $2\frac{1}{2}$ ", for fixing Bottom Girder to End Leg, and Front and Back Girder to Machine Leg.....	.07
0502	BOLT AND NUT, $\frac{5}{8}$ " x $3\frac{1}{4}$ ", for fixing Bottom Girders to Intermediate Leg.....	.07
0503	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for fixing Segments to Front and Back Girders.....	.04
0504	MACHINE SCREW, Fil. Head, No. 14-24 x 1", for fixing Rocker Center Pin in Segments.....	.02
0558	BOLT AND NUT, $\frac{3}{4}$ " x $2\frac{1}{2}$ ", for fixing Machine Leg to Extension Leg.....	.10
9595	MACHINE LEG.....	17.00
9596	4 SPACE EXTENSION LEG, 1' $2\frac{1}{2}$ ".....	10.00
9597	9 SPACE EXTENSION LEG, 2' $3\frac{3}{4}$ ".....	13.00
9598	14 SPACE EXTENSION LEG, 3' $3\frac{1}{2}$ ".....	19.00
9599	19 SPACE EXTENSION LEG, 4' $4\frac{1}{2}$ ".....	
9600	24 SPACE EXTENSION LEG, 5' $4\frac{1}{2}$ ".....	
9605	29 SPACE EXTENSION LEG, 6' $5\frac{1}{2}$ ".....	
9606	4 LEVER FRONT GIRDER.....	4.70
9607	4 LEVER BACK GIRDER.....	6.20
9608	4 LEVER BOTTOM GIRDER.....	7.50
9609	8 LEVER FRONT GIRDER.....	8.70
9610	8 LEVER BACK GIRDER.....	12.00
9611	8 LEVER BOTTOM GIRDER.....	14.50
9612	CAP for Machine Leg and Bottom Girder Bearings.....	.18
9614	LEFT HAND END SEGMENT.....	3.60
9615	RIGHT HAND END SEGMENT.....	3.60
9616	LEFT HAND INTERMEDIATE SEGMENT.....	2.70
9617	RIGHT HAND INTERMEDIATE SEGMENT.....	3.60
9618	LEFT HAND INTERMEDIATE SEGMENT for Electric Lock.....	2.70
9619	ROCKER SEGMENT for Electric Lock.....	3.60
9910	TAPER DOWEL PIN, No. 6, $\frac{1}{32}$ " x $1\frac{1}{8}$ ", for Front and Back Girders to Machine Leg.....	08

Order by NUMBER and NAME Appearing in Large Type

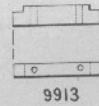
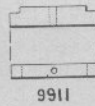
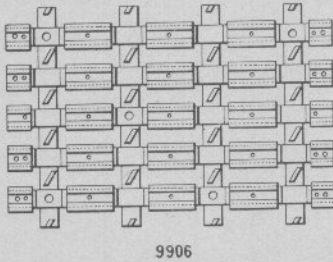


STYLE "A" INTERLOCKING MACHINE

LOCKING PLATES, TAPPETS, ETC.



9907



9906

9911

9913

9914



9912

0517

0516



9910



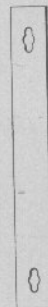
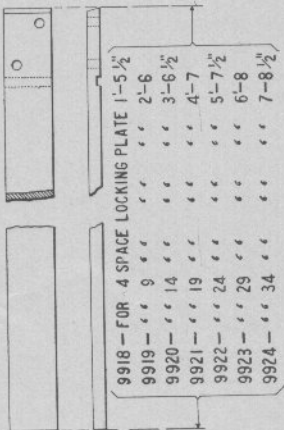
0515



0514



071



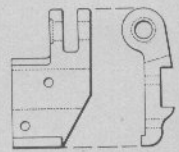
9916



9925



041



9917

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# STYLE "A" INTERLOCKING MACHINE

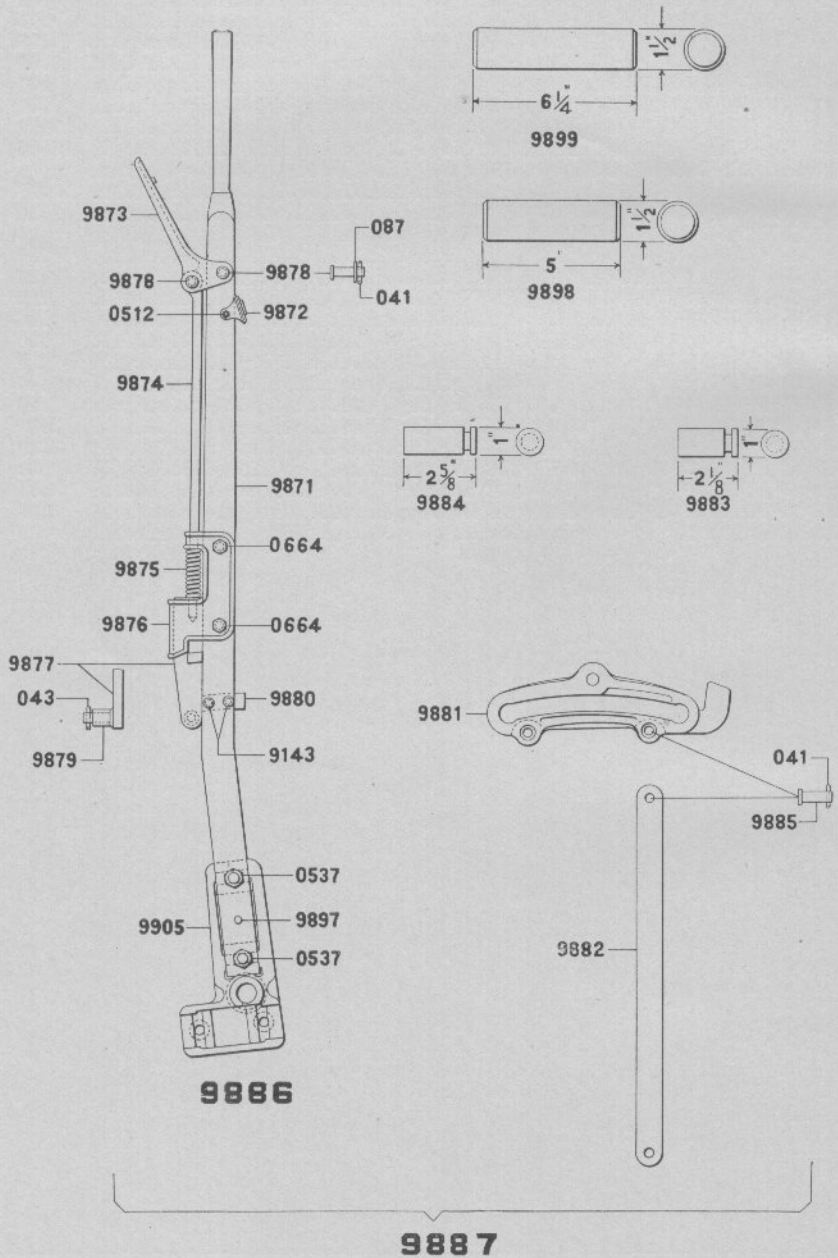
19

Order No.	LOCKING PLATES, TAPPETS, ETC.	List Price.
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{2}$ ", for 9925 (per 100)	.80
071	$\frac{3}{8}$ " WASHER for 0514	.01
0514	CAP SCREW, $\frac{3}{8}$ " x $1\frac{3}{8}$ ", for fixing Locking Plates to Machine Legs	.05
0515	CAP SCREW, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for fixing Tappet Jaw to Tappet	.05
0516	MACHINE SCREW, No. 14-24 x $1\frac{1}{8}$ ", for No. 3 Front Locking Guides	.01
0517	MACHINE SCREW, No. 14-24 x $\frac{7}{8}$ ", for Locking Plate Strips	.01
9906	4 LEVER LOCKING PLATE	9.00
9907	8 LEVER LOCKING PLATE	16.80
9910	TAPER DOWEL PIN, No. 6, $\frac{1}{8}$ " x $1\frac{5}{8}$ ", for Locking Plates to Machine Leg	.08
9911	No. 1 FRONT LOCKING GUIDE	.20
9912	SPECIAL MACHINE STUD, No. 14-24 x $1\frac{1}{8}$ ", for Front Locking Guides	.09
9913	No. 2 FRONT LOCKING GUIDE	.20
9914	No. 3 FRONT LOCKING GUIDE	.20
9915	No. 4 FRONT LOCKING GUIDE	.16
9916	LOCKING PLATE STRIP, $\frac{1}{8}$ " x $1\frac{1}{2}$ " x $12\frac{1}{2}$ "	.20
9917	TAPPET JAW	1.20
9918	TAPPET, 1' $5\frac{1}{2}$ ", for 4 SPACE Locking Plate	1.44
9919	TAPPET, 2' 6", for 9 SPACE Locking Plate	2.20
9920	TAPPET, 3' $6\frac{1}{2}$ ", for 14 SPACE Locking Plate	2.90
9921	TAPPET, 4' 7", for 19 SPACE Locking Plate	3.60
9922	TAPPET, 5' $7\frac{1}{2}$ ", for 24 SPACE Locking Plate	4.30
9923	TAPPET, 6' 8", for 29 SPACE Locking Plate	5.00
9924	TAPPET, 7' $8\frac{1}{2}$ ", for 34 SPACE Locking Plate	5.70
9925	PIN, $\frac{3}{4}$ " x $1\frac{5}{8}$ ", for Tappet Jaw	.10

Order by NUMBER and NAME Appearing in Large Type

# STYLE "A" INTERLOCKING MACHINE

LEVER, ROCKER, ETC.



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# STYLE "A" INTERLOCKING MACHINE

Order No.	LEVER, ROCKER, ETC.	List Price.
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 9878 and 9885 (per 100).....	.80
043	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{4}$ ", for 9877 (per 100).....	.80
087	$\frac{5}{8}$ " WASHER for 9878.....	.01
0512	BOLT AND NUT, $\frac{1}{4}$ " x $1\frac{1}{2}$ ", for 9872.....	.02
0537	BOLT AND NUT, $\frac{3}{4}$ " x $2\frac{1}{4}$ ", C. S. Hd., for fixing Levers and Tail Levers to Lever Shoes.....	.09
0664	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for fixing 9876 to 9871.....	.04
9143	RIVET, $\frac{3}{8}$ " x $1\frac{7}{16}$ ", for fixing 9880 to 9871.....	.01
9871	LEVER only.....	6 00
9872	Lever NUMBER PLATE only. When ordering, specify number required.....	.10
9873	LATCH HANDLE.....	.70
9874	LATCH ROD.....	.60
9875	LATCH SPRING.....	.20
9876	LATCH SHOE.....	1.00
9877	LATCH BLOCK.....	2.20
9878	PIN, $\frac{5}{8}$ " x $1\frac{7}{8}$ ", for 9873.....	.10
9879	ROLLER, $1\frac{1}{4}$ " x $1\frac{1}{4}$ ", for 9877.....	.20
9880	ROCKER GUIDE.....	.12
9881	ROCKER, Casting only.....	3.10
9882	TAPPET Connecting LINK.....	.90
9883	PIN, $1$ " x $2\frac{1}{8}$ ", for Rocker Center.....	.10
9884	PIN, $1$ " x $2\frac{3}{8}$ ", for End Rocker Center.....	.12
9885	PIN, $\frac{3}{4}$ " x $2\frac{1}{4}$ ", for Tappet connecting Link to Rocker.....	.10
9886	LEVER AND FITTINGS, including: 2-041, 1-043, 2-087, 1-0512, 2-0537, 2-0664, 2-9143, 1-9871, 1-9872, 1-9873, 1-9874, 1-9875, 1-9876, 1-9877, 2-9878, 1-9879, 1-9880, 1-9897 (1-9898 or 1-9899), 1-9905.....	13.20
	Note—When ordering Levers, specify Pin 9899 when new Levers are required for either end of machine.	
9887	LEVER AND FITTINGS WITH ROCKER AND TAPPET CONNECTING LINK, including: 3-041, 1-043, 2-087, 1-0512, 2-0537, 2-0664, 2-9143, 1-9871, 1-9872, 1-9873, 1-9874, 1-9875, 1-9876, 1-9877, 2-9878, 1-9879, 1-9880, 1-9881, 1-9882 (1-9883 or 1-9884), 1-9885, 1-9897 (1-9898 or 1-9899), 1-9905.....	17.50
	Note—When ordering Levers, specify Pin 9899 when new Levers are required for either end of machine.	
9897	Straight DOWEL PIN, $\frac{1}{2}$ " x $1\frac{3}{8}$ ", for Lever and Lever Shoe.....	.03
9898	PIN, $1\frac{1}{2}$ " x $5$ ", for Lever Center.....	.26
9899	PIN, $1\frac{1}{2}$ " x $6\frac{1}{2}$ ", for End Lever Center.....	.30
9905	LEVER SHOE, Casting only.....	1.60

Order by NUMBER and NAME Appearing in Large Type



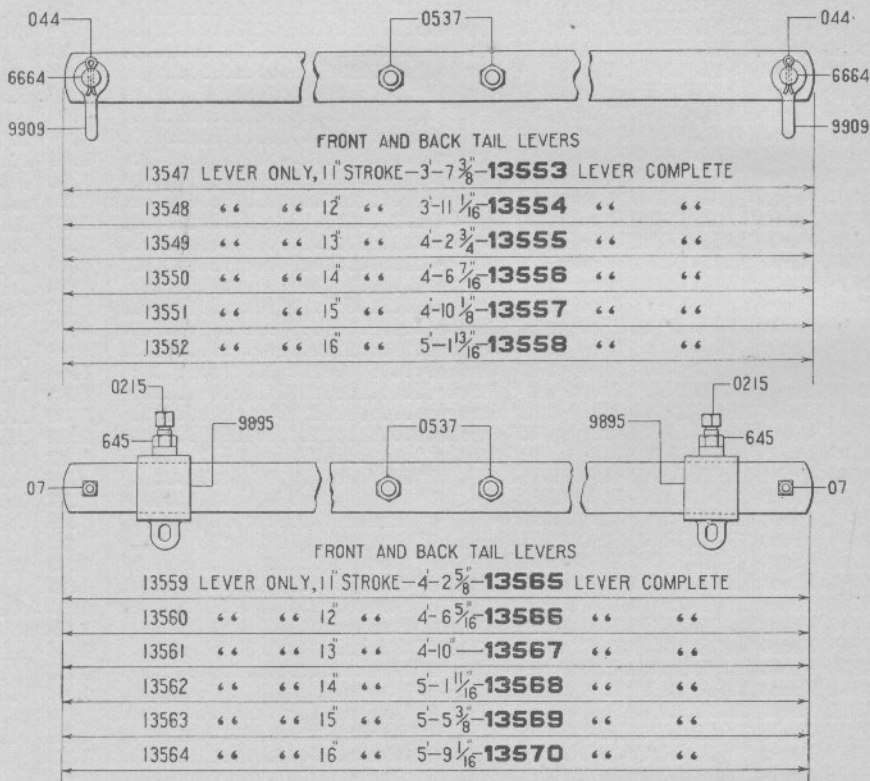
STYLE "A" INTERLOCKING MACHINE

Order No.	TAIL LEVERS	List Price.
0537	BOLT AND NUT, $\frac{3}{4}$ " x $2\frac{1}{4}$ ", Ck. Hd. for fixing Levers and Tail Levers to Lever Shoes	.09
13525	Front TAIL LEVER only, 6" Stroke	.70
13526	Front TAIL LEVER only, 7" Stroke	.74
13527	Front TAIL LEVER only, 8" Stroke	.78
13528	Front TAIL LEVER only, 9" Stroke	.84
13529	Front TAIL LEVER only, 10" Stroke	.88
13530	Front TAIL LEVER only, 11" Stroke	.94
13531	Front TAIL LEVER only, 12" Stroke	.98
13532	Front TAIL LEVER only, 13" Stroke	1.04
13533	Front TAIL LEVER only, 14" Stroke	1.12
13534	Front TAIL LEVER only, 15" Stroke	1.20
13535	Front TAIL LEVER only, 16" Stroke	1.26
13536	Back TAIL LEVER only, 6" Stroke	.76
13537	Back TAIL LEVER only, 7" Stroke	.80
13538	Back TAIL LEVER only, 8" Stroke	.84
13539	Back TAIL LEVER only, 9" Stroke	.88
13540	Back TAIL LEVER only, 10" Stroke	.94
13541	Back TAIL LEVER only, 11" Stroke	.98
13542	Back TAIL LEVER only, 12" Stroke	1.04
13543	Back TAIL LEVER only, 13" Stroke	1.12
13544	Back TAIL LEVER only, 14" Stroke	1.20
13545	Back TAIL LEVER only, 15" Stroke	1.26
13546	Back TAIL LEVER only, 16" Stroke	1.32
14240	Front TAIL LEVER COMPLETE, 6" Stroke	.88
14241	Front TAIL LEVER COMPLETE, 7" Stroke	.92
14242	Front TAIL LEVER COMPLETE, 8" Stroke	.96
14243	Front TAIL LEVER COMPLETE, 9" Stroke	1.02
14244	Front TAIL LEVER COMPLETE, 10" Stroke	1.06
14245	Front TAIL LEVER COMPLETE, 11" Stroke	1.12
14246	Front TAIL LEVER COMPLETE, 12" Stroke	1.16
14247	Front TAIL LEVER COMPLETE, 13" Stroke	1.22
14248	Front TAIL LEVER COMPLETE, 14" Stroke	1.30
14249	Front TAIL LEVER COMPLETE, 15" Stroke	1.38
14250	Front TAIL LEVER COMPLETE, 16" Stroke	1.44
14251	Back TAIL LEVER COMPLETE, 6" Stroke	.94
14252	Back TAIL LEVER COMPLETE, 7" Stroke	.98
14253	Back TAIL LEVER COMPLETE, 8" Stroke	1.02
14254	Back TAIL LEVER COMPLETE, 9" Stroke	1.06
14255	Back TAIL LEVER COMPLETE, 10" Stroke	1.12
14256	Back TAIL LEVER COMPLETE, 11" Stroke	1.16
14257	Back TAIL LEVER COMPLETE, 12" Stroke	1.22
14258	Back TAIL LEVER COMPLETE, 13" Stroke	1.30
14259	Back TAIL LEVER COMPLETE, 14" Stroke	1.38
14260	Back TAIL LEVER COMPLETE, 15" Stroke	1.44
14261	Back TAIL LEVER COMPLETE, 16" Stroke	1.50

Order by NUMBER and NAME Appearing in Large Type

## STYLE "A" INTERLOCKING MACHINE

## TAIL LEVERS AND COUNTERWEIGHTS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# STYLE "A" INTERLOCKING MACHINE

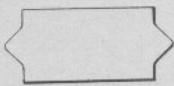
25

Order No.	TAIL LEVERS AND COUNTERWEIGHTS	List Price.
07	BOLT AND NUT, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for 13565 to 13570.....	.02
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 6664 (per 100).....	.80
0215	SET SCREW, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for 9895.....	.04
0276	BOLT AND NUT, $\frac{3}{4}$ " x $3\frac{3}{4}$ ", for 9903.....	.10
0314	BOLT AND NUT, $\frac{1}{2}$ " x $3\frac{1}{2}$ ", for 9901.....	.10
0537	BOLT AND NUT, $\frac{3}{4}$ " x $2\frac{1}{4}$ ", C. S. Hd., for fixing Levers and Tail Levers to Lever Shoes.....	.09
645	$\frac{3}{8}$ " Hex. NUT for 0215.....	.04
6664	PIN, $\frac{7}{8}$ " x $2\frac{1}{8}$ ", for 9909.....	.07
9895	ADJUSTABLE CONNECTOR, Casting only.....	.36
9901	COUNTERWEIGHT, 40 lbs., Casting only.....	2.58
9902	COUNTERWEIGHT COMPLETE, 40 lbs.....	2.68
9903	COUNTERWEIGHT, 56 lbs., Casting only.....	3.62
9904	COUNTERWEIGHT COMPLETE, 56 lbs.....	3.72
9909	$\frac{3}{8}$ " MALLEABLE SHACKLE only.....	.05
FRONT AND BACK TAIL LEVERS FOR SHACKLES		
13547	Front and Back TAIL LEVER only, 11" Stroke.....	1.70
13548	Front and Back TAIL LEVER only, 12" Stroke.....	1.80
13549	Front and Back TAIL LEVER only, 13" Stroke.....	1.90
13550	Front and Back TAIL LEVER only, 14" Stroke.....	2.00
13551	Front and Back TAIL LEVER only, 15" Stroke.....	2.10
13552	Front and Back TAIL LEVER only, 16" Stroke.....	2.20
FRONT AND BACK TAIL LEVERS WITH SHACKLES		
13553	Front and Back TAIL LEVER COMPLETE, 11" Stroke.....	2.16
13554	Front and Back TAIL LEVER COMPLETE, 12" Stroke.....	2.26
13555	Front and Back TAIL LEVER COMPLETE, 13" Stroke.....	2.36
13556	Front and Back TAIL LEVER COMPLETE, 14" Stroke.....	2.46
13557	Front and Back TAIL LEVER COMPLETE, 15" Stroke.....	2.56
13558	Front and Back TAIL LEVER COMPLETE, 16" Stroke.....	2.66
FRONT AND BACK TAIL LEVERS FOR ADJUSTABLE CONNECTORS		
13559	Front and Back TAIL LEVER only, 11" Stroke.....	1.84
13560	Front and Back TAIL LEVER only, 12" Stroke.....	1.96
13561	Front and Back TAIL LEVER only, 13" Stroke.....	2.10
13562	Front and Back TAIL LEVER only, 14" Stroke.....	2.22
13563	Front and Back TAIL LEVER only, 15" Stroke.....	2.36
13564	Front and Back TAIL LEVER only, 16" Stroke.....	2.50
FRONT AND BACK TAIL LEVERS WITH ADJUSTABLE CONNECTORS		
13565	Front and Back TAIL LEVER COMPLETE, 11" Stroke.....	2.96
13566	Front and Back TAIL LEVER COMPLETE, 12" Stroke.....	3.04
13567	Front and Back TAIL LEVER COMPLETE, 13" Stroke.....	3.22
13568	Front and Back TAIL LEVER COMPLETE, 14" Stroke.....	3.34
13569	Front and Back TAIL LEVER COMPLETE, 15" Stroke.....	3.48
13570	Front and Back TAIL LEVER COMPLETE, 16" Stroke.....	3.62

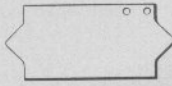
Order by NUMBER and NAME Appearing in Large Type



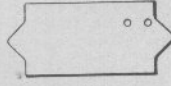
## LOCKING DOGS



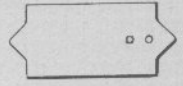
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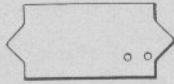
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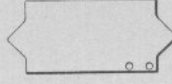
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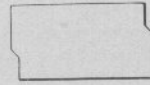
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9930



9931



13481



9962



9932



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9934



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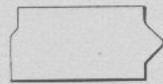
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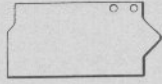
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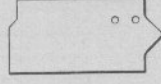
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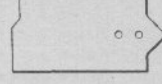
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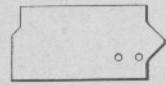
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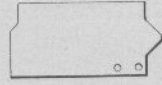
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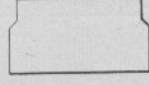
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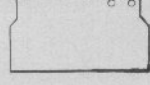
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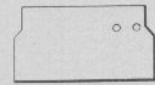
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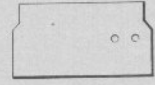
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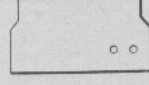
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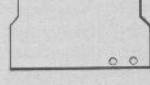
9952



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9954



9955



9956



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9964



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9966



9967



9968

Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477

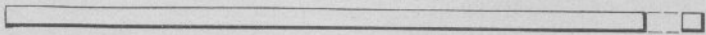
# STYLE "A" INTERLOCKING MACHINE

Order No.	LOCKING DOGS	List Price.
9926	No. 1 FRONT LOCKING DOG.....	.80
9927	No. 1 FRONT LOCKING DOG, A.....	1.00
9928	No. 1 FRONT LOCKING DOG, B.....	1.00
9929	No. 1 FRONT LOCKING DOG, C.....	1.00
9930	No. 1 FRONT LOCKING DOG, D.....	1.00
9931	No. 1 FRONT LOCKING DOG, E.....	1.00
9932	No. 2 FRONT LOCKING DOG.....	.50
9933	No. 2 FRONT LOCKING DOG, A.....	.70
9934	No. 2 FRONT LOCKING DOG, B.....	.70
9935	No. 2 FRONT LOCKING DOG, C.....	.70
9936	No. 2 FRONT LOCKING DOG, D.....	.70
9937	No. 2 FRONT LOCKING DOG, E.....	.70
9938	No. 3 FRONT LOCKING DOG.....	.40
9939	No. 3 FRONT LOCKING DOG, A.....	.60
9940	No. 3 FRONT LOCKING DOG, B.....	.60
9941	No. 3 FRONT LOCKING DOG, C.....	.60
9942	No. 3 FRONT LOCKING DOG, D.....	.60
9943	No. 3 FRONT LOCKING DOG, E.....	.60
9944	No. 4 FRONT LOCKING DOG.....	.70
9945	No. 4 FRONT LOCKING DOG, A.....	.90
9946	No. 4 FRONT LOCKING DOG, B.....	.90
9947	No. 4 FRONT LOCKING DOG, C.....	.90
9948	No. 4 FRONT LOCKING DOG, D.....	.90
9949	No. 4 FRONT LOCKING DOG, E.....	.90
9950	No. 5 FRONT LOCKING DOG.....	.60
9951	No. 5 FRONT LOCKING DOG, A.....	.80
9952	No. 5 FRONT LOCKING DOG, B.....	.80
9953	No. 5 FRONT LOCKING DOG, C.....	.80
9954	No. 5 FRONT LOCKING DOG, D.....	.80
9955	No. 5 FRONT LOCKING DOG, E.....	.80
9956	No. 6 FRONT LOCKING DOG.....	.40
9957	No. 6 FRONT LOCKING DOG, A.....	.60
9958	No. 6 FRONT LOCKING DOG, B.....	.60
9959	No. 6 FRONT LOCKING DOG, C.....	.60
9960	No. 6 FRONT LOCKING DOG, D.....	.60
9961	No. 6 FRONT LOCKING DOG, E.....	.60
9962	MACHINE SCREW, No. 10-32x $\frac{13}{8}$ , Ck. Hd. (Special), for fixing Front Locking Dogs to Locking Bars.....	.01
9963	No. 7 FRONT COUPLING DOG, A.....	.70
9964	No. 7 FRONT COUPLING DOG, B.....	.70
9965	No. 7 FRONT COUPLING DOG, C.....	.70
9966	No. 7 FRONT CARRIER DOG, D.....	.44
9967	No. 7 FRONT CARRIER DOG, E.....	.44
9968	No. 7 FRONT CARRIER DOG, F.....	.44
13481	No. 20 FRONT LOCKING DOG.....	.80

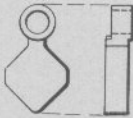
Order by NUMBER and NAME Appearing in Large Type

STYLE "A" INTERLOCKING MACHINE

LOCKING DOGS—CONTINUED



7936



9969



9970



9962



9971



0518



9972



9973



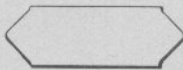
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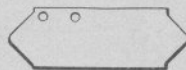
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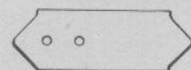
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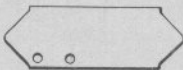
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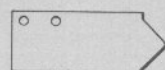
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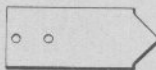
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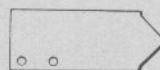
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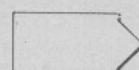
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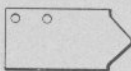
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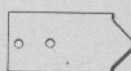
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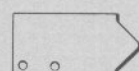
9985



9986



9987



9988



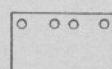
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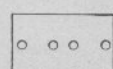
9990



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9998

Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477

# STYLE "A" INTERLOCKING MACHINE

29

Order No.	LOCKING DOGS—CONTINUED	List Price.
0518	MACHINE SCREW, No. 14-24 x $\frac{3}{4}$ " Fil. Hd. for fixing Front Tappet Pieces to Tappets.....	.01 .....
7936	LOCKING BAR, $\frac{3}{8}$ " x $\frac{3}{8}$ ", C. D. Steel, length as specified (per foot).....	.09 .....
9962	MACHINE SCREW, No. 10-32 x $\frac{1}{8}$ ", Cl. Hd. (special) for fixing Front Locking Dogs to Locking Bars.....	.01 .....
9969	No. 8 SPECIAL SWING DOG.....	1.10 .....
9970	STUD (SPECIAL), $\frac{3}{8}$ " x $\frac{2}{3}$ ", for 9969.....	.10 .....
9971	No. 9 TAPPET PIECE, A.....	.80 .....
9972	No. 9 TAPPET PIECE, B.....	.80 .....
9973	No. 10 TAPPET PIECE, A.....	.50 .....
9974	No. 10 TAPPET PIECE, B.....	.50 .....
9975	No. 11 TAPPET PIECE.....	.40 .....
9976	No. 12 TAPPET PIECE.....	.70 .....
9977	No. 13 BACK LOCKING DOG.....	.70 .....
9978	No. 13 BACK LOCKING DOG, A.....	.90 .....
9979	No. 13 BACK LOCKING DOG, B.....	.90 .....
9980	No. 13 BACK LOCKING DOG, C.....	.90 .....
9981	No. 14 BACK LOCKING DOG.....	.40 .....
9982	No. 14 BACK LOCKING DOG, A.....	.60 .....
9983	No. 14 BACK LOCKING DOG, B.....	.60 .....
9984	No. 14 BACK LOCKING DOG, C.....	.60 .....
9985	No. 15 BACK LOCKING DOG.....	.36 .....
9986	No. 15 BACK LOCKING DOG, A.....	.56 .....
9987	No. 15 BACK LOCKING DOG, B.....	.56 .....
9988	No. 15 BACK LOCKING DOG, C.....	.56 .....
9989	No. 16 BACK LOCKING DOG, A.....	.50 .....
9990	No. 16 BACK LOCKING DOG, B.....	.50 .....
9991	No. 16 BACK LOCKING DOG, C.....	.50 .....
9992	No. 17 BACK COUPLING DOG, A.....	.70 .....
9993	No. 17 BACK COUPLING DOG, B.....	.70 .....
9994	No. 18 BACK CARRIER DOG, A.....	.44 .....
9995	No. 18 BACK CARRIER DOG, B.....	.44 .....
9996	No. 19 BACK CARRIER DOG, A.....	.36 .....
9997	No. 19 BACK CARRIER DOG, B.....	.36 .....
9998	MACHINE SCREW, No. 10-32 x $\frac{1}{8}$ " (Special), C. S. Head for holding Back Locking Dogs to Locking Bars.....	.01 .....

Order by NUMBER and NAME Appearing in Large Type

MACHINE ARRANGED FOR VERTICAL LEADOUT

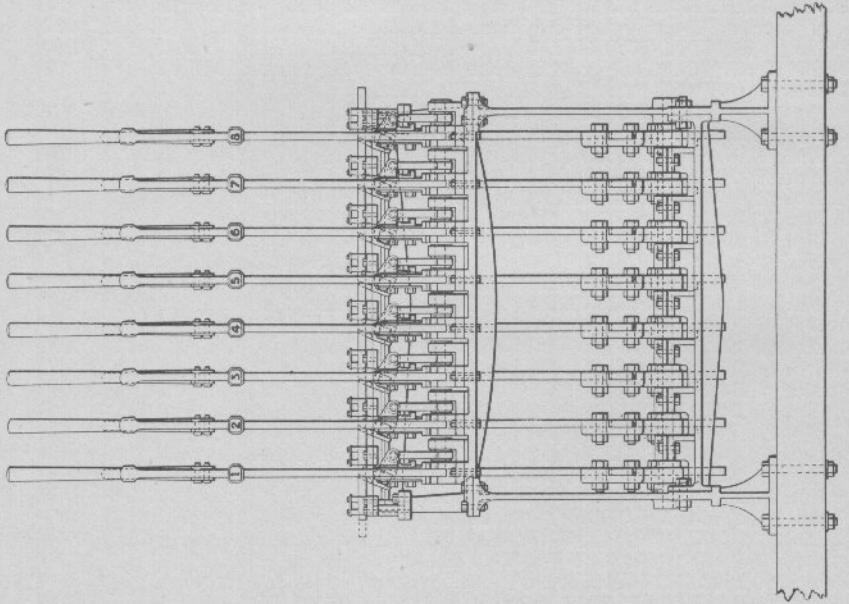


FIG. 2

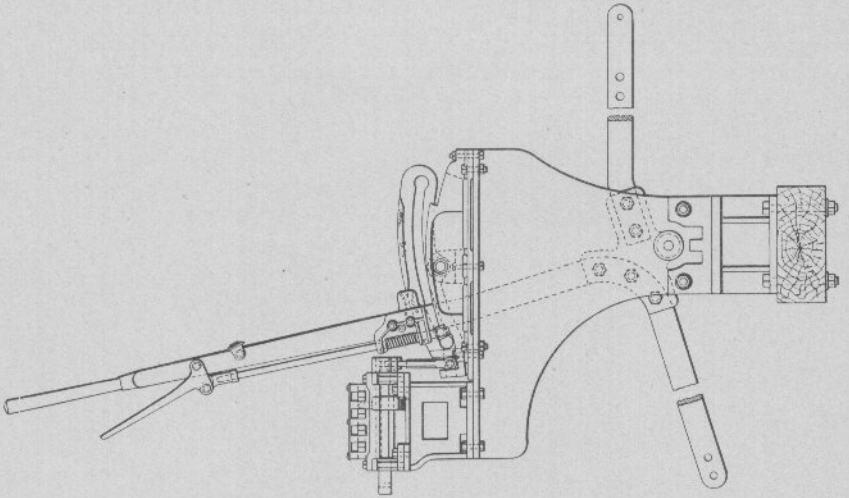


FIG. 1

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## MACHINE ARRANGED FOR VERTICAL LEADOUT

On the opposite page, Fig. 1 shows an End View and Fig. 2 shows an Elevation of the Saxby and Farmer Interlocking Machine.

In ordering Interlocking Machines, a Signaled and Numbered Track Plan, showing the arrangement of Switches and Signals, should accompany the order. The order should also clearly specify the number of Levers and Spare Spaces.

## LIST OF PRICES FOR SAXBY AND FARMER INTERLOCKING MACHINES COMPLETE

CAPACITY OF MACHINE	LIST PRICE	
	Per Lever	Per Spare Space
4 to 12 Lever Frame.....	38.40	15.20
16 to 24 Lever Frame.....	40.00	15.20
28 to 48 Lever Frame.....	41.60	15.20
52 to 72 Lever Frame.....	43.20	16.80
76 to 100 Lever Frame.....	44.80	17.60

Special prices on application for machines over 100 Levers.

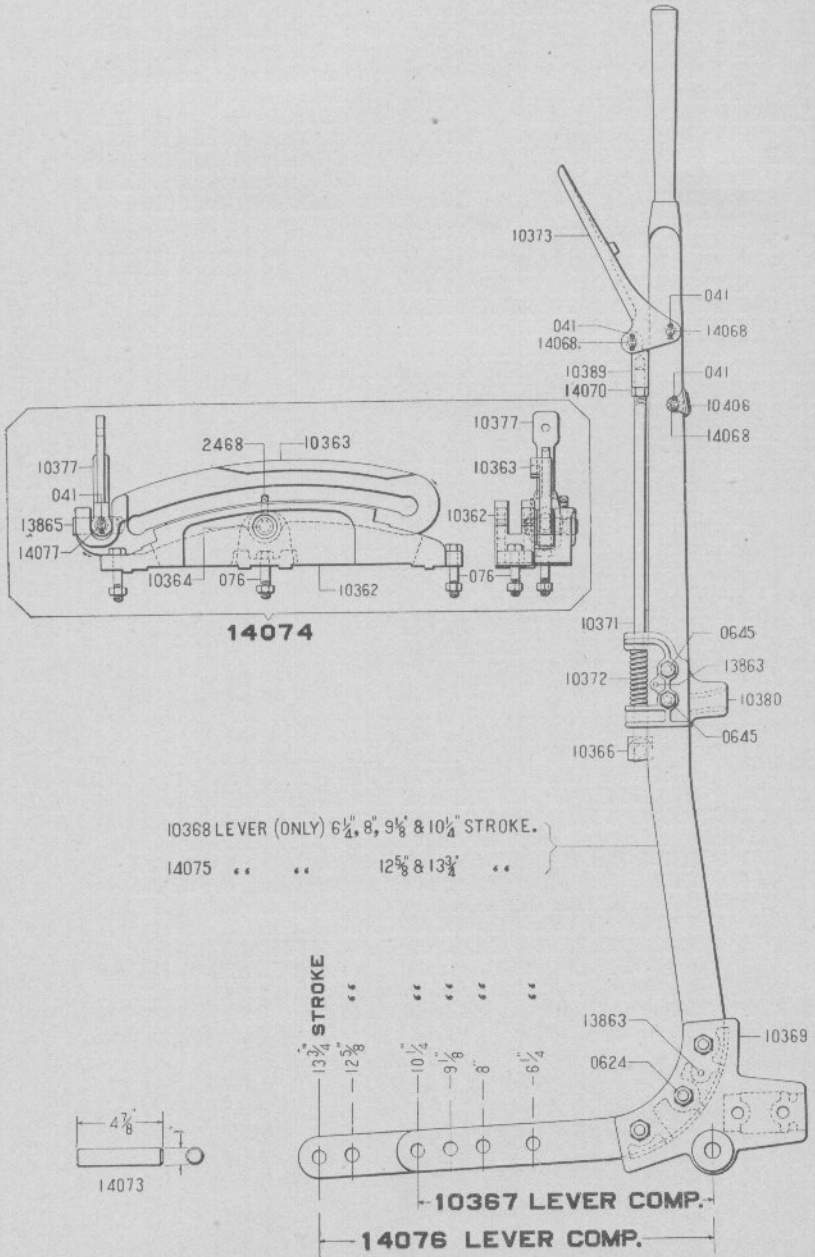


Order No.	LARGE DETAIL PARTS	List Price
073	$\frac{3}{8}$ " WASHER for 0278.....	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7", for fixing Machine Leg to Timber Framing.....	.14
0522	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", for fixing Cap to Bottom Girders.....	.04
0558	BOLT AND NUT, $\frac{3}{4}$ " x $2\frac{1}{2}$ ", for fixing Bottom Girders to Intermediate Machine Leg.....	.10
0617	BOLT AND NUT, $\frac{3}{4}$ " x $2\frac{1}{4}$ ", for fixing Bottom Girders to End Machine Leg.....	.14
0618	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{3}{8}$ ", for fixing Top Plates and End Strips to Machine Legs.....	.04
5255	CAP SCREW, $\frac{1}{2}$ " x $1\frac{1}{4}$ ", for fixing Back Rails and End Blocks to Bearings.....	.07
10353	MACHINE LEG.....	12.15
10354	4 LEVER BOTTOM GIRDER.....	4.90
10355	8 LEVER BOTTOM GIRDER.....	8.80
10357	CAP FOR BOTTOM GIRDER.....	.07
10358	4 LEVER TOP PLATE.....	7.32
10359	8 LEVER TOP PLATE.....	12.86
10360	END PLATE (LEFT HAND).....	.62
10361	END PLATE (RIGHT HAND).....	.62
10382	END BLOCK (LEFT HAND).....	.31
10383	END BLOCK (RIGHT HAND).....	.31
10384	END BLOCK (INTERMEDIATE).....	.36
10385	4 WAY BACK RAIL.....	2.52
10390	8 WAY BACK RAIL.....	4.32
10391	8 WAY FRONT RAIL.....	3.65
10392	8 WAY FRONT RAIL CAP.....	2.71
10393	4 WAY FRONT RAIL.....	1.90
10394	4 WAY FRONT RAIL CAP.....	1.28
10395	8 WAY INTERMEDIATE RAIL.....	4.20
10396	8 WAY INTERMEDIATE RAIL CAP.....	3.04
10397	4 WAY INTERMEDIATE RAIL.....	2.28
10398	4 WAY INTERMEDIATE RAIL CAP.....	1.60
12831	1 LEVER BOTTOM GIRDER for adding an extra Lever to outside of machine.....	1.60
12832	1 LEVER TOP PLATE (Left Hand).....	2.95
12833	1 LEVER TOP PLATE (Right Hand).....	2.95
13830	8 WAY FRONT RAIL and Cap COMPLETE.....	6.82
13832	8 WAY INTERMEDIATE RAIL and Cap COMPLETE.....	7.52
13863	TAPER DOWEL PIN, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", through Top Plate and Leg, through Bearing and Leg.....	.05
14071	CAP SCREW, $\frac{3}{8}$ " x $2\frac{1}{4}$ ", for fixing Locking Brackets to Front Rail.....	.07
14072	CAP SCREW, $\frac{3}{8}$ " x $4\frac{3}{8}$ ", for fixing Locking Brackets and End Block to Bearing.....	.12
14331	4 WAY FRONT RAIL and Cap COMPLETE.....	3.24
14341	4 WAY INTERMEDIATE RAIL and Cap COMPLETE.....	4.06
17828	"T" Head BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{3}{8}$ ", for fixing Top Plates and End Strips to Legs.....	.05
17829	TAP BOLT, $\frac{1}{2}$ " x $1\frac{1}{8}$ ", for fixing Top Plates to Legs.....	.02

Order by NUMBER and NAME Appearing in Large Type



LEVERS, ROCKER, QUADRANT, ETC.



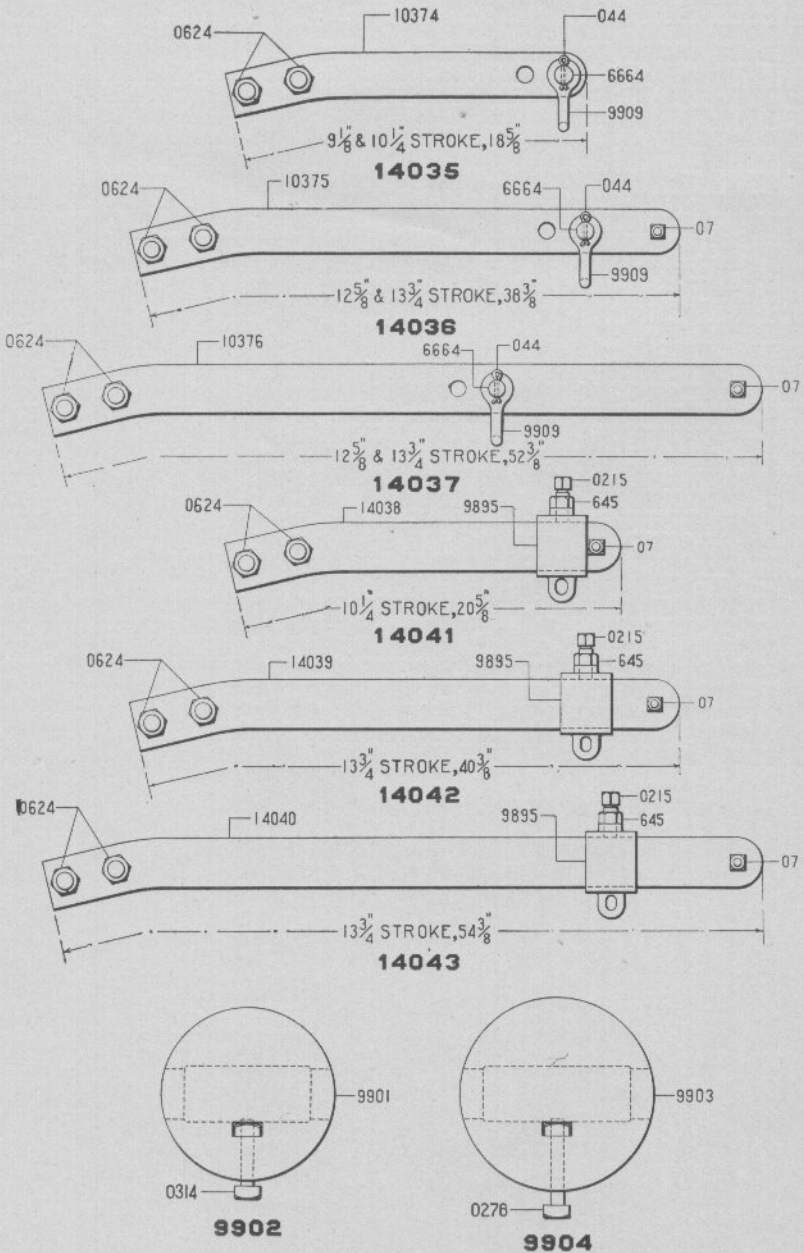
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

SAXBY AND FARMER INTERLOCKING MACHINE

Order No.	LEVERS, ROCKER, QUADRANT, ETC.	List Price.
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 14068 and 14077 (per 100).....	.80
076	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{1}{2}$ ", for fixing Quadrant to Top Plate.....	.05
0624	BOLT AND NUT, $\frac{5}{8}$ " x $2\frac{7}{8}$ ", for fixing Lever and Tail Levers to Lever Shoe.....	.07
0645	TAP BOLT, $\frac{1}{2}$ " x $1\frac{3}{8}$ ", for fixing Latch Shoe to Lever.....	.03
2468	SET SCREW, $\frac{3}{8}$ " x $\frac{3}{4}$ ", for fixing Rocker Center Pin to Quadrant.....	.03
10362	QUADRANT.....	2.97
10363	ROCKER.....	2.71
10364	Rocker Center PIN, 1" x 3".....	.07
10366	ROCKER DIE.....	.30
10367	LEVER COMPLETE for $6\frac{1}{4}$ ", 8", $9\frac{1}{4}$ " and $10\frac{1}{4}$ " Stroke, including: 3-041, 3-0624, 2-0645, 1-10366, 1-10368, 1-10369, 1-10371, 1-10372, 1-10373, 1-10380, 1-10389, 1-10406, 2-13863, 3-14068, 1-14070 and 1-14073.....	10.40
10368	LEVER only, for $6\frac{1}{4}$ ", 8", $9\frac{1}{4}$ " and $10\frac{1}{4}$ " Stroke.....	5.08
10369	LEVER SHOE.....	1.32
10371	LATCH ROD and Block.....	1.15
10372	LATCH SPRING.....	.21
10373	LATCH HANDLE.....	.67
10377	UNIVERSAL LINK.....	.14
10380	LATCH SHOE.....	.60
10389	LATCH ROD THIMBLE.....	.30
10406	Lever NUMBER PLATE (specify number required).....	.07
13863	Taper DOWEL PIN, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for Latch Shoe and Lever Shoe to Lever..	.05
13865	SWIVEL PIN, 1" x $2\frac{3}{8}$ ", for Universal Link and Rocker.....	.11
14068	PIN, $\frac{1}{2}$ " x $1\frac{1}{8}$ ", for Latch Handle and Lever Number.....	.06
14070	$\frac{5}{8}$ " HEX. NUT (SPECIAL) for 10371.....	.04
14073	Lever Center PIN, 1" x $4\frac{7}{8}$ ".....	.09
14074	ROCKER AND QUADRANT COMPLETE, including: 1-041, 3-076, 1-2468, 1-10362, 1-10363, 1-10364, 1-10377, 1-13865 and 1-14077..	6.20
14075	LEVER only, for $12\frac{3}{8}$ " and $13\frac{3}{4}$ " Stroke.....	5.08
14076	LEVER COMPLETE, for $12\frac{3}{8}$ " and $13\frac{3}{4}$ " Stroke, including: 3-041, 3-0624, 2-0645, 1-10366, 1-10369, 1-10370, 1-10372, 1-10373, 1-10380, 1-10389, 1-10406, 2-13863, 3-14068, 1-14070, 1-14073, and 1-14075.....	10.40
14077	PIN, $\frac{1}{2}$ " x 2", for Universal Link.....	.06

Order by NUMBER and NAME Appearing in Large Type

## TAIL LEVERS AND COUNTERWEIGHTS




Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477


Order No.	TAIL LEVERS AND COUNTERWEIGHTS	List Price.
07	BOLT AND NUT, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for End of Tail Levers	.02
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 6664 (per 100)	.80
0215	SET SCREW, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for 9895	.04
0276	BOLT AND NUT, $\frac{3}{4}$ " x $3\frac{3}{4}$ ", for 9903	.10
0314	BOLT AND NUT, $\frac{1}{2}$ " x $3\frac{1}{4}$ ", for 9901	.10
0624	BOLT AND NUT, $\frac{3}{8}$ " x $2$ ", for fixing Levers and Tail Levers to Lever Shoes	.07
645	$\frac{3}{8}$ " HEX. NUT for 0215	.04
6664	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for 9909	.07
9895	ADJUSTABLE CONNECTOR only	.36
9901	COUNTERWEIGHT, 40 lbs., Casting only	2.58
9902	COUNTERWEIGHT COMPLETE, 40 lbs.	2.68
9903	COUNTERWEIGHT, 56 lbs., Casting only	3.62
9904	COUNTERWEIGHT COMPLETE, 56 lbs.	3.72
9909	$\frac{1}{8}$ " MALLEABLE SHACKLE only	.05
TAIL LEVERS FOR SHACKLES		
10374	TAIL LEVER only, $9\frac{1}{8}$ " and $10\frac{1}{4}$ " Stroke	.74
10375	TAIL LEVER only, $12\frac{5}{8}$ " and $13\frac{3}{4}$ " Stroke	1.03
10376	TAIL LEVER only, $12\frac{5}{8}$ " and $13\frac{3}{4}$ " Stroke for Counterweight	1.30
14035	TAIL LEVER COMPLETE, $9\frac{1}{8}$ " and $10\frac{1}{4}$ " Stroke, with Bolts, Shackle and Pins	1.02
14036	TAIL LEVER COMPLETE, $12\frac{5}{8}$ " and $13\frac{3}{4}$ " Stroke, with Bolts, Shackle and Pins	1.30
14037	TAIL LEVER COMPLETE, $12\frac{5}{8}$ " and $13\frac{3}{4}$ " Stroke, for Counterweight, with Bolts, Shackle and Pins	1.58
TAIL LEVERS FOR ADJUSTABLE CONNECTORS		
14038	TAIL LEVER only, $10\frac{1}{4}$ " Stroke	.74
14039	TAIL LEVER only, $13\frac{3}{4}$ " Stroke	1.03
14040	TAIL LEVER only, $13\frac{3}{4}$ " Stroke, for Counterweight	1.30
14041	TAIL LEVER COMPLETE, $10\frac{1}{4}$ " Stroke, with Bolts and Adjustable Connector	1.34
14042	TAIL LEVER COMPLETE, $13\frac{3}{4}$ " Stroke, with Bolts and Adjustable Connector	1.64
14043	TAIL LEVER COMPLETE, $13\frac{3}{4}$ " Stroke, for Counterweight, with Bolts and Adjustable Connector	1.90

Order by NUMBER and NAME Appearing in Large Type


LOCKING BRACKETS AND BEARINGS



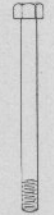
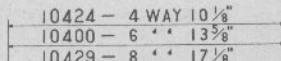
10423 - 4 WAY 10 1/4"
10399 - 6 " " 13 3/4"
10427 - 8 " " 17 1/4"
10407 - 10 " " 20 3/4"
10387 - 12 " " 24 1/4"
10428 - 14 " " 27 3/4"
12840 - 15 " " 29 1/2"
10403 - 16 " " 31 1/4"
10435 - 18 " " 34 3/4"
10417 - 20 " " 38 1/4"



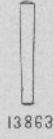
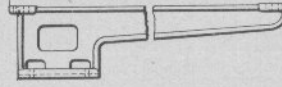
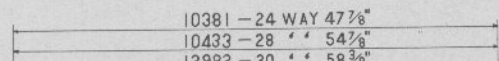
12844 - 4 WAY 10 1/4"
12845 - 6 " " 13 3/4"
12846 - 8 " " 17 1/4"
12847 - 10 " " 20 3/4"
12848 - 12 " " 24 1/4"
12849 - 14 " " 27 3/4"
12850 - 15 " " 29 1/2"
12851 - 16 " " 31 1/4"
12852 - 18 " " 34 3/4"
12853 - 20 " " 38 1/4"




12854 - 4 WAY 8 1/8"
12855 - 6 " " 11 9/16"
12856 - 8 " " 15 1/16"
12857 - 10 " " 18 3/16"
12858 - 12 " " 22 1/16"
12859 - 14 " " 25 5/16"
12860 - 15 " " 27 5/16"
12861 - 16 " " 29 1/16"
12862 - 18 " " 32 3/16"
12863 - 20 " " 36 1/16"

10424 - 4 WAY 10 1/8"
10400 - 6 " " 13 3/8"
10429 - 8 " " 17 1/8"
10408 - 10 " " 20 3/8"
10425 - 12 " " 24 1/8"
10431 - 14 " " 27 5/8"
13976 - 15 " " 29 3/8"
10404 - 16 " " 31 1/8"
10432 - 18 " " 34 5/8"
10418 - 20 " " 38 1/8"

10381 - 24 WAY 47 7/8"
10433 - 28 " " 54 3/8"
13982 - 30 " " 58 3/8"
10416 - 32 " " 61 7/8"
10434 - 36 " " 68 7/8"
10419 - 40 " " 75 7/8"




# SAXBY AND FARMER INTERLOCKING MACHINE

39


Order No.	LOCKING BRACKETS AND BEARINGS	List Price.
064	LAG SCREW, $\frac{1}{2}$ " x $2\frac{1}{2}$ ", for fixing end of long Locking Bearings to Floor Timbers.....	.03
0620	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{7}{8}$ ", for fixing Bearings to Machine Leg .....	.04
2472	CAP SCREW, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for fixing Locking Brackets to Back Rail.....	.05
10381	24 Way LOCKING BEARING, $47\frac{7}{8}$ ".....	5.61
10387	12 Way LOCKING BRACKET, $24\frac{1}{4}$ ".....	2.04
10399	6 Way LOCKING BRACKET, $13\frac{3}{8}$ ".....	1.58
10400	6 Way LOCKING BEARING, $13\frac{3}{8}$ ".....	2.08
10403	16 Way LOCKING BRACKET, $31\frac{1}{4}$ ".....	2.44
10404	16 Way LOCKING BEARING, $31\frac{1}{4}$ ".....	3.60
10407	10 Way LOCKING BRACKET, $20\frac{3}{4}$ ".....	1.99
10408	10 Way LOCKING BEARING, $20\frac{3}{4}$ ".....	1.76
10416	32 Way LOCKING BEARING, $61\frac{1}{8}$ ".....	7.12
10417	20 Way LOCKING BRACKET, $38\frac{1}{4}$ ".....	2.90
10418	20 Way LOCKING BEARING, $38\frac{1}{4}$ ".....	4.15
10419	40 Way LOCKING BEARING, $75\frac{1}{4}$ ".....	9.04
10423	4 Way LOCKING BRACKET, $10\frac{1}{4}$ ".....	1.36
10424	4 Way LOCKING BEARING, $10\frac{1}{4}$ ".....	1.94
10425	12 Way LOCKING BEARING, $24\frac{1}{4}$ ".....	3.02
10427	8 Way LOCKING BRACKET, $17\frac{1}{4}$ ".....	1.77
10428	14 Way LOCKING BRACKET, $27\frac{3}{4}$ ".....	2.28
10429	8 Way LOCKING BEARING, $17\frac{3}{4}$ ".....	2.52
10431	14 Way LOCKING BEARING, $27\frac{3}{4}$ ".....	3.07
10432	18 Way LOCKING BEARING, $34\frac{3}{8}$ ".....	3.69
10433	28 Way LOCKING BEARING, $54\frac{3}{8}$ ".....	6.16
10434	36 Way LOCKING BEARING, $68\frac{3}{8}$ ".....	7.84
10435	18 Way LOCKING BRACKET, $34\frac{3}{8}$ ".....	2.68
12840	15 Way LOCKING BRACKET, $29\frac{1}{4}$ ".....	2.35
12844	4 Way LOCKING BRACKET, $10\frac{1}{4}$ ".....	1.36
12845	6 Way LOCKING BRACKET, $13\frac{3}{8}$ ".....	1.58
12846	8 Way LOCKING BRACKET, $17\frac{1}{4}$ ".....	1.77
12847	10 Way LOCKING BRACKET, $20\frac{3}{4}$ ".....	1.99
12848	12 Way LOCKING BRACKET, $24\frac{1}{4}$ ".....	2.04
12849	14 Way LOCKING BRACKET, $27\frac{3}{4}$ ".....	2.28
12850	15 Way LOCKING BRACKET, $29\frac{1}{4}$ ".....	2.35
12851	16 Way LOCKING BRACKET, $31\frac{1}{4}$ ".....	2.44
12852	18 Way LOCKING BRACKET, $34\frac{1}{4}$ ".....	2.68
12853	20 Way LOCKING BRACKET, $38\frac{1}{4}$ ".....	2.90
12854	4 Way CAP for Locking Bracket, $8\frac{1}{16}$ ".....	.26
12855	6 Way CAP for Locking Bracket, $11\frac{9}{16}$ ".....	.28
12856	8 Way CAP for Locking Bracket, $15\frac{1}{16}$ ".....	.31
12857	10 Way CAP for Locking Bracket, $18\frac{9}{16}$ ".....	.36
12858	12 Way CAP for Locking Bracket, $22\frac{1}{16}$ ".....	.38
12859	14 Way CAP for Locking Bracket, $25\frac{3}{16}$ ".....	.40
12860	15 Way CAP for Locking Bracket, $27\frac{5}{16}$ ".....	.43
12861	16 Way CAP for Locking Bracket, $29\frac{1}{8}$ ".....	.45
12862	18 Way CAP for Locking Bracket, $32\frac{9}{16}$ ".....	.48
12863	20 Way CAP for Locking Bracket, $36\frac{1}{16}$ ".....	.50
13863	TAPER DOWEL PIN, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for Locking Bearing to Machine Bearing.....	.05
13864	Straight DOWEL PIN, $\frac{1}{4}$ " x $1$ ", for Locking Bracket to Front and Back Rails.....	.02
13976	15 Way LOCKING BEARING, $29\frac{3}{8}$ ".....	3.32
13982	30 Way LOCKING BEARING, $58\frac{3}{8}$ ".....	6.79
14071	CAP SCREW, $\frac{3}{8}$ " x $2\frac{1}{4}$ ", for fixing Locking Bracket to Front Rail.....	.07
14072	CAP SCREW, $\frac{3}{8}$ " x $4\frac{3}{8}$ ", for fixing Locking Bracket through End Block to Bearing.....	.12
14078	CAP SCREW, $\frac{1}{4}$ " x $\frac{1}{2}$ ", for fixing Cap to Locking Bracket.....	.04

Order by NUMBER and NAME Appearing in Large Type


## LOCKING SHAFTS




12874-4 WAY 12 1/4"
12875-6 " 15 3/4"
12876-8 " 19 1/4"
12877-10 " 22 3/4"
12878-12 " 26 1/4"
12879-14 " 29 3/4"
12880-15 " 31 1/2"
12881-16 " 33 1/4"
12882-18 " 36 3/4"
12883-20 " 40 1/4"



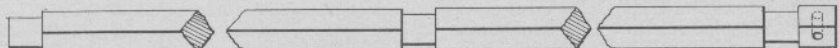
13924-4 WAY 14 9/16"
13925-6 " 18 1/16"
13926-8 " 21 9/16"
13927-10 " 25 1/16"
13928-12 " 28 9/16"
13929-14 " 32 1/16"
13930-15 " 33 3/16"
13931-16 " 35 9/16"
13932-18 " 39 1/16"
13933-20 " 42 9/16"




13944-4 WAY 15 9/16"
13945-6 " 19 1/16"
13946-8 " 22 9/16"
13947-10 " 26 1/16"
13948-12 " 29 9/16"
13949-14 " 33 1/16"
13950-15 " 34 13/16"
13951-16 " 36 9/16"
13952-18 " 40 1/16"
13953-20 " 43 9/16"



13934-4 WAY 14 5/16"
13935-6 " 17 13/16"
13936-8 " 21 5/16"
13937-10 " 24 3/16"
13938-12 " 28 5/16"
13939-14 " 31 1/16"
13940-15 " 33 9/16"
13941-16 " 35 5/16"
13942-18 " 38 13/16"
13943-20 " 42 5/16"



12884-24 WAY 50 1/16"
12885-28 " 57 1/16"
12886-30 " 60 9/16"
12887-32 " 64 1/16"
12888-36 " 71 1/16"
12889-40 " 78 1/16"



13954-24 WAY 52 3/8"
13955-28 " 59 3/8"
13956-30 " 62 7/8"
13957-32 " 66 3/8"
13958-36 " 73 3/8"
13959-40 " 80 3/8"

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	LOCKING SHAFTS	List Price.
STYLE "A" LOCKING SHAFTS		
12874	4 Way LOCKING SHAFT, 12 $\frac{1}{4}$ " long	1.39
12875	6 Way LOCKING SHAFT, 15 $\frac{1}{4}$ " long	1.53
12876	8 Way LOCKING SHAFT, 19 $\frac{1}{4}$ " long	1.68
12877	10 Way LOCKING SHAFT, 22 $\frac{3}{4}$ " long	1.82
12878	12 Way LOCKING SHAFT, 26 $\frac{1}{4}$ " long	1.96
12879	14 Way LOCKING SHAFT, 29 $\frac{3}{4}$ " long	2.08
12880	15 Way LOCKING SHAFT, 31 $\frac{3}{4}$ " long	2.16
12881	16 Way LOCKING SHAFT, 33 $\frac{1}{4}$ " long	2.25
12882	18 Way LOCKING SHAFT, 36 $\frac{3}{4}$ " long	2.37
12883	20 Way LOCKING SHAFT, 40 $\frac{1}{4}$ " long	2.56
STYLE "E" LOCKING SHAFTS		
12884	24 Way LOCKING SHAFT, 50 $\frac{1}{16}$ " long	3.16
12885	28 Way LOCKING SHAFT, 57 $\frac{1}{16}$ " long	3.74
12886	30 Way LOCKING SHAFT, 60 $\frac{1}{16}$ " long	3.86
12887	32 Way LOCKING SHAFT, 64 $\frac{1}{16}$ " long	4.00
12888	36 Way LOCKING SHAFT, 71 $\frac{1}{16}$ " long	4.28
12889	40 Way LOCKING SHAFT, 78 $\frac{1}{16}$ " long	4.60
STYLE "D" LOCKING SHAFTS		
13924	4 Way LOCKING SHAFT, 14 $\frac{9}{16}$ " long	.85
13925	6 Way LOCKING SHAFT, 18 $\frac{1}{16}$ " long	1.84
13926	8 Way LOCKING SHAFT, 21 $\frac{1}{16}$ " long	2.00
13927	10 Way LOCKING SHAFT, 25 $\frac{1}{16}$ " long	2.12
13928	12 Way LOCKING SHAFT, 28 $\frac{9}{16}$ " long	2.26
13929	14 Way LOCKING SHAFT, 32 $\frac{1}{16}$ " long	2.40
13930	15 Way LOCKING SHAFT, 33 $\frac{3}{16}$ " long	2.54
13931	16 Way LOCKING SHAFT, 35 $\frac{9}{16}$ " long	2.68
13932	18 Way LOCKING SHAFT, 39 $\frac{1}{16}$ " long	2.82
13933	20 Way LOCKING SHAFT, 42 $\frac{9}{16}$ " long	2.96
CONTINUED ON NEXT PAGE		

Order by NUMBER and NAME Appearing in Large Type



Order  
No.

LOCKING SHAFTS—CONTINUED

List Price.

## STYLE "B" LOCKING SHAFTS

13934	4 Way	LOCKING SHAFT, 14 $\frac{5}{16}$ " long	.....	
13935	6 Way	LOCKING SHAFT, 17 $\frac{3}{8}$ " long	.....	
13936	8 Way	LOCKING SHAFT, 21 $\frac{1}{8}$ " long	.....	
13937	10 Way	LOCKING SHAFT, 24 $\frac{3}{8}$ " long	.....	
13938	12 Way	LOCKING SHAFT, 28 $\frac{1}{8}$ " long	.....	
13939	14 Way	LOCKING SHAFT, 31 $\frac{1}{8}$ " long	.....	
13940	15 Way	LOCKING SHAFT, 33 $\frac{9}{16}$ " long	.....	
13941	16 Way	LOCKING SHAFT, 35 $\frac{1}{8}$ " long	.....	
13942	18 Way	LOCKING SHAFT, 38 $\frac{1}{8}$ " long	.....	
13943	20 Way	LOCKING SHAFT, 42 $\frac{5}{16}$ " long	.....	

## STYLE "C" LOCKING SHAFTS

13944	4 Way	LOCKING SHAFT, 15 $\frac{3}{16}$ " long	.....	
13945	6 Way	LOCKING SHAFT, 19 $\frac{1}{8}$ " long	.....	
13946	8 Way	LOCKING SHAFT, 22 $\frac{3}{8}$ " long	.....	
13947	10 Way	LOCKING SHAFT, 26 $\frac{1}{8}$ " long	.....	
13948	12 Way	LOCKING SHAFT, 29 $\frac{3}{8}$ " long	.....	
13949	14 Way	LOCKING SHAFT, 33 $\frac{1}{8}$ " long	.....	
13950	15 Way	LOCKING SHAFT, 34 $\frac{3}{8}$ " long	.....	
13951	16 Way	LOCKING SHAFT, 36 $\frac{1}{8}$ " long	.....	
13952	18 Way	LOCKING SHAFT, 40 $\frac{1}{8}$ " long	.....	
13953	20 Way	LOCKING SHAFT, 43 $\frac{1}{8}$ " long	.....	

## STYLE "F" LOCKING SHAFTS

13954	24 Way	LOCKING SHAFT, 52 $\frac{3}{8}$ " long	.....	3.70
13955	28 Way	LOCKING SHAFT, 59 $\frac{3}{8}$ " long	.....	4.00
13956	30 Way	LOCKING SHAFT, 62 $\frac{1}{8}$ " long	.....	4.20
13957	32 Way	LOCKING SHAFT, 66 $\frac{3}{8}$ " long	.....	4.40
13958	36 Way	LOCKING SHAFT, 73 $\frac{3}{8}$ " long	.....	4.60
13959	40 Way	LOCKING SHAFT, 80 $\frac{3}{8}$ " long	.....	4.90

Order by NUMBER and NAME Appearing in Large Type

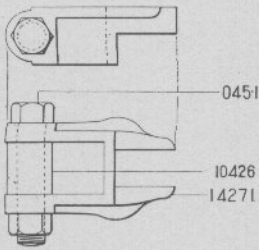
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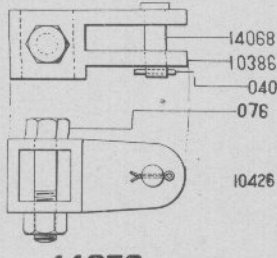
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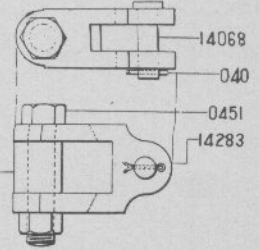
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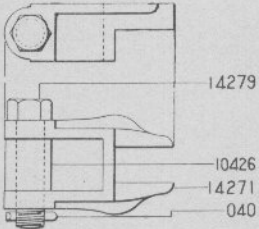
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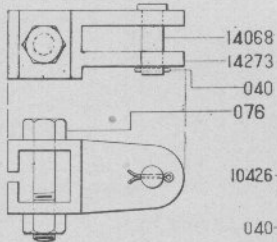
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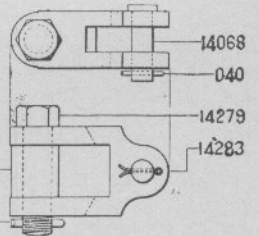
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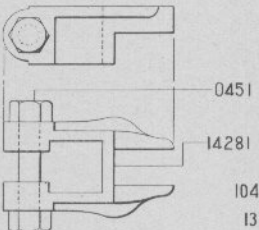
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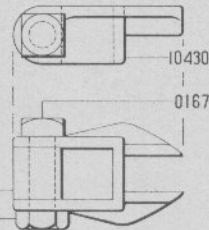
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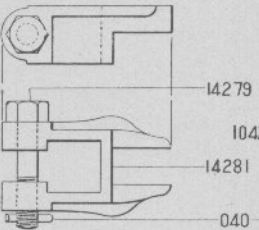
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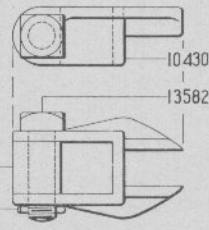
**14278**



**13584**



**14280**



**13586**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order  
No.

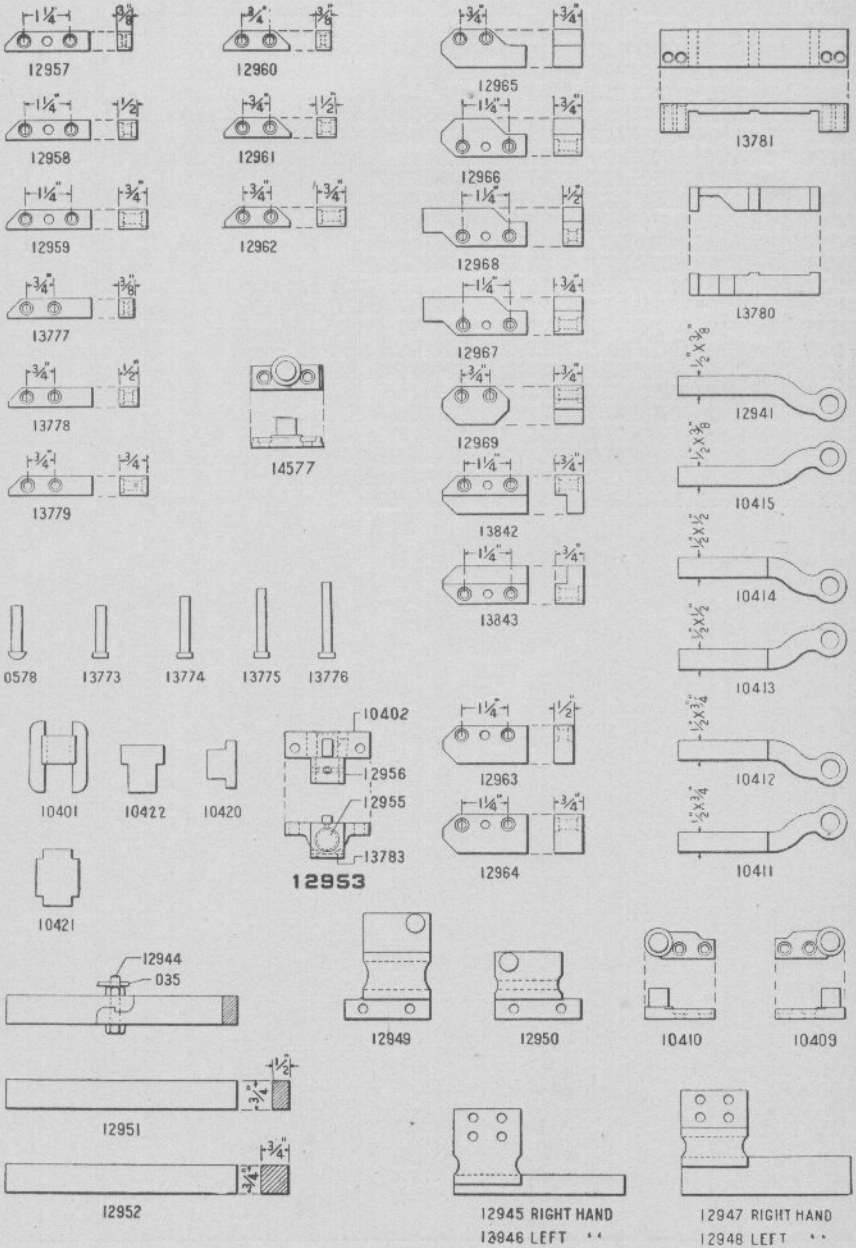
## CRANKS AND DRIVERS FOR LOCKING SHAFTS

List Price.

040	COTTER PIN, $\frac{1}{8}$ " x 1", for 14068 and others (per 100)	80
076	BOLT AND NUT, $\frac{1}{2}$ " x 2 $\frac{1}{4}$ ", for 14272 and 14274	.05
0167	BOLT, $\frac{3}{8}$ " x 2 $\frac{1}{4}$ ", for 13584	.05
0451	BOLT AND NUT, $\frac{3}{8}$ " x 2 $\frac{3}{4}$ ", for 14276, 14278 and 14282	.14
1318	$\frac{5}{8}$ " Hex. NUT, Thin, for 0167	.03
10386	No. 1 MALLEABLE CRANK only	.15
10426	Filling BLOCK for 10430, 14271 and 14283	.10
10430	No. 3 and 4 MALLEABLE DRIVER only	.24
13582	BOLT, $\frac{3}{8}$ " x 2 $\frac{1}{4}$ ", for 13586	.06
13584	No. 3 MALLEABLE DRIVER COMPLETE	.42
13586	No. 4 MALLEABLE DRIVER COMPLETE	.42
14068	PIN, $\frac{1}{2}$ " x 1 $\frac{1}{8}$ ", for 10386, 14273 and 14283	.06
14271	No. 5 and 6 MALLEABLE DRIVER only	
14272	No. 1 MALLEABLE CRANK COMPLETE	.28
14273	No. 2 MALLEABLE CRANK only	
14274	No. 2 MALLEABLE CRANK COMPLETE	
14276	No. 5 MALLEABLE DRIVER COMPLETE	
14277	No. 6 MALLEABLE DRIVER COMPLETE	
14278	No. 7 MALLEABLE DRIVER COMPLETE	
14279	TAP BOLT, $\frac{3}{8}$ " x 2 $\frac{1}{4}$ ", for 14277, 14280 and 14284	.10
14280	No. 8 MALLEABLE DRIVER COMPLETE	
14281	No. 7 and 8 MALLEABLE DRIVER only	
14282	No. 9 MALLEABLE DRIVER COMPLETE, for Electric Lock	
14283	No. 9 and 10 MALLEABLE DRIVER only	
14284	No. 10 MALLEABLE DRIVER COMPLETE, for Electric Lock	

Order by NUMBER and NAME Appearing in Large Type

LOCKING DOGS, ETC.



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SAXBY AND FARMER INTERLOCKING MACHINE

47

Order  
No.

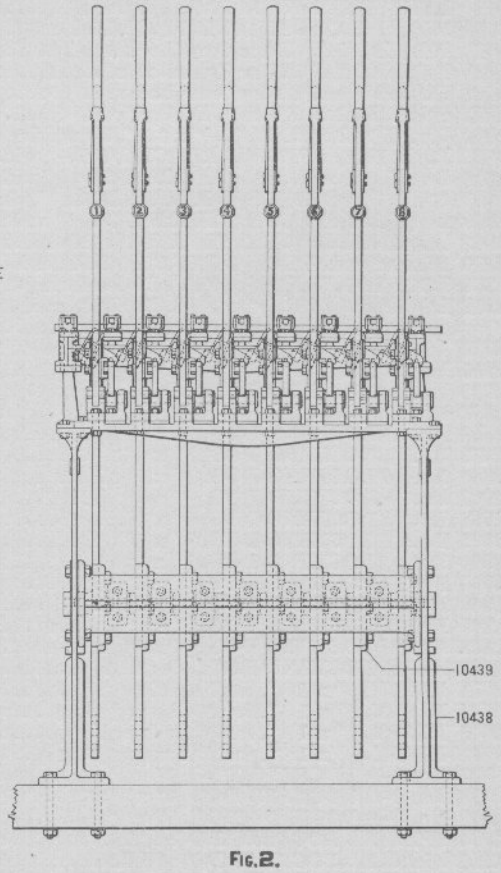
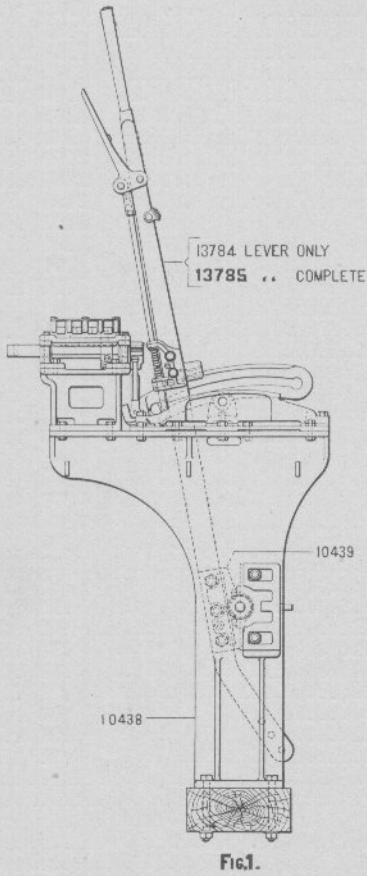
LOCKING DOGS, ETC.

List Price.

035 COTTER PIN, $\frac{3}{8}$ " x $\frac{3}{8}$ ", for 12944 (per 100)	.80
0578 RIVET, $\frac{1}{4}$ " x $1\frac{1}{16}$ ", for fixing 12954 to Locking Bars	.01
10401 FILLING PIECE for Locking Bar	.03
10402 LOCKING BAR DRIVER only	.16
10409 RIGHT HAND TRUNNION	.16
10410 LEFT HAND TRUNNION	.16
10411 RIGHT HAND SWING DOG, $\frac{3}{4}$ " thick	.06
10412 LEFT HAND SWING DOG, $\frac{3}{4}$ " thick	.06
10413 RIGHT HAND SWING DOG, $\frac{1}{2}$ " thick	.05
10414 LEFT HAND SWING DOG, $\frac{1}{2}$ " thick	.05
10415 RIGHT HAND SWING DOG, $\frac{3}{8}$ " thick	.05
10420 FILLING PIECE for Cross Locks	.03
10421 FILLING PIECE for Cross Locks	.03
10422 FILLING PIECE for Cross Locks	.03
12941 LEFT HAND SWING DOG, $\frac{3}{8}$ " thick	.05
12944 Hex. BOLT AND NUT, $\frac{1}{4}$ " x $1\frac{9}{16}$ ", for making splice in Locking Bars	.09
12945 Right Hand SPECIAL REACH DOG, $\frac{1}{2}$ " wide	2.56
12946 Left Hand SPECIAL REACH DOG, $\frac{1}{2}$ " wide	2.56
12947 Right Hand SPECIAL REACH DOG, 1" wide	2.64
12948 Left Hand SPECIAL REACH DOG, 1" wide	2.64
12949 Left Hand SPECIAL REACH TRUNNION	.91
12950 Right Hand SPECIAL REACH TRUNNION	.91
12951 LOCKING BAR, $\frac{1}{2}$ " x $\frac{3}{4}$ ", C. D. Steel, length as specified (per foot)	.14
12952 LOCKING BAR, $\frac{3}{4}$ " x $\frac{3}{4}$ ", C. D. Steel, used for Cross Locks, length as specified (per foot)	.21
12953 Locking Bar DRIVER AND BLOCK COMPLETE	.48
12955 Locking Bar DRIVING STUD only	.07
12956 Locking Bar DRIVING BLOCK only	.07
12957 No. 1 LOCKING DOG, $\frac{3}{8}$ " x $\frac{1}{2}$ "	.07
12958 No. 2 LOCKING DOG, $\frac{1}{2}$ " x $\frac{1}{2}$ "	.07
12959 No. 3 LOCKING DOG, $\frac{3}{4}$ " x $\frac{1}{2}$ "	.07
12960 No. 4 LOCKING DOG, $\frac{1}{2}$ " x $\frac{1}{2}$ "	.09
12961 No. 5 LOCKING DOG, $\frac{1}{2}$ " x $\frac{1}{2}$ "	.07
12962 No. 6 LOCKING DOG, $\frac{3}{4}$ " x $\frac{1}{2}$ "	.09
12963 No. 7 LOCKING DOG, $\frac{1}{2}$ " x 1"	.09
12964 No. 8 LOCKING DOG, $\frac{1}{2}$ " x 1"	.12
12965 No. 10 LOCKING DOG, $\frac{3}{4}$ " x 1"	.17
12966 No. 9 LOCKING DOG, $\frac{1}{2}$ " x 1"	.17
12967 No. 13 LOCKING DOG, $\frac{1}{2}$ " x 1"	.17
12968 No. 14 LOCKING DOG, $\frac{1}{2}$ " x 1"	.17
12969 No. 15 LOCKING DOG, $\frac{1}{2}$ " x 1"	.11
13773 RIVET, $\frac{1}{4}$ " x $1\frac{1}{16}$ ", for Trunnions	.01
13774 RIVET, $\frac{1}{4}$ " x $1\frac{7}{16}$ ", for $\frac{3}{8}$ " Locking Dogs	.01
13775 RIVET, $\frac{1}{4}$ " x $1\frac{3}{8}$ ", for $\frac{1}{2}$ " Locking Dogs	.01
13776 RIVET, $\frac{1}{4}$ " x $1\frac{9}{16}$ ", for $\frac{3}{4}$ " Locking Dogs	.01
13777 No. 1-A LOCKING DOG, $\frac{3}{8}$ " x $\frac{1}{2}$ "	.01
13778 No. 2-A LOCKING DOG, $\frac{1}{2}$ " x $\frac{1}{2}$ "	.01
13779 No. 3-A LOCKING DOG, $\frac{3}{4}$ " x $\frac{1}{2}$ "	.01
13780 SPECIAL LOCKING DOG	.01
13781 SPECIAL LOCKING DOG GUIDE	.01
13783 STEEL PIN, $\frac{1}{8}$ " x $\frac{1}{2}$ ", for fixing 12956 to 12955	.01
13842 No. 16 LOCKING DOG	.13
13843 No. 17 LOCKING DOG	.13
14577 RIGHT OR LEFT HAND TRUNNION	.33

Order by NUMBER and NAME Appearing in Large Type

MACHINE ARRANGED FOR HORIZONTAL LEADOUT



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## MACHINE ARRANGED FOR HORIZONTAL LEADOUT

On the opposite page, Fig. 1 shows an End View and Fig. 2 shows an Elevation of the Saxby and Farmer Interlocking Machine designed for Horizontal Leadout.

This machine is well adapted for use on the ground floor of buildings, or on the platform level of drawbridges. It varies only from the machine shown on page 30 in the construction of Levers, Legs and Lever Shoes, and with these exceptions all details shown on pages 32 to 47 are applicable. For prices of complete machine see page 31.

Order No.	DETAIL PARTS APPLICABLE TO MACHINES FOR HORIZONTAL LEADOUT ONLY	List Price.
10438	LEG for Horizontal Leadout Machine .....	12.14 .....
10439	LEVER SHOE .....	1.32 .....
13784	LEVER only .....	5.08 .....
13785	LEVER COMPLETE, with Latch, Latch Shoe and Latch Handle, including: 3-041, 3-0624, 2-0645, 1-10366, 1-10371, 1-10372, 1-10373, 1-10380, 1-10389, 1-10406, 1-10439, 1-13784, 2-13863, 3-14068, 1-14070, 1-14073.	10.50 .....

Order by NUMBER and NAME Appearing in Large Type



## STYLE "C" DWARF INTERLOCKING MACHINE

MACHINE ARRANGED FOR VERTICAL OR HORIZONTAL LEADOUT

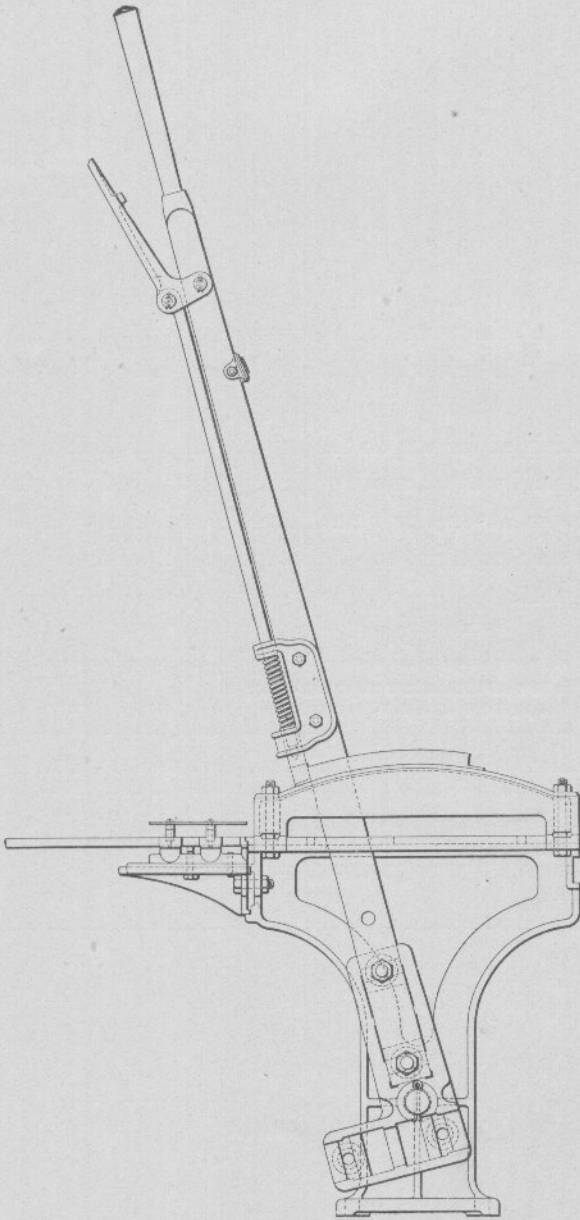


FIG. 1

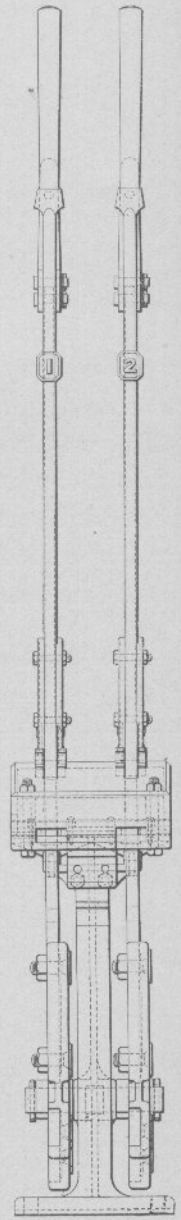


FIG. 2

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

MACHINE ARRANGED FOR VERTICAL OR HORIZONTAL LEADOUT

The illustration on the opposite page shows our Style "C" Dwarf Interlocking Machine. This machine is constructed without preliminary locking and will be found very convenient for operating Switches and Signals in yards and other installations where a more extensive machine could not be used on account of space. It can be placed for working at ground level, or elevated on a platform three or four feet high, as may be desired.

Fig. 1 shows an End View and Fig. 2 shows an Elevation of a Two Lever Machine with Locking.

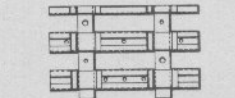
LIST PRICE OF STYLE "C" DWARF INTERLOCKING MACHINE FOR EITHER VERTICAL OR HORIZONTAL LEADOUT

CAPACITY OF MACHINE	LIST PRICE WITHOUT LOCKING		LIST PRICE WITH LOCKING	
	Per Lever	Per Spare Space	Per Lever	Per Spare Space
VERTICAL CONNECTIONS				
2 Lever Frame.....	19.86	10.00	24.00	14.16
4 Lever Frame.....	20.08	10.20	25.14	15.32
6 Lever Frame.....	20.08	10.20	26.36	15.32
8 Lever Frame.....	20.08	10.20	27.65	15.32
HORIZONTAL CONNECTIONS				
2 Lever Frame.....	18.42	10.00	22.56	14.16
4 Lever Frame.....	18.60	10.20	23.70	15.32
6 Lever Frame.....	18.60	10.20	24.92	15.32
8 Lever Frame.....	18.60	10.20	26.21	15.32

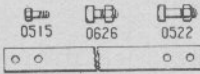
For Long Tail Lever with Adjustable Connectors and Bolts (no weights), add to each Lever for Vertical Connections 2.76.

STYLE "C" DWARF INTERLOCKING MACHINE

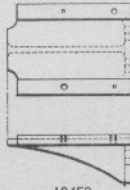
DETAIL PARTS



- 14192-2 LEVER LOCKING PLATE<sup>1</sup>
- 10459-4 " " " "
- 10460-6 " " " "
- 10461-8 " " " "



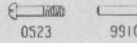
- 14180 TIE BAR FOR 4 LEVER FRAME
- 14181 " " " " 6 " " "
- 14182 " " " " 8 " " "



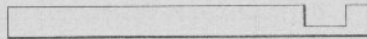
10458



- 14193-2 LEVER COVER
- 10465-4 " " " "
- 10466-6 " " " "
- 10467-8 " " " "



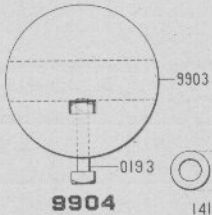
0523 9910



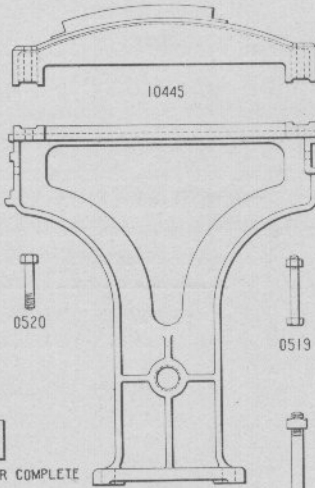
10471



10448 0625 0446



9904



10444



0520



0519

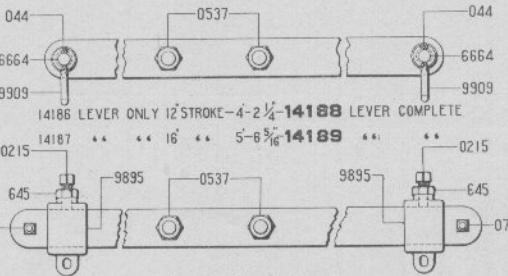


14194



0537

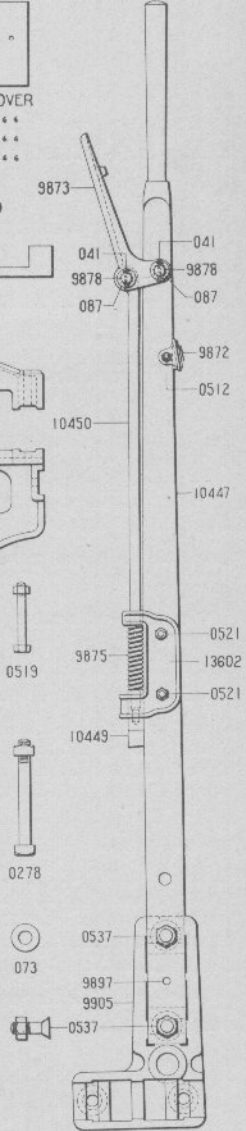
- 10451 LEVER ONLY 7" STROKE-1-4 3/32" **14183** LEVER COMPLETE
- 13537 " " " 8" " 1-7 1/32" **14252** " " "
- 10453 " " " 12" " 2-3 1/32" **14185** " " "



10446

- 14186 LEVER ONLY 12" STROKE-4-2 1/4" **14188** LEVER COMPLETE
- 14187 " " " 16" " 5-8 3/16" **14189** " " "

- 10454 LEVER ONLY 12" STROKE-4-9 1/2" **14190** LEVER COMPLETE
- 10456 " " " 16" " 6-1 3/16" **14191** " " "



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

STYLE "C" DWARF INTERLOCKING MACHINE

Order No.	DETAIL PARTS	List Price
07	BOLT AND NUT, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for 14190 and 14191.....	.02
041	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for 9878 (per 100).....	.80
044	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for 6664 (per 100).....	.80
073	$\frac{3}{4}$ " WASHER for 0278.....	.02
087	$\frac{5}{8}$ " WASHER for 9878.....	.01
0193	BOLT AND NUT, $\frac{3}{4}$ " x $4\frac{1}{2}$ ", for 9903.....	.12
0215	SET SCREW, $\frac{5}{8}$ " x $1\frac{3}{4}$ ", for 9895.....	.04
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7", for fixing Machine Leg to Timber Framing... ..	.14
0446	COTTER PIN, $\frac{1}{2}$ " x 2", for 10448 (per 100).....	.80
0512	BOLT AND NUT, $\frac{1}{4}$ " x $1\frac{1}{2}$ ", for 9872.....	.02
0515	CAP SCREW, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for fixing Locking Plate to Bracket.....	.05
0519	BOLT AND NUT, $\frac{1}{2}$ " x $3\frac{3}{4}$ ", for fixing 10445 to 10444 (End Bolts).....	.06
0520	TAP BOLT, $\frac{1}{2}$ " x $3\frac{7}{8}$ ", for fixing 10445 to 10444 (Center Bolts).....	.04
0521	BOLT AND NUT, $\frac{3}{8}$ " x 2", for fixing 10498 to 10447.....	.03
0522	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", for fixing 10458 to 10444.....	.04
0523	MACHINE SCREW, No. 14-24 x $\frac{3}{4}$ ", for fixing Covers to Locking Plates.....	.01
0537	BOLT AND NUT, $\frac{3}{4}$ " x $2\frac{1}{4}$ ", Ck. Hd., for fixing Levers and Tail Levers to Lever Shoes.....	.09
0625	$1\frac{1}{2}$ " WASHER for 10448.....	.04
0626	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", for fixing Tie Bars to 10444.....	.04
645	$\frac{5}{8}$ " HEX. NUT for 0215.....	.04
6664	PIN, $\frac{7}{8}$ " x $2\frac{1}{8}$ ", for 9909.....	.07
9872	Lever NUMBER PLATE. Specify number required.....	.10
9873	LATCH HANDLE.....	.70
9875	LATCH SPRING.....	.20
9878	PIN, $\frac{3}{8}$ " x $1\frac{7}{8}$ ", for 9873.....	.10
9895	ADJUSTABLE CONNECTOR only.....	.36
9897	STRAIGHT DOWEL PIN, $\frac{1}{2}$ " x $1\frac{3}{8}$ ", for 9905 to 10447.....	.03
9903	COUNTERWEIGHT only, 56 lbs.....	3.62
9904	COUNTERWEIGHT COMPLETE, 56 lbs.....	3.72
9905	LEVER SHOE.....	1.60
9909	$\frac{7}{8}$ " SHACKLE only.....	.05
9910	TAPER DOWEL PIN, $\frac{3}{8}$ " x $1\frac{5}{8}$ ", for Locking Plates and Brackets.....	.08

CONTINUED ON NEXT PAGE

Order by NUMBER and NAME Appearing in Large Type

Order No.	DETAIL PARTS—CONTINUED	List Price.
10444	MACHINE LEG.....	9.76
10445	TOP PLATE for 2 Levers.....	3.90
10446	LEVER AND FITTINGS, including: 2-041, 2-087, 1-0512, 2-0521, 2-0537, 1-9872, 1-9873, 1-9875, 2-9878, 1-9897, 1-9905, 1-10447, 1-10449, 1-10450, 1-13602.....	8.40
10447	LEVER.....	3.20
10448	PIN, $1\frac{1}{2}$ " x $8\frac{1}{4}$ ", for Lever Center.....	.42
10449	LATCH BLOCK.....	.30
10450	LATCH ROD.....	.70
10451	Front TAIL LEVER only, 7" Stroke.....	.76
10453	Front TAIL LEVER only, 12" Stroke.....	1.04
10454	Front and Back TAIL LEVER only, 12" Stroke, for Adjustable Con- nectors.....	2.10
10456	Front and Back TAIL LEVER only, 16" Stroke, for Adjustable Con- nectors.....	2.76
10458	BRACKET to support Locking Plate.....	1.10
10459	LOCKING PLATE for 4 Levers.....	7.50
10460	LOCKING PLATE for 6 Levers.....	11.50
10461	LOCKING PLATE for 8 Levers.....	15.00
10465	COVER for 4 Lever Locking Plate.....	.40
10466	COVER for 6 Lever Locking Plate.....	.60
10467	COVER for 8 Lever Locking Plate.....	.80
10471	TAPPET.....	.80
13537	Front TAIL LEVER only, 8" Stroke.....	.56
13602	LATCH SHOE.....	.40
14180	TIE BAR for 4 Lever Frame.....	.60
14181	TIE BAR for 6 Lever Frame.....	.80
14182	TIE BAR for 8 Lever Frame.....	.94
14183	Front TAIL LEVER COMPLETE, 7" Stroke.....	1.22
14185	Front TAIL LEVER COMPLETE, 12" Stroke.....	1.90
14186	Front and Back TAIL LEVER only, 12" Stroke, for Shackles.....	2.60
14187	Front and Back TAIL LEVER only, 16" Stroke, for Shackles.....	2.36
14188	Front and Back TAIL LEVER COMPLETE, 12" Stroke, with Bolts, Shackles and Pins.....	3.12
14189	Front and Back TAIL LEVER COMPLETE, 16" Stroke, with Bolts, Shackles and Pins.....	3.22
14190	Front and Back TAIL LEVER COMPLETE, 12" Stroke, with Bolts and Adjustable Connectors.....	3.88
14191	Front and Back TAIL LEVER COMPLETE, 16" Stroke, with Bolts and Adjustable Connectors.....	4.50
14192	LOCKING PLATE for 2 Levers.....	.34
14193	COVER for 2 Lever Locking Plate.....	.16
14194	COLLAR, $2\frac{1}{2}$ " diameter, $1\frac{1}{2}$ " hole, $1\frac{1}{2}$ " thick, for 10448 when only one Lever is used.....	.98
14252	Front TAIL LEVER COMPLETE, 8" Stroke.....	.98

Note—The width of Locking Plates for Machines over Four Levers is made to suit the requirements of Locking according to Dog Charts.

Locking Dogs same as Back Locking Dogs for Style "A" Interlocking Machine.

Order by NUMBER and NAME Appearing in Large Type

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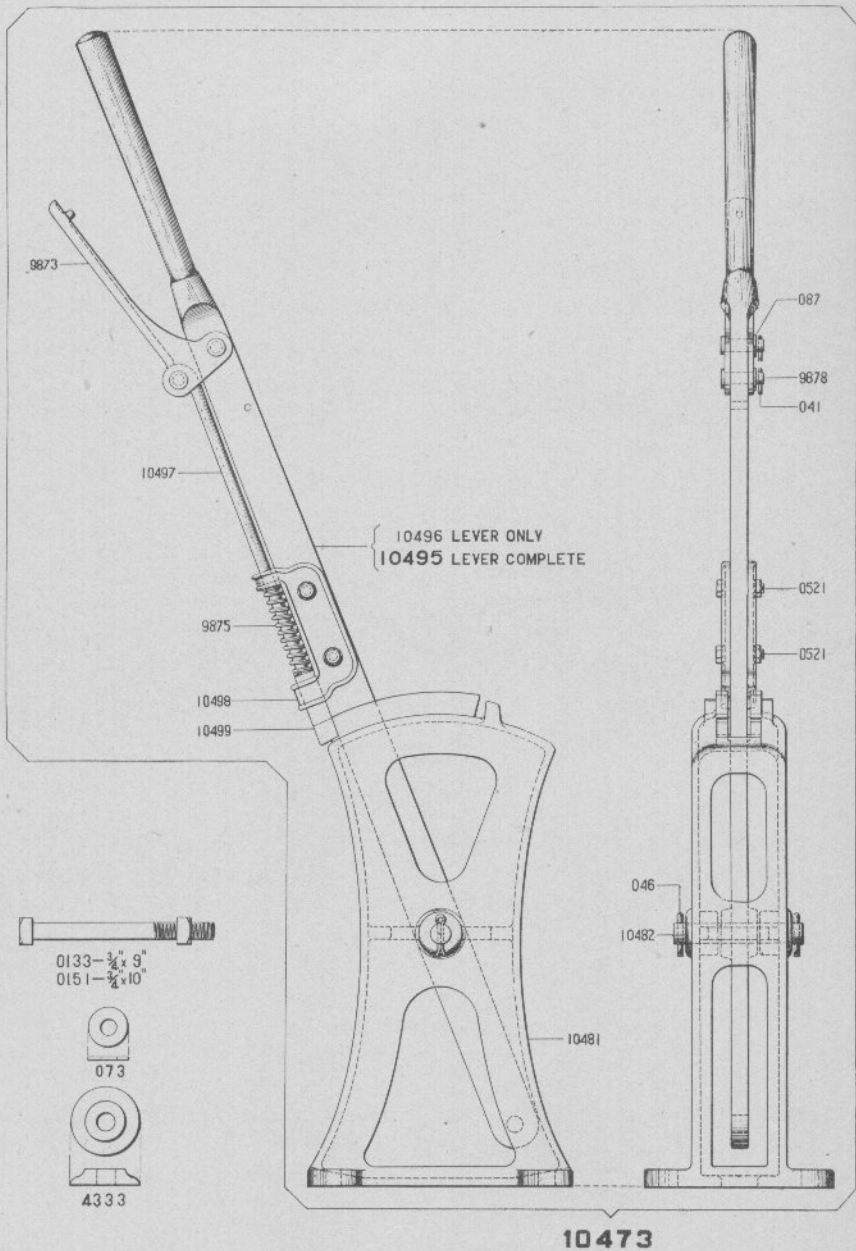
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## STYLE "D" DWARF INTERLOCKING MACHINE

DETAIL PARTS FOR ONE LEVER MACHINE



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# STYLE "D" DWARF INTERLOCKING MACHINE

57

Order  
No.

## DETAIL PARTS FOR ONE LEVER MACHINE

List Price.

041 COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 9878 (per 100).....	.80	
046 COTTER PIN, $\frac{3}{16}$ " x 2", for 10482 (per 100).....	80	
073 $\frac{3}{4}$ " WASHER.....	.02	
087 $\frac{3}{8}$ " WASHER for 9878.....	.01	
0133 BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16	
0151 BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16	
0521 BOLT AND NUT, $\frac{3}{8}$ " x 2", for fixing 10498 to Lever 10496.....	.03	
4333 CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08	
9873 LATCH HANDLE.....	.70	
9875 LATCH SPRING.....	.20	
9878 PIN, $\frac{5}{8}$ " x $1\frac{7}{8}$ ", for 9873.....	.10	
<b>10473 1 LEVER MACHINE COMPLETE</b> .....	<b>22.00</b>	
10481 STAND only for 1 Lever.....	5.50	
10482 PIN, 1" x $5\frac{1}{2}$ ".....	.18	
10495 LEVER AND FITTINGS, including: 2-041, 2-087, 2-0521, 1-9873, 1-9875, 2-9878, 1-10496, 1-10497, 1-10498, 1-10499.....	10.00	
10496 LEVER only.....	5.50	
10497 LATCH ROD.....	.70	
10498 LATCH SHOE.....	.60	
10499 LATCH BLOCK.....	.50	

Order by NUMBER and NAME Appearing in Large Type



STYLE "D" DWARF INTERLOCKING MACHINE

MACHINE ARRANGED FOR HORIZONTAL LEADOUT

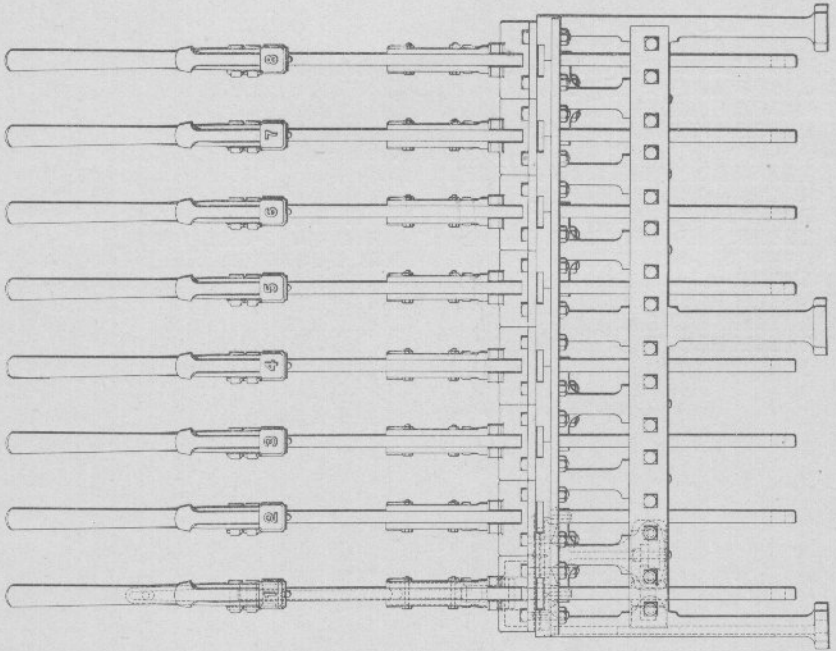


FIG. 2

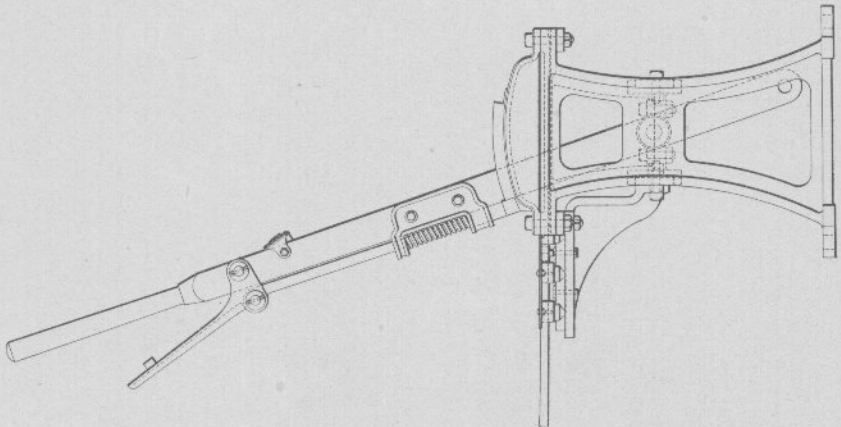


FIG. 1

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

MACHINE ARRANGED FOR HORIZONTAL LEADOUT

The illustration on the opposite page shows our Style "D" Interlocking Machine which can be used for working Outlying Switches, Crossovers and Signals principally on Elevated Railroads, or other places where a smaller type of Interlocking Machine may be required.

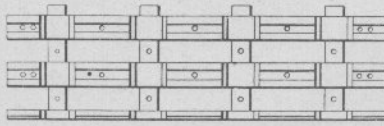
Fig. 1 shows an End View and Fig. 2 shows an Elevation of an Eight Lever Machine with Locking.

LIST PRICES OF STYLE "D" DWARF MACHINES WITH AND WITHOUT LOCKING

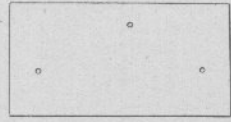
CAPACITY OF MACHINE	LIST PRICE	
	With Locking	Without Locking
2 Lever Dwarf Machine.....	66.20	46.44
3 Lever Dwarf Machine.....	87.24	59.26
4 Lever Dwarf Machine.....	109.24	73.04
5 Lever Dwarf Machine.....	124.16	86.32
6 Lever Dwarf Machine.....	139.08	99.64
7 Lever Dwarf Machine.....	154.00	112.92
8 Lever Dwarf Machine.....	168.80	126.24

STYLE "D" DWARF INTERLOCKING MACHINE

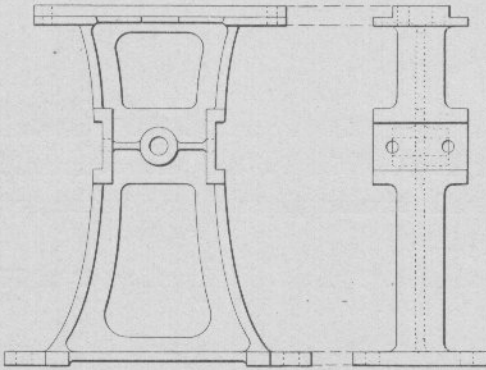
DETAIL PARTS



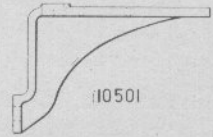
- 14192 - 2-LEVER PLATE
- 10459 - 4 " "
- 10460 - 6 " "
- 10461 - 8 " "



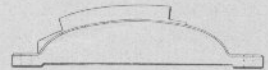
- 14193 - 2-LEVER COVER
- 10465 - 4 " "
- 10466 - 6 " "
- 10467 - 8 " "



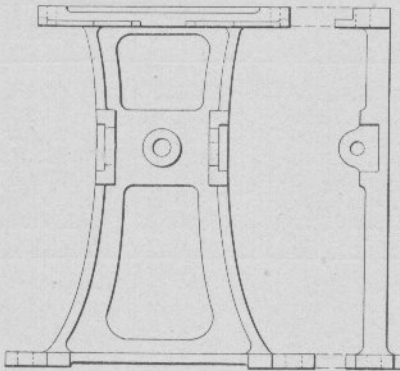
10484



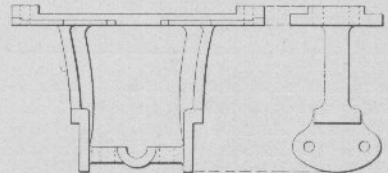
10501



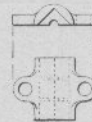
10494



10483



10485



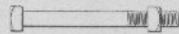
10486



4333



073



- 0278 -  $\frac{3}{4}$  x 7
- 0427 -  $\frac{3}{4}$  x 8
- 0133 -  $\frac{3}{4}$  x 9
- 0151 -  $\frac{3}{4}$  x 10

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# STYLE "D" DWARF INTERLOCKING MACHINE

61

Order No.	DETAIL PARTS	List Price.
073	$\frac{3}{4}$ " IRON WASHER.....	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8".....	.16
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
10459	4 Lever LOCKING PLATE.....	7.50
10460	6 Lever LOCKING PLATE.....	11.50
10461	8 Lever LOCKING PLATE.....	15.00
10465	COVER for 4 Lever Locking Plate.....	.40
10466	COVER for 6 Lever Locking Plate.....	.60
10467	COVER for 8 Lever Locking Plate.....	.80
10483	End STAND.....	6.10
10484	Intermediate STAND.....	6.10
10485	Intermediate BRACKET.....	2.00
10486	CAP for Bearing.....	.28
10494	SEGMENT.....	1.90
10501	BRACKET for Locking Plate.....	2.00
14192	2 Lever LOCKING PLATE.....	4.50
14193	COVER for 2 Lever Locking Plate.....	.34

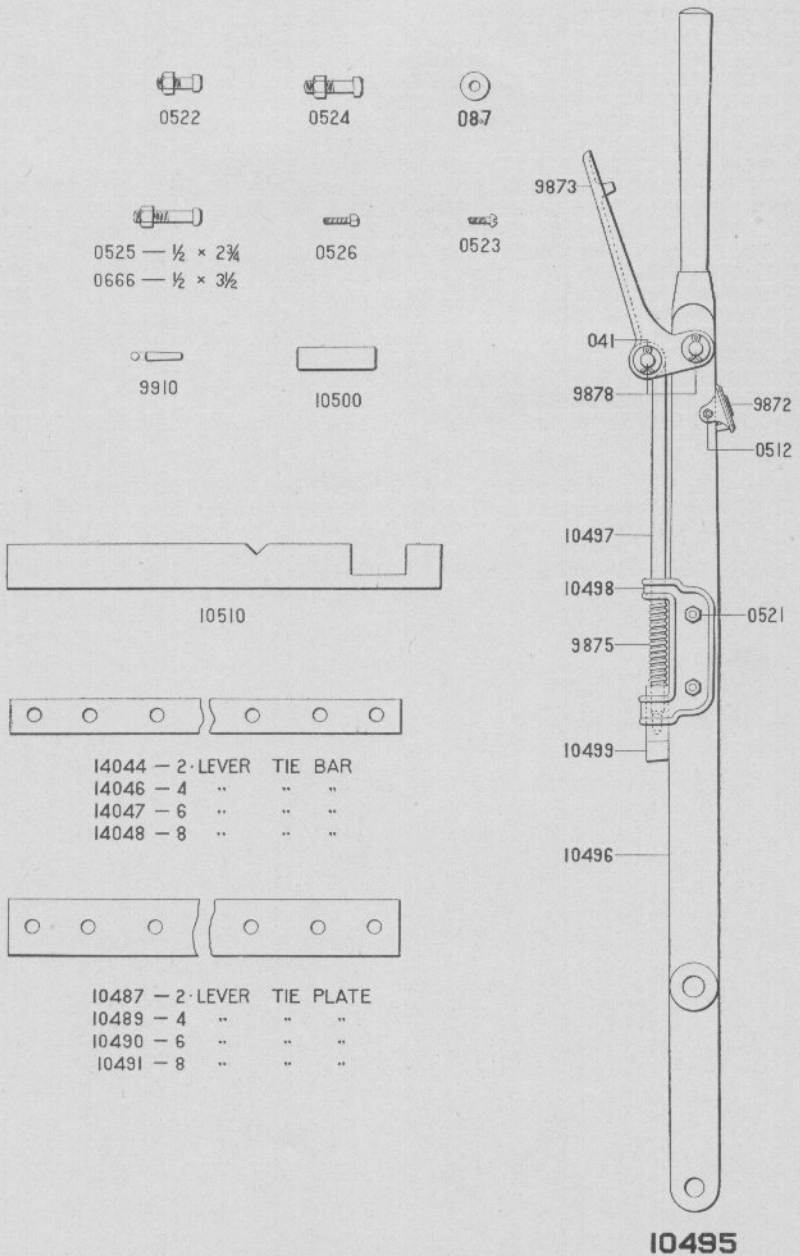
Note—The width of Locking Plates for Machines over Four Levers is made to suit the requirements of Locking according to Dog Charts.

Locking Dogs same as Back Locking Dogs for Style "A" Machine.

Order by NUMBER and NAME Appearing in Large Type

## STYLE "D" DWARF INTERLOCKING MACHINE

## DETAIL PARTS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

STYLE "D" DWARF INTERLOCKING MACHINE

Order  
No.

DETAIL PARTS—CONTINUED

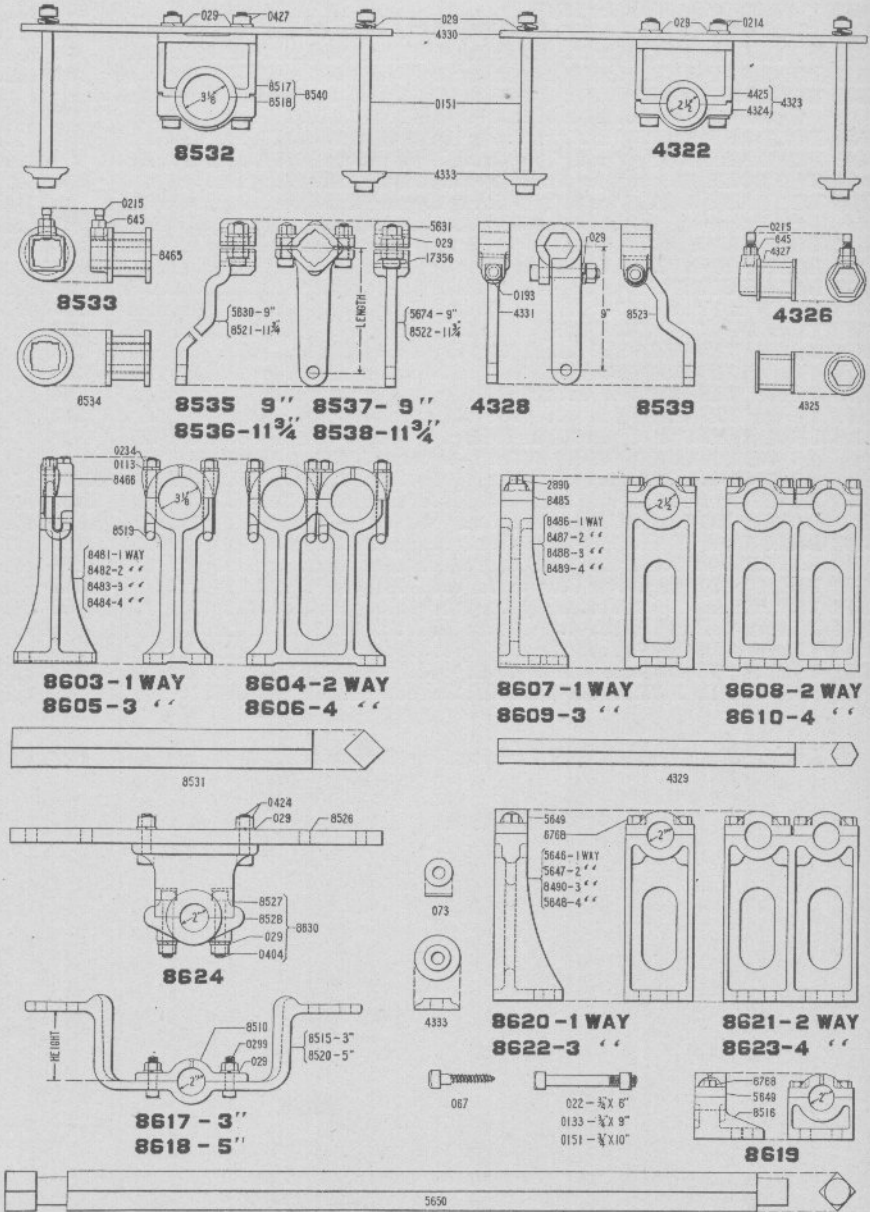
List Price.

041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " (per 100)	.80
087	$\frac{5}{8}$ " IRON WASHER for 9878	.01
0512	BOLT AND NUT, $\frac{1}{4}$ " x $1\frac{1}{4}$ ", for fixing 9872 to 10496	.02
0521	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{1}{2}$ ", for fixing 10498 to 10496	.03
0522	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", for fixing 10498 to 10483 and 10485	.04
0523	MACHINE SCREW, No. 14-24 x $\frac{3}{4}$ ", R. H., for fixing Covers to Locking Plates	.01
0524	BOLT AND NUT, $\frac{1}{2}$ " x $2$ ", for fixing 10486 to 10485	.04
0525	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{3}{4}$ ", for fixing Segments to 10494	.05
0526	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for fixing Locking Plates to Locking Brackets	.02
0666	BOLT AND NUT, $\frac{1}{2}$ " x $3\frac{1}{2}$ ", for fixing Segments and Locking Brackets to Intermediate Brackets	.05
9872	Lever NUMBER PLATE. Specify number required	.10
9873	LATCH HANDLE	.70
9875	LATCH SPRING	.20
9878	PIN, $\frac{5}{8}$ " x $1\frac{1}{2}$ ", for 9873	.10
9910	Taper DOWEL PIN, $\frac{3}{8}$ " x $1\frac{1}{8}$ "	.08
10487	2 Lever TIE PLATE	.28
10489	4 Lever TIE PLATE	.56
10490	6 Lever TIE PLATE	.84
10491	8 Lever TIE PLATE	1.12
10495	LEVER AND FITTINGS, including: 2-041, 2-087, 1-0512, 2-0521, 1-9872, 1-9873, 1-9875, 2-9878, 1-10496, 1-10497, 1-10498, 1-10499, 1-10500	10.00
10496	LEVER only	5.50
10497	LATCH ROD	.70
10498	LATCH SHOE	.60
10499	LATCH BLOCK	.50
10500	PIN, $1$ " x $3\frac{1}{2}$ ", for Lever Centers	.10
10510	TAPPET	1.00
14044	2 Lever TIE BAR	
14046	4 Lever TIE BAR	
14047	6 Lever TIE BAR	
14048	8 Lever TIE BAR	

Note—Locking Dogs same as Back Locking Dogs for Style "A" Machine.

Order by NUMBER and NAME Appearing in Large Type

ROCKER SHAFT MATERIAL



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## LEADOUT CONNECTIONS

65

Order No.	ROCKER SHAFT MATERIAL	List Price.
022	BOLT with Nut, $\frac{3}{4}$ " x 6"	.14
029	NUT LOCK for $\frac{3}{4}$ " Bolt	.02
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	WASHER for $\frac{3}{4}$ " Bolt	.02
0113	NUT LOCK for $\frac{5}{8}$ " Bolt	.02
0133	BOLT with Nut, $\frac{3}{4}$ " x 9"	.16
0151	BOLT with Nut, $\frac{3}{4}$ " x 10"	.16
0193	BOLT with Nut, $\frac{3}{4}$ " x 4 $\frac{1}{2}$ "	.12
0214	BOLT with Nut, $\frac{3}{4}$ " x 7 $\frac{1}{2}$ "	.14
0215	SET SCREW, $\frac{5}{8}$ " x 1 $\frac{3}{4}$ "	.04
0234	NUT for $\frac{5}{8}$ " Bolt	.02
0299	BOLT with Nut, $\frac{3}{4}$ " x 2 $\frac{1}{2}$ "	.10
0404	BOLT with Nut, $\frac{3}{4}$ " x 4"	.12
0424	BOLT with Nut, $\frac{3}{4}$ " x 2 $\frac{3}{4}$ "	.10
0427	BOLT with Nut, $\frac{3}{4}$ " x 8"	.16
645	NUT, $\frac{5}{8}$ "	.04
2890	CAP SCREW, $\frac{5}{8}$ " x 2 $\frac{1}{4}$ "	.14
4322	Rocker Shaft BEARING COMPLETE for 1 $\frac{1}{2}$ " Hexagon Shaft Journal, for use between Ties	5.50
4323	CAP AND BASE for 4322	2.80
4324	CAP for 4323	1.30
4325	INTERMEDIATE JOURNAL for Hex. Shaft	.50
4326	END JOURNAL COMPLETE for Hex. Shaft	.72
4327	END JOURNAL Casting for 4326	.62
4328	STRAIGHT ARM COMPLETE for Hexagon Shaft	1.48
4329	ROCKER SHAFT, 1 $\frac{1}{2}$ " Hex. (per foot)	1.40
4330	PLATE, $\frac{1}{2}$ " x 6" x 2' 6", supporting Rocker Shaft Bearings between Ties, for 4322 or 8532	2.00
4331	STRAIGHT ARM only, for Hex. Rocker Shaft, for 4328	1.36
4333	CAST WASHER for $\frac{3}{4}$ " Bolt	.08
4425	BASE for 4323	1.70
5630	OFFSET ARM only, for 8535	1.74
5631	CAP for Arm, for Square Rocker Shaft	.80
5646	BASE for 8620	1.32
5647	BASE for 8621	2.80
5648	BASE for 8623	5.30
5649	CAP for Turned Rocker Shaft Bearing	.40
5650	SQUARE ROCKER SHAFT, with Turned Journals. Specify length of Shaft and number of Journals. Shaft per foot	1.60
	For each Turned Journal, add	.84
5674	STRAIGHT ARM only, for 8537	1.46
6768	CAP SCREW, $\frac{5}{8}$ " x 1 $\frac{3}{4}$ ", for 8619, etc.	.12
8465	END JOURNAL Casting for 8533	1.44
8466	CAP for Rocker Shaft Bearings 8603, etc.	.90
8481	BASE for 8603	1.80
8482	BASE for 8604	3.40
8483	BASE for 8605	4.80
8484	BASE for 8606	6.00
8485	CAP for Bearing 8607, etc.	.40
8486	BASE for 8607	1.32
8487	BASE for 8608	2.80
8488	BASE for 8609	4.10
8489	BASE for 8610	5.30
8490	BASE for 8622	4.10
8510	CAP for 8617 or 8618	.60
8515	BEARING, Casting only, for 8617	1.90
8516	BASE for 8619	.92
8517	BASE for 8540	1.70

Order by NUMBER and NAME Appearing in Large Type



Order No.	ROCKER SHAFT MATERIAL—CONTINUED	List Price.
8518	CAP for 8540.....	1.30
8519	HOOK BOLT only, for 8603, etc. ....	.10
8520	BEARING, Casting only, for 8618 .....	2.00
8521	OFFSET ARM only, for 8536.....	2.50
8522	STRAIGHT ARM only, for 8538.....	1.90
8523	OFFSET ARM only, for 8539.....	1.44
8526	PLATE, 1" x 3½" x 2' 6", for 8624.....	2.28
8527	BASE for 8630.....	1.60
8528	CAP for 8630.....	1.05
8531	ROCKER SHAFT, 2" Square (per foot).....	1.60
8532	Rocker Shaft BEARING COMPLETE, for 2" Square Shaft Journal, for use between Ties.....	5.50
8533	END JOURNAL COMPLETE, for 2" Square Rocker Shaft.....	1.50
8534	INTERMEDIATE JOURNAL for 2" Square Rocker Shaft.....	1.20
8535	OFFSET ARM COMPLETE, 9", for 2" Square Rocker Shaft.....	2.80
8536	OFFSET ARM COMPLETE, 12", for 2" Square Rocker Shaft.....	3.56
8537	STRAIGHT ARM COMPLETE, 9", for 2" Square Rocker Shaft.....	2.50
8538	STRAIGHT ARM COMPLETE, 12", for 2" Square Rocker Shaft.....	2.94
8539	OFFSET ARM COMPLETE, for Hex. Rocker Shaft.....	1.56
8540	CAP AND BASE for 8532.....	2.80
8603	HIGH, ONE-WAY, Rocker Shaft BEARING COMPLETE, for 2" Square Rocker Shaft Journal.....	2.80
8604	HIGH, TWO-WAY, Rocker Shaft BEARING COMPLETE, for 2" Square Rocker Shaft Journal.....	5.40
8605	HIGH, THREE-WAY, Rocker Shaft BEARING COMPLETE, for 2" Square Rocker Shaft Journal.....	7.80
8606	HIGH, FOUR-WAY, Rocker Shaft BEARING COMPLETE, for 2" Square Rocker Shaft Journal.....	10.00
8607	HIGH, ONE-WAY, Rocker Shaft BEARING COMPLETE, for Hexagon Rocker Shaft Journal.....	1.80
8608	HIGH, TWO-WAY, Rocker Shaft BEARING COMPLETE, for Hexagon Rocker Shaft Journal.....	3.70
8609	HIGH, THREE-WAY, Rocker Shaft BEARING COMPLETE, for Hexagon Rocker Shaft Journal.....	5.50
8610	HIGH, FOUR-WAY, Rocker Shaft BEARING COMPLETE, for Hexagon Rocker Shaft Journal.....	7.14
8617	Rocker Shaft BEARING COMPLETE, for use between Ties, 3" drop.....	2.60
8618	Rocker Shaft BEARING COMPLETE, for use between Ties, 5" drop.....	2.70
8619	ONE-WAY, LOW Rocker Shaft BEARING COMPLETE, for 2" Square Rocker Shaft, with Turned Journal.....	1.50
8620	HIGH, ONE-WAY, Rocker Shaft BEARING COMPLETE, for 2" Square Rocker Shaft, with Turned Journals.....	1.80
8621	HIGH, TWO-WAY, Rocker Shaft BEARING COMPLETE, for 2" Square Rocker Shaft, with Turned Journals.....	3.70
8622	HIGH, THREE-WAY, Rocker Shaft BEARING COMPLETE, for 2" Square Rocker Shaft, with Turned Journals.....	5.50
8623	HIGH, FOUR-WAY, Rocker Shaft BEARING COMPLETE, for 2" SQUARE ROCKER SHAFT, with Turned Journals.....	7.14
8624	Rocker Shaft BEARING COMPLETE, for Square Rocker Shaft with 2" Turned Journals. For use between Ties.....	5.00
8630	CAP AND BEARING COMPLETE for 8624.....	2.80
17356	BOLT with Hex. Nut, ¾" x 2½" (special).....	.12

Order by NUMBER and NAME Appearing in Large Type

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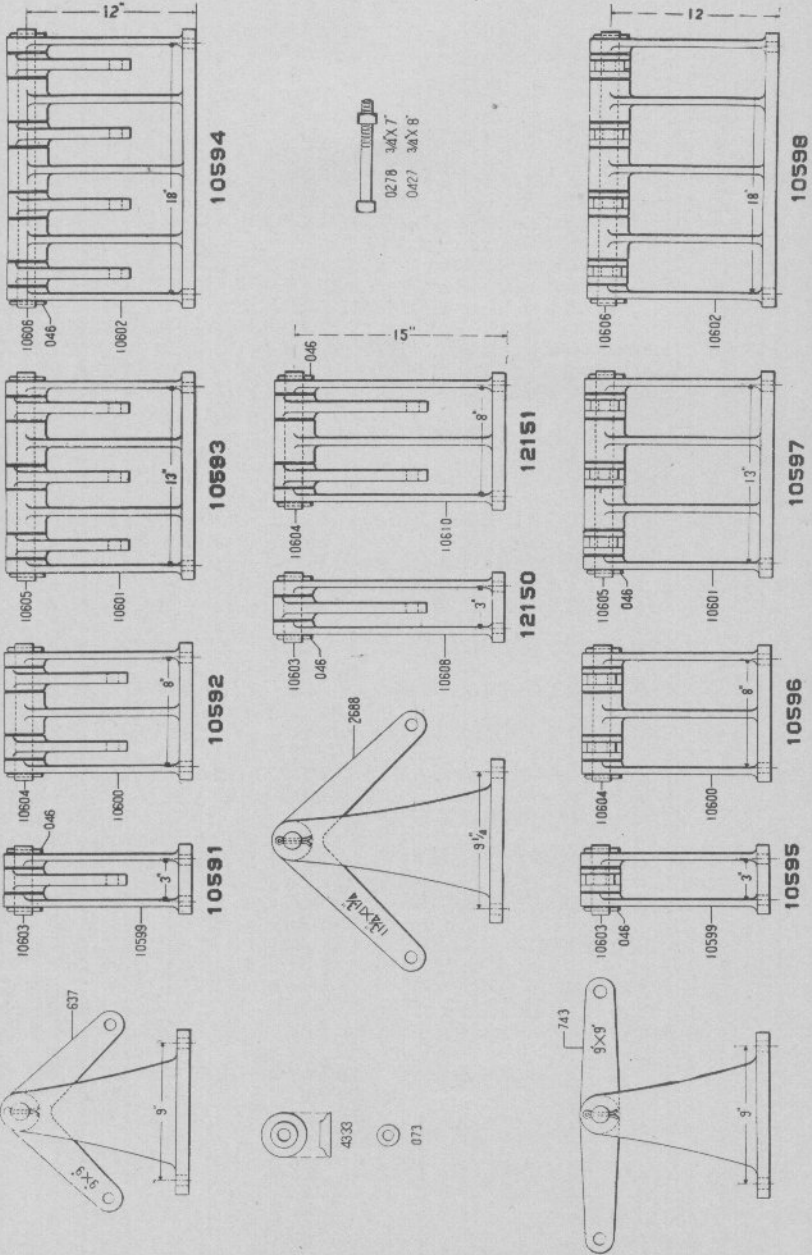
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LEADOUT CONNECTIONS

VERTICAL CRANKS AND CROSS BARS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

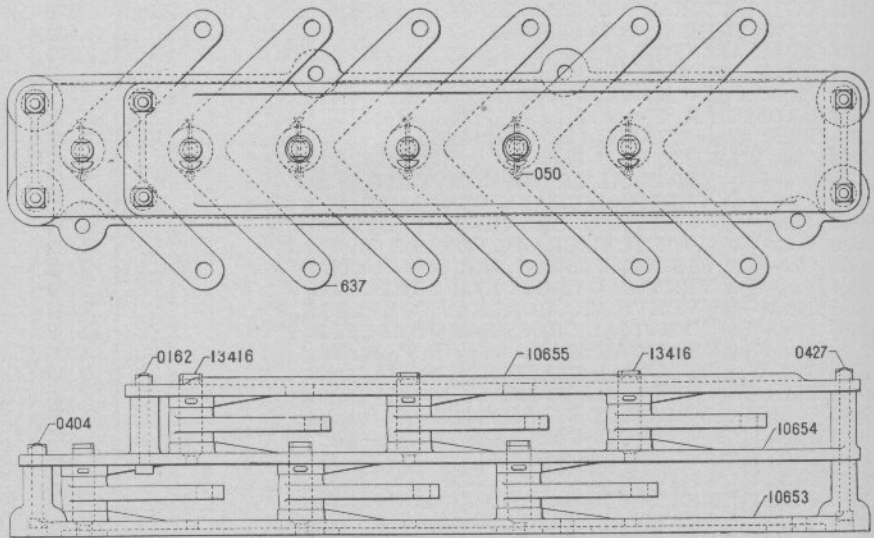
# LEADOUT CONNECTIONS

Order No.	VERTICAL CRANKS AND CROSS BARS	List Price.
046	COTTER PIN, $\frac{3}{16}$ " x 2", for 10603-4-5-6 (per 100)	.80
073	$\frac{3}{4}$ " WASHER for 0278 and 0427	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
637	Right Angle CRANK, 9" x 9"	1.12
743	CROSS BAR, 9" x 9"	1.12
2688	Right Angle CRANK, $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	1.36
4333	Cast WASHER for $\frac{3}{4}$ " Bolts	.08
10591	One-Way VERTICAL CRANK COMPLETE, 9" x 9"	3.12
10592	Two-Way VERTICAL CRANK COMPLETE, 9" x 9"	5.76
10593	Three-Way VERTICAL CRANK COMPLETE, 9" x 9"	8.54
10594	Four-Way VERTICAL CRANK COMPLETE, 9" x 9"	11.32
10595	One-Way VERTICAL CROSS BAR COMPLETE, 9" x 9"	3.12
10596	Two-Way VERTICAL CROSS BAR COMPLETE, 9" x 9"	5.76
10597	Three-Way VERTICAL CROSS BAR COMPLETE, 9" x 9"	8.54
10598	Four-Way VERTICAL CROSS BAR COMPLETE, 9" x 9"	11.32
10599	One-Way VERTICAL STAND only, for 9" Cranks	1.56
10600	Two-Way VERTICAL STAND only, for 9" Cranks	2.88
10601	Three-Way VERTICAL STAND only, for 9" Cranks	4.30
10602	Four-Way VERTICAL STAND only, for 9" Cranks	5.70
10603	PIN, $1\frac{1}{4}$ " x $4\frac{1}{2}$ ", for 10599 and 10608	.18
10604	PIN, $1\frac{1}{4}$ " x $9\frac{1}{2}$ ", for 10600 and 10610	.36
10605	PIN, $1\frac{1}{4}$ " x $14\frac{1}{2}$ ", for 10601	.52
10606	PIN, $1\frac{1}{4}$ " x $19\frac{1}{2}$ ", for 10602	.68
10608	One-Way VERTICAL STAND only, for $11\frac{3}{4}$ " Cranks	2.08
10610	Two-Way VERTICAL STAND only, for $11\frac{3}{4}$ " Cranks	3.86
12150	One-Way VERTICAL CRANK COMPLETE, $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	3.88
12151	Two-Way VERTICAL CRANK COMPLETE, $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	7.22

Order by NUMBER and NAME Appearing in Large Type

LEADOUT CONNECTIONS

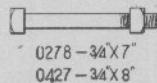
STYLE "A" BOX CRANKS



10634

10631 - 3 WAY 9"X9" BOX CRANK				
10632 - 4 " " " " " "				
10633 - 5 " " " " " "				
10634 - 6 " " " " " "				
10635 - 7 " " " " " "				
10636 - 8 " " " " " "				
10637 - 9 " " " " " "				
10638 - 10 " " " " " "				
10639 - 11 " " " " " "				
10640 - 12 " " " " " "				
10641 - 13 " " " " " "				
10642 - 14 " " " " " "				
10643 - 15 " " " " " "				
10644 - 16 " " " " " "				
13417 - 17 " " " " " "				
13418 - 18 " " " " " "				
13419 - 19 " " " " " "				
13420 - 20 " " " " " "				
13421 - 22 " " " " " "				

10650 - BASE PLATE 4WAY BOX CRANK			
10651 - CENTER " 4 " " " "			
10652 - TOP " 4 " " " "			
10653 - BASE " 6 " " " "			
10654 - CENTER " 6 " " " "			
10655 - TOP " 6 " " " "			
10659 - BASE " 8 " " " "			
10660 - CENTER " 8 " " " "			
10661 - TOP " 8 " " " "			
10662 - BASE " 10 " " " "			
10663 - CENTER " 10 " " " "			
10664 - TOP " 10 " " " "			
10679 - BASE " 12 " " " "			
10680 - CENTER " 12 " " " "			
10681 - TOP " 12 " " " "			
10673 - BASE " 14 " " " "			
10674 - CENTER " 14 " " " "			
10675 - TOP " 14 " " " "			
10667 - BASE " 16 " " " "			
10668 - CENTER " 16 " " " "			
10669 - TOP " 16 " " " "			
10683 - BASE " 18 " " " "			
10684 - CENTER " 18 " " " "			
10685 - TOP " 18 " " " "			
13422 - BASE " 20 " " " "			
13423 - CENTER " 20 " " " "			
13424 - TOP " 20 " " " "			
10676 - BASE " 22 " " " "			
10677 - CENTER " 22 " " " "			
10678 - TOP " 22 " " " "			



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## LEADOUT CONNECTIONS

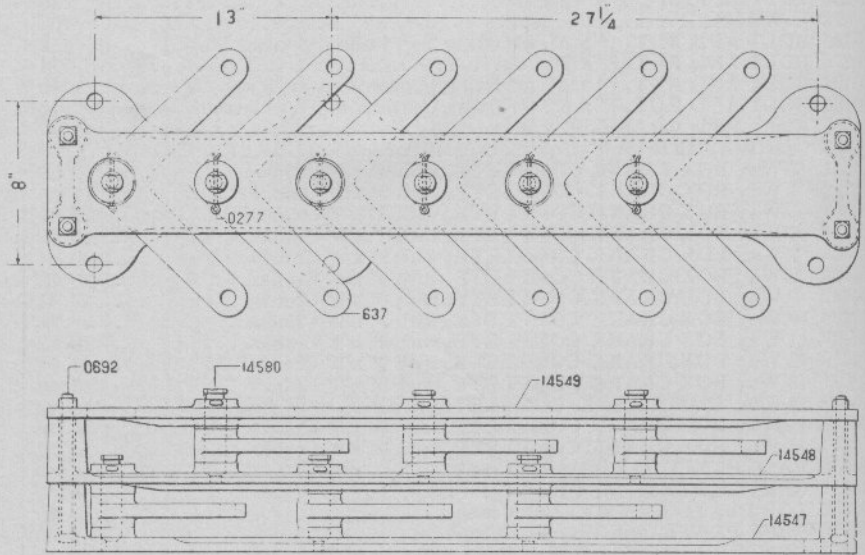
71

Order No.	STYLE "A" BOX CRANKS	List Price.
050	COTTER PIN, $\frac{1}{4}$ " x 4" (per 100)	.80
073	$\frac{3}{4}$ " WASHER	.02
0162	BOLT AND NUT, $\frac{3}{4}$ " x 5", for fixing Top Plate to Center Plate	.12
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0404	BOLT AND NUT, $\frac{3}{4}$ " x 4", for fixing Center Plate to Base	.12
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8", for fixing Center and Top Plates to Base	.16
637	Right Angle CRANK, 9" x 9"	1.12
4333	Cast WASHER for $\frac{3}{8}$ " Bolts	.08
10631	3 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	15.80
10632	4 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	17.00
10633	5 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	22.60
10634	6 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	23.72
10635	7 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	29.34
10636	8 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	30.52
10637	9 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	35.44
10638	10 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	36.56
10639	11 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	40.82
10640	12 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	41.94
10641	13 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	47.30
10642	14 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	48.42
10643	15 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	53.40
10644	16 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	54.52
10650	BASE PLATE for 4 Way Box Crank	4.50
10651	CENTER PLATE for 4 Way Box Crank	3.92
10652	TOP PLATE for 4 Way Box Crank	2.30
10653	BASE PLATE for 6 Way Box Crank	6.00
10654	CENTER PLATE for 6 Way Box Crank	5.10
10655	TOP PLATE for 6 Way Box Crank	3.56
10659	BASE PLATE for 8 Way Box Crank	7.46
10660	CENTER PLATE for 8 Way Box Crank	6.76
10661	TOP PLATE for 8 Way Box Crank	4.48
10662	BASE PLATE for 10 Way Box Crank	8.82
10663	CENTER PLATE for 10 Way Box Crank	7.88
10664	TOP PLATE for 10 Way Box Crank	5.28
10667	BASE PLATE for 16 Way Box Crank	12.98
10668	CENTER PLATE for 16 Way Box Crank	11.06
10669	TOP PLATE for 16 Way Box Crank	7.52
10673	BASE PLATE for 14 Way Box Crank	11.36
10674	CENTER PLATE for 14 Way Box Crank	10.10
10675	TOP PLATE for 14 Way Box Crank	7.10
10676	BASE PLATE for 22 Way Box Crank	18.40
10677	CENTER PLATE for 22 Way Box Crank	15.90
10678	TOP PLATE for 22 Way Box Crank	11.00
10679	BASE PLATE for 12 Way Box Crank	10.04
10680	CENTER PLATE for 12 Way Box Crank	8.66
10681	TOP PLATE for 12 Way Box Crank	5.84
10683	BASE PLATE for 18 Way Box Crank	14.22
10684	CENTER PLATE for 18 Way Box Crank	12.18
10685	TOP PLATE for 18 Way Box Crank	8.70
13416	PIN, $1\frac{1}{4}$ " x 4"	.20
13417	17 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	59.68
13418	18 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	60.80
13419	19 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	66.48
13420	20 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	67.60
13421	22 Way BOX CRANK COMPLETE, with 9" x 9" Cranks	74.90
13422	BASE PLATE for 20 Way Box Crank	15.84
13423	CENTER PLATE for 20 Way Box Crank	13.80
13424	TOP PLATE for 20 Way Box Crank	9.62

Order by NUMBER and NAME Appearing in Large Type

LEADOUT CONNECTIONS

STYLE "B" BOX CRANKS



14528

14526 - 4 WAY 9" X 9" BOX CRANK

14526	-	4	WAY	9"	X	9"	BOX	CRANK
14527	-	5						
14528	-	6						
14529	-	7						
14530	-	8						
14531	-	9						
14532	-	10						
14533	-	11						
14534	-	12						
14535	-	13						
14536	-	14						
14537	-	15						
14538	-	16						
14539	-	17						
14540	-	18						
14541	-	19						
14542	-	20						

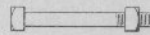
14544	-	BASE	PLATE	4	WAY	BOX	CRANK
14545	-	CENTER		4			
14546	-	TOP		4			
14547	-	BASE		6			
14548	-	CENTER		6			
14549	-	TOP		6			
14550	-	BASE		8			
14551	-	CENTER		8			
14552	-	TOP		8			
14553	-	BASE		10			
14554	-	CENTER		10			
14555	-	TOP		10			
14556	-	BASE		12			
14557	-	CENTER		12			
14558	-	TOP		12			
14559	-	BASE		14			
14560	-	CENTER		14			
14561	-	TOP		14			
14562	-	BASE		16			
14563	-	CENTER		16			
14564	-	TOP		16			
14565	-	BASE		18			
14566	-	CENTER		18			
14567	-	TOP		18			
14568	-	BASE		20			
14569	-	CENTER		20			
14570	-	TOP		20			



4333



073



0278 - 3/4" X 7"

0.277 - 3/4" X 8"

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# LEADOUT CONNECTIONS

Order No.	STYLE "B" BOX CRANKS	List Price.
073	$\frac{3}{4}$ " Iron WASHER.....	.02
0277	COTTER PIN, $\frac{1}{4}$ " x $3\frac{1}{2}$ " (per 100).....	.80
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8".....	.16
0692	BOLT AND NUT, $\frac{3}{4}$ " x $9\frac{1}{2}$ ".....	.16
637	Right Angle CRANK, 9" x 9".....	1.12
4333	Cast WASHER for $\frac{3}{4}$ " Bolts.....	.08
14526	4 Way BOX CRANK COMPLETE.....	17.00
14527	5 Way BOX CRANK COMPLETE.....	22.60
14528	6 Way BOX CRANK COMPLETE.....	23.72
14529	7 Way BOX CRANK COMPLETE.....	29.34
14530	8 Way BOX CRANK COMPLETE.....	30.52
14531	9 Way BOX CRANK COMPLETE.....	35.44
14532	10 Way BOX CRANK COMPLETE.....	36.56
14533	11 Way BOX CRANK COMPLETE.....	40.82
14534	12 Way BOX CRANK COMPLETE.....	41.94
14535	13 Way BOX CRANK COMPLETE.....	47.30
14536	14 Way BOX CRANK COMPLETE.....	48.42
14537	15 Way BOX CRANK COMPLETE.....	53.40
14538	16 Way BOX CRANK COMPLETE.....	54.52
14539	17 Way BOX CRANK COMPLETE.....	59.68
14540	18 Way BOX CRANK COMPLETE.....	60.80
14541	19 Way BOX CRANK COMPLETE.....	66.48
14542	20 Way BOX CRANK COMPLETE.....	67.60
14544	BASE PLATE for 4 Way Box Crank.....	4.50
14545	CENTER PLATE for 4 Way Box Crank.....	3.92
14546	TOP PLATE for 4 Way Box Crank.....	2.30
14547	BASE PLATE for 6 Way Box Crank.....	6.00
14548	CENTER PLATE for 6 Way Box Crank.....	5.10
14549	TOP PLATE for 6 Way Box Crank.....	3.56
14550	BASE PLATE for 8 Way Box Crank.....	7.46
14551	CENTER PLATE for 8 Way Box Crank.....	6.76
14552	TOP PLATE for 8 Way Box Crank.....	4.48
14553	BASE PLATE for 10 Way Box Crank.....	8.82
14554	CENTER PLATE for 10 Way Box Crank.....	7.88
14555	TOP PLATE for 10 Way Box Crank.....	5.28
14556	BASE PLATE for 12 Way Box Crank.....	10.04
14557	CENTER PLATE for 12 Way Box Crank.....	8.66
14558	TOP PLATE for 12 Way Box Crank.....	5.84
14559	BASE PLATE for 14 Way Box Crank.....	11.36
14560	CENTER PLATE for 14 Way Box Crank.....	10.10
14561	TOP PLATE for 14 Way Box Crank.....	7.10
14562	BASE PLATE for 16 Way Box Crank.....	12.98
14563	CENTER PLATE for 16 Way Box Crank.....	11.06
14564	TOP PLATE for 16 Way Box Crank.....	7.52
14565	BASE PLATE for 18 Way Box Crank.....	14.22
14566	CENTER PLATE for 18 Way Box Crank.....	12.18
14567	TOP PLATE for 18 Way Box Crank.....	8.70
14568	BASE PLATE for 20 Way Box Crank.....	15.84
14569	CENTER PLATE for 20 Way Box Crank.....	13.50
14570	TOP PLATE for 20 Way Box Crank.....	9.62
14580	PIN, $1\frac{1}{4}$ " x $5\frac{3}{4}$ ".....	.21

Order by NUMBER and NAME Appearing in Large Type



MULTIPLE BOX CRANKS

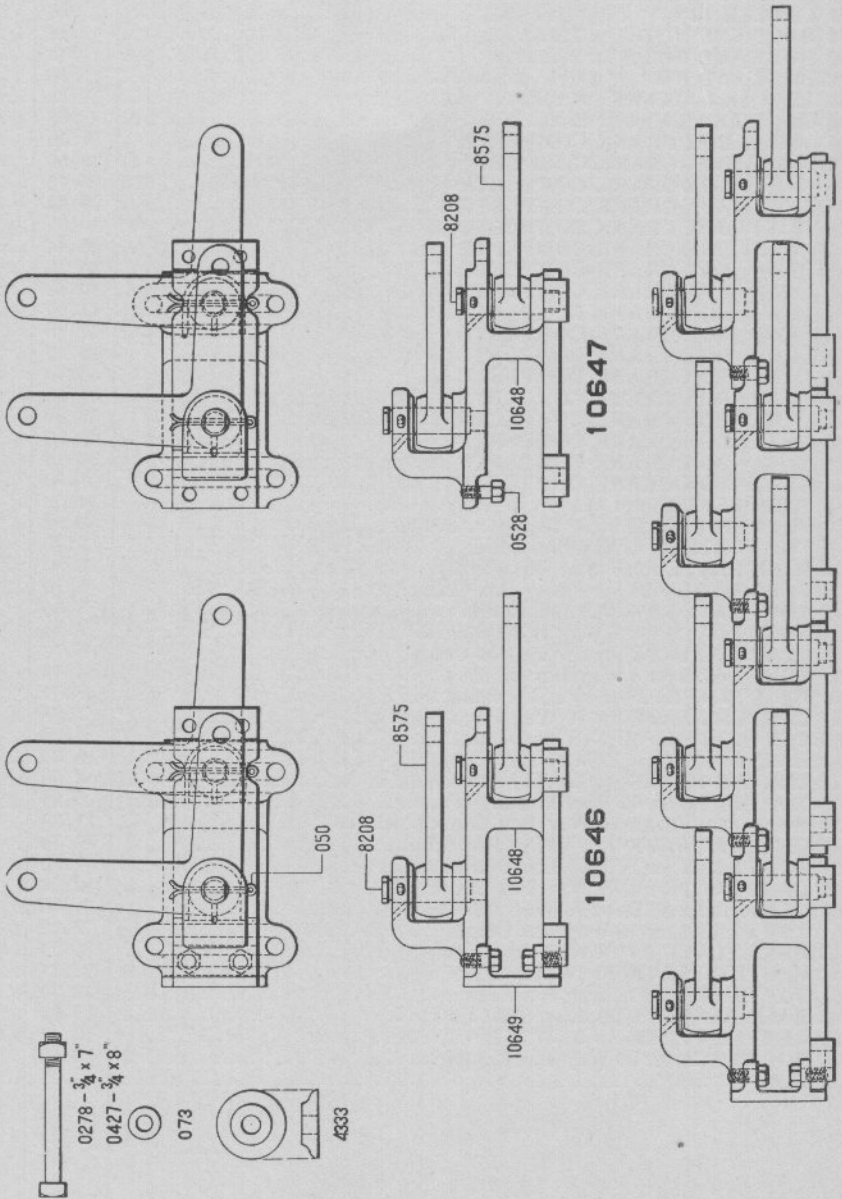


Fig. 1

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## LEADOUT CONNECTIONS

75

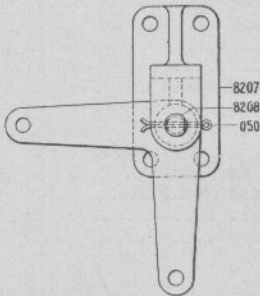
Order No.	MULTIPLE BOX CRANKS	List Price.
050	COTTER PIN, $\frac{1}{4}$ " x 4", for Crank Stands (per 100).....	.80 .....
073	$\frac{3}{4}$ " WASHER for 0278 and 0427.....	.02 .....
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14 .....
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8".....	.16 .....
0528	TAP BOLT, $\frac{5}{8}$ " x $1\frac{1}{8}$ ", for fixing End Flate to Crank Stand.....	.03 .....
4333	Cast WASHER for $\frac{3}{4}$ " Bolts.....	.08 .....
8208	PIN, $1\frac{1}{2}$ " x 4", for 10648.....	.22 .....
8575	Right Angle CRANK, 9" x $7\frac{1}{2}$ ".....	1.24 .....
10646	MULTIPLE BOX CRANK COMPLETE, with End Plate.....	6.80 .....
10647	MULTIPLE BOX CRANK COMPLETE, without End Plate.....	6.44 .....
10648	MULTIPLE BOX CRANK STAND.....	3.30 .....
10649	END PLATE.....	.36 .....

Fig. 1 Illustrates Four Sections of Multiple Box Cranks. With this arrangement of Leadout Cranks, additional Cranks can afterwards be fixed without disturbing existing Leadout.

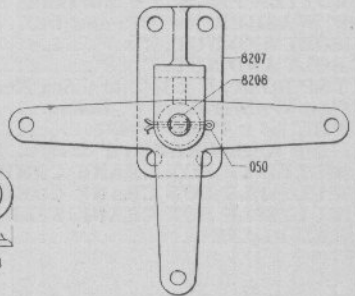
Order by NUMBER and NAME Appearing in Large Type

GROUND CONNECTIONS

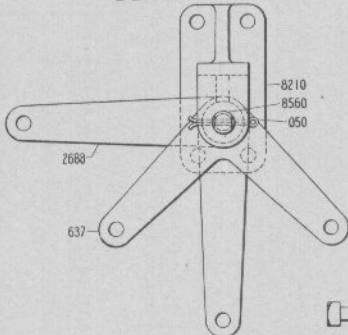
HORIZONTAL CRANKS



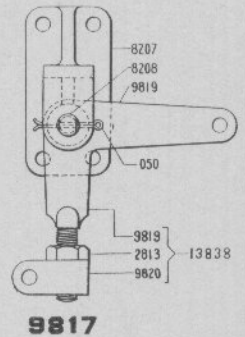
- 9811** - WITH 9" X 9" CRANK
- 14500** .. 9" X 11 3/4"
- 8567** .. 11 3/4" X 13 1/4"
- 9812** .. 14 1/2" X 14 1/2"



- 9813** - WITH 9" X 9" X 9" CRANK
- 8588** .. 11 3/4" X 11 3/4" X 11 3/4"
- 9814** .. 14 1/2" X 14 1/2" X 14 1/2"

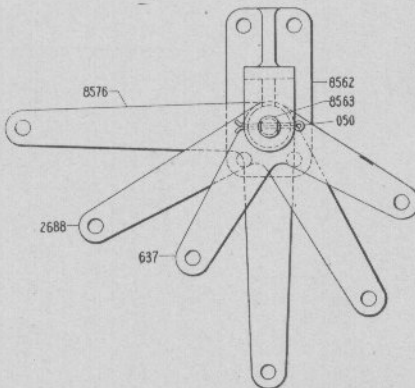


**9815**

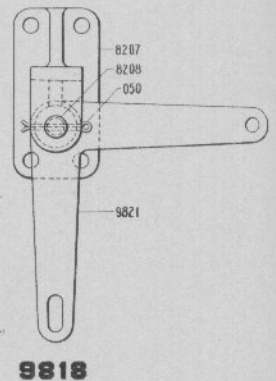


**9817**

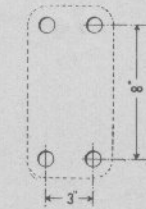
- 0163 - 1/2" X 5 1/2"
- 022 - 1/2" X 6"
- 023 - 1/2" X 6 1/2"
- 0278 - 1/2" X 7"
- 0214 - 1/2" X 7 1/2"
- 0427 - 1/2" X 8"
- 0227 - 1/2" X 8 1/2"
- 0133 - 1/2" X 9"
- 0151 - 1/2" X 10"
- 0437 - 1/2" X 11"
- 0180 - 1/2" X 12"
- 0131 - 1/2" X 13"



**9816**



**9818**



LOCATION OF HOLES

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

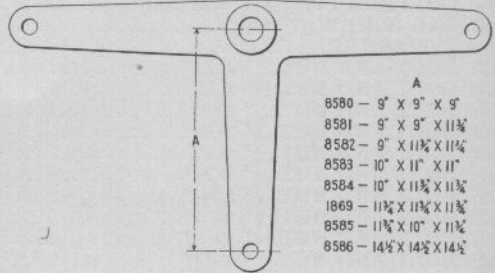
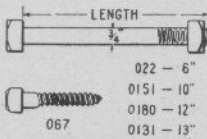
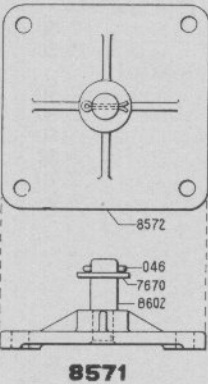
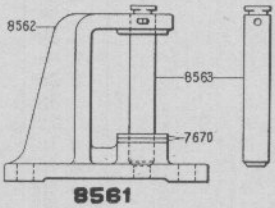
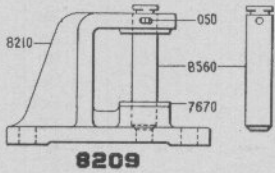
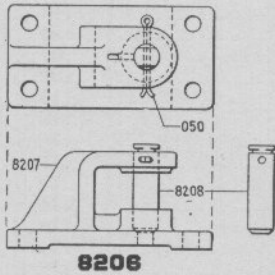
# GROUND CONNECTIONS

77

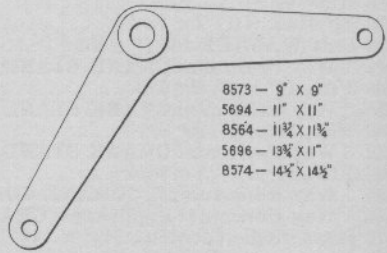
Order No.	HORIZONTAL CRANKS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
023	BOLT AND NUT, $\frac{3}{4}$ " x 6 $\frac{1}{2}$ "	.14
050	COTTER PIN, $\frac{1}{4}$ " x 4" (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{8}$ " WASHER	.02
0131	BOLT AND NUT, $\frac{3}{4}$ " x 13"	.19
0133	BOLT AND NUT, $\frac{1}{2}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{1}{2}$ " x 10"	.16
0163	BOLT AND NUT, $\frac{1}{2}$ " x 5 $\frac{1}{2}$ "	.12
0180	BOLT AND NUT, $\frac{3}{4}$ " x 12"	.19
0214	BOLT AND NUT, $\frac{1}{2}$ " x 7 $\frac{1}{2}$ "	.14
0227	BOLT AND NUT, $\frac{1}{2}$ " x 8 $\frac{1}{2}$ "	.16
0278	BOLT AND NUT, $\frac{1}{2}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{1}{2}$ " x 8"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
637	Right Angle CRANK, 9" x 9"	1.12
2688	Right Angle CRANK, 11 $\frac{1}{4}$ " x 11 $\frac{3}{4}$ "	1.36
2813	1 $\frac{1}{4}$ " Hex. NUT for 9819	.09
4333	Cast WASHER for $\frac{3}{4}$ " Bolts	.08
8207	1 Way Horizontal CRANK STAND, Casting only	1.20
8208	PIN, 1 $\frac{1}{4}$ " x 4", for 8207	.22
8210	2 Way Horizontal CRANK STAND, Casting only	1.48
8560	PIN, 1 $\frac{1}{2}$ " x 6", for 8210	.27
8562	3 Way Horizontal CRANK STAND, Casting only	1.60
8563	PIN, 1 $\frac{1}{2}$ " x 8", for 8562	.34
8566	1 Way Horizontal "T" CRANK COMPLETE, 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ "	4.50
8567	1 Way Horizontal Right Angle CRANK COMPLETE, 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ "	2.84
8576	Right Angle CRANK, 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "	2.56
8587	Right Angle CRANK, 9" x 11 $\frac{3}{4}$ "	1.48
9811	1 Way Horizontal Right Angle CRANK COMPLETE, 9" x 9"	2.72
9812	1 Way Horizontal Right Angle CRANK COMPLETE, 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "	4.16
9813	1 Way Horizontal "T" CRANK COMPLETE, 9" x 9" x 9"	3.16
9814	1 Way Horizontal "T" CRANK COMPLETE, 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "	5.50
9815	2 Way Horizontal CRANK COMPLETE, 9" x 9" and 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ "	4.60
9816	3 Way Horizontal CRANK COMPLETE, 9" x 9", 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ " and 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "	7.50
9817	1 Way Adjustable Right Angle CRANK COMPLETE, 9" x 9"	4.20
9818	1 Way Horizontal Right Angle CRANK COMPLETE, one end slotted, 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ "	3.40
9819	Adjustable Right Angle CRANK, 9" x 9"	1.80
9820	CONNECTOR for 9" x 9" Adjustable Right Angle Crank	.80
9821	Right Angle CRANK, 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ ", one end slotted	1.84
13838	Adjustable Right Angle CRANK, 9" x 9", with Connector	2.70
14500	1 Way Horizontal Right Angle CRANK COMPLETE, 9" x 11 $\frac{3}{4}$ "	3.04

Order by NUMBER and NAME Appearing in Large Type

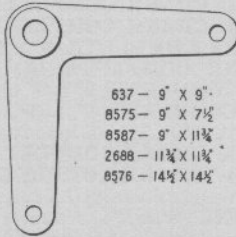
CRANKS, STANDS AND COMPENSATORS



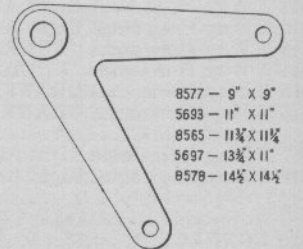
- A
- 8580 - 9" x 9" x 9"
  - 8581 - 9" x 9" x 11 1/2"
  - 8582 - 9" x 11 1/2" x 11 1/2"
  - 8583 - 10" x 11" x 11"
  - 8584 - 10" x 11 1/2" x 11 1/2"
  - 1869 - 11 1/2" x 11 1/2" x 11 1/2"
  - 8585 - 11 1/2" x 10" x 11 1/2"
  - 8586 - 14 1/2" x 14 1/2" x 14 1/2"



- 8573 - 9" x 9"
- 5694 - 11" x 11"
- 8564 - 11 1/2" x 11 1/2"
- 5696 - 13 1/2" x 11"
- 8574 - 14 1/2" x 14 1/2"



- 637 - 9" x 9"
- 8575 - 9" x 7 1/2"
- 8587 - 9" x 11 1/2"
- 2688 - 11 1/2" x 11 1/2"
- 6576 - 14 1/2" x 14 1/2"



- 8577 - 9" x 9"
- 5693 - 11" x 11"
- 8565 - 11 1/2" x 11 1/2"
- 5697 - 13 1/2" x 11"
- 8578 - 14 1/2" x 14 1/2"



- 743 - 9" x 9"
- 2300 - 11 1/2" x 11 1/2"
- 8579 - 14 1/2" x 14 1/2"
- 3649 - 16 1/2" x 16 1/2"
- 7856 - 17 1/2" x 17 1/2"
- 8598 - 18" x 18"
- 6686 - 20 1/2" x 20 1/2"
- 6685 - 24" x 24"
- 7212 - 31" x 31"



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# GROUND CONNECTIONS

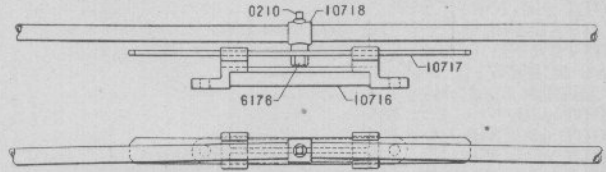
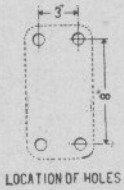
79

Order No.	CRANKS, STANDS AND COMPENSATORS	List Price.
022	BOLT with Nut, $\frac{3}{4}$ " x 6"	.14
046	COTTER Pin, $\frac{3}{8}$ " x 2", for 8571 (per 100)	.80
050	COTTER Pin, $\frac{1}{4}$ " x 4", for Crank Stands (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	WASHER for $\frac{3}{4}$ " Bolt	.02
0131	BOLT with Nut, $\frac{3}{4}$ " x 13"	.19
0151	BOLT with Nut, $\frac{3}{4}$ " x 10"	.16
0150	BOLT with Nut, $\frac{3}{4}$ " x 12"	.19
637	Right Angle CRANK, 9" x 9"	1.12
743	Straight Arm COMPENSATOR, 9" x 9"	1.12
1869	T. CRANK, $11\frac{3}{4}$ " x $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	3.02
2300	Straight Arm COMPENSATOR, $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	1.36
2688	Right Angle CRANK, $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	1.36
3649	Straight Arm COMPENSATOR, $16\frac{1}{2}$ " x $16\frac{1}{2}$ "	3.50
4333	CAST WASHER for $\frac{3}{4}$ " Bolt	.08
5693	ACUTE Angle CRANK, 11" x 11"	1.28
5694	OBTUSE Angle CRANK, 11" x 11"	1.28
5696	OBTUSE Angle CRANK, 11" x $13\frac{3}{4}$ "	1.96
5697	ACUTE Angle CRANK, 11" x $13\frac{3}{4}$ "	1.96
6685	Straight Arm COMPENSATOR, 24" x 24"	5.50
6686	Straight Arm COMPENSATOR, $20\frac{1}{2}$ " x $20\frac{1}{2}$ "	5.00
7212	Straight Arm COMPENSATOR, 31" x 31"	7.00
7670	WASHER, special	.02
7856	Straight Arm COMPENSATOR, $17\frac{1}{2}$ " x $17\frac{1}{2}$ "	4.40
8206	1 WAY CRANK STAND with Pin and Cotter	1.44
8207	1 WAY CRANK STAND, casting only	1.20
8208	PIN for 1 Way Crank Stand	.22
8209	2 WAY CRANK STAND with Pin and Cotter	1.80
8210	2 WAY CRANK STAND, casting only	1.48
8560	PIN for 2 Way Crank Stand	.27
8561	3 WAY CRANK STAND with Pin and Cotter	2.00
8562	3 WAY CRANK STAND, casting only	1.60
8563	PIN for 3 Way Crank Stand	.34
8564	OBTUSE Angle CRANK, $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	1.36
8565	ACUTE Angle CRANK, $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	1.36
8571	1 WAY Plate CRANK STAND Complete with Pin and Cotter	1.50
8572	1 WAY Plate CRANK STAND, Casting only	1.20
8573	OBTUSE Angle CRANK, 9" x 9"	1.12
8574	OBTUSE Angle CRANK, $14\frac{1}{2}$ " x $14\frac{1}{2}$ "	2.56
8575	Right Angle CRANK, 9" x $7\frac{1}{2}$ "	1.24
8576	Right Angle CRANK, $14\frac{1}{2}$ " x $14\frac{1}{2}$ "	2.56
8577	ACUTE Angle CRANK, 9" x 9"	1.12
8578	ACUTE Angle CRANK, $14\frac{1}{2}$ " x $14\frac{1}{2}$ "	2.56
8579	Straight Arm COMPENSATOR, $14\frac{1}{2}$ " x $14\frac{1}{2}$ "	2.56
8580	"T" CRANK, 9" x 9" x 9"	1.53
8581	"T" CRANK, 9" x 9" x $11\frac{1}{4}$ "	2.30
8582	"T" CRANK, 9" x $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	3.58
8583	"T" CRANK, 10" x 11" x 11"	2.08
8584	"T" CRANK, 10" x $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	2.58
8585	"T" CRANK, $11\frac{3}{4}$ " x 10" x $11\frac{3}{4}$ "	2.58
8586	"T" CRANK, $14\frac{1}{2}$ " x $14\frac{1}{2}$ " x $14\frac{1}{2}$ "	3.90
8587	Right Angle CRANK, 9" x $11\frac{3}{4}$ "	1.48
8588	Straight Arm COMPENSATOR, 18" x 18"	4.50
8602	STUD for 1 Way Plate Crank Stand	.22

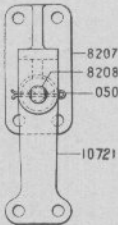
Order by NUMBER and NAME Appearing in Large Type

# GROUND CONNECTIONS

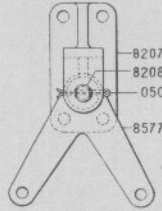
DEFLECTING BARS, CRANKS AND RADIAL ARMS



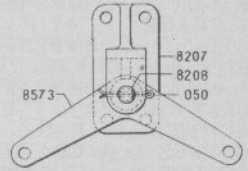
**10715**



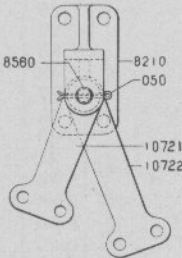
**13433**



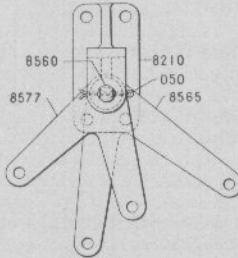
**13438**



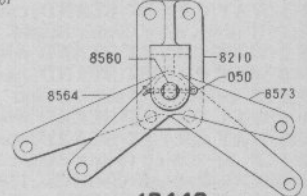
**13439**



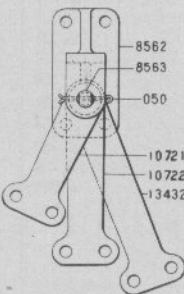
**13434**



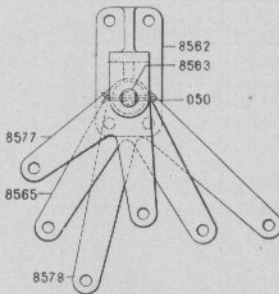
**13437**



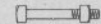
**13440**



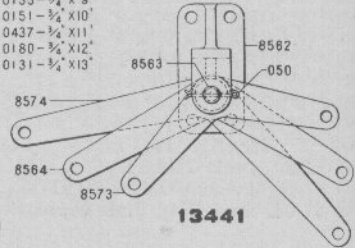
**13435**



**13438**



- 0163 - 3/4" x 5 1/2"
- 022 - 3/4" x 6"
- 023 - 3/4" x 6 1/2"
- 0278 - 3/4" x 7"
- 0214 - 3/4" x 7 1/2"
- 0427 - 3/4" x 8"
- 0227 - 3/4" x 8 1/2"
- 0133 - 3/4" x 9"
- 0151 - 3/4" x 10"
- 0437 - 3/4" x 11"
- 0180 - 3/4" x 12"
- 0131 - 3/4" x 13"



**13441**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## GROUND CONNECTIONS

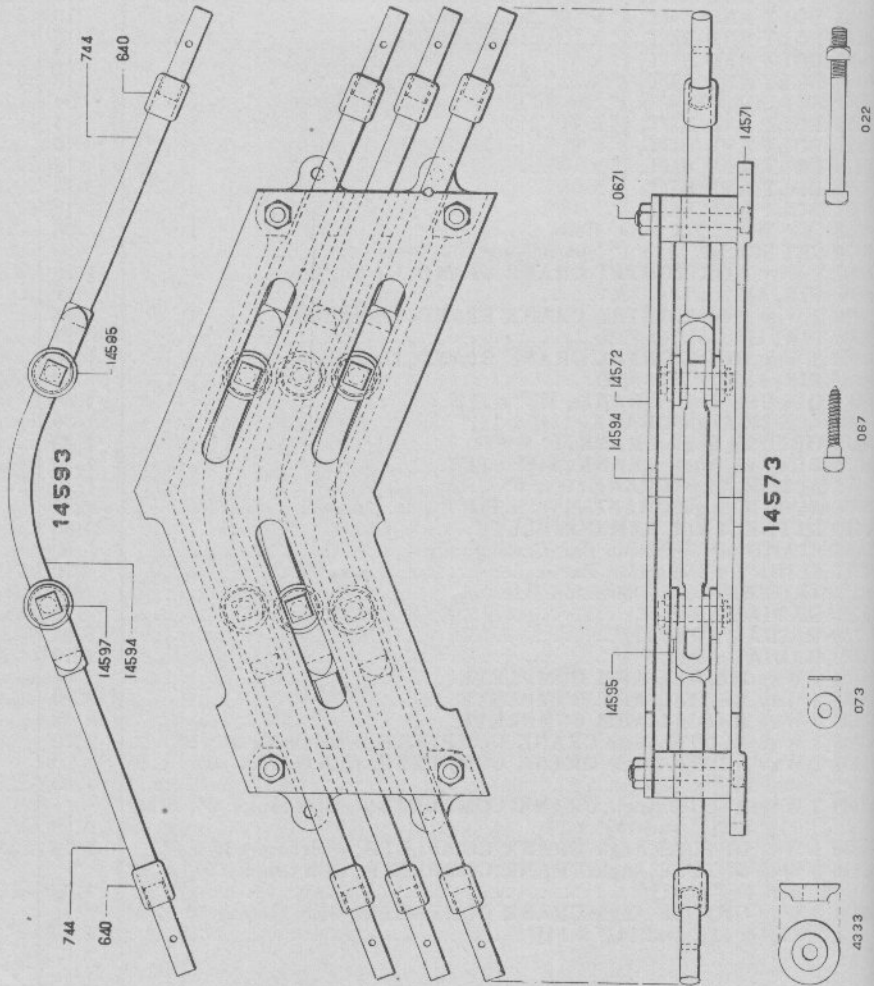
81

Order No.	DEFLECTING BARS, CRANKS AND RADIAL ARMS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
023	BOLT AND NUT, $\frac{3}{4}$ " x 6 $\frac{1}{2}$ "	.14
050	COTTER PIN, $\frac{1}{4}$ " x 4" (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " Iron WASHER	.02
0131	BOLT AND NUT, $\frac{3}{4}$ " x 13"	.19
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0163	BOLT AND NUT, $\frac{3}{4}$ " x 5 $\frac{1}{2}$ "	.12
0180	BOLT AND NUT, $\frac{3}{4}$ " x 12"	.19
0210	SET SCREW, $\frac{1}{2}$ " x 1", for 10718	.04
0214	BOLT AND NUT, $\frac{3}{4}$ " x 7 $\frac{1}{2}$ "	.14
0227	BOLT AND NUT, $\frac{3}{4}$ " x 8 $\frac{1}{2}$ "	.16
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
4333	Cast WASHER for $\frac{3}{4}$ " Bolts	.08
6176	SET SCREW, $\frac{5}{8}$ " x 1" (special), for 10718	.30
8207	1 Way HORIZONTAL CRANK STAND, Casting only	1.20
8208	PIN, 1 $\frac{1}{4}$ " x 4", for 8207	.22
8210	2 Way HORIZONTAL CRANK STAND, Casting only	1.48
8560	PIN, 1 $\frac{1}{4}$ " x 6", for 8210	.27
8562	3 Way HORIZONTAL CRANK STAND, Casting only	1.60
8563	PIN, 1 $\frac{1}{4}$ " x 8", for 8562	.34
8564	OBTUSE Angle CRANK, 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ "	1.36
8565	ACUTE Angle CRANK, 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ "	1.36
8573	OBTUSE Angle CRANK, 9" x 9"	1.12
8574	OBTUSE Angle CRANK, 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "	2.56
8577	ACUTE Angle CRANK, 9" x 9"	1.12
8578	ACUTE Angle CRANK, 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "	2.56
10715	DEFLECTION BAR COMPLETE	3.00
10716	STAND for Deflection Bar, Casting only	1.80
10717	SLIDE for Deflection Bar	.70
10718	TRUNNION for Deflection Bar	.50
10721	RADIAL ARM, 9"	.96
10722	RADIAL ARM, 11 $\frac{3}{4}$ "	1.04
13432	RADIAL ARM, 14 $\frac{1}{2}$ "	2.12
13433	1 Way RADIAL ARM COMPLETE	2.52
13434	2 Way RADIAL ARM COMPLETE	3.96
13435	3 Way RADIAL ARM COMPLETE	6.32
13436	1 Way ACUTE Angle CRANK COMPLETE, with Crank 9" x 9"	2.72
13437	2 Way ACUTE Angle CRANK COMPLETE, with Cranks 9" x 9" and 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ "	4.60
13438	3 Way ACUTE Angle CRANK COMPLETE, with Cranks 9" x 9", 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ " and 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "	7.50
13439	1 Way OBTUSE Angle CRANK COMPLETE, with Crank 9" x 9"	2.72
13440	2 Way OBTUSE Angle CRANK COMPLETE, with Cranks 9" x 9" and 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ "	4.60
13441	3 Way OBTUSE Angle CRANK COMPLETE, with Cranks 9" x 9", 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ " and 14 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "	7.50

Order by NUMBER and NAME Appearing in Large Type



## DEFLECTION BARS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# GROUND CONNECTIONS

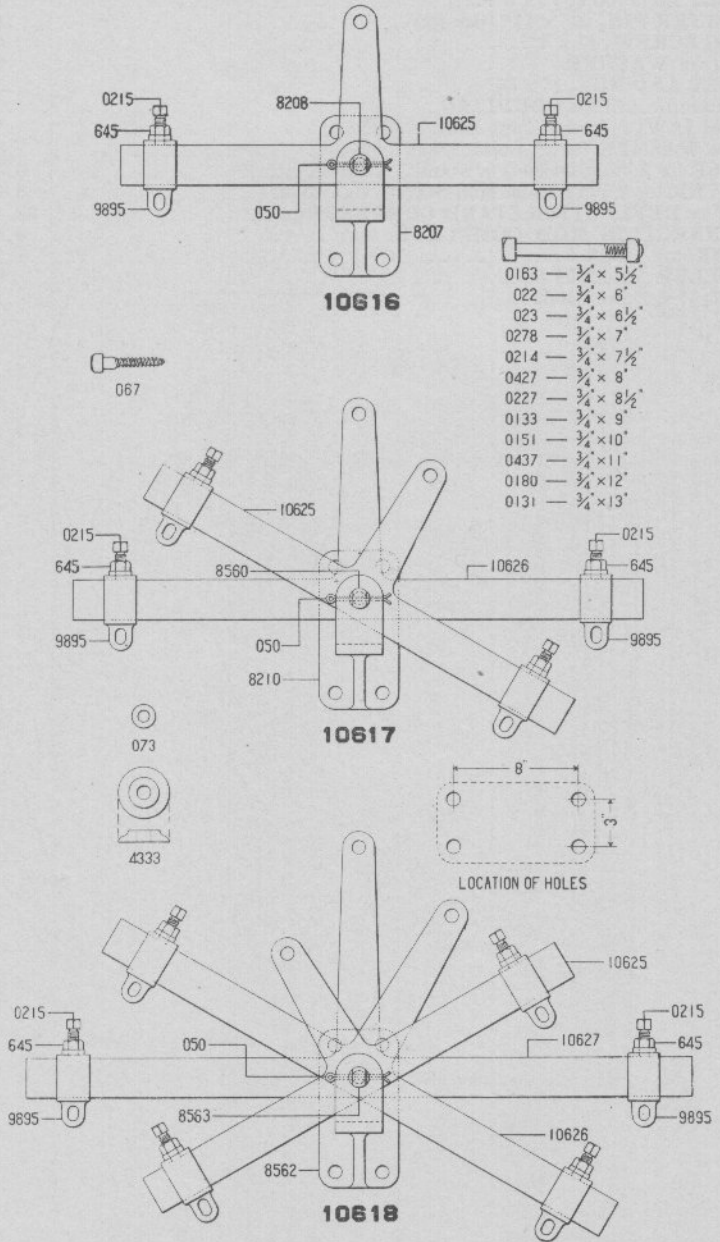
83

Order No.	DEFLECTION BARS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
044	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ " (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " Iron WASHER	.02
0671	BOLT AND NUT, $\frac{5}{8}$ " x $6\frac{1}{2}$ "	.11
640	1" Reinforced Pipe <b>COUPLING</b>	.19
744	Solid JAW, $1\frac{1}{4}$ ", with Tang End.	.84
4333	Cast WASHER for $\frac{3}{4}$ " Bolts	.08
14571	BASE for 3 Way Deflection Stand	6.72
14572	COVER for 3 Way Deflection Stand	6.36
14573	3 Way <b>DEFLECTION STAND COMPLETE</b>	33.18
14593	<b>CONNECTING ROD COMPLETE</b>	6.42
14594	LINK for 14953	1.36
14595	ROLLER for 14953	.67
15597	PIN, $\frac{3}{8}$ " x 4", for 14953	.19

Order by NUMBER and NAME Appearing in Large Type

GROUND CONNECTIONS

HORIZONTAL "T" CRANKS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## GROUND CONNECTIONS

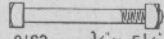
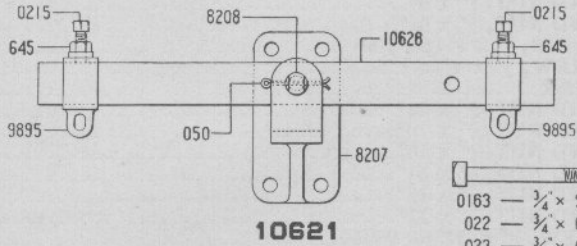
85

Order No.	HORIZONTAL "T" CRANKS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
023	BOLT AND NUT, $\frac{3}{4}$ " x 6 $\frac{1}{2}$ "	.14
050	COTTER PIN, $\frac{1}{4}$ " x 4" (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0131	BOLT AND NUT, $\frac{3}{4}$ " x 13"	.19
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0163	BOLT AND NUT, $\frac{3}{4}$ " x 5 $\frac{1}{2}$ "	.12
0180	BOLT AND NUT, $\frac{3}{4}$ " x 12"	.19
0214	BOLT AND NUT, $\frac{3}{4}$ " x 7 $\frac{1}{2}$ "	.14
0215	SET SCREW, $\frac{5}{8}$ " x 1 $\frac{1}{4}$ ", for 9895	.04
0227	BOLT AND NUT, $\frac{3}{4}$ " x 8 $\frac{1}{2}$ "	.16
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{1}{2}$ " x 8"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
645	$\frac{5}{8}$ " Hex. NUT, for 0215	.04
4333	Cast WASHER for $\frac{3}{4}$ " Bolts	.08
8207	1 Way HORIZONTAL CRANK STAND, Casting only	1.20
8208	PIN, 1 $\frac{1}{4}$ " x 4", for 8207	.22
8210	2 Way HORIZONTAL CRANK STAND, Casting only	1.48
8560	PIN, 1 $\frac{1}{4}$ " x 6", for 8210	.27
8562	3 Way HORIZONTAL CRANK STAND, Casting only	1.60
8563	PIN, 1 $\frac{1}{4}$ " x 8", for 8562	.34
9895	ADJUSTABLE CONNECTOR only	.36
10616	1 Way HORIZONTAL "T" CRANK COMPLETE, with 9" x 15" x 15" "T" Crank and Adjustable Connectors	5.50
10617	2 Way HORIZONTAL "T" CRANKS COMPLETE, with 9" x 15" x 15", 11 $\frac{3}{4}$ " x 18" x 18" "T" Cranks and Adjustable Connectors	10.40
10618	3 Way HORIZONTAL "T" CRANKS COMPLETE, with 9" x 15" x 15", 11 $\frac{3}{4}$ " x 18" x 18", 14 $\frac{1}{2}$ " x 21" x 21" "T" Cranks and Adjustable Connectors	15.80
10625	"T" CRANK only, 9" x 15" x 15"	3.08
10626	"T" CRANK only, 11 $\frac{3}{4}$ " x 18" x 18"	3.70
10627	"T" CRANK only, 14 $\frac{1}{2}$ " x 21" x 21"	4.20

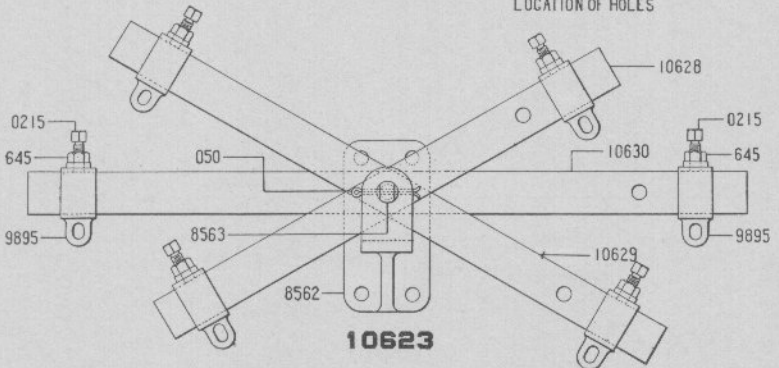
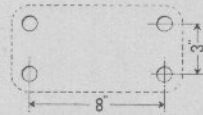
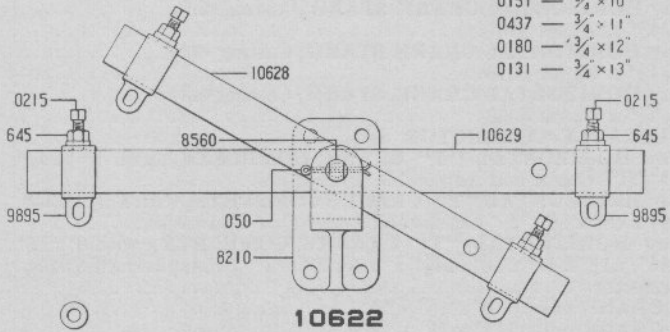
Order by NUMBER and NAME Appearing in Large Type

GROUND CONNECTIONS

HORIZONTAL CROSS BARS



- 0183 —  $\frac{3}{4}$ " x  $5\frac{1}{2}$ "
- 022 —  $\frac{3}{4}$ " x 6"
- 023 —  $\frac{3}{4}$ " x  $6\frac{1}{2}$ "
- 0278 —  $\frac{3}{4}$ " x 7"
- 0214 —  $\frac{3}{4}$ " x  $7\frac{1}{2}$ "
- 0427 —  $\frac{3}{4}$ " x 8"
- 0227 —  $\frac{3}{4}$ " x  $8\frac{1}{2}$ "
- 0133 —  $\frac{3}{4}$ " x 9"
- 0151 —  $\frac{3}{4}$ " x 10"
- 0437 —  $\frac{3}{4}$ " x 11"
- 0180 —  $\frac{3}{4}$ " x 12"
- 0131 —  $\frac{3}{4}$ " x 13"



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## GROUND CONNECTIONS

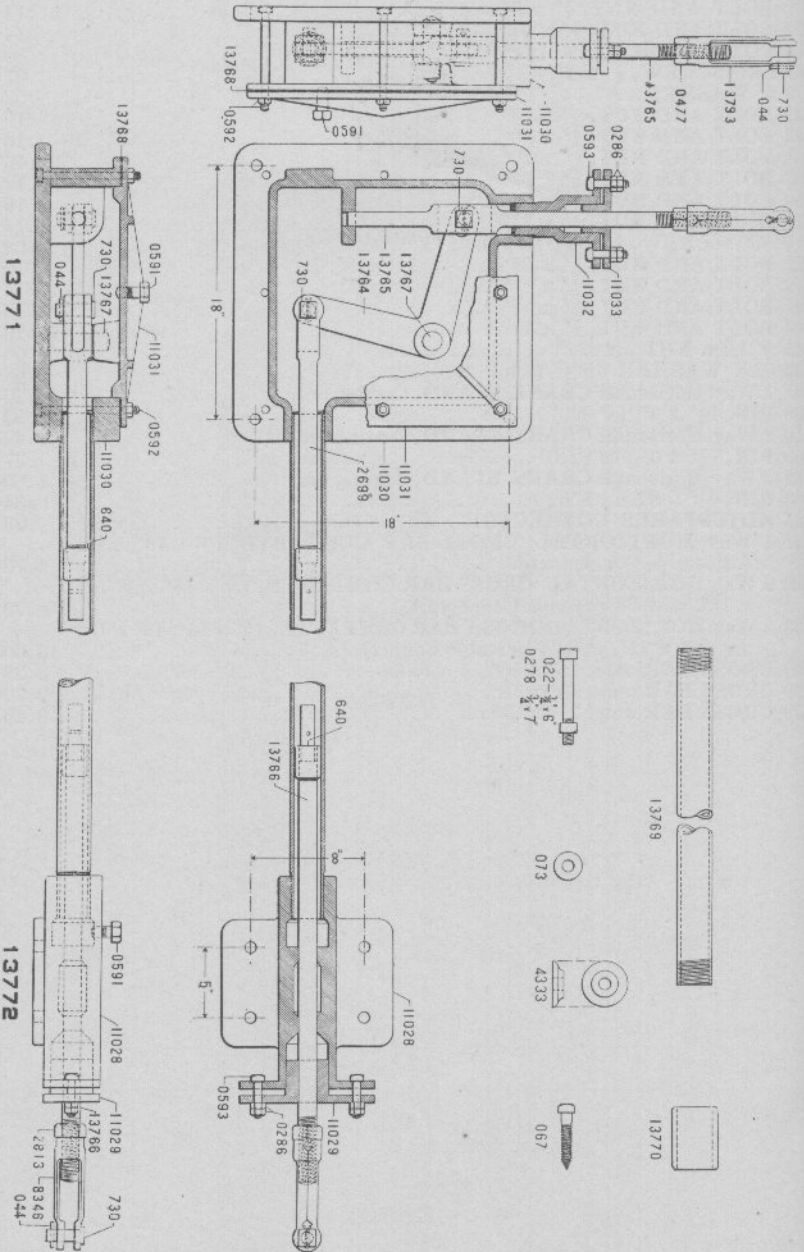
87

Order No.	HORIZONTAL CROSS BARS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
023	BOLT AND NUT, $\frac{3}{8}$ " x 6 $\frac{1}{2}$ "	.14
050	COTTER PIN, $\frac{1}{4}$ " x 4" (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0131	BOLT AND NUT, $\frac{3}{4}$ " x 13"	.19
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0163	BOLT AND NUT, $\frac{3}{4}$ " x 5 $\frac{1}{2}$ "	.12
0180	BOLT AND NUT, $\frac{3}{4}$ " x 12"	.19
0214	BOLT AND NUT, $\frac{3}{4}$ " x 7 $\frac{1}{2}$ "	.14
0215	SET SCREW, $\frac{5}{8}$ " x 1 $\frac{3}{4}$ ", for 9895	.04
0227	BOLT AND NUT, $\frac{3}{4}$ " x 8 $\frac{1}{2}$ "	.16
0278	BOLT AND NUT, $\frac{3}{8}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
645	$\frac{5}{8}$ " Hex. NUT for 0215	.04
4333	Cast WASHER for $\frac{3}{4}$ " Bolts	.08
8207	1 Way Horizontal CRANK STAND, Casting only	1.20
8208	PIN, 1 $\frac{1}{4}$ " x 4", for 8207	.22
8210	2 Way Horizontal CRANK STAND, Casting only	1.48
8560	PIN, 1 $\frac{1}{4}$ " x 6", for 8210	.27
8562	3 Way Horizontal CRANK STAND, Casting only	1.60
8563	PIN, 1 $\frac{1}{4}$ " x 8", for 8562	.34
9895	ADJUSTABLE CONNECTOR only	.36
10621	1 Way HORIZONTAL CROSS BAR COMPLETE, 15" x 15", with Adjustable Connectors	4.70
10622	2 Way HORIZONTAL CROSS BAR COMPLETE, 15" x 15" and 18" x 18", with Adjustable Connectors	8.72
10623	3 Way HORIZONTAL CROSS BAR COMPLETE, 15" x 15", 18" x 18" and 21" x 21", with Adjustable Connectors	13.00
10628	CROSS BAR only, 15" x 15"	2.28
10629	CROSS BAR only, 18" x 18"	2.72
10630	CROSS BAR only, 21" x 21"	3.16

Order by NUMBER and NAME Appearing in Large Type

GROUND CONNECTIONS

WATERTIGHT BOX CRANK



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## GROUND CONNECTIONS

89

Order  
No.

### WATERTIGHT BOX CRANK

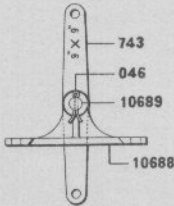
List Price.

022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 730 (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0286	$\frac{1}{2}$ " Hex. NUT for 0593	.02
0477	1" Hex. NUT for 13765	.06
0591	TAP BOLT, $\frac{3}{4}$ " x $1\frac{1}{2}$ ", for 11028 and 11031	.04
0592	BOLT AND NUT, $\frac{1}{2}$ " x 7", for fixing Cover to Crank Box	.07
0593	BOLT, $\frac{1}{2}$ " x $2\frac{1}{2}$ ", for Glands to Stuffing Boxes	.03
.640	1" Reinforced Pipe COUPLING	.19
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for 2699, 8346, 17365 and 13793	.07
2699	$1\frac{1}{4}$ " SOLID JAW with Tang End	1.08
2513	$1\frac{1}{4}$ " Hex. NUT for 13766	.09
4333	Cast WASHER for $\frac{3}{4}$ " Bolts	.08
8346	$1\frac{1}{4}$ " Malleable SCREW JAW for 13766	.41
11028	STUFFING BOX	15.00
11029	GLAND for Stuffing Box 11028	8.00
11030	CRANK BOX, Casting only	23.00
11031	COVER for Crank Box 11030	7.00
11032	STUFFING BOX for Crank Plunger 13765	3.20
11033	GLAND for Stuffing Box 11032	4.50
13764	Right Angle CRANK, 9" x 9", with one end Slotted	1.80
13765	1" PLUNGER	5.00
13766	$1\frac{1}{4}$ " PLUNGER	2.50
13767	PIN, $1\frac{1}{4}$ " x 4", for 13764	.10
13768	Rubber GASKET	1.50
13769	2" Wrought Iron PIPE (per foot)	.34
13770	2" Reinforced Pipe COUPLING	.56
13771	WATERTIGHT BOX CRANK COMPLETE	42.00
13772	STUFFING BOX COMPLETE	23.00
13793	1" Malleable SCREW JAW for 13765	.42

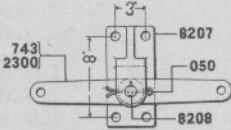
Order by NUMBER and NAME Appearing in Large Type



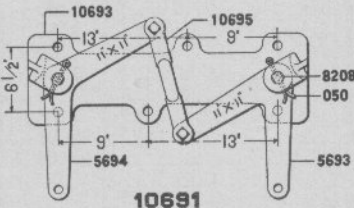
PIPE COMPENSATORS



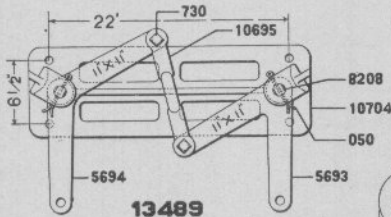
10686



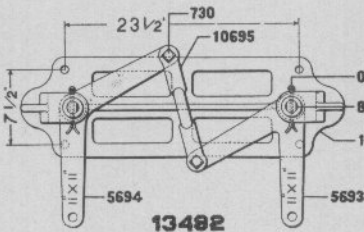
10619 WITH 9" x 9" COMPENSATOR  
8568 .. 11 3/4" x 11 3/4" ..



10691

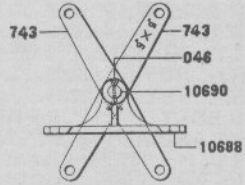


13489

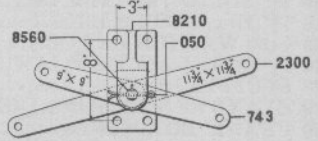


13482

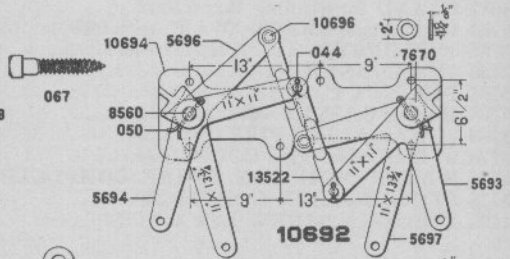
- 0163 - 3/4" x 5 1/2"
- 022 - 3/4" x 6"
- 023 - 3/4" x 6 1/2"
- 0278 - 3/4" x 7"
- 0214 - 3/4" x 7 1/2"
- 0427 - 3/4" x 8"
- 0227 - 3/4" x 8 1/2"
- 0133 - 3/4" x 9"
- 0151 - 3/4" x 10"
- 0437 - 3/4" x 11"
- 0180 - 3/4" x 12"
- 0131 - 3/4" x 13"



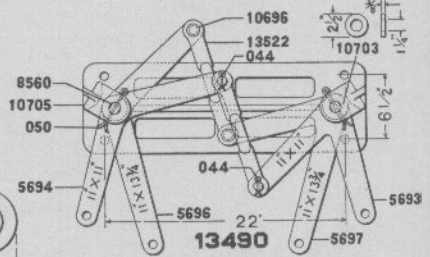
10687



10620



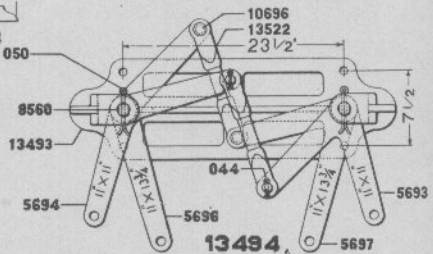
073



13490



4333



13494

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

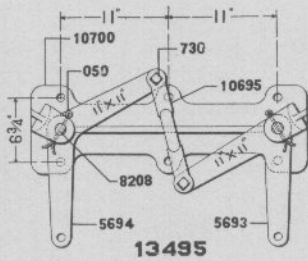
# GROUND CONNECTIONS

91

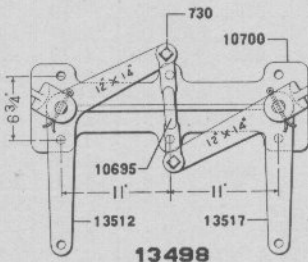
Order No.	PIPE COMPENSATORS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
023	BOLT AND NUT, $\frac{3}{4}$ " x 6 $\frac{1}{2}$ "	.14
044	COTTER PIN, $\frac{3}{16}$ " x 1 $\frac{1}{2}$ ", for 730 and 10696 (per 100)	.80
046	COTTER PIN, $\frac{3}{16}$ " x 2", for 10689 and 10699 (per 100)	.80
050	COTTER PIN, $\frac{1}{4}$ " x 4" (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0131	BOLT AND NUT, $\frac{3}{4}$ " x 13"	.19
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0163	BOLT AND NUT, $\frac{3}{4}$ " x 5 $\frac{1}{2}$ "	.12
0180	BOLT AND NUT, $\frac{3}{4}$ " x 12"	.19
0214	BOLT AND NUT, $\frac{3}{4}$ " x 7 $\frac{1}{2}$ "	.14
0227	BOLT AND NUT, $\frac{3}{4}$ " x 8 $\frac{1}{2}$ "	.16
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
730	PIN, $\frac{7}{8}$ " x 2 $\frac{3}{8}$ ", for 10695	.07
743	Straight Arm COMPENSATOR, 9" x 9"	1.12
2300	Straight Arm COMPENSATOR, 11 $\frac{1}{4}$ " x 11 $\frac{1}{4}$ "	1.36
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
5693	ACUTE Angle CRANK, 11" x 11"	1.28
5694	OBTUSE Angle CRANK, 11" x 11"	1.28
5696	OBTUSE Angle CRANK, 11" x 13 $\frac{3}{4}$ "	1.96
5697	ACUTE Angle CRANK, 11" x 13 $\frac{3}{4}$ "	1.96
7670	WASHER, 1 $\frac{1}{2}$ " x $\frac{1}{4}$ ", for Separating Cranks on 10692	.02
8207	1 Way HORIZONTAL CRANK STAND, Casting only	1.20
8208	PIN, 1 $\frac{1}{4}$ " x 4", for 8207, 10693, 10704 and 13491	.22
8210	2 Way HORIZONTAL CRANK STAND, Casting only	1.48
8560	PIN, 1 $\frac{1}{4}$ " x 6", for 8210, 10694, 10705 and 13493	.27
8568	1 Way HORIZONTAL COMPENSATOR COMPLETE, with 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ " Compensator	2.84
10619	1 Way HORIZONTAL COMPENSATOR COMPLETE, with 9" x 9" Compensator	2.72
10620	2 Way HORIZONTAL COMPENSATOR COMPLETE, with 9" x 9" and 11 $\frac{3}{4}$ " x 11 $\frac{3}{4}$ " Compensators	4.60
10686	1 Way VERTICAL COMPENSATOR COMPLETE, with 9" x 9" Compensator	2.90
10687	2 Way VERTICAL COMPENSATOR COMPLETE, with 9" x 9" Compensator	5.08
10688	SIDE HALF STAND only, for Vertical Compensator	.66
10689	PIN, 1 $\frac{1}{4}$ " x 4 $\frac{1}{2}$ ", for 10686	.19
10690	PIN, 1 $\frac{1}{4}$ " x 7 $\frac{1}{4}$ ", for 10687	.26
10691	Style "A," 1 Way L. J. COMPENSATOR COMPLETE	8.40
10692	Style "A," 2 Way L. J. COMPENSATOR COMPLETE	15.00
10693	Style "A," 1 Way L. J. COMPENSATOR STAND only	2.90
10694	Style "A," 2 Way L. J. COMPENSATOR STAND only	3.08
10695	COUPLING LINK for 10691, 13489 and 13492	1.76
10696	PIN, $\frac{7}{8}$ " x 2 $\frac{1}{8}$ ", for 13522	.10
10703	WASHER, 1 $\frac{1}{4}$ " x $\frac{3}{8}$ ", for Separating Cranks in 13490 and 13494	.08
10704	Style "B," 1 Way L. J. COMPENSATOR STAND only	2.90
10705	Style "B," 2 Way L. J. COMPENSATOR STAND only	3.10
13489	Style "B," 1 Way L. J. COMPENSATOR COMPLETE	8.40
13490	Style "B," 2 Way L. J. COMPENSATOR COMPLETE	15.00
13491	Style "C," 1 Way L. J. COMPENSATOR STAND only	. . . . .
13492	Style "C," 1 Way L. J. COMPENSATOR COMPLETE	. . . . .
13493	Style "C," 2 Way L. J. COMPENSATOR STAND only	. . . . .
13494	Style "C," 2 Way L. J. COMPENSATOR COMPLETE	. . . . .
13522	COUPLING LINK for 10692, 13490 and 13494	1.76

Order by NUMBER and NAME Appearing in Large Type

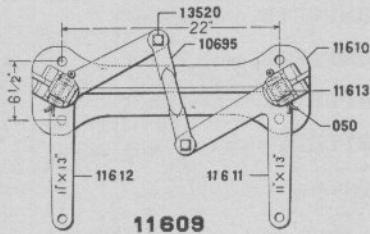
PIPE COMPENSATORS—CONTINUED



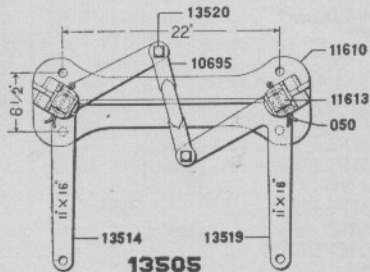
**13495**



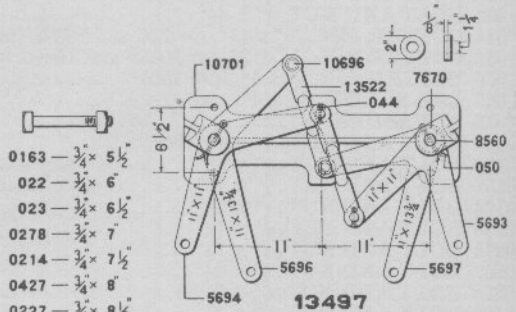
**13498**



**11609**



**13505**

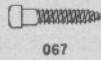


**13497**

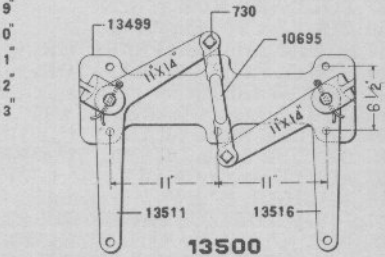
- 0163 — 3/4 x 5 1/2
- 022 — 3/4 x 6
- 023 — 3/4 x 6 1/2
- 0278 — 3/4 x 7
- 0214 — 3/4 x 7 1/2
- 0427 — 3/4 x 8
- 0227 — 3/4 x 8 1/2
- 0133 — 3/4 x 9
- 0151 — 3/4 x 10
- 0437 — 3/4 x 11
- 0180 — 3/4 x 12
- 0131 — 3/4 x 13



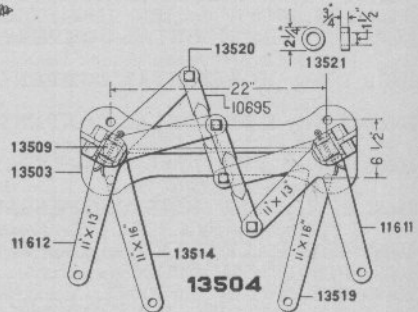
073



067



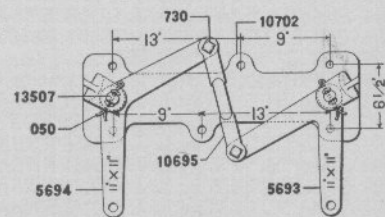
**13499**



**13504**



4333



**13506**

Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477

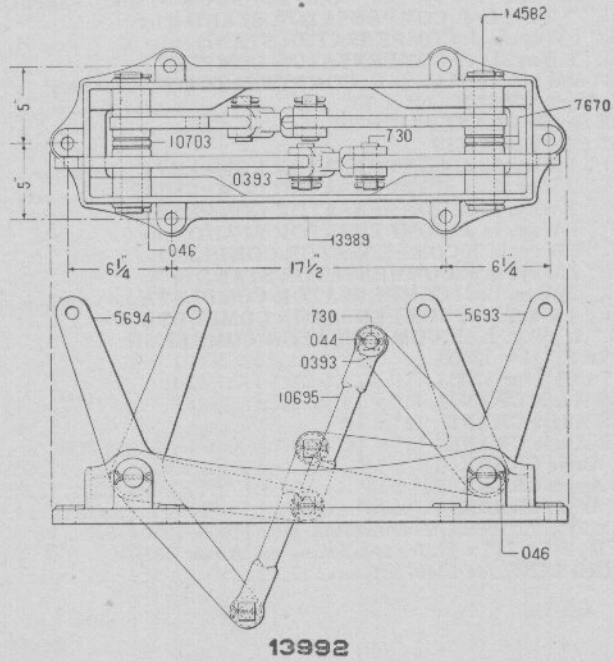
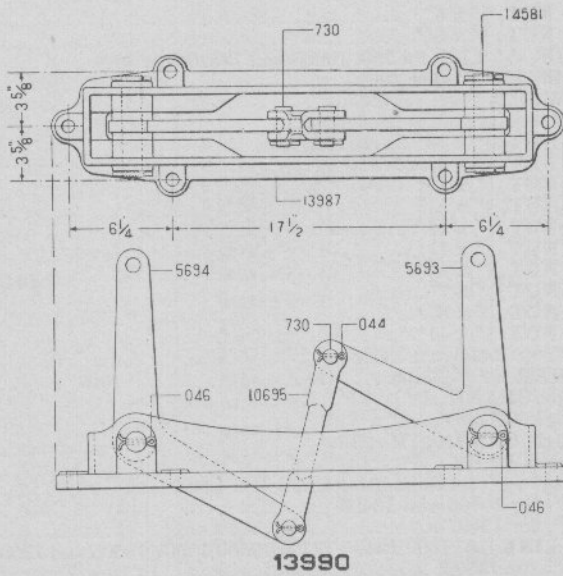
GROUND CONNECTIONS

Order No.	PIPE COMPENSATORS—CONTINUED	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
023	BOLT AND NUT, $\frac{3}{4}$ " x 6 $\frac{1}{2}$ "	.14
044	COTTER PIN, $\frac{3}{16}$ " x 1 $\frac{1}{2}$ ", for 730, 10696 and 13520 (per 100)	.80
050	COTTER PIN, $\frac{1}{4}$ " x 4" (per 100)	.80
067	LAG SCREW, $\frac{3}{8}$ " x 4"	.07
073	WASHER	.02
0131	BOLT AND NUT, $\frac{1}{2}$ " x 13"	.19
0133	BOLT AND NUT, $\frac{1}{2}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{1}{2}$ " x 10"	.16
0163	BOLT AND NUT, $\frac{1}{2}$ " x 5 $\frac{1}{2}$ "	.12
0180	BOLT AND NUT, $\frac{1}{2}$ " x 12"	.19
0214	BOLT AND NUT, $\frac{1}{2}$ " x 7 $\frac{1}{2}$ "	.14
0227	BOLT AND NUT, $\frac{1}{2}$ " x 8 $\frac{1}{2}$ "	.16
0278	BOLT AND NUT, $\frac{1}{2}$ " x 7 $\frac{1}{2}$ "	.14
0427	BOLT AND NUT, $\frac{1}{2}$ " x 8"	.16
0437	BOLT AND NUT, $\frac{1}{2}$ " x 11"	.19
730	PIN, $\frac{7}{8}$ " x 2 $\frac{3}{8}$ ", for 10695 and 13523	.07
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
5693	ACUTE Angle CRANK, 11" x 11"	1.28
5694	OBTUSE Angle CRANK, 11" x 11"	1.28
5696	OBTUSE Angle CRANK, 11" x 13 $\frac{3}{8}$ "	1.96
5697	ACUTE Angle CRANK, 11" x 13 $\frac{3}{8}$ "	1.96
7670	WASHER, 1 $\frac{1}{4}$ " x $\frac{1}{8}$ ", for Separating Cranks on 13497	.02
8208	PIN, 1 $\frac{1}{4}$ " x 4", for 10700 and 13499	.22
8560	PIN, 1 $\frac{1}{2}$ " x 6", for 13497	.27
10695	COUPLING LINK for 11609, 13495, 13498, 13500, 13504, 13505 and 13506	1.76
10696	PIN, $\frac{3}{8}$ " x 2 $\frac{1}{8}$ ", for 13522	.10
10700	Style "D" and "E," 1 Way, L. J. COMPENSATOR STAND only	2.90
10701	Style "D," 2 Way, L. J. COMPENSATOR STAND only	3.08
10702	Style "J," 1 Way, L. J. COMPENSATOR STAND only	2.90
11609	Style "G," 1 Way, L. J. COMPENSATOR COMPLETE	10.84
11610	Style "G" and "H," 1 Way, L. J. COMPENSATOR STAND only	3.60
11611	ACUTE Angle CRANK, 11" x 13"	1.96
11612	OBTUSE Angle CRANK, 11" x 13"	1.96
11613	PIN, 1 $\frac{1}{3}$ " x 3 $\frac{7}{8}$ ", for 11610	.44
13495	Style "D," 1 Way, L. J. COMPENSATOR COMPLETE	8.40
13497	Style "D," 2 Way, L. J. COMPENSATOR COMPLETE	15.00
13498	Style "E," 1 Way, L. J. COMPENSATOR COMPLETE	10.50
13499	Style "F," 1 Way, L. J. COMPENSATOR STAND only	2.90
13500	Style "F," 1 Way, L. J. COMPENSATOR COMPLETE	
13503	Style "G," 2 Way, L. J. COMPENSATOR STAND only	
13504	Style "G," 2 Way, L. J. COMPENSATOR COMPLETE	
13505	Style "H," 1 Way, L. J. COMPENSATOR COMPLETE	
13506	Style "J," 1 Way, L. J. COMPENSATOR COMPLETE	8.40
13507	PIN, 1 $\frac{1}{4}$ " x 3 $\frac{3}{8}$ ", for 13506	
13509	PIN, 1 $\frac{1}{2}$ " x 6 $\frac{3}{8}$ ", for 13503	
13511	OBTUSE Angle CRANK, 11" x 14"	2.50
13512	OBTUSE Angle CRANK, 12" x 14"	2.50
13514	OBTUSE Angle CRANK, 11" x 16"	2.80
13516	ACUTE Angle CRANK, 11" x 14"	2.50
13517	ACUTE Angle CRANK, 12" x 14"	2.50
13519	ACUTE Angle CRANK, 11" x 16"	2.80
13520	PIN, $\frac{3}{8}$ " x 2 $\frac{1}{8}$ ", for 10695 in connection with 11609-13504-5	
13521	WASHER, 2 $\frac{1}{4}$ " x 1 $\frac{1}{2}$ " x $\frac{3}{8}$ ", for separating cranks on 13504	
13522	COUPLING LINK for 13497	1.76

Order by NUMBER and NAME Appearing in Large Type

## GROUND CONNECTIONS

## VERTICAL LAZY JACK COMPENSATORS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## GROUND CONNECTIONS

95

Order  
No.

### VERTICAL LAZY JACK COMPENSATORS

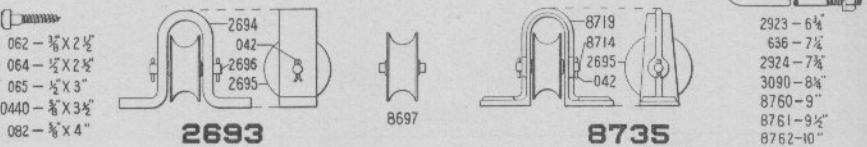
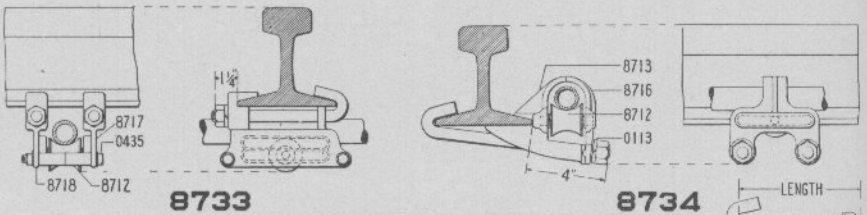
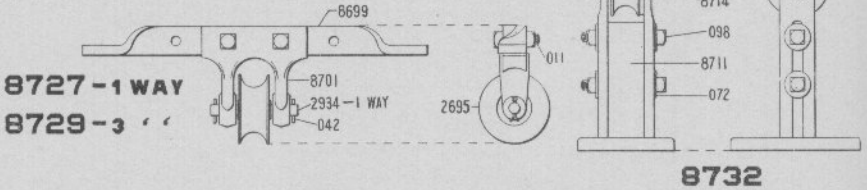
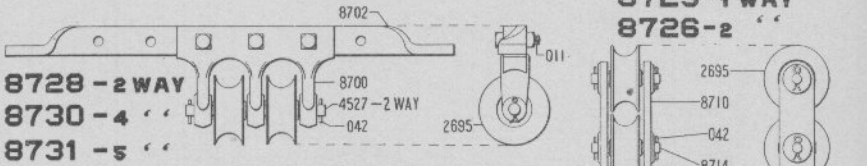
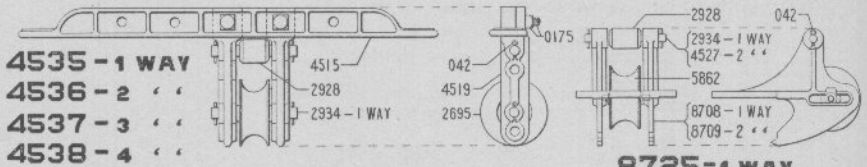
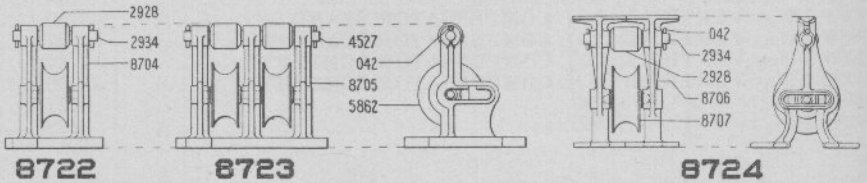
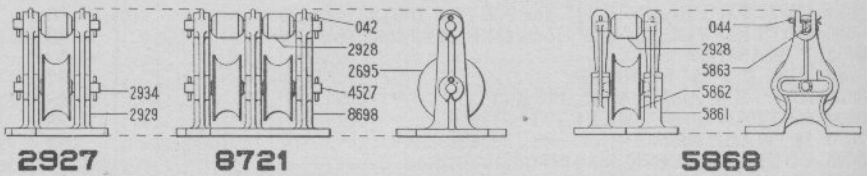
List Price

044 COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for 730 (per 100).....	.80	
046 COTTER PIN, $\frac{3}{8}$ " x 2", for 14581 and 14582 (per 100).....	.80	
0393 $\frac{7}{8}$ " WASHER.....	.02	
730 PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ " for 10695.....	.07	
5693 ACUTE Angle CRANK, 11" x 11".....	1.28	
5694 OBTUSE Angle CRANK, 11"x 11".....	1.28	
7670 $1\frac{1}{4}$ " WASHER.....	.02	
10695 COUPLING LINK for 13990.....	1.76	
10703 WASHER, $1\frac{1}{4}$ " x $\frac{3}{4}$ ", for Separating Cranks on 13992.....	.08	
13987 1 Way VERTICAL L. J. COMPENSATOR STAND only.....	3.80	
13989 2 Way VERTICAL L. J. COMPENSATOR STAND only.....	4.27	
13990 1 Way VERTICAL L. J. COMPENSATOR COMPLETE.....	7.84	
13992 2 Way VERTICAL L. J. COMPENSATOR COMPLETE.....	10.00	
14581 PIN, $1\frac{1}{4}$ " x $6\frac{1}{8}$ ", for 13990.....	.21	
14582 PIN, $1\frac{1}{4}$ " x $8\frac{3}{4}$ ", for 13992.....	.28	

NOTE—Bolts to be ordered to suit requirements.

Order by NUMBER and NAME Appearing in Large Type

PIPE CARRIERS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# GROUND CONNECTIONS

97

Order No.	PIPE CARRIERS	List Price.
011	BOLT with Nut, $\frac{1}{2}$ " x 2", for 8727, etc.	.04
042	COTTER Pin, $\frac{3}{16}$ " x 1" (per 100)	.80
044	COTTER Pin, $\frac{3}{16}$ " x 1 $\frac{1}{2}$ " (per 100)	.80
062	LAG SCREW, $\frac{3}{8}$ " x 2 $\frac{1}{2}$ "	.02
064	LAG SCREW, $\frac{3}{8}$ " x 2 $\frac{3}{4}$ "	.03
065	LAG SCREW, $\frac{3}{8}$ " x 3"	.03
072	WASHER for $\frac{1}{2}$ " Bolt, for 8732	.01
082	LAG SCREW, $\frac{5}{8}$ " x 4"	.06
098	BOLT with Nut, $\frac{1}{2}$ " x 3 $\frac{3}{4}$ "	.05
0113	NUT LOCK for $\frac{5}{8}$ " Bolt	.02
0175	BOLT with Nut, " x 1 $\frac{1}{2}$ "	.03
0435	BOLT with Nut, " x 4"	.04
0440	LAG SCREW, $\frac{5}{8}$ " x 3 $\frac{1}{2}$ "	.05
636	HOOK BOLT, $\frac{5}{8}$ " x 7 $\frac{1}{4}$ ", with Nut and Nut Lock	.12
2693	WROUGHT PIPE CARRIER with Single Roller, <b>COMPLETE</b>	.31
2694	STAND for 2693	.21
2695	BOTTOM ROLLER with Pin Hole for 2693, etc.	.09
2696	PIN for 2693	.05
2923	HOOK BOLT, $\frac{5}{8}$ " x 6 $\frac{3}{4}$ ", with Nut and Nut Lock	.12
2924	HOOK BOLT, $\frac{5}{8}$ " x 7 $\frac{3}{4}$ ", with Nut and Nut Lock	.12
2927	1 WAY PLAIN PIPE CARRIER. For prices see page 99	.31
2928	TOP ROLLER for 2927, etc. (per 100)	2.40
2929	STAND for 1 Way Pipe Carrier 2927	.31
2934	PIN for 1 Way Pipe Carrier 2927, etc.	.05
3090	HOOK BOLT, $\frac{5}{8}$ " x 8 $\frac{1}{4}$ ", with Nut and Nut Lock	.12
4515	Malleable BEARING PLATE for Pipe Carriers 4535, etc.	.48
4519	SIDE PLATE for Transverse Pipe Carrier 4535, etc.	.16
4527	PIN for 2 Way Pipe Carrier 8721, etc.	.05
4535	1 WAY Transverse PIPE CARRIER COMPLETE. For prices see page 99	.31
4536	2 WAY Transverse PIPE CARRIER COMPLETE. For prices see page 99	.31
4537	3 WAY Transverse PIPE CARRIER COMPLETE. For prices see see page 99	.31
4538	4 WAY Transverse PIPE CARRIER COMPLETE. For prices see page 99	.31
5861	STAND for Universal E. Z. Pipe Carrier	.15
5862	BOTTOM ROLLER with Cast Trunnions	.09
5863	PIN for Top Roller, E. Z. Pipe Carrier	.03
5868	1 WAY Universal E. Z. PIPE CARRIER COMPLETE. For price see page 99	.31
8697	BOTTOM ROLLER with Steel Pin (special)	.14
8698	STAND for 2 Way Plain Pipe Carrier 8721	.45
8699	Wrought BEARING PLATE for Transverse Pipe Carriers 8727 or 8729	.96
8700	BEARING for 2 Way Transverse Pipe Carrier (special)	.45
8701	BEARING for 1 Way Transverse Pipe Carrier (special)	.31
8702	Wrought BEARING PLATE for Transverse Pipe Carriers 8728, etc.	1.02
8704	STAND for 1 Way Anti-Friction Pipe Carrier 8722	.31
8705	STAND for 2 Way Anti-Friction Pipe Carrier 8723	.45
8706	STAND for Universal Pipe Carrier (Malleable)	.19
8707	BOTTOM ROLLER with Cast Trunnions (Malleable)	.14
8708	STAND for special 1 Way Anti-Friction Pipe Carrier 8725	.31
8709	STAND for special 2 Way Anti-Friction Pipe Carrier 8726	.45
8710	ADJUSTABLE SIDE PLATE for Vertical Pipe Guide	.31
8711	BASE for Adjustable Pipe Guide 8732	.86
8712	SMALL ROLLER with Cast Trunnions, for 4733 or 4734	.05
8713	CLIP for Anti-Friction Rail Clip Pipe Carrier (Rail half)	.26
8714	PIN for 1 Way Pipe Carrier 8735	.05
8716	CLIP for Anti-Friction Rail Clip Pipe Carrier (Outside half)	.24

Order by NUMBER and NAME Appearing in Large Type



Order No.	PIPE CARRIERS—CONTINUED	List Price.
8717	RIGHT HAND CLIP for Transverse Pipe Carrier 8733.....	.29
8718	LEFT HAND CLIP for Transverse Pipe Carrier 8733.....	.29
8719	STAND for 8735.....	.21
8721	2 WAY Plain PIPE CARRIER COMPLETE. For price see page 99.....	.....
8722	1 WAY Anti-Friction PIPE CARRIER COMPLETE. For price see page 99.....	.....
8723	2 WAY Anti-Friction PIPE CARRIER COMPLETE. For price see page 99.....	.....
8724	1 WAY Universal PIPE CARRIER COMPLETE (Malleable). For price see page 99.....	.....
8725	1 WAY Anti-Friction PIPE CARRIER COMPLETE (Special) for fastening to ties.....	.57
8726	2 WAY Anti-Friction PIPE CARRIER COMPLETE (Special) for fastening to ties.....	.91
8727	1 WAY Transverse PIPE CARRIER COMPLETE with Wrought Bearing Plate. For price see page 99.....	.....
8728	2 WAY Transverse PIPE CARRIER COMPLETE with Wrought Bearing Plate. For price see page 99.....	.....
8729	3 WAY Transverse PIPE CARRIER COMPLETE with Wrought Bearing Plate. For price see page 99.....	.....
8730	4 WAY Transverse PIPE CARRIER COMPLETE with Wrought Bearing Plate. For price see page 99.....	.....
8731	5 WAY Transverse PIPE CARRIER COMPLETE with Wrought Bearing Plate. For price see page 99.....	.....
8732	ADJUSTABLE PIPE GUIDE COMPLETE.....	1.82
8733	1 WAY Transverse PIPE CARRIER COMPLETE with Hook Bolts for clamping to rail. When ordering give width of rail.....	1.10
8734	RAIL CLIP PIPE CARRIER COMPLETE with Hook Bolts. When ordering give width of rail.....	.64
8735	Cast PIPE CARRIER with Single Roller COMPLETE.....	.34
8760	HOOK BOLT, $\frac{5}{8}$ " x 9", with Nut and Nut Lock.....	.12
8761	HOOK BOLT, $\frac{5}{8}$ " x 9 $\frac{1}{2}$ ", with Nut and Nut Lock.....	.12
8762	HOOK BOLT, $\frac{5}{8}$ " x 10", with Nut and Nut Lock.....	.12

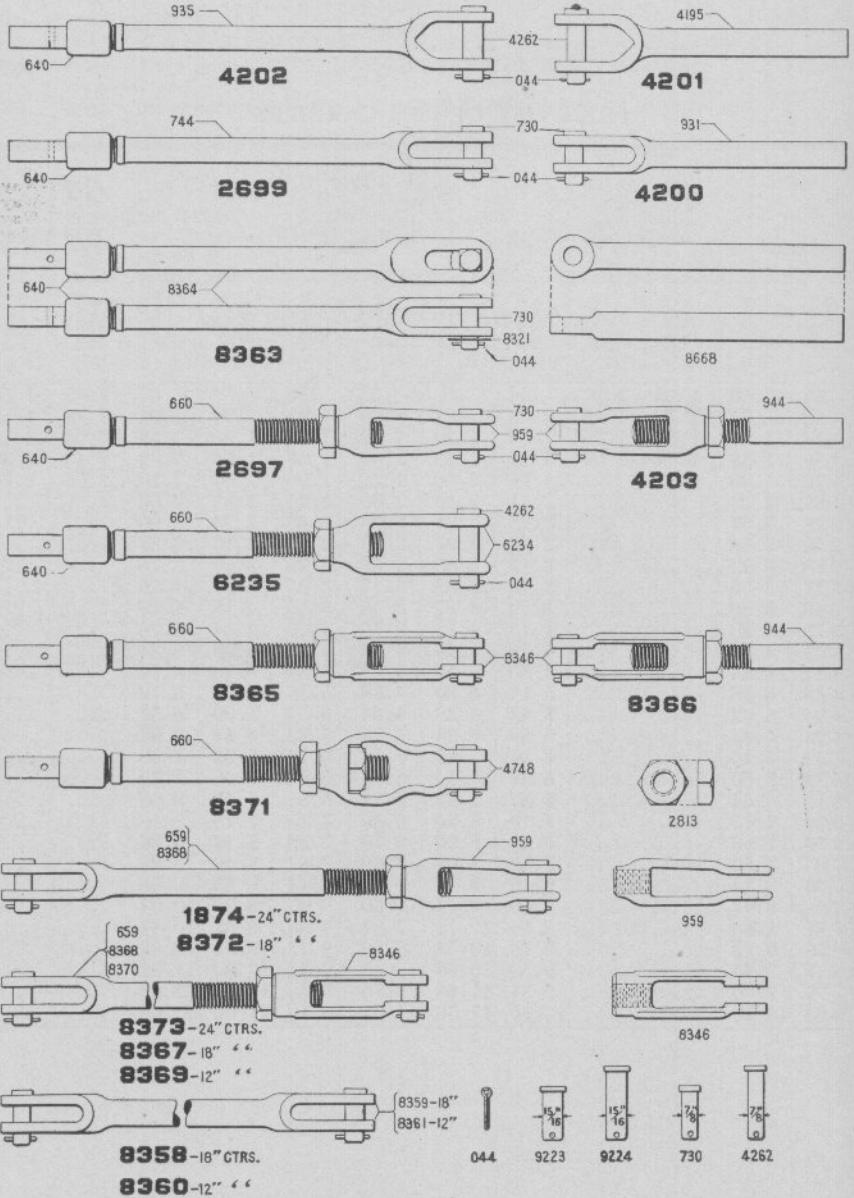
Order by NUMBER and NAME Appearing in Large Type

# GROUND CONNECTIONS

## PRICE LIST OF PIPE CARRIERS

Number of Ways	2027 or 8721		4535 1-Way 4536 2-Way 4537 3-Way 4538 4-Way		5868		8722 or 8723		8724		8727 1-Way 8728 2-Way 8729 3-Way 8730 4-Way 8731 5-Way	
	Without Screws	With Screws	Without Screws	With Screws	Without Screws	With Screws	Without Screws	With Screws	Without Screws	With Screws	Without Screws	With Screws
1	.53	.60	1.10	1.20	.44	.52	.52	.60	.58	.64	1.48	1.58
2	.82	.91	1.38	1.48	.76	.91	.82	.91	.94	1.04	1.78	1.88
3	1.13	1.27	1.66	1.76	1.10	1.30	1.12	1.28	1.30	1.42	2.04	2.14
4	1.39	1.58	1.94	2.04	1.44	1.68	1.40	1.58	1.66	1.82	2.40	2.50
5	1.70	1.90	.....	.....	1.78	2.06	1.70	1.90	2.02	2.20	2.66	2.76
6	1.99	2.23	.....	.....	2.11	2.45	2.00	2.24	2.38	2.60	.....	.....
7	2.28	2.57	.....	.....	2.45	2.83	2.28	2.56	2.74	3.00	.....	.....
8	2.59	2.88	.....	.....	2.78	3.22	2.60	2.88	3.10	3.38	.....	.....
9	2.88	3.22	.....	.....	3.12	3.60	2.88	3.22	3.46	3.78	.....	.....
10	3.17	3.55	.....	.....	3.46	3.98	3.17	3.55	3.80	4.16	.....	.....
11	3.45	3.86	.....	.....	3.79	4.37	3.46	3.86	4.18	4.58	.....	.....
12	3.77	4.20	.....	.....	4.13	4.75	3.76	4.20	4.54	4.96	.....	.....
13	4.05	4.54	.....	.....	4.46	5.14	4.06	4.54	4.90	5.34	.....	.....
14	4.34	4.85	.....	.....	4.80	5.52	4.34	4.84	5.26	5.74	.....	.....
15	4.65	5.18	.....	.....	5.14	5.90	4.66	5.18	5.62	6.12	.....	.....
16	4.94	5.52	.....	.....	5.48	6.28	4.94	5.52	5.99	6.52	.....	.....
17	5.23	5.83	.....	.....	5.80	6.68	5.23	5.83	6.34	6.92	.....	.....
18	5.52	6.16	.....	.....	6.14	7.06	5.52	6.16	6.68	7.30	.....	.....
19	5.83	6.50	.....	.....	6.48	7.44	5.84	6.50	7.06	7.70	.....	.....
20	6.12	6.84	.....	.....	6.82	7.82	6.12	6.84	7.42	8.08	.....	.....
21	6.40	7.15	.....	.....	7.16	8.20	6.40	7.15	7.78	8.48	.....	.....
22	6.70	7.49	.....	.....	7.48	8.60	6.70	7.49	8.13	8.86	.....	.....
23	7.00	7.82	.....	.....	7.82	8.98	7.00	7.82	8.49	9.26	.....	.....
24	7.30	8.14	.....	.....	8.16	9.36	7.30	8.14	8.85	9.66	.....	.....
25	7.58	8.47	.....	.....	8.50	9.74	7.60	8.47	9.20	10.04	.....	.....
26	7.87	8.80	.....	.....	8.84	10.12	7.87	8.80	9.57	10.44	.....	.....
27	8.18	9.12	.....	.....	9.16	10.52	8.18	9.12	9.94	10.84	.....	.....
28	8.47	9.44	.....	.....	9.50	10.90	8.48	9.44	10.30	11.22	.....	.....
29	8.76	9.80	.....	.....	9.84	11.28	8.76	9.80	10.66	11.62	.....	.....
30	9.04	10.10	.....	.....	10.16	11.66	9.04	10.10	11.00	12.00	.....	.....

RODS, LUGS, JAWS, ETC.



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# GROUND CONNECTIONS

101

Order No.	RODS, LUGS, JAWS, ETC.	List Price.
044	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ " (per 100)	.80
0114	RIVET, $\frac{1}{4}$ " x $1\frac{1}{4}$ ", Rd. Hd.	.01
640	PIPE COUPLING, 1", reinforced	.19
653	1" BLACK PIPE, per foot	.07
659	SOLID JAW, $1\frac{1}{4}$ ", with threaded end, for 1874 or 8373	1.34
660	SCREW ROD, $1\frac{1}{4}$ ", with tang end for 2697, etc.	.50
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ "	.07
744	SOLID JAW, $1\frac{1}{4}$ ", with tang end	.84
931	SOLID JAW, $1\frac{1}{4}$ ", stub end	.74
933	DOUBLE JAW, $1\frac{1}{4}$ ", for 4205	2.00
935	WIDE SOLID JAW, $1\frac{1}{4}$ ", with tang end	1.14
944	SCREW ROD, $1\frac{1}{4}$ ", stub end	.44
959	WROUGHT SCREW JAW, $1\frac{1}{4}$ "	1.10
1361	LUG, $1\frac{1}{4}$ ", with tang ends for 4374	1.12
1874	ADJUSTABLE LINK COMPLETE, $1\frac{1}{4}$ ", 24" centers, with Solid Jaw one end and Wrought Screw Jaw at the other end	2.60
2697	WROUGHT SCREW JAW COMPLETE, $1\frac{1}{4}$ ", with tang end	1.90
2699	SOLID JAW COMPLETE, $1\frac{1}{4}$ "	1.08
2813	THIN NUT, $1\frac{1}{4}$ "	.09
2933	PLUG, 1" x 6", two holes	.07
4195	WIDE SOLID JAW, $1\frac{1}{4}$ ", stub end	1.10
4197	DOUBLE JAW, $1\frac{1}{4}$ ", for 4204	1.90
4198	DOUBLE JAW, $1\frac{1}{4}$ ", for 4206	2.00
4199	LUG, $1\frac{1}{4}$ ", for 4375	1.12
4200	SOLID JAW COMPLETE, $1\frac{1}{4}$ ", with stub end	.80
4201	WIDE SOLID JAW COMPLETE, $1\frac{1}{4}$ ", with stub end	1.20
4202	WIDE SOLID JAW COMPLETE, $1\frac{1}{4}$ ", with tang end	1.44
4203	WROUGHT SCREW JAW COMPLETE, $1\frac{1}{4}$ ", with stub end	1.70
4204	DOUBLE JAW COMPLETE, $1\frac{1}{4}$ ", with two stub ends	2.00
4205	DOUBLE JAW COMPLETE, $1\frac{1}{4}$ ", with two tang ends	2.46
4206	DOUBLE JAW COMPLETE, $1\frac{1}{4}$ ", with one tang and one stub end	2.26
4207	WROUGHT LUG, $1\frac{1}{4}$ ", with stub ends	1.10
4262	PIN, $\frac{7}{8}$ " x $3\frac{3}{8}$ ", for Wide Jaw	.11
4374	WROUGHT LUG COMPLETE, $1\frac{1}{4}$ ", with tang ends	1.50
4375	WROUGHT LUG COMPLETE, $1\frac{1}{4}$ ", with one tang and one stub end	1.32
4748	MALLEABLE JAW for 8371 (special)	.48
6234	WIDE WROUGHT SCREW JAW, $1\frac{1}{4}$ ", for 6335	1.70
6235	WIDE WROUGHT SCREW JAW COMPLETE, $1\frac{1}{4}$ ", with tang end	2.50
6663	1" BLACK PIPE with 6" Plug, Coupling and Rivet, per foot	.50
6891	SCREW ROD, $1\frac{1}{4}$ ", with left hand thread and tang end	.50
6892	WROUGHT TURNBUCKLE COMPLETE, $1\frac{1}{4}$ ", with tang ends	2.80
6893	THIN NUT, $1\frac{1}{4}$ ", left hand thread	.09
7426	WROUGHT TURNBUCKLE COMPLETE, $1\frac{1}{4}$ ", with stub ends	2.30
7428	SCREW ROD, $1\frac{1}{4}$ ", with left hand thread and stub end	.44
8321	IRON WASHER for 8363	.02
8346	MALLEABLE SCREW JAW, $1\frac{1}{4}$ "	.41
8349	DOUBLE JAW COMPLETE, $1\frac{1}{4}$ ", with eye at one end and tang at the other	2.76
8350	DOUBLE JAW for 8349	2.50
8351	SCREW ROD COMPLETE, $1\frac{1}{4}$ ", with tang end	.68
8352	CLAMPED PIPE LUG COMPLETE, for 1" pipe	1.00
8355	PLUG, 1" x 10", four holes	.14
8356	WROUGHT TURNBUCKLE COMPLETE, $1\frac{1}{4}$ ", with one stub and one tang end	2.50
8357	1" BLACK PIPE, with 10" Plug, Coupling and Rivets, per foot	.50
8358	SOLID LINK COMPLETE, $1\frac{1}{4}$ ", 18" centers	2.00

Order by NUMBER and NAME Appearing in Large Type

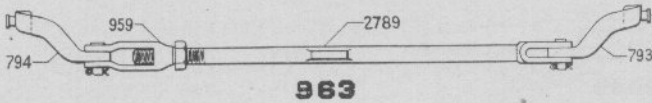
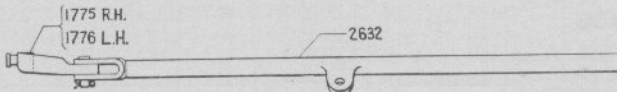
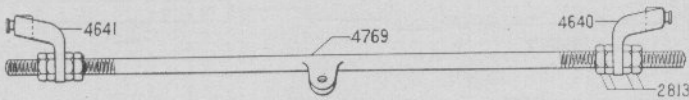
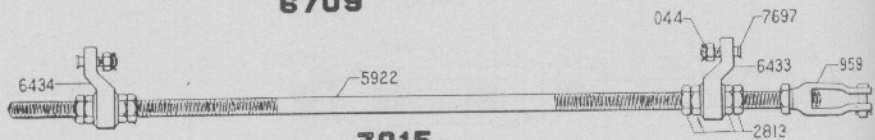
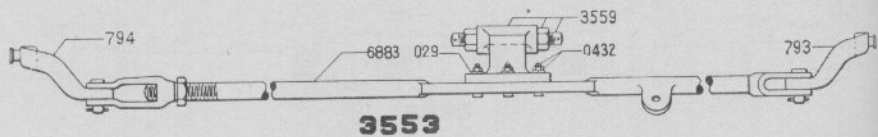
Order No.	RODS, LUGS, JAWS, ETC.—CONTINUED	List Price.
8359	LINK for 8358.....	1.90
8360	SOLID LINK COMPLETE, $1\frac{1}{4}$ " , 12" centers.....	1.90
8361	LINK for 8360.....	1.80
8362	WROUGHT TURNBUCKLE, $1\frac{1}{4}$ " , for 6892, etc.....	1.20
8363	SLOTTED JAW COMPLETE, $1\frac{1}{4}$ " , with tang end.....	1.94
8364	SLOTTED JAW for 8363.....	1.66
8365	MALLEABLE SCREW JAW COMPLETE, $1\frac{1}{4}$ " , with tang end.....	1.28
8366	MALLEABLE SCREW JAW COMPLETE, $1\frac{1}{4}$ " , with stub end.....	1.04
8367	ADJUSTABLE LINK COMPLETE, $1\frac{1}{4}$ " , 18" centers, with Solid Jaw at one end and Malleable Screw Jaw at the other.....	1.90
8368	SOLID JAW, $1\frac{1}{4}$ " , with threaded end, for 8367 or 8372.....	1.26
8369	ADJUSTABLE LINK COMPLETE, $1\frac{1}{4}$ " , 12" centers, with Solid Jaw at one end and Malleable Screw Jaw at the other.....	1.84
8370	SOLID JAW, $1\frac{1}{4}$ " , with threaded end, for 8369.....	1.20
8371	SCREW JAW COMPLETE, $1\frac{1}{4}$ " , with tang end (special).....	1.44
8372	ADJUSTABLE LINK COMPLETE, $1\frac{1}{4}$ " , 18" centers, with Solid Jaw at one end and Wrought Screw Jaw at the other.....	2.50
8373	ADJUSTABLE LINK COMPLETE, $1\frac{1}{4}$ " , 24" centers, with Solid Jaw at one end and Malleable Screw Jaw at the other.....	2.00
8668	EYE ROD, $1\frac{1}{4}$ " , stub end. Special for use with Jaws.....	.70
9223	PIN, $\frac{1}{8}$ " x $2\frac{3}{8}$ ".....	.09
9224	PIN, $\frac{1}{8}$ " x $3\frac{3}{8}$ ".....	.12
10261	CLAMPED PIPE LUG COMPLETE, for $\frac{3}{4}$ " Pipe.....	1.00

NOTE—Where prices are not extended same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

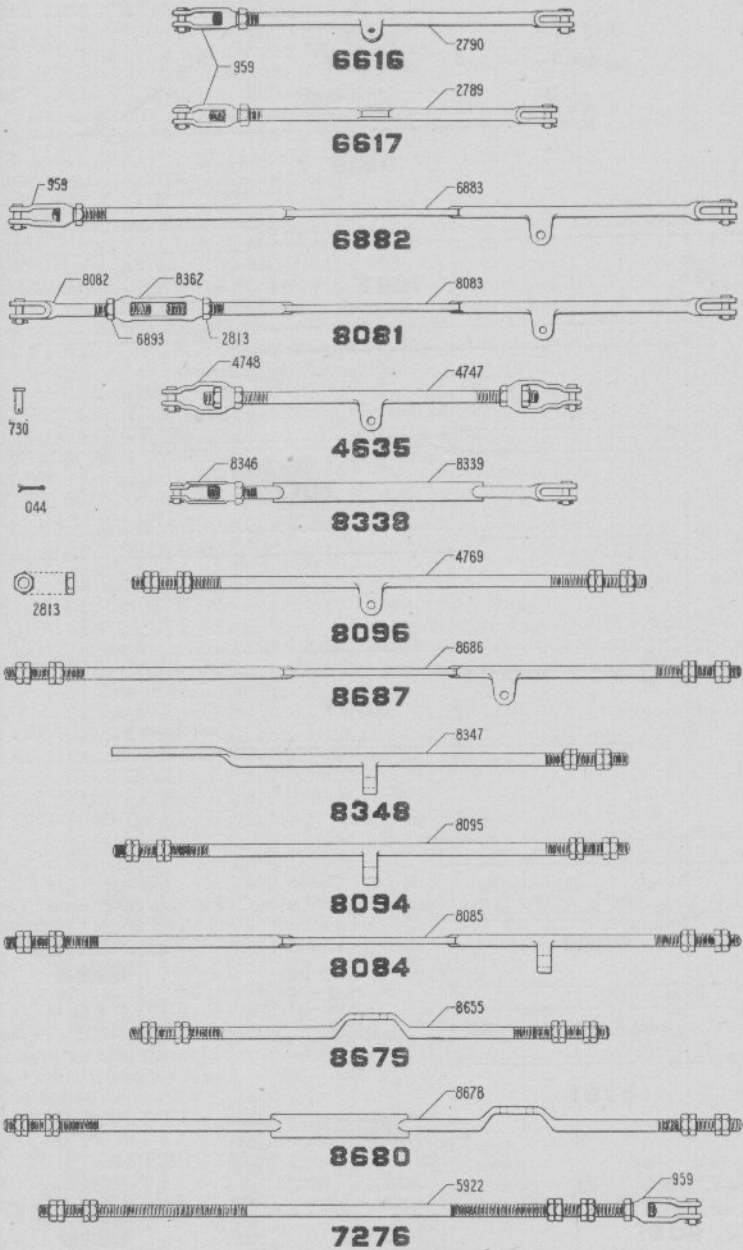


## FRONT RODS

**963****962****2799****6490****4767****6709****7015****3553**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

FRONT RODS—CONTINUED

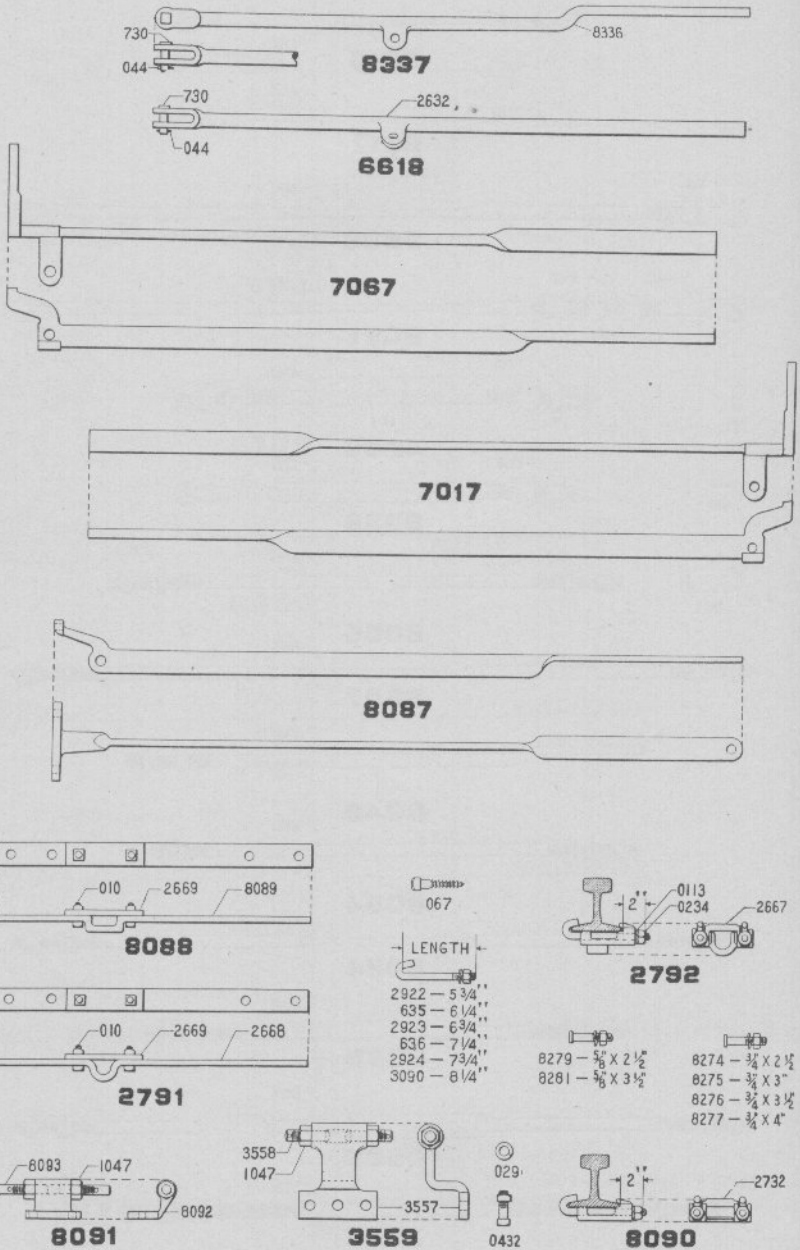


Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



SWITCH CONNECTIONS

FRONT RODS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477

# SWITCH CONNECTIONS

107

Order No.	FRONT RODS	List Price.
010	BOLT with Nut for 2791 or 8088.....	.04
029	NUT LOCK, $\frac{3}{4}$ ".....	.02
044	COTTER Pin, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for Pin 730 (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4", fastening 2791 or 8088 to ties.....	.07
0113	NUT LOCK, $\frac{3}{8}$ ", for 0419, 2792 or 8090.....	.02
0234	NUT for Hook Bolts for 2792 or 8090.....	.02
0419	BOLT with Nut, $\frac{3}{8}$ " x $2\frac{1}{4}$ ", holding 8091 to Front Rod.....	.07
0432	BOLT with Nut, $\frac{3}{8}$ " x $2\frac{1}{4}$ ", holding 3559 to Front Rod.....	.10
635	HOOK BOLT COMPLETE, $6\frac{1}{2}$ " long.....	.12
636	HOOK BOLT COMPLETE, $7\frac{1}{4}$ " long.....	.12
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for Front Rods.....	.07
793	SWITCH POINT LUG, Right Hand, for 963.....	1.70
794	SWITCH POINT LUG, Left Hand, for 963.....	1.70
959	WROUGHT SCREW JAW, $1\frac{1}{4}$ ", for various Rods.....	1.10
962	FRONT ROD COMPLETE, for Switch. When ordering specify whether or not points are reinforced.....	7.70
963	FRONT ROD COMPLETE, for S. S. or M. P. F. When ordering specify whether or not points are reinforced.....	7.90
1047	NUT for 3559 or 8091.....	.09
1775	SWITCH POINT LUG, Right Hand, for 962 or 2799.....	1.60
1776	SWITCH POINT LUG, Left Hand, for 962 or 2799.....	1.60
2632	ROD with Lug for 2699 or 6618.....	3.00
2667	GUIDE, casting only, for 2792.....	.40
2668	GUIDE for 2791.....	1.30
2669	CAP for 2791 or 8088.....	.40
2732	GUIDE, casting only, for 8090.....	.40
2789	JAW ROD with Lug for 963 or 6617.....	2.70
2790	JAW ROD with Lug for 962 or 6616.....	2.70
2791	GUIDE COMPLETE, for round end Derail Front Rods.....	1.60
2792	GUIDE COMPLETE, with Hook Bolts for Round End Derail Front Rods. Specify width of rail base.....	.64
2799	FRONT ROD COMPLETE, for Derail. When ordering specify whether or not points are reinforced.....	4.90
2813	NUT, $1\frac{1}{2}$ ". Used for various rods.....	.09
2922	HOOK BOLT COMPLETE, $5\frac{3}{4}$ " long.....	.12
2923	HOOK BOLT COMPLETE, $6\frac{3}{4}$ " long.....	.12
2924	HOOK BOLT COMPLETE, $7\frac{1}{4}$ " long.....	.12
3090	HOOK BOLT COMPLETE, $8\frac{1}{4}$ " long.....	.12
3553	FRONT ROD COMPLETE, for Double Slip Switch. When ordering specify whether or not points are reinforced.....	12.50
3557	BRACKET casting only, for 3559.....	2.00
3558	SCREW, Adjusting, for 3559.....	.24
3559	BRACKET COMPLETE. Point Separator for Double Slip Switch.....	2.50
4635	FRONT ROD COMPLETE, for Switch.....	3.70
4640	SWITCH POINT LUG, Right Hand, for 4767 or 6709.....	3.40
4641	SWITCH POINT LUG, Left Hand, for 4767 or 6709.....	3.40
4747	ROD with Lug for 4635 or 6490.....	2.32
4748	JAW, MALLEABLE, for 4635 or 6490.....	.48
4767	FRONT ROD COMPLETE, for Switch. When ordering, specify whether or not points are reinforced.....	11.30
4769	ROD with Lug for 4767 or 8096.....	3.30
5922	ROD for 7015 or 7276.....	2.00
6433	SWITCH POINT LUG, Right Hand, for 7015.....	1.60
6434	SWITCH POINT LUG, Left Hand, for 7015.....	1.60
6479	SWITCH POINT LUG, Right Hand, for 6490.....	1.08
6480	SWITCH POINT LUG, Left Hand, for 6490.....	1.08
6490	FRONT ROD COMPLETE, for Switch. When ordering specify whether or not points are reinforced.....	6.25
6616	FRONT ROD COMPLETE, as shown, for Switch.....	4.00

Order by NUMBER and NAME Appearing in Large Type

Order No.	FRONT RODS—CONTINUED	List Price.
6617	FRONT ROD COMPLETE, as shown, for Slip Switch or Movable Point Frog.....	4.00
6618	FRONT ROD COMPLETE, as shown, for Derail.....	3.08
6709	FRONT ROD COMPLETE, for Derail. When ordering specify whether or not points are reinforced.....	7.30
6882	FRONT ROD COMPLETE, as shown, for Double Slip Switch.....	6.30
6883	JAW ROD, with Lug, for 3553 or 6882.....	5.00
6893	NUT, 1 $\frac{1}{4}$ " left hand thread, for 8081.....	.09
7015	FRONT ROD COMPLETE, for Switch.....	8.00
7017	FRONT ROD and Point Lug combined for Right Hand Derail with independent bolt lock connection.....	10.30
7067	FRONT ROD and Point Lug combined for Left Hand Derail with independent bolt lock connection.....	10.30
7276	FRONT ROD COMPLETE, as shown, for Switch.....	4.30
7697	BOLT with Nut for 7015.....	.12
8081	FRONT ROD COMPLETE, as shown, for Double Slip Switch.....	6.40
8082	JAW ROD, with left hand threaded end.....	.90
8083	JAW ROD, with Lug, for 8081.....	4.00
8084	FRONT ROD COMPLETE, as shown, for Double Slip Switch.....	6.84
8085	ROD with Lug for 8084.....	6.20
8087	FRONT ROD and Point Lug combined for either right or left hand Derail.....	7.75
8088	GUIDE COMPLETE, for flat end Derail Front Rods.....	2.00
8089	GUIDE for 8088.....	1.70
8090	GUIDE COMPLETE, for flat end Derail Front Rods. Specify width of rail base.....	.64
8091	BRACKET COMPLETE, Point Separator for Double Slip Switch.....	2.00
8092	BRACKET only for 8091.....	1.40
8093	SCREW, Adjusting, for 8091.....	.24
8094	FRONT ROD COMPLETE, as shown, for Switch.....	4.50
8095	ROD, with Lug, for 8094.....	3.80
8096	FRONT ROD COMPLETE, as shown, for Switch.....	4.00
8274	LUG BOLT, $\frac{3}{8}$ " x 2 $\frac{1}{2}$ ", COMPLETE, for plain points.....	.10
8275	LUG BOLT, $\frac{3}{8}$ " x 3", COMPLETE, for plain points.....	.10
8276	LUG BOLT, $\frac{3}{8}$ " x 3 $\frac{1}{2}$ ", COMPLETE, for reinforced points.....	.10
8277	LUG BOLT, $\frac{3}{8}$ " x 4", COMPLETE, for extra reinforced points.....	.12
8279	LUG BOLT, $\frac{3}{8}$ " x 2 $\frac{1}{2}$ ", COMPLETE, for plain points.....	.09
8281	LUG BOLT, $\frac{3}{8}$ " x 3 $\frac{1}{2}$ ", COMPLETE, for reinforced points.....	.10
8336	JAW ROD, with Lug and flat end for 8337.....	3.08
8337	FRONT ROD COMPLETE, as shown, for Derail.....	3.16
8338	FRONT ROD COMPLETE, as shown, for Switch.....	4.00
8339	JAW ROD for 8338.....	3.35
8346	JAW, malleable, 1 $\frac{1}{4}$ ", for 8338.....	.41
8347	ROD with Lug and flat end for 8348.....	3.70
8348	FRONT ROD COMPLETE, as shown, for Derail.....	3.92
8362	TURNBUCKLE, 1 $\frac{1}{4}$ ", for 8081.....	1.20
8655	ROD for 8679.....	4.80
8678	ROD for 8680.....	7.00
8679	FRONT ROD COMPLETE, as shown, for Switch.....	5.50
8680	FRONT ROD COMPLETE, as shown, for Double Slip Switch.....	7.70
8686	ROD for 8687.....	6.00
8687	FRONT ROD COMPLETE, as shown, for Double Slip Switch.....	6.70

Order by NUMBER and NAME Appearing in Large Type

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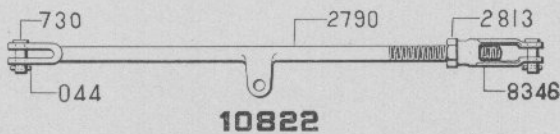
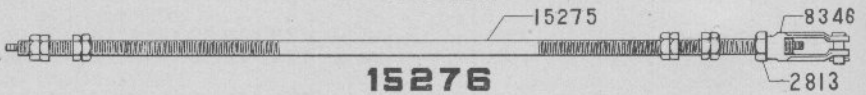
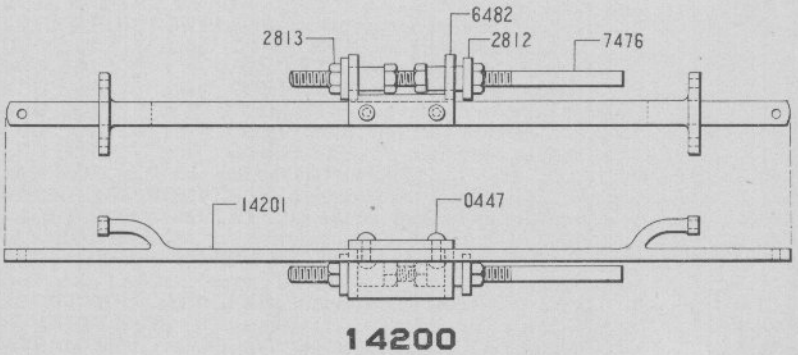
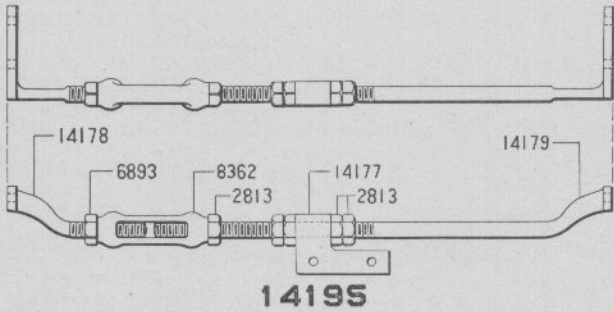
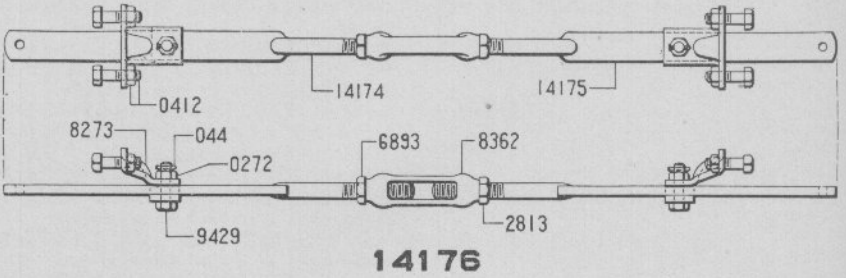
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SWITCH CONNECTIONS

FRONT RODS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH CONNECTIONS

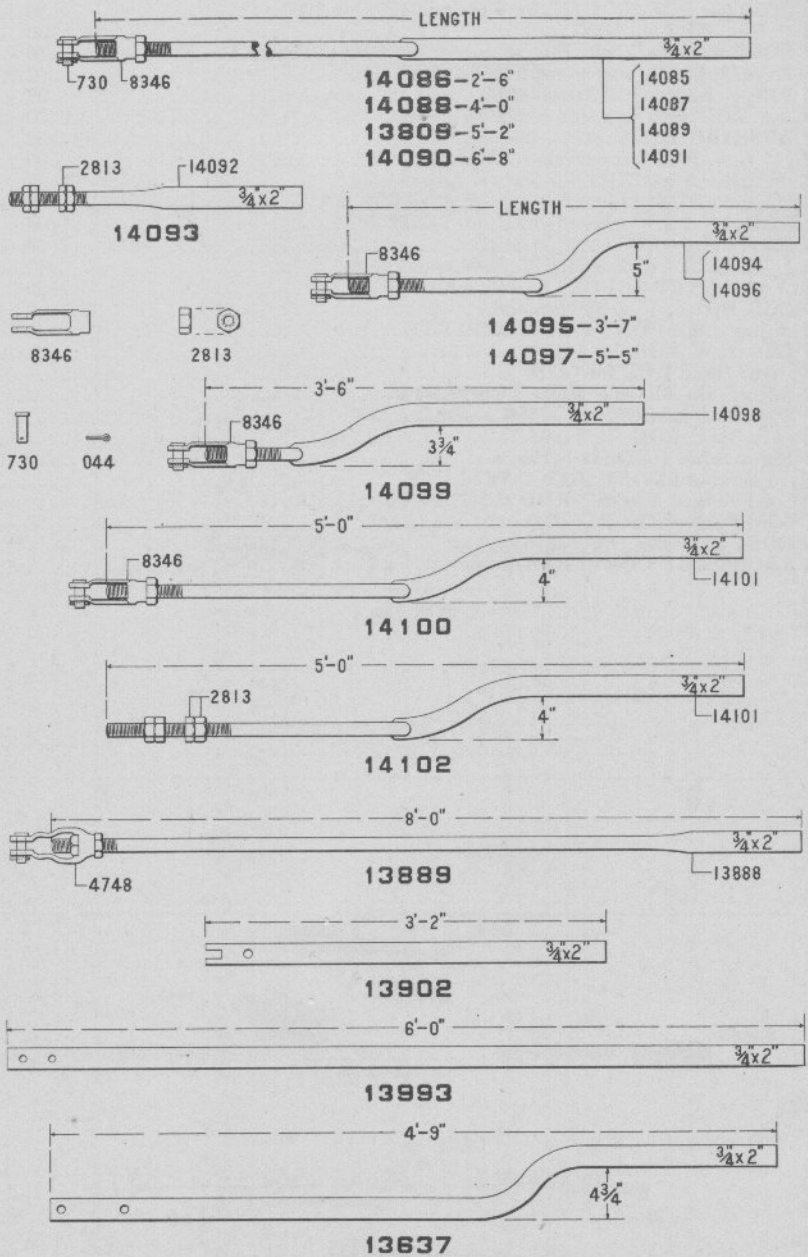
111

Order No.	FRONT RODS—CONTINUED	List Price.
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 730 and 9429 (per 100).....	.80
0272	$\frac{3}{4}$ " Hex. NUT for 9429.....	.03
0412	BOLT with Hex. Nut, $\frac{3}{4}$ " x $3\frac{1}{2}$ ", for fixing 8372 to Switch Points.....	.10
0447	RIVET, $\frac{5}{8}$ " x $2\frac{1}{2}$ ", for fixing 6482 to 14201.....	.03
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for 2790 and 8346.....	.07
2790	Jaw ROD with Lug, for 10822.....	2.70
2812	BUSHING for Bracket 6482.....	.32
2813	$1\frac{1}{4}$ " Hex. NUT for various Rods.....	.09
6482	Wrought BRACKET for Switch Adjustment.....	2.68
6893	$1\frac{1}{4}$ " Hex. NUT, Left Hand Thread, for 14178.....	.09
7476	ROD, $1\frac{1}{4}$ " x 3' 0", threaded 24", for 14200.....	1.04
8273	SWITCH POINT LUG (special).....	1.50
8346	$1\frac{1}{4}$ " MALLEABLE SCREW JAW.....	.41
8362	Wrought TURNBUCKLE, $1\frac{1}{4}$ ", for 14176.....	1.20
9429	LUG BOLT, $\frac{3}{8}$ " x $3\frac{1}{2}$ " (special).....	.30
10822	Adjustable FRONT ROD COMPLETE.....	3.40
14174	Left Hand ROD for 14176.....	
14175	Right Hand ROD for 14176.....	
14176	Adjustable FRONT ROD COMPLETE.....	
14177	Adjusting BLOCK for 14195.....	
14178	Left Hand ROD for 14195.....	
14179	Right Hand ROD for 14195.....	
14195	Adjustable FRONT ROD COMPLETE.....	
14200	Solid Forged FRONT ROD COMPLETE.....	
14201	Solid Forged FRONT ROD only, for 14200.....	
15275	ROD, Threaded, for 15276.....	
15276	FRONT ROD COMPLETE, as shown, for Lock Rod 13902, page 112.....	

Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

LOCK RODS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

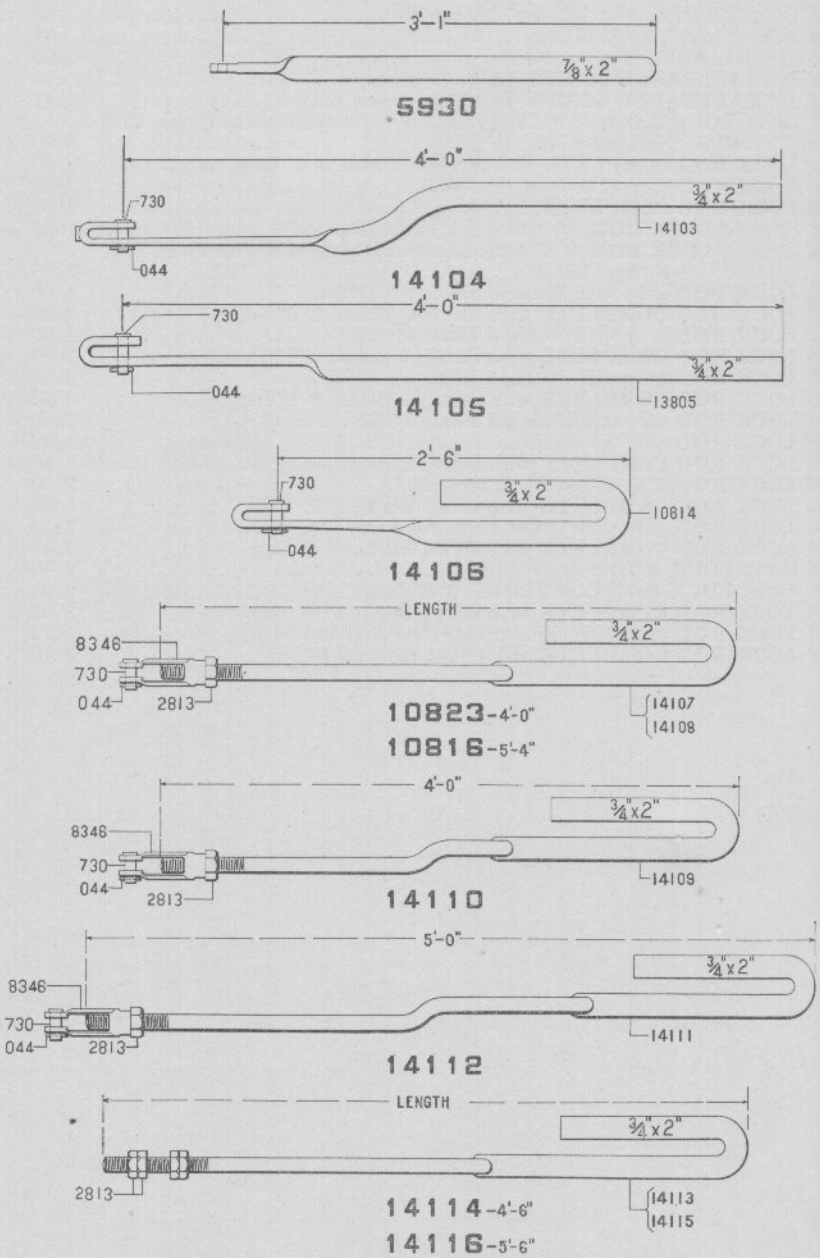
113

Order No.	LOCK RODS	List Price.
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 730 (per 100)	.80
730	PIN, $\frac{3}{8}$ " x $2\frac{3}{8}$ ", for 8346	.07
2813	$1\frac{1}{4}$ " Hex. NUT for various Rods.	.09
4748	$1\frac{1}{4}$ " MALLEABLE SCREW JAW. Special for 13888.	.48
8346	$1\frac{1}{4}$ " MALLEABLE SCREW JAW for various Rods.	.41
13637	Offset LOCK ROD, 4' 9" long, used in connection with Front Rod 14195. See page 110.	2.80
13809	LOCK ROD COMPLETE with Straight Blade, 5' 2" long	2.80
13888	LOCK ROD only, 8' 0" long, for 13889.	2.80
13889	LOCK ROD COMPLETE, 8' 0" long.	3.60
13902	Straight LOCK ROD, 3' 2" long, for Front Rod 15276, page 110.	1.64
13993	Straight LOCK ROD, 6' 0" long. Used in connection with Front Rod 14195. See page 110.	2.50
14085	LOCK ROD only with Straight Blade for 14086.	1.60
14086	LOCK ROD COMPLETE with Straight Blade, 2' 6" long.	2.20
14087	LOCK ROD only with Straight Blade for 14088.	1.90
14088	LOCK ROD COMPLETE with Straight Blade, 4' 0" long.	2.50
14089	LOCK ROD only with Straight Blade for 13809.	2.20
14090	LOCK ROD COMPLETE with Straight Blade, 6' 8" long.	3.10
14091	LOCK ROD only with Straight Blade 14090.	2.50
14092	LOCK ROD only for 14093.	1.40
14093	LOCK ROD COMPLETE with Straight Blade.	1.80
14094	LOCK ROD with Offset Blade for 14095.	2.40
14095	LOCK ROD COMPLETE with Offset Blade, 3' 7" long.	3.00
14096	LOCK ROD only with Offset Blade for 14097.	2.80
14097	LOCK ROD COMPLETE with Offset Blade, 5' 5" long.	3.40
14098	Offset LOCK ROD only for 14099.	2.40
14099	Offset LOCK ROD COMPLETE, 3' 6" long.	3.00
14100	LOCK ROD COMPLETE with Offset Blade, 5' 0" long.	3.32
14101	LOCK ROD only with Offset Blade for 14100 and 04102.	3.72
14102	LOCK ROD COMPLETE with Offset Blade, 5' 0" long.	3.10

Order by NUMBER and NAME Appearing in Large Type



## LOCK RODS—CONTINUED



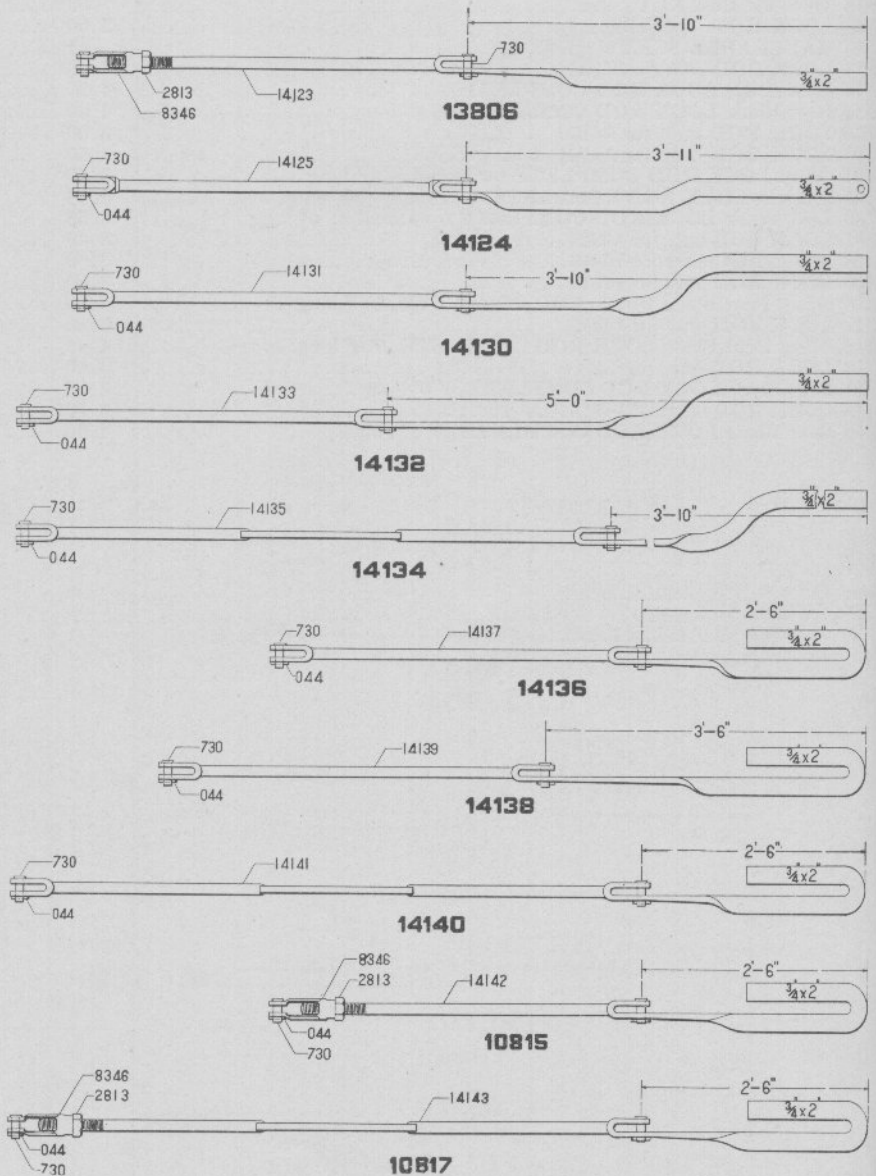
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

SWITCH CONNECTIONS

Order No.	LOCK RODS—CONTINUED	List Price.
044	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for 730 (per 100).....	.80 .....
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for 8346, 13805 and 14103.....	.07 .....
2813	Thin, $1\frac{1}{4}$ " Hex. NUT.....	.09 .....
5930	LOCK ROD (special).....	2.00 .....
8346	MALLEABLE SCREW JAW, $1\frac{1}{4}$ ".....	.41 .....
10814	LOCK ROD only for 14106.....	3.48 .....
10816	Bent Blade LOCK ROD COMPLETE, 5' 4" long.....	4.20 .....
10823	Bent Blade LOCK ROD COMPLETE, 4' 0" long.....	4.00 .....
13805	LOCK ROD only for 14105.....	3.00 .....
14103	LOCK ROD only for 14104.....	3.50 .....
14104	Offset LOCK ROD COMPLETE for Derail, 4' 0" long.....	3.62 .....
14105	Straight LOCK ROD COMPLETE for Derail, 4' 0" long.....	3.08 .....
14106	Bent Blade LOCK ROD COMPLETE for Derail, 2' 6" long.....	3.56 .....
14107	LOCK ROD only for 10823.....	3.40 .....
14108	LOCK ROD only for 10816.....	3.60 .....
14109	LOCK ROD only for 14110.....	3.60 .....
14110	Offset Bent Blade LOCK ROD COMPLETE, 4' 0" long.....	4.20 .....
14111	LOCK ROD only for 14112.....	3.80 .....
14112	Offset Bent Blade LOCK ROD COMPLETE, 5' 0" long.....	4.40 .....
14113	LOCK ROD only for 14114.....	3.60 .....
14114	Bent Blade LOCK ROD COMPLETE, 4' 6" long.....	3.96 .....
14115	LOCK ROD only for 14116.....	3.70 .....
14116	Bent Blade LOCK ROD COMPLETE, 5' 6" long.....	4.06 .....

Order by NUMBER and NAME Appearing in Large Type

## LOCK RODS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

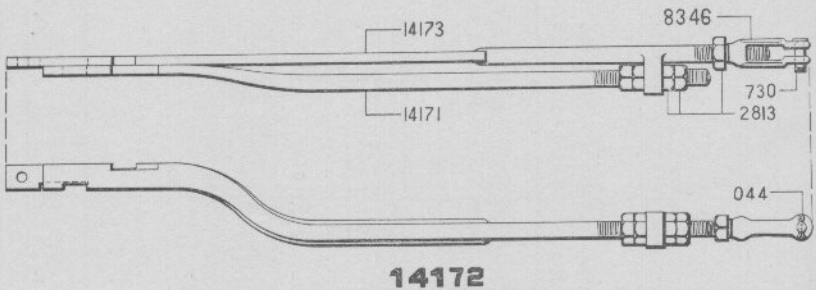
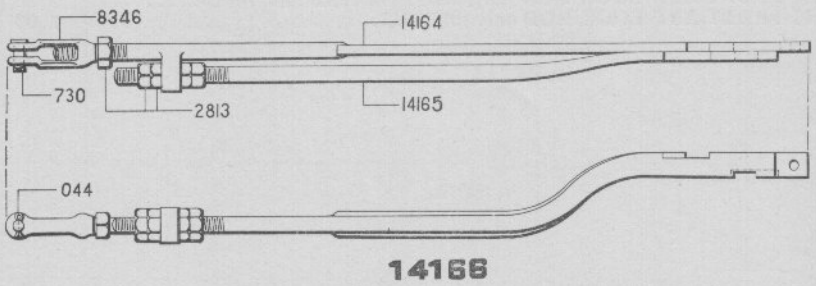
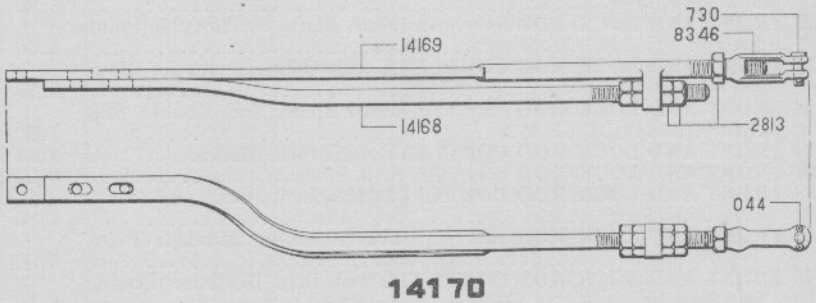
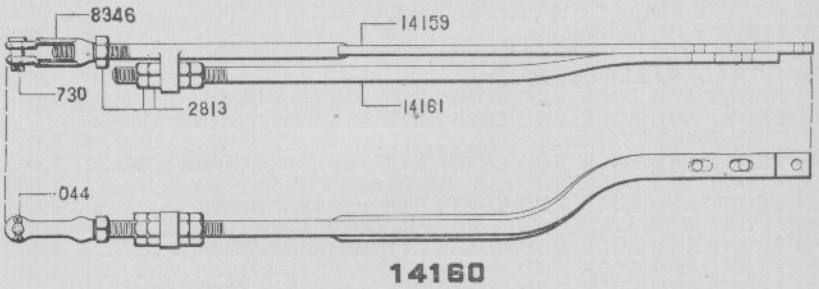
## SWITCH CONNECTIONS

117

Order No.	LOCK RODS—CONTINUED	List Price.
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 730 (per 100).....	.80
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for 8346, etc.....	.07
2813	$1\frac{1}{4}$ " Hex. NUT. Used on various Rods.....	.09
8346	$1\frac{1}{4}$ " MALLEABLE SCREW JAW.....	.41
10815	FRONT AND LOCK ROD COMPLETE with Bent Blade.....	5.90
10817	FRONT AND LOCK ROD COMPLETE with Bent Blade for Double Slip Switch.....	8.60
13806	FRONT AND LOCK ROD COMPLETE with Straight Blade.....	5.60
14123	FRONT AND LOCK ROD only with Straight Blade.....	4.90
14124	FRONT AND LOCK ROD COMPLETE with Bent Blade.....	6.00
14125	FRONT AND LOCK ROD only with Offset Blade.....	5.80
14130	FRONT AND LOCK ROD COMPLETE with Offset Blade.....	5.40
14131	FRONT AND LOCK ROD only with Offset Blade.....	5.20
14132	FRONT AND LOCK ROD COMPLETE with Offset Blade, for Mov- able Point Frog.....	5.80
14133	FRONT AND LOCK ROD only with Offset Blade, for Movable Point Frog.....	5.60
14134	FRONT AND LOCK ROD COMPLETE with Offset Blade, for Dou- ble Slip Switch.....	8.10
14135	FRONT AND LOCK ROD only with Offset Blade, for Double Slip Switch.....	7.90
14136	FRONT AND LOCK ROD COMPLETE with Bent Blade.....	5.40
14137	FRONT AND LOCK ROD only with Bent Blade.....	5.20
14138	FRONT AND LOCK ROD COMPLETE with Bent Blade, for Mov- able Point Frog.....	5.80
14139	FRONT AND LOCK ROD only with Bent Blade, for Movable Point Frog.....	5.60
14140	FRONT AND LOCK ROD COMPLETE with Bent Blade for Double Slip Switch.....	8.10
14141	FRONT AND LOCK ROD only with Bent Blade, for 14140.....	7.90
14142	FRONT AND LOCK ROD only with Bent Blade, for 10815.....	5.20
14143	FRONT AND LOCK ROD only for 10817.....	7.90

Order by NUMBER and NAME Appearing in Large Type

## LOCK RODS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

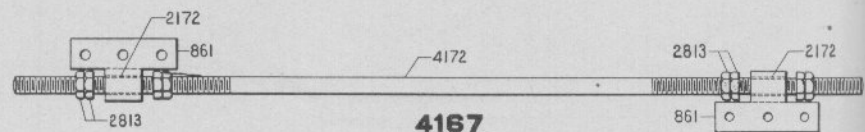
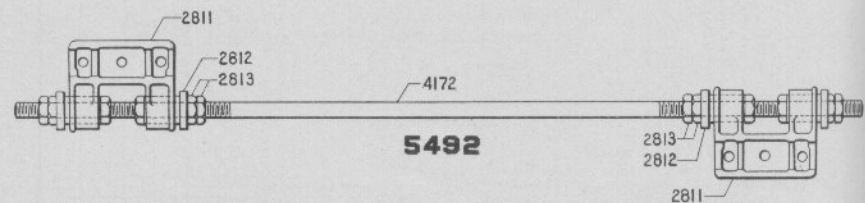
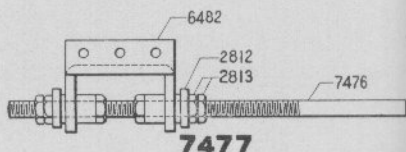
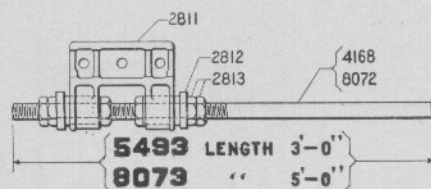
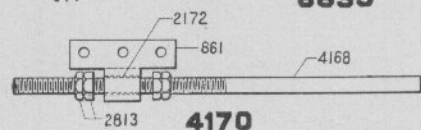
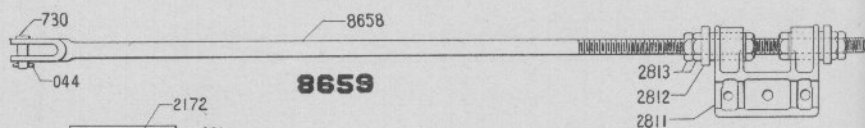
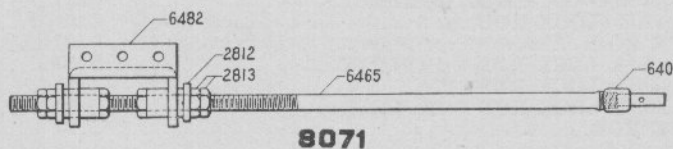
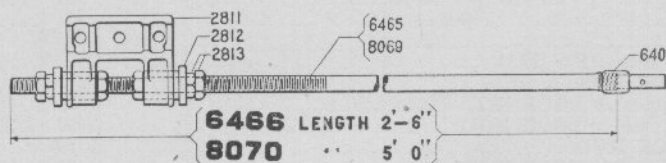
# SWITCH CONNECTIONS

119

Order No.	LOCK RODS—CONTINUED	List Price.
044	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for 730 (per 100)	.80
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ "	.07
2813	$1\frac{1}{4}$ " Hex NUT	.09
8346	$1\frac{1}{4}$ " MALLEABLE SCREW JAW	.41
14159	Right Hand LOCK ROD	5.10
14160	Right Hand Adjustable LOCK ROD COMPLETE	9.50
14161	Right Hand Adjustable LOCK ROD	3.50
14164	Right Hand LOCK ROD	5.10
14165	Right Hand Adjustable LOCK ROD	3.50
14166	Right Hand Adjustable LOCK ROD COMPLETE	9.50
14168	Left Hand Adjustable LOCK ROD	3.50
14169	Left Hand LOCK ROD	5.10
14170	Left Hand Adjustable LOCK ROD COMPLETE	9.50
14171	Left Hand Adjustable LOCK ROD	3.50
14172	Left Hand Adjustable LOCK ROD COMPLETE	9.50
14173	Left Hand LOCK ROD	5.10

Order by NUMBER and NAME Appearing in Large Type

## THROW RODS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

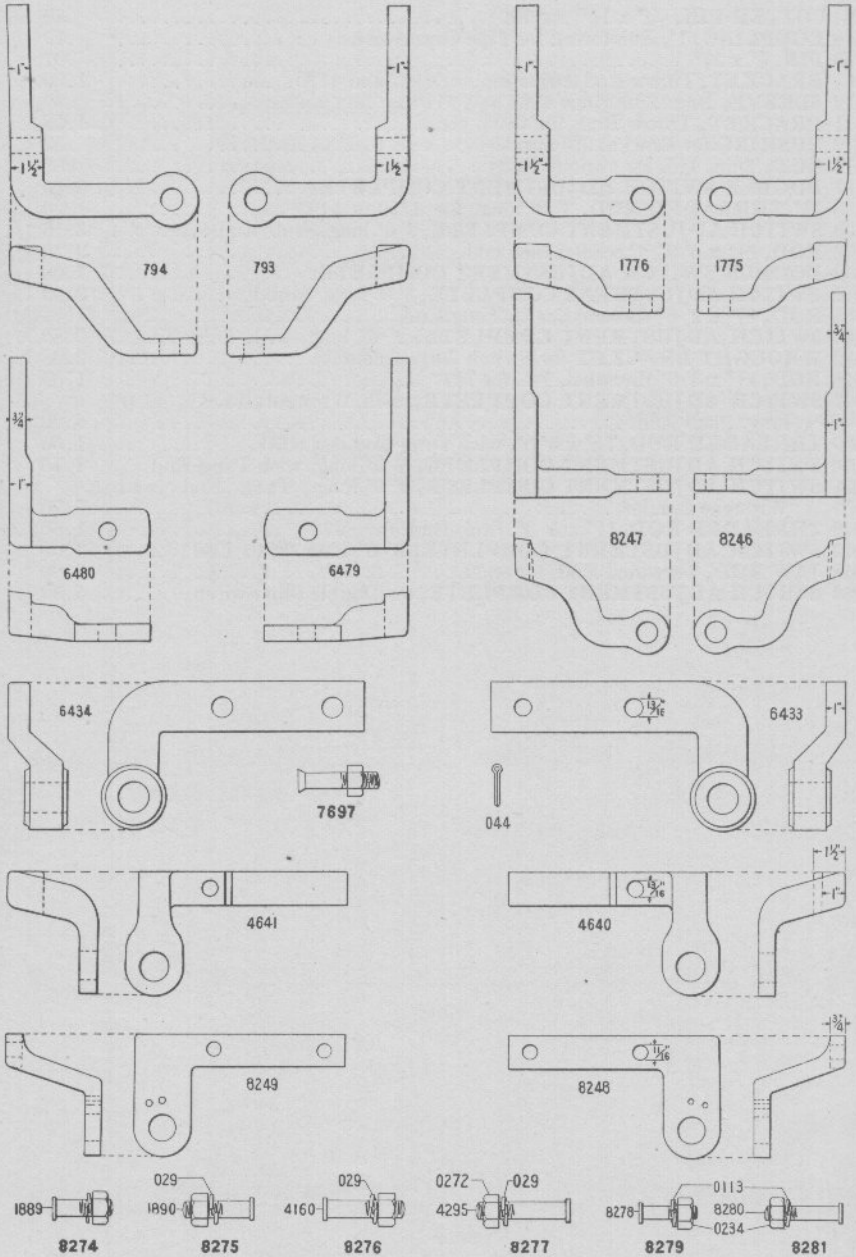
121

Order No.	THROW RODS	List Price.
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " (per 100).....	.80
640	COUPLING, 1", Reinforced for Pipe Connections.....	.19
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ".....	.07
861	BRACKET, Throw Rod Adjusting, for 4167 and 4170.....	1.30
2172	SLEEVE, Brass, for Rods 4167 and 4170.....	.30
2811	BRACKET, Throw Rod, for 5493, etc.....	1.28
2812	BUSHING for Bracket 2811 and 6482.....	.32
2813	NUT, Thin, $1\frac{1}{4}$ ", for various Rods.....	.09
4167	DOUBLE SWITCH ADJUSTMENT COMPLETE.....	6.10
4168	$1\frac{1}{4}$ " THREADED ROD, 3' 0" long, for 4170 or 5493.....	1.20
4170	SWITCH ADJUSTMENT COMPLETE, 3' 0" long, Stub End.....	3.16
4172	ROD, $1\frac{1}{4}$ " x 6' 0", threaded each end.....	2.20
5492	DOUBLE SWITCH ADJUSTMENT COMPLETE.....	7.00
5493	SWITCH ADJUSTMENT COMPLETE, 3' 0" long, Stub End.....	3.60
6465	ROD, $1\frac{1}{4}$ " x 2' 6" threaded, with Tang End.....	1.16
6466	SWITCH ADJUSTMENT COMPLETE, 2' 6" long, with Tang End..	3.80
6482	WROUGHT BRACKET for Switch Adjustment.....	2.68
7476	ROD, $1\frac{1}{4}$ " x 3' 0" threaded, 24", for 7477.....	1.04
7477	SWITCH ADJUSTMENT COMPLETE, with Wrought Bracket, 3' 0" long, Stub End.....	4.90
8069	THREADED ROD, $1\frac{1}{4}$ " x 5' 0", with Tang End, for 8070.....	1.50
8070	SWITCH ADJUSTMENT COMPLETE, 5' 0" long, with Tang End...	4.15
8071	SWITCH ADJUSTMENT COMPLETE, 2' 6" long, Tang End, with Wrought Bracket.....	5.20
8072	THREADED ROD, $1\frac{1}{4}$ " x 5' 0", Stub End, for 8073.....	1.60
8073	SWITCH ADJUSTMENT COMPLETE, 5' 0" long, Stub End.....	4.00
8658	JAW ROD, Threaded End, for 8659.....	2.80
8659	SWITCH ADJUSTMENT COMPLETE, for Double Slip Switch.....	5.30

Order by NUMBER and NAME Appearing in Large Type

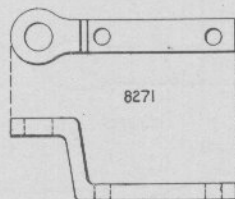
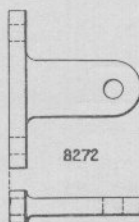
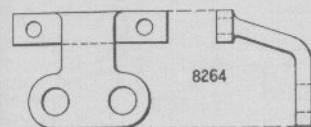
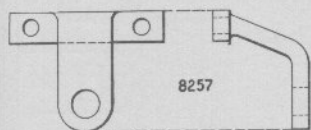
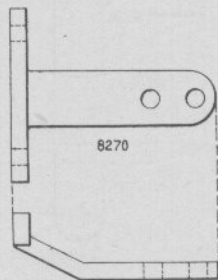
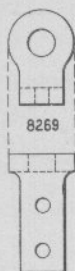
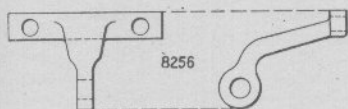
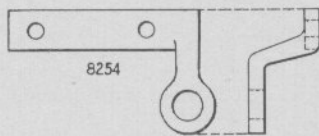
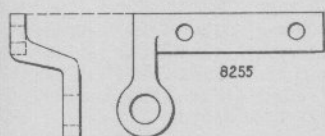
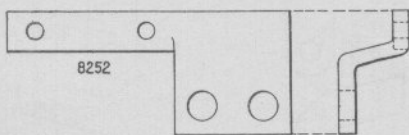
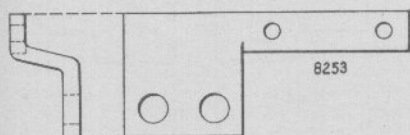
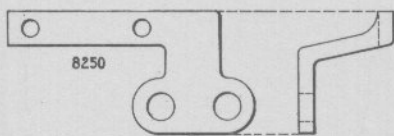
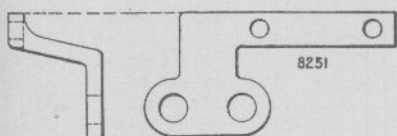


SWITCH POINT LUGS



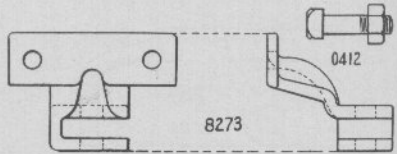
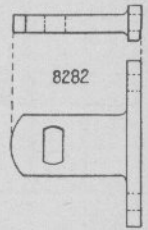
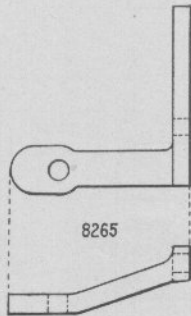
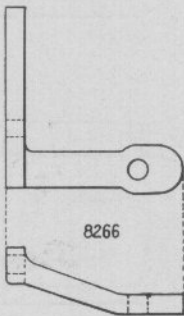
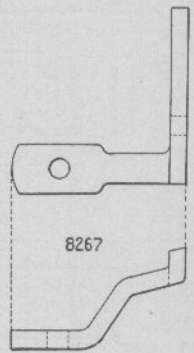
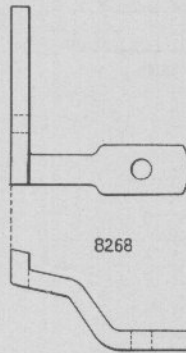
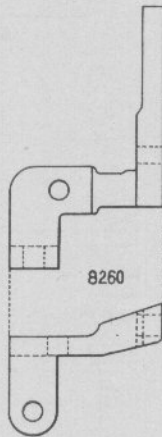
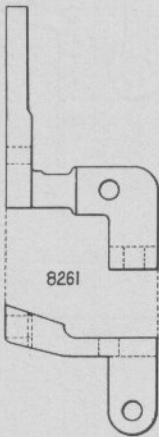
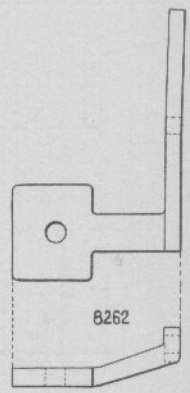
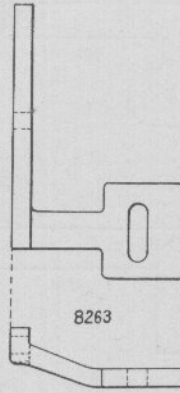
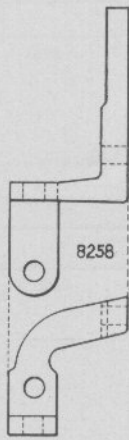
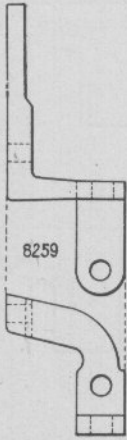
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

SWITCH POINT LUGS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

SWITCH POINT LUGS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

125

Order No.	SWITCH POINT LUGS	List Price.
029	NUT LOCK, $\frac{3}{4}$ " for 8274; etc.	.02
044	COTTER Pin, $\frac{3}{8}$ " x $1\frac{1}{2}$ " (per 100)	.80
0113	NUT LOCK, $\frac{5}{8}$ " for 8279 or 8281	.02
0234	NUT, $\frac{5}{8}$ " for 8279 or 8281	.02
0272	NUT, $\frac{3}{4}$ " for 8274; etc.	.03
0412	BOLT with Hexagon Nut, $\frac{3}{4}$ " x $3\frac{1}{2}$ " for 8273	.10
793	Switch POINT LUG, Right Hand, for Double Slip or M. P. Frog	1.70
794	Switch POINT LUG, Left Hand, for Double Slip or M. P. Frog	1.70
1775	Switch POINT LUG, Right Hand, for Single Switch or Derail	1.60
1776	Switch POINT LUG, Left Hand, for Single Switch or Derail	1.60
1889	BOLT, $\frac{3}{4}$ " x $2\frac{1}{2}$ " for 8274	.08
1890	BOLT, $\frac{3}{4}$ " x $3$ " for 8275	.08
4160	BOLT, $\frac{3}{4}$ " x $3\frac{1}{2}$ " for 8276	.08
4295	BOLT, $\frac{3}{4}$ " x $4$ " for 8277	.10
4640	Switch POINT LUG, Right Hand, for Switch or Derail	3.40
4641	Switch POINT LUG, Left Hand, for Switch or Derail	3.40
6433	Switch POINT LUG, Right Hand, for Switch or Derail	1.60
6434	Switch POINT LUG, Left Hand, for Switch or Derail	1.60
6479	Switch POINT LUG, Right Hand, for Switch	1.08
6480	Switch POINT LUG, Left Hand, for Switch	1.08
7697	BOLT, $\frac{3}{4}$ " x $3\frac{1}{2}$ " used for Lugs 6433 or 6434	.12
8246	Switch POINT LUG, Right Hand, for Movable Point Frog	2.12
8247	Switch POINT LUG, Left Hand, for Movable Point Frog	2.12
8248	Switch POINT LUG, Right Hand, for Slip or M. P. F. or Switch	2.64
8249	Switch POINT LUG, Left Hand, for Slip or M. P. F. or Switch	2.64
8250	Double POINT LUG, Right Hand, for Switch or Derail, with independent bolt lock connection	3.80
8251	Double POINT LUG, Left Hand, for Switch or Derail, with independent bolt lock connection	3.80
8252	Double POINT LUG, Right Hand, for Switch or Derail, with independent bolt lock connection	3.96
8253	Double POINT LUG, Left Hand, for Switch or Derail, with independent bolt lock connection	3.96
8254	Switch POINT LUG, Right Hand, for Switch or Derail	3.40
8255	Switch POINT LUG, Left Hand, for Switch or Derail	3.40
8256	Switch POINT LUG, for Derail Lock Rod, Right or Left	1.72
8257	Switch POINT LUG, for Derail Lock Rod, Right or Left	1.80
8258	Double Switch POINT LUG, Right Hand, for Derail, with independent bolt lock connection	3.60
8259	Double Switch POINT LUG, Left Hand, for Derail, with independent bolt lock connection	3.60
8260	Double Switch POINT LUG, Right Hand, for Switch, with independent bolt lock connection	3.50
8261	Double Switch POINT LUG, Left Hand, for Switch, with independent bolt lock connection	3.50
8262	Switch POINT LUG, Right Hand, for Switch or Derail	3.10
8263	Switch POINT LUG, Left Hand, for Switch or Derail	3.10
8264	Double Switch POINT LUG, for Derail, with independent bolt lock connection, right or left	2.30
8265	Switch POINT LUG, Right Hand, for Switch or Derail	.84
8266	Switch POINT LUG, Left Hand, for Switch or Derail	.84
8267	Single POINT LUG, Right Hand, for Double Slip or M. P. F.	1.70
8268	Single POINT LUG, Left Hand, for Double Slip or M. P. F.	1.70
8269	LUG for bolt lock connection	1.00
8270	Switch POINT LUG, Special	2.30
8271	Switch POINT LUG, for Front Rod, with independent bolt lock connection	2.20

Order by NUMBER and NAME Appearing in Large Type

## SWITCH CONNECTIONS

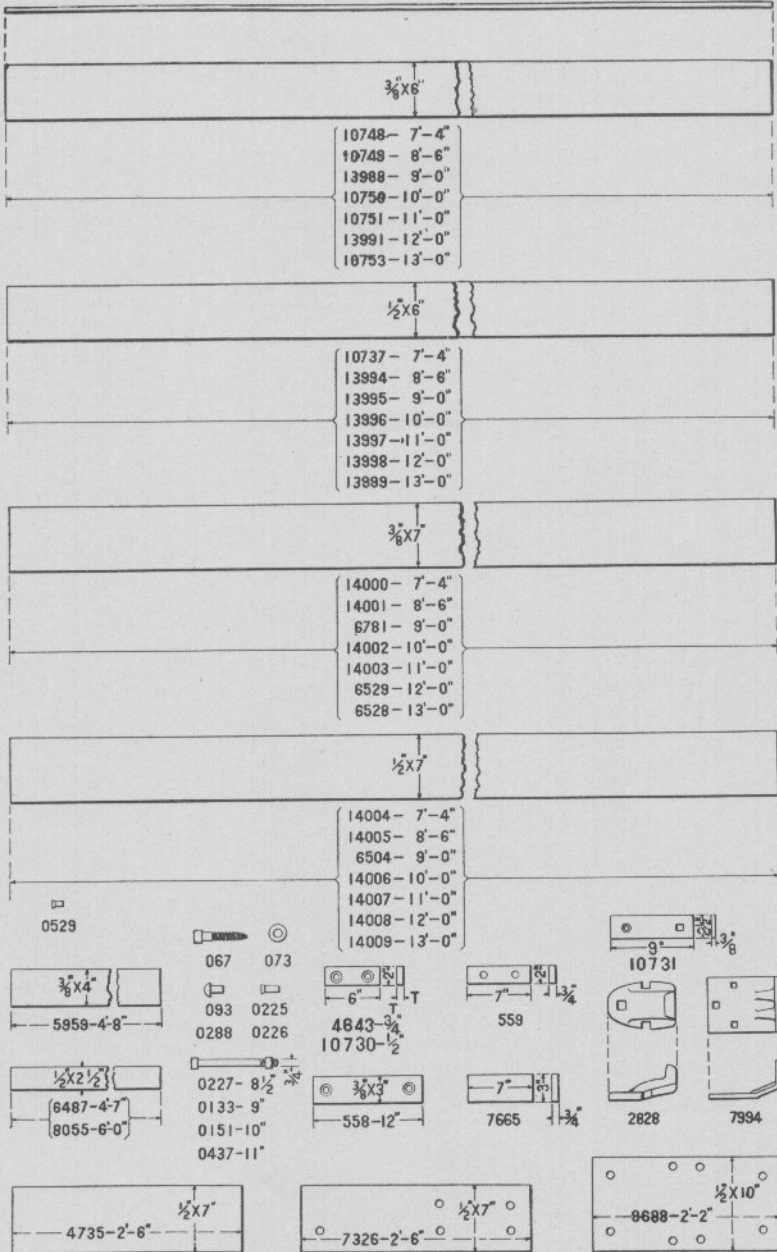
Order No.	SWITCH POINT LUGS—CONTINUED	List Price.
8272	SWITCH POINT LUG, Right or Left, for Switch .....	.84 .....
8273	SWITCH POINT LUG, Special.....	1.50 .....
8274	LUG BOLT, $\frac{3}{4}$ " x $2\frac{1}{2}$ ", COMPLETE, for plain switch points.....	.10 .....
8275	LUG BOLT, $\frac{3}{4}$ " x 3", COMPLETE, for plain switch points.....	.10 .....
8276	LUG BOLT, $\frac{3}{4}$ " x $3\frac{1}{2}$ ", COMPLETE, for reinforced switch points.....	.10 .....
8277	LUG BOLT, $\frac{3}{4}$ " x 4", COMPLETE, for extra reinforced switch points..	.12 .....
8278	BOLT, $\frac{5}{8}$ " x $2\frac{1}{2}$ ", for 8279.....	.07 .....
8279	LUG BOLT, $\frac{5}{8}$ " x $2\frac{1}{2}$ ", COMPLETE, for plain switch points.....	.09 .....
8280	BOLT, $\frac{5}{8}$ " x $3\frac{1}{2}$ ", for 8281.....	.08 .....
8281	LUG BOLT, $\frac{5}{8}$ " x $3\frac{1}{2}$ ", COMPLETE, for reinforced switch points.....	.10 .....
8282	SWITCH POINT LUG, Right or Left, for Switch.....	1.35 .....

Order by NUMBER and NAME Appearing in Large Type



SWITCH CONNECTIONS

TIE PLATES AND RAIL BRACES



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

129

NOTE—The list of Tie Plates below does not include Rivets, Slide or Rail Brace Plates, which should be ordered separately if desired.

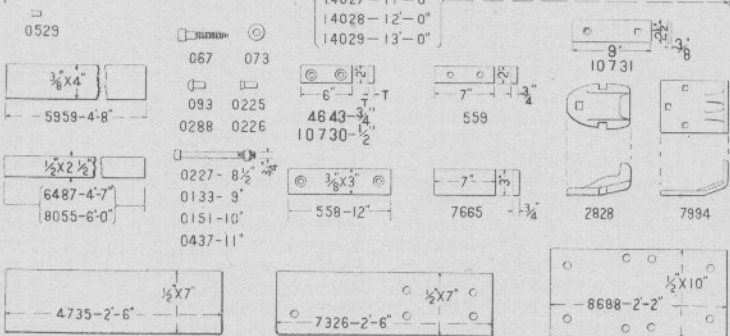
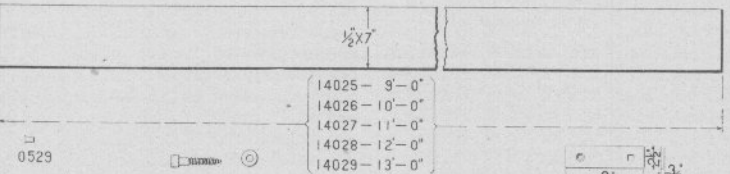
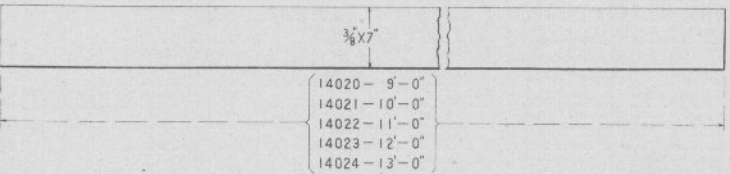
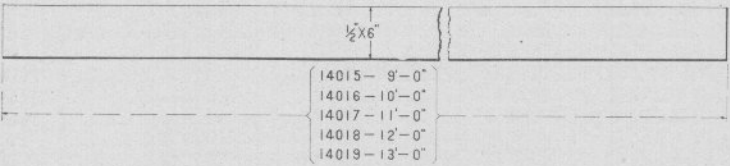
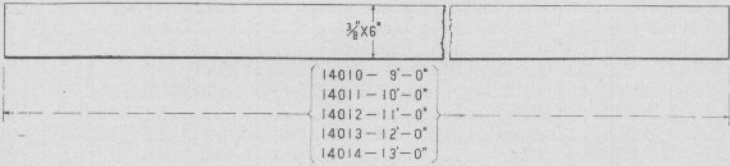
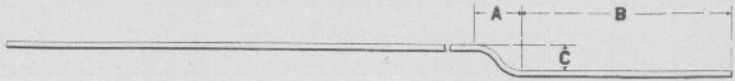
Order No.	TIE PLATES AND RAIL BRACES	List Price
067	LAG SCREW, $\frac{3}{4}$ " x 4", for fastening Tie Plates to Ties.....	.07
073	$\frac{3}{8}$ " WASHER.....	.02
093	RIVET, $\frac{3}{4}$ " x $1\frac{1}{2}$ ", for fastening Rail Brace Plates to $\frac{3}{8}$ " Tie Plate.....	.03
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16
0225	RIVET, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for fastening Slide Plates 558 to Tie Plates.....	.02
0226	RIVET, $\frac{3}{4}$ " x $1\frac{1}{2}$ ", for fastening Plate 4643 to Tie Plates 10737. Etc. ...	.03
0227	BOLT AND NUT, $\frac{3}{4}$ " x 8 $\frac{1}{2}$ ".....	.16
0288	RIVET, $\frac{3}{4}$ " x $1\frac{1}{2}$ " for fastening Rail Brace Plates 559 to $\frac{1}{2}$ " Tie Plate.....	.03
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11".....	.19
0529	RIVET, $\frac{1}{2}$ " x 1", for fastening Plate 10730 to $\frac{3}{8}$ " Tie Plates.....	.02
558	SLIDE PLATE, $\frac{3}{4}$ " x 3" x 12".....	.40
559	Rail Brace PLATE, $\frac{3}{4}$ " x 2" x 7".....	.30
2828	RAIL BRACE (Cast Iron). When ordering, send print of Rail Section.....	.60
4643	Rail Brace PLATE, $\frac{1}{2}$ " x 2" x 6".....	.30
4735	CRANK STAND PLATE, $\frac{1}{2}$ " x 7" x 2' 6" (Blank).....	2.00
5959	SLIDE PLATE, $\frac{3}{8}$ " x 4" x 4' 8".....	1.60
6487	TIE STRAP, $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " x 4' 7".....	1.30
6504	TIE PLATE, " x 7" x 9' 0", Straight. See note above.....	
6528	TIE PLATE, " x 7" x 13' 0", Straight. See note above.....	8.00
6529	TIE PLATE, " x 7" x 12' 0", Straight. See note above.....	7.50
6781	TIE PLATE, " x 7" x 9' 0", Straight. See note above.....	6.00
7326	CRANK STAND PLATE, $\frac{1}{2}$ " x 7" x 2' 6", punched.....	2.20
7665	RAIL BRACE PLATE, $\frac{3}{4}$ " x 3" x 7" (Special).....	.24
7994	RAIL BRACE, Wrought Iron. When ordering send print or rail Section. Prices furnished on application.....	
8055	TIE STRAP, $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " x 6' 0".....	1.70
8688	CRANK STAND PLATE, $\frac{1}{2}$ " x 10" x 2' 2", punched.....	3.00
10730	RAIL BRACE PLATE, $\frac{1}{2}$ " x 2" x 6".....	.16
10731	SLIDE PLATE, $\frac{3}{8}$ " x 2 $\frac{1}{2}$ " x 9".....	.22
10737	TIE PLATE, " x 6" x 7' 4", Straight. See note above.....	5.10
10748	TIE PLATE, " x 6" x 7' 4", Straight. See note above.....	3.92
10749	TIE PLATE, " x 6" x 8' 6", Straight. See note above.....	4.54
10750	TIE PLATE, " x 6" x 10' 0", Straight. See note above.....	5.20
10751	TIE PLATE, " x 6" x 11' 0", Straight. See note above.....	5.72
10753	TIE PLATE, " x 6" x 13' 0", Straight. See note above.....	6.76
13988	TIE PLATE, " x 6" x 9' 0", Straight. See note above.....	4.82
13991	TIE PLATE, " x 6" x 12' 0", Straight. See note above.....	6.24
13994	TIE PLATE, " x 6" x 8' 6", Straight. See note above.....	7.92
13995	TIE PLATE, " x 6" x 9' 0", Straight. See note above.....	6.24
13996	TIE PLATE, " x 6" x 10' 0", Straight. See note above.....	6.90
13997	TIE PLATE, " x 6" x 11' 0", Straight. See note above.....	7.60
13998	TIE PLATE, " x 6" x 12' 0", Straight. See note above.....	8.24
13999	TIE PLATE, " x 6" x 13' 0", Straight. See note above.....	8.88
14000	TIE PLATE, " x 7" x 7' 4", Straight. See note above.....	4.48
14001	TIE PLATE, " x 7" x 8' 6", Straight. See note above.....	5.32
14002	TIE PLATE, " x 7" x 10' 0", Straight. See note above.....	6.28
14003	TIE PLATE, " x 7" x 11' 0", Straight. See note above.....	6.88
14004	TIE PLATE, " x 7" x 7' 4", Straight. See note above.....	5.96
14005	TIE PLATE, " x 7" x 8' 6", Straight. See note above.....	6.88
14006	TIE PLATE, " x 7" x 10' 0", Straight. See note above.....	8.10
14007	TIE PLATE, " x 7" x 11' 0", Straight. See note above.....	8.90
14008	TIE PLATE, " x 7" x 12' 0", Straight. See note above.....	9.72
14009	TIE PLATE, " x 7" x 13' 0", Straight. See note above.....	10.54

Order by NUMBER and NAME Appearing in Large Type



SWITCH CONNECTIONS

TIE PLATES AND RAIL BRACES—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

131

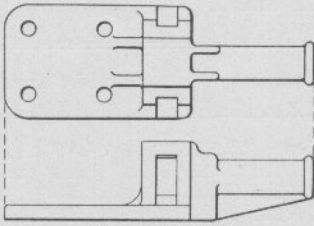
NOTE—The list of Tie Plates below does not include Rivets, Slide or Rail Brace Plates, which should be ordered separately if desired. When ordering Offset Tie Plates specify dimensions A, B and C.

Order No.	TIE PLATES AND RAIL BRACES—CONTINUED	List Price.
067	LAG SCREW, $\frac{3}{4}$ " x 4", for fastening Tie Plates to Ties.....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
093	RIVET, $\frac{3}{4}$ " x $1\frac{1}{2}$ ", for fastening Rail Brace Plates to $\frac{3}{8}$ " Tie Plate.....	.03
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16
0225	RIVET, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for fastening Slide Plates to Tie Plates.....	.02
0226	RIVET, $\frac{3}{8}$ " x $1\frac{3}{8}$ ", for fastening Plate 4643 to Tie Plates 14015, Etc.....	.03
0227	BOLT AND NUT, $\frac{3}{4}$ " x $8\frac{1}{2}$ ".....	.16
0288	RIVET, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for fastening Rail Brace Plate 559 to $\frac{1}{2}$ " Tie Plates.....	.03
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11".....	.19
0529	RIVET, $\frac{1}{2}$ " x 1", for fastening Plate 10730 to $\frac{3}{8}$ " Tie Plates.....	.02
558	SLIDE PLATE, $\frac{3}{8}$ " x 3" x 12".....	.40
559	Rail Brace PLATE, $\frac{3}{4}$ " x 2" x 7".....	.30
2828	RAIL BRACE (Cast Iron). When ordering send print of Rail Section.....	.60
4643	Rail Brace PLATE, $\frac{3}{4}$ " x 2" x 6".....	.30
4735	CRANK STAND PLATE, $\frac{1}{2}$ " x 7" x 2' 6" (Blank).....	2.00
5959	SLIDE PLATE, $\frac{3}{8}$ " x 4" x 4' 8".....	1.60
6487	TIE STRAP, $\frac{1}{2}$ " x $2\frac{1}{2}$ " x 4' 7".....	1.30
7326	CRANK STAND PLATE, $\frac{1}{2}$ " x 7" x 2' 6" (punched).....	2.20
7665	RAIL BRACE PLATE, $\frac{3}{4}$ " x 3" x 7" (Special).....	.24
7994	RAIL BRACE, Wrought Iron. When ordering send print of Rail Section. Prices furnished on application.....	.....
8055	TIE STRAP, $\frac{1}{2}$ " x $2\frac{1}{2}$ " x 6' 0".....	1.70
8688	CRANK STAND PLATE, $\frac{1}{2}$ " x 10" x 2' 2" (punched).....	3.00
10730	RAIL BRACE PLATE, $\frac{1}{2}$ " x 2" x 6".....	.16
10731	SLIDE PLATE, $\frac{3}{8}$ " x $2\frac{1}{2}$ " x 9".....	.22
14010	TIE PLATE, " x 6" x 9' 0", Offset. See note above.....	5.12
14011	TIE PLATE, " x 6" x 10' 0", Offset. See note above.....	5.60
14012	TIE PLATE, " x 6" x 11' 0", Offset. See note above.....	6.08
14013	TIE PLATE, " x 6" x 12' 0", Offset. See note above.....	6.56
14014	TIE PLATE, " x 6" x 13' 0", Offset. See note above.....	7.04
14015	TIE PLATE, " x 6" x 9' 0", Offset. See note above.....	6.56
14016	TIE PLATE, " x 6" x 10' 0", Offset. See note above.....	7.20
14017	TIE PLATE, " x 6" x 11' 0", Offset. See note above.....	7.20
14018	TIE PLATE, " x 6" x 12' 0", Offset. See note above.....	7.84
14019	TIE PLATE, " x 6" x 13' 0", Offset. See note above.....	8.48
14020	TIE PLATE, " x 7" x 9' 0", Offset. See note above.....	9.12
14021	TIE PLATE, " x 7" x 10' 0", Offset. See note above.....	6.20
14022	TIE PLATE, " x 7" x 11' 0", Offset. See note above.....	6.72
14023	TIE PLATE, " x 7" x 12' 0", Offset. See note above.....	7.96
14024	TIE PLATE, " x 7" x 13' 0", Offset. See note above.....	8.60
14025	TIE PLATE, " x 7" x 9' 0", Offset. See note above.....	7.80
14026	TIE PLATE, " x 7" x 10' 0", Offset. See note above.....	8.60
14027	TIE PLATE, " x 7" x 11' 0", Offset. See note above.....	9.40
14028	TIE PLATE, " x 7" x 12' 0", Offset. See note above.....	10.20
14029	TIE PLATE, $\frac{1}{2}$ " x 7" x 13' 0", Offset. See note above.....	11.00

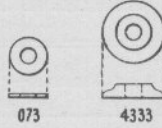
Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

FACING POINT LOCKS



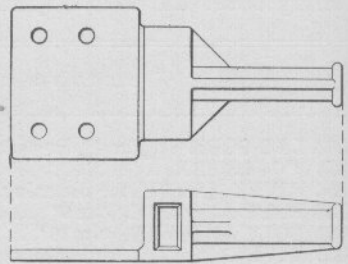
2796 - FOR  $\frac{3}{4}$ " X 2  $\frac{1}{2}$ " ROD.  
7434 - "  $\frac{3}{4}$ " X 2" "



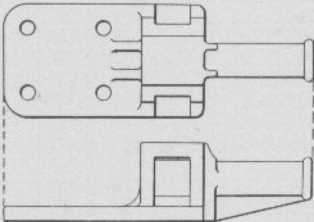
073

4333

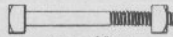
- 067 -  $\frac{3}{4}$ " X 4"
- 068 -  $\frac{3}{4}$ " X 5"
- 0231 -  $\frac{3}{4}$ " X 6"



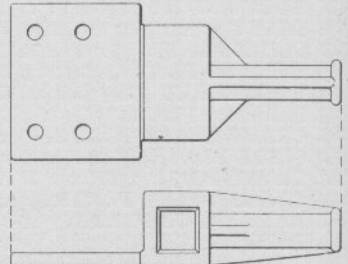
8742 - FOR  $\frac{3}{4}$ " X 2" ROD.



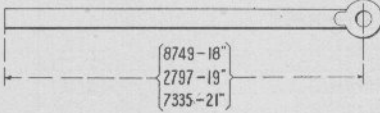
8741 - FOR  $\frac{3}{4}$ " X 2" ROD.



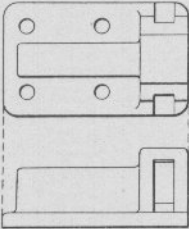
- 0133 -  $\frac{3}{4}$ " X 9"
- 0151 -  $\frac{3}{4}$ " X 10"
- 0437 -  $\frac{3}{4}$ " X 11"
- 0180 -  $\frac{3}{4}$ " X 12"
- 0131 -  $\frac{3}{4}$ " X 13"



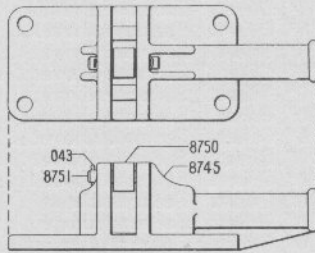
8743 - FOR  $\frac{3}{4}$ " X 2" ROD.



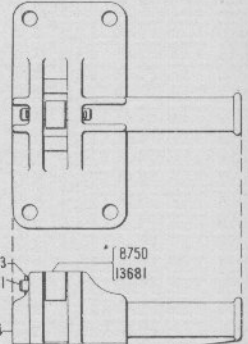
- 0749 - 18"
- 2797 - 19"
- 7335 - 21"



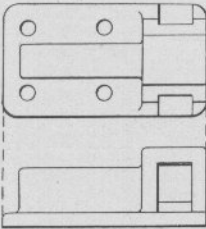
4737 - FOR  $\frac{3}{4}$ " X 2  $\frac{1}{2}$ " ROD.  
8746 - "  $\frac{3}{4}$ " X 2" "



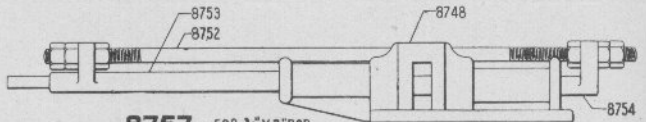
8756 - FOR  $\frac{3}{4}$ " X 2" ROD.



8755 - FOR  $\frac{3}{4}$ " X 2" ROD.  
13682 - FOR  $\frac{3}{4}$ " X 2  $\frac{1}{2}$ " ROD.



8747 - FOR  $\frac{3}{4}$ " X 2" ROD.



8757 - FOR  $\frac{3}{4}$ " X 2" ROD.

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

133

Order No.	FACING POINT LOCKS	List Price.
043	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
068	LAG SCREW, $\frac{3}{4}$ " x 5"	.08
073	WASHER for $\frac{3}{4}$ " Bolt	.02
0131	BOLT with Nut, $\frac{3}{4}$ " x 13"	.19
0133	BOLT with Nut, $\frac{3}{4}$ " x 9"	.16
0151	BOLT with Nut, $\frac{3}{4}$ " x 10"	.16
0180	BOLT with Nut, $\frac{3}{4}$ " x 12"	.19
0231	LAG SCREW, $\frac{3}{4}$ " x 6"	.09
0437	BOLT with Nut, $\frac{3}{4}$ " x 11"	.19
2796	SINGLE OUTSIDE PLUNGER STAND for Lock Rod, $\frac{3}{4}$ " x $2\frac{1}{4}$ "	2.20
2797	1" PLUNGER, 19" long	.64
4333	CAST WASHER for $\frac{3}{4}$ " Bolt	.08
4737	SINGLE PLUNGER STAND for Lock Rod, $\frac{3}{4}$ " x $2\frac{1}{4}$ "	1.80
7334	SINGLE OUTSIDE PLUNGER STAND for Lock Rod, $\frac{3}{4}$ " x 2"	2.04
7335	1" PLUNGER, 21" long	.70
8741	DOUBLE OUTSIDE PLUNGER STAND for Two Lock Rods, $\frac{3}{4}$ " x 2"	2.04
8742	SINGLE OUTSIDE PLUNGER STAND for Lock Rod, $\frac{3}{4}$ " x 2"	2.10
8743	DOUBLE OUTSIDE PLUNGER STAND for Two Lock Rods, $\frac{3}{4}$ " x 2"	2.22
8744	SINGLE INSIDE PLUNGER STAND, casting only, for 8755	2.28
8745	SINGLE INSIDE PLUNGER STAND, casting only, for 8756	2.04
8746	SINGLE PLUNGER STAND for Lock Rod, $\frac{3}{4}$ " x 2"	1.64
8747	DOUBLE PLUNGER STAND for Two Lock Rods, $\frac{3}{4}$ " x 2"	2.10
8748	DUPLEX PLUNGER STAND for 8757	2.22
8749	1" PLUNGER, 18" long	.60
8750	ROLLER for 8755 or 8756	.17
8751	PIN for 8755 or 8756	.08
8752	ROD for 8757	.68
8753	PLUNGER for 8757	3.80
8754	SHORT PLUNGER for 8757	2.60
8755	INSIDE PLUNGER STAND, COMPLETE for Lock Rod, $\frac{3}{4}$ " x 2"	2.50
8756	INSIDE PLUNGER STAND, COMPLETE for Lock Rod, $\frac{3}{4}$ " x 2"	2.30
8757	DUPLEX PLUNGER STAND, COMPLETE with Plungers	7.10
13681	ROLLER for 13682	.17
13682	INSIDE PLUNGER STAND, COMPLETE for Lock Rod, $\frac{3}{4}$ " x $2\frac{1}{4}$ "	2.50

Order by NUMBER and NAME Appearing in Large Type



# SWITCH CONNECTIONS

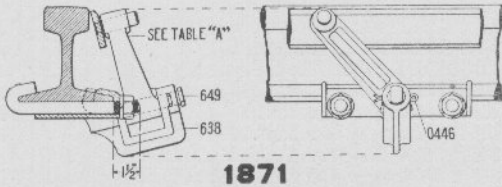
135

Order No.	DETECTOR BARS	List Price.
029	NUT LOCK for $\frac{3}{4}$ " Bolt.....	.02
091	NUT LOCK for $\frac{1}{2}$ " Bolt.....	.02
0113	NUT LOCK for $\frac{3}{8}$ " Bolt.....	.02
0260	BOLT with Nut, $\frac{5}{8}$ " x $1\frac{1}{4}$ ", C. S. Hd.....	.06
0261	BOLT with Nut, $\frac{1}{2}$ " x $1\frac{1}{4}$ ", C. S. Hd.....	.04
0296	BOLT with Nut, $\frac{3}{4}$ " x 2", C. S. Hd.....	.09
0449	RIVET, $\frac{1}{2}$ " x $1\frac{1}{4}$ ", C. S. Hd.....	.02
0457	RIVET, $\frac{5}{8}$ " x $1\frac{1}{4}$ ", Rd. Hd.....	.02
633	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 25' 4" long.....	4.00
1285	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	8.00
2014	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	8.00
2687	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 17' long. COMPLETE as shown.....	2.70
4461	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	8.00
8955	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	7.20
8956	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	9.20
8957	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	7.20
8958	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	9.20
8959	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	7.20
8960	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	9.20
8961	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	7.20
8962	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	8.00
8963	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 50' long. COMPLETE as shown.....	9.20
8964	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 17' long.....	2.40
8965	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 25' 4" long.....	3.60
8966	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 17' long.....	3.00
8967	DETECTOR BAR, $\frac{7}{16}$ " x $2\frac{1}{4}$ " x 25' 4" long.....	4.60
8969	SPLICE BAR for Detector Bars, as required.....	.36
8970	SPLICE BAR for Detector Bars, as required.....	.48

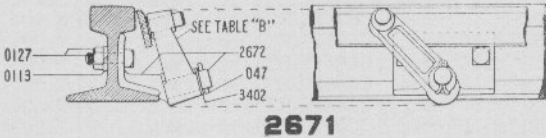
Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

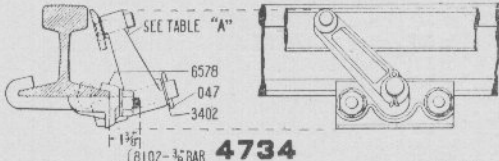
DETECTOR BARS. RAIL CLIPS



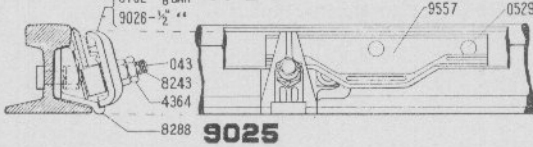
**1871**



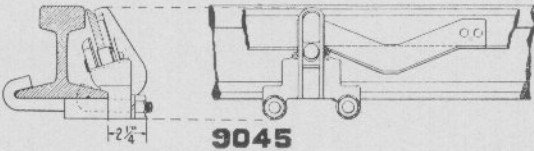
**2671**



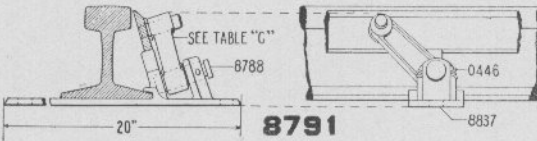
**4734**



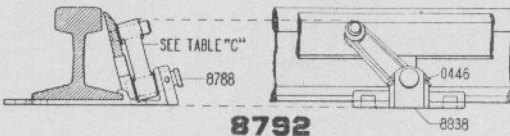
**9025**



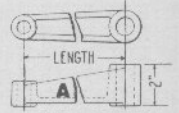
**9045**



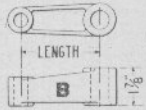
**8791**



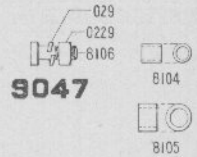
**8792**



LENGTH	SIZE OF RAIL
8978 - 4 1/2"	3 3/8" TO 4 1/2"
2976 - 5"	4 3/8" " 4 1/2"
8079 - 5 1/2"	4 3/8" " 4 1/2"
642 - 5 3/4"	5" " 5 1/2"
8981 - 6"	5 1/4" " 5 3/8"
1230 - 6 1/4"	5 1/2" " 5 3/8"
8982 - 6 1/2"	5 3/4" " 6"



LENGTH	SIZE OF RAIL
2974 - 3 3/8"	4 1/2" TO 4 3/4"
2975 - 4 1/2"	4 3/4" " 5"
8954 - 4 3/4"	5 1/4" " 5 1/2"
8989 - 5 1/4"	5 3/4" " 6"



**9047**



LENGTH	SIZE OF RAIL
8793 - 3 3/8"	4 1/4" TO 4 1/2"
8794 - 4 1/8"	4 3/8" " 5"
8795 - 4 3/8"	5" " 5 1/4"

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

137

NOTE—In ordering Rail Clips, complete information relative to dimensions of rail section, indicated by sketch or by reference to A. S. C. E. or other standard sections, or to plan on file with this company should accompany the order, also specify centers of links.

Order No.	DETECTOR BARS. RAIL CLIPS	List Price.
029	NUT LOCK for $\frac{3}{8}$ " Bolt.....	.02
043	COTTER Pin, $\frac{3}{16}$ " x $1\frac{1}{4}$ " (per 100).....	.80
047	COTTER Pin, $\frac{1}{4}$ " x $1\frac{1}{2}$ " (per 100).....	.80
0113	NUT LOCK for $\frac{5}{8}$ " Bolt.....	.02
0127	BOLT with Hex. Nut, $\frac{3}{8}$ " x $2\frac{1}{4}$ ".....	.07
0229	NUT, $\frac{3}{4}$ " Square, for 9047.....	.03
0234	NUT, $\frac{3}{8}$ " Hex.....	.02
0446	COTTER Pin, $\frac{1}{4}$ " x 2" (per 100).....	.80
0451	BOLT with Hex. Nut, $\frac{3}{8}$ " x $2\frac{1}{4}$ ".....	.14
0529	RIVET, $\frac{1}{2}$ " x 1", F. H.....	.02
635	HOOK BOLT, $\frac{3}{8}$ " x $6\frac{1}{4}$ ", with Nut and Nut Lock.....	.12
636	HOOK BOLT, $\frac{3}{8}$ " x $7\frac{1}{4}$ ", with Nut and Nut Lock.....	.12
638	RAIL CLIP, casting only, for 1871.....	1.10
642	LINK, $5\frac{3}{4}$ " Centers (see table A) for Clip 1871 or 4734.....	.36
649	PIN for 1871 or 8865.....	.12
1230	LINK, $6\frac{1}{4}$ " Centers (see Table A) for 1871 or 4734.....	.36
1871	RAIL CLIP COMPLETE with Pin, Link, Hook Bolts and Bar Stud.....	1.86
2671	WROUGHT RAIL CLIP COMPLETE with Stud, Link, Web Bolts and Bar Stud. Used on Bridges, Etc.....	2.52
2672	WROUGHT RAIL CLIP with Stud for 2671.....	1.92
2922	HOOK BOLT, $\frac{5}{8}$ " x $5\frac{3}{4}$ ", with Nut and Nut Lock.....	.12
2923	HOOK BOLT, $\frac{5}{8}$ " x $6\frac{3}{4}$ ", with Nut and Nut Lock.....	.12
2924	HOOK BOLT, $\frac{5}{8}$ " x $7\frac{3}{4}$ ", with Nut and Nut Lock.....	.12
2974	LINK, $3\frac{1}{4}$ " Centers (see Table B) for Clip 2671.....	.36
2975	LINK, $4\frac{1}{4}$ " Centers (see Table B) for Clip 2671.....	.36
2976	LINK, $5$ " Centers (see Table A) for Clip 1871 or 4734.....	.36
2982	HOOK BOLT, $\frac{5}{8}$ " x $2\frac{3}{8}$ ", with Nut and Nut Lock.....	.12
3090	HOOK BOLT, $\frac{5}{8}$ " x $8\frac{1}{4}$ ", with Nut and Nut Lock.....	.12
3402	WASHER for 1" Pin for various clips.....	.02
3469	STUD for 8790.....	.12
4364	NUT, $\frac{3}{4}$ " Hex., for 9025.....	.04
4734	RAIL CLIP COMPLETE with Pin, Hook Bolts and Bar Stud.....	1.32
4804	HOOK BOLT, $\frac{5}{8}$ " x $3\frac{3}{8}$ ", with Nut and Nut Lock.....	.12
6578	CLIP, with Stud for 4734.....	.64
8102	GUIDE CAP for 9025 when $\frac{3}{8}$ " Bar is used.....	
8104	BUSHING used on 9025.....	
8105	ROLLER used on 9025.....	
8106	SPECIAL HEAD BOLT for 9047.....	
8243	CENTER BOLT for 9025.....	
8288	CLIP, casting only, for 9025.....	
8760	HOOK BOLT, $\frac{3}{4}$ " x 9", with Nut and Nut Lock.....	.12
8761	HOOK BOLT, $\frac{3}{4}$ " x $9\frac{1}{4}$ ", with Nut and Nut Lock.....	.12
8762	HOOK BOLT, $\frac{3}{4}$ " x $10$ ", with Nut and Nut Lock.....	.12
8788	PIN for 8791 or 8792.....	.12
8790	RAIL CLIP COMPLETE with Pin, Link, Hook Bolts and Bar Stud.....	1.56
8791	RAIL CLIP COMPLETE for rear of Switch with 1" Pin, Link and Bar Stud.....	1.80
8792	RAIL CLIP COMPLETE for front of Switch with 1" Pin, Link and Bar Stud.....	1.80
8793	LINK, $3\frac{1}{8}$ " Centers (see Table C) for 8791 or 8792.....	.36
8794	LINK, $4\frac{7}{16}$ " Centers (see Table C) for 8791 or 8792.....	.36
8795	LINK, $4\frac{1}{4}$ " Centers (see Table C) for 8791 or 8792.....	.36

Order by NUMBER and NAME Appearing in Large Type



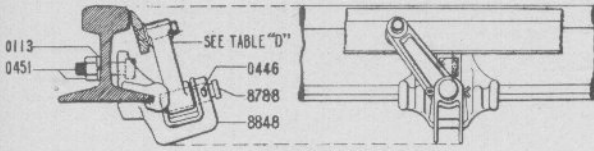
## SWITCH CONNECTIONS

Order No.	DETECTOR BARS. RAIL CLIPS—CONTINUED	List Price
8798	LINK, 6 $\frac{1}{2}$ " Centers (see Table E) for 8865 or 8790	.40
8799	LINK, 6 $\frac{3}{4}$ " Centers (see Table E) for 8865 or 8790	.40
8800	LINK, 7" Centers (see Table E) for 8865 or 8790	.40
8801	LINK, 7 $\frac{1}{4}$ " Centers (see Table E) for 8865 or 8790	.40
8836	RAIL CLIP, casting only, for 8790	.72
8837	CLIP for 8791	1.30
8838	CLIP for 8792	1.30
8847	RAIL CLIP, casting only, for 8865	1.20
8848	RAIL CLIP, casting only, for 8863 or 8864	.70
8849	GIB for inside of rail, for Clip 8864 or 8858	.12
8851	LINK, 4 $\frac{1}{4}$ " Centers (see Table D) for Clip 8863 or 8864	.36
8852	LINK, 4 $\frac{1}{2}$ " Centers (see Table D) for Clip 8863 or 8864	.36
8853	LINK, 4 $\frac{3}{4}$ " Centers (see Table D) for Clip 8863 or 8864	.36
8854	LINK, 5" Centers (see Table D) for Clip 8863 or 8864	.36
8855	LINK, 5 $\frac{1}{2}$ " Centers (see Table D) for Clip 8863 or 8864	.36
8856	LINK, 6" Centers (see Table D) for Clip 8863 or 8864	.36
8857	LINK, 6 $\frac{1}{4}$ " Centers (see Table D) for Clip 8863 or 8864	.36
8858	RAIL CLIP COMPLETE with Pin, Link, T. Bolt, Inside Gib and Bar Stud. T. Bolt should be 2" longer than width of rail.	1.75
8859	T. BOLT, " x 5 $\frac{1}{2}$ ", with Nut and Nut Lock	.12
8860	T. BOLT, " x 6", with Nut and Nut Lock	.12
8861	T. BOLT, " x 6 $\frac{1}{2}$ ", with Nut and Nut Lock	.12
8862	T. BOLT, " x 7", with Nut and Nut Lock	.12
8863	RAIL CLIP COMPLETE with Pin, Link, Web Bolt and Bar Stud	1.50
8864	RAIL CLIP COMPLETE with Pin, Link, T. Bolt, Inside Gib and Bar Stud. T. Bolt should be 1 $\frac{1}{4}$ " longer than width of rail	1.60
8865	RAIL CLIP COMPLETE with Pin, Link, Hook Bolts and Bar Stud	1.96
8866	RAIL CLIP with Stud for 8858 for 5" to 6" rails	1.00
8867	RAIL CLIP with Stud for 8790	.84
8897	LINK, 7 $\frac{1}{2}$ " Centers (see Table E) for Clip 8865 or 8790	.40
8898	LINK, 7 $\frac{3}{4}$ " Centers (see Table E) for Clip 8865 or 8790	.40
8899	LINK, 8" Centers (see Table E) for Clip 8865 or 8790	.40
8900	LINK, 8 $\frac{1}{4}$ " Centers (see Table E) for Clip 8865 or 8790	.40
8910	DETECTOR BAR STUD for $\frac{3}{8}$ " Bar (per 100)	6.40
8921	LINK, 8 $\frac{3}{4}$ " Centers (see Table E) for Clip 8865 or 8790	.40
8953	RAIL CLIP, with Stud for 8858, for 4" to 4 $\frac{1}{4}$ " rails	1.00
8954	LINK, 4 $\frac{3}{4}$ " Centers (see Table B) for Clip 2671	.36
8978	LINK, 4 $\frac{1}{2}$ " Centers (see Table A) for Clip 1871 or 4734	.36
8979	LINK, 5 $\frac{1}{2}$ " Centers (see Table A) for Clip 1871 or 4734	.36
8981	LINK, 6" Centers (see Table A) for Clip 1871 or 4734	.36
8982	LINK, 6 $\frac{1}{2}$ " Centers (see Table A) for Clip 1871 or 4734	.36
8989	LINK, 5 $\frac{1}{4}$ " Centers (see Table B) for Clip 2671	.36
8994	T. BOLT, $\frac{5}{8}$ " x 8", with Nut and Nut Lock	.12
9025	RAIL CLIP COMPLETE with Motion Plate, Rivets, Guide, Center and Web Bolts. Specify thickness of bar	
9026	GUIDE CAP for 9025 when $\frac{1}{2}$ " Bar is used	
9045	RAIL CLIP COMPLETE with Motion Plate, Rivets and Hook Bolts	1.84
9047	BOLT COMPLETE with Nut and Nut Lock, fastening 9025 to Web of rail	
9557	MOTION PLATE for 9025	
17590	DETECTOR BAR STUD for $\frac{17}{16}$ " Bar (per 100)	6.40
17591	DETECTOR BAR STUD for $\frac{1}{2}$ " Bar (per 100)	6.40

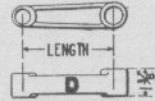
Order by NUMBER and NAME Appearing in Large Type

# SWITCH CONNECTIONS

## DETECTOR BARS. RAIL CLIPS—CONTINUED

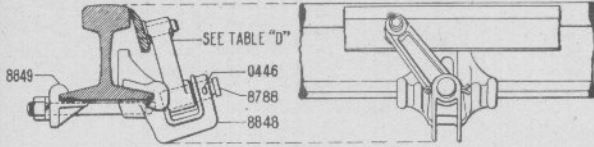


**8863**

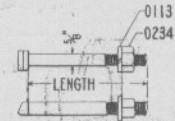


LENGTH : SIZE OF RAIL

8851 - 4 1/4"	4" TO 4 1/2"
8852 - 4 1/2"	4 1/2" " 4 3/4"
8853 - 4 3/4"	4 1/2" " 4 1/2"
8854 - 5"	4 1/2" " 5"
8855 - 5 1/2"	5" " 5 1/4"
8856 - 6"	5 1/2" " 5 3/4"
8857 - 6 1/4"	5 3/4" " 6"

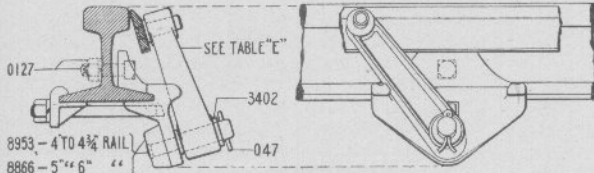


**8864**

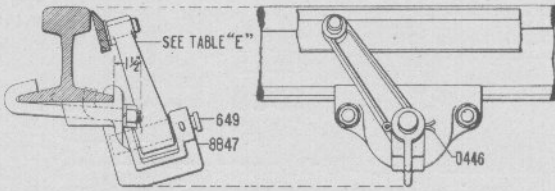


LENGTH : SIZE OF RAIL

8858 - 5 1/2"	8862 - 7"
8860 - 6"	8994 - 8"
8861 - 6 1/2"	



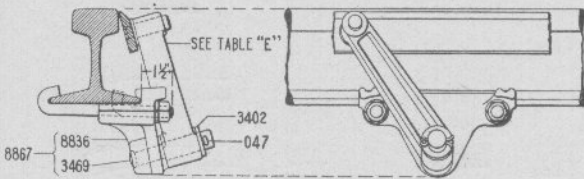
**8858**



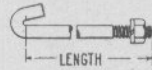
**8865**

LENGTH

8798 - 6 1/2"
8799 - 6 3/4"
8800 - 7"
8801 - 7 1/4"
8897 - 7 1/2"
8898 - 7 3/4"
8899 - 8"
8900 - 8 1/4"
8921 - 8 1/2"



**8790**



LENGTH

2922 - 5 3/4"
635 - 6 1/2"
2923 - 6 3/4"
636 - 7 1/4"
2924 - 7 3/4"
3090 - 8 1/4"
8760 - 9"
8761 - 9 1/2"
8762 - 10"

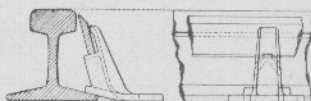
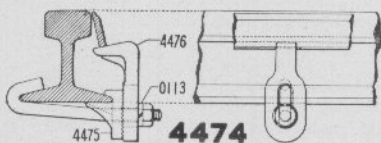
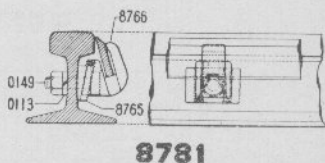
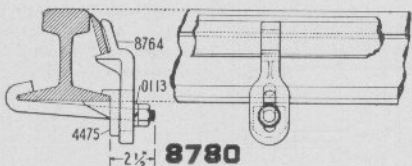
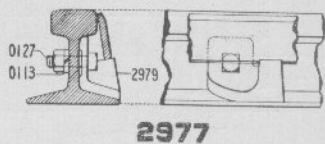
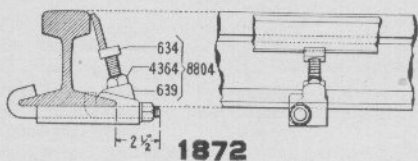
8910 - FOR 3/8" BAR  
17590 - " 1/16" " "  
17591 - " 1/2" " "

LENGTH

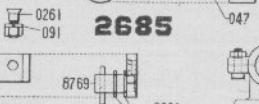
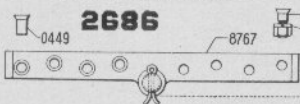
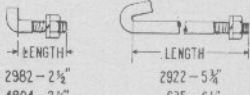
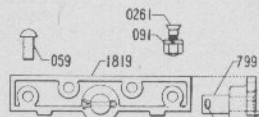
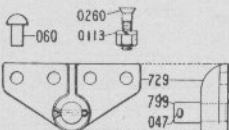
2982 - 2 1/2"
4804 - 3 1/2"

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

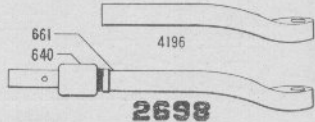
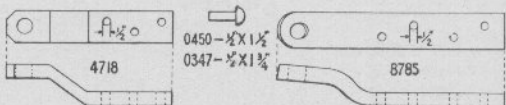
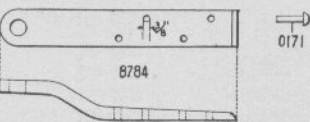
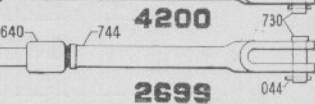
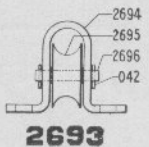
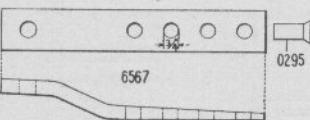
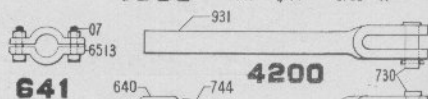
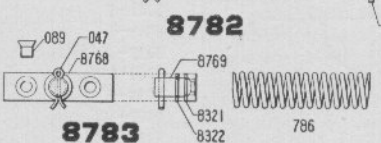
DETECTOR BARS, STOPS AND DRIVING PLATES



- 8770 - FOR 4" RAIL.
- 8771 - " 4 1/2 "
- 8772 - " 4 3/4 "
- 8773 - " 4 1/2 "
- 8774 - FOR 5" RAIL.
- 8775 - " 5 1/4 "
- 8776 - " 5 1/2 "
- 8777 - " 5 3/4 "



- 2982 - 2 1/2"
- 4804 - 3 1/2"
- 2922 - 5 3/4"
- 635 - 6 1/4"
- 2923 - 6 3/4"
- 636 - 7 1/4"
- 2924 - 7 3/4"
- 3090 - 8 1/4"
- 8760 - 9"
- 064 - 1/2 X 2 1/2"
- 067 - 3/8 X 4"
- 8761 - 9 1/2"
- 8762 - 10"



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH CONNECTIONS

141

Order No.	DETECTOR BARS. STOPS AND DRIVING PLATES	List Price.
07	BOLT and Nut, $\frac{3}{8}$ " x $1\frac{1}{4}$ "	.02
042	COTTER PIN, $\frac{1}{16}$ " x 1" (per 100)	.80
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " (per 100)	.80
047	COTTER PIN, $\frac{1}{4}$ " x $1\frac{1}{2}$ " (per 100)	.80
059	RIVET, $\frac{1}{2}$ " x $1\frac{1}{4}$ "	.02
060	RIVET, $\frac{3}{8}$ " x $1\frac{1}{2}$ "	.02
064	LAG SCREW, $\frac{1}{2}$ " x $2\frac{1}{2}$ "	.03
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
089	RIVET, C. S. Head, $\frac{3}{8}$ " x 1"	.01
091	NUT LOCK, for $\frac{3}{8}$ " Bolt	.02
0113	NUT LOCK, for $\frac{3}{8}$ " Bolt	.02
0127	BOLT with Hex. Nut, $\frac{3}{8}$ " x $2\frac{1}{4}$ "	.07
0149	BOLT with Nut, $\frac{3}{8}$ " x $2\frac{1}{2}$ "	.07
0171	RIVET, $\frac{3}{8}$ " x $1\frac{1}{4}$ " Used with Driving Plate 8784	.01
0260	COUNTERSUNK BOLT with Nut, $\frac{3}{8}$ " x $1\frac{3}{4}$ "	.06
0261	COUNTERSUNK BOLT with Nut, $\frac{1}{2}$ " x $1\frac{3}{4}$ "	.04
0295	RIVET, $\frac{3}{8}$ " x 2" Used with Driving Piece 6567	.03
0347	RIVET, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", Round Head	.02
0449	RIVET, $\frac{1}{2}$ " x $1\frac{1}{2}$ "	.02
0450	RIVET, $\frac{1}{2}$ " x $1\frac{1}{2}$ "	.02
634	ADJUSTING SCREW, special for 1872	.14
635	HOOK BOLT, $\frac{3}{8}$ " x $6\frac{1}{4}$ ", with Nut and Nut Lock	.12
636	HOOK BOLT, $\frac{3}{8}$ " x $7\frac{1}{4}$ ", with Nut and Nut Lock	.12
639	CLIP for Adjustable Detector Bar Stop 1872	.40
640	PIPE COUPLING, 1" reinforced	.19
641	CLAMP COMPLETE. Used on Detector Bar Operating Rod for compressing spring 786	.24
661	EYE ROD only with Tang End, for 2698	.72
729	DRIVING BRACKET Casting, for 2686	.50
730	PIN, $\frac{1}{8}$ " x $2\frac{3}{8}$ ", for Solid Jaws	.07
744	SOLID JAW, $1\frac{1}{4}$ ", with Tang End	.84
786	SPRING, used on Detector Bar Operating Rod	.36
799	STUD, used on Driving Brackets 2685 and 2686	.12
931	SOLID JAW, $1\frac{1}{4}$ ", stub end	.74
1098	Cast PIPE GUIDE COMPLETE. Applied only when spring 786 is used	.52
1819	DRIVING BRACKET Casting for 2685	.50
1872	ADJUSTABLE DETECTOR BAR STOP COMPLETE. In ordering specify width of rail. Hook Bolts should be $2\frac{1}{4}$ " longer than width of rail	.70
2658	CAP for 1098	.12
2685	Detector Bar DRIVING PIECE COMPLETE	.64
2686	Detector Bar DRIVING PIECE COMPLETE	.64
2693	Single Roller WROUGHT PIPE CARRIER COMPLETE. For other Pipe Carriers see page 96	.31
2694	STAND for Pipe Carrier 2693	.21
2695	ROLLER for Pipe Carrier 2693	.09
2696	PIN for Pipe Carrier 2693	.05
2698	EYE ROD COMPLETE, $1\frac{1}{4}$ ", with Tang End	.92
2699	SOLID JAW COMPLETE, $1\frac{1}{4}$ ", with Tang End	1.08
2922	HOOK BOLT, $\frac{3}{8}$ " x $5\frac{3}{4}$ ", with Nut and Nut Lock	.12
2923	HOOK BOLT, $\frac{3}{8}$ " x $6\frac{3}{4}$ ", with Nut and Nut Lock	.12
2924	HOOK BOLT, $\frac{3}{8}$ " x $7\frac{3}{4}$ ", with Nut and Nut Lock	.12
2977	WROUGHT DETECTOR BAR STOP COMPLETE. Used with Detector Bar Clip 2671. In ordering send print of rail section	.70
2979	WROUGHT CLIP only for 2977. In ordering send print of rail section	.64
2982	SHORT HOOK BOLT, $\frac{3}{8}$ " x $2\frac{1}{2}$ ", with Nut and Nut Lock. Required when Long Hook Bolts cannot be used	.12

Order by NUMBER and NAME Appearing in Large Type

Order No.	DETECTION BARS. STOPS AND DRIVING PLATES—CONTINUED	List Price.
3090	HOOK BOLT, $\frac{5}{8}$ " x 8 $\frac{1}{2}$ ", with Nut and Nut Lock.....	.12
4196	Detector Bar EYE ROD, with Stub End.....	.72
4200	SOLID JAW COMPLETE, 1 $\frac{1}{4}$ ", with Stub End.....	.80
4364	NUT, Thin, $\frac{3}{4}$ ".....	.04
4474	ADJUSTABLE Detector BAR STOP COMPLETE. When ordering specify width of rail. Hook Bolts should be 2 $\frac{1}{2}$ " longer than width of rail.....	.76
4475	CLIP half of ADJUSTABLE Detector BAR STOP, for 4474 or 8780....	.28
4476	ADJUSTABLE STOP Casting for 4474.....	.36
4549	BASE Casting for 1098.....	.28
4718	WROUGHT Detector Bar DRIVING PIECE, using Three $\frac{1}{2}$ " Rivets ..	.80
4804	SHORT HOOK BOLT, $\frac{5}{8}$ " x 3 $\frac{1}{2}$ ", with Nut and Nut Lock.....	.12
6513	HALF CLAMP for Clamp 641.....	.12
6567	WROUGHT Detector Bar DRIVING PIECE, using Four $\frac{3}{4}$ " Rivets ...	.80
8321	WASHER for 8782 or 8783.....	.02
8322	WASHER for 8782 or 8783.....	.02
8760	HOOK BOLT, $\frac{5}{8}$ " x 9", with Nut and Nut Lock.....	.12
8761	HOOK BOLT, $\frac{5}{8}$ " x 9 $\frac{1}{2}$ ", with Nut and Nut Lock.....	.12
8762	HOOK BOLT, $\frac{5}{8}$ " x 10", with Nut and Nut Lock.....	.12
8764	Detector Bar STOP AND GUIDE, for 8780.....	.36
8765	ADJUSTABLE Detector Bar STOP, RAIL HALF, for 8781.....	.08
8766	ADJUSTABLE Detector Bar STOP AND GUIDE, for 8781.....	.16
8767	WROUGHT Detector Bar DRIVING and SPLICE PLATE.....	1.20
8768	PLATE for Detector Bar Driving Piece 8783.....	.40
8769	STUD for 8782 and 8783.....	.12
8770	Detector Bar STOP AND GUIDE for 4" Rail.....	.22
8771	Detector Bar STOP AND GUIDE for 4 $\frac{1}{4}$ " Rail.....	.22
8772	Detector Bar STOP AND GUIDE for 4 $\frac{1}{2}$ " Rail.....	.22
8773	Detector Bar STOP AND GUIDE for 4 $\frac{3}{4}$ " Rail.....	.22
8774	Detector Bar STOP AND GUIDE for 5" Rail.....	.22
8775	Detector Bar STOP AND GUIDE for 5 $\frac{1}{4}$ " Rail.....	.22
8776	Detector Bar STOP AND GUIDE for 5 $\frac{1}{2}$ " Rail.....	.22
8777	Detector Bar STOP AND GUIDE for 5 $\frac{3}{4}$ " Rail.....	.22
8780	ADJUSTABLE Detector Bar STOP AND GUIDE COMPLETE. When ordering specify width of rail. Hook Bolts should be 2 $\frac{1}{2}$ " longer than width of rail.....	.76
8781	ADJUSTABLE Detector Bar STOP AND GUIDE for fastening to web of rail.....	.32
8782	WROUGHT DRIVING and SPLICE PLATE COMPLETE.....	1.36
8783	WROUGHT DRIVING PLATE COMPLETE for Two Rivets.....	.54
8784	WROUGHT Detector Bar DRIVING PIECE using Four $\frac{3}{8}$ " Rivets.....	.80
8785	WROUGHT Detector Bar DRIVING PIECE using Four $\frac{1}{2}$ " Rivets....	.80
8804	ADJUSTABLE Detector Bar STOP without Hook Bolt.....	.56

Order by NUMBER and NAME Appearing in Large Type

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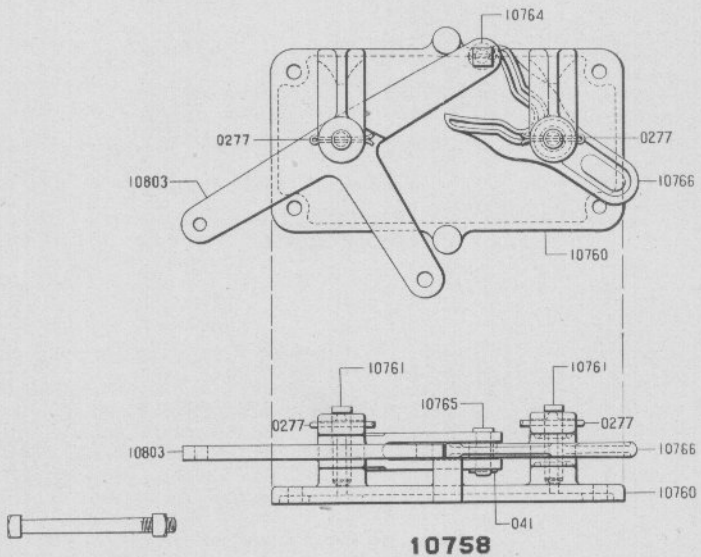
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## SWITCH CONNECTIONS

## STYLE "A" SWITCH AND LOCK MOVEMENT



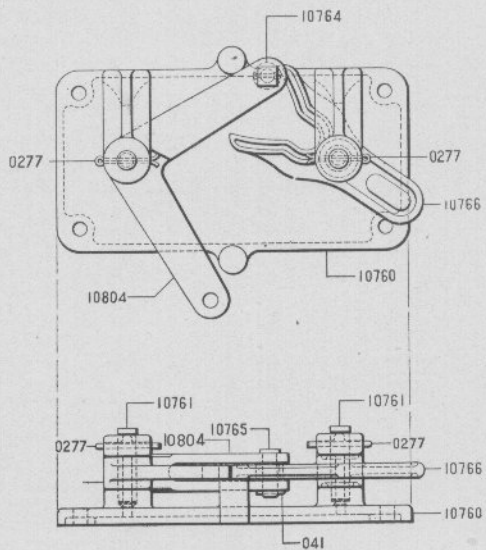
022 —  $\frac{3}{4} \times 6$   
 0214 —  $\frac{3}{4} \times 7\frac{1}{2}$   
 0227 —  $\frac{3}{4} \times 8\frac{1}{2}$



4333



073



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH CONNECTIONS

145

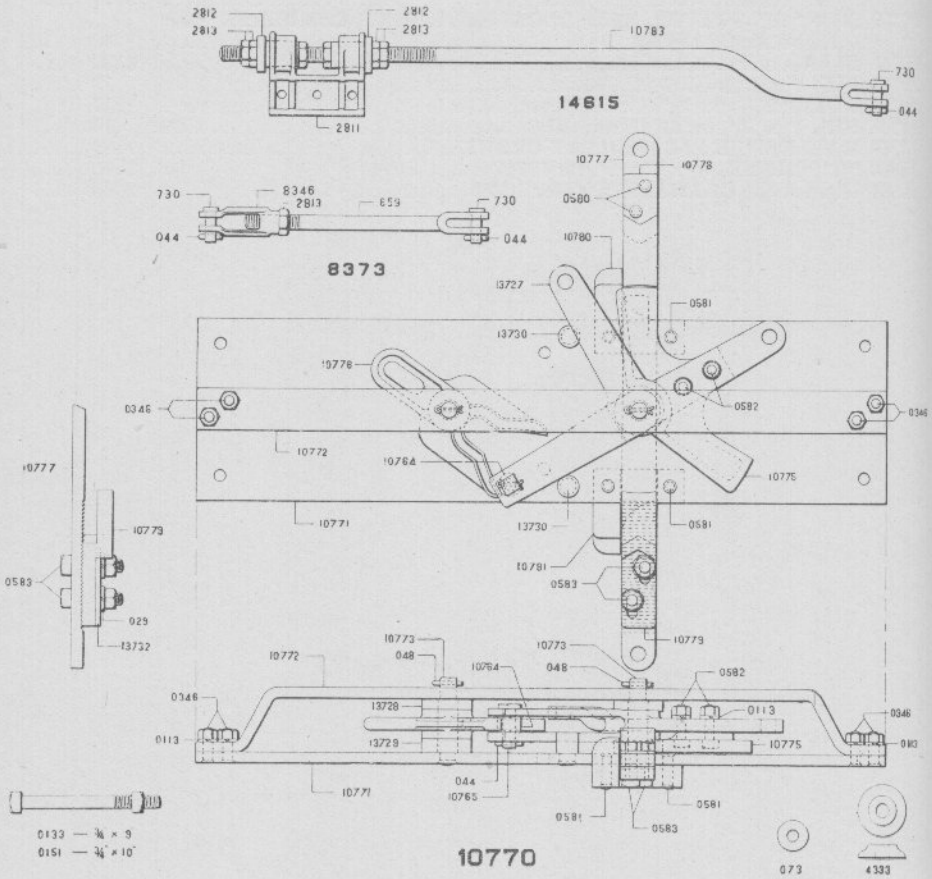
Order No.	STYLE "A" SWITCH AND LOCK MOVEMENT	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6".....	.14 .....
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 10765 (per 100).....	.80 .....
073	$\frac{3}{4}$ " WASHER.....	.02 .....
0214	BOLT AND NUT, $\frac{3}{4}$ " x $7\frac{1}{2}$ ".....	.14 .....
0227	BOLT AND NUT, $\frac{3}{4}$ " x $8\frac{1}{2}$ ".....	.16 .....
0277	COTTER PIN, $\frac{1}{4}$ " x $3\frac{1}{2}$ " (per 100).....	.80 .....
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08 .....
10758	Style "A" SWITCH AND LOCK MOVEMENT COMPLETE with "T" Crank.....	9.08 .....
10759	Style "A" SWITCH AND LOCK MOVEMENT COMPLETE with Right Angle Crank.....	8.60 .....
10760	STAND only.....	3.30 .....
10761	PIN, 1" x 4", for 10760.....	.19 .....
10764	ROLLER, $\frac{1}{4}$ " x $1\frac{1}{2}$ ", for 10803 and 10804.....	.17 .....
10765	PIN, $\frac{3}{4}$ " x $2\frac{1}{2}$ ", for 10803 and 10804.....	.14 .....
10766	MALLEABLE ESCAPEMENT CRANK.....	.81 .....
10803	"T" CRANK, 9" x 9" x 9", for 10758.....	3.00 .....
10804	Right Angle CRANK, 9" x 9", for 10759.....	2.60 .....

Order by NUMBER and NAME Appearing in Large Type



SWITCH CONNECTIONS

STYLE "B" SWITCH AND LOCK MOVEMENT



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH CONNECTIONS

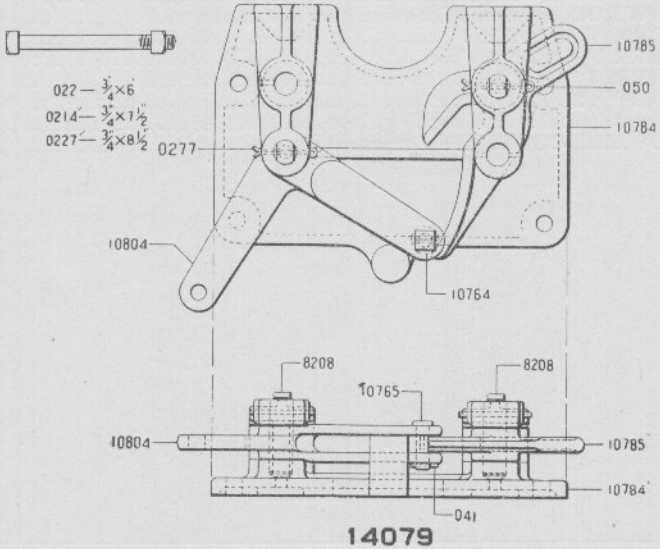
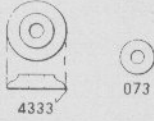
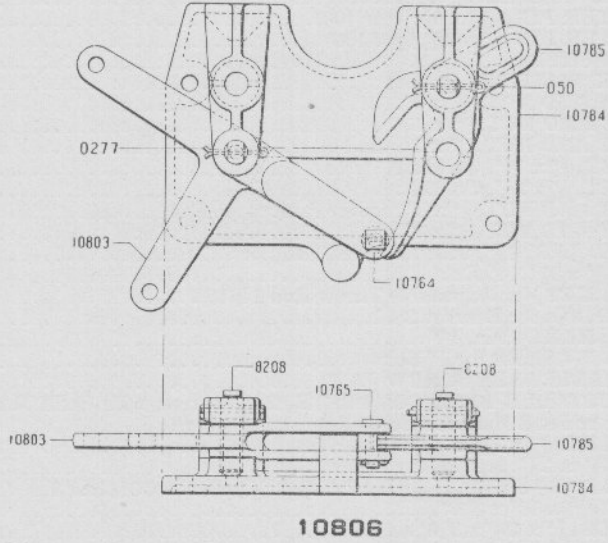
147

Order No.	STYLE "B" SWITCH AND LOCK MOVEMENT	List Price.
029	LOCK WASHER, $\frac{3}{4}$ "	.02
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " (per 100)	.80
048	COTTER PIN, $\frac{1}{4}$ " x $1\frac{1}{4}$ " (per 100)	.80
073	$\frac{3}{4}$ " WASHER	.02
0113	LOCK WASHER, $\frac{5}{8}$ "	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0346	BOLT AND NUT, $\frac{5}{8}$ " x 2", Ck. Hd.	.07
0580	RIVET, $\frac{5}{8}$ " x $1\frac{3}{4}$ ", Ck. Hd.	.02
0581	RIVET, $\frac{5}{8}$ " x $2\frac{1}{4}$ ", Ck. Hd.	.03
0582	BOLT AND NUT, $\frac{5}{8}$ " x 2"	.07
0583	BOLT AND NUT, $\frac{3}{4}$ " x 3"	.09
659	SOLID JAW, $1\frac{1}{2}$ ", with Threaded End, for 8373	1.34
730	PIN, $\frac{1}{4}$ " x $2\frac{3}{8}$ "	.07
2811	BRACKET, for Adjustable Throw Rod 14615	1.28
2812	BUSHING, for Bracket 2811	.32
2813	NUT, HEX., Thin, $1\frac{1}{4}$ "	.09
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
8346	$1\frac{1}{4}$ " MALLEABLE SCREW JAW	.41
8373	ADJUSTABLE LINK COMPLETE, 24" Centers, with Solid Jaw at one end and Malleable Screw Jaw at the other	2.00
10764	ROLLER, $\frac{3}{4}$ " x $1\frac{1}{2}$ " x $1\frac{5}{8}$ "	.17
10765	PIN, $\frac{3}{8}$ " x $2\frac{1}{2}$ "	.14
10770	STYLE "B" SWITCH AND LOCK MOVEMENT COMPLETE	25.00
10771	BASE, $\frac{5}{8}$ " x 11" x 3' 6"	.90
10772	BRACE, $\frac{5}{8}$ " x $2\frac{1}{2}$ " x 3' 6"	.90
10773	STUD, $1\frac{1}{4}$ " x $5\frac{1}{4}$ "	3.50
10775	CAM LOCK	.64
10776	MALLEABLE ESCAPEMENT CRANK	1.50
10777	LOCK ROD	1.00
10778	LOCKING DOG	1.00
10779	LOCKING DOG, ADJUSTABLE	2.96
10780	LEFT HAND LOCK GUIDE	3.20
10781	RIGHT HAND LOCK GUIDE	.16
10783	THROW ROD, only, with Solid Jaw and Threaded End	.20
13727	"T" CRANK, 9" x 9" x 9"	.16
13728	WASHER $1\frac{1}{16}$ " x $2\frac{1}{2}$ " x $\frac{5}{8}$ "	.20
13729	WASHER, $1\frac{1}{16}$ " x 3" x $\frac{5}{8}$ "	.16
13730	STUD, $1\frac{1}{4}$ " x 2"	.16
13732	CAP for Adjustable Locking Dog	.16
14615	THROW ROD COMPLETE, Adjustable	5.52

Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

STYLE "E" SWITCH AND LOCK MOVEMENT



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

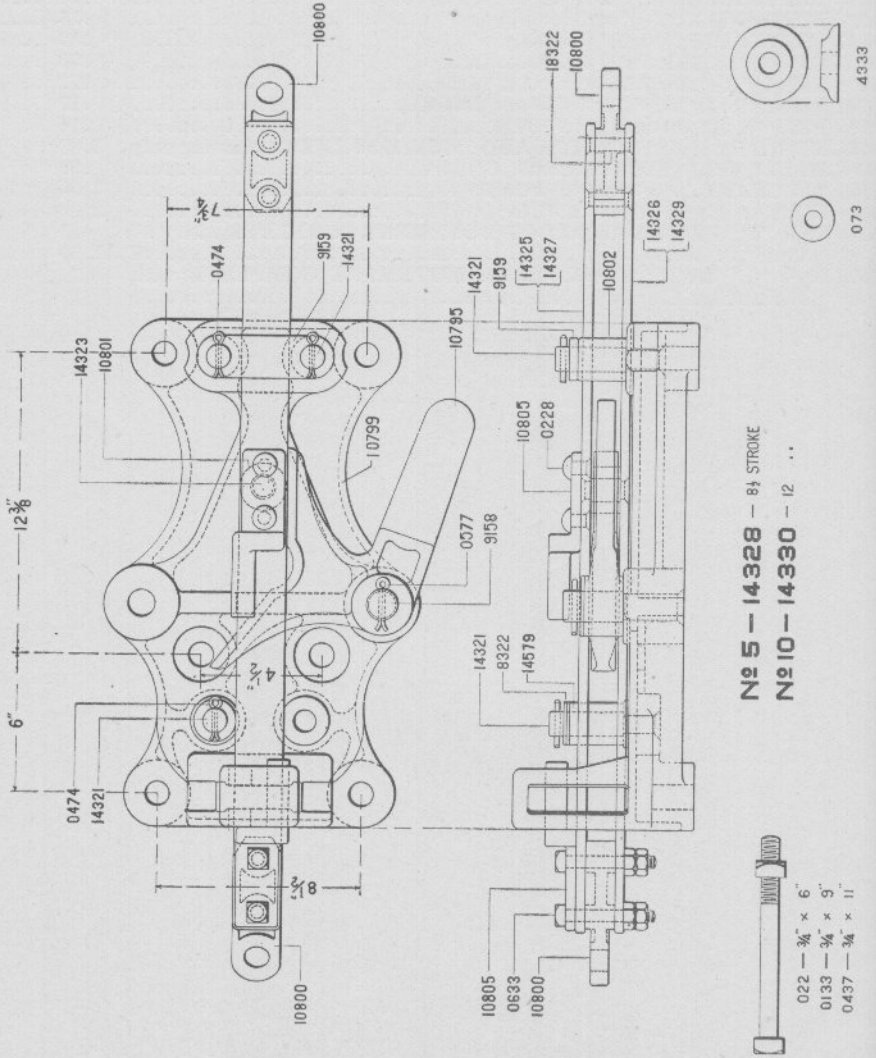
149

Order No.	STYLE "E" SWITCH AND LOCK MOVEMENT	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6" .....	.14 .....
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 10765 (per 100) .....	.80 .....
050	COTTER PIN, $\frac{1}{4}$ " x 4" (per 100) .....	.80 .....
073	$\frac{3}{4}$ " WASHER .....	.02 .....
0214	BOLT AND NUT, $\frac{3}{4}$ " x $7\frac{1}{2}$ " .....	.14 .....
0227	BOLT AND NUT, $\frac{3}{4}$ " x $8\frac{1}{2}$ " .....	.16 .....
0277	COTTER PIN, $\frac{1}{4}$ " x $3\frac{1}{2}$ " (per 100) .....	.80 .....
4333	CAST WASHER for $\frac{3}{4}$ " Bolts .....	.08 .....
8208	PIN, $1\frac{1}{4}$ " x 4", for 10784 .....	.22 .....
10764	ROLLER, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", for 10803 and 10804 .....	.17 .....
10765	PIN, $\frac{3}{4}$ " x $2\frac{1}{2}$ ", for 10803 and 10804 .....	.14 .....
10784	STAND for Style E SWITCH AND LOCK MOVEMENT, Casting only .....	5.80 .....
10785	MALLEABLE ESCAPEMENT CRANK .....	.96 .....
10803	"T" CRANK, 9" x 9" x 9", for 10806 .....	3.00 .....
10804	Right Angle CRANK, 9" x 9", for 14079 .....	2.60 .....
10806	Style "E" SWITCH AND LOCK MOVEMENT COMPLETE with "T" Crank .....	11.20 .....
14079	Style "E" SWITCH AND LOCK MOVEMENT COMPLETE with Right Angle Crank .....	10.72 .....

Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

NO. 5 AND 10 SWITCH AND LOCK MOVEMENTS



No 5 - 14328 - 8 1/2 STROKE  
 No 10 - 14330 - 12 ..

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

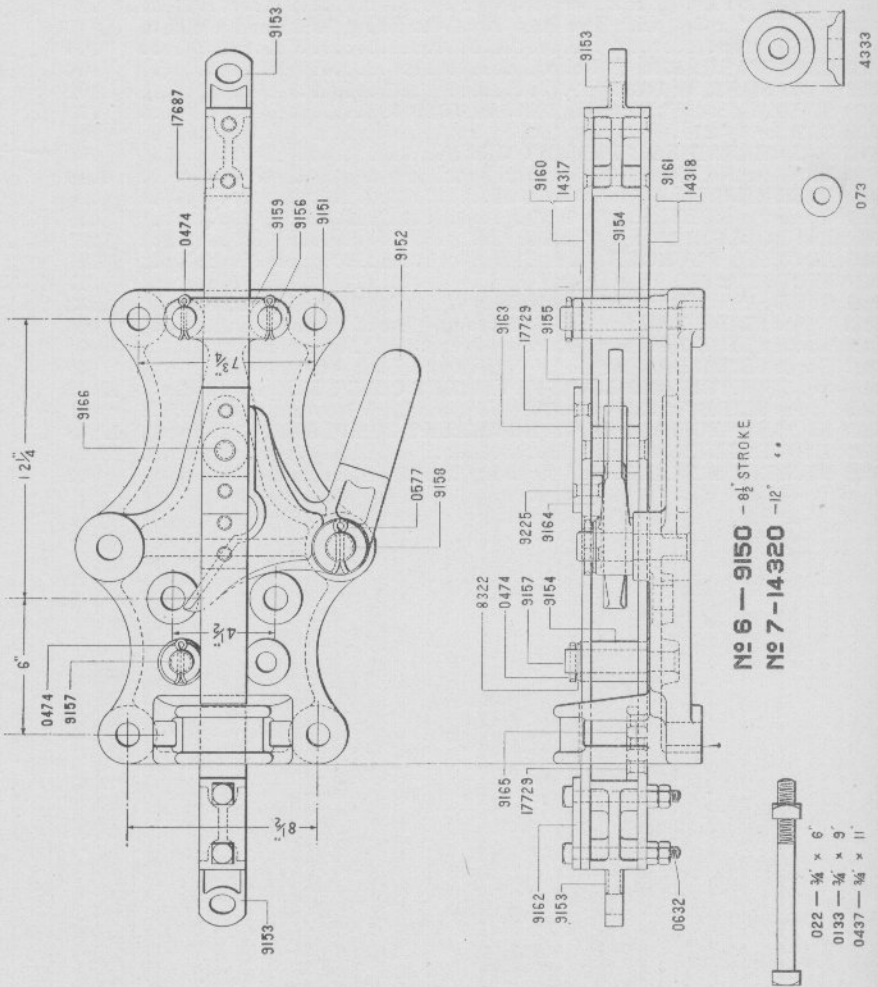
151

Order No.	NO. 5 AND 10 SWITCH AND LOCK MOVEMENTS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
073	$\frac{3}{8}$ " WASHER	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0228	RIVET, $\frac{3}{8}$ " x $1\frac{3}{8}$ ", for fixing 10805 to 14325 or 14327	.02
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
0474	COTTER PIN, $\frac{7}{32}$ " x $1\frac{1}{2}$ ", for 14321 (per 100)	.80
0577	COTTER PIN, $\frac{9}{32}$ " x 2", for 9158 (per 100)	.80
0633	BOLT, $\frac{1}{2}$ " x $3\frac{1}{4}$ ", with Two Hex. Nuts, for fixing 10805 and 10800 to Slide Bars	.06
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
8322	1" WASHER for 14321	.02
9158	STUD, $1\frac{1}{2}$ " x $4\frac{1}{8}$ ", for fixing 10795 to 10799	.19
9159	CAP for 14321	.09
10795	MALLEABLE ESCAPEMENT CRANK	.96
10799	BASE for No. 5 and 10 Switch and Lock Movement. Casting only	4.44
10800	MALLEABLE LUG for Slide Bars	.26
10801	Operating ROLLER, 2" x $1\frac{3}{8}$ "	.29
10802	End ROLLER, $1\frac{3}{4}$ " x $2\frac{1}{8}$ "	.21
10805	LOCKING PLUNGER	.21
14321	STUD, 1" x $4\frac{3}{8}$ ", for Side and End Rollers	.17
14323	STUD, 1" x $2\frac{3}{8}$ ", for fixing Operating Roller 10801 to Slide Bars	.13
14325	Upper SLIDE BAR for No. 5 Switch and Lock Movement	.65
14326	Lower SLIDE BAR for No. 5 Switch and Lock Movement	.65
14327	Upper SLIDE BAR for No. 10 Switch and Lock Movement	.69
14328	No. 5 SWITCH AND LOCK MOVEMENT COMPLETE, 8 $\frac{1}{2}$ " Stroke	12.40
14329	Lower SLIDE BAR, for No. 10 Switch and Lock Movement	.69
14330	No. 10 SWITCH AND LOCK MOVEMENT COMPLETE, 12" Stroke	12.48
14579	SIDE ROLLER, $1\frac{1}{2}$ " x $2\frac{1}{8}$ "	.21
18322	RIVET, $\frac{1}{2}$ " x $2\frac{1}{2}$ ", C. S. Hd., for fixing 10800 to Slide Bars	.02

Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

NO. 6 AND 7 SWITCH AND LOCK MOVEMENTS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH CONNECTIONS

153

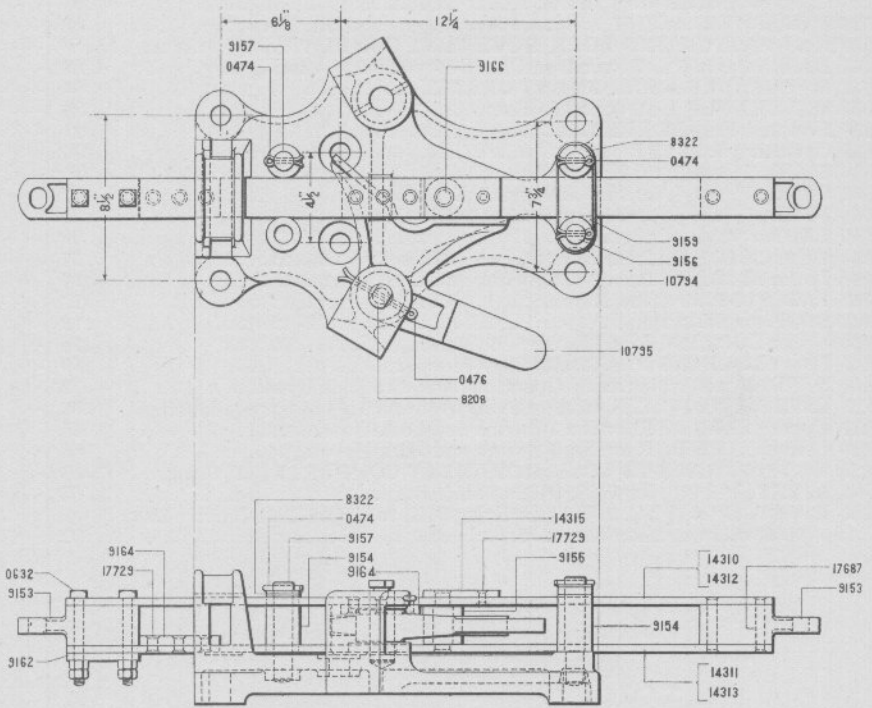
Order No.	NO. 6 AND 7 SWITCH AND LOCK MOVEMENTS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
073	$\frac{3}{4}$ " WASHER	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
0474	COTTER PIN, $\frac{7}{32}$ " x $1\frac{3}{8}$ ", for 9156 and 9157 (per 100)	.80
0577	COTTER PIN, $\frac{9}{32}$ " x 2", for 9158 (per 100)	.80
0632	BOLT, $\frac{1}{2}$ " x $4\frac{1}{2}$ ", with Two Hex. Nuts, for fixing 9153 and 9162 to Slide Bars	.07
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
8322	1" WASHER for 9157	.02
9150	No. 6 SWITCH AND LOCK MOVEMENT COMPLETE, $8\frac{1}{2}$ " Stroke	13.56
9151	BASE for No. 6 or 7 Switch and Lock Movement. Casting only	4.84
9152	MALLEABLE ESCAPEMENT CRANK	.96
9153	MALLEABLE LUG for Slide Bars	.26
9154	Side and End ROLLER	.21
9155	Operating ROLLER	.29
9156	STUD, 1" x $5\frac{1}{8}$ ", for End Rollers	.19
9157	STUD, 1" x $5\frac{1}{8}$ ", for Side Rollers	.17
9158	STUD, $1\frac{1}{4}$ " x $4\frac{1}{8}$ ", for fixing 9152 to 9151	.21
9159	CAP for 9156	.09
9160	Upper SLIDE BAR for No. 6 Switch and Lock Movement	.57
9161	Lower SLIDE BAR for No. 6 Switch and Lock Movement	.57
9162	END STOP for Slide Bars	.12
9163	STOP for Slide Bar	.12
9164	Upper LOCKING PLATE, for Slide Bars	.24
9165	Lower LOCKING PLATE, for Slide Bars	.19
9166	STUD, 1" x $2\frac{1}{8}$ ", for fixing Operating Roller to Slide Bars	.12
9225	RIVET, $1\frac{1}{2}$ " x $1\frac{1}{8}$ ", C. S. Hd., for fixing 9163 and 9164 to Upper Slide Bars	.02
14317	Upper SLIDE BAR for No. 7 Switch and Lock Movement	.65
14318	Lower SLIDE BAR for No. 7 Switch and Lock Movement	.65
14320	No. 7 SWITCH AND LOCK MOVEMENT COMPLETE, 12" Stroke	13.68
17687	RIVET, $\frac{1}{2}$ " x $3\frac{1}{8}$ ", for fixing 9163 to Slide Bar	.02
17729	RIVET, $1\frac{1}{2}$ " x $1\frac{1}{8}$ ", C. S. Hd., for fixing 9163 to Upper Slide Bars. Also 9165 to Lower Slide Bars	.02

Order by NUMBER and NAME Appearing in Large Type



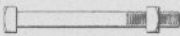
SWITCH CONNECTIONS

NO. 8 AND 9 SWITCH AND LOCK MOVEMENTS



**N<sup>o</sup> 8 - 14314 - 8 1/2" STROKE**

**N<sup>o</sup> 9 - 14316 - 12" "**



- 022 - 3/4" x 6"
- 0133 - 3/4" x 5"
- 0437 - 3/4" x 11"



073



4333

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH CONNECTIONS

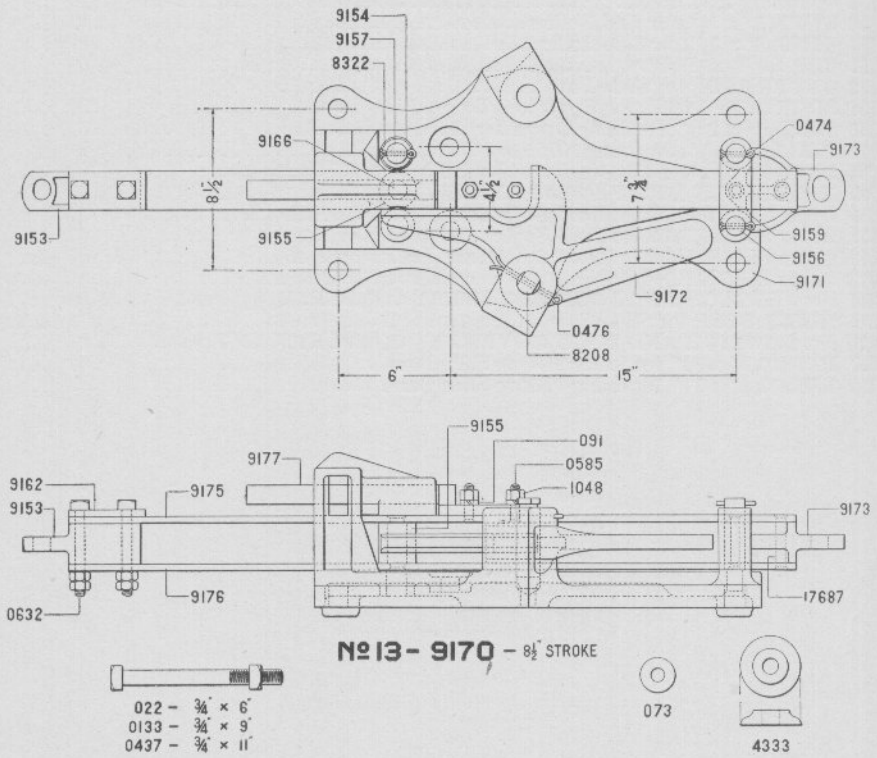
155

Order No.	NO. 8 AND 9 SWITCH AND LOCK MOVEMENTS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
073	$\frac{3}{8}$ " WASHER	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
0474	COTTER PIN, $\frac{7}{32}$ " x $1\frac{1}{4}$ ", for 9157 (per 100)	.80
0476	COTTER PIN, $\frac{7}{32}$ " x $4\frac{1}{2}$ ", for fixing 9174 to 10794 (per 100)	.80
0632	BOLT, $\frac{1}{2}$ " x $4\frac{1}{2}$ ", with Two Hex. Nuts, for fixing 9153 to Slide Bars	.07
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
8322	1" WASHER for 9157	.02
9153	MALLEABLE LUG for Slide Bars	.26
9154	Side and End ROLLER	.21
9155	Operating ROLLER	.29
9156	STUD, 1" x $5\frac{1}{2}$ ", for End Rollers	.19
9157	STUD, 1" x $5\frac{1}{8}$ ", for Side Roller	.17
9159	CAP for End Rollers	.09
9162	OUTER STOP for Slide Bars	.12
9164	LOCKING PLATE, for Upper and Lower Slide Bars	.24
9166	STUD, 1" x $2\frac{1}{8}$ ", for fixing Operating Roller to Slide Bars	.12
9174	PIN, $1\frac{1}{4}$ " x $4\frac{3}{8}$ ", for fixing 10795 to 10794	.21
10794	BASE for No. 8 and 9 Switch and Lock Movement. Casting only	4.72
10795	MALLEABLE ESCAPEMENT CRANK	.96
14310	Upper SLIDE BAR for No. 8 Switch and Lock Movement	.57
14311	Lower SLIDE BAR for No. 8 Switch and Lock Movement	.57
14312	Upper SLIDE BAR for No. 9 Switch and Lock Movement	.65
14313	Lower SLIDE BAR for No. 9 Switch and Lock Movement	.65
14314	No. 8 SWITCH AND LOCK MOVEMENT COMPLETE, $8\frac{1}{2}$ " Stroke	12.96
14315	INNER STOP for Slide Bars	.12
14316	No. 9 SWITCH AND LOCK MOVEMENT COMPLETE, 12" Stroke	13.08
17687	RIVET, $\frac{1}{2}$ " x $3\frac{1}{8}$ ", for fixing 9153 to Slide Bars	.02
17729	RIVET, $\frac{1}{2}$ " x $1\frac{1}{8}$ ", for fixing 9164 to Slide Bars	.02

Order by NUMBER and NAME Appearing in Large Type

## SWITCH CONNECTIONS

## NO. 13 SWITCH AND LOCK MOVEMENT



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

SWITCH CONNECTIONS

Order  
No.

NO. 13 SWITCH AND LOCK MOVEMENT

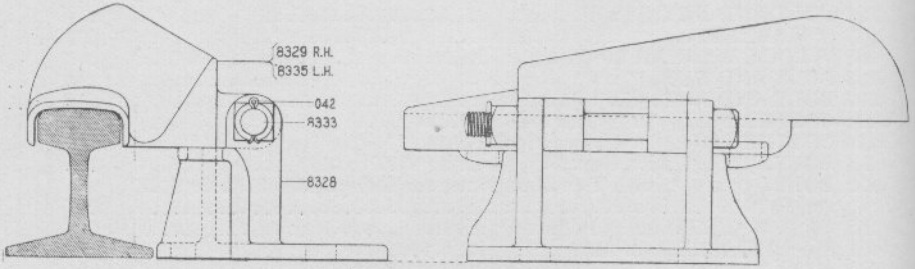
List Price.

022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14	
073	$\frac{3}{4}$ " WASHER	.02	
091	$\frac{1}{2}$ " LOCK WASHER for 0585	.02	
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16	
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19	
0474	COTTER PIN, $\frac{3}{32}$ " x $1\frac{1}{4}$ ", for 9156 (per 100)	.80	
0476	COTTER PIN, $\frac{3}{32}$ " x 4", for fixing 9174 to 9171 (per 100)	.80	
0585	BOLT, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", with Hex. Nut, for fixing 9177 to 9175	.04	
0632	BOLT, $\frac{1}{2}$ " x $4\frac{1}{2}$ ", with Two Hex. Nuts, for fixing 9153, 9162 to 9175 and 9175	.07	
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08	
8322	Special WASHER for 9157	.02	
9153	MALLEABLE LUG for 9175 and 9176	.26	
9154	Side and End ROLLER	.21	
9155	Operating ROLLER	.29	
9156	STUD, 1" x $5\frac{1}{2}$ ", for End Rollers	.19	
9157	STUD, 1" x $5\frac{1}{8}$ ", for Side Roller	.17	
9159	CAP for End Rollers	.09	
9162	OUTER STOP for Slide Bar 9175	.12	
9166	STUD, 1" x $2\frac{1}{2}$ ", for fixing Operating Roller to 9175 and 9176	.12	
9170	No. 13 SWITCH AND LOCK MOVEMENT COMPLETE, $8\frac{1}{2}$ " Stroke	14.76	
9171	BASE for No. 13 Switch and Lock Movement. Casting only	5.80	
9172	MALLEABLE ESCAPEMENT CRANK	.96	
9173	LUG and Stop for Slide Bars 9175 and 9176	.43	
9174	PIN, $1\frac{1}{4}$ " x $4\frac{3}{8}$ ", for fixing 9172 to 9171	.21	
9175	Upper SLIDE BAR	.69	
9176	Lower SLIDE BAR	.69	
9177	LOCKING PLUNGER	.57	
17687	RIVET, $\frac{1}{2}$ " x $3\frac{1}{8}$ ", for fixing 9173 to 9175 and 9176	.02	

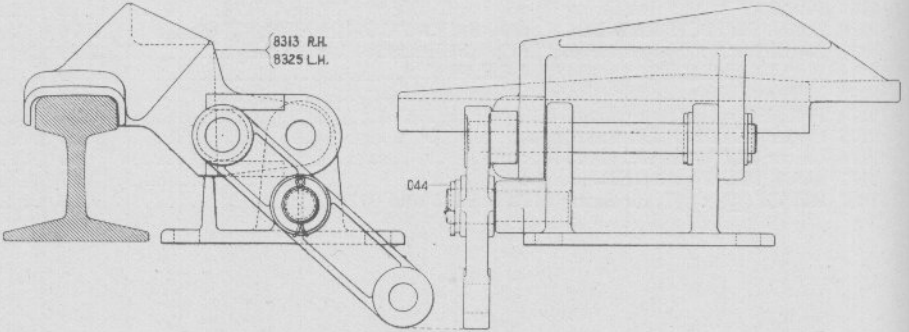
Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

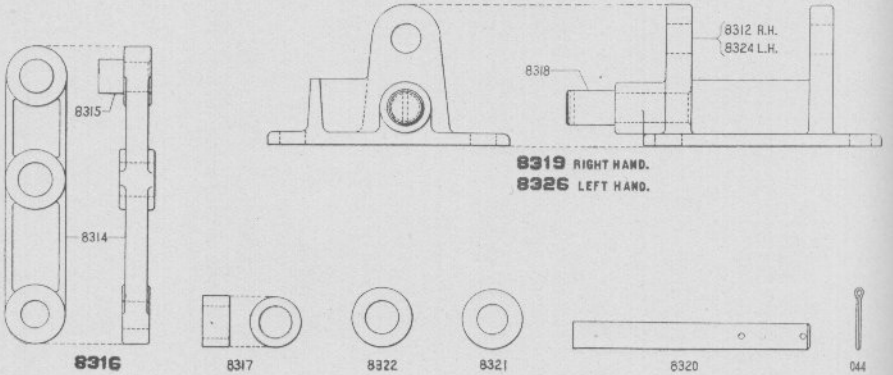
ANDERSON-BEVAN DERAIL



**8327** RIGHT HAND.  
**8334** LEFT HAND.

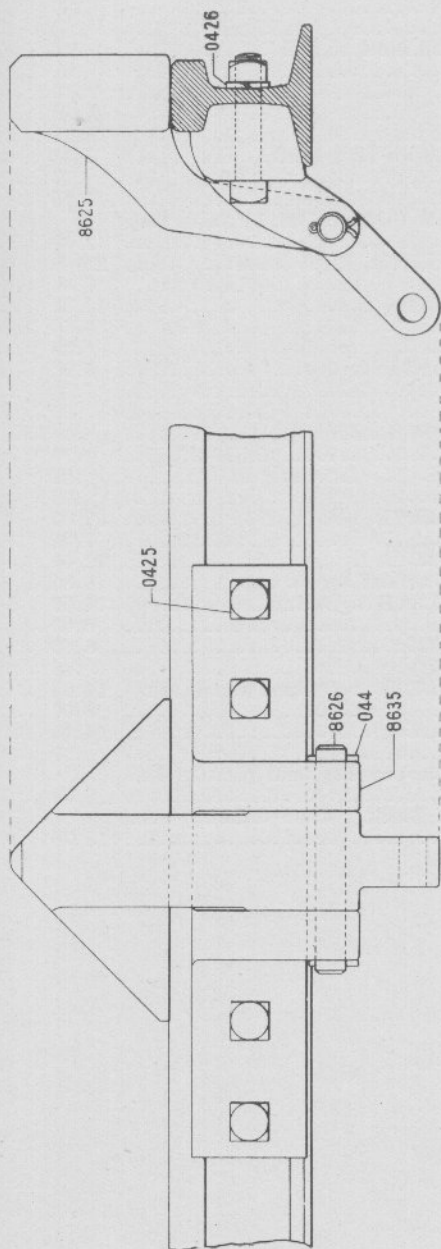


**8311** RIGHT HAND.  
**8323** LEFT HAND.

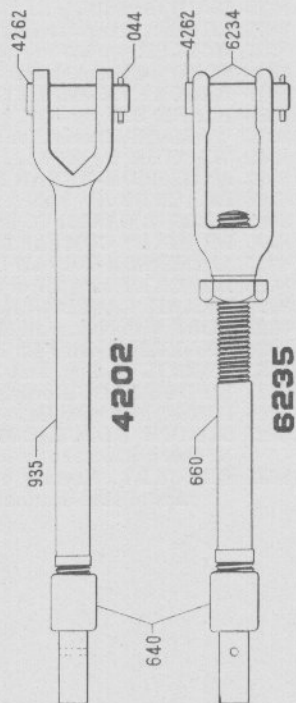


Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

SCOTCH BLOCK



**8627**



**4202**

**6235**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	ANDERSON-BEVAN DERAIL AND SCOTCH BLOCK	List Price.
042	COTTER PIN, $\frac{3}{8}$ " x 1" (per 100).....	.80
044	COTTER PIN, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " (per 100).....	.80
0425	BOLT with Nut, $\frac{3}{8}$ " x 5", fastening Scotch Block to Rail.....	.16
0426	NUT LOCK for $\frac{7}{8}$ " Bolt.....	.02
640	PIPE COUPLING, 1" reinforced.....	.19
660	SCREW ROD, 1 $\frac{1}{4}$ ", with Tang End.....	.50
935	WIDE SOLID JAW, 1 $\frac{1}{4}$ ", with Tang End.....	1.14
4202	WIDE SOLID JAW COMPLETE, 1 $\frac{1}{4}$ ", with Tang End.....	1.44
4262	PIN, $\frac{7}{8}$ " x 3 $\frac{3}{8}$ ", for Wide Jaws.....	.11
6234	WIDE WROUGHT SCREW JAW, 1 $\frac{1}{4}$ ".....	1.70
6235	WIDE ADJUSTABLE WROUGHT JAW COMPLETE, 1 $\frac{1}{4}$ ", with Tang End.....	2.50
8311	ANDERSON-BEVAN DERAIL COMPLETE, Right Hand.....	24.00
8312	BRACKET for 8319.....	7.80
8313	DERAIL CASTING, Right Hand, for 8311.....	12.00
8314	LEVER for 8316.....	3.80
8315	STUD for 8316.....	.30
8316	LEVER, Complete with Stud, for 8311 or 8323.....	4.00
8317	ROLLER for 8311 or 8323.....	.30
8318	STUD for Brackets for 8319 or 8326.....	.30
8319	BRACKET COMPLETE with Stud, Right Hand, for 8311.....	8.00
8320	HINGE PIN for 8311 or 8323.....	.20
8321	WASHER, Special, for 8320.....	.02
8322	WASHER for 8318.....	.02
8323	ANDERSON-BEVAN DERAIL COMPLETE, Left Hand.....	24.00
8324	BRACKET for 8326.....	7.80
8325	DERAIL CASTING, Left Hand, for 8323.....	12.00
8326	BRACKET COMPLETE with Stud, Left Hand, for 8323.....	8.00
8327	ANDERSON-BEVAN DERAIL COMPLETE Right Hand (hand throw).....	14.00
8328	BRACKET for 8327 or 8334.....	6.00
8329	DERAIL CASTING, Right Hand, for 8327.....	8.00
8333	BOLT with Nut, with Cotter Hole, $\frac{3}{4}$ " x 7".....	.18
8334	ANDERSON-BEVAN DERAIL COMPLETE, Left Hand (hand throw).....	14.00
8335	DERAIL Casting, Left Hand, for 8327.....	8.00
8625	WEDGE BLOCK only, for 8627 (steel casting).....	14.10
8626	HINGE PIN with Cotter Holes for 8627.....	.17
8627	SCOTCH BLOCK COMPLETE. When ordering send print of Rail Section.....	28.80
8635	BRACKET, Casting only, for Scotch Block. When ordering send print of Rail Section.....	13.70

Order by NUMBER and NAME Appearing in Large Type

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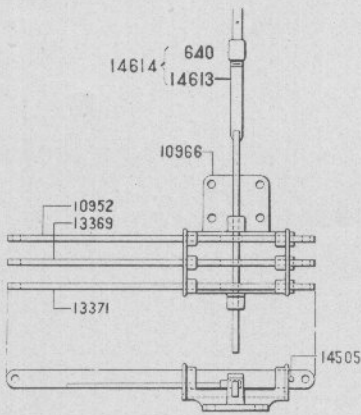
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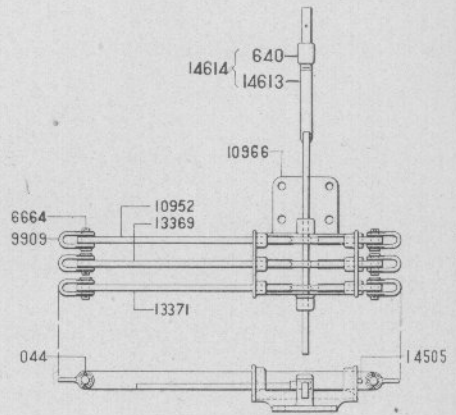


SWITCH CONNECTIONS

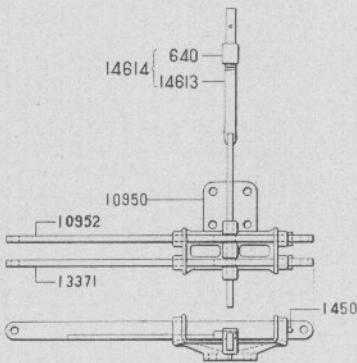
STYLE "A" BOLT LOCKS



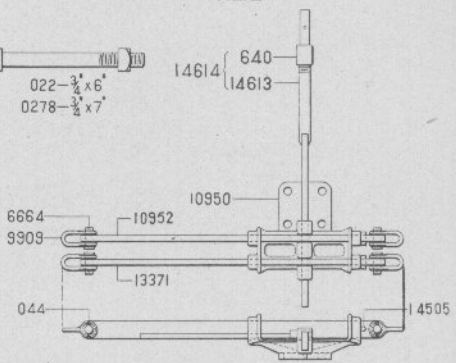
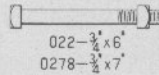
14129



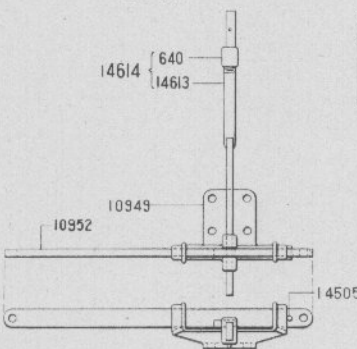
14128



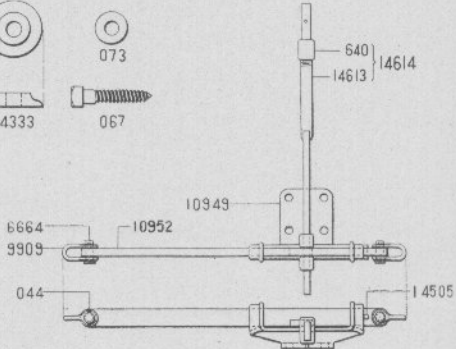
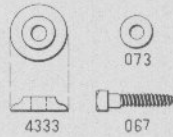
10948



14127



10947



14126

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

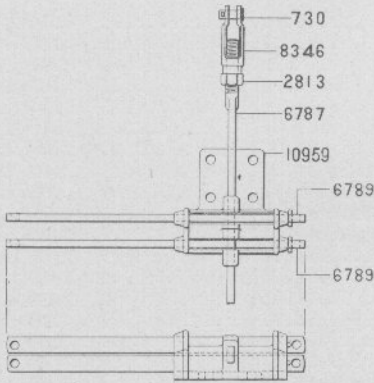
163

Order No.	STYLE "A" BOLT LOCKS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6".....	.14
044	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ " (per 100) .....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14
640	1" Reinforced Pipe COUPLING.....	.19
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
6664	PIN, $\frac{7}{8}$ " x $2\frac{1}{8}$ ".....	.07
9909	$\frac{7}{8}$ " MALLEABLE SHACKLE.....	.05
10947	1 Way BOLT LOCK COMPLETE, Pipe Connected.....	4.28
10948	2 Way BOLT LOCK COMPLETE, Pipe Connected.....	6.90
10949	STAND for 1 Way Bolt Lock, Casting only.....	2.00
10950	STAND for 2 Way Bolt Lock, Casting only.....	3.10
10952	SIGNAL BAR.....	1.28
10966	STAND for 3 Way Bolt Lock, Casting only.....	4.00
13369	SIGNAL BAR (left hand beveled).....	1.56
13371	SIGNAL BAR (right hand beveled).....	1.56
14126	1 Way BOLT LOCK COMPLETE, Wire Connected.....	4.68
14127	2 Way BOLT LOCK COMPLETE, Wire Connected.....	7.60
14128	3 Way BOLT LOCK COMPLETE, Wire Connected.....	10.48
14129	3-Way BOLT LOCK COMPLETE, Pipe Connected.....	8.28
14505	PIN, $\frac{1}{2}$ " x $1\frac{1}{4}$ ", for Stop on Signal Bars .....	.05
14613	SWITCH BAR, only.....	1.00
14614	SWITCH BAR COMPLETE, with Tang End.....	1.16

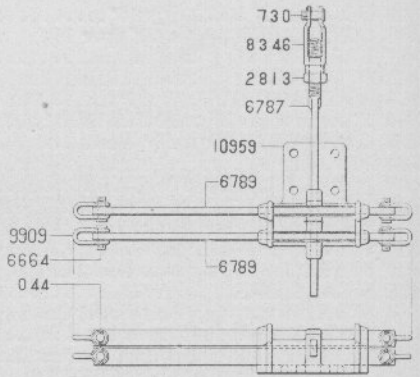
Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

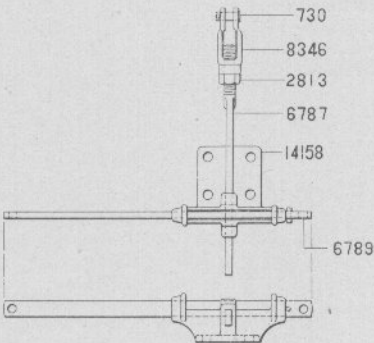
STYLE "B" AND "C" BOLT LOCKS



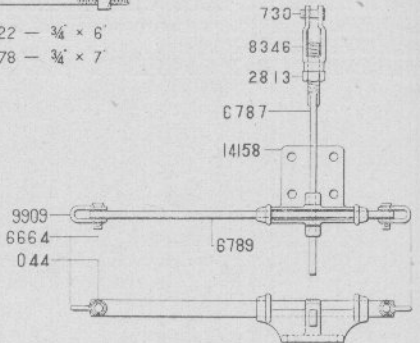
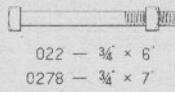
6786



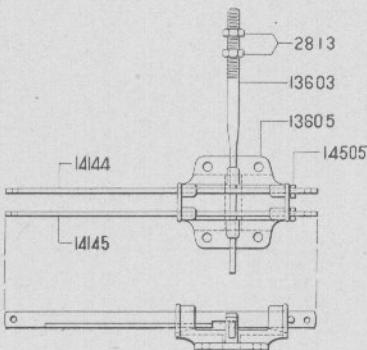
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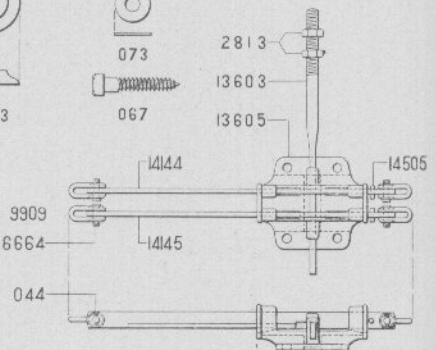
6784



13606



13608



13610

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

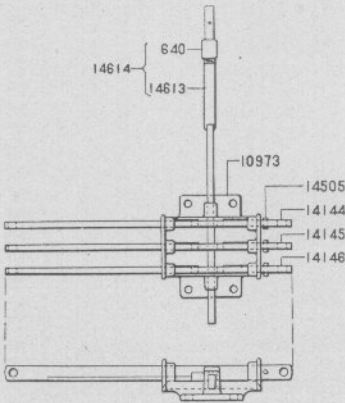
165

Order No.	STYLE "B" AND "C" BOLT LOCKS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 730 and 6664 (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for 959	.07
2813	Thin NUT, $1\frac{1}{4}$ ", for 6787 and 13603	.09
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
6664	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for 6655	.07
6784	Style "B" 1 Way BOLT LOCK COMPLETE, Pipe Connected	4.84
6786	Style "B" 2 Way BOLT LOCK COMPLETE, Pipe Connected	7.80
6787	SWITCH BAR for Style "B" Bolt Locks	1.20
6789	SIGNAL BAR for Style "B" Bolt Locks	1.28
8346	$1\frac{1}{4}$ " MALLEABLE SCREW JAW	.41
9909	$\frac{3}{4}$ " MALLEABLE SHACKLE	.05
10959	STAND for Style "B" 2 Way Bolt Lock, Casting only	3.40
13603	SWITCH BAR for Style "C" Bolt Lock	1.20
13604	Style "B," 2 Way BOLT LOCK COMPLETE, Wire Connected	8.60
13605	STAND for Style "C," 2 Way Bolt Lock, Casting only	3.02
13606	Style "B," 1 Way, BOLT LOCK COMPLETE, Wire Connected	5.24
13608	Style "C," 2 Way, BOLT LOCK COMPLETE, Pipe Connected	7.10
13610	Style "C," 2 Way, BOLT LOCK COMPLETE, Wire Connected	7.90
14144	SIGNAL BAR	1.24
14145	SIGNAL BAR (left hand beveled)	1.56
14158	STAND for Style "B," 1 Way Bolt Lock. Casting only	2.00
14505	PIN, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", for Stop on 13607	.05

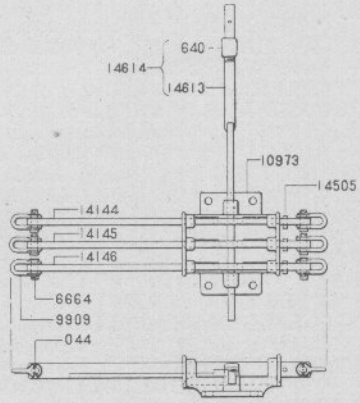
Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

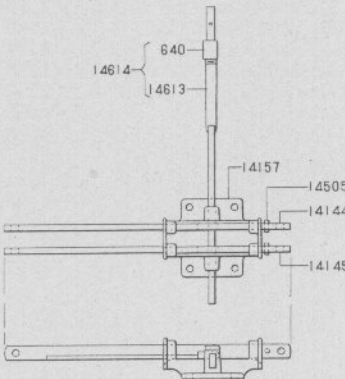
STYLE "D" BOLT LOCKS



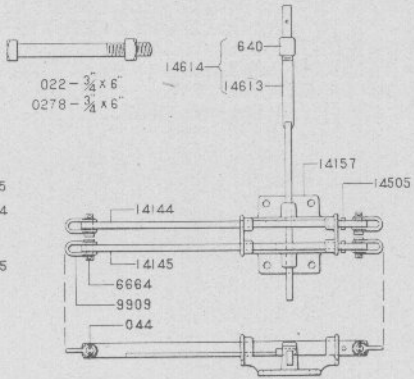
14150



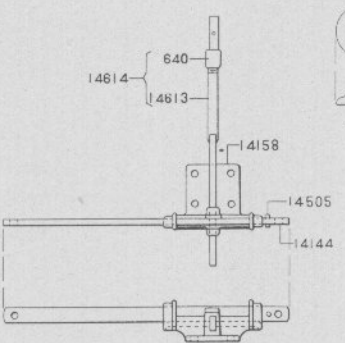
14152



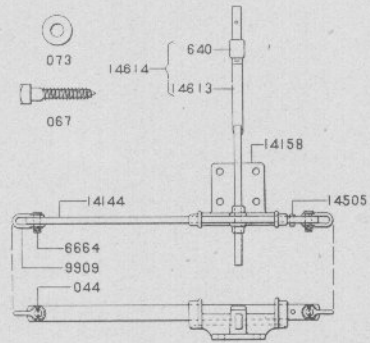
14153



14154



14155



14156

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## SWITCH CONNECTIONS

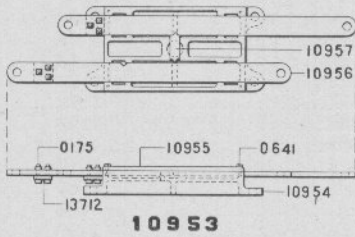
167

Order No.	STYLE "D" BOLT LOCK	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6".....	.14
044	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ " (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14
640	1" Reinforced Pipe COUPLING.....	.19
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
6664	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ".....	.07
9909	$\frac{3}{8}$ " MALLEABLE SHACKLE.....	.05
10973	STAND for 3 Way Bolt Lock, Casting only.....	4.00
14144	SIGNAL BAR.....	1.24
14145	SIGNAL BAR (left hand beveled).....	1.56
14146	SIGNAL BAR (right hand beveled).....	1.56
14150	3 Way BOLT LOCK COMPLETE, Pipe Connected.....	9.28
14152	3 Way BOLT LOCK COMPLETE, Wire Connected.....	10.48
14153	2 Way BOLT LOCK COMPLETE, Pipe Connected.....	6.92
14154	2 Way BOLT LOCK COMPLETE, Wire Connected.....	7.72
14155	1 Way BOLT LOCK COMPLETE, Pipe Connected.....	4.28
14156	1 Way BOLT LOCK COMPLETE, Wire Connected.....	4.68
14157	STAND, for 2 Way Bolt Lock, Casting only.....	3.12
14158	STAND, for 1 Way Bolt Lock, Casting only.....	2.00
14505	PIN, $\frac{1}{2}$ " x $1\frac{3}{8}$ ".....	.05
14613	SWITCH BAR only.....	1.00
14614	SWITCH BAR COMPLETE, with Tang End.....	1.16

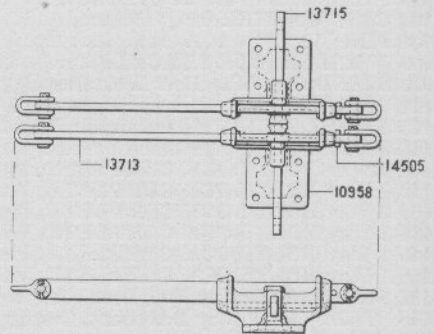
Order by NUMBER and NAME Appearing in Large Type

SWITCH CONNECTIONS

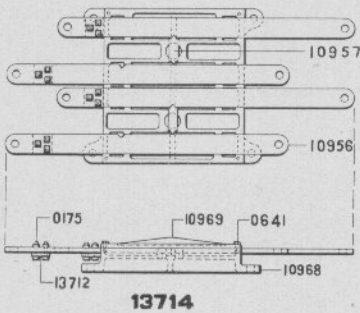
STYLE "E" AND "F" BOLT LOCKS



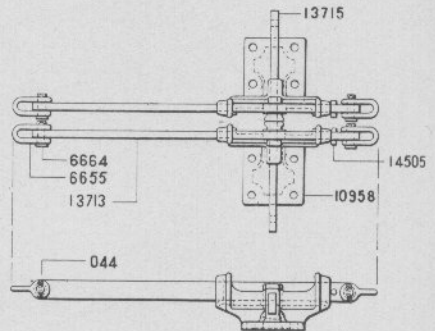
**10953**



**1 WAY-13718 COMPLETE  
2 .. 14617 ..**



**13714**



**1 WAY-13720 COMPLETE  
2 .. 14618 ..**



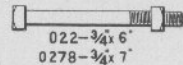
073



4333



067



022- $\frac{3}{4}$ x6  
0278- $\frac{3}{4}$ x7

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH CONNECTIONS

169

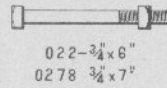
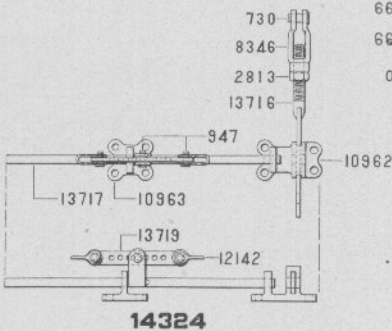
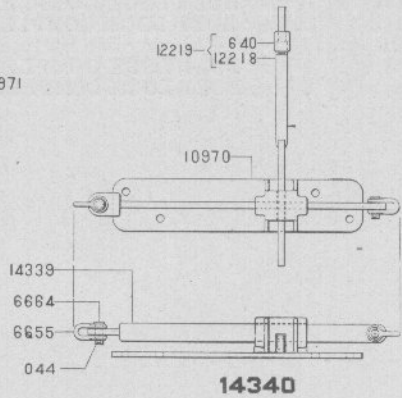
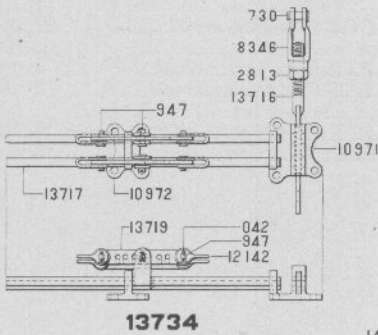
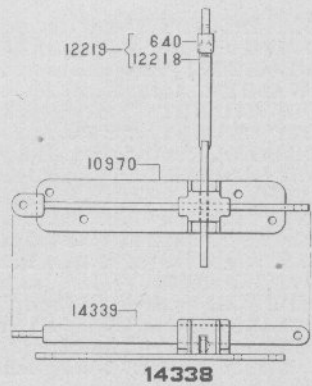
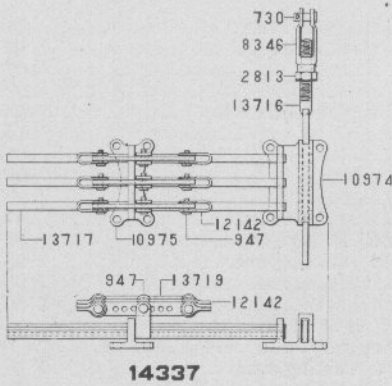
Order No.	STYLE "E" AND "F" BOLT LOCKS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0175	BOLT AND NUT, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for fixing Stop on Slide Bars	.03
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0641	TAP BOLT, $\frac{1}{2}$ " x $1\frac{1}{4}$ ", Hex. Hd.	.01
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
6655	$\frac{3}{8}$ " WROUGHT SHACKLE only	.20
6664	PIN, $\frac{7}{8}$ " x $2\frac{1}{8}$ ", for 6655	.07
10953	Style "E" 2 Way BOLT LOCK COMPLETE, Pipe Connected	11.70
10954	STAND for Style "E" 2 Way Bolt Lock. Casting only	3.96
10955	COVER for 10954	1.96
10956	SLIDE BAR for Style "E" and "F" Bolt Locks	2.50
10957	LOCKING DOG for Style "E" and "F" Bolt Locks	.28
10958	STAND for Style "F" Bolt Lock. Casting only	2.00
10968	STAND for Style "E" 4 Way Bolt Lock. Casting only	7.50
10969	COVER for 10968	3.60
13712	STOP for Slide Bars	.12
13713	SIGNAL BAR for Style "F" Bolt Lock	1.20
13714	Style "E" 4 Way BOLT LOCK COMPLETE, Pipe Connected	21.00
13715	SWITCH BAR for Style "F" Bolt Locks	1.00
13718	Style "F" 1 Way BOLT LOCK COMPLETE, Pipe Connected	4.20
13720	Style "F" 1 Way BOLT LOCK COMPLETE, Wire Connected	4.70
14505	PIN, $\frac{1}{2}$ " x $1\frac{3}{8}$ ", for Stops on Slide Bars	.05
14617	Style "F" 2 Way BOLT LOCK COMPLETE, Pipe Connected	7.40
14618	Style "F" 2 Way BOLT LOCK COMPLETE, Wire Connected	8.40

Order by NUMBER and NAME Appearing in Large Type



SWITCH CONNECTIONS

STYLE "G" AND "H" BOLT LOCKS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH CONNECTIONS

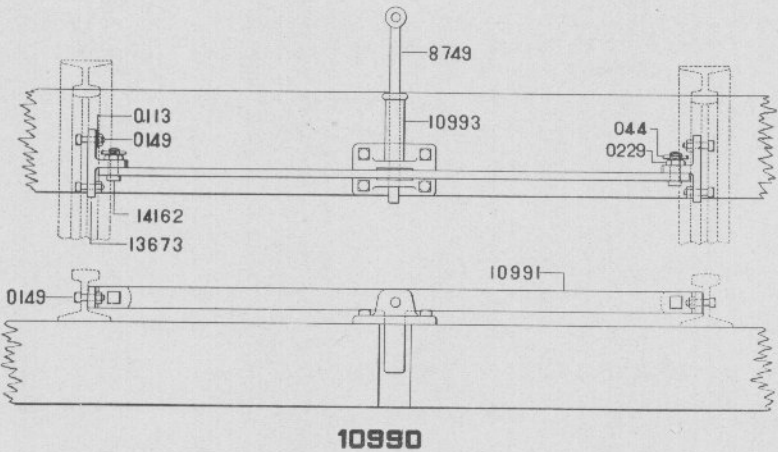
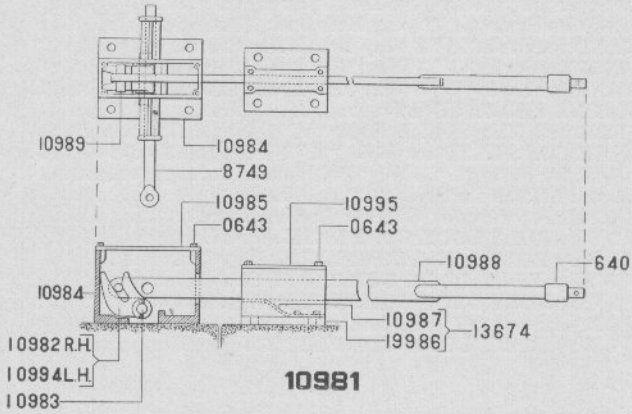
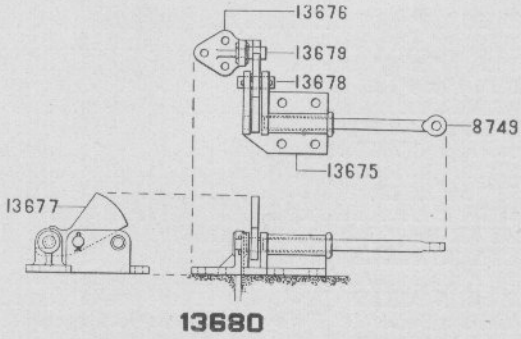
171

Order No.	STYLE "G" AND "H" BOLT LOCKS	List Price.
022	BOLT AND NUT, $\frac{3}{8}$ " x 6"	.14
042	COTTER PIN, $\frac{3}{8}$ " x 1" (per 100)	.80
044	COTTER PIN, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " Iron WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
640	1" Reinforced Pipe COUPLING	.19
730	PIN, $\frac{7}{8}$ " x 2 $\frac{3}{8}$ "	.07
947	PIN, $\frac{7}{8}$ " x 1 $\frac{3}{4}$ ", for 12142	.12
2813	1 $\frac{1}{2}$ " Hex. NUT	.09
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
6655	$\frac{7}{8}$ " WROUGHT SHACKLE only	.20
6664	PIN, $\frac{7}{8}$ " x 2 $\frac{1}{8}$ "	.07
8346	1 $\frac{1}{2}$ " MALLEABLE SCREW JAW	.41
10962	LOCK STAND for Style "G" 1 Way Bolt Lock, Casting only	. . . . .
10963	SLIDE STAND for Style "G" 1 Way Bolt Lock, Casting only	. . . . .
10970	STAND for Style "H" 1 Way Bolt Lock, Casting only	3.20
10971	LOCK STAND for Style "G" 2 Way Bolt Lock, Casting only	. . . . .
10972	SLIDE STAND for Style "G" 2 Way Bolt Lock, Casting only	. . . . .
10974	LOCK STAND for Style "G" 3 Way Bolt Lock, Casting only	. . . . .
10975	SLIDE STAND for Style "G" 3 Way Bolt Lock, Casting only	. . . . .
12142	$\frac{5}{8}$ " MALLEABLE SHACKLE only	. . . . .
12218	SWITCH BAR with Tang End for Style "H" 1 Way Bolt Lock	1.04
12219	SWITCH BAR COMPLETE for Style "H" 1 Way Bolt Lock	1.24
13716	SWITCH BAR for Style "G" 3 Way Bolt Lock	. . . . .
13717	PLUNGER and SLIDE for Style "G" Bolt Locks	. . . . .
13719	ADJUSTING BAR for Style "G" Bolt Locks	. . . . .
13734	Style "G" 2 Way BOLT LOCK COMPLETE, Wire Connected	. . . . .
14324	Style "G" 1 Way BOLT LOCK COMPLETE, Wire Connected	. . . . .
14337	Style "G" 3 Way BOLT LOCK COMPLETE, Wire Connected	. . . . .
14338	Style "H" 1 Way BOLT LOCK COMPLETE, Pipe Connected	6.50
14339	SIGNAL BAR for Style "H" Bolt Locks	2.00
14340	Style "H" 1 Way BOLT LOCK COMPLETE, Wire Connected	7.00

NOTE—Where prices are not extended same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

DRAW BRIDGE LOCKS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# BRIDGE LOCKS AND COUPLERS

173

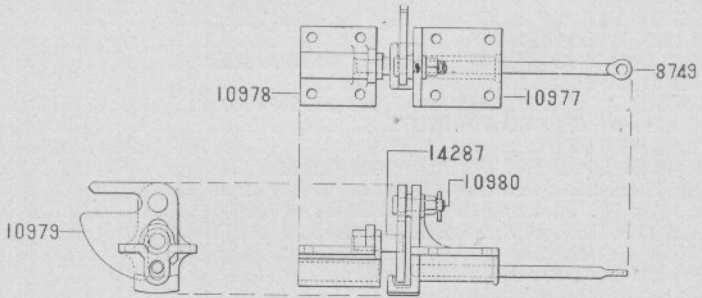
Order No.	DRAW BRIDGE LOCKS	List Price.
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " (per 100)	.80
0113	$\frac{3}{8}$ " LOCK WASHER	.02
0149	BOLT AND NUT, $\frac{5}{8}$ " x $2\frac{1}{2}$ ", for fixing 13673 to Rails	.07
0229	$\frac{3}{4}$ " HEX. NUT	.03
0643	TAP BOLT, $\frac{5}{16}$ " x 1", for fixing 10995 to 13674	.19
640	1" Reinforced Pipe COUPLING	.60
8749	STEEL PLUNGER	21.00
10981	DRAW BRIDGE BOLT LOCK COMPLETE	.80
10982	Right Hand ESCAPEMENT JAW	.02
10983	PIN, $\frac{7}{8}$ " x $5\frac{1}{4}$ ", for fixing 10982 and 10994 to 10984	.07
10984	PLUNGER BOX for Draw Bridge Bolt Lock	.03
10985	COVER for 10984	.19
10986	TAPPET GUIDE BOX, Casting only	.60
10987	SPRING for Tappet Guide Box	21.00
10988	TAPPET only, with Tang End	.80
10989	PIN, $\frac{7}{8}$ " x $2\frac{3}{4}$ ", for 10988	.02
10990	BRIDGE LOCK COMPLETE	.07
10991	FRONT and LOCK ROD	.19
10993	PLUNGER STAND Casting only	.60
10994	Left Hand ESCAPEMENT JAW	21.00
10995	COVER for 13674	.80
13673	SWITCH LUG	.02
13674	TAPPET GUIDE BOX COMPLETE	.07
13675	PLUNGER STAND for Tumbler Lock	.19
13676	RELEASING STAND	.60
13677	LOCKING TUMBLER	21.00
13678	PIN, 1" x 3", for fixing 13677 to 13675	.80
13679	STUD, $1\frac{1}{4}$ " x $3\frac{3}{8}$ ", for 13676	.02
13680	TUMBLER DRAW BRIDGE LOCK COMPLETE	.07
14162	BOLT, $\frac{3}{4}$ " x $2\frac{3}{4}$ "	.19

NOTE—Where prices are not extended the same will be furnished on application.

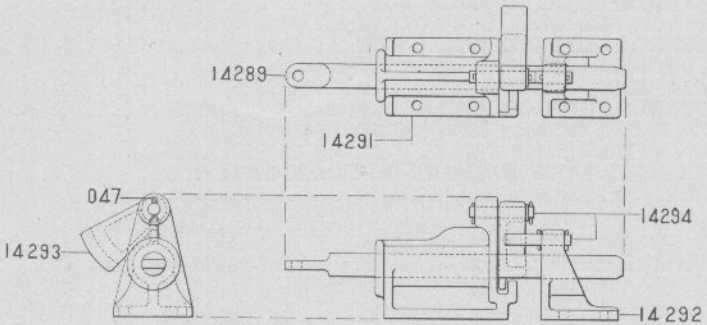
Order by NUMBER and NAME Appearing in Large Type

# BRIDGE LOCKS AND COUPLERS

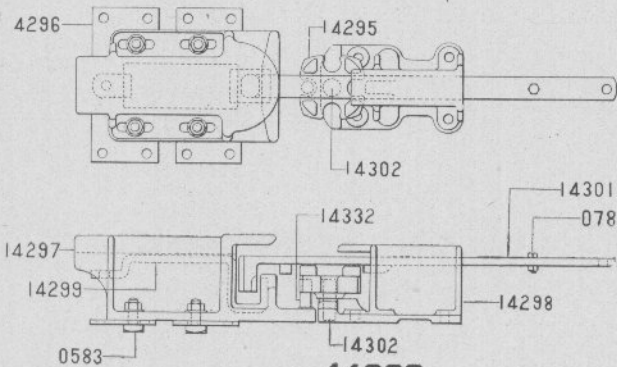
## AUTOMATIC BRIDGE LOCKS AND COUPLERS



**10976**



**14290**



**14300**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# BRIDGE LOCKS AND COUPLERS

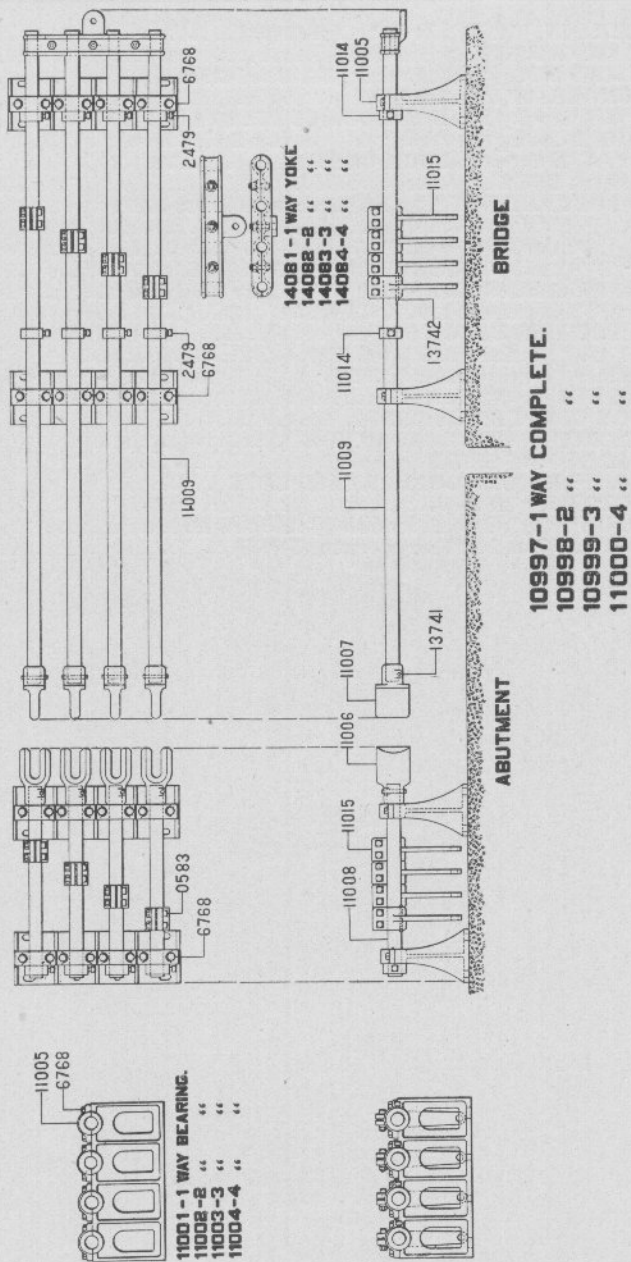
175

Order No.	AUTOMATIC BRIDGE LOCKS AND COUPLERS	List Price.
047	COTTER PIN, $\frac{1}{4}$ " x $1\frac{1}{2}$ ", for 14294 (per 100) .....	.80 .....
078	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", for 14301 .....	.....
0583	BOLT AND NUT, $\frac{3}{4}$ " x 3", for fixing 14297 to 14296 .....	.....
8749	1" PLUNGER, 18" long, for 10977 .....	.60 .....
10976	Style "A" Gravity BRIDGE LOCK COMPLETE .....	13.50 .....
10977	PLUNGER Casting, for Style "A" Gravity Bridge Lock .....	4.00 .....
10978	Style "A" Abutement LOCK CASTING .....	3.50 .....
10979	Escapement LOCK .....	4.00 .....
10980	STUD BOLT AND NUT, 1" x $3\frac{1}{2}$ ", for fixing 10979 to 10977 .....	.....
14287	STUD, $1\frac{1}{2}$ " x 5", for 10987 .....	.....
14289	2" x 2' 4" PLUNGER for 14291 .....	2.40 .....
14290	Style "B" Gravity BRIDGE LOCK COMPLETE .....	10.48 .....
14291	PLUNGER CASTING, for Style "B" Gravity Bridge Lock .....	4.32 .....
14292	Style "B" Abutement LOCK CASTING .....	2.40 .....
14293	Swing LOCKING BLOCK for 14291 .....	.58 .....
14294	PIN, 1" x $5\frac{1}{2}$ ", for fixing 14293 to 14291 .....	.....
14295	SPIDER, for locking 14301 to 14298 .....	.80 .....
14296	Base PLATE for 14297 .....	.80 .....
14297	BRIDGE COUPLER CASTING .....	8.32 .....
14298	ABUTMENT CASTING AND GUIDE .....	3.88 .....
14299	Hook ENGAGING SLIDE for 14297 .....	5.64 .....
14300	Automatic BRIDGE COUPLER COMPLETE .....	30.30 .....
14301	HOOK BAR for 14298 .....	7.92 .....
14302	STUD, $1\frac{3}{16}$ " x $4\frac{1}{8}$ ", Special, for fixing 14295 to 14298 .....	.....
14332	STUD, 1" x $3\frac{1}{4}$ " on 14297 for operating 14295 .....	.....

Order by NUMBER and NAME Appearing in Large Type

BRIDGE LOCKS AND COUPLERS

DRAW BRIDGE COUPLERS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# BRIDGE LOCKS AND COUPLERS

177

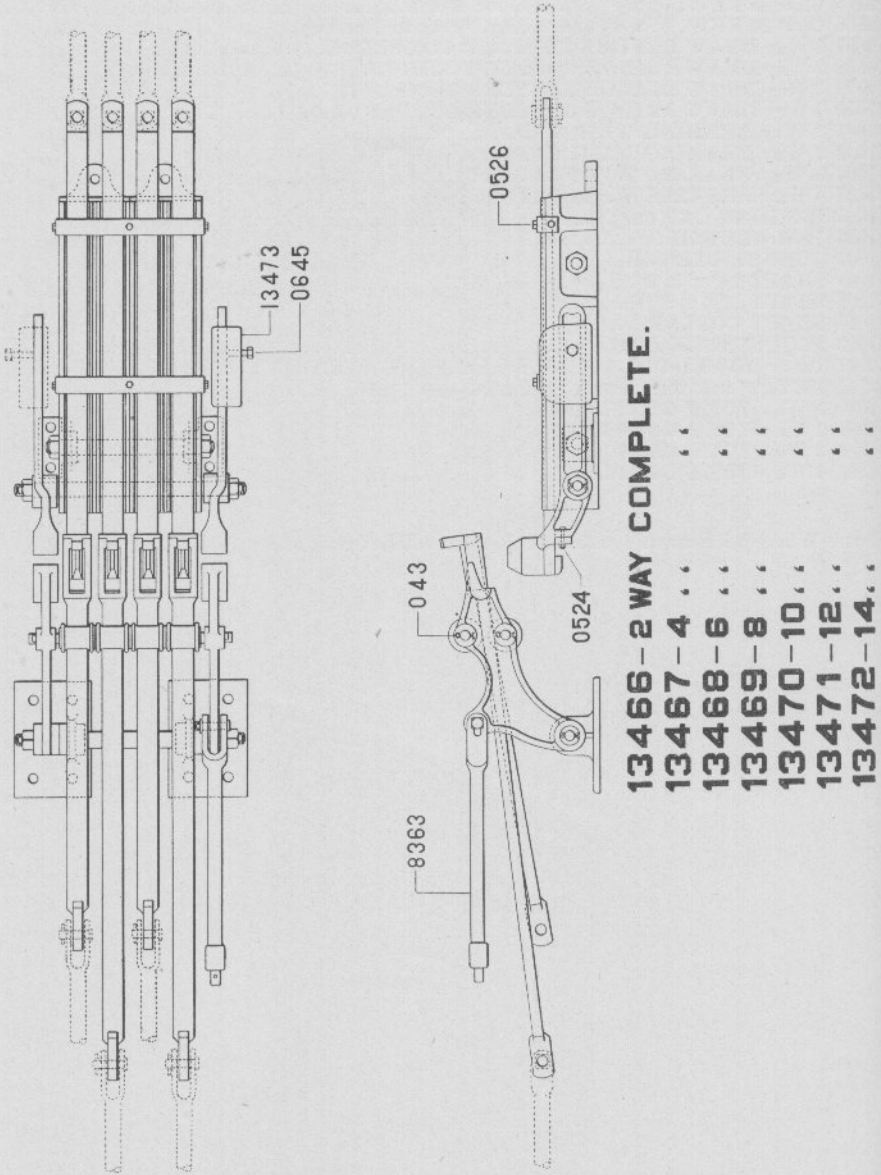
Order No.	DRAW BRIDGE COUPLERS	List Price.
0583	BOLT AND NUT, $\frac{3}{4}$ " x 3", Sq. Hd. with Hex. Nut for 11015.....	.09
2479	CAP SCREW, $\frac{1}{2}$ " x 1", Sq. Hd. for 11014.....	.05
6768	CAP SCREW, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ ", for fixing 11005 to Bearings.....	.12
10997	1 Way DRAW BRIDGE COUPLER COMPLETE.....	
10998	2 Way DRAW BRIDGE COUPLER COMPLETE.....	
10999	3 Way DRAW BRIDGE COUPLER COMPLETE.....	
11000	4 Way DRAW BRIDGE COUPLER COMPLETE.....	
11001	1 Way BEARING WITH CAP.....	
11002	2 Way BEARING WITH CAPS.....	
11003	3 Way BEARING WITH CAPS.....	
11004	4 Way BEARING WITH CAPS.....	
11005	BEARING CAP only.....	
11006	JAW CLUTCH.....	
11007	TONGUE CLUTCH.....	
11008	SHAFT 2 $\frac{1}{4}$ " x 3' 0".....	
11009	SHAFT, 2 $\frac{1}{4}$ " x 9' 0".....	
11014	SHAFT COLLAR.....	
11015	ADJUSTABLE ARM.....	
13741	Taper DOWEL PIN, $\frac{1}{2}$ " x 3 $\frac{1}{2}$ ", for fixing 11006 and 11007 to Shafts.....	
13742	KEY, $\frac{3}{8}$ " x $\frac{1}{2}$ " x 4", for Adjustable Arms 11015.....	
14081	1 Way YOKE COMPLETE.....	
14082	2 Way YOKE COMPLETE.....	
14083	3 Way YOKE COMPLETE.....	
14084	4 Way YOKE COMPLETE.....	

NOTE—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type



MULTIPLE BRIDGE COUPLERS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# BRIDGE LOCKS AND COUPLERS

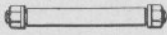
179

Order No.	MULTIPLE BRIDGE COUPLERS	List Price.
043	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{4}$ " (per 100)	.80
0524	BOLT AND NUT, $\frac{1}{2}$ " x 2"	.04
0526	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", Hex. Hd.	.02
0645	TAP BOLT, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", Hex. Hd.	.03
8363	$1\frac{1}{4}$ " SLOTTED JAW with Tang End	1.94
13466	2 Way Multiple BRIDGE COUPLER COMPLETE	30.00
13467	4 Way Multiple BRIDGE COUPLER COMPLETE	46.00
13468	6 Way Multiple BRIDGE COUPLER COMPLETE	58.00
13469	8 Way Multiple BRIDGE COUPLER COMPLETE	71.60
13470	10 Way Multiple BRIDGE COUPLER COMPLETE	83.60
13471	12 Way Multiple BRIDGE COUPLER COMPLETE	96.00
13472	14 Way Multiple BRIDGE COUPLER COMPLETE	110.00
13473	COUNTERWEIGHT	.48

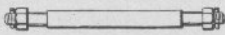
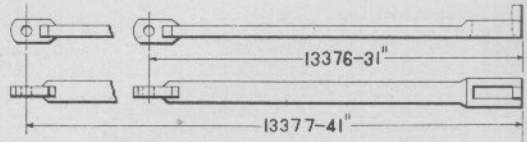
Order by NUMBER and NAME Appearing in Large Type

BRIDGE LOCKS AND COUPLERS

DETAIL PARTS FOR MULTIPLE BRIDGE COUPLERS



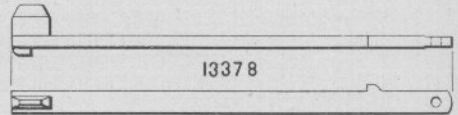
- 13410 - 2 WAY
- 13411 - 4 ..
- 13412 - 6 ..
- 13413 - 8 ..
- 13454 - 10 ..
- 13455 - 12 ..
- 13456 - 14 ..



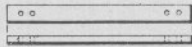
- 13457 - 2 WAY
- 13458 - 4 ..
- 13461 - 6 ..
- 13462 - 8 ..
- 13463 - 10 ..
- 13464 - 12 ..
- 13465 - 14 ..



13384



13378



- 13393 - 2 WAY
- 13394 - 4 ..
- 13395 - 6 ..
- 13396 - 8 ..
- 13397 - 10 ..
- 13398 - 12 ..
- 13399 - 14 ..



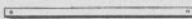
LEFT HAND

13379

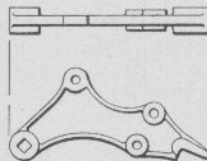


RIGHT HAND

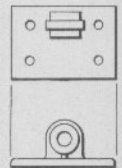
13380



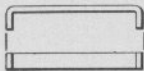
- 13386 - 2 WAY
- 13387 - 4 ..
- 13388 - 6 ..
- 13389 - 8 ..
- 13390 - 10 ..
- 13391 - 12 ..
- 13392 - 14 ..



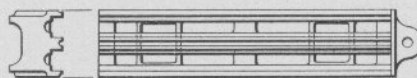
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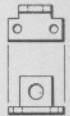
13382



- 13400 - 2 WAY
- 13404 - 4 ..
- 13405 - 6 ..
- 13406 - 8 ..
- 13407 - 10 ..
- 13408 - 12 ..
- 13409 - 14 ..



13385



13383



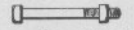
4333



073



067



0133 - 3/4" x 9"

0151 - 3/4" x 10"

0437 - 3/4" x 11"

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# BRIDGE LOCKS AND COUPLERS

181

Order  
No.

DETAIL PARTS FOR MULTIPLE BRIDGE COUPLERS

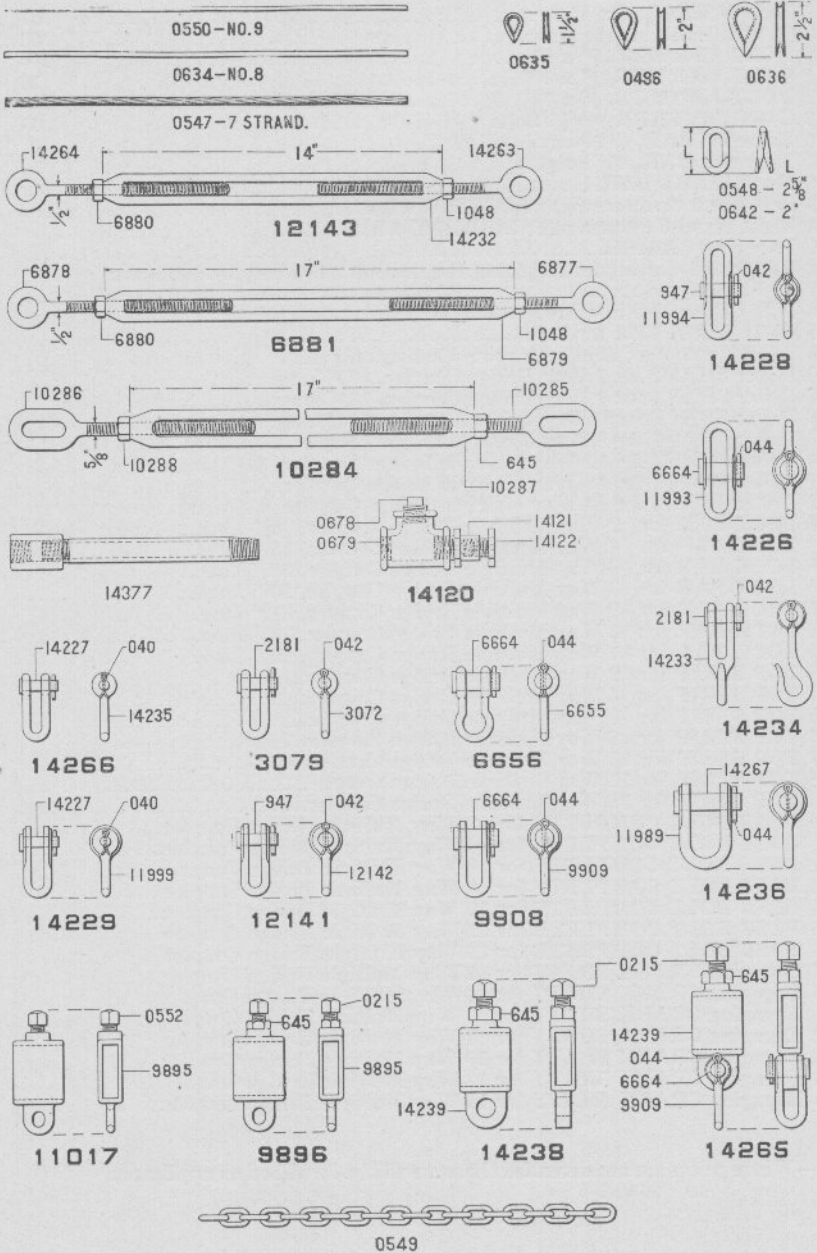
List Price

067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
13376	Engaging BAR, 31" long	
13377	Engaging BAR, 41" long	
13378	Hook SLIDE BAR	
13379	Left Hand Counterweight LOCKING ARM	
13380	Right Hand Counterweight LOCKING ARM	
13381	Engaging CRANK	
13382	BEARING Casting for Engaging Crank Shaft. Two required for each Shaft	
13383	BRACE for Multiple Bridge Coupler	
13384	GUIDE ROLLER for 13378	
13385	BASE for 2 Way Bridge Coupler, Casting only	
13386	Roller SHAFT for 2 Way Bridge Coupler, 10 $\frac{3}{8}$ " long	
13387	Roller SHAFT for 4 Way Bridge Coupler, 15 $\frac{3}{8}$ " long	
13388	Roller SHAFT for 6 Way Bridge Coupler, 21 $\frac{3}{8}$ " long	
13389	Roller SHAFT for 8 Way Multiple Bridge Coupler, 26 $\frac{7}{8}$ " long	
13390	Roller SHAFT for 10 Way Multiple Bridge Coupler, 32 $\frac{3}{8}$ " long	
13391	Roller SHAFT for 12 Way Multiple Bridge Coupler, 37 $\frac{1}{8}$ " long	
13392	Roller SHAFT for 14 Way Multiple Bridge Coupler, 43 $\frac{3}{8}$ " long	
13393	LOCK BAR for 2 Way Multiple Bridge Coupler, 9 $\frac{3}{8}$ " long	
13394	LOCK BAR for 4 Way Multiple Bridge Coupler, 15 $\frac{3}{8}$ " long	
13395	LOCK BAR for 6 Way Multiple Bridge Coupler, 20 $\frac{3}{8}$ " long	
13396	LOCK BAR for 8 Way Multiple Bridge Coupler, 26 $\frac{3}{8}$ " long	
13397	LOCK BAR for 10 Way Multiple Bridge Coupler, 31 $\frac{3}{8}$ " long	
13398	LOCK BAR for 12 Way Multiple Bridge Coupler, 37 $\frac{1}{8}$ " long	
13399	LOCK BAR for 14 Way Multiple Bridge Coupler, 42 $\frac{5}{8}$ " long	
13400	TOP STRIP for 2 Way Multiple Bridge Coupler	
13404	TOP STRIP for 4 Way Multiple Bridge Coupler	
13405	TOP STRIP for 6 Way Multiple Bridge Coupler	
13406	TOP STRIP for 8 Way Multiple Bridge Coupler	
13407	TOP STRIP for 10 Way Multiple Bridge Coupler	
13408	TOP STRIP for 12 Way Multiple Bridge Coupler	
13409	TOP STRIP for 14 Way Multiple Bridge Coupler	
13410	BASE BOLT COMPLETE for 2 Way Multiple Bridge Coupler	
13411	BASE BOLT COMPLETE for 4 Way Multiple Bridge Coupler	
13412	BASE BOLT COMPLETE for 6 Way Multiple Bridge Coupler	
13413	BASE BOLT COMPLETE for 8 Way Multiple Bridge Coupler	
13454	BASE BOLT COMPLETE for 10 Way Multiple Bridge Coupler	
13455	BASE BOLT COMPLETE for 12 Way Multiple Bridge Coupler	
13456	BASE BOLT COMPLETE for 14 Way Multiple Bridge Coupler	
13457	Engaging CRANK SHAFT for 2 Way Multiple Bridge Coupler	
13458	Engaging CRANK SHAFT for 4 Way Multiple Bridge Coupler	
13461	Engaging CRANK SHAFT for 6 Way Multiple Bridge Coupler	
13462	Engaging CRANK SHAFT for 8 Way Multiple Bridge Coupler	
13463	Engaging CRANK SHAFT for 10 Way Multiple Bridge Coupler	
13464	Engaging CRANK SHAFT for 12 Way Multiple Bridge Coupler	
13465	Engaging CRANK SHAFT for 14 Way Multiple Bridge Coupler	

NOTE—Where prices are not extended the same will be furnished on application

Order by NUMBER and NAME Appearing in Large Type

WIRE, WIRE EYES, SHACKLES, CHAIN, ADJUSTING SCREWS, ETC.



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 774

## WIRE CONNECTIONS

183

Order No.	WIRE, WIRE EYES, SHACKLES, CHAIN, ADJUSTING SCREWS, ETC.	List Price.
040	COTTER PIN, $\frac{1}{8}$ " x 1", for 14227 (per 100).....	.80
042	COTTER PIN, $\frac{3}{16}$ " x 1", for 947 and 2181 (per 100).....	.80
044	COTTER PIN, $\frac{1}{16}$ " x $1\frac{1}{2}$ ", for 6664 and 14267 (per 100).....	.80
0215	SET SCREW, $\frac{5}{8}$ " x $1\frac{1}{4}$ ", Cup Point, for 9896, 14238 and 14265.....	.04
0496	2" WIRE EYE.....	.07
0547	7 Strand Steel SIGNAL WIRE (per 100 feet).....	.03
0548	$\frac{3}{16}$ " Steel SPLIT LINK, $2\frac{5}{8}$ " long.....	.17
0549	$\frac{1}{4}$ " PROOF CHAIN (per foot).....	.72
0550	No. 9 Galvanized Steel WIRE (per 100 feet).....	.72
0552	SET SCREW, $\frac{5}{8}$ " x 1", for 11017 and 14235.....	.03
0634	No. 8 Galvanized Steel WIRE (per 100 feet).....	.07
0635	$1\frac{1}{2}$ " WIRE EYE.....	.03
0636	$2\frac{1}{2}$ " WIRE EYE.....	.03
0642	$\frac{5}{16}$ " SPLIT LINK, 2" long.....	.03
0678	$\frac{1}{2}$ " PIPE PLUG.....	.16
0679	$\frac{1}{2}$ " MALL. TEE.....	.04
645	Hex. NUT, for 0215 and 10285.....	.12
947	PIN, $\frac{5}{8}$ " x $2\frac{1}{16}$ ", for 11994 and 12142.....	.03
1048	$\frac{1}{2}$ " Hex. NUT, for 6877 and 14263.....	.07
2181	PIN, $\frac{5}{8}$ " x $1\frac{1}{2}$ ", for 3072 and 14233.....	.30
3072	" WROUGHT SHACKLE only.....	.40
3079	" WROUGHT SHACKLE COMPLETE with Pin and Cotter.....	.20
6655	" WROUGHT SHACKLE only.....	.28
6656	" WROUGHT SHACKLE COMPLETE with pin and Cotter.....	.07
6664	PIN, $\frac{1}{8}$ " x $2\frac{1}{8}$ ", for 6655, 9909 and 11993.....	1.20
6877	Right hand ADJUSTING SCREW for 6881.....	.36
6878	Left hand ADJUSTING SCREW for 6881.....	.44
6879	17" WROUGHT TURNBUCKLE.....	.05
6880	$\frac{1}{2}$ " Hex. NUT, Left hand thread, for 6878 and 14264.....	1.90
6881	Wire ADJUSTING SCREW COMPLETE, 17" long.....	.05
9895	ADJUSTABLE CONNECTOR only.....	.05
9896	No. 2 ADJUSTABLE CONNECTOR COMPLETE.....	1.90
9908	$\frac{1}{2}$ " MALLEABLE SHACKLE COMPLETE with Pin and Cotter.....	.05
9909	$\frac{1}{2}$ " MALLEABLE SHACKLE only.....	.05
10284	" WIRE ADJUSTING SCREW COMPLETE, 17" long.....	1.90
10285	" Right Hand ADJUSTING SCREW for 10287.....	.05
10286	" Left Hand ADJUSTING SCREW for 10287.....	.05
10287	17" WROUGHT TURNBUCKLE only.....	.05
10288	$\frac{1}{2}$ " Hex. NUT, Left Hand Thread, for 10286.....	.05

(Continued on next page.)

Order by NUMBER and NAME Appearing in Large Type

Order No.	WIRE, WIRE EYES, SHACKLES, CHAIN, ADJUSTING SCREWS, ETC.—CONT.	List Price.
11017	No. 1 ADJUSTABLE CONNECTOR COMPLETE.....	.42
11989	1 1/2" Wide MALLEABLE SHACKLE only.....	.05
11993	" MALLEABLE DOUBLE SHACKLE only.....	.07
11994	" DOUBLE SHACKLE only.....	.07
11999	" MALLEABLE SHACKLE only.....	.05
12141	" MALLEABLE SHACKLE COMPLETE.....	.13
12142	" MALLEABLE SHACKLE only.....	.05
12143	Wire ADJUSTING SCREW COMPLETE, 14" long.....	1.12
14120	WRIGLEY STUFFING BOX COMPLETE.....	1.03
14121	STUFFING BOX.....	.50
14122	GLAND.....	.34
14226	7/8" MALLEABLE DOUBLE SHACKLE COMPLETE.....	.07
14227	PIN, 1/2" x 1 1/8", for 11999 and 14235.....	.05
14228	5/8" MALLEABLE DOUBLE SHACKLE COMPLETE with Pin and Cotter.....	.14
14229	1/2" MALLEABLE SHACKLE COMPLETE with Pin and Cotter.....	.09
14232	14" WROUGHT TURNBUCKLE only.....	.....
14233	" WROUGHT HOOK SHACKLE only.....	.64
14234	1" WROUGHT HOOK SHACKLE COMPLETE with Pin and Cotter.....	.07
14235	1" WROUGHT SHACKLE only.....	.20
14236	7/8" MALLEABLE WIDE SHACKLE COMPLETE with Pin and Cotter.....	.17
14238	No. 3 ADJUSTABLE CONNECTOR COMPLETE.....	.45
14239	No. 3 ADJUSTABLE CONNECTOR only.....	.36
14263	Right Hand ADJUSTING SCREW for 14232.....	.....
14264	Left Hand ADJUSTING SCREW for 14232.....	.....
14265	No. 4 ADJUSTABLE CONNECTOR COMPLETE.....	.59
14266	1/2" WROUGHT SHACKLE COMPLETE with Pin and Cotter.....	.26
14267	PIN, 7/8" x 3", for 11989.....	.10
14377	1/2" GALVANIZED IRON PIPE (per foot).....	.....

Order by NUMBER and NAME Appearing in Large Type

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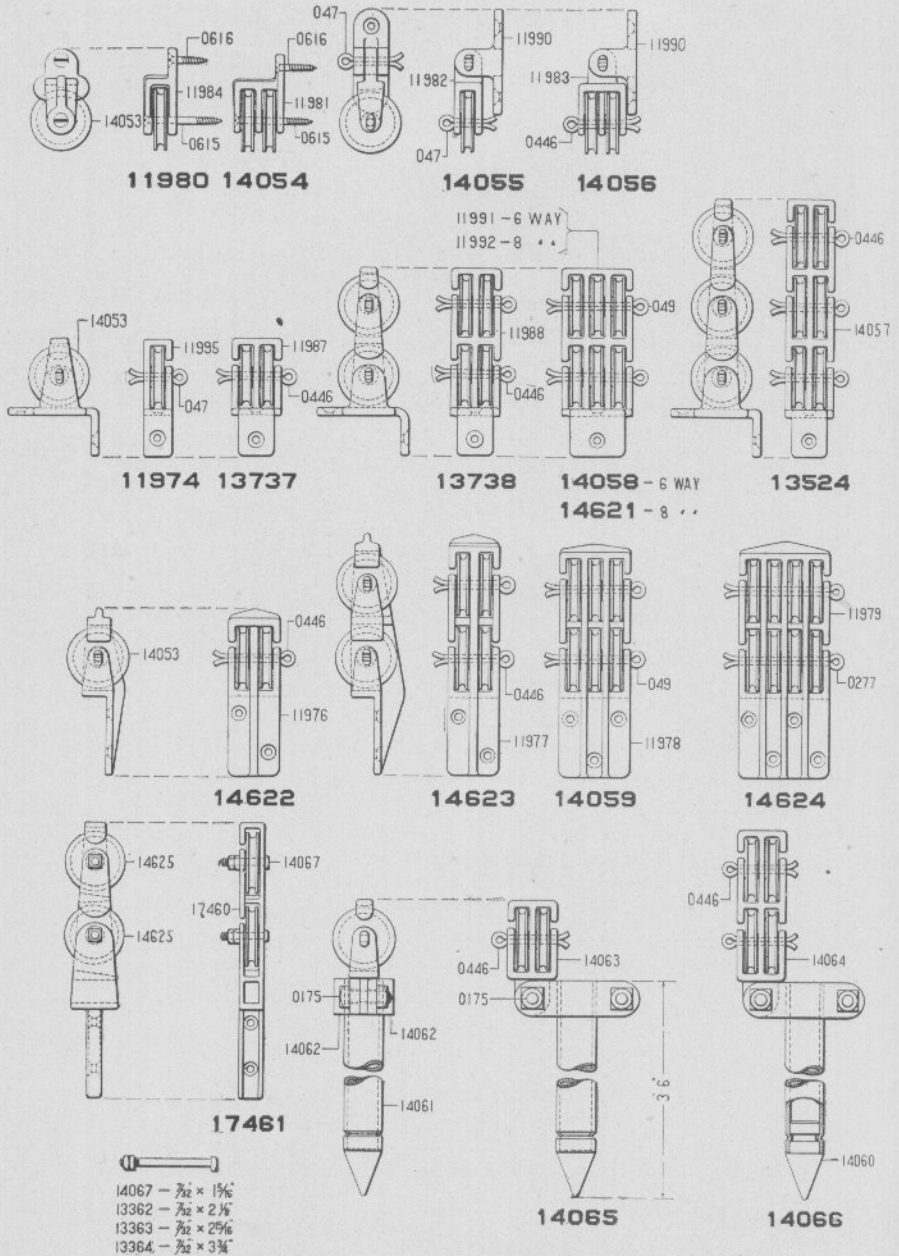
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WIRE CARRIERS



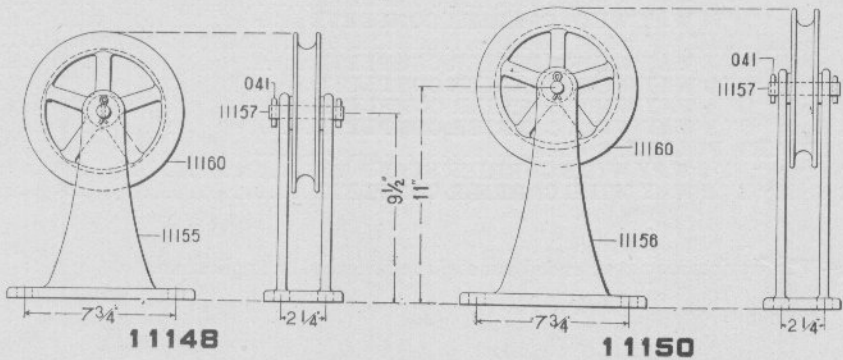
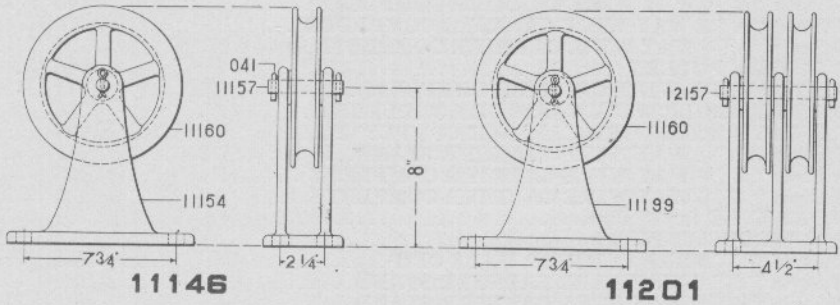
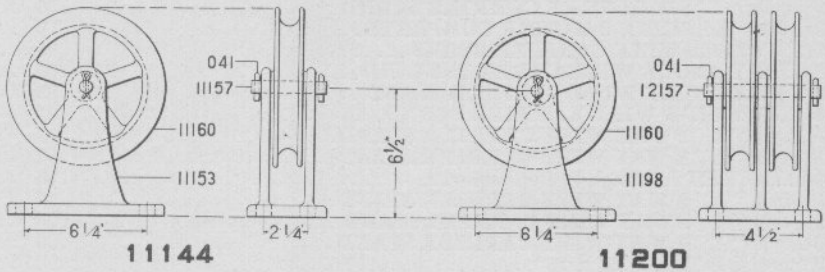
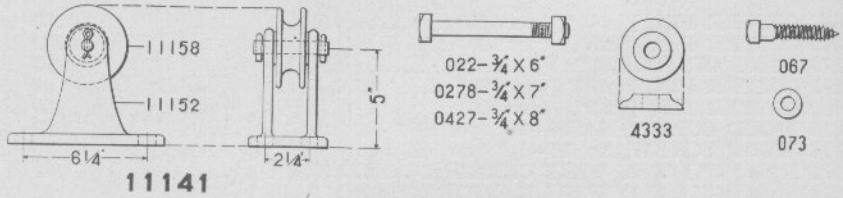
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	WIRE CARRIERS	List Price.
047	COTTER PIN, $\frac{1}{4}$ " x $1\frac{1}{2}$ ", (per 100)	.80
049	COTTER PIN, $\frac{1}{4}$ " x $3$ ", (per 100)	.80
0175	BOLT AND NUT, $\frac{3}{8}$ " x $1\frac{1}{2}$ "	.03
0277	COTTER PIN, $\frac{1}{4}$ " x $3\frac{1}{2}$ ", (per 100)	.80
0446	COTTER PIN, $\frac{1}{4}$ " x $2$ ", (per 100)	.80
0615	WOOD SCREW, No. 14- $2\frac{1}{2}$ " (per 100)	.80
0616	WOOD SCREW, No. 14- $1\frac{1}{2}$ " (per 100)	.80
11974	Style "A" 1 WAY WIRE CARRIER COMPLETE	.09
11976	Style "C" 2 WAY WIRE CARRIER STAND	.07
11977	Style "C" 4 WAY WIRE CARRIER STAND	.12
11978	Style "C" 6 WAY WIRE CARRIER STAND	.17
11979	Style "C" 8 WAY WIRE CARRIER STAND	.26
11980	1 Way Side WIRE CARRIER COMPLETE	.10
11981	2 Way Side WIRE CARRIER STAND	.05
11982	1 WAY ANGLE WIRE CARRIER STAND	.05
11983	2 WAY ANGLE WIRE CARRIER STAND	.05
11984	1 WAY SIDE WIRE CARRIER STAND	.05
11987	Style "A" 2 WAY WIRE CARRIER STAND	.07
11988	Style "A" 4 WAY WIRE CARRIER STAND	.12
11990	BRACKET for Angle Wire Carrier	.05
11991	Style "A" 6 WAY WIRE CARRIER STAND	.16
11992	Style "A" 8 WAY WIRE CARRIER STAND	.26
11995	Style "A" 1 WAY WIRE CARRIER STAND	.05
13362	Special BOLT, 7-32" x $2\frac{1}{8}$ "	..
13363	Special BOLT, 7-32" x $2\frac{1}{8}$ "	..
13364	Special BOLT, 7-32" x $3\frac{3}{4}$ "	..
13524	Style "B" 6 WAY WIRE CARRIER COMPLETE	.40
13737	Style "A" 2 WAY WIRE CARRIER COMPLETE	.16
13738	Style "A" 4 WAY WIRE CARRIER COMPLETE	.28
14053	2" WIRE PULLEY (per 100)	2.40
14054	2 WAY SIDE WIRE CARRIER COMPLETE	.14
14055	1 WAY ANGLE WIRE CARRIER COMPLETE	.16
14056	2 WAY ANGLE WIRE CARRIER COMPLETE	.26
14057	Style "B" 6 WAY WIRE CARRIER STAND	.16
14058	Style "A" 6 WAY WIRE CARRIER COMPLETE	.36
14059	Style "C" 6 WAY WIRE CARRIER COMPLETE	.36
14060	FERRULE for 1" Pipe	..
14061	1" WROUGHT PIPE for Iron Stakes	..
14062	Style "D" WIRE CARRIER HALF CLIP	..
14063	Style "D" 2 WAY WIRE CARRIER STAND	..
14064	Style "D" 4 WAY WIRE CARRIER STAND	..
14065	Style "D" 2 WAY WIRE CARRIER COMPLETE	..
14066	Style "D" 4 WAY WIRE CARRIER COMPLETE	..
14067	Special BOLT, $\frac{7}{8}$ " x $1\frac{5}{16}$ "	..
14621	Style "A" 8 WAY WIRE CARRIER COMPLETE	.48
14622	Style "C" 2 WAY WIRE CARRIER COMPLETE	.16
14623	Style "C" 4 WAY WIRE CARRIER COMPLETE	.28
14624	Style "C" 8 WAY WIRE CARRIER COMPLETE	.48
14625	2" WIRE PULLEY, Special	.03
17460	Style "E" 2 WAY WIRE CARRIER STAND	.16
17461	Style "E" 2 WAY WIRE CARRIER COMPLETE	.28

NOTE—Where prices are not extended same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

VERTICAL WHEELS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

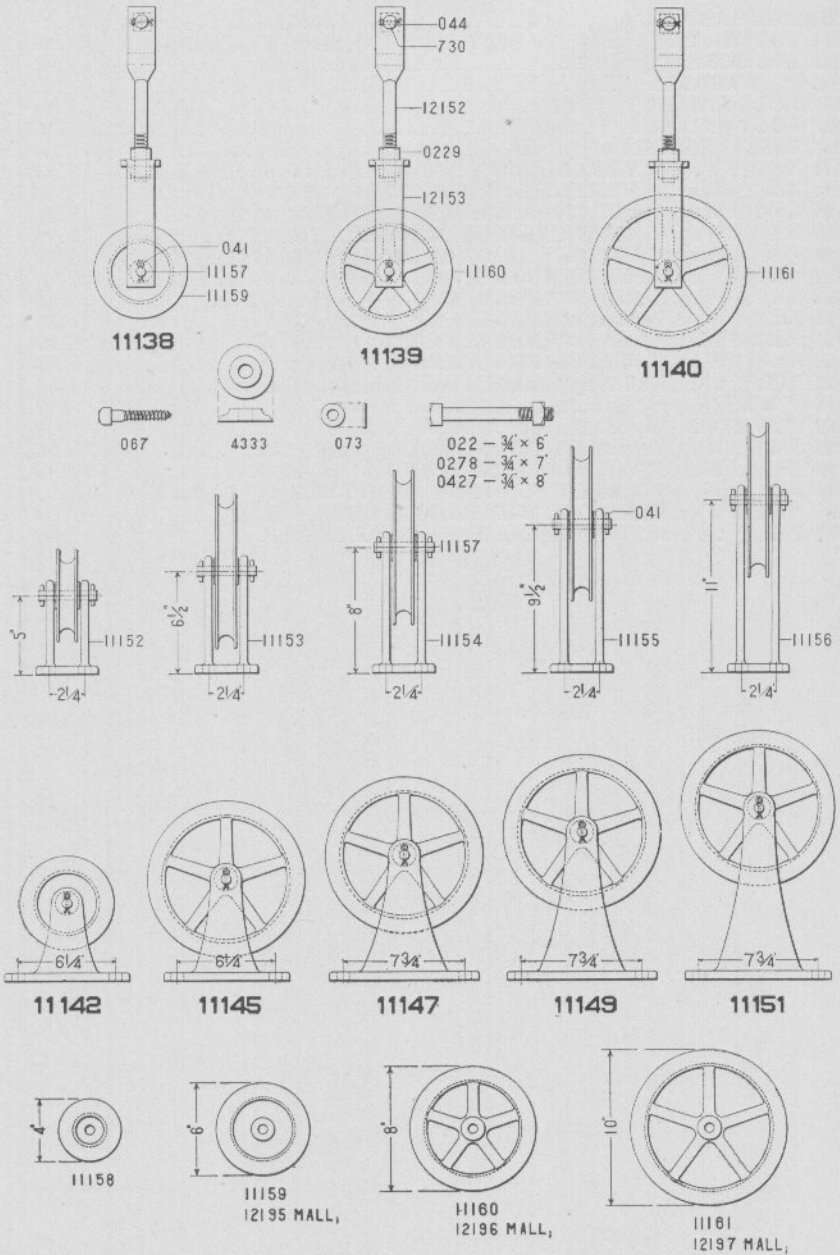
189

Order No.	VERTICAL WHEELS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6" .....	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11157 and 12157 (per 100) .....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 7" .....	.07
073	$\frac{3}{4}$ " WASHER .....	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7" .....	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8" .....	.16
4333	CAST WASHER for $\frac{3}{4}$ " Bolts .....	.08
11141	No. 0, 1 Way, 4" VERTICAL WHEEL COMPLETE, 5" High .....	.84
11144	No. 1, 1 Way, 8" VERTICAL WHEEL COMPLETE, 6 $\frac{1}{2}$ " High .....	.98
11146	No. 2, 1 Way, 8" VERTICAL WHEEL COMPLETE, 8" High .....	1.28
11148	No. 3, 1 Way, 8" VERTICAL WHEEL COMPLETE, 9 $\frac{1}{2}$ " High .....	1.40
11150	No. 4, 1 Way, 8" VERTICAL WHEEL COMPLETE, 11" High .....	1.56
11152	No. 0, 1 Way, Vertical WHEEL STAND, 5" High .....	.60
11153	No. 1, 1 Way, Vertical WHEEL STAND, 6 $\frac{1}{2}$ " High .....	.64
11154	No. 2, 1 Way, Vertical WHEEL STAND, 8" High .....	.79
11155	No. 3, 1 Way, Vertical WHEEL STAND, 9 $\frac{1}{2}$ " High .....	.96
11156	No. 4, 1 Way, Vertical WHEEL STAND, 11" High .....	1.08
11157	PIN, $\frac{5}{8}$ " x $3\frac{1}{4}$ ", for 1 Way Vertical Wheel Stands .....	.04
11158	4" WHEEL only .....	.12
11160	8" WHEEL only .....	.28
11198	No. 1, 2 Way, Vertical WHEEL STAND, 6 $\frac{1}{2}$ " High .....	.96
11199	No. 2, 2 Way, 8" Vertical WHEEL STAND, 8" High .....	1.28
11200	No. 1, 2 Way, 8" VERTICAL WHEEL COMPLETE, 6 $\frac{1}{2}$ " High .....	1.72
11201	No. 2, 2 Way, VERTICAL WHEEL COMPLETE, 8" High .....	1.90
12157	PIN, $\frac{3}{8}$ " x 6", for 2 Way Vertical Wheel Stand .....	.05

Order by NUMBER and NAME Appearing in Large Type

CHAIN WHEEL CONNECTIONS

VERTICAL WHEELS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## CHAIN WHEEL CONNECTIONS

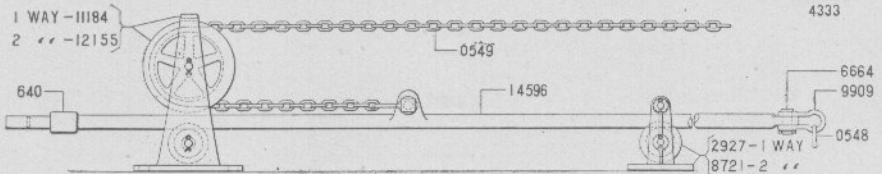
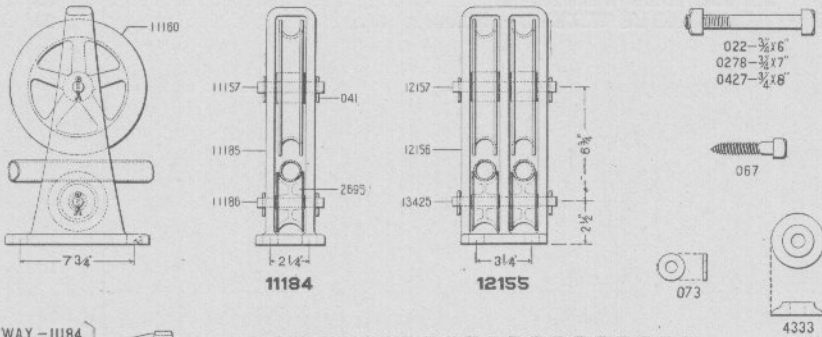
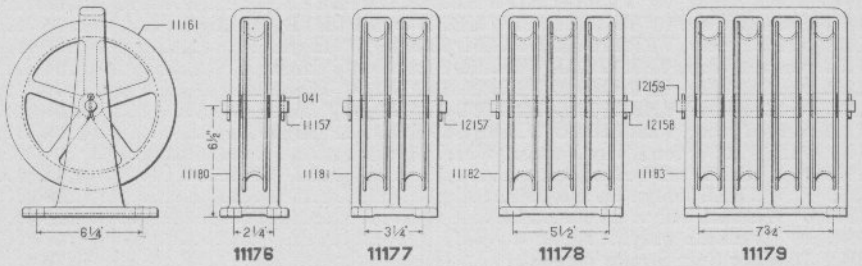
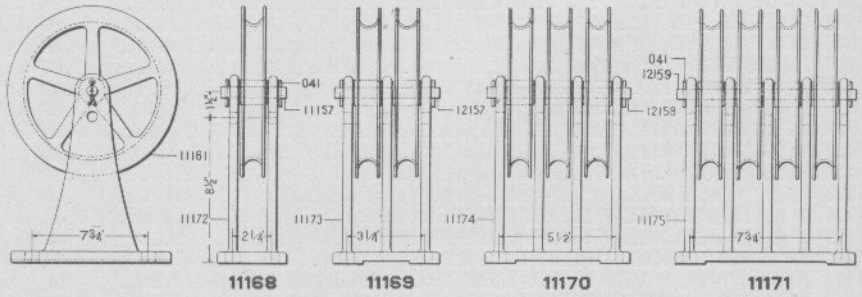
191

Order No.	VERTICAL WHEELS—CONTINUED	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6" .....	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11157 .....	.80
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 730 .....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4" .....	.07
073	$\frac{3}{4}$ " WASHER .....	.02
0229	$\frac{3}{4}$ " Square NUT, for 12152 .....	.03
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7" .....	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8" .....	.16
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ " for 12152 .....	.07
4333	CAST WASHER for $\frac{3}{4}$ " Bolts .....	.08
11138	6" GAIN STROKE WHEEL COMPLETE .....	1.84
11139	8" GAIN STROKE WHEEL COMPLETE .....	1.92
11140	10" GAIN STROKE WHEEL COMPLETE .....	2.11
11142	No. 0, 1 Way, 6" VERTICAL WHEEL COMPLETE, 5" High .....	.92
11145	No. 1, 1 Way, 10" VERTICAL WHEEL COMPLETE, $6\frac{1}{2}$ " High .....	1.18
11147	No. 2, 1 Way, 10" VERTICAL WHEEL COMPLETE, 8" High .....	1.38
11149	No. 3, 1 Way, 10" VERTICAL WHEEL COMPLETE, $9\frac{1}{2}$ " High .....	1.60
11151	No. 4, 1 Way, 10" VERTICAL WHEEL COMPLETE, 11" High .....	1.75
11152	No. 0, 1 Way, VERTICAL WHEEL STAND, 5" High .....	.60
11153	No. 1, 1 Way, VERTICAL WHEEL STAND, $6\frac{1}{2}$ " High .....	.64
11154	No. 2, 1 Way, VERTICAL WHEEL STAND, 8" High .....	.79
11155	No. 3, 1 Way, VERTICAL WHEEL STAND, $9\frac{1}{2}$ " High .....	.96
11156	No. 4, 1 Way, VERTICAL WHEEL STAND, 11" High .....	1.08
11157	PIN, $\frac{3}{8}$ " x $3\frac{1}{4}$ " for 1 Way Vertical Wheel Stands .....	.04
11158	4" WHEEL only .....	.12
11159	6" WHEEL only .....	.19
11160	8" WHEEL only .....	.28
11161	10" WHEEL only .....	.48
12152	JAW for Gain Stroke Wheel .....	.76
12153	BRIDLE for Gain Stroke Wheel .....	.62
12195	6" MALLEABLE WHEEL only .....	.80
12196	8" MALLEABLE WHEEL only .....	1.00
12197	10" MALLEABLE WHEEL only .....	1.24

Order by NUMBER and NAME Appearing in Large Type

CHAIN WHEEL CONNECTIONS

VERTICAL WHEELS—CONTINUED



1 WAY - 14600 COMPLETE  
2 " - 14608 "

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

193

Order  
No.

## VERTICAL WHEELS—CONTINUED

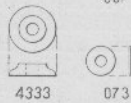
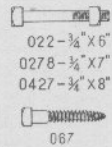
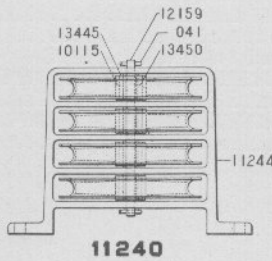
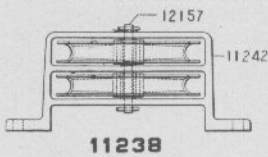
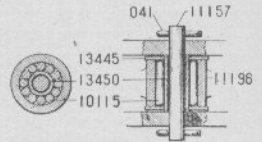
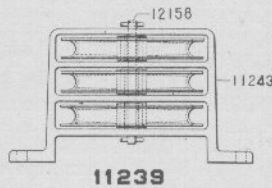
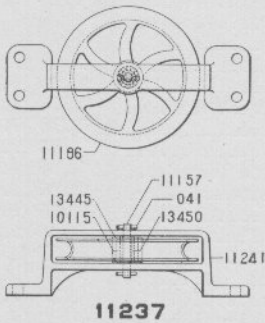
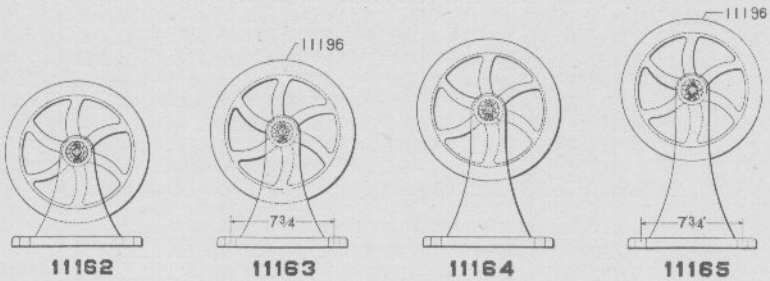
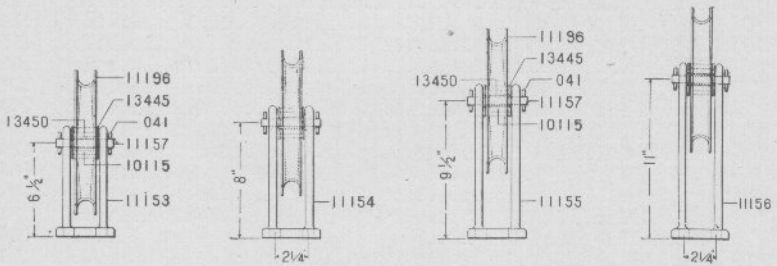
List Price.

022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11157, 11186, 12157, 12158, 12159 and 13425, (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
0548	$\frac{5}{16}$ " SPLIT LINK	.03
0549	$\frac{1}{4}$ " PROOF CHAIN, (per foot)	.17
640	1" Reinforced PIPE COUPLING	.19
2695	BOTTOM ROLLER only, for 11184 and 12155	.09
2927	1 Way PIPE CARRIER	.53
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
6664	PIN, $\frac{7}{8}$ " x $2\frac{1}{8}$ "	.07
8721	2 Way PIPE CARRIER	.82
9909	$\frac{7}{8}$ " MALLEABLE SHACKLE	.05
11157	PIN, $\frac{7}{8}$ " x $3\frac{3}{4}$ ", for 11172, 11180 and 11185	.04
11160	8" WHEEL only	.28
11161	10" WHEEL only	.48
11168	1 Way, 10" VERTICAL WHEEL COMPLETE, $8\frac{1}{2}$ " or 10" High	1.80
11169	2 Way, 10" VERTICAL WHEEL COMPLETE, $8\frac{1}{2}$ " or 10" High	2.90
11170	3 Way, 10" VERTICAL WHEEL COMPLETE, $8\frac{1}{2}$ " or 10" High	4.00
11171	4 Way, 10" VERTICAL WHEEL COMPLETE, $8\frac{1}{2}$ " or 10" High	5.10
11172	1 Way, VERTICAL WHEEL STAND, $8\frac{1}{2}$ " or 10" High	1.20
11173	2 Way, VERTICAL WHEEL STAND, $8\frac{1}{2}$ " or 10" High	1.70
11174	3 Way, VERTICAL WHEEL STAND, $8\frac{1}{2}$ " or 10" High	2.20
11175	4 Way, VERTICAL WHEEL STAND, $8\frac{1}{2}$ " or 10" High	2.70
VERTICAL WHEELS FOR LEADING OVER TOP OF WHEELS		
11176	1 Way, 10" VERTICAL WHEEL COMPLETE, $6\frac{1}{2}$ " High	1.40
11177	2 Way, 10" VERTICAL WHEEL COMPLETE, $6\frac{1}{2}$ " High	2.40
11178	3 Way, 10" VERTICAL WHEEL COMPLETE, $6\frac{1}{2}$ " High	3.40
11179	4 Way, 10" VERTICAL WHEEL COMPLETE, $6\frac{1}{2}$ " High	4.40
11180	1 Way, 10" VERTICAL WHEEL STAND, $6\frac{1}{2}$ " High	.80
11181	$2\frac{1}{2}$ Way, 10" VERTICAL WHEEL STAND, $6\frac{1}{2}$ " High	1.20
11182	3 Way, 10" VERTICAL WHEEL STAND, $6\frac{1}{2}$ " High	1.60
11183	4 Way, 10" VERTICAL WHEEL STAND, $6\frac{1}{2}$ " High	2.00
11184	1 Way, VERTICAL WHEEL COMPLETE, for Pipe and Wire	2.30
11185	1 Way, VERTICAL WHEEL STAND for Pipe and Wire	1.70
11186	PIN, $\frac{1}{2}$ " x $3\frac{3}{8}$ ", for 11185	.05
12155	2 Way, VERTICAL WHEEL COMPLETE, for Pipe and Wire	3.04
12156	2 Way, VERTICAL WHEEL STAND, for Pipe and Wire	2.20
12157	PIN, $\frac{3}{8}$ " x 6" for 11173, 11181 and 12156	.05
12158	PIN, $\frac{3}{8}$ " x $8\frac{1}{4}$ " for 11174 and 11182	.06
12159	PIN, $\frac{3}{8}$ " x $10\frac{1}{2}$ " for 11175 and 11183	.07
13125	PIN, $\frac{1}{2}$ " x 6", for 12156	.05
14596	ROD only, for 14600 and 14608	4.20
14600	1 Way VERTICAL WHEEL AND ROD COMPLETE, for Pipe and Wire	8.80
14608	2 Way VERTICAL WHEEL AND ROD COMPLETE, for Pipe and Wire	15.38

Order by NUMBER and NAME Appearing in Large Type



ANTI-FRICTION WHEELS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

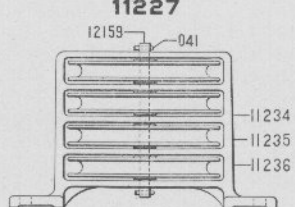
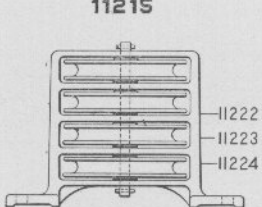
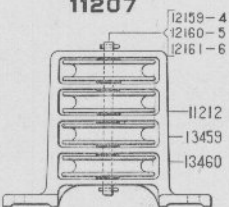
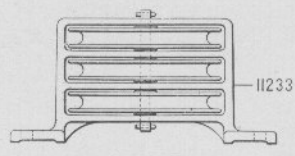
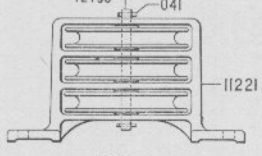
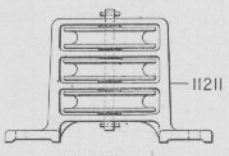
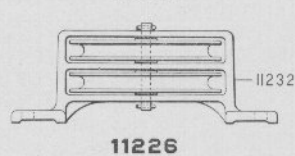
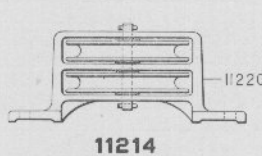
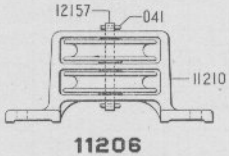
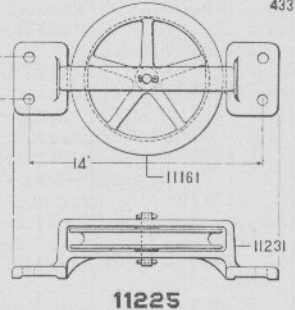
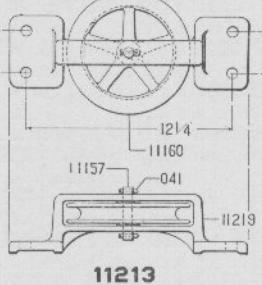
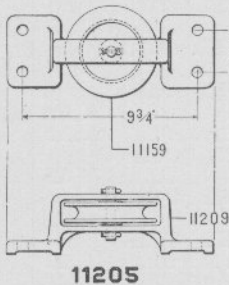
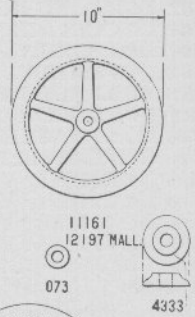
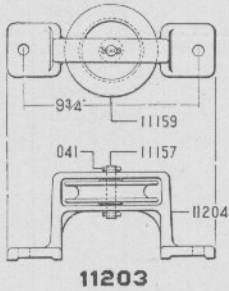
195

Order No.	ANTI-FRICTION WHEELS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11157, 12157, 12158 and 12159, (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
10115	STEEL ROLLER, $\frac{5}{16}$ " x $1\frac{1}{8}$ ", for 13473	.03
11153	No. 1, 1 Way VERTICAL WHEEL STAND, $6\frac{1}{2}$ " High	.64
11154	No. 2, 1 Way VERTICAL WHEEL STAND, 8" High	.79
11155	No. 3, 1 Way VERTICAL WHEEL STAND, $9\frac{1}{2}$ " High	.96
11156	No. 4, 1 Way VERTICAL WHEEL STAND, 11" High	1.08
11157	PIN, $\frac{5}{8}$ " x $3\frac{1}{4}$ "	.04
11162	No. 1, 1 Way, 10" ANTI-FRICTION VERTICAL WHEEL COMPLETE, $6\frac{1}{2}$ " High	3.64
11163	No. 2, 1 Way, 10" ANTI-FRICTION VERTICAL WHEEL COMPLETE, 8" High	3.80
11164	No. 3, 1 Way, 10" ANTI-FRICTION VERTICAL WHEEL COMPLETE, $9\frac{1}{2}$ " High	3.96
11165	No. 4, 1 Way, 10" ANTI-FRICTION VERTICAL WHEEL COMPLETE, 11" High	4.08
11196	10" MALLEABLE ANTI-FRICTION WHEEL, only	
11237	1 Way, 10" ANTI-FRICTION HORIZONTAL WHEEL COMPLETE	3.32
11238	2 Way, 10" ANTI-FRICTION HORIZONTAL WHEEL COMPLETE	6.22
11239	3 Way, 10" ANTI-FRICTION HORIZONTAL WHEEL COMPLETE	8.20
11240	4 Way, 10" ANTI-FRICTION HORIZONTAL WHEEL COMPLETE	12.52
11241	1 Way, 10" ANTI-FRICTION HORIZONTAL WHEEL STAND	
11242	2 Way, 10" ANTI-FRICTION HORIZONTAL WHEEL STAND	
11243	3 Way, 10" ANTI-FRICTION HORIZONTAL WHEEL STAND	
11244	4 Way, 10" ANTI-FRICTION HORIZONTAL WHEEL STAND	
12157	PIN, $\frac{5}{8}$ " x 6"	.05
12158	PIN, $\frac{5}{8}$ " x $8\frac{1}{4}$ "	.06
12159	PIN, $\frac{5}{8}$ " x $10\frac{1}{4}$ "	.07
13445	SPECIAL WASHER, $\frac{1}{16}$ " x $2\frac{1}{4}$ " x $\frac{1}{8}$ "	
13450	STEEL BUSHING, $\frac{1}{8}$ " x $1\frac{1}{8}$ " x $\frac{3}{16}$ "	.70

Order by NUMBER and NAME Appearing in Large Type

CHAIN WHEEL CONNECTIONS

STYLE "A" HORIZONTAL WHEELS



- 11208 — 4 WAY
- 13442 — 5 " " "
- 13443 — 6 " " "

- 11216 — 4 WAY
- 11217 — 5 " " "
- 11218 — 6 " " "

- 11228 — 4 WAY
- 11229 — 5 " " "
- 11230 — 6 " " "

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

197

Order  
No.

STYLE "A" HORIZONTAL WHEELS

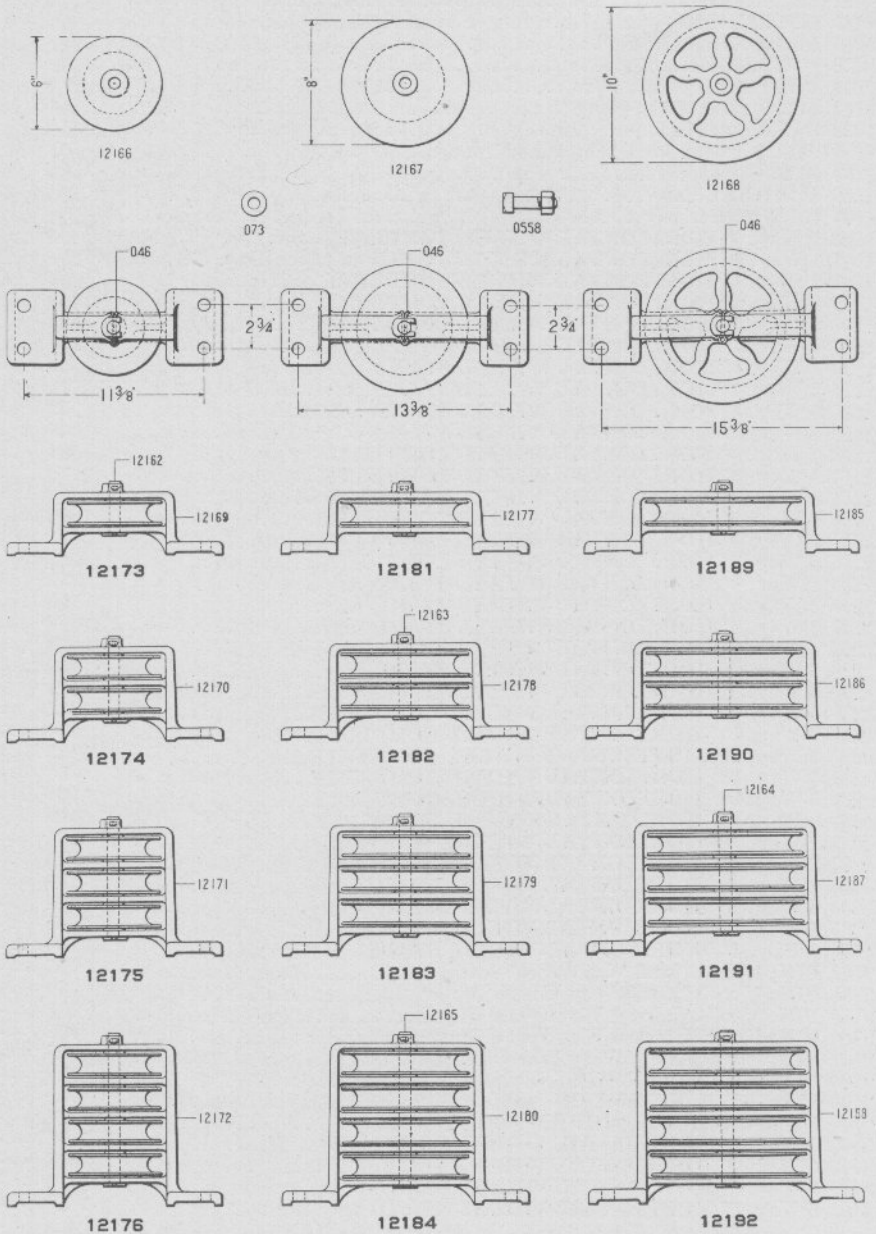
List Price.

022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for Pins in Wheel Stands, (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
11157	PIN, $\frac{5}{8}$ " x $3\frac{3}{4}$ ", for 1 Way Wheel Stands	.04
11159	6" WHEEL only	.19
11160	8" WHEEL only	.28
11161	10" WHEEL only	.48
11203	1 Way, 6" HORIZONTAL WHEEL COMPLETE, for Dwarf Signals	.90
11204	1 Way, 6" HORIZONTAL WHEEL STAND only, for Dwarf Signals	.57
11205	1 Way, 6" HORIZONTAL WHEEL COMPLETE	.90
11206	2 Way, 6" HORIZONTAL WHEEL COMPLETE	1.36
11207	3 Way, 6" HORIZONTAL WHEEL COMPLETE	1.76
11208	4 Way, 6" HORIZONTAL WHEEL COMPLETE	2.16
11209	1 Way, 6" HORIZONTAL WHEEL STAND only	.56
11210	2 Way, 6" HORIZONTAL WHEEL STAND only	.76
11211	3 Way, 6" HORIZONTAL WHEEL STAND only	.92
11212	4 Way, 6" HORIZONTAL WHEEL STAND only	1.08
11213	1 Way, 8" HORIZONTAL WHEEL COMPLETE	1.04
11214	2 Way, 8" HORIZONTAL WHEEL COMPLETE	1.70
11215	3 Way, 8" HORIZONTAL WHEEL COMPLETE	2.28
11216	4 Way, 8" HORIZONTAL WHEEL COMPLETE	2.80
11217	5 Way, 8" HORIZONTAL WHEEL COMPLETE	3.38
11218	6 Way, 8" HORIZONTAL WHEEL COMPLETE	3.96
11219	1 Way, 8" HORIZONTAL WHEEL STAND only	.57
11220	2 Way, 8" HORIZONTAL WHEEL STAND only	.90
11221	3 Way, 8" HORIZONTAL WHEEL STAND only	1.12
11222	4 Way, 8" HORIZONTAL WHEEL STAND only	1.32
11223	5 Way, 8" HORIZONTAL WHEEL STAND only	1.56
11224	6 Way, 8" HORIZONTAL WHEEL STAND only	1.76
11225	1 Way, 10" HORIZONTAL WHEEL COMPLETE	1.32
11226	2 Way, 10" HORIZONTAL WHEEL COMPLETE	2.04
11227	3 Way, 10" HORIZONTAL WHEEL COMPLETE	2.82
11228	4 Way, 10" HORIZONTAL WHEEL COMPLETE	4.00
11229	5 Way, 10" HORIZONTAL WHEEL COMPLETE	5.04
11230	6 Way, 10" HORIZONTAL WHEEL COMPLETE	6.06
11231	1 Way, 10" HORIZONTAL WHEEL STAND only	.64
11232	2 Way, 10" HORIZONTAL WHEEL STAND only	.86
11233	3 Way, 10" HORIZONTAL WHEEL STAND only	1.16
11234	4 Way, 10" HORIZONTAL WHEEL STAND only	1.80
11235	5 Way, 10" HORIZONTAL WHEEL STAND only	2.40
11236	6 Way, 10" HORIZONTAL WHEEL STAND only	3.00
12157	PIN, " x 6", for 2 Way Wheel Stands	.05
12158	PIN, " x $8\frac{1}{4}$ ", for 3 Way Wheel Stands	.06
12159	PIN, " x $10\frac{1}{2}$ ", for 4 Way Wheel Stands	.07
12160	PIN, " x $12\frac{3}{4}$ ", for 5 Way Wheel Stands	.08
12161	PIN, " x 15", for 6 Way Wheel Stands	.08
12195	6" MALLEABLE WHEEL only	.80
12196	8" MALLEABLE WHEEL only	1.00
12197	10" MALLEABLE WHEEL only	1.24
13442	5 Way, 6" HORIZONTAL WHEEL COMPLETE	2.66
13443	6 Way, 6" HORIZONTAL WHEEL COMPLETE	3.08
13459	5 Way, 6" HORIZONTAL WHEEL STAND only	1.22
13460	6 Way, 6" HORIZONTAL WHEEL STAND only	1.39

Order by NUMBER and NAME Appearing in Large Type

CHAIN WHEEL CONNECTIONS

STYLE "B" HORIZONTAL WHEELS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## CHAIN WHEEL CONNECTIONS

199

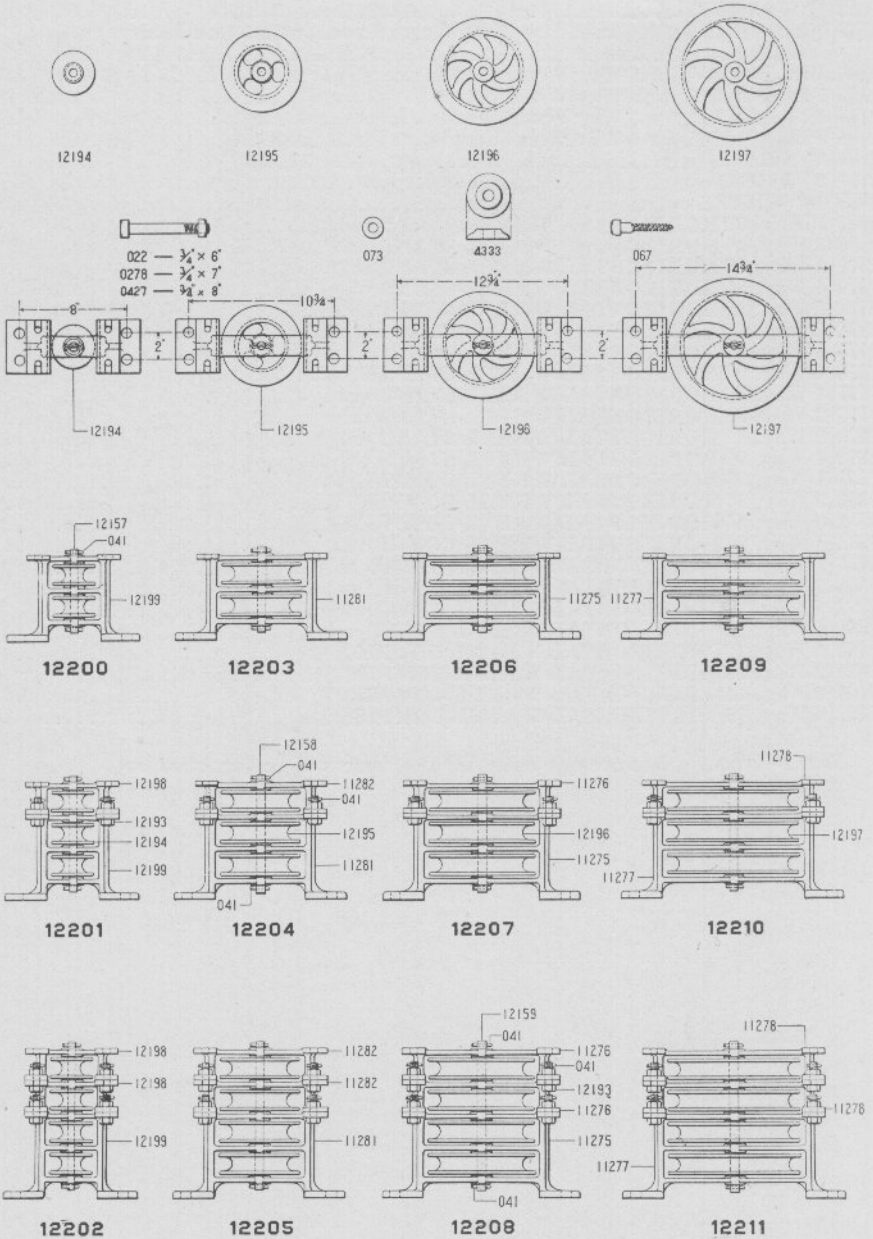
Order No.	STYLE "B" HORIZONTAL WHEELS	List Price.
046	COTTER PIN, $\frac{3}{16}$ " x 2", for Pins in Wheel Stands, (per 100).....	.80
073	$\frac{3}{4}$ " WASHER.....	.02
0558	BOLT AND NUT, $\frac{3}{8}$ " x 2 $\frac{1}{4}$ " for fixing Wheel Stands to Cast Iron Foundations.....	.10
12162	PIN, $\frac{3}{4}$ " x 3", for 1 Way Wheel Stands.....	
12163	PIN, $\frac{3}{4}$ " x 5 $\frac{1}{4}$ ", for 2 Way Wheel Stands.....	
12164	PIN, $\frac{3}{4}$ " x 7 $\frac{1}{4}$ ", for 3 Way Wheel Stands.....	
12165	PIN, $\frac{3}{4}$ " x 9 $\frac{3}{8}$ ", for 4 Way Wheel Stands.....	
12166	6" WHEEL only.....	
12167	8" WHEEL only.....	
12168	10" WHEEL only.....	
12169	1 Way, 6" HORIZONTAL WHEEL STAND only.....	
12170	2 Way, 6" HORIZONTAL WHEEL STAND only.....	
12171	3 Way, 6" HORIZONTAL WHEEL STAND only.....	
12172	4 Way, 6" HORIZONTAL WHEEL STAND only.....	
12173	1 Way, 6" HORIZONTAL WHEEL COMPLETE.....	
12174	2 Way, 6" HORIZONTAL WHEEL COMPLETE.....	
12175	3 Way, 6" HORIZONTAL WHEEL COMPLETE.....	
12176	4 Way, 6" HORIZONTAL WHEEL COMPLETE.....	
12177	1 Way, 8" HORIZONTAL WHEEL STAND only.....	
12178	2 Way, 8" HORIZONTAL WHEEL STAND only.....	
12179	3 Way, 8" HORIZONTAL WHEEL STAND only.....	
12180	4 Way, 8" HORIZONTAL WHEEL STAND only.....	
12181	1 Way, 8" HORIZONTAL WHEEL COMPLETE.....	
12182	2 Way, 8" HORIZONTAL WHEEL COMPLETE.....	
12183	3 Way, 8" HORIZONTAL WHEEL COMPLETE.....	
12184	4 Way, 8" HORIZONTAL WHEEL COMPLETE.....	
12185	1 Way, 10" HORIZONTAL WHEEL STAND only.....	
12186	2 Way, 10" HORIZONTAL WHEEL STAND only.....	
12187	3 Way, 10" HORIZONTAL WHEEL STAND only.....	
12188	4 Way, 10" HORIZONTAL WHEEL STAND only.....	
12189	1 Way, 10" HORIZONTAL WHEEL COMPLETE.....	
12190	2 Way, 10" HORIZONTAL WHEEL COMPLETE.....	
12191	3 Way, 10" HORIZONTAL WHEEL COMPLETE.....	
12192	4 Way, 10" HORIZONTAL WHEEL COMPLETE.....	

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

CHAIN WHEEL CONNECTIONS

MULTIPLE HORIZONTAL WHEELS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

201

Order No.	MULTIPLE HORIZONTAL WHEELS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6".....	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " for Pins in Wheel Stands, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8".....	.16
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
11275	2 Way Malleable, 8" HORIZONTAL WHEEL STAND only.....	
11276	Malleable EXTENSION TOP for 8" Horizontal Wheel.....	
11277	2 Way Malleable, 10" HORIZONTAL WHEEL STAND only.....	
11278	Malleable EXTENSION TOP for 10" Horizontal Wheel.....	
11281	2 Way Malleable, 6" HORIZONTAL WHEEL STAND only.....	
11282	Malleable EXTENSION TOP for 6" Horizontal Wheel.....	
12157	PIN, $\frac{5}{8}$ " x 6", for 2 Way Wheel Stands.....	.05
12158	PIN, " x $8\frac{1}{2}$ ", for 3 Way Wheel Stands.....	.06
12159	PIN, " x $10\frac{1}{2}$ " for 4 Way Wheel Stands.....	.07
12193	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", for fixing Extension Top to Wheel Stands.....	
12194	$3\frac{1}{4}$ " Malleable WHEEL only.....	.80
12195	6" Malleable WHEEL only.....	1.00
12196	8" Malleable WHEEL only.....	1.24
12197	10" Malleable WHEEL only.....	
12198	Malleable EXTENSION TOP for $3\frac{1}{4}$ " Horizontal Wheel.....	
12199	2 Way Malleable, $3\frac{1}{4}$ " Horizontal WHEEL STAND only.....	
12200	2 Way, $3\frac{1}{4}$ " HORIZONTAL WHEEL COMPLETE.....	
12201	3 Way, $3\frac{1}{4}$ " HORIZONTAL WHEEL COMPLETE.....	
12202	4 Way, $3\frac{1}{4}$ " HORIZONTAL WHEEL COMPLETE.....	
12203	2 Way, 6" HORIZONTAL WHEEL COMPLETE.....	
12204	3 Way, 6" HORIZONTAL WHEEL COMPLETE.....	
12205	4 Way, 6" HORIZONTAL WHEEL COMPLETE.....	
12206	2 Way, 8" HORIZONTAL WHEEL COMPLETE.....	
12207	3 Way, 8" HORIZONTAL WHEEL COMPLETE.....	
12208	4 Way, 8" HORIZONTAL WHEEL COMPLETE.....	
12209	2 Way, 10" HORIZONTAL WHEEL COMPLETE.....	
12210	3 Way, 10" HORIZONTAL WHEEL COMPLETE.....	
12211	4 Way, 10" HORIZONTAL WHEEL COMPLETE.....	

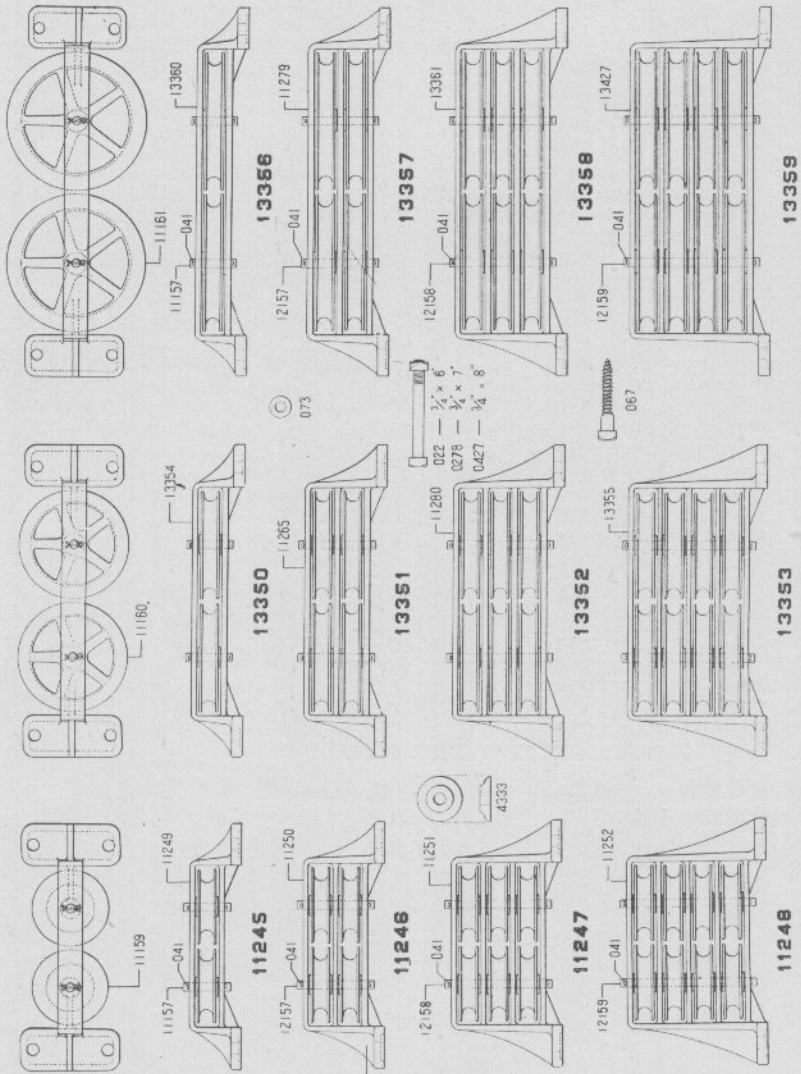
NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type



CHAIN WHEEL CONNECTIONS

HORIZONTAL TANDEM WHEELS



<b>2 HIGH-6" WHEEL COMP.</b>	
11246 - 4 WAY	
14636 - 6 "	
14827 - 8 "	
14828 - 10 "	
14829 - 12 "	
14830 - 14 "	
14831 - 16 "	
14832 - 18 "	
14633 - 20 "	
<b>STAND ONLY FOR ABOVE</b>	
11250 - 4 WAY	
11255 - 6 "	
11256 - 8 "	
14839 - 10 "	
14837 - 12 "	
14838 - 14 "	
14839 - 16 "	
14840 - 18 "	
14841 - 20 "	

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

203

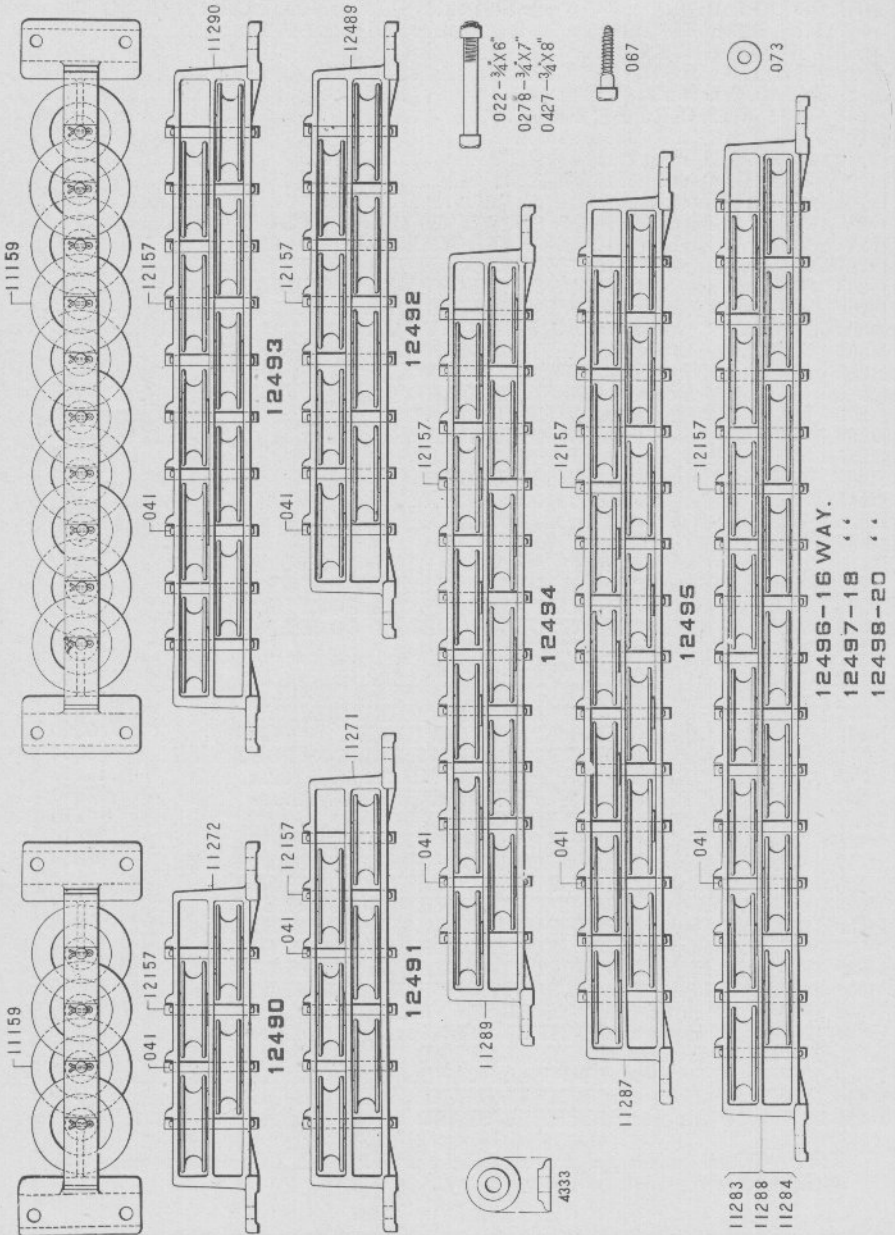
Order No.	HORIZONTAL TANDEM WHEELS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
11157	PIN, $\frac{5}{8}$ " x $3\frac{1}{2}$ "	.04
11159	6" WHEEL only	.19
11160	8" WHEEL only	.28
11161	10" WHEEL only	.48
11245	2 Way, 1 High, 6" HORIZONTAL WHEEL COMPLETE	2.90
11246	4 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	3.86
11247	6 Way, 3 High, 6" HORIZONTAL WHEEL COMPLETE	5.00
11248	8 Way, 4 High, 6" HORIZONTAL WHEEL COMPLETE	5.00
11249	2 Way, 6" Horizontal WHEEL STAND	1.86
11250	4 Way, 6" Horizontal WHEEL STAND	2.28
11251	6 Way, 6" Horizontal WHEEL STAND	3.28
11252	8 Way, 6" Horizontal WHEEL STAND	2.20
11265	4 Way, 8" Horizontal WHEEL STAND	2.60
11279	4 Way, 10" Horizontal WHEEL STAND	2.76
11280	6 Way, 8" Horizontal WHEEL STAND	2.46
11285	6 Way, 6" Horizontal WHEEL STAND	3.28
11286	8 Way, 6" Horizontal WHEEL STAND	.05
12157	PIN, $\frac{5}{8}$ " x 6"	.06
12158	PIN, $\frac{3}{8}$ " x $8\frac{1}{2}$ "	.07
12159	PIN, $\frac{3}{8}$ " x $10\frac{1}{2}$ "	.07
13350	2 Way, 1 High, 8" HORIZONTAL WHEEL COMPLETE	3.70
13351	4 Way, 2 High, 8" HORIZONTAL WHEEL COMPLETE	4.90
13352	6 Way, 3 High, 8" HORIZONTAL WHEEL COMPLETE	6.40
13353	8 Way, 4 High, 8" HORIZONTAL WHEEL COMPLETE	6.40
13354	2 Way, 8" Horizontal WHEEL STAND	3.50
13355	8 Way, 8" Horizontal WHEEL STAND	3.50
13356	2 Way, 1 High, 10" HORIZONTAL WHEEL COMPLETE	4.90
13357	4 Way, 2 High, 10" HORIZONTAL WHEEL COMPLETE	6.90
13358	6 Way, 3 High, 10" HORIZONTAL WHEEL COMPLETE	8.64
13359	8 Wry, 4 High, 10" HORIZONTAL WHEEL COMPLETE	8.64
13360	2 Way, 10" Horizontal WHEEL STAND	3.40
13361	6 Way, 10" Horizontal WHEEL STAND	4.10
13427	8 Way, 10" Horizontal WHEEL STAND	4.16
14626	6 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	5.56
14627	8 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	6.84
14628	10 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	8.20
14629	12 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	9.68
14630	14 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	11.10
14631	16 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	12.50
14632	18 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	13.90
14633	20 Way, 2 High, 6" HORIZONTAL WHEEL COMPLETE	4.00
14636	10 Way, 6" Horizontal WHEEL STAND	4.80
14637	12 Way, 6" Horizontal WHEEL STAND	5.60
14638	14 Way, 6" Horizontal WHEEL STAND	6.40
14639	16 Way, 6" Horizontal WHEEL STAND	7.20
14640	18 Way, 6" Horizontal WHEEL STAND	7.96
14641	20 Way, 6" Horizontal WHEEL STAND	7.96

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

CHAIN WHEEL CONNECTIONS

HORIZONTAL BOX WHEELS. 2 TIERS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

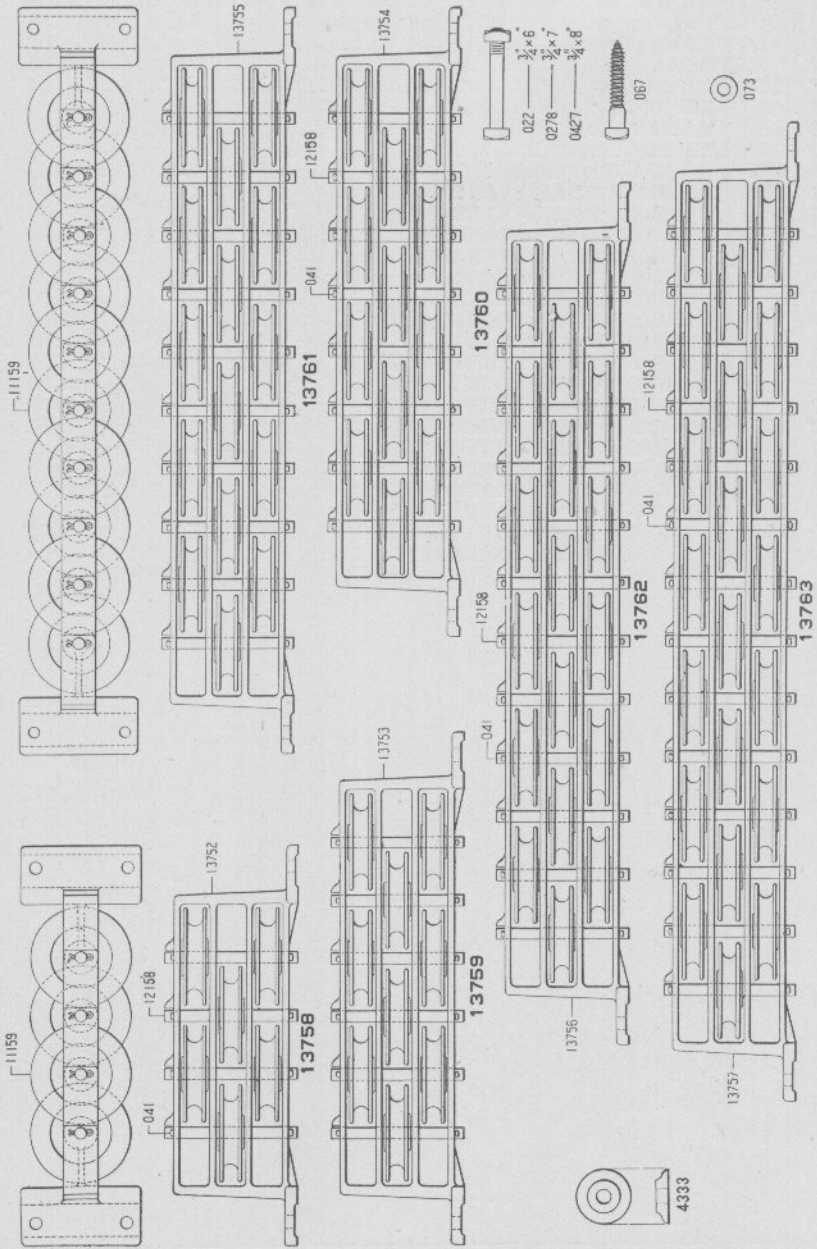
205

Order No.	HORIZONTAL BOX WHEELS. 2 TIERS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " for 12157, (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
4333	CAST WASHER, for $\frac{3}{4}$ " Bolts	.08
11159	6" WHEEL only	.19
11271	6 Way, 6" BOX WHEEL STAND only	2.46
11272	4 Way, 6" BOX WHEEL STAND only	2.00
11283	16 Way, 6" BOX WHEEL STAND only	6.40
11284	20 Way, 6" BOX WHEEL STAND only	7.96
11287	14 Way, 6" BOX WHEEL STAND only	5.60
11288	18 Way, 6" BOX WHEEL STAND only	7.20
11289	12 Way, 6" BOX WHEEL STAND only	4.80
11290	10 Way, 6" BOX WHEEL STAND only	4.00
12157	PIN, $\frac{3}{8}$ " x 6", for Wheel Stands	.05
12489	8 Way, 6" BOX WHEEL STAND only	3.28
12490	4 Way, 6" BOX WHEEL COMPLETE	2.96
12491	6 Way, 6" BOX WHEEL COMPLETE	4.20
12492	8 Way, 6" BOX WHEEL COMPLETE	5.58
12493	10 Way, 6" BOX WHEEL COMPLETE	6.84
12494	12 Way, 6" BOX WHEEL COMPLETE	8.24
12495	14 Way, 6" BOX WHEEL COMPLETE	9.64
12496	16 Way, 6" BOX WHEEL COMPLETE	11.06
12497	18 Way, 6" BOX WHEEL COMPLETE	12.48
12498	20 Way, 6" BOX WHEEL COMPLETE	13.90

Order by NUMBER and NAME Appearing in Large Type

CHAIN WHEEL CONNECTIONS

HORIZONTAL BOX WHEELS—CONTINUED. 3 TIERS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## CHAIN WHEEL CONNECTIONS

207

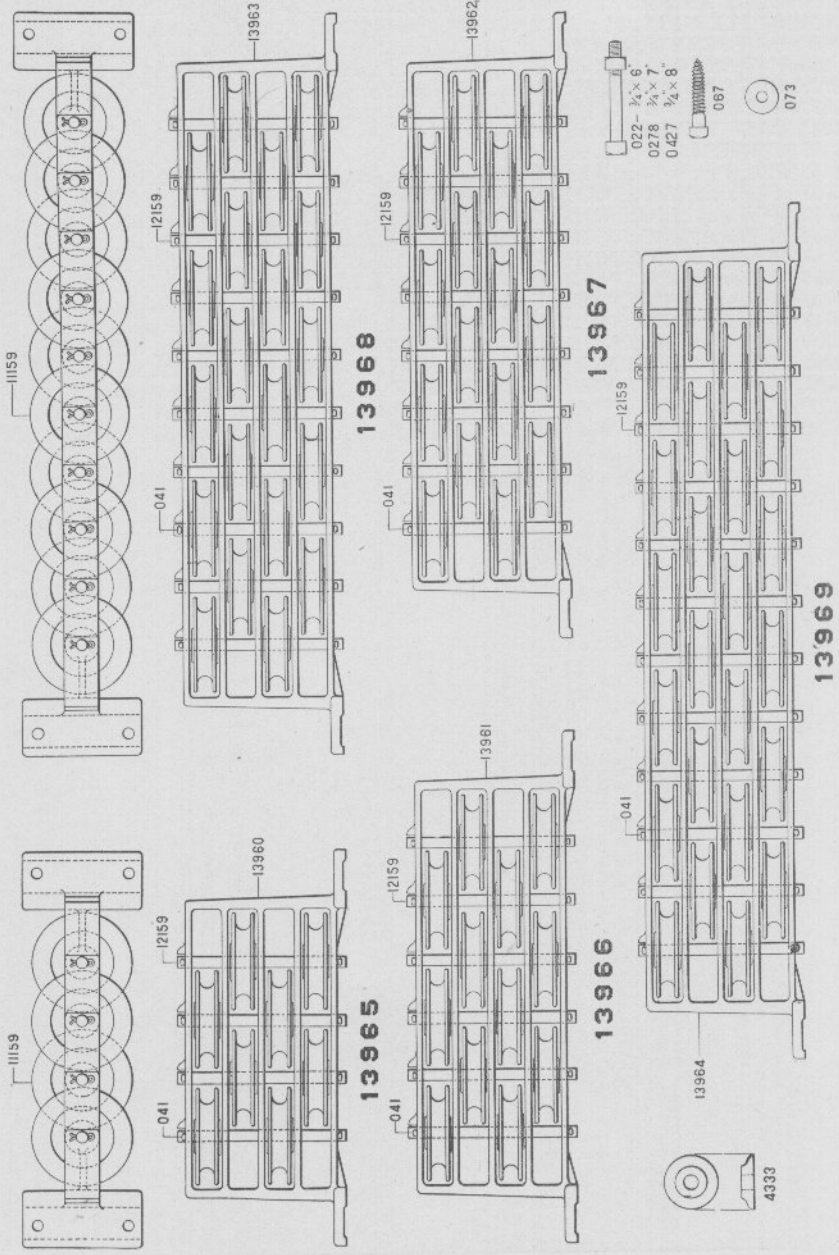
Order No.	HORIZONTAL BOX WHEELS—CONTINUED. 3 TIERS	List Price
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " for 12196, (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
11159	6" WHEEL only	.19
12158	PIN, $\frac{5}{8}$ " x $8\frac{1}{4}$ " for Wheel Stands	.06
13752	6 Way, 6" BOX WHEEL STAND only	
13753	9 Way, 6" BOX WHEEL STAND only	
13754	12 Way, 6" BOX WHEEL STAND only	
13755	15 Way, 6" BOX WHEEL STAND only	
13756	18 Way, 6" BOX WHEEL STAND only	
13757	21 Way, 6" BOX WHEEL STAND only	
13758	6 Way, 6" BOX WHEEL COMPLETE	
13759	9 Way, 6" BOX WHEEL COMPLETE	
13760	12 Way, 6" BOX WHEEL COMPLETE	
13761	15 Way, 6" BOX WHEEL COMPLETE	
13762	18 Way, 6" BOX WHEEL COMPLETE	
13763	21 Way, 6" BOX WHEEL COMPLETE	

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

CHAIN WHEEL CONNECTIONS

HORIZONTAL BOX WHEELS—CONTINUED. 4 TIERS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

209

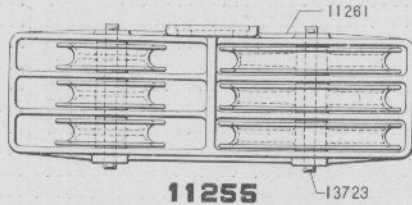
Order No.	HORIZONTAL BOX WHEELS—CONTINUED. 4 TIERS	List Price.
022	BOLT AND NUT, $\frac{3}{8}$ " x 6"	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " for 12159, (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{3}{4}$ " x 8"	.16
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
11159	6" WHEEL only	.19
12159	PIN, $\frac{5}{8}$ " x $10\frac{1}{2}$ " for Wheel Stands	.07
13960	8 Way, 6" BOX WHEEL STAND only	
13961	12 Way, 6" BOX WHEEL STAND only	
13962	16 Way, 6" BOX WHEEL STAND only	
13963	20 Way, 6" BOX WHEEL STAND only	
13964	24 Way, 6" BOX WHEEL STAND only	
13965	8 Way, 6" BOX WHEEL COMPLETE	
13966	12 Way, 6" BOX WHEEL COMPLETE	
13967	16 Way, 6" BOX WHEEL COMPLETE	
13968	20 Way, 6" BOX WHEEL COMPLETE	
13969	24 Way, 6" BOX WHEEL COMPLETE	

NOTE.—Where prices are not extended the same will be furnished on application.

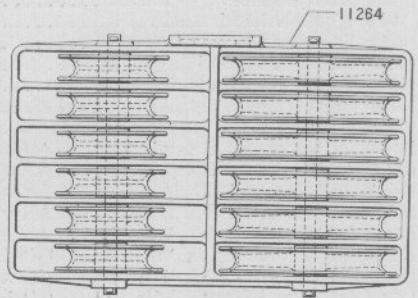
Order by NUMBER and NAME Appearing in Large Type



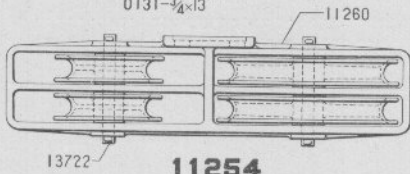
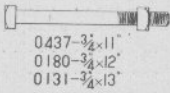
SIGNAL WHEELS



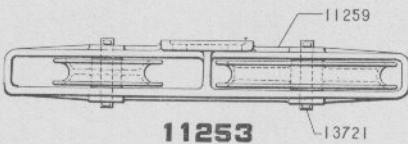
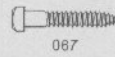
**11255**



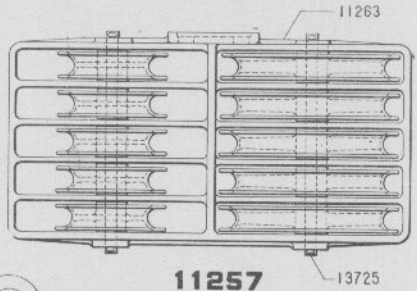
**11258**



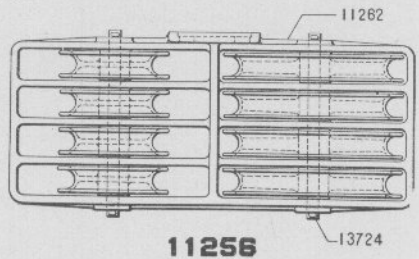
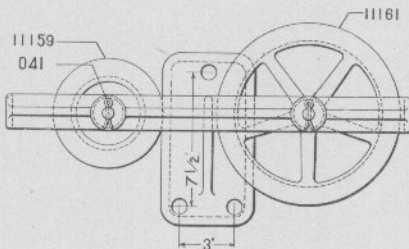
**11254**



**11253**



**11257**



**11256**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# CHAIN WHEEL CONNECTIONS

Order No.	SIGNAL WHEELS	List Price.
024	BOLT AND NUT, $\frac{3}{4}$ " x 2 $\frac{1}{4}$ ", for fixing Signal Wheel Stands to Clamps on Iron Poles .....	.08
041	COTTER PIN, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ ", (per 100) .....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4" .....	.07
073	$\frac{3}{4}$ " WASHER .....	.02
0131	BOLT AND NUT, $\frac{3}{8}$ " x 13" .....	.19
0180	BOLT AND NUT, $\frac{3}{8}$ " x 12" .....	.19
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11" .....	.19
4333	CAST WASHER for $\frac{3}{4}$ " Bolts .....	.08
11159	6" WHEEL only .....	.19
11161	10" WHEEL only .....	.48
11253	2 Way 6" and 10" SIGNAL WHEEL COMPLETE .....	2.56
11254	4 Way 6" and 10" SIGNAL WHEEL COMPLETE .....	3.48
11255	6 Way 6" and 10" SIGNAL WHEEL COMPLETE .....	4.92
11256	8 Way 6" and 10" SIGNAL WHEEL COMPLETE .....	6.40
11257	10 Way 6" and 10" SIGNAL WHEEL COMPLETE .....	.....
11258	12 Way 6" and 10" SIGNAL WHEEL COMPLETE .....	.....
11259	2 Way SIGNAL WHEEL STAND .....	1.74
11260	4 Way SIGNAL WHEEL STAND .....	1.92
11261	6 Way SIGNAL WHEEL STAND .....	2.40
11262	8 Way SIGNAL WHEEL STAND .....	2.80
11263	10 Way SIGNAL WHEEL STAND .....	3.20
11264	12 Way SIGNAL WHEEL STAND .....	.....
13721	PIN, $\frac{5}{8}$ " x 4 $\frac{1}{8}$ " .....	.....
13722	PIN, $\frac{5}{8}$ " x 6 $\frac{1}{4}$ " .....	.....
13723	PIN, $\frac{5}{8}$ " x 8 $\frac{3}{8}$ " .....	.....
13724	PIN, $\frac{5}{8}$ " x 10 $\frac{1}{2}$ " .....	.....
13725	PIN, $\frac{5}{8}$ " x 12 $\frac{3}{8}$ " .....	.....
13726	PIN, $\frac{5}{8}$ " x 14 $\frac{3}{4}$ " .....	.....

NOTE.—If Signal Wheels are required for Iron Poles, Order Clamps 14343, 14344, 14345, 14346 or 14347.

Order by NUMBER and NAME Appearing in Large Type

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## HIGH SIGNALS

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ON the following pages are illustrated a number of the various styles of High Signals which are shown in diagrams on pages 218 and 220 respectively. By reference to these diagrams, signals can be ordered in complete form, exclusive of Lamps, Glass, Roundels and Foundations.

On other pages some of the styles of signals in general use have been illustrated, together with a great variety of signal fittings, such as Spectacle Castings, Lamps, Glass, Roundels, Locks, Slots, Selectors, Circuit Breakers, etc., all of which are listed in detail.

Other styles of signals not shown in this catalogue will be furnished on specifications.

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## DIAGRAMS OF VARIOUS STYLES OF SIGNALS

## DIRECTIONS FOR ORDERING COMPLETE SIGNALS

Lamps, Glass, Roundels, Slots and Foundations are not included with Complete Signals and should be ordered separately. For Lamps, see page 350. For Glass or Roundels, see page 348. For Slots, see pages 292, 294 and 400.

## GROUND SIGNALS

In ordering specify as follows:

- (1) Style number (see pages 218 and 220).
- (2) Distance between Arms.
- (3) Home or Distant.
- (4) Spectacle Castings (see pages 248 to 260, inclusive).
- (5) Slotted if required.
- (6) Three position if required.

## BRIDGE SIGNALS

In ordering specify as follows:

- (1) Style number (see pages 218 and 220).
- (2) Depth of Bridge Truss.
- (3) Distance from Top Chord of Truss to First Arm.
- (4) Distance between Arms.
- (5) Home or Distant.
- (6) Spectacle Castings (see pages 248 to 260, inclusive).
- (7) Slotted if required.
- (8) Three position if required.

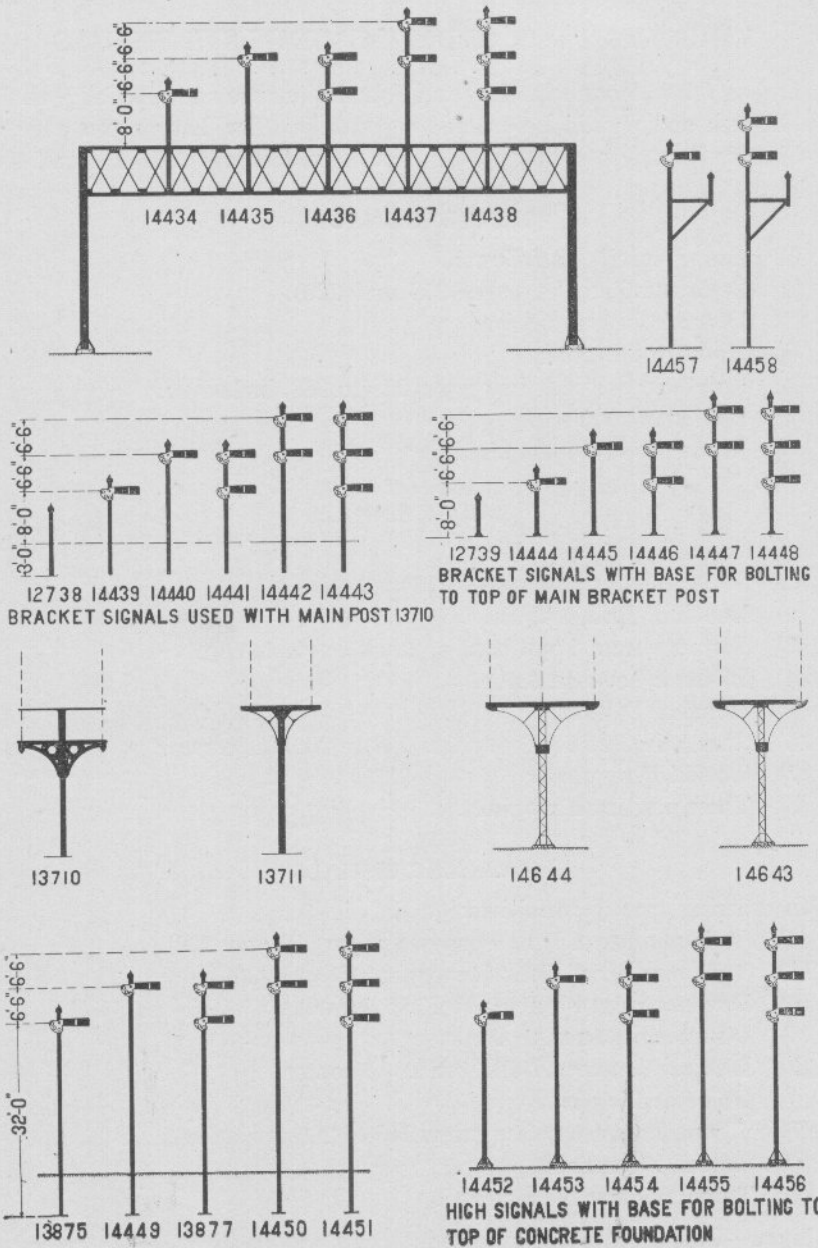
## BRACKET SIGNALS

In ordering specify as follows:

- (1) Style number of Main Post (see pages 218 and 220).
- (2) Style number of Dolls (see pages 218 and 220).
- (3) Distance from Platform to First Arm.
- (4) Distance between Arms.
- (5) Distance between Dolls, center to center.
- (6) Home or Distant.
- (7) Spectacle Castings (see pages 248 to 260, inclusive).
- (8) Slotted if required.
- (9) Three position if required.

NOTE—Unless otherwise specified, Signals will be furnished in accordance with cuts shown on pages 222 to 230.

DIAGRAMS OF VARIOUS STYLES OF SIGNALS. WIRE CONNECTED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



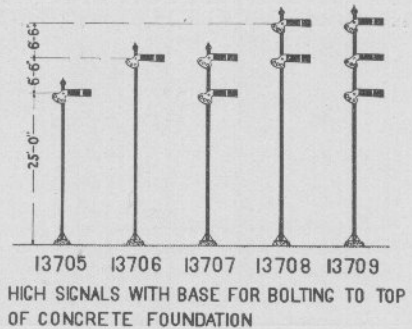
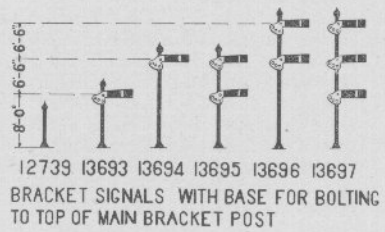
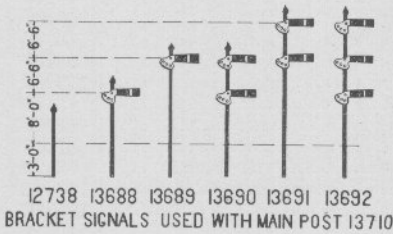
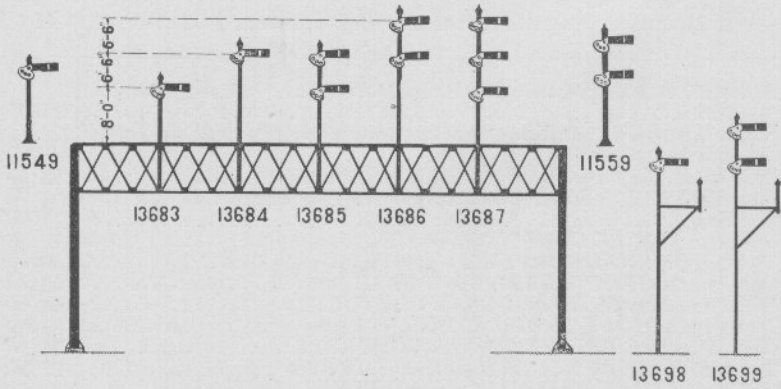
NOTE.—When ordering the following Signals, see directions on page 217 and diagrams, 218.

Order No.	DIAGRAMS OF VARIOUS STYLES OF SIGNALS, WIRE CONNECTED	List Price.
12738	Blank BRACKET DOLL with Pinnacle Complete. Used with Post 13710.	15.00
12739	Blank BRACKET DOLL, with Iron Base for fastening to Top of Bracket Post.	20.00
13710	Pipe BRACKET POST COMPLETE for Two Signals.	183.50
13711	Pipe BRACKET POST COMPLETE for Two Signals, having Iron Base.	271.00
13875	One Arm SIGNAL COMPLETE, see Fig. 1, page 222	110.80
13877	Two Arm SIGNAL COMPLETE, see Fig. 2, page 222	150.50
14434	One Arm BRIDGE SIGNAL COMPLETE, see Fig. 9, page 226	53.50
14435	High One Arm BRIDGE SIGNAL COMPLETE	64.00
14436	Two Arm BRIDGE SIGNAL COMPLETE, see Fig. 10, page 226	87.50
14437	High Two Arm BRIDGE SIGNAL COMPLETE	98.00
14438	Three Arm BRIDGE SIGNAL COMPLETE, see Fig. 11, page 226	122.20
14439	One Arm BRACKET SIGNAL COMPLETE	44.00
14440	High One Arm BRACKET SIGNAL COMPLETE	56.80
14441	Two Arm BRACKET SIGNAL COMPLETE	83.00
14442	High Two Arm BRACKET SIGNAL COMPLETE	93.40
14443	Three Arm BRACKET SIGNAL COMPLETE	119.50
14444	One Arm BRACKET SIGNAL COMPLETE with Base	48.70
14445	High One Arm BRACKET SIGNAL COMPLETE with Base	61.60
14446	Two Arm BRACKET SIGNAL COMPLETE with Base	87.50
14447	High Two Arm BRACKET SIGNAL COMPLETE with Base	98.20
14448	Three Arm BRACKET SIGNAL COMPLETE with Base	124.40
14449	High One Arm SIGNAL COMPLETE	121.00
14450	High Two Arm SIGNAL COMPLETE	160.80
14451	Three Arm SIGNAL COMPLETE, see Fig. 5, page 224	204.00
14452	One Arm SIGNAL COMPLETE with Iron Base, for fastening to Concrete Foundation	126.40
14453	High One Arm SIGNAL COMPLETE with Iron Base for fastening to Concrete Foundation	136.60
14454	Two Arm SIGNAL COMPLETE with Iron Base for fastening to Concrete Foundation	166.00
14455	High Two Arm SIGNAL COMPLETE with Iron Base, for fastening to Concrete Foundation	176.40
14456	Three Arm SIGNAL COMPLETE with Iron Base for fastening to Concrete Foundation	219.50
14457	One Arm OFFSET BRACKET SIGNAL COMPLETE	135.60
14458	Two Arm OFFSET BRACKET SIGNAL COMPLETE	175.40
14643	Lattice BRACKET POST COMPLETE for Two Signals	360.00
14644	Lattice BRACKET POST COMPLETE for Three Signals	415.00

Order by NUMBER and NAME Appearing in Large Type

HIGH SIGNALS

DIAGRAMS OF VARIOUS STYLES OF SIGNALS. PIPE CONNECTED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# HIGH SIGNALS

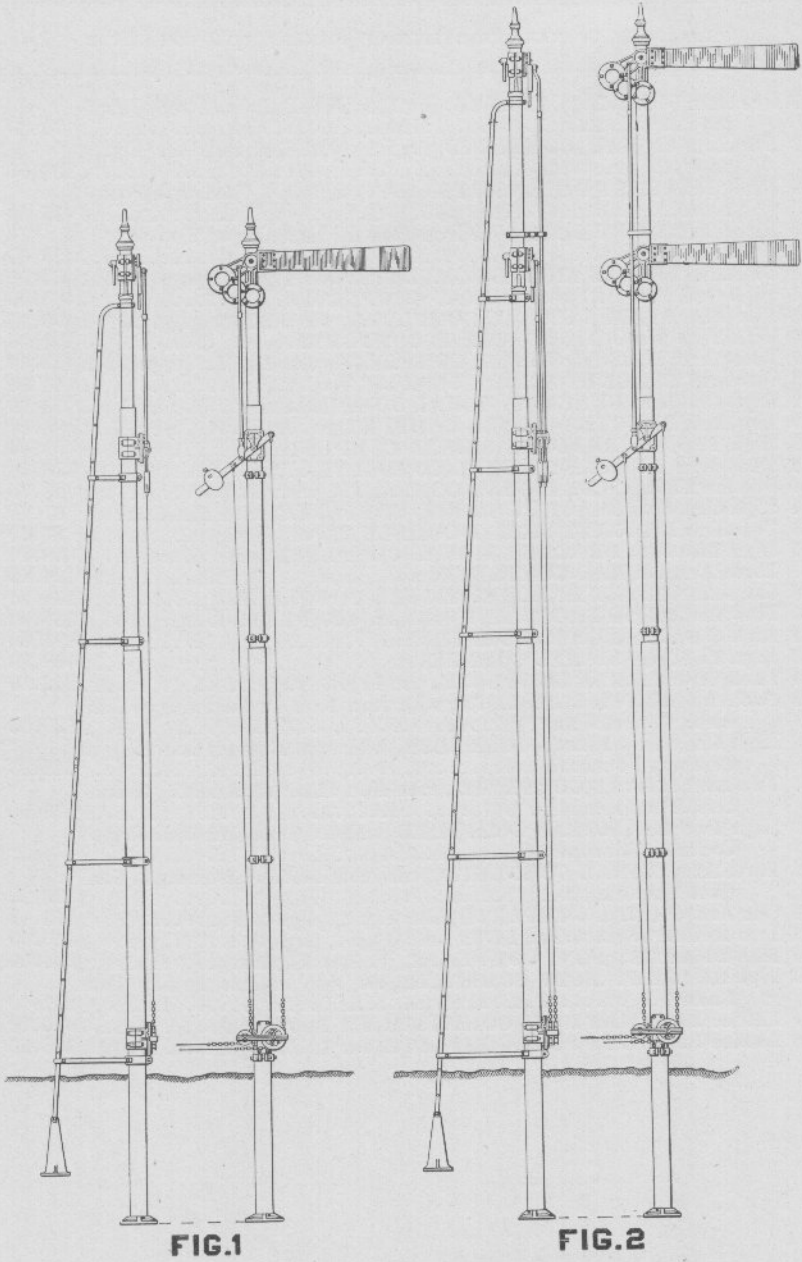
Note—When ordering the following Signals, see directions on page 217 and diagrams on page 220.

Order No.	DIAGRAMS OF VARIOUS STYLES OF SIGNALS, PIPE CONNECTED	List Price.
11549	One Arm SIGNAL COMPLETE, for Elevated Railroads, see Fig. 7, page 225.....	70.20 .....
11559	Two Arm SIGNAL COMPLETE, for Elevated Railroads, see Fig. 8, page 225.....	108.00 .....
12738	Blank BRACKET DOLL with Pinnacle Complete. Used with Post 14645.....	15.00 .....
12739	Blank BRACKET DOLL with Iron Base for fastening to Top of Bracket Post.....	20.00 .....
13683	One Arm BRIDGE SIGNAL COMPLETE, see Fig. 12, page 227.....	54.00 .....
13684	High One Arm BRIDGE SIGNAL COMPLETE.....	65.00 .....
13685	Two Arm BRIDGE SIGNAL COMPLETE, see Fig. 13, page 227.....	90.20 .....
13686	High Two Arm BRIDGE SIGNAL COMPLETE.....	101.00 .....
13687	Three Arm BRIDGE SIGNAL COMPLETE, see Fig. 14, page 227.....	123.60 .....
13688	One Arm BRACKET SIGNAL COMPLETE.....	44.00 .....
13689	High One Arm BRACKET SIGNAL COMPLETE.....	56.80 .....
13690	Two Arm BRACKET SIGNAL COMPLETE.....	83.00 .....
13691	High Two Arm BRACKET SIGNAL COMPLETE.....	93.40 .....
13692	Three Arm BRACKET SIGNAL COMPLETE.....	119.50 .....
13693	One Arm BRACKET SIGNAL COMPLETE, with Base.....	48.70 .....
13694	High One Arm BRACKET SIGNAL COMPLETE, with Base.....	61.60 .....
13695	Two Arm BRACKET SIGNAL COMPLETE, with Base.....	87.50 .....
13696	High Two Arm BRACKET SIGNAL COMPLETE, with Base.....	98.20 .....
13697	Three Arm SIGNAL COMPLETE, with Base.....	124.40 .....
13698	One Arm OFFSET BRACKET SIGNAL COMPLETE.....	138.20 .....
13699	Two Arm OFFSET BRACKET SIGNAL COMPLETE.....	181.50 .....
13701	High One Arm SIGNAL COMPLETE.....	125.60 .....
13703	High Two Arm SIGNAL COMPLETE.....	168.80 .....
13704	Three Arm SIGNAL COMPLETE, see Fig. 6, page 224.....	212.50 .....
13705	One Arm SIGNAL COMPLETE, with Iron Base for fastening to Concrete Foundation.....	129.00 .....
13706	High One Arm SIGNAL COMPLETE, with Iron Base for fastening to Concrete Foundation.....	141.20 .....
13707	Two Arm SIGNAL COMPLETE, with Iron Base for fastening to Concrete Foundation.....	172.00 .....
13708	High Two Arm SIGNAL COMPLETE, with Iron Base for fastening to Concrete Foundation.....	184.50 .....
13709	Three Arm SIGNAL COMPLETE, with Iron Base for fastening to Concrete Foundation.....	228.20 .....
13874	One Arm SIGNAL COMPLETE, see Fig. 3, page 223.....	113.40 .....
13876	Two Arm SIGNAL COMPLETE, see Fig. 4, page 223.....	156.60 .....
14645	Pipe BRACKET POST COMPLETE, for Two Signals.....	209.00 .....
14646	Pipe BRACKET POST COMPLETE, for Two Signals, having Iron Base.....	291.00 .....
14647	Lattice BRACKET POST COMPLETE, for Two Signals.....	360.00 .....
14648	Lattice BRACKET POST COMPLETE, for Three Signals.....	415.00 .....

Order by NUMBER and NAME Appearing in Large Type

# HIGH SIGNALS

ONE AND TWO ARM WIRE CONNECTED SIGNALS



Numbers Appearing on Castings are Not Order Numbers See pages 464 to 477

ONE AND TWO ARM PIPE CONNECTED SIGNALS

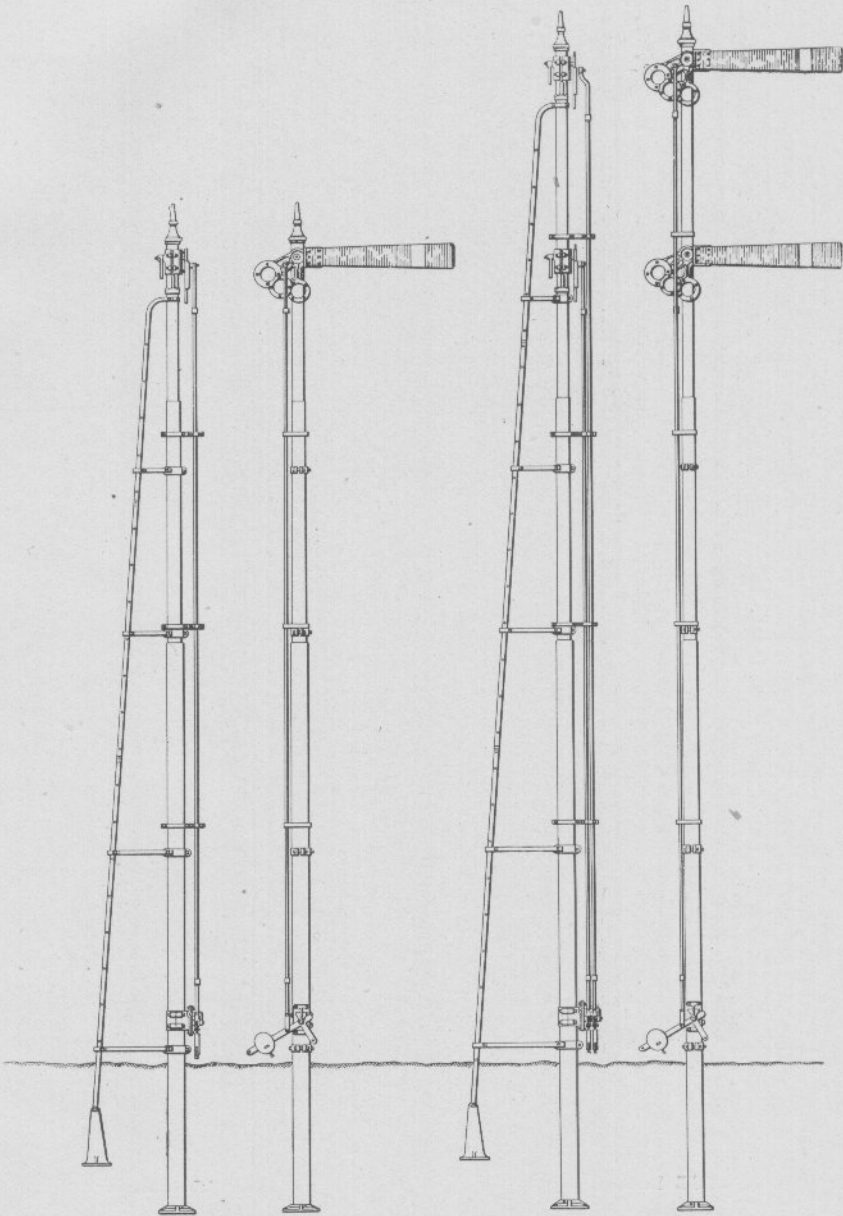
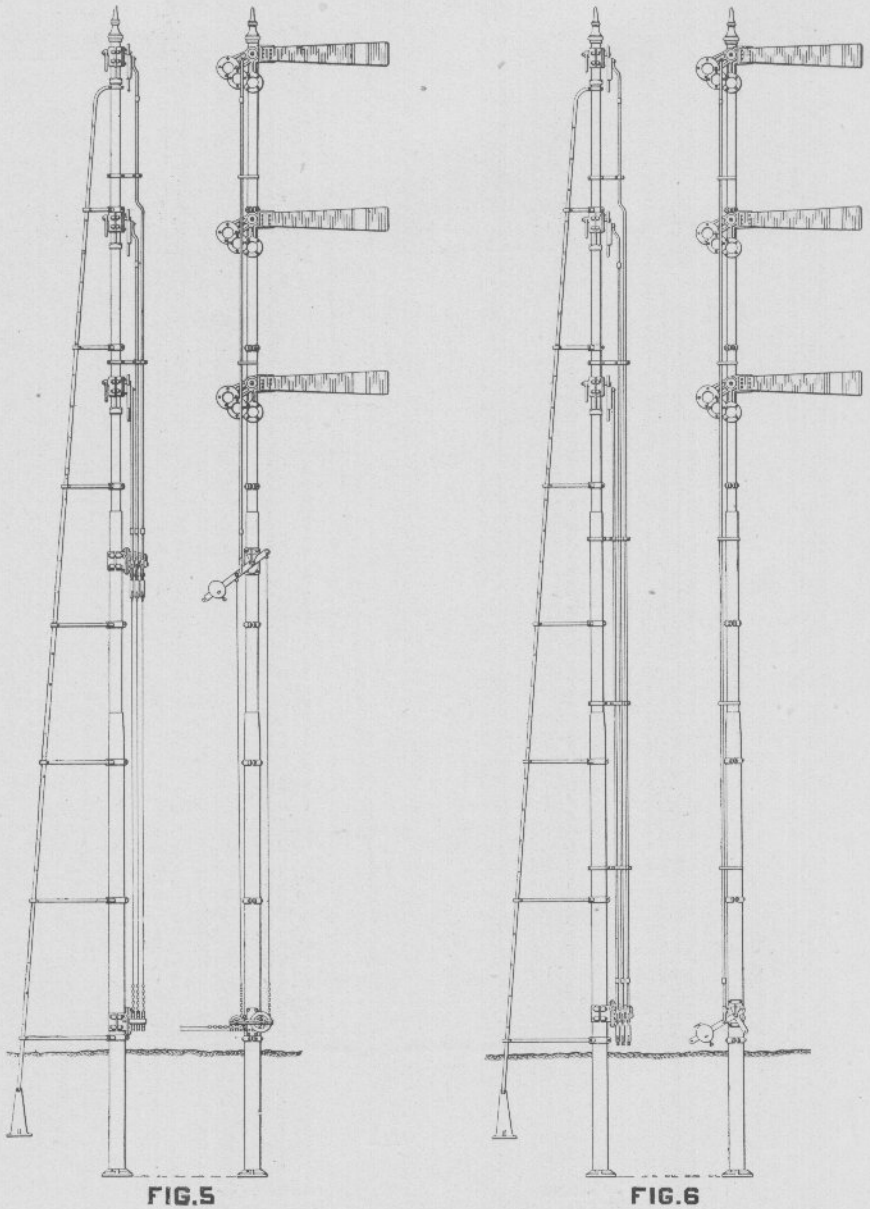


FIG. 3

FIG. 4

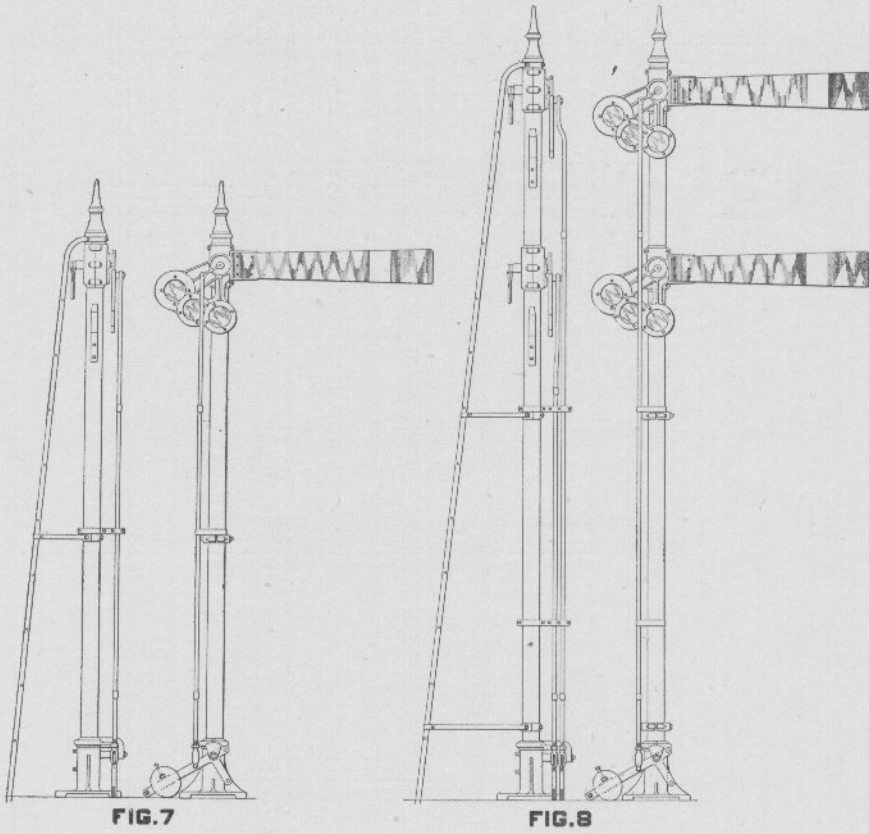
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## THREE ARM WIRE AND PIPE CONNECTED SIGNALS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

ONE AND TWO ARM PIPE CONNECTED SIGNALS



ONE, TWO AND THREE ARM BRIDGE OR BRACKET SIGNALS. WIRE CONNECTED

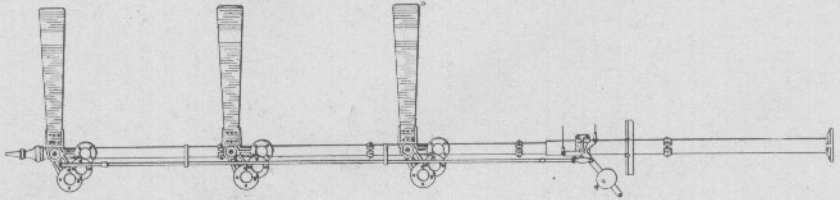


FIG. 11

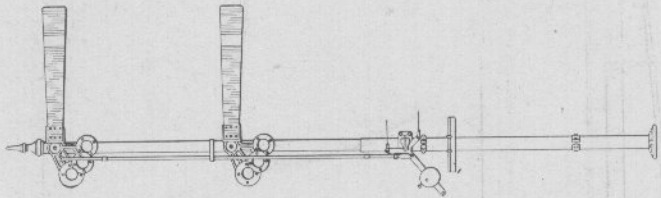
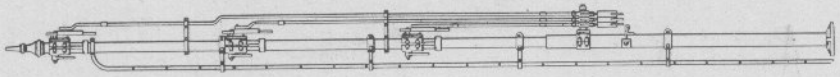


FIG. 10

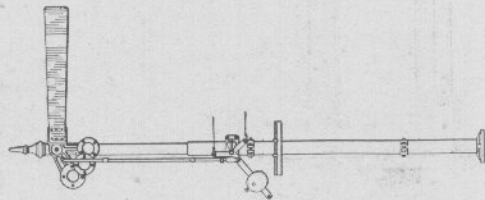
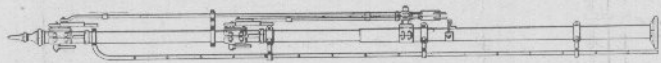
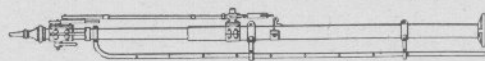


FIG. 9



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



ONE, TWO AND THREE ARM BRIDGE OR BRACKET SIGNALS. PIPE CONNECTED

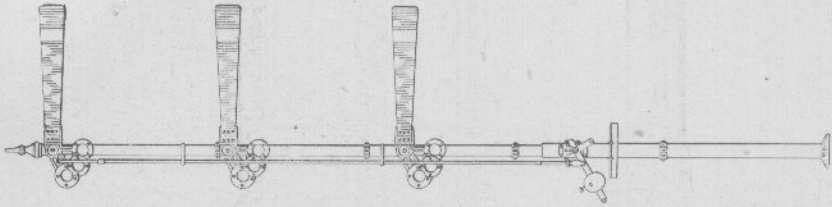


FIG. 14

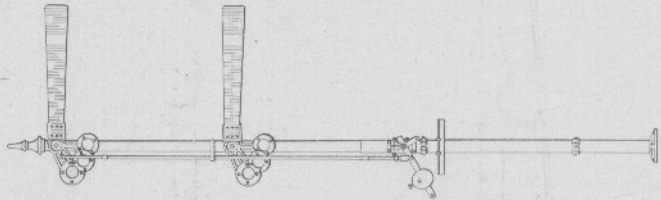
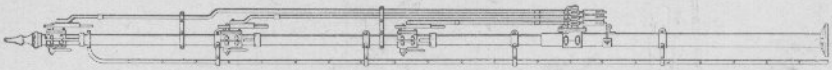


FIG. 13

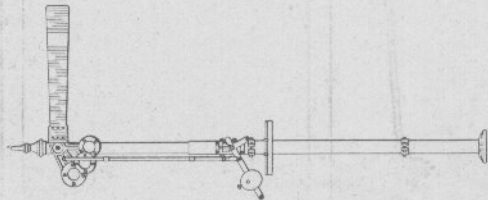
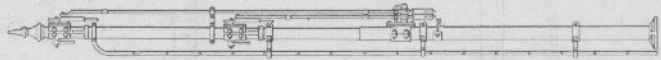
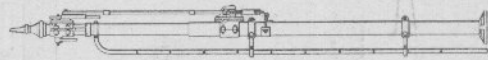


FIG. 12



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## BRACKET SIGNAL—PIPE POST WITH WROUGHT BRACKET

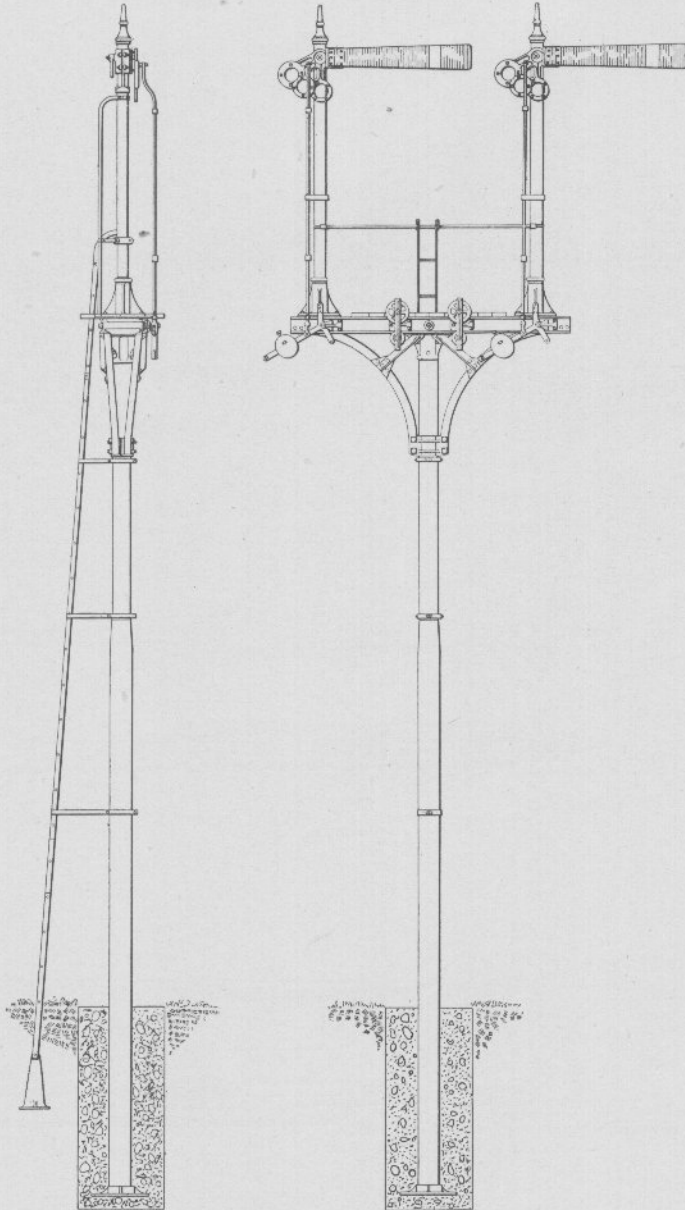


FIG.15

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

BRACKET SIGNAL—LATTICE POST WITH WROUGHT BRACKET

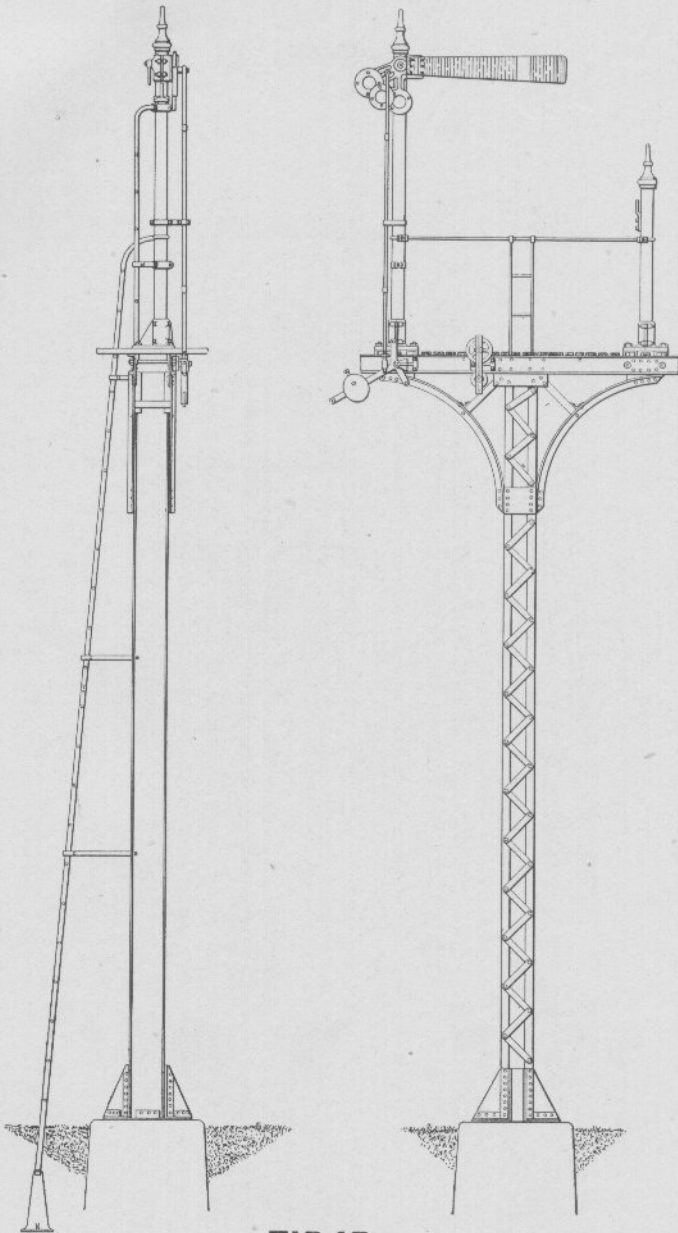


FIG.16

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

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ONE AND TWO ARM DOLL BRACKET SIGNAL. PIPE CONNECTED

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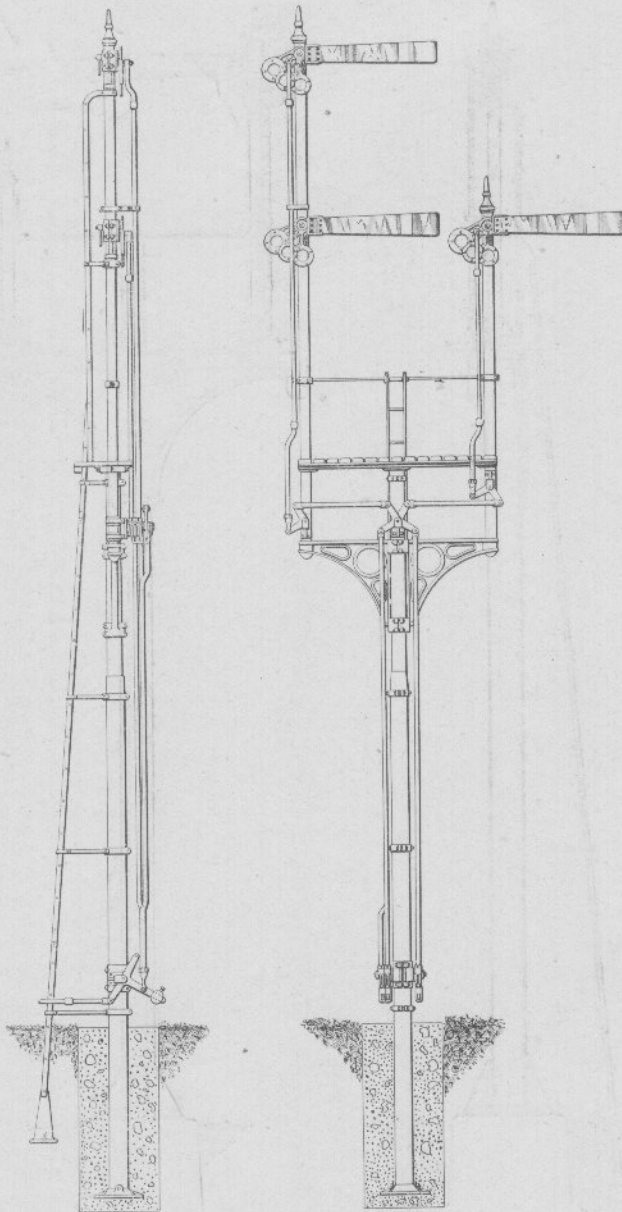


FIG.17

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

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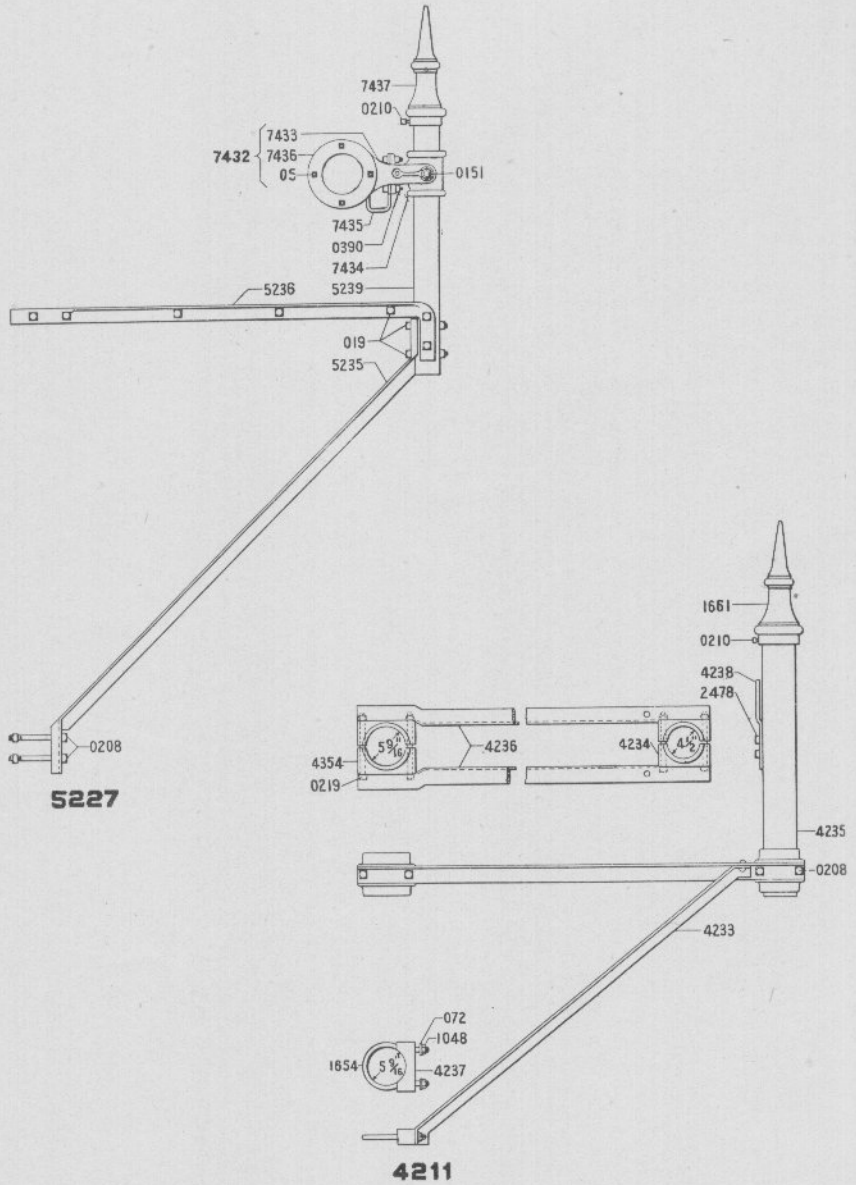
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<p><i>[Faint, illegible text or markings]</i></p>	
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## OFFSET BRACKETS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# HIGH SIGNALS

233

Order  
No.

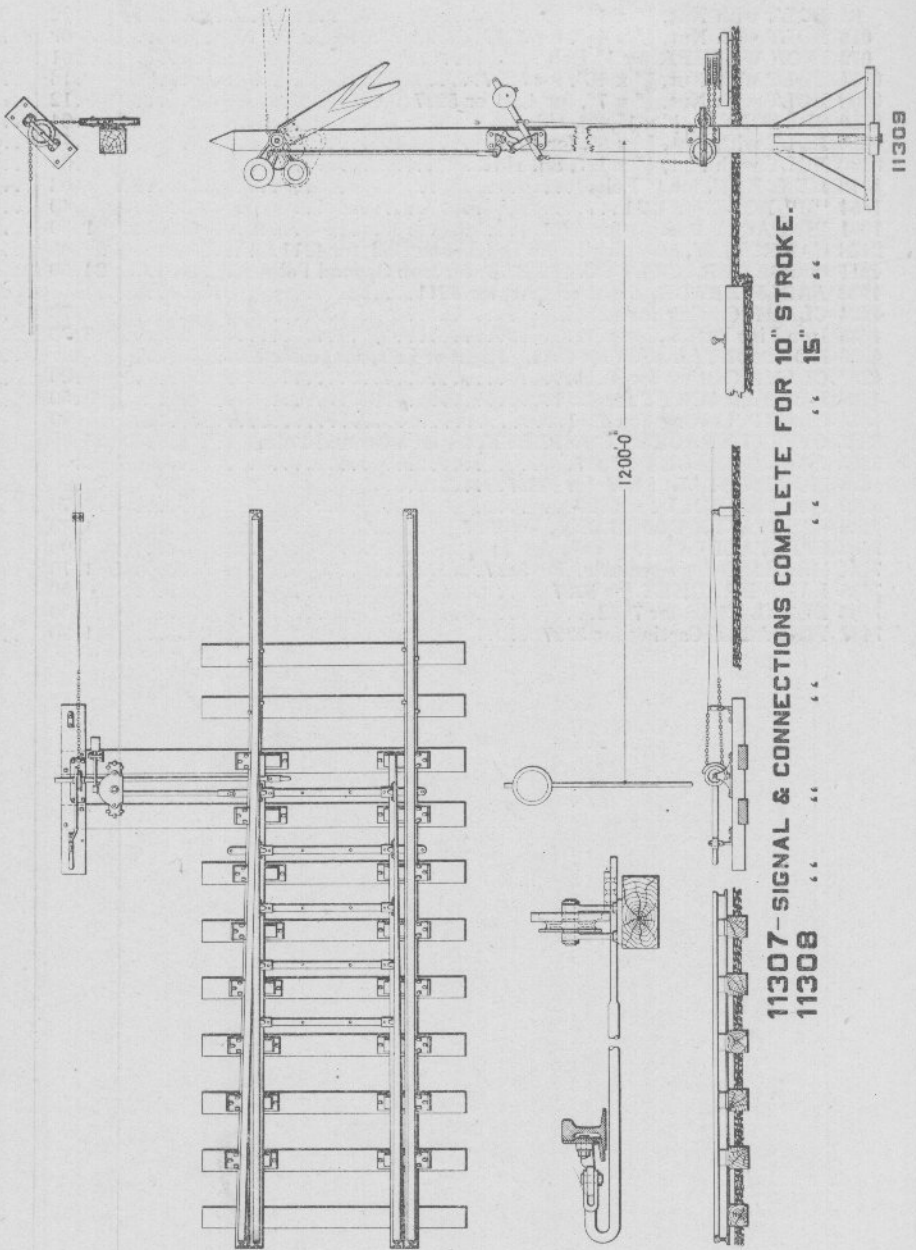
## OFFSET BRACKETS

List Price.

05	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{2}$ "	.02
019	BOLT with Nut, $\frac{5}{8}$ " x $4\frac{1}{2}$ ", for 5227	.09
072	IRON WASHER for $\frac{1}{2}$ " Bolt	.01
0151	BOLT with Nut, $\frac{3}{4}$ " x $10$ ", for 5227	.16
0208	BOLT with Nut, $\frac{1}{2}$ " x $7$ ", for 4211 or 5227	.12
0210	SET SCREW, $\frac{1}{2}$ " x $1$ ", Sq. Hd.	.04
0219	BOLT with Nut, $\frac{5}{8}$ " x $8$ ", for 4211	.12
0390	BOLT with Nut, $\frac{1}{2}$ " x $1\frac{1}{4}$ ", Sq. Hd.	.04
1048	HEX. NUT, for $\frac{1}{2}$ " Bolt	.03
1654	"U" BOLT for 4211	.40
1661	PINNACLE Casting for 4211	1.50
2478	CAP SCREW, fastening Lamp Bracket to Doll, for 4211	.05
4211	OFFSET BRACKET COMPLETE, for Iron Ground Poles	24.50
4233	ANGLE BRACE, Right or Left, for 4211	.70
4234	CLAMP Casting for 4211	.70
4235	Iron Pipe DOLL, for 4211	3.70
4236	HORIZONTAL ARM for 4211. Right or Left, as specified	.36
4237	CLAMP Casting for 4211	.50
4238	LAMP BRACKET for 4211	.90
4354	CLAMP Casting for 4211	.90
5227	OFFSET BRACKET COMPLETE, for Iron Ground Poles	25.00
5235	ANGLE BRACE for 5227	.70
5236	HORIZONTAL ARM for 5227	.70
5239	Iron Pipe DOLL for 5227	3.70
7432	SPECTACLE COMPLETE, for 5227	1.40
7433	SPECTACLE Casting only for 7432	.90
7434	BEARING for Spectacle, for 5227	1.70
7435	LAMP BRACKET for 5227	.50
7436	BEZEL RING for 7432	.50
7437	PINNACLE Casting for 5227	1.20

Order by NUMBER and NAME Appearing in Large Type

DISTANT SWITCH SIGNAL



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



# HIGH SIGNALS

NOTE.—Lamps, Glass, Roundels or Lenses are not included with Complete Signal; and should be ordered separately, if desired. For Lamps, see page 350 ; for Glass, or Roundels, see page 348. Spectacles furnished with Signals as specified, see pages 248 to 260 inclusive.

Order No.	DISTANT SWITCH SIGNALS	List Price.
11307	<b>DISTANT SWITCH SIGNAL AND CONNECTIONS, COMPLETE</b> for 10" Stroke, including : Signal, 2500 ft. No. 9 Galvanized Wire, 12 Feet of 1/4" Proof Chain, 60 Oak Stakes, 60 2-Way Wire Pulleys and Ground Lever Interlocking Stand as shown .....	145.10 .....
11308	<b>DISTANT SWITCH SIGNAL AND CONNECTIONS COMPLETE</b> for 15" Stroke, including : Signal, 2500 ft. No. 9 Galvanized Wire, 12 Feet of 1/4" Proof Chain, 60 Oak Stakes and 60 2-Way Wire Pulleys and Ground Lever Interlocking Stand as shown.....	145.10 .....
11309	<b>SIGNAL COMPLETE</b> with Signal Movement.....	72.60 .....

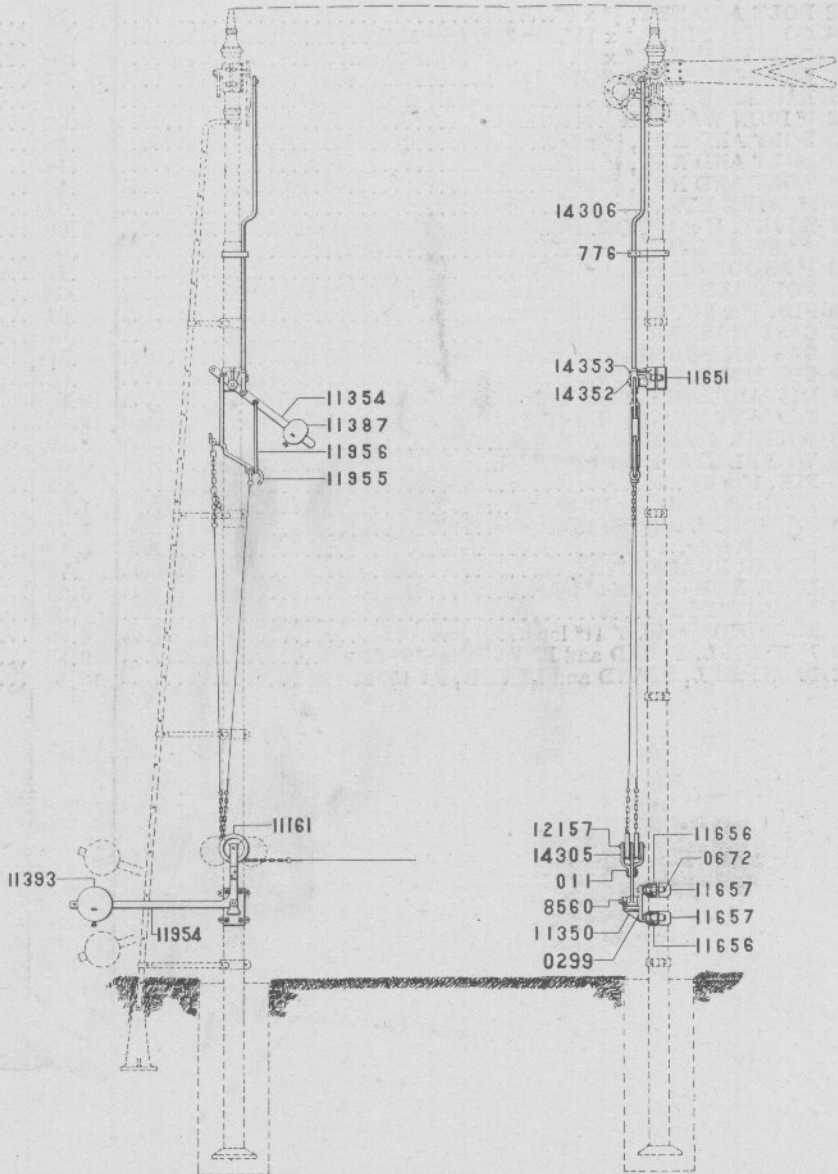
Order by NUMBER and NAME Appearing in Large Type



Order No.	DISTANT SWITCH SIGNAL APPARATUS	List Price.
022	BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 730, (per 100)	.80
046	COTTER PIN, $\frac{1}{8}$ " x 2", for 10514, (per 100)	.80
066	LAG SCREW, $\frac{5}{8}$ " x 3", for 10522	.05
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " IRON WASHER	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0427	BOLT AND NUT, $\frac{1}{2}$ " x 8"	.16
0496	2" WIRE EYE	.07
0527	RIVET, $\frac{1}{2}$ " x $1\frac{3}{4}$ ", Csk. Hd., for fixing 10524 to Lock Rods	.02
0548	$\frac{5}{16}$ " SPLIT LINK	.03
0549	$\frac{1}{4}$ " PROOF CHAIN, (per ft.)	.17
0560	BOLT AND NUT, $\frac{3}{4}$ " x $3\frac{1}{4}$ ", for fixing 10520 to 10516 or 10518	.05
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ", for Lock Rods	.07
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
8272	SWITCH POINT LUG, Right or Left, for Switch	.84
8279	LUG BOLT, $\frac{5}{8}$ " x $2\frac{1}{2}$ "	.09
10511	DISTANT SWITCH LEVER COMPLETE, for 10" Stroke	18.80
10512	DISTANT SWITCH LEVER COMPLETE, for 15" Stroke	19.30
10513	WHEEL STAND for 7" Wheel	3.40
10514	WHEEL STAND for 10" Wheel	3.52
10515	PIN, 1" x $6\frac{1}{4}$ "	.24
10516	7" WHEEL only, for 10" Stroke	1.60
10518	10" WHEEL only, for 15" Stroke	1.77
10520	LEVER only	4.16
10522	LEVER BRACKET	.76
10523	LOCK ROD only, 7' 6" long	5.00
10524	LOCK TAPPET	.30
12154	LOCK ROD only, 6' 11" long	4.80
13370	7" WHEEL, STAND and LEVER, for 10" Stroke	9.80
13372	10" WHEEL, STAND and LEVER, for 15" Stroke	10.10

Order by NUMBER and NAME Appearing in Large Type

DISTANT SIGNAL WITH WIRE COMPENSATOR



**11951 COMPENSATOR COMPLETE FOR WOOD POLE.**  
**14642**    “    “    “    **IRON**    “

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# HIGH SIGNALS

239

Order  
No.

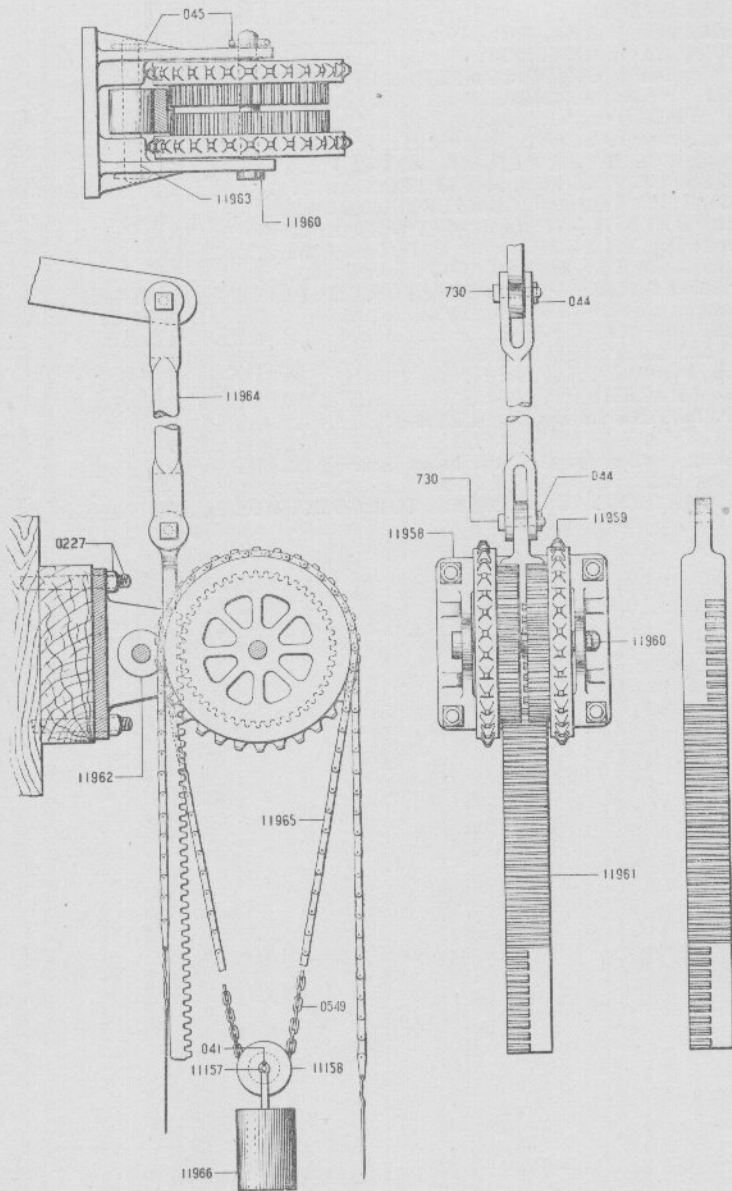
DISTANT SIGNAL WIRE COMPENSATOR

List Price.

011 BOLT AND NUT, $\frac{1}{2}$ " x 2".....	.04	
0299 BOLT AND NUT, $\frac{3}{4}$ " x 2 $\frac{1}{2}$ ".....	.10	
0672 BOLT WITH HEX. NUT, $\frac{3}{4}$ " x 7 $\frac{1}{4}$ ".....	.12	
0673 BOLT WITH HEX. NUT, $\frac{3}{4}$ " x 5 $\frac{3}{4}$ ".....	.14	
776 1 Way PIPE, GUIDE COMPLETE for 5 $\frac{9}{16}$ " O. D. Iron Pole.....	1.34	
8560 PIN, 1 $\frac{1}{4}$ " x 6", for 11350.....	.27	
11161 10" WHEEL only.....	.48	
11350 Counterweight STAND, Casting only.....	1.65	
11354 Straight COUNTERWEIGHT LEVER, $\frac{1}{2}$ " x 2".....	1.80	
11387 COUNTERWEIGHT COMPLETE, 16 lbs.....	1.16	
11393 COUNTERWEIGHT, COMPLETE, 100 lbs.....	6.52	
11651 Back HALF CLAMP for 5 $\frac{9}{16}$ " O. D. Iron Pole.....	.84	
11656 Front HALF CLAMP for 6 $\frac{3}{8}$ " O. D. Iron Pole.....	.72	
11657 Back HALF CLAMP for 6 $\frac{3}{8}$ " O. D. Iron Pole.....	.48	
11951 DISTANT SIGNAL COMPENSATOR COMPLETE for Wood Pole...	31.80	
11954 Compensator LEVER, $\frac{3}{4}$ " x 2 $\frac{3}{4}$ ".....	13.30	
11955 DISENGAGING LEVER.....	2.50	
11956 24" LINK.....	.69	
12157 PIN, $\frac{5}{8}$ " x 6".....	.05	
14305 Side BRACKET for 11954.....	.72	
14306 OPERATING ROD COMPLETE.....		
14352 PIN, 1 $\frac{1}{4}$ " x 5 $\frac{8}{16}$ " for 14353.....	.22	
14353 1 Way Counterweight Lever Front Bearing CLAMP for 5 $\frac{9}{16}$ " O. D. Iron Pole.....	1.88	
14642 DISTANT SIGNAL COMPENSATOR COMPLETE for Iron Pole....	36.60	

Order by NUMBER and NAME Appearing in Large Type

MECHANICAL WIRE COMPENSATOR



11957

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# HIGH SIGNALS

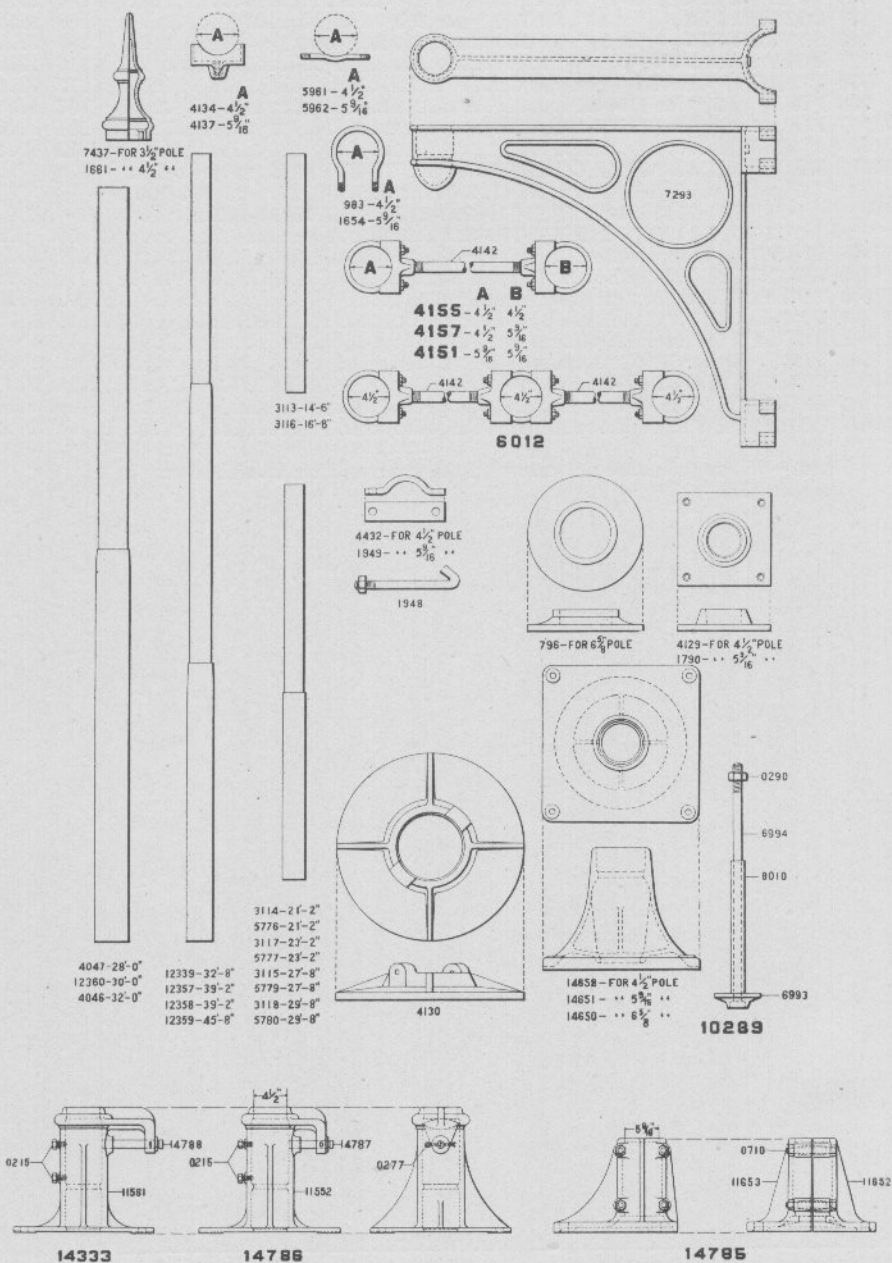
241

Order No.	MECHANICAL WIRE COMPENSATOR	List Price.
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " for 11157, (per 100).....	.80
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " for 730, (per 100).....	.80
045	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{4}$ " for 10960 and 11963, (per 100). ....	.80
0227	BOLT AND NUT, $\frac{3}{4}$ " x $8\frac{1}{2}$ ".....	.16
0549	$\frac{1}{4}$ " PROOF CHAIN, (per foot).....	.17
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{4}$ " for 11964.....	.07
11157	PIN, $\frac{5}{8}$ " x $3\frac{3}{4}$ " for 11158 and 11966.....	.04
11158	4" WHEEL.....	.12
11957	MECHANICAL WIRE COMPENSATOR COMPLETE, to be fixed in Signal Tower, including : 2-041, 2-044, 3-045, 4-0227, 1-0549, 2-730, 1-11157, 1-11158, 1-11958, 2-11959, 1-11960, 1-11961, 1-11962, 1-11963, 1-11964, 1-11965, 1-11966.....	26.50
11958	STAND for Compensator.....	
11959	SPROCKET WHEEL.....	
11960	TURND PIN for Sprocket Wheel 11959.....	
11961	RACK.....	
11962	ROLLER for Rack 11961.....	
11963	PIN for Roller 11962.....	
11964	CONNECTING ROD.....	
11965	SPROCKET CHAIN.....	
11966	COUNTERWEIGHT.....	

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

DETAIL PARTS FOR IRON POLES



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



Order  
No.

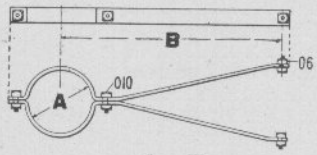
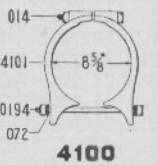
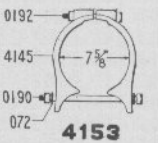
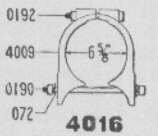
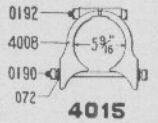
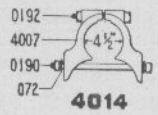
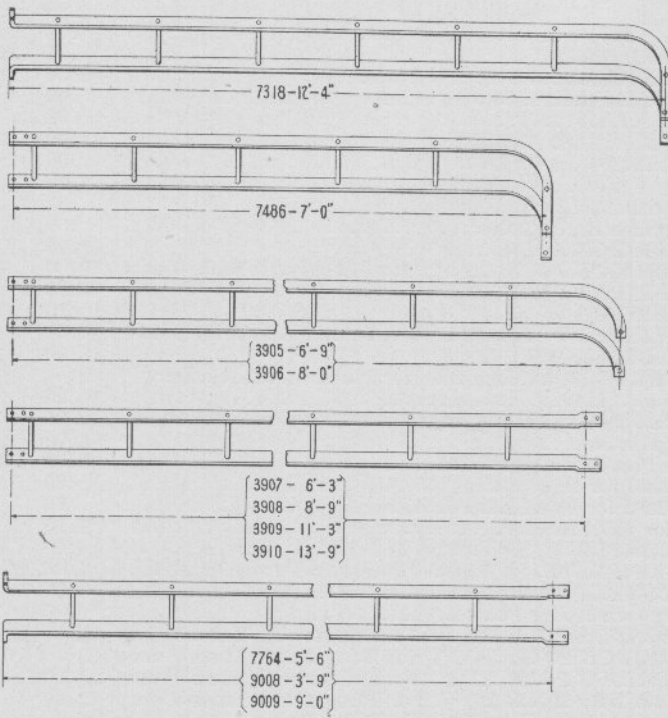
## PARTS FOR OUTSIDE CONNECTED SIGNAL POLES

List Price.

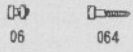
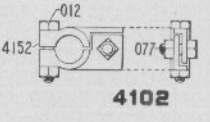
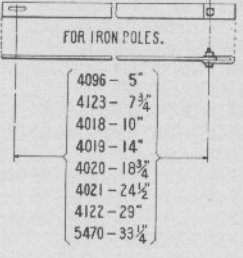
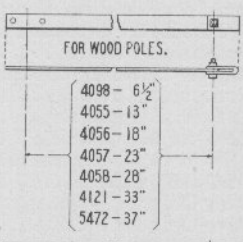
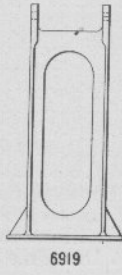
0215	SET SCREW, $\frac{3}{8}$ " x $1\frac{3}{4}$ "	.04
0277	COTTER PIN, $\frac{1}{4}$ " x $3\frac{1}{2}$ ", (per 100)	.80
0290	1" HEX; NUT	.08
0710	HEX; BOLT AND NUT, $\frac{3}{4}$ " x 6"	.14
796	BASE for Ground Poles	4.00
983	"U" BOLT for Hand Rails 4155, Etc.	.40
1048	$\frac{1}{2}$ " HEX. NUT	.03
1654	"U" BOLT for Hand Rails 4151, Etc.	.40
1661	PINNACLE CASTING for $4\frac{1}{2}$ " O. D. Pole	1.50
1790	BASE for Bridge Poles	3.00
1948	HOOK BOLT with Nut, for holding Iron Bridge Poles	.32
1949	CLAMP holding Iron Bridge Poles	.80
3113	1 ARM IRON BRIDGE POLE, 14' 8"	13.00
3114	2 ARM IRON BRIDGE POLE, 21' 2"	30.00
3115	3 ARM IRON BRIDGE POLE, 27' 8"	40.00
3116	1 ARM IRON BRIDGE POLE, 16' 8"	14.50
3117	2 ARM IRON BRIDGE POLE, 23' 2"	34.00
3118	3 ARM IRON BRIDGE POLE, 29' 8"	43.00
4046	IRON BRACKET POST, 32' long, made in 2 sections of extra heavy 7 and 8" Pipe	136.00
4047	IRON BRACKET POST, 28' long, made in 2 sections of 7 and 8" Pipe	80.00
4129	BASE for Bridge Poles	3.00
4130	BASE for Main Post to Bracket Poles	10.00
4134	CLAMP CASTING for Hand Rails 4155, Etc.	.90
4137	CLAMP CASTING for Hand Rails 4151, Etc.	.90
4142	HAND RAIL for 4151, Etc.	1.20
4151	HAND RAIL COMPLETE, for Bracket Pole with Two Dolls	4.00
4155	HAND RAIL COMPLETE, for Bracket Pole with Two Dolls	4.00
4157	HAND RAIL COMPLETE, for Bracket Pole with Two Dolls	4.00
4432	CLAMP holding Iron Bridge Poles	.80
5776	HIGH 1 ARM BRIDGE POLE, 21' 2". For Bridges with Truss 6' deep	28.00
5777	HIGH 1 ARM BRIDGE POLE, 23' 2". For Bridges with Truss 8' deep	32.00
5779	HIGH 2 ARM BRIDGE POLE, 27' 8". For Bridges with Truss 6' deep	38.00
5780	HIGH 2 ARM BRIDGE POLE, 29' 8". For Bridges with Truss 8' deep	42.00
5961	CLAMP BOLT, Special for Hand Rails for Three Dolls	.20
5962	CLAMP BOLT, Special for Hand Rails for Three Dolls	.20
6012	HAND RAIL COMPLETE, for Bracket Pole with Three Dolls	7.50
6993	CAST WASHER for Anchor Bolt	.50
6994	ANCHOR BOLT only for fastening Ground Poles to top of Concrete Foundation	.90
7293	BRACKET CASTING for Bracket Poles	18.00
7437	PINNACLE CASTING for $3\frac{1}{2}$ " O. D. Pole	1.20
8010	IRON PIPE SOCKET for Anchor Bolts	.40
10289	FOUNDATION BOLT COMPLETE	.90
11552	1 WAY BASE, Casting Only for 14786	7.30
11561	2 WAY BASE, Casting Only for 14333	7.40
11652	Left Hand Section of BASE for 14785	3.08
11653	Right Hand Section of BASE for 14785	3.08
12339	1 ARM IRON GROUND POLE, 32' 8"	60.00
12357	HIGH 1 ARM IRON GROUND POLE, 39' 2"	68.00
12358	2 ARM IRON GROUND POLE, 39' 2"	70.00
12359	3 ARM IRON GROUND POLE, 45' 8"	92.00
12360	IRON BRACKET POST 30' long, made in 2 sections of 7 and 8" pipe	84.00
14333	2 WAY BASE, as shown for $4\frac{1}{2}$ " O. D. Iron Pole	7.65
14650	BASE for Ground Poles for fastening to top of Concrete Foundation	18.00
14651	BASE for Bracket Poles for fastening to top of Lattice Post	9.00
14652	BASE for Bracket Poles for fastening to top of Lattice Post	17.00
14785	Two Section BASE COMPLETE for $5\frac{9}{16}$ " O. D. Iron Pole	6.68
14786	1 WAY BASE, as shown for $4\frac{1}{2}$ " O. D. Iron Pole	7.50
14787	PIN, 1" x 5"	
14788	PIN, 1" x $6\frac{1}{2}$ "	

Order by NUMBER and NAME Appearing in Large Type

LADDERS AND FITTINGS



	A	B
2064	4 1/2	11"
9341	"	12 3/8"
2236	"	14"
9342	5 3/16	15 3/16"
2243	"	16 3/8"
2065	"	17"
2237	"	19 1/8"
9343	6 3/16	18 3/16"
9344	"	21 3/16"
2244	"	21 3/8"
2066	"	23 1/4"
2238	"	24 1/8"
2239	"	29 3/8"
2067	"	29 1/2"
9345	7 3/8	31 3/8"
9346	8 3/8	45 3/8"



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# HIGH SIGNALS

245

Order  
No.

## LADDERS AND FITTINGS

List Price.

06 BOLT with Nut, $\frac{3}{8}$ " x 1"	.02
010 BOLT with Nut, $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	.04
012 BOLT with Nut, $\frac{1}{2}$ " x 2 $\frac{1}{2}$ "	.04
014 BOLT with Nut, $\frac{1}{2}$ " x 6 $\frac{1}{2}$ "	.07
064 LAG SCREW, $\frac{1}{2}$ " x 2 $\frac{1}{2}$ "	.03
072 IRON WASHER for $\frac{1}{2}$ " Bolt	.01
077 BOLT with Nut, $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	.04
0190 BOLT with Nut, $\frac{1}{2}$ " x 9 $\frac{1}{2}$ "	.09
0192 BOLT with Nut, $\frac{1}{2}$ " x 5 $\frac{1}{2}$ "	.06
0194 BOLT with Nut, $\frac{1}{2}$ " x 10"	.09
2064 LADDER BRACE COMPLETE, 11" Centers, for 4 $\frac{1}{2}$ " O. D. Pole	1.28
2065 LADDER BRACE COMPLETE, 17" Centers, for 5 $\frac{9}{16}$ " O. D. Pole	1.40
2066 LADDER BRACE COMPLETE, 23 $\frac{1}{4}$ " Centers, for 6 $\frac{1}{8}$ " O. D. Pole	1.50
2067 LADDER BRACE COMPLETE, 29 $\frac{1}{2}$ " Centers, for 6 $\frac{3}{8}$ " O. D. Pole	1.56
2236 LADDER BRACE COMPLETE, 14" Centers, for 4 $\frac{1}{2}$ " O. D. Pole	1.32
2237 LADDER BRACE COMPLETE, 19 $\frac{1}{8}$ " Centers, for 5 $\frac{9}{16}$ " O. D. Pole	1.40
2238 LADDER BRACE COMPLETE, 24 $\frac{1}{4}$ " Centers, for 6 $\frac{3}{8}$ " O. D. Pole	1.50
2239 LADDER BRACE COMPLETE, 29 $\frac{3}{8}$ " Centers, for 6 $\frac{3}{8}$ " O. D. Pole	1.56
2243 LADDER BRACE COMPLETE, 16 $\frac{3}{8}$ " Centers, for 5 $\frac{9}{16}$ " O. D. Pole	1.40
2244 LADDER BRACE COMPLETE, 21 $\frac{1}{4}$ " Centers, for 6 $\frac{3}{8}$ " O. D. Pole	1.44
3905 Top LADDER SECTION, 6' 9" long	2.60
3906 Top LADDER SECTION, 8' long	3.10
3907 Straight LADDER SECTION, 6' 3" long	2.20
3908 Straight LADDER SECTION, 8' 9" long	3.00
3909 Straight LADDER SECTION, 11' 3" long	4.00
3910 Straight LADDER SECTION, 13' 9" long	4.90
4007 CLAMP Casting for 4014	.28
4008 CLAMP Casting for 4015	.32
4009 CLAMP Casting for 4016	.38
4014 CLAMP COMPLETE, Ladder Brace to 4 $\frac{1}{2}$ " O. D. Iron Pole	.70
4015 CLAMP COMPLETE, Ladder Brace to 5 $\frac{9}{16}$ " O. D. Iron Pole	.80
4016 CLAMP COMPLETE, Ladder Brace to 6 $\frac{3}{8}$ " O. D. Iron Pole	.90
4018 LADDER BRACE, 10" Centers, for Iron Poles	.24
4019 LADDER BRACE, 14" Centers, for Iron Poles	.28
4020 LADDER BRACE, 18 $\frac{3}{8}$ " Centers, for Iron Poles	.30
4021 LADDER BRACE, 24 $\frac{1}{4}$ " Centers, for Iron Poles	.36
4023 LADDER, 26' 9", COMPLETE, with Braces, Clamps and Bolts	17.50
4024 LADDER, 33' 0", COMPLETE, with Braces, Clamps and Bolts	19.50
4025 LADDER, 26' 9", COMPLETE, with Braces and Bolts	15.00
4026 LADDER, 33' 0", COMPLETE, with Braces and Bolts	17.00
4055 LADDER BRACE, 13" Centers, for Wood Poles	.28
4056 LADDER BRACE, 18" Centers, for Wood Poles	.30
4057 LADDER BRACE, 23" Centers, for Wood Poles	.34
4058 LADDER BRACE, 28" Centers, for Wood Poles	.38
4068 LADDER, 38' 0", COMPLETE, with Braces and Bolts	19.50
4069 LADDER, 38' 0", COMPLETE, with Braces, Clamps and Bolts	22.00
4070 LADDER, 13' 0", COMPLETE, with Braces, Clamps and Bolts	7.50
4071 LADDER, 19' 3", COMPLETE, with Braces, Clamps and Bolts	11.00
4072 LADDER, 24' 3", COMPLETE, with Braces, Clamps and Bolts	14.00
4073 LADDER, 13' 0", COMPLETE, with Braces and Bolts	5.90
4074 LADDER, 19' 3", COMPLETE, with Braces and Bolts	8.70
4075 LADDER, 24' 3", COMPLETE, with Braces and Bolts	11.00
4076 LADDER, 14' 3", COMPLETE, with Braces, Clamps and Bolts	8.00

Order by NUMBER and NAME Appearing in Large Type

Order  
No.

## LADDERS AND FITTINGS—CONTINUED

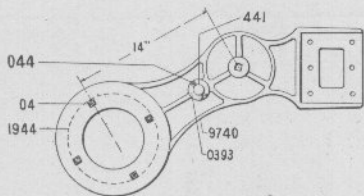
List Price.

4077	LADDER, 20' 6", COMPLETE, with Braces, Clamps and Bolts.....	11.50	....
4078	LADDER, 28' 9", COMPLETE, with Braces, Clamps and Bolts.....	14.90	....
4079	LADDER, 14' 3", COMPLETE, with Braces and Bolts.....	6.50	....
4080	LADDER, 20' 6", COMPLETE, with Braces and Bolts.....	9.20	....
4081	LADDER, 26' 9", COMPLETE, with Braces and Bolts.....	12.00	....
4082	LADDER, 6' 9", COMPLETE, with Braces, Clamps and Bolts.....	4.00	....
4083	LADDER, 13' 0", COMPLETE, with Braces, Clamps and Bolts.....	7.50	....
4084	LADDER, 19' 3", COMPLETE, with Braces, Clamps and Bolts.....	11.00	....
4085	LADDER, 6' 9", COMPLETE, with Braces and Bolts.....	3.10	....
4086	LADDER, 13' 0", COMPLETE, with Braces and Bolts.....	5.90	....
4087	LADDER, 19' 3", COMPLETE, with Braces and Bolts.....	8.80	....
4088	LADDER, 26' 9", COMPLETE, with Braces and Bolts.....	13.00	....
4089	LADDER, 30' 6", COMPLETE, with Braces and Bolts.....	15.00	....
4096	LADDER BRACE, 5" Centers, for Iron Poles.....	.18	....
4098	LADDER BRACE, 6 $\frac{1}{2}$ " Centers, for Wood Poles.....	.20	....
4100	CLAMP COMPLETE, Ladder Brace to 8 $\frac{3}{8}$ " O. D. Iron Pole.....	1.10	....
4101	CLAMP, Casting only, for 4100.....	.46	....
4102	CLAMP COMPLETE, holding top of ladder to Hand Rail, for Bracket Poles.....	.30	....
4104	FOOT COMPLETE. Used with Bottom Section of Ladder.....	.20	....
4121	LADDER BRACE, 33" Centers, for Wood Poles.....	.42	....
4122	LADDER BRACE, 29" Centers, for Iron Poles.....	.38	....
4123	LADDER BRACE, 7 $\frac{1}{4}$ " Centers, for Iron Poles.....	.22	....
4145	CLAMP Casting, for 4153.....	.42	....
4152	CLAMP Casting, for 4102.....	.10	....
4153	CLAMP COMPLETE, for 7 $\frac{3}{8}$ " O. D. Iron Poles.....	1.00	....
5470	LADDER BRACE, 33 $\frac{1}{2}$ " Centers, for Iron Poles.....	.42	....
5472	LADDER BRACE, 37" Centers, for Wood Poles.....	.44	....
6919	ANCHOR for Ground End of Ladders.....	3.00	....
7196	LADDER, 28' 0", COMPLETE with Braces, Clamps and Bolts.....	16.50	....
7318	LADDER, 12' 4" long.....	4.80	....
7486	Top LADDER SECTION, Special, 7' long.....	2.80	....
7764	Bottom LADDER SECTION, 5' 6" long.....	2.00	....
8310	LADDER, 27' 6", COMPLETE, with Braces, Clamps and Bolts.....	11.20	....
9008	Bottom LADDER SECTION 3' 9" long.....	1.40	....
9009	Bottom LADDER SECTION, 9' long.....	3.30	....
9341	LADDER BRACE COMPLETE, 12 $\frac{3}{8}$ " Centers, for 4 $\frac{1}{2}$ " O. D. Pole... ..	1.30	....
9342	LADDER BRACE COMPLETE, 15 $\frac{7}{16}$ " Centers, for 5 $\frac{9}{16}$ " O. D. Pole... ..	1.36	....
9343	LADDER BRACE COMPLETE, 18 $\frac{7}{16}$ " Centers, for 6 $\frac{3}{8}$ " O. D. Pole... ..	1.44	....
9344	LADDER BRACE COMPLETE, 21 $\frac{5}{16}$ " Centers, for 6 $\frac{5}{8}$ " O. D. Pole... ..	1.50	....
9345	LADDER BRACE COMPLETE, 31 $\frac{3}{16}$ " Centers, for 7 $\frac{3}{8}$ " O. D. Pole... ..	2.10	....
9346	LADDER BRACE COMPLETE, 45 $\frac{3}{8}$ " Centers, for 8 $\frac{5}{8}$ " O. D. Pole... ..	2.40	....

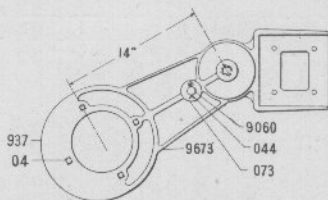
Order by NUMBER and NAME Appearing in Large Type



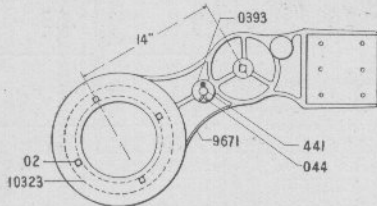
FRONT SPECTACLES



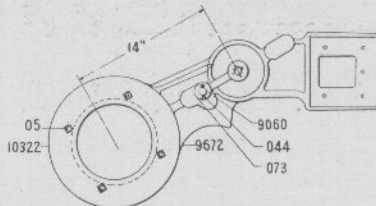
**9741-75°**



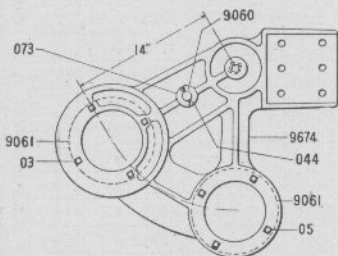
**9702-60°**



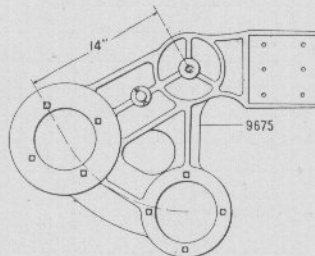
**9703-75°**



**9704-60°**



**9700-60°**

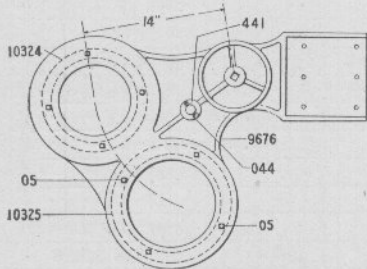


**9705-60°**

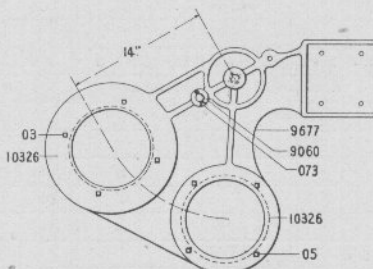
044



073 - FOR  $\frac{3}{8}$ " STUD  
0393 -  $4 \times \frac{7}{8}$ " "



**9706-55°**



**9707-55°**

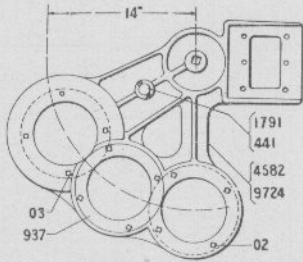
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Complete Spectacles, as enumerated below, do not include Glass or Roundels, which should be ordered separately, if required. For Back Spectacle, Bearing Shaft, Etc., see table, page 261.

Order No.	FRONT SPECTACLES	List Price.
02	BOLT with Nut, $\frac{1}{4}$ " x 1"	.02
03	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{2}$ "	.02
04	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{3}{4}$ "	.02
05	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{4}$ "	.02
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " (per 100)	.80
073	IRON WASHER for $\frac{3}{4}$ " Studs	.02
0393	IRON WASHER for $\frac{7}{8}$ " Studs	.02
441	STUD, $\frac{7}{8}$ " diameter, for various Spectacles	.12
937	BEZEL RING for 9702	.16
1944	BEZEL RING for 9741	.16
9060	STUD, $\frac{3}{4}$ " diameter, for various Spectacles	.12
9061	BEZEL RING for 9700	.20
9671	SPECTACLE, Casting only, for 9703	4.10
9672	SPECTACLE, Casting only, for 9704	4.10
9673	SPECTACLE, Casting only, for 9702	3.70
9674	SPECTACLE, Casting only, for 7900	4.80
9675	SPECTACLE, Casting only, for 9705	4.80
9676	SPECTACLE, Casting only, for 9706	5.80
9677	SPECTACLE, Casting only, for 9707	5.80
9700	2 Light, 60 Deg. Throw, $14\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	5.40
9702	1 Light, 60 Deg. Throw, $14\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	4.10
9703	1 Light, 75 Deg. Throw, $14\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass)	4.50
9704	1 Light, 60 Deg. Throw, $14\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass)	4.50
9705	2 Light, 60 Deg. Throw, $14\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	5.40
9706	2 Light, 55 Deg. Throw, $14\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " and $9\frac{3}{8}$ " Glasses)	6.50
9707	2 Light, 55 Deg. Throw, $14\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass)	6.60
9740	SPECTACLE, Casting only, for 9741	3.70
9741	1 Light, 60 Deg. Throw, $14\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	4.10
10322	BEZEL RING for Spectacle 9704	.20
10323	BEZEL RING for Spectacle 9703	.20
10324	BEZEL RING for Spectacle 9706	.20
10325	Large BEZEL RING for Spectacle 9706	.20
10326	BEZEL RING for Spectacle 9707	.30

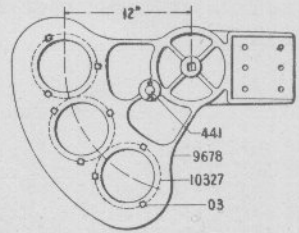
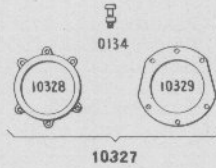
Order by NUMBER and NAME Appearing in Large Type

FRONT SPECTACLES—CONTINUED

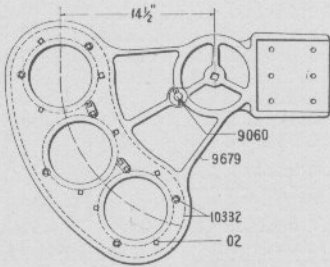


**4562-60°**  
**9725-60°**

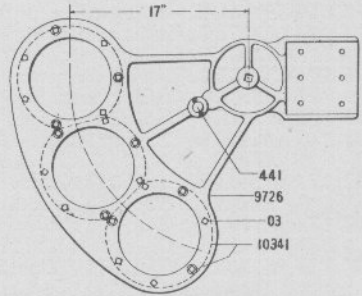
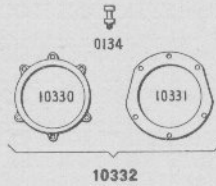
- 044
- 073 — FOR  $\frac{3}{8}$ " STUD
- 0393 — "  $\frac{3}{8}$ " "
- 074 — " 1" "



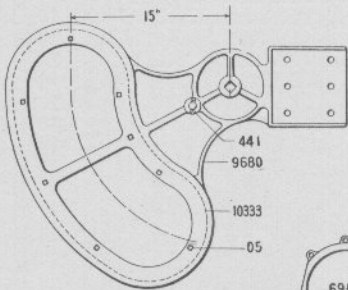
**9708-60°**



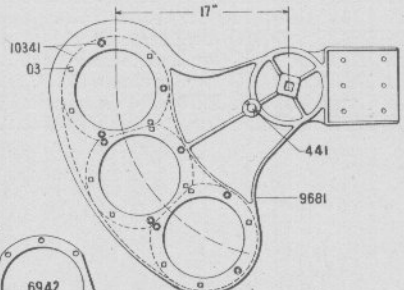
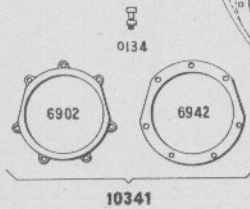
**9709-60°**



**9727-60°**



**9710-60°**



**9711-60°**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

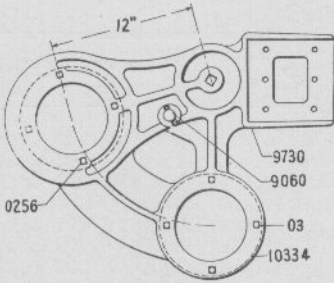


Complete Spectacles, as enumerated below, do not include Glass or Roundels, which should be ordered separately if required. For Back Spectacles, Bearing, Shaft, Etc., see table, page 261.

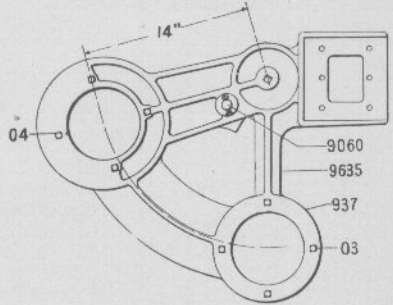
Order No.	FRONT SPECTACLES—CONTINUED	List Price.
02	BOLT with Nut, $\frac{3}{4}$ " x 1".....	.02
03	BOLT with Nut, $\frac{1}{2}$ " x $1\frac{1}{2}$ ".....	.02
05	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{4}$ ".....	.02
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " ( per 100).....	.80
073	IRON WASHER for $\frac{3}{8}$ " Studs.....	.02
0134	BOLT with Nut, $\frac{1}{4}$ " x $\frac{3}{8}$ ".....	.02
0393	IRON WASHER for $\frac{1}{8}$ " Studs.....	.02
441	STUD, $\frac{7}{8}$ " diameter, for various Spectacles.....	.12
937	BEZEL RING used with Spectacles 4562 or 9725.....	.16
1791	STUD, 1", for Spectacle 4562.....	.12
4562	3 Light, 60 Deg. Throw, 14" Ctrs. SPECTACLE COMPLETE, with 1" Stud. (Takes $6\frac{1}{2}$ " Glass).....	5.40
4582	SPECTACLE Casting for 4562.....	4.80
6902	RING Casting for 10341.....	.16
6942	Sheet Metal BEZEL RING for 10341.....	.30
9060	STUD, $\frac{3}{4}$ ", for 9709.....	.12
9678	SPECTACLE, Casting only, for 9708.....	4.40
9679	SPECTACLE, Casting only, for 9709.....	4.40
9680	SPECTACLE, Casting only, for 9710.....	6.60
9681	SPECTACLE, Casting only, for 9711.....	4.20
9708	3 Light, 60 Deg. Throw 12 Ctrs., SPECTACLE COMPLETE. (Takes $5\frac{3}{8}$ " Glass).....	6.40
9709	3 Light, 60 Deg. Throw, 14 $\frac{1}{2}$ " Ctrs. SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass).....	6.40
9710	Continuous Two Light, 60 Deg. Throw, 15" Ctrs. SPECTACLE COMPLETE. (Takes special Formed Glass).....	7.60
9711	3 Light, 60 Deg. Throw, 17" Ctrs. SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass).....	6.20
9724	SPECTACLE, Casting only, for 9725.....	4.20
9725	3 Light, 60 Deg. Throw, 14" Ctrs. SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass).....	6.40
9726	SPECTACLE, Casting only, for 9727.....	4.00
9727	3 Light, 60 Deg. Throw, 17" Ctrs. SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass).....	6.00
10327	BEZEL RING COMPLETE for 9708.....	.60
10328	RING Casting for 10327.....	.16
10329	Sheet Metal BEZEL RING for 10327.....	.30
10330	RING Casting for 10332.....	.16
10331	Sheet Metal BEZEL RING for 10332.....	.30
10332	BEZEL RING COMPLETE for 9709.....	.60
10333	BEZEL RING Casting for 9710.....	1.00
10341	BEZEL RING COMPLETE for 9711 or 9727.....	.60

Order by NUMBER and NAME Appearing in Large Type

FRONT SPECTACLES—CONTINUED



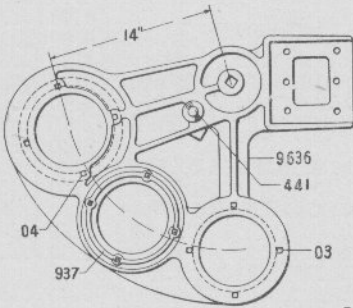
9731-75°



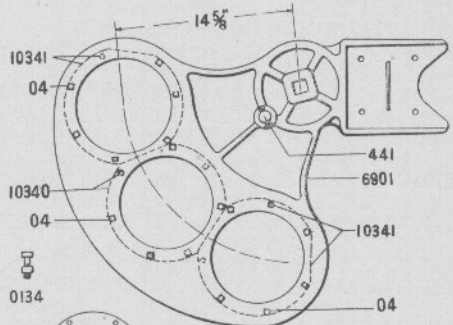
9713-75°



073 — FOR 3/4" STUD  
 0393 — " 7/8 " "



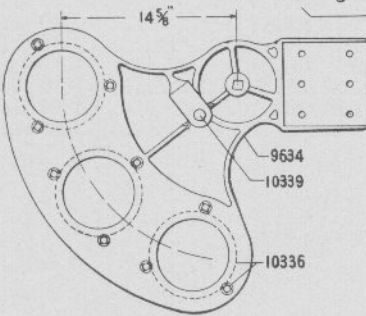
9714-75°



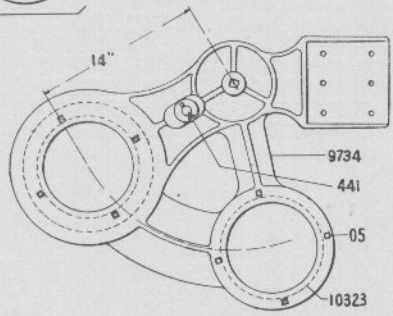
7862-75°



10336



9712-75°



9735-75°

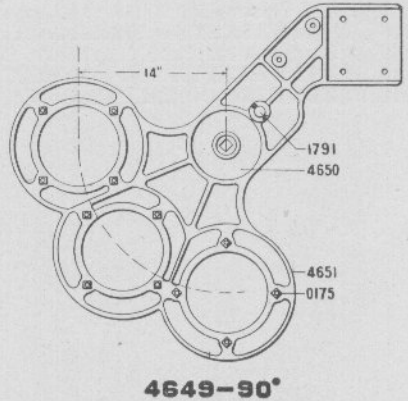
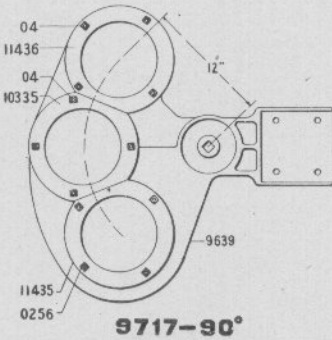
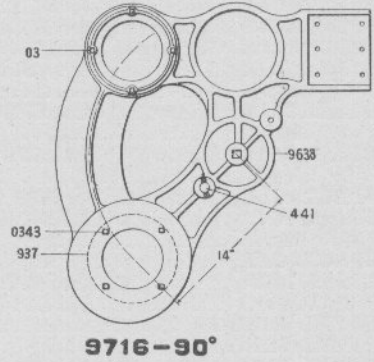
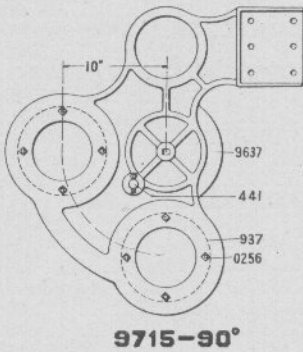
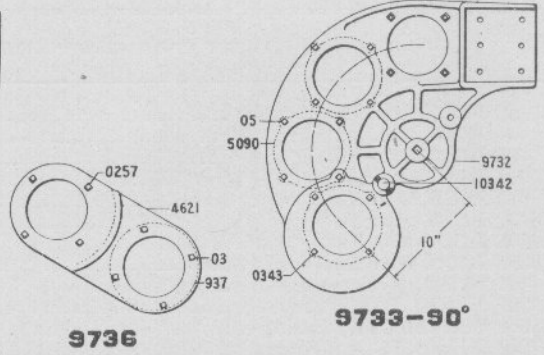
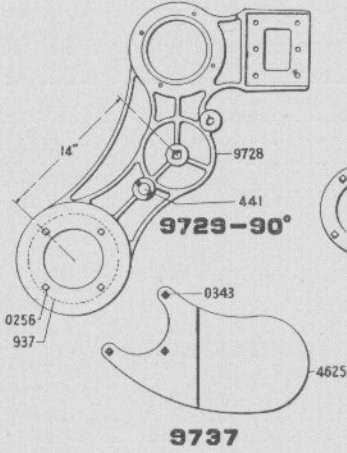
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Complete Spectacles, as enumerated below, do not include Glass or Roundels, which should be ordered separately, if required. For Back Spectacle, Bearing, Shaft, Etc., see table, page 261.

Order No.	FRONT SPECTACLES—CONTINUED	List Price.
03	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{2}$ "	.02
04	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{3}{4}$ "	.02
05	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{4}$ "	.02
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " (per 100)	.80
073	IRON WASHER, for $\frac{3}{8}$ " Studs	.02
0134	BOLT with Nut, $\frac{1}{4}$ " x $\frac{3}{4}$ "	.02
0256	BOLT with Nut, $\frac{1}{4}$ " x 2"	.02
0393	IRON WASHER for $\frac{7}{8}$ " Studs	.02
441	STUD, $\frac{7}{8}$ " diameter, for various Spectacles	.12
937	BEZEL RING used on Spectacles 9713 and 9714	.16
5901	SPECTACLE, Casting only, for 7862	4.80
7862	3 Light, 75 Deg. Throw, $14\frac{5}{8}$ " Ctrs., SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass)	6.80
9060	STUD, $\frac{3}{4}$ " diameter, for various Spectacles	.12
9634	SPECTACLE, Casting only, for 9712	5.00
9635	SPECTACLE, Casting only, for 9713	4.80
9636	SPECTACLE, Casting only, for 9714	4.80
9712	3 Light, 75 Deg. Throw, $14\frac{5}{8}$ " Ctrs., SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	8.00
9713	2 Light, 75 Deg. Throw, 14" Ctrs., SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	5.40
9714	3 Light, 75 Deg. Throw, 14" Ctrs., SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	5.40
9730	SPECTACLE, Casting only, for 9731	4.80
9731	2 Light, 75 Deg. Throw, 12" Ctrs., SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	5.40
9734	SPECTACLE, Casting only, for 9735	4.80
9735	2 Light, 75 Deg. Throw, 14" Ctrs., SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass)	6.00
10323	BEZEL RING for 9735	.20
10334	BEZEL RING for 9731	.24
10336	BEZEL RING COMPLETE for 9712	1.00
10337	RING, Casting, for 10336	.30
10338	Rubber GASKET for 10336	.70
10339	$\frac{3}{8}$ " Pin for 9712	.14
10340	CENTER BEZEL RING COMPLETE for 7862	.80
10341	BEZEL RING COMPLETE for 7862	.60

Order by NUMBER and NAME Appearing in Large Type

FRONT SPECTACLES—CONTINUED



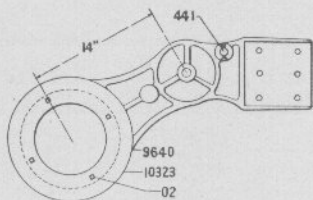
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Complete Spectacles, as enumerated below, do not include Glass or Roundels, which should be ordered separately, if required. For Back Spectacle, Bearing, Shaft, Etc., see table, page 261.

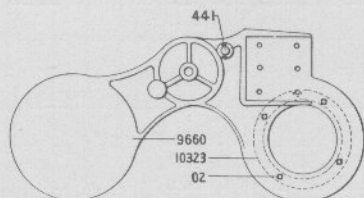
Order No.	FRONT SPECTACLES—CONTINUED	List Price.
03	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{2}$ "	.02
04	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{4}$ "	.02
05	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{4}$ "	.02
0175	BOLT with Nut, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for 4649	.03
0256	BOLT with Nut, $\frac{1}{4}$ " x $2\frac{1}{2}$ "	.02
0257	BOLT with Nut, $\frac{1}{4}$ " x $2\frac{1}{4}$ ", for 9736	.02
0343	BOLT with Nut, $\frac{1}{4}$ " x $2\frac{1}{2}$ "	.02
441	STUD, $\frac{3}{8}$ " diameter, for various Spectacles	.12
937	BEZEL RING for various Spectacles	.16
4621	FRAME Casting for 9736	1.80
4625	SHIELD only for 9729	1.25
4649	3 Light, 90 Deg. Throw, 14" Ctrs., SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass)	8.68
4650	SPECTACLE, Casting only, for 4649	7.50
4651	BEZEL RING for 4649	.30
5090	BEZEL RING for 9733	.12
9637	SPECTACLE, Casting only, for 9715	8.40
9638	SPECTACLE, Casting only, for 9716	7.80
9639	SPECTACLE, Casting only, for 9717	5.60
9715	2 Light, 90 Deg. Throw, 10" Ctrs., SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	9.00
9716	2 Light, 90 Deg. Throw, 14" Ctrs., SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	8.60
9717	3 Light, 90 Deg. Throw, 12" Ctrs., SPECTACLE COMPLETE. (Takes $8\frac{3}{8}$ " Glass)	6.60
9728	SPECTACLE, Casting only, for 9729	5.60
9729	1 Light, 90 Deg. Throw, 14" Ctrs., SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	6.15
9732	SPECTACLE, Casting only, for 9733	6.60
9733	3 Light, 90 Deg. Throw, 10" Ctrs., SPECTACLE COMPLETE. (Takes $6\frac{1}{2}$ " Glass)	7.50
9736	SPECTACLE FRAME COMPLETE, for use with 9729, to make Two Light Spectacle	2.00
9737	SHIELD COMPLETE with Bolts, for use with 9729	1.28
10335	Center BEZEL RING, for 9717	.30
10342	STUD, $\frac{3}{8}$ ", for 9733	.16
11435	BEZEL RING for 9717	.30
11436	BEZEL RING for 9717	.30

Order by NUMBER and NAME Appearing in Large Type

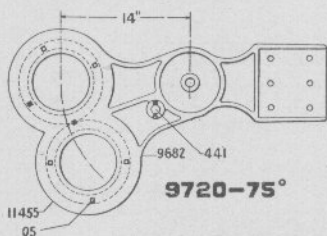
BLOCK STATION SPECTACLES



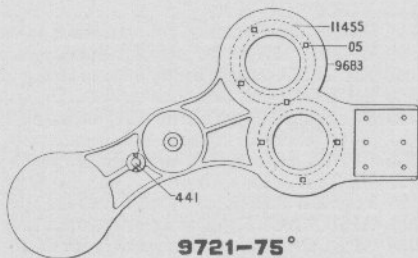
**9718-75°**



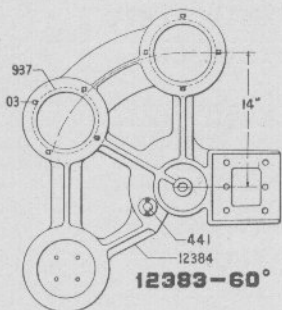
**9719-75°**



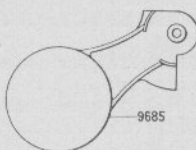
**9720-75°**



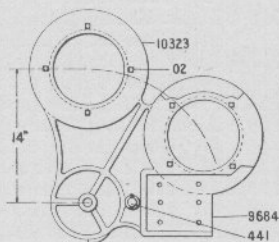
**9721-75°**



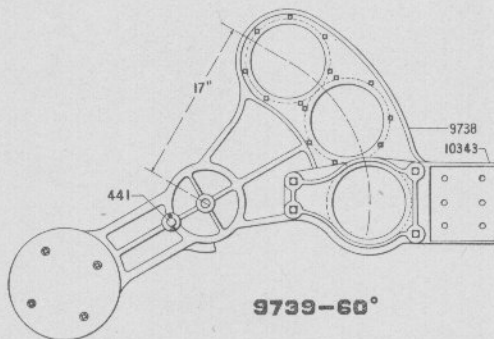
**12383-60°**



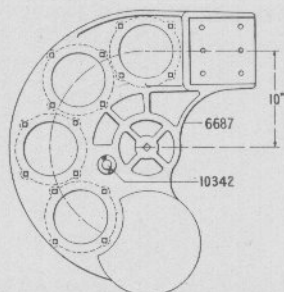
9685



**9722-60°**



**9739-60°**



**6675-135°**

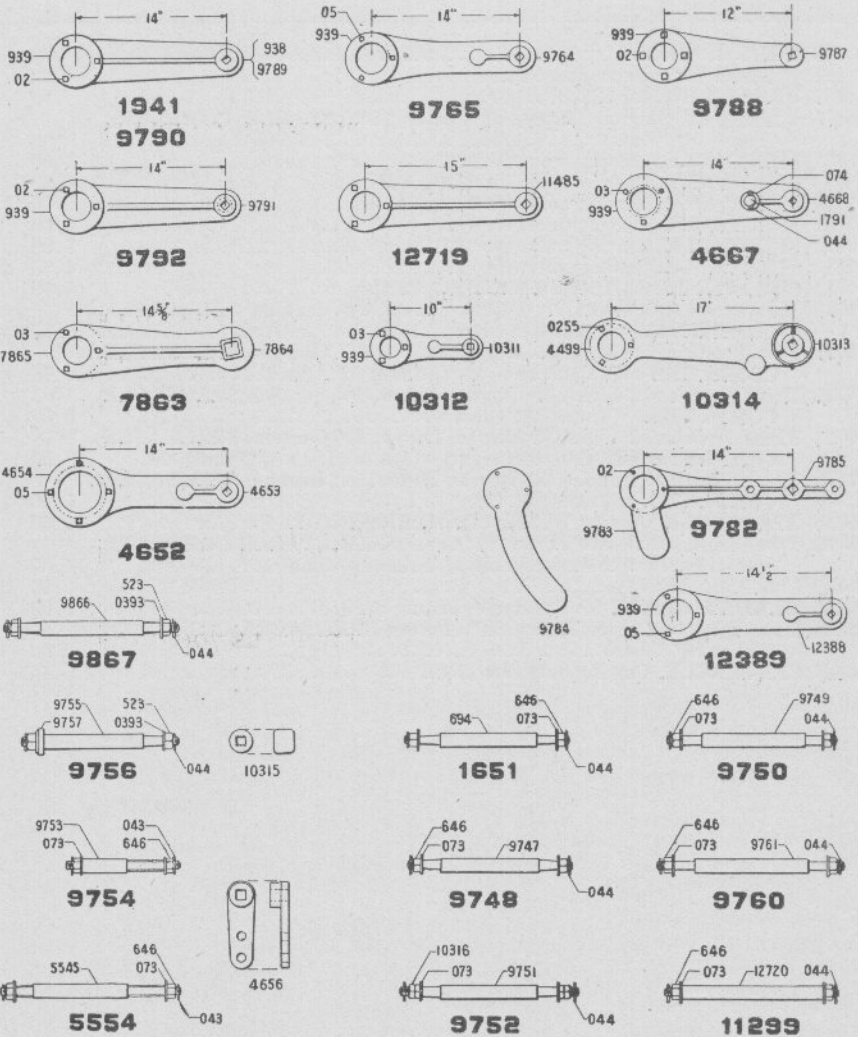
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Complete Spectacles, as enumerated below, do not include Glass or Roundels, which should be ordered separately, if required. For Back Spectacles, Bearing, Shaft, Etc., see table, page 261.

Order No.	BLOCK STATION SPECTACLES	List Price.
03	BOLT with Nut, $\frac{1}{4}$ " x $1\frac{1}{2}$ "	.02
441	$\frac{7}{8}$ " STUD for various Spectacles	.12
937	BEZEL RING for 12383	.16
6675	4 Light, 135 Degree Throw, 10" Centers, <b>SPECTACLE COMPLETE</b> (Takes $6\frac{1}{2}$ " Glass)	9.00
6687	SPECTACLE, Casting only, for 6675	8.00
9640	SPECTACLE, Casting only, for 9718	4.80
9660	SPECTACLE, Casting only, for 9719	6.00
9682	SPECTACLE, Casting only, for 9720	4.60
9683	SPECTACLE, Casting only, for 9721	8.00
9684	SPECTACLE, Casting only, for 9722	4.80
9685	SEMAPHORE COUNTERWEIGHT Casting	5.60
9718	Two Position, 1 Light, 75 Degree Throw, 14" Centers, <b>SPECTACLE COMPLETE</b> . (Takes $8\frac{3}{8}$ " Glass)	5.20
9719	Two Position, 1 Light, 75 Degree Throw, 14" Centers, <b>SPECTACLE COMPLETE</b> with Couterweight. (Takes $8\frac{3}{8}$ " Glass)	6.70
9720	Three Position, 2 Light, 75 Degree Throw, 14" Centers, <b>SPECTACLE COMPLETE</b> . (Takes $6\frac{1}{8}$ " Glass)	5.00
9721	Three Position, 2 Light, 75 Degree Throw, 14" Centers, <b>SPECTACLE COMPLETE</b> with Counterweight. (Takes $6\frac{1}{8}$ " or $6\frac{3}{8}$ " Glass)	8.50
9722	Three Position, 2 Light, 60 Degree Throw, 14" Centers, <b>SPECTACLE COMPLETE</b> . (Takes $8\frac{3}{8}$ " Glass)	5.40
9738	SPECTACLE Casting WITH COUNTERWEIGHT for 9739	10.50
9739	Three Light, 60 Degree Throw, 17" Centers, <b>SPECTACLE COMPLETE</b> Special for Double Arm Signals. (Takes $8\frac{3}{8}$ " Glass)	14.00
10342	$\frac{7}{8}$ " STUD for 6675	.16
10343	BLADE HOLDER for Spectacle Casting 9739	2.00
12383	Two Light, 60 Degree Throw, 14" Centers, <b>SPECTACLE COMPLETE</b> (Takes $6\frac{1}{2}$ " Glass)	6.00
12384	SPECTACLE, Casting only, for 12383	5.40

Order by NUMBER and NAME Appearing in Large Type

BACK SPECTACLES AND SHAFTS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



NOTE.—Complete Back Spectacles, as enumerated below, do not include Glass or Roundels, which should be ordered separately, if required. For Front Spectacles, Bearings, Shaft, Etc., see table, page 261.

NOTE.—When ordering Shafts, be governed by Table of Front and Back Spectacles, as given on page 261.

Order No.	BACK SPECTACLES AND SHAFTS	List Price.
02	BOLT with Nut, $\frac{3}{4}$ " x 1", Sq. Hd.	.02
03	BOLT with Nut, $\frac{3}{4}$ " x $1\frac{1}{2}$ ", Sq. Hd.	.02
05	BOLT with Nut, $\frac{3}{4}$ " x $1\frac{1}{4}$ ", Sq. Hd.	.02
043	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{4}$ " (per 100)	.80
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " for various Shafts (per 100)	.80
073	IRON WASHER for $\frac{3}{4}$ " Bolt	.02
074	IRON WASHER for 4667	.02
0255	BOLT with Nut, $\frac{1}{4}$ " x $\frac{3}{8}$ ", C. S. Hd.	.02
0393	IRON WASHER for $\frac{7}{8}$ " Screw	.02
523	$\frac{7}{8}$ " HEX. NUT	.07
646	$\frac{3}{4}$ " HEX. NUT for various Shafts	.05
694	SHAFT only for 1651	1.60
939	BEZEL RING for various Back Spectacles	.10
1651	SEMAPHORE SHAFT COMPLETE. See note above	1.68
1791	1" STUD for 4667	.12
1941	BACK SPECTACLE COMPLETE, 14" Ctrs. (Takes 3" Glass.) See note above	1.16
4499	BEZEL RING for 10314	.08
4652	BACK SPECTACLE COMPLETE, 14" Ctrs. (Takes $4\frac{1}{2}$ " Glass.) See note above	1.16
4653	SPECTACLE Casting for 4652	1.00
4654	BEZEL RING for 4652	.16
4656	HALF CRANK. Used for operating Shafts 5554 or 9754	.70
4667	Back SPECTACLE COMPLETE with Stud, 14" Ctrs. (Takes 3" Glass.) See note above Used in place of 1941 when Circuit Breaker is operated from back Spectacle	1.40
4668	SPECTACLE Casting for 4667	1.10
5545	SHAFT only for 5554	1.60
5554	SEMAPHORE SHAFT COMPLETE. See note above	1.68
7863	Back SPECTACLE COMPLETE, 14 $\frac{3}{8}$ " Ctrs. (Takes 3" Glass.) See note above	1.20
7864	SPECTACLE Casting for 7863	1.10
7865	BEZEL RING for 7863	.10
9747	SHAFT only for 9748	1.60
9748	SEMAPHORE SHAFT COMPLETE. See note above	1.68
9749	SHAFT only for 9750	1.60
9750	SEMAPHORE SHAFT COMPLETE. See note above	1.68
9751	SHAFT only for 9752	1.60
9752	SEMAPHORE SHAFT COMPLETE. See note above	1.70
9753	SHAFT only for 9754	1.30
9754	SEMAPHORE SHAFT COMPLETE. See note above	1.40
9755	SHAFT only for 9756	1.40
9756	SEMAPHORE SHAFT COMPLETE. See note above	1.68
9757	WASHER for 9756	.20
9760	SEMAPHORE SHAFT COMPLETE. See note above	1.68

Order by NUMBER and NAME Appearing in Large Type

NOTE.—Complete Back Spectacles, as enumerated below, do not include Glass or Roundels, which should be ordered separately, if required. For Front Spectacles, Bearings, Shaft, Etc., see table, page 261.

NOTE.—When ordering Shafts be governed by table of Front and Back Spectacles, as given on page 261.

Order No.	BACK SPECTACLES AND SHAFTS—CONTINUED	List Price.
9761	SHAFT only for 9760.....	1.60
9764	SPECTACLE Casting for 9765.....	1.00
9765	Back SPECTACLE COMPLETE, 14" Ctrs. (Takes 3" Glass.) See note above.....	1.16
9782	Back SPECTACLE COMPLETE, 14" Ctrs. (Takes 3" Glass.) See note above.....	1.32
9783	SHIELD for 9782.....	
9784	BLANK SHIELD used with 9782 when required.....	
9785	SPECTACLE Casting for 9782.....	
9787	SPECTACLE Casting for 9788.....	1.00
9788	Back SPECTACLE COMPLETE, 12" Ctrs. (Takes 3" Glass.) See note above.....	1.16
9789	SPECTACLE Casting for 9790.....	1.00
9790	Back SPECTACLE COMPLETE, 14" Ctrs. (Takes 3" Glass.) See note above.....	1.16
9791	SPECTACLE Casting for 9792.....	1.00
9792	Back SPECTACLE COMPLETE, with Special Hub, 14" Ctrs. (Takes 3" Glass.) See note above.....	1.16
9866	SHAFT only for 9867.....	1.60
9867	Semaphore SHAFT COMPLETE, See note above.....	1.68
10311	SPECTACLE Casting for 10312.....	1.00
10312	Back SPECTACLE COMPLETE, 10" Ctrs. (Takes 3" Glass.) See note above.....	1.16
10313	SPECTACLE Casting for 10314.....	1.30
10314	Back SPECTACLE COMPLETE, 17" Ctrs. (Takes 3" Glass.) See note above.....	1.44
10315	COLLAR for Semaphore Shafts when Back Spectacle is not required..	.20
10316	HEX. NUT for 9752.....	.06
11299	Semaphore SHAFT COMPLETE. See note above.....	1.60
11485	SPECTACLE Casting for 12719.....	1.00
12388	SPECTACLE Casting for 12389.....	1.00
12389	Back SPECTACLE COMPLETE, 14½" Ctrs. (Takes 3" Glass.) See note above.....	1.16
12719	Back SPECTACLE COMPLETE, 15" Ctrs.....	1.16
12720	SHAFT only for 11299.....	1.50

Order by NUMBER and NAME Appearing in Large Type

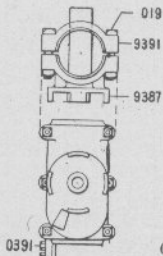
NOTE:—The following list of Standard Spectacles, Bearings and Shafts for Outside Connected Signals, showing the various combinations of Spectacles and Bearings with Shafts, will be found beneficial when it is desired to order a Spectacle which is used with a certain Bearing, or vice versa.

Front Spectacles are shown on pages from 248 to and including page 256; Back Spectacles and Shafts on page 258; Bearings for Wood and Iron Poles on page 262.

## LIST OF SPECTACLES, SHAFTS AND BEARINGS

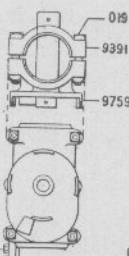
SPECTACLES		BEARINGS		Shaft
Front	Back	Iron Pole	Wood Pole	
4562	1941	9383	9766	1651
4649	4652	6506	5544	5554
7862	7863	8330	8331	8332
9700	9765	9383	9766	9748
9702	9765	9383	9766	9748
9703	9790	9758	9768	9750
9704	9765	9383	9767	9748
9705	9790	....	....	9748
9706	9792	9758	9768	9760
9707	9782	9382	9770	9752
9708	....	9383	....	9748
9709	12389	9383	9766	9748
9710	12719	9745	....	9756
9711	....	9742	....	9756
9712	....	9383	9766	9748
9713	9765	9383	9766	9748
9714	9765	9383	9766	9748
9715	10312	9383	9766	9748
9716	9765	9384	9786	9748
9717	....	....	9769	9754
9718	....	9758	9768	....
9719	....	9758	9781	....
9720	....	9758	9781	....
9721	....	9758	9781	....
9722	....	....	11304	....
9725	9765	9383	9766	9748
9727	10314	9383	9766	9748
9729	9765	9384	9786	9748
9731	9788	9383	9766	9748
9733	10312	9384	9786	9748
9735	9790	9758	9768	9750
9739	....	....	....	....
9741	9790	9762	9470	9750

SEMAPHORE BEARINGS



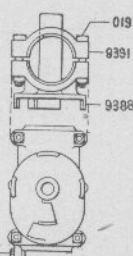
**9383**  
FOR SPECTACLE

- 9700
- 9702
- 9704
- 9708
- 9709
- 9712
- 9713
- 9714
- 9715
- 9725
- 9727
- 9731



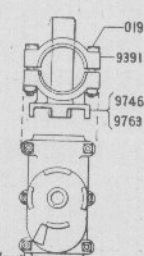
**9758**  
FOR SPECTACLE

- 9703
- 9706
- 9718
- 9719
- 9720
- 9721
- 9735

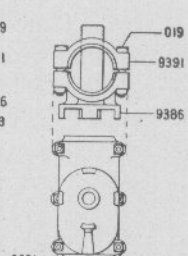


**9384**  
FOR SPECTACLE

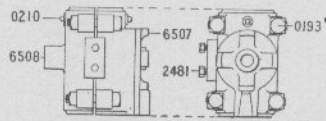
- 9716
- 9729
- 9733



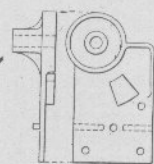
**9745** SPECTACLE  
— 9710  
**9762** — 9741



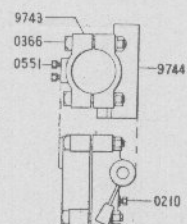
**9382** SPECTACLE  
— 9707



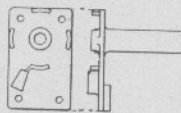
SPECTACLE  
**6506** — 4649



SPECTACLE  
**9769** — 9717

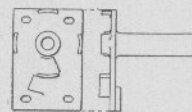


SPECTACLE  
**9742** — 9711



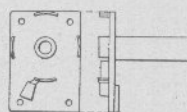
**9766**  
FOR SPECTACLE

- 9700
- 9702
- 9709
- 9712
- 9713
- 9714
- 9715
- 9725
- 9727
- 9731



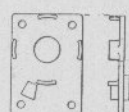
**9786**  
FOR SPECTACLE

- 9716
- 9729
- 9733

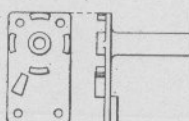


**9768**  
FOR SPECTACLE

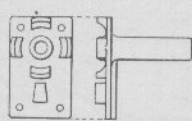
- 9703
- 9706
- 9718
- 9719
- 9720
- 9721
- 9735



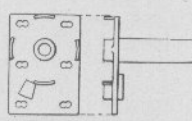
**9781**



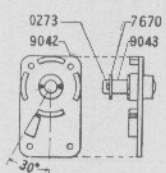
SPECTACLE  
**9767** — 9704



SPECTACLE  
**5544** — 4649  
**9770** — 9707



SPECTACLE  
**9470** — 9741



**9041**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# HIGH SIGNALS

263

Order  
No.

## SEMAPHORE BEARINGS

List Price.

019 BOLT with Nut, $\frac{5}{8}$ " x $4\frac{1}{2}$ ", for various Semaphore Bearing Clamps . . . . .	.09	
0193 BOLT with Nut, $\frac{3}{4}$ " x $4\frac{1}{2}$ ", for 6506. . . . .	.12	
0210 SET SCREW, $\frac{1}{2}$ " x 1", Sq. Hd. . . . .	.04	
0273 COTTER PIN, $\frac{5}{16}$ " x 2" for 9041 (per 100). . . . .	.80	
0366 BOLT with Nut, $\frac{5}{8}$ " x 5", for 9742. . . . .	.10	
0391 TAP BOLT, $\frac{1}{2}$ " x 1", Hex. Hd., for fastening Lamp Bracket to various Clamps. . . . .	.02	
0551 TAP BOLT, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", Hex. Hd., Special for 9742. . . . .	.03	
2481 CAP SCREW, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", Sq. Hd., for 6506. . . . .	.05	
5544 Wood Pole SEMAPHORE BEARING for Spectacle 4649. . . . .	1.60	
6506 SEMAPHORE BEARING COMPLETE, for Spectacle 4649. . . . .	4.00	
6507 BASE, Casting for 6506. . . . .	1.80	
6508 CAP, Casting for 6506. . . . .	1.52	
7670 WASHER for 9041. . . . .	.02	
9041 BEARING PLATE COMPLETE, with Side Stop. . . . .	1.08	
9042 BEARING PLATE for 9041. . . . .	.96	
9043 PIN for 9041. . . . .	.12	
9382 CLAMP BEARING COMPLETE, for Spectacle 9707 for $4\frac{1}{2}$ " O. D. Pole . . . . .	4.00	
9383 CLAMP BEARING COMPLETE, for Spectacles as listed, for $4\frac{1}{2}$ " O. D. Pole. . . . .	4.00	
9384 CLAMP BEARING COMPLETE, for Spectacles as listed, for $4\frac{1}{2}$ " O. D. Pole. . . . .	4.00	
9386 BEARING Casting for 9382. . . . .	2.60	
9387 BEARING Casting for 9383. . . . .	2.60	
9388 BEARING Casting for 9384. . . . .	2.60	
9391 BEARING Back Half for 9382, Etc. . . . .	1.00	
9470 Wood Pole SEMAPHORE BEARING for Spectacle 9741. . . . .	1.30	
9742 CLAMP BEARING COMPLETE, for Spectacle 9711 for $4\frac{1}{2}$ " O. D. Pole . . . . .	4.40	
9743 CAP Casting for 9742. . . . .	1.50	
9744 BEARING Casting for 9742. . . . .	2.40	
9745 CLAMP BEARING COMPLETE, for Spectacle 9710, for $4\frac{1}{2}$ " O. D. Pole . . . . .	4.00	
9746 BEARING Casting for 9745. . . . .	2.60	
9758 CLAMP BEARING COMPLETE, for Spectacles as listed, for $4\frac{1}{2}$ " O. D. Pole. . . . .	4.00	
9759 BEARING Casting for 9758. . . . .	2.60	
9762 CLAMP BEARING COMPLETE, for Spectacle 9741, for $4\frac{1}{2}$ " O. D. Pole . . . . .	4.00	
9763 BEARING Casting for 9762. . . . .	2.60	
9766 Wood Pole SEMAPHORE BEARING for Spectacles as listed. . . . .	1.20	
9767 Wood Pole SEMAPHORE BEARING for Spectacle 9704. . . . .	1.40	
9768 Wood Pole SEMAPHORE BEARING for Spectacles as listed. . . . .	1.20	
9769 Wood Pole SEMAPHORE BEARING for Spectacle 9717. . . . .	3.00	
9770 Wood Pole SEMAPHORE BEARING for Spectacle 9707 (malleable). . . . .	1.50	
9781 BEARING PLATE for use with Bearing 9768, when required on Station Signals. . . . .	.70	
9786 Wood Pole SEMAPHORE BEARING for Spectacles as listed. . . . .	1.30	

Order by NUMBER and NAME Appearing in Large Type

LAMP BRACKETS AND BLADES



1671



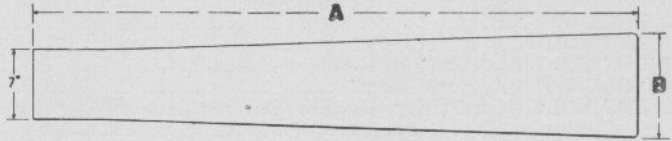
10319



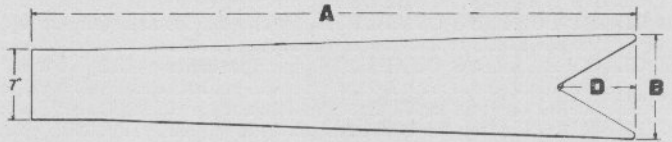
011



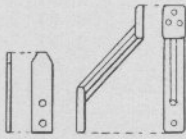
10318



	A	B
5946	4'-0"-10"	10"
7340	4'-0"-12"	12"
7815	4'-5"-10"	10"
9856	4'-5"-10 1/2"	10 1/2"
9793	4'-5"-11"	11"
9797	4'-6"-10"	10"
9795	4'-6"-10 3/4"	10 3/4"
1807	5'-0"-10 1/2"	10 1/2"



	A	B	D
5947	4'-0"-10"	12"	12"
7341	4'-0"-12"	8 1/2"	8 1/2"
7816	4'-5"-10"	7 3/4"	7 3/4"
9857	4'-5"-10 1/2"	7 1/2"	7 1/2"
9794	4'-5"-11"	9"	9"
9798	4'-6"-10"	9"	9"
9796	4'-6"-10 3/4"	9 1/2"	9 1/2"
1808	5'-0"-10 1/2"	7 3/4"	7 3/4"

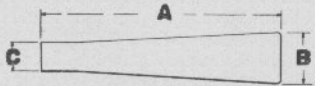


10345

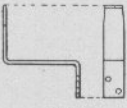
10317



0551



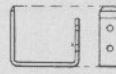
	A	B	C
7342	2'-0"	5 1/2"	3"
10344	3'-0"	7 1/2"	6"
11341	3'-0"	10"	7"



10921



10320



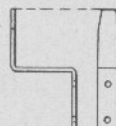
5951



2373



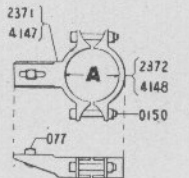
6255



836



5517



	A
6412	4 1/2"
6413	5 3/8"

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

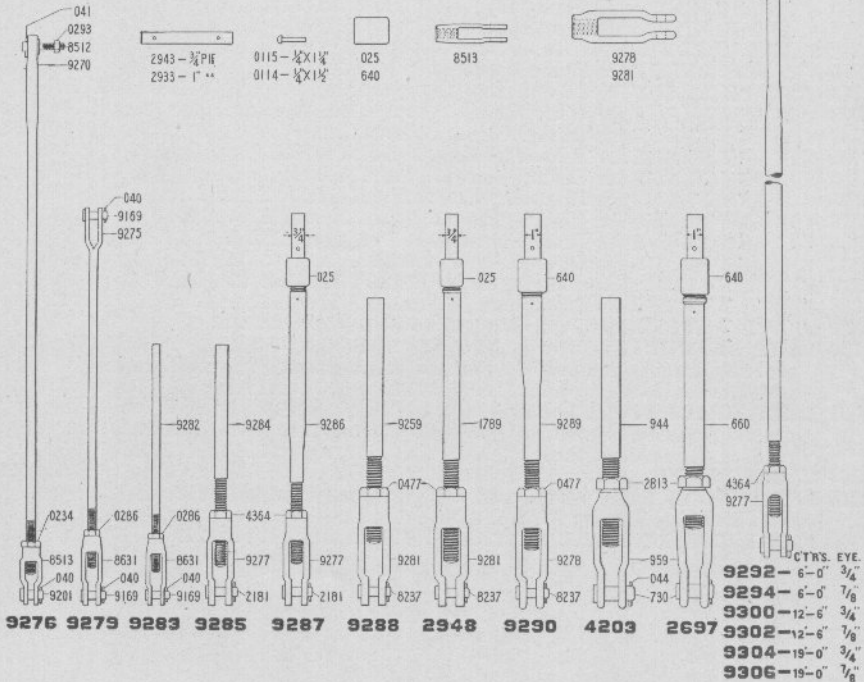
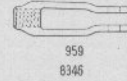
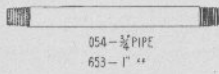
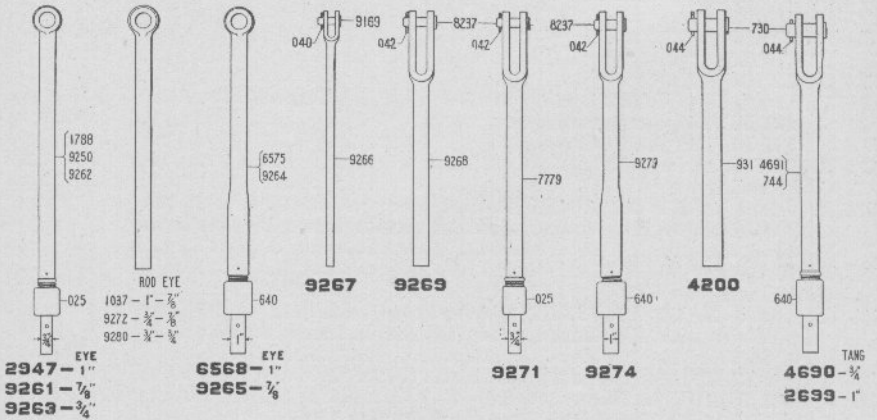
# HIGH SIGNALS

265

Order No.	LAMP BRACKETS AND BLADES	List Price.
011	BOLT with Nut, $\frac{1}{2}$ " x 2", Sq. Hd.	.04
077	BOLT with Nut, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", Sq. Hd.	.04
0150	BOLT with Nut, $\frac{3}{8}$ " x 4", for 6412 or 6413.	.06
0551	TAP BOLT, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", Hex. Hd.	.03
836	LAMP BRACKET for Wood Pole.	.50
1671	Mushroom Head BOLT holding Blade to Spectacle Casting.	.05
1807	5' ASH BLADE for Home Signal.	1.76
1808	5' ASH BLADE for Distant Signal.	1.76
2371	BASE Casting for 6412.	.60
2372	CAP Casting for 6412.	.24
2373	Adjustable LAMP BRACKET Forging, used with 6412 or 6413, for Spectacles with 14" centers, when Adjustable Lamp Bracket is required.	.40
4147	BASE Casting for 6413.	.60
4148	CAP Casting for 6413.	.24
5517	Adjustable LAMP BRACKET Forging, used with 6412 or 6413, for Spectacles with 10" Centers, when adjustable Lamp Bracket is required.	.60
5946	4' ASH BLADE for Home Signal.	1.76
5947	4' ASH BLADE for Distant Signal.	1.76
5951	LAMP BRACKET used with Semaphore Bearing 6506.	.50
6255	Adjustable LAMP BRACKET Forging, used with 6412 or 6413, for Spectacles with 17" centers, when adjustable Lamp Bracket is required.	.70
6412	Adjustable Lamp Bracket CLAMP COMPLETE, for $4\frac{1}{2}$ " O. D. Pole.	1.00
6413	Adjustable Lamp Bracket CLAMP COMPLETE, for $5\frac{3}{8}$ " O. D. Pole.	1.00
7340	4' ASH BLADE for Home Signal.	1.76
7341	4' ASH BLADE for Distant Signal.	1.76
7342	2' ASH BLADE.	1.00
7815	4' 5" ASH BLADE for Home Signal.	1.76
7816	4' 5" ASH BLADE for Distant Signal.	1.76
9793	4' 5" ASH BLADE for Home Signal.	1.76
9794	4' 5" ASH BLADE for Distant Signal.	1.76
9795	4' 6" ASH BLADE for Home Signal.	1.76
9796	4' 6" ASH BLADE for Distant Signal.	1.76
9797	4' 6" ASH BLADE for Home Signal.	1.76
9798	4' 6" ASH BLADE for Distant Signal.	1.76
9856	4' 5" ASH BLADE for Home Signal.	1.76
9857	4' 5" ASH BLADE for Distant Signal.	1.76
10317	BRACKET Casting, supporting Lamp Bracket 10345 to Bearing 9742.	1.00
10318	PLATE WASHER for Semaphore Blade.	.12
10319	PLATE WASHER used with Semaphore Blades 5946 or 5947.	.30
10320	LAMP BRACKET, used with Semaphore Bearings 9382, Etc. When ordering specify number of Spectacle Casting and Style of Lamp used.	.50
10321	LAMP BRACKET, used with Semaphore Bearings 9382, Etc. When ordering specify number of Spectacle Casting and Style of Lamp used.	.50
10344	3' ASH BLADE.	1.50
10345	LAMP BRACKET Forging, used with Bracket Casting 10317, and with Spectacle Casting 9711.	.32
11341	3' ASH BLADE.	1.60

Order by NUMBER and NAME Appearing in Large Type

OPERATING RODS AND GUIDES



Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477



# HIGH SIGNALS

267

Order  
No.

## OPERATING RODS AND GUIDES

List Price.

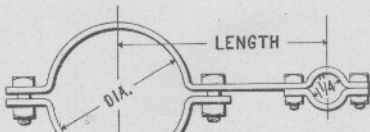
06 BOLT with Nut, $\frac{3}{8}$ " x 1", for various Guides	.02
010 BOLT with Nut, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", for various Guides	.04
025 PIPE COUPLING, $\frac{3}{4}$ " reinforced	.14
040 COTTER PIN, $\frac{1}{8}$ " x 1" (per 100)	.80
041 COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " (per 100)	.80
042 COTTER PIN, $\frac{3}{16}$ " x 1" (per 100)	.80
044 COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{2}$ " (per 100)	.80
054 $\frac{3}{4}$ " Black PIPE (per foot)	.03
064 LAG SCREW, $\frac{1}{2}$ " x $2\frac{1}{2}$ ", fastening Guides to Wood Pole	.01
0114 RIVET, $\frac{1}{4}$ " x $1\frac{1}{2}$ ", for 1" Pipe Connection	.01
0115 RIVET, $\frac{1}{4}$ " x $1\frac{1}{4}$ ", for $\frac{3}{4}$ " Pipe Connection	.02
0234 " HEX. NUT	.02
0286 " HEX. NUT	.02
0293 " HEX. NUT, for 9276	.06
0477 1" HEX. NUT	.19
640 PIPE COUPLING, 1", reinforced	.50
653 1" Black PIPE, (per foot)	1.30
660 $1\frac{1}{4}$ " SCREW ROD, for 2697	1.40
709 1 Way GUIDE, $\frac{3}{4}$ " Pipe, $8\frac{3}{4}$ " long, for $4\frac{1}{2}$ " O. D. Pole	.07
710 2 Way GUIDE, $\frac{3}{4}$ " Pipe, $8\frac{3}{4}$ " long, for $5\frac{9}{16}$ " O. D. Pole	.84
730 PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ "	1.30
744 $1\frac{1}{2}$ " SOLID JAW for 2699	1.40
771 1 Way GUIDE, $\frac{3}{4}$ " Pipe, $10\frac{1}{2}$ " long, for $4\frac{1}{2}$ " O. D. Pole	1.34
775 2 Way GUIDE, $\frac{3}{4}$ " Pipe, $8\frac{3}{4}$ " long, for $6\frac{3}{8}$ " O. D. Pole	.28
776 1 Way GUIDE, $\frac{3}{4}$ " Pipe, $8\frac{3}{4}$ " long, for $5\frac{9}{16}$ " O. D. Pole	.33
890 1 Way GUIDE, $\frac{3}{4}$ " Pipe, for Wood Pole	.74
891 2 Way GUIDE, $\frac{3}{4}$ " Pipe, for Wood Pole	.44
931 $1\frac{1}{4}$ " SOLID JAW for 4200	1.10
944 $1\frac{1}{4}$ " SCREW ROD for 4203	.60
959 $1\frac{1}{4}$ " WROUGHT SCREW JAW	.70
1037 1" EYE ROD with Stub End, $\frac{7}{8}$ " Eye	.68
1788 EYE ROD for 2947	.07
1789 1" SCREW ROD for 2948	1.90
2181 $\frac{5}{8}$ " PIN for Rods 9285 or 9287	1.08
2697 $1\frac{1}{4}$ " Wrought SCREW JAW COMPLETE, with Tang End, for 1" Pipe	.09
2699 $1\frac{1}{4}$ " SOLID JAW COMPLETE, with Tang End, for 1" Pipe	.07
2813 $1\frac{1}{4}$ " THIN NUT. Used on various Rods	.38
2933 PLUG for 1" Pipe Connection	1.44
2938 3 Way GUIDE, $\frac{3}{4}$ " Pipe, for Wood Pole	1.48
2939 3 Way GUIDE, $\frac{3}{4}$ " Pipe, $8\frac{3}{4}$ " long, for $5\frac{9}{16}$ " O. D. Pole	1.40
2940 3 Way GUIDE, $\frac{3}{4}$ " Pipe, $8\frac{3}{4}$ " long, for $6\frac{3}{8}$ " O. D. Pole	1.40
2941 2 Way GUIDE, $\frac{3}{4}$ " Pipe, $10\frac{1}{2}$ " long, for $4\frac{1}{2}$ " O. D. Pole	.07
2943 PLUG for $\frac{3}{4}$ " Pipe Connection	.90
2947 EYE ROD with Tang End COMPLETE, 1" Eye, for $\frac{3}{4}$ " Pipe	1.08
2948 1" Malleable SCREW JAW COMPLETE, with Tang End for $\frac{3}{4}$ " Pipe	1.36
3966 1 Way GUIDE $\frac{3}{4}$ " Pipe, $8\frac{3}{4}$ " long, for $6\frac{3}{8}$ " O. D. Pole	.80
4200 $1\frac{1}{4}$ " SOLID JAW COMPLETE, with Stub End	1.70
4203 $1\frac{1}{4}$ " Wrought SCREW JAW COMPLETE with Stub End	1.40
4247 2 Way GUIDE, $\frac{3}{4}$ " Pipe, $10\frac{1}{2}$ " long, for $5\frac{9}{16}$ " O. D. Pole	.04
4364 $\frac{3}{4}$ " THIN NUT	1.48
4690 $1\frac{1}{4}$ " SOLID JAW COMPLETE, with Tang End for $\frac{3}{4}$ " Pipe	1.20
4691 $1\frac{1}{4}$ " SOLID JAW for 4690	.28
5923 1 Way GUIDE, 1" Pipe, for Wood Pole	.33
5924 2 Way GUIDE, 1" Pipe, for Wood Pole	1.30
5925 1 Way GUIDE, 1" Pipe, $8\frac{3}{4}$ " long, for $4\frac{1}{2}$ " O. D. Pole	1.30
5926 1 Way GUIDE, 1" Pipe, $10\frac{1}{2}$ " long, for $4\frac{1}{2}$ " O. D. Pole	1.34
5927 1 Way GUIDE, 1" Pipe, $8\frac{3}{4}$ " long, for $5\frac{9}{16}$ " O. D. Pole	.04

Order by NUMBER and NAME Appearing in Large Type

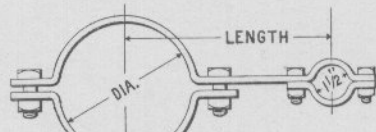
Order No.	OPERATING RODS AND GUIDES—CONTINUED	List Price.
5928	2 Way GUIDE, 1" Pipe, 8 $\frac{3}{4}$ " long, for 5 $\frac{9}{16}$ " O. D. Pole	1.40
6298	1 Way GUIDE, 1" Pipe, 8 $\frac{3}{4}$ " long, for 6 $\frac{5}{8}$ " O. D. Pole	1.36
6299	2 Way GUIDE, 1" Pipe, 8 $\frac{3}{4}$ " long, for 6 $\frac{5}{8}$ " O. D. Pole	1.40
6568	Eye ROD COMPLETE with Tang End. 1" Eye, for 1" Pipe	1.20
6575	Eye ROD, for 6568	1.04
6801	3 Way GUIDE, 1" Pipe, 8 $\frac{3}{4}$ " long, for 6 $\frac{5}{8}$ " O. D. Pole	1.48
7779	1" SOLID JAW for 9271	.60
8237	PIN, $\frac{5}{8}$ " x 2 $\frac{3}{8}$ "	.07
8346	1 $\frac{1}{4}$ " Malleable SCREW JAW	.41
8512	STUD, Special, for 9276	.40
8513	SCREW JAW for 9276	.24
8631	$\frac{1}{2}$ " SCREW JAW for 9279 or 9283	.22
9169	PIN, $\frac{1}{2}$ " x 1 $\frac{3}{16}$ "	.07
9201	$\frac{5}{8}$ " PIN for 9276	.07
9250	Eye ROD for 9261	.70
9259	1" Screw ROD for 9288	.36
9261	Eye ROD with Tang End COMPLETE, $\frac{1}{8}$ " Eye	.90
9262	Eye ROD for 9263	.70
9263	Eye ROD with Tang End COMPLETE, $\frac{3}{4}$ " Eye	.90
9264	Eye ROD for 9265	1.04
9265	Eye ROD COMPLETE, with Tang End, $\frac{1}{8}$ " Eye, for 1" Pipe	1.20
9266	SOLID JAW ROD for 9267	.64
9267	SOLID JAW ROD COMPLETE, $\frac{1}{2}$ ", with Stub End	.72
9268	1" SOLID JAW for 9269	.48
9269	1" SOLID JAW COMPLETE, with Stub End	.55
9270	EYE ROD for 9276	.50
9271	1" SOLID JAW COMPLETE, with Tang End, for $\frac{3}{4}$ " Pipe	.77
9272	$\frac{3}{4}$ " EYE ROD, Stub End, $\frac{1}{8}$ " Eye	.60
9273	1" SOLID JAW for 9274	1.24
9274	1" SOLID JAW COMPLETE, with Tang End, for 1" Pipe	1.50
9275	JAW ROD with Threaded End for 9279	.70
9276	Signal Commutator OPERATING ROD COMPLETE	1.20
9277	$\frac{3}{4}$ " Malleable SCREW JAW, for various Rods	.26
9278	1" Wrought SCREW JAW, for 9290	1.50
9279	$\frac{1}{2}$ " ADJUSTABLE CONNECTION COMPLETE, average 24 $\frac{1}{2}$ centers	1.08
9280	$\frac{3}{4}$ " Eye ROD, Stub End, $\frac{3}{8}$ " Eye	.60
9281	1" Malleable SCREW JAW, for various Rods	.33
9282	$\frac{1}{2}$ " Screw ROD for 9283	.16
9283	$\frac{1}{2}$ " Malleable SCREW JAW with Stub End	.42
9284	$\frac{3}{4}$ " SCREW ROD for 9285	.16
9285	$\frac{3}{4}$ " Malleable SCREW JAW COMPLETE, with Stub End	.48
9286	SCREW ROD for 9287	.64
9287	$\frac{3}{4}$ " SCREW JAW COMPLETE, with Tang End, for $\frac{3}{4}$ " Pipe	1.04
9288	1" Malleable SCREW JAW COMPLETE, with Stub End	.76
9289	1" SCREW ROD for 9290	1.04
9290	1" Wrought SCREW JAW COMPLETE, with Tang End for 1" Pipe	2.80
9292	UP AND DOWN ROD COMPLETE, 6' Centers, $\frac{1}{4}$ " Eye	2.40
9294	UP AND DOWN ROD COMPLETE, 6' Centers, $\frac{1}{4}$ " Eye	2.40
9300	UP AND DOWN ROD COMPLETE, 12' 6" Centers, $\frac{3}{4}$ " Eye	2.90
9302	UP AND DOWN ROD COMPLETE, 12' 6" Centers, $\frac{1}{4}$ " Eye	2.90
9304	UP AND DOWN ROD COMPLETE, 19' Centers, $\frac{1}{4}$ " Eye	3.48
9306	UP AND DOWN ROD COMPLETE, 19' Centers, $\frac{1}{8}$ " Eye	3.48

Order by NUMBER and NAME Appearing in Large Type

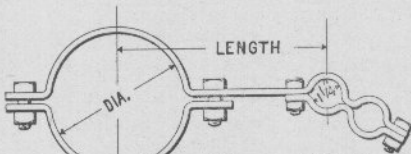
OPERATING RODS AND GUIDES—CONTINUED



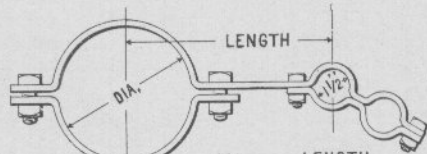
	DIA.	LENGTH
709	4 1/2"	8 3/4"
771	4 1/2"	10 1/2"
776	5 9/16"	8 3/4"
3968	6 5/8"	8 3/4"



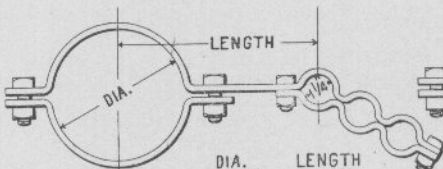
	DIA.	LENGTH
5925	4 1/2"	8 3/4"
5926	4 1/2"	10 1/2"
5927	5 9/16"	8 3/4"
6298	6 5/8"	8 3/4"



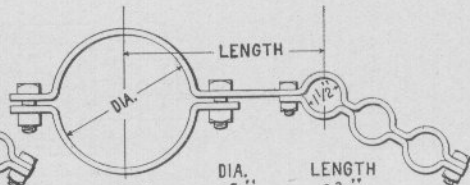
	DIA.	LENGTH
2941	4 1/2"	10 1/2"
710	5 9/16"	8 3/4"
4247	5 9/16"	10 1/2"
775	6 5/8"	8 3/4"



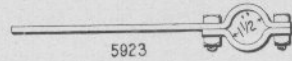
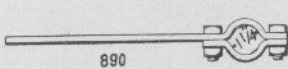
	DIA.	LENGTH
5928	5 9/16"	8 3/4"
6299	6 5/8"	8 3/4"



	DIA.	LENGTH
2938	5 9/16"	8 3/4"
2940	6 5/8"	8 3/4"

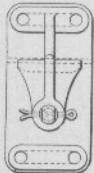
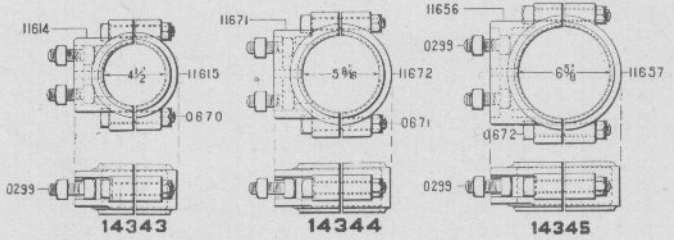


	DIA.	LENGTH
6801	6 5/8"	8 3/4"

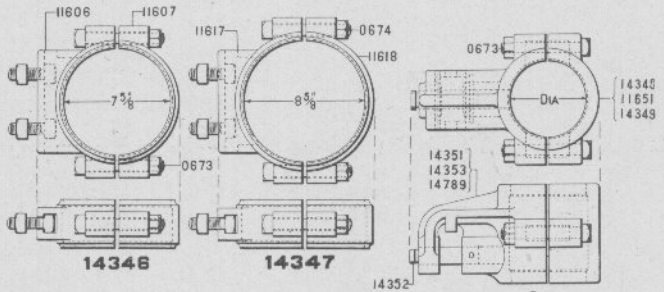


Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

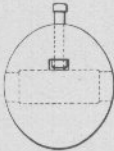
CLAMPS AND BEARINGS



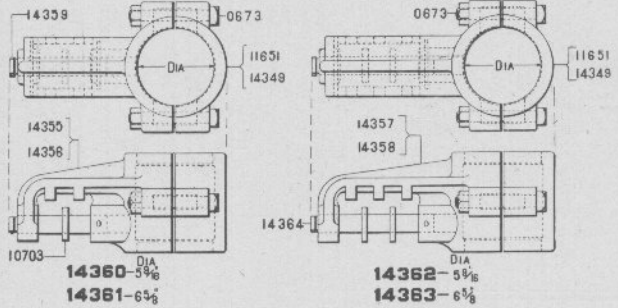
- 1 WAY 14796
- 2 .. 14797
- 3 .. 14798



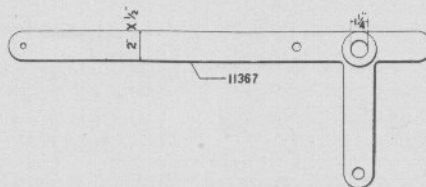
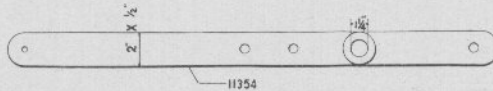
- DIA 14350 - 4 1/2
- 14354 - 5 3/16
- 14790 - 6 3/8



11387



- DIA 14360 - 5 9/16
- 14361 - 6 3/8
- DIA 14362 - 5 9/16
- 14363 - 6 3/8



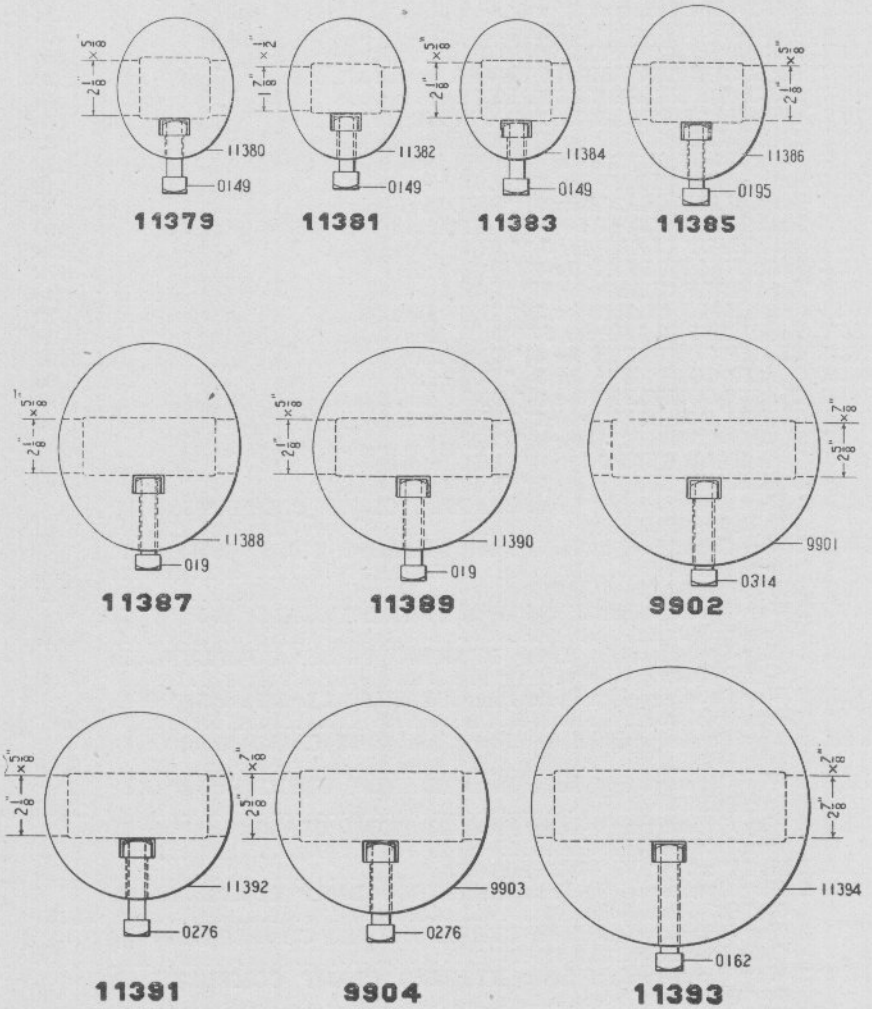
# HIGH SIGNALS

271

Order No.	CLAMPS AND BEARINGS	List Price.
0299	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{1}{2}$ "	.10
0670	BOLT with Hex. Nut, $\frac{1}{2}$ " x $4\frac{1}{2}$ "	.12
0671	BOLT with Hex. Nut, $\frac{1}{2}$ " x $6\frac{1}{4}$ "	.11
0672	BOLT with Hex. Nut, $\frac{1}{2}$ " x $7\frac{1}{2}$ "	.12
0673	BOLT with Hex. Nut, $\frac{3}{4}$ " x $5\frac{3}{4}$ "	.14
0674	BOLT with Hex. Nut, $\frac{3}{4}$ " x $6$ "	.14
10703	WASHER, $2\frac{1}{2}$ " x $1\frac{1}{4}$ " x $\frac{3}{16}$ "	.08
11354	STRAIGHT COUNTERWEIGHT LEVER only	1.80
11367	"L" COUNTERWEIGHT LEVER only	2.70
11357	COUNTERWEIGHT COMPLETE, 16 lbs.	1.16
11606	Front HALF CLAMP for $7\frac{5}{8}$ " O. D. Iron Pole.	.80
11607	Back HALF CLAMP for $7\frac{5}{8}$ " O. D. Iron Pole.	.53
11614	Front HALF CLAMP for $4\frac{1}{2}$ " O. D. Iron Pole.	.70
11615	Back HALF CLAMP for $4\frac{1}{2}$ " O. D. Iron Pole.	.46
11617	Front HALF CLAMP for $8\frac{3}{8}$ " O. D. Iron Pole.	.80
11618	Back HALF CLAMP for $8\frac{3}{8}$ " O. D. Iron Pole.	.60
11651	Back HALF CLAMP for $5\frac{9}{16}$ " O. D. Iron Pole.	.84
11656	Front HALF CLAMP for $6\frac{3}{8}$ " O. D. Iron Pole.	.72
11657	Back HALF CLAMP for $6\frac{3}{8}$ " O. D. Iron Pole.	.48
11671	Front HALF CLAMP for $5\frac{9}{16}$ " O. D. Iron Pole.	.72
11672	Back HALF CLAMP for $5\frac{9}{16}$ " O. D. Iron Pole.	.48
14343	CLAMP COMPLETE for $4\frac{1}{2}$ " O. D. Iron Pole.	1.60
14344	CLAMP COMPLETE for $5\frac{3}{8}$ " O. D. Iron Pole.	1.60
14345	CLAMP COMPLETE for $6\frac{3}{8}$ " O. D. Iron Pole.	1.60
14346	CLAMP COMPLETE for $7\frac{3}{8}$ " O. D. Iron Pole.	1.80
14347	CLAMP COMPLETE for $8\frac{3}{8}$ " O. D. Iron Pole.	1.84
14348	Back HALF CLAMP for $4\frac{1}{2}$ " O. D. Iron Pole.	.80
14349	Back HALF CLAMP for $6\frac{3}{8}$ " O. D. Iron Pole.	.84
14350	1 Way Counterweight Lever BEARING CLAMP COMPLETE for $4\frac{1}{2}$ " O. D. Iron Pole, with $1\frac{1}{4}$ " Pin.	3.12
14351	1 Way Counterweight Lever Front BEARING CLAMP for $4\frac{1}{2}$ " O. D. Iron Pole.	1.88
14352	PIN, $1\frac{1}{4}$ " x $5\frac{3}{8}$ ", for 14351, 14353 and 14789.	.22
14353	1 Way Counterweight Lever Front BEARING CLAMP for $5\frac{3}{8}$ " O. D. Iron Pole.	1.88
14354	1 Way Counterweight Lever BEARING CLAMP COMPLETE for $5\frac{3}{8}$ " O. D. Iron Pole, with $1\frac{1}{4}$ " Pin.	3.30
14355	2 Way Counterweight Lever Front BEARING CLAMP for $5\frac{9}{16}$ " O. D. Iron Pole.	2.08
14356	2 Way Counterweight Lever Front BEARING CLAMP for $6\frac{3}{8}$ " O. D. Iron Pole.	2.08
14357	3 Way Counterweight Lever Front BEARING CLAMP for $5\frac{9}{16}$ " O. D. Iron Pole.	2.40
14358	3 Way Counterweight Lever Front BEARING CLAMP for $6\frac{3}{8}$ " O. D. Iron Pole.	2.50
14359	PIN, $1\frac{1}{4}$ " x $7\frac{3}{8}$ ", for 14355 and 14356.	.28
14360	2 Way Counterweight Lever BEARING CLAMP COMPLETE for $5\frac{9}{16}$ " O. D. Iron Pole.	3.56
14361	2 Way Counterweight Lever BEARING CLAMP COMPLETE for $6\frac{3}{8}$ " O. D. Iron Pole.	3.76
14362	3 Way Counterweight Lever BEARING CLAMP COMPLETE for $5\frac{9}{16}$ " O. D. Iron Pole.	4.20
14363	3 Way Counterweight Lever BEARING CLAMP COMPLETE for $6\frac{3}{8}$ " O. D. Iron Pole.	4.30
14364	PIN, $1\frac{1}{4}$ " x $9\frac{3}{16}$ " for 14357 and 14358.	.34
14789	1 Way Counterweight Lever Front BEARING CLAMP, for $6\frac{3}{8}$ " O. D. Iron Pole.	1.88
14790	1 Way Counterweight Lever BEARING CLAMP COMPLETE for $6\frac{3}{8}$ " O. D. Iron Pole.	3.30
14796	1 Way Counterweight Lever STAND, with $1\frac{1}{4}$ " Pin.	1.68
14797	2 Way Counterweight Lever STAND, with $1\frac{1}{4}$ " Pin.	1.86
14798	3 Way Counterweight Lever STAND, with $1\frac{1}{4}$ " Pin.	2.12

Order by NUMBER and NAME Appearing in Large Type

## COUNTERWEIGHTS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

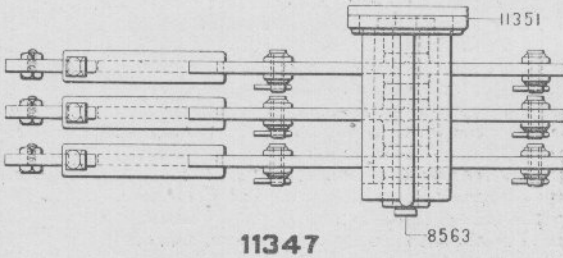
# HIGH SIGNALS

273

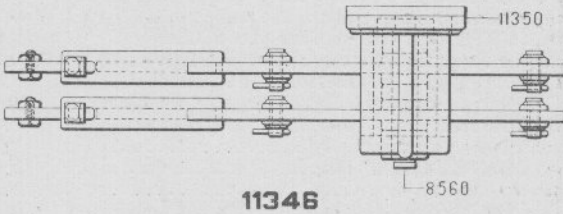
Order No.	COUNTERWEIGHTS	List Price.
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ ", for 11388 and 11390 .....	.09 .....
0149	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{1}{2}$ ", for 11380, 11382 and 11384 .....	.07 .....
0162	BOLT AND NUT, $\frac{3}{8}$ " x $5$ ", for 11394 .....	.12 .....
0195	BOLT AND NUT, $\frac{3}{8}$ " x $3$ ", for 11386 .....	.07 .....
0276	BOLT AND NUT, $\frac{3}{8}$ " x $3\frac{3}{4}$ ", for 9903 and 11392 .....	.10 .....
0314	BOLT AND NUT, $\frac{3}{8}$ " x $3\frac{1}{2}$ ", for 9901 .....	.10 .....
9901	COUNTERWEIGHT, 40 lbs., Casting only .....	2.58 .....
9902	COUNTERWEIGHT COMPLETE, 40 lbs., for $\frac{3}{4}$ " x $2\frac{1}{2}$ " Lever .....	2.68 .....
9903	COUNTERWEIGHT, 56 lbs., Casting Only .....	3.62 .....
9904	COUNTERWEIGHT COMPLETE, 56 lbs., for $\frac{3}{4}$ " x $2\frac{1}{2}$ " Lever .....	3.72 .....
11379	COUNTERWEIGHT COMPLETE, 7 lbs., for $\frac{1}{2}$ " x $2$ " Lever .....	.58 .....
11380	COUNTERWEIGHT, 7 lbs., Casting Only .....	.50 .....
11381	COUNTERWEIGHT COMPLETE, 10 lbs., for $\frac{3}{8}$ " x $1\frac{3}{4}$ " Lever .....	.80 .....
11382	COUNTERWEIGHT, 10 lbs., Casting only .....	.70 .....
11383	COUNTERWEIGHT COMPLETE, 10 lbs., for $\frac{1}{2}$ " x $2$ " Lever .....	.80 .....
11384	COUNTERWEIGHT, 10 lbs., Casting Only .....	.70 .....
11385	COUNTERWEIGHT COMPLETE, 14 lbs., for $\frac{1}{2}$ " x $2$ " Lever .....	1.08 .....
11386	COUNTERWEIGHT, 14 lbs., Casting Only .....	.98 .....
11387	COUNTERWEIGHT COMPLETE, 16 lbs., for $\frac{1}{2}$ " x $2$ " Lever .....	1.16 .....
11388	COUNTERWEIGHT, 16 lbs., Casting Only .....	1.06 .....
11389	COUNTERWEIGHT COMPLETE, 27 lbs., for $\frac{1}{2}$ " x $2$ " Lever .....	1.84 .....
11390	COUNTERWEIGHT, 27 lbs., Casting Only .....	1.74 .....
11391	COUNTERWEIGHT COMPLETE, 40 lbs., for $\frac{1}{2}$ " x $2$ " Lever .....	2.68 .....
11392	COUNTERWEIGHT, 40 lbs., Casting Only .....	2.56 .....
11393	COUNTERWEIGHT COMPLETE, 100 lbs., for $\frac{3}{4}$ " x $2\frac{3}{4}$ " Lever .....	6.52 .....
11394	COUNTERWEIGHT, 100 lbs., Casting Only .....	6.40 .....

Order by NUMBER and NAME Appearing in Large Type

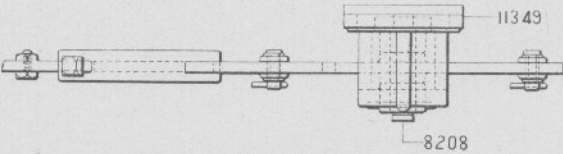
STRAIGHT COUNTERWEIGHT LEVERS AND STANDS



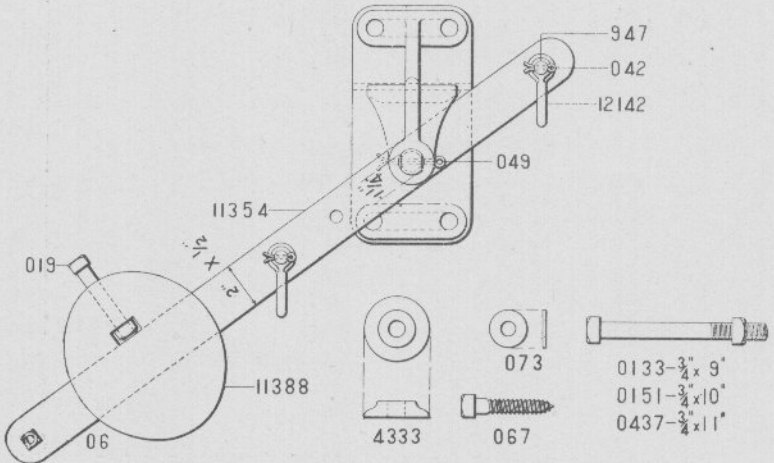
11347



11346



11345



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



# HIGH SIGNALS

275

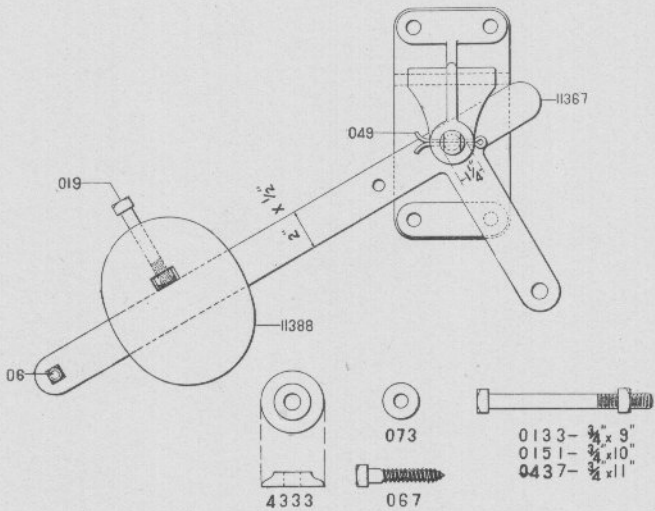
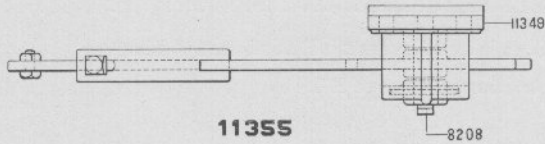
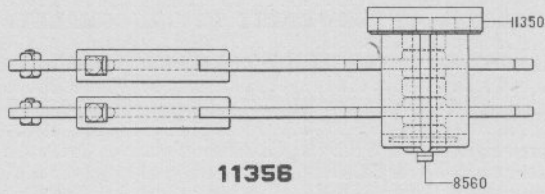
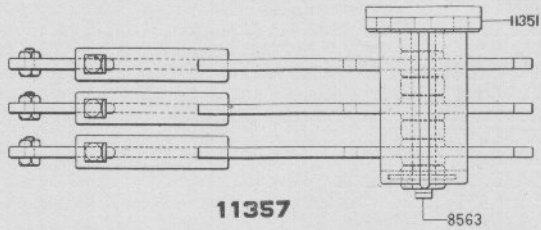
Order No.	STRAIGHT COUNTERWEIGHT LEVERS AND STANDS	List Price.
06	BOLT AND NUT, $\frac{3}{8}$ " x 1" for end of 11354.....	.02 .....
019	BOLT AND NUT, $\frac{3}{8}$ " x 4 $\frac{1}{2}$ " for 11388.....	.09 .....
042	COTTER PIN, $\frac{3}{16}$ " x 1" for 947, (per 100).....	.80 .....
049	COTTER PIN, $\frac{1}{4}$ " x 3", (per 100).....	.80 .....
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07 .....
073	$\frac{3}{4}$ " WASHER.....	.02 .....
0133	BOLT AND NUT, $\frac{3}{8}$ " x 9".....	.16 .....
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16 .....
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11".....	.19 .....
947	PIN, $\frac{5}{8}$ " x 1 $\frac{3}{4}$ " for 12142.....	.12 .....
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08 .....
8208	PIN, 1 $\frac{1}{4}$ " x 4" for 11349.....	.22 .....
8560	PIN, 1 $\frac{1}{4}$ " x 6" for 11350.....	.27 .....
8563	PIN, 1 $\frac{1}{4}$ " x 8" for 11351.....	.34 .....
11345	1 Way, STRAIGHT COUNTERWEIGHT LEVER COMPLETE as shown.....	4.90 .....
11346	2 Way, STRAIGHT COUNTERWEIGHT LEVER COMPLETE as shown.....	8.30 .....
11347	3 Way, STRAIGHT COUNTERWEIGHT LEVER COMPLETE as shown.....	11.84 .....
11349	1 Way, Counterweight Lever STAND, Casting only.....	1.52 .....
11350	2 Way, Counterweight Lever STAND, Casting only.....	1.65 .....
11351	3 Way, Counterweight Lever STAND, Casting only.....	1.92 .....
11354	Straight Counterweight LEVER only.....	1.80 .....
11388	COUNTERWEIGHT, 16 Lbs., Casting only.....	1.06 .....
12142	$\frac{5}{8}$ " MALLEABLE SHACKLE.....	.05 .....

NOTE.—The above Stands and Levers are Drilled for 1 $\frac{1}{4}$ " Pins.

For Iron Pole Clamps see page 270.

Order by NUMBER and NAME Appearing in Large Type

"L" COUNTERWEIGHT LEVERS AND STANDS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order  
No.

“L” COUNTERWEIGHT LEVERS AND STANDS

List Price.

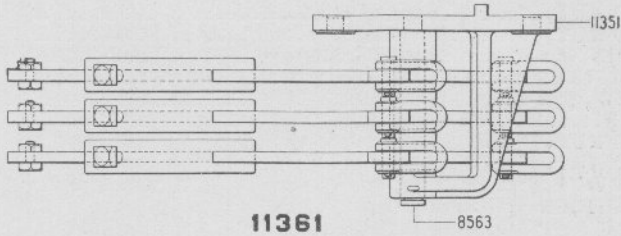
06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for end of 11367.....	.02	.....
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ ", for 11388.....	.09	.....
049	COTTER PIN, $\frac{1}{4}$ " x 3", for fixing 8208, 8560 and 8563 to Stands 11349, 11350 and 11351, (per 100) .....	.80	.....
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07	.....
073	$\frac{3}{4}$ " WASHER.....	.02	.....
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16	.....
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16	.....
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11".....	.19	.....
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08	.....
8208	PIN, $1\frac{1}{4}$ " x 4" for 11349.....	.22	.....
8560	PIN, $1\frac{1}{4}$ " x 6" for 11350.....	.27	.....
8563	PIN, $1\frac{1}{4}$ " x 8" for 11351.....	.34	.....
11349	1 Way COUNTERWEIGHT LEVER STAND, Casting only.....	1.52	.....
11350	2 Way COUNTERWEIGHT LEVER STAND, Casting only .....	1.65	.....
11351	3 Way COUNTERWEIGHT LEVER STAND, Casting only .....	1.92	.....
11355	1 Way “L” COUNTERWEIGHT LEVER COMPLETE, as shown....	5.60	.....
11356	2 Way “L” COUNTERWEIGHT LEVER COMPLETE, as shown....	9.68	.....
11357	3 Way “L” COUNTERWEIGHT LEVER COMPLETE, as shown ....	13.88	.....
11367	“L” COUNTERWEIGHT LEVER only.....	2.70	.....
11388	COUNTERWEIGHT, 16 lbs., Casting only.....	1.06	.....

NOTE.—The above Stands and Levers are Drilled for  $1\frac{1}{4}$ " Pins.

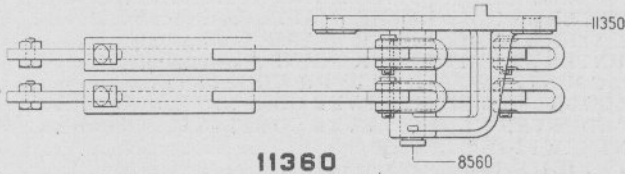
For Iron Pole Clamps see page 270.

Order by NUMBER and NAME Appearing in Large Type

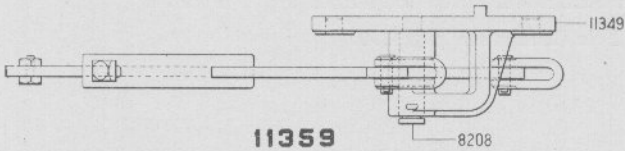
"T" COUNTERWEIGHT LEVERS AND STANDS



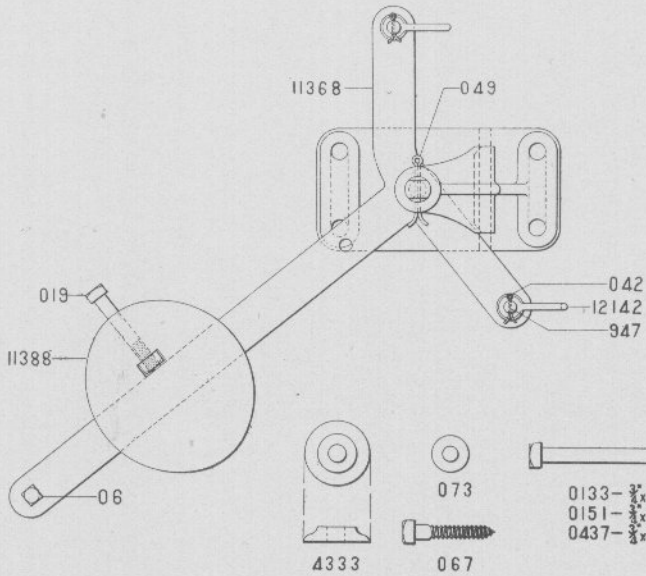
11361



11360



11359



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# HIGH SIGNALS

279

Order  
No.

"T" COUNTERWEIGHT LEVERS AND STANDS

List Price.

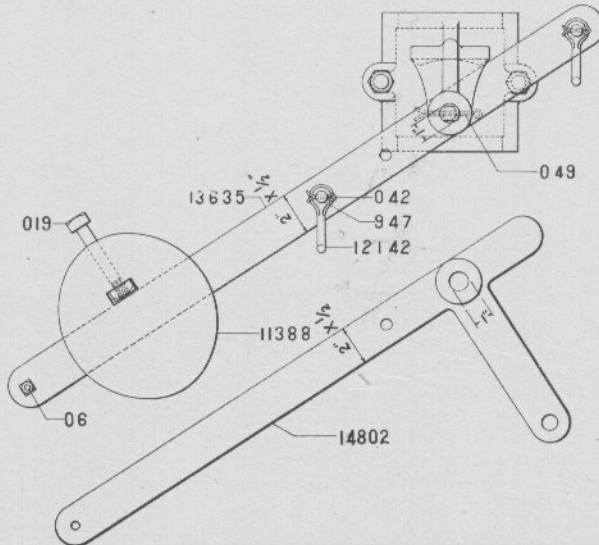
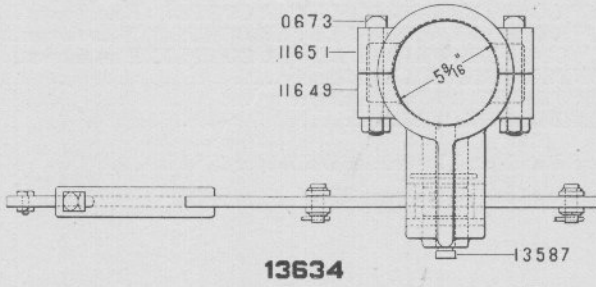
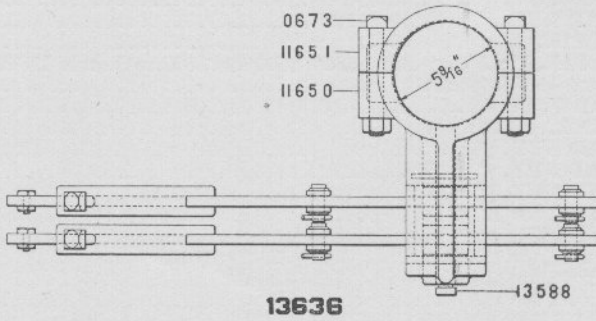
06 BOLT AND NUT, $\frac{3}{8}$ " x 1", for end of 11368 .....	.02	
019 BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ ", for 11388.....	.09	
042 COTTER PIN, $\frac{3}{8}$ " x 1", for 947; (per 100).....	.80	
049 COTTER PIN, $\frac{1}{4}$ " x 3", for fixing 8208, 8560 and 8563 to Stands 11349, 11350 and 11351, (per 100).....	.80	
067 LAG SCREW, $\frac{3}{4}$ " x 4".....	.07	
073 $\frac{3}{4}$ " WASHER.....	.02	
0133 BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16	
0151 BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16	
0437 BOLT AND NUT, $\frac{3}{4}$ " x 11".....	.19	
947 PIN, $\frac{5}{8}$ " x $1\frac{1}{4}$ ", for 12142.....	.12	
4333 CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08	
8208 PIN, $1\frac{1}{4}$ " x 4", for 11349.....	.22	
8560 PIN, $1\frac{1}{4}$ " x 6", for 11350.....	.27	
8563 PIN, $1\frac{1}{4}$ " x 8", for 11351.....	.34	
11349 1 Way COUNTERWEIGHT LEVER STAND, Casting only.....	1.52	
11350 2 Way COUNTERWEIGHT LEVER STAND, Casting only .....	1.65	
11351 3 Way COUNTERWEIGHT LEVER STAND, Casting only .....	1.92	
11359 1 Way "T" COUNTERWEIGHT LEVER COMPLETE as shown.....	5.64	
11360 2 Way "T" COUNTERWEIGHT LEVER COMPLETE as shown...	9.76	
11361 3 Way "T" COUNTERWEIGHT LEVER COMPLETE as shown...	14.10	
11368 "T" COUNTERWEIGHT LEVER only.....	2.32	
11388 COUNTERWEIGHT, 16 lbs, Casting only.....	1.06	
12142 $\frac{5}{8}$ " MALLEABLE SHACKLE.....	.05	

NOTE.—The above Stands and Levers are Drilled for  $1\frac{1}{4}$ " Pins.

For Iron Pole Clamps see page 270.

Order by NUMBER and NAME Appearing in Large Type

STRAIGHT COUNTERWEIGHT LEVERS AND STANDS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# HIGH SIGNALS

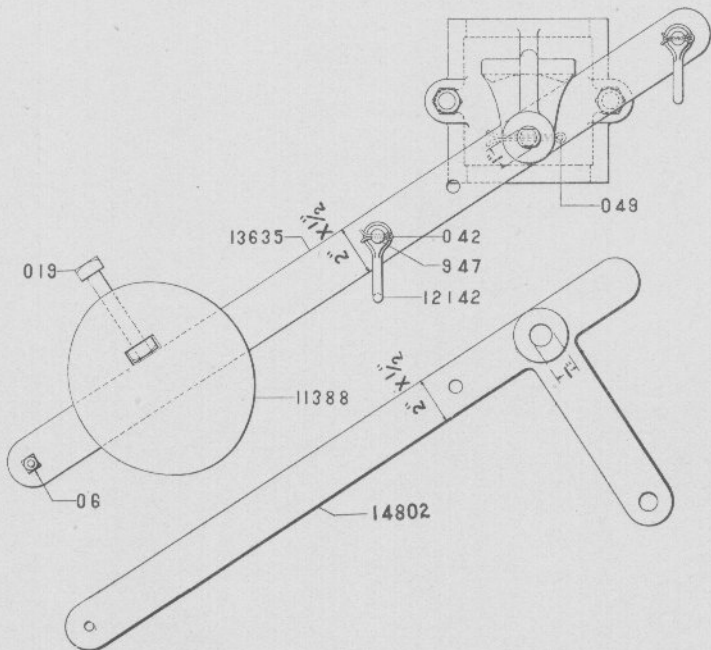
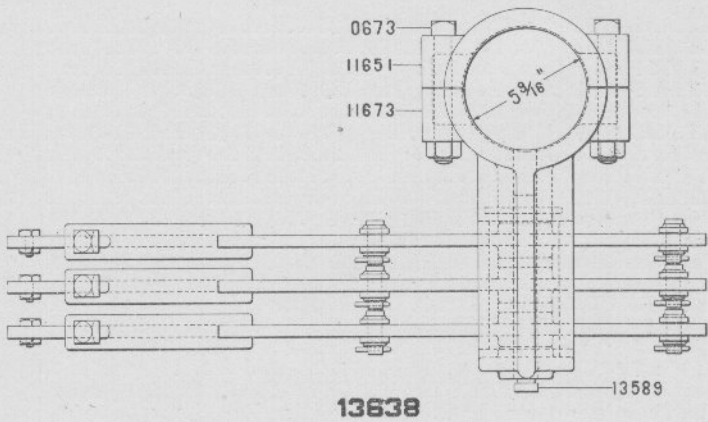
281

Order No.	STRAIGHT COUNTERWEIGHT LEVERS AND STANDS	List Price.
06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for end of 13635.....	.02 .....
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ ", for 11388.....	.09 .....
042	COTTER PIN, $\frac{3}{8}$ " x 1", for 947. (per 100).....	.80 .....
049	COTTER PIN, $\frac{1}{4}$ " x 3", for fixing Pins 13587 and 13588 to Stands 11649 and 11650, (per 100).....	.80 .....
0673	BOLT AND NUT, $\frac{3}{4}$ " x $5\frac{3}{4}$ ", for fixing 11649 to 11651 and 11650 to 11651.....	.14 .....
947	PIN, $\frac{5}{8}$ " x $1\frac{3}{4}$ ", for 12142.....	.12 .....
11388	COUNTERWEIGHT, 16 Lbs. Casting only.....	1.06 .....
11649	1 Way Counterweight Lever BEARING CLAMP, for $5\frac{9}{16}$ " O. D. Iron Pole.....	1.88 .....
11650	2 Way, Counterweight Lever BEARING CLAMP, for $5\frac{9}{16}$ " O. D. Iron Pole.....	2.08 .....
11651	Back HALF CLAMP for $5\frac{9}{16}$ " O. D. Iron Pole.....	.84 .....
12142	$\frac{5}{8}$ " MALLEABLE SHACKLE.....	.05 .....
13587	PIN, 1" x $5\frac{3}{8}$ ", for 11649.....	.18 .....
13588	PIN, 1" x $7\frac{3}{16}$ ", for 11650.....	.22 .....
13634	1 Way Straight COUNTERWEIGHT LEVER AND CLAMP, COM- PLETE as shown for $5\frac{9}{16}$ " O. D. Iron Pole.....	6.84 .....
13635	STRAIGHT COUNTERWEIGHT LEVER, only.....	1.80 .....
13636	2 Way, Straight COUNTERWEIGHT LEVER AND CLAMP, COM- PLETE as shown for $5\frac{9}{16}$ " O. D. Iron Pole.....	10.60 .....
14802	"L" COUNTERWEIGHT LEVER only.....	2.70 .....

NOTE.—The above Stands and Levers are drilled for 1" Pins

Order by NUMBER and NAME Appearing in Large Type

## STRAIGHT COUNTERWEIGHT LEVERS AND STANDS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

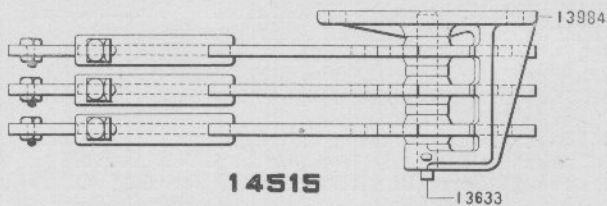


Order No.	STRAIGHT COUNTERWEIGHT LEVERS AND STANDS	List Price.
06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for end of 13635.....	.02
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ ", for 11388.....	.09
042	COTTER PIN, $\frac{3}{16}$ " x 1", for 947, (per 100).....	.80
049	COTTER PIN, $\frac{1}{4}$ " x 3", for fixing 13589 to 11673, (per 100).....	.80
0673	BOLT AND NUT, $\frac{3}{4}$ " x $5\frac{3}{4}$ ", for fixing 11651 to 11673.....	.14
947	PIN, $\frac{3}{8}$ " x $1\frac{3}{4}$ ", for 12142.....	.12
11388	COUNTERWEIGHT, 16 Lbs. Casting only.....	1.06
11651	Back HALF CLAMP for $5\frac{9}{16}$ " O. D. Iron Pole.....	.84
11673	3 Way, Counterweight Lever BEARING CLAMP for $5\frac{9}{16}$ " O. D. Iron Pole.....	2.40
12142	$\frac{5}{8}$ " MALLEABLE SHACKLE.....	.05
13589	PIN, 1" x $9\frac{3}{4}$ ", for 11673.....	.26
13635	Straight COUNTERWEIGHT LEVER only.....	1.80
13638	3 Way, STRAIGHT COUNTERWEIGHT LEVER AND CLAMP COMPLETE as shown, for $5\frac{9}{16}$ " O. D. Iron Pole.....	14.50
14802	"L" COUNTERWEIGHT LEVER only.....	2.70

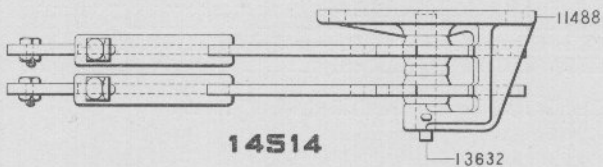
NOTE—The above Stands and Levers are drilled for 1" Pins.

Order by NUMBER and NAME Appearing in Large Type

“T” COUNTERWEIGHT LEVERS AND STANDS



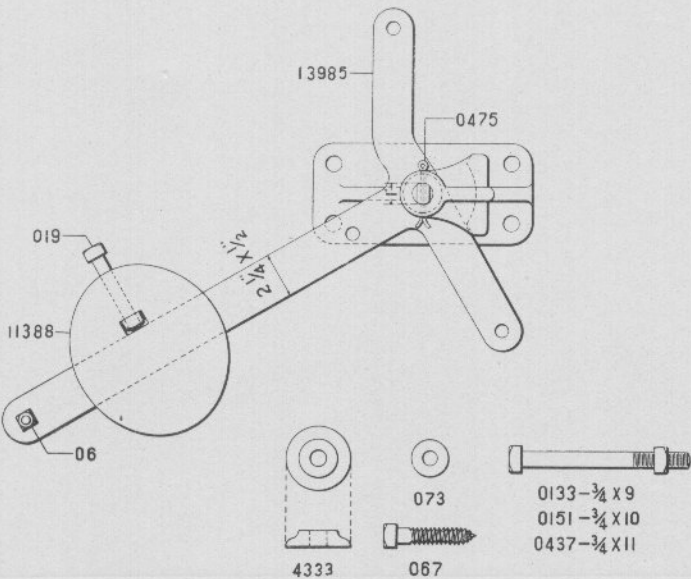
**14515**



**14514**



**14513**



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order  
No.

"T" COUNTERWEIGHT LEVERS AND STANDS

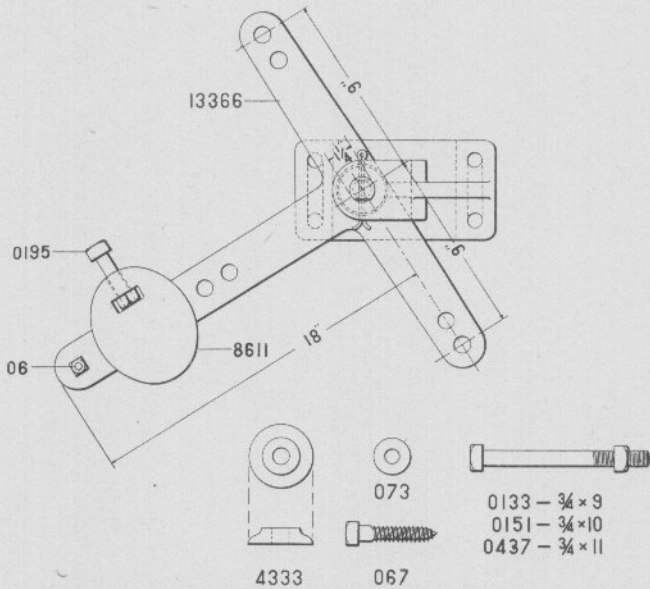
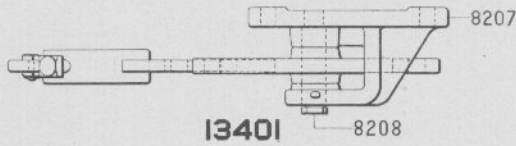
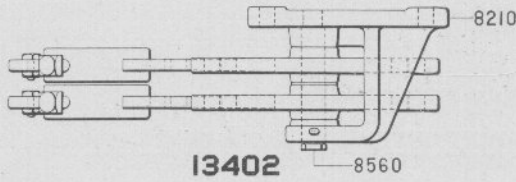
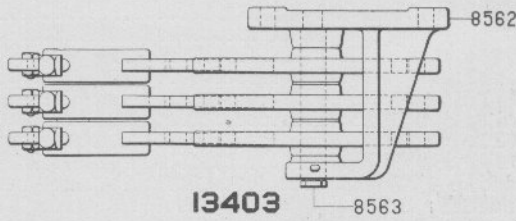
List Price.

06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for end of 13985.	.02
019	BOLT AND NUT, $\frac{5}{8}$ " x 4 $\frac{1}{2}$ ", for 11888.	.09
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
0475	COTTER PIN, $\frac{7}{8}$ " x 3" (per 100).	.80
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.	.08
11388	COUNTERWEIGHT, 16 Lbs., Casting only.	1.06
11487	1 Way Counterweight Lever STAND, Casting only.	1.52
11488	2 Way Counterweight Lever STAND, Casting only.	1.65
13631	PIN, 1" x 4", for 11487.	.14
13632	PIN, 1" x 6", for 11488.	.18
13633	PIN, 1" x 8", for 13984.	.22
13984	3 Way Counterweight Lever STAND, Casting only.	1.92
13985	"T" COUNTERWEIGHT LEVER only.	2.50
14513	1 Way "T" COUNTERWEIGHT LEVER COMPLETE.	5.60
14514	2 Way "T" COUNTERWEIGHT LEVER COMPLETE.	9.70
14515	3 Way "T" COUNTERWEIGHT LEVER COMPLETE.	14.00

NOTE.—The above Stands and Levers are drilled for 1" Pins.

Order by NUMBER and NAME Appearing in Large Type

"T" COUNTERWEIGHT LEVERS AND STANDS—CONTINUED



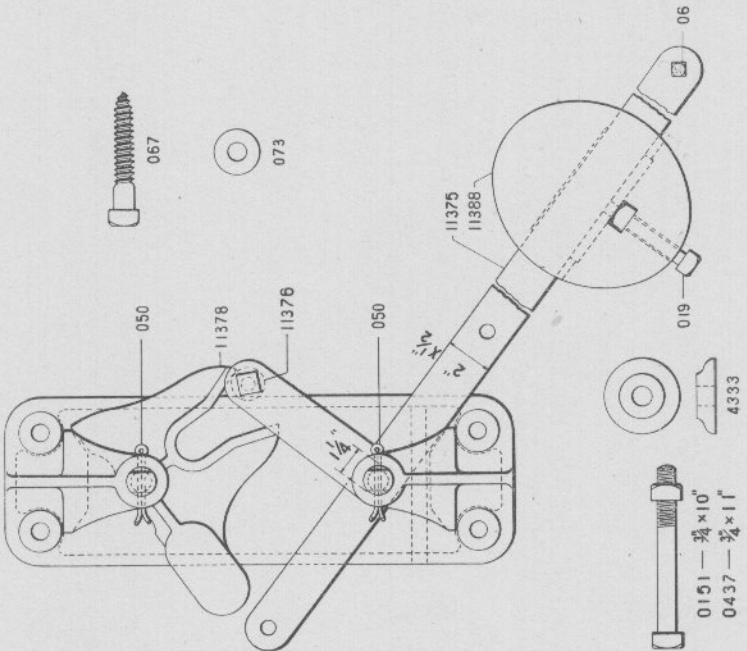
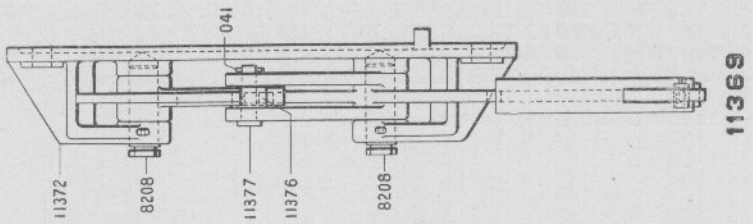
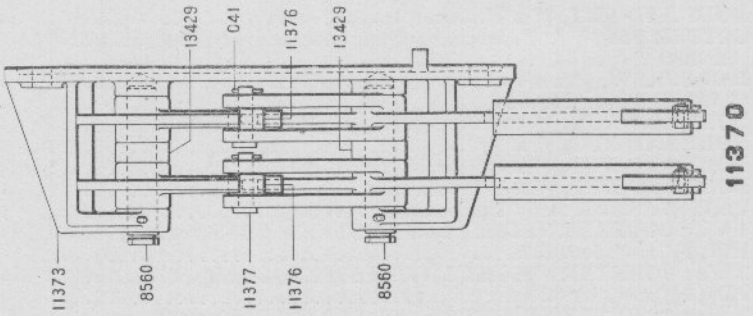
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	"T" COUNTERWEIGHT LEVERS AND STANDS—CONTINUED	List Price.
06	BOLT AND NUT, $\frac{3}{8}$ " x 1"	.02
050	COTTER PIN, $\frac{1}{4}$ " x 4", for fixing 820S, 8560 and 8563 to 8207, 8210 and 8562, (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0195	BOLT AND NUT, $\frac{3}{4}$ " x 3", for 8611	.07
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
8207	1 Way COUNTERWEIGHT LEVER STAND, Casting only	1.20
8208	PIN, $1\frac{1}{4}$ " x 4", for 8207	.22
8210	2 Way COUNTERWEIGHT LEVER STAND, Casting only	1.48
8560	PIN, $1\frac{1}{4}$ " x 6", for 8210	.27
8562	3 Way COUNTERWEIGHT LEVER STAND, Casting only	1.60
8563	PIN, $1\frac{1}{4}$ " x 8", for 8562	.34
8611	COUNTERWEIGHT, Casting only	.70
13366	"T" COUNTERWEIGHT LEVER only	2.90
13401	1 Way "T" COUNTERWEIGHT LEVER COMPLETE as shown	5.30
13402	2 Way "T" COUNTERWEIGHT LEVER COMPLETE as shown	9.40
13403	3 Way "T" COUNTERWEIGHT LEVER COMPLETE as shown	13.40

NOTE.—The above Stands and Levers are drilled for  $1\frac{1}{4}$ " Pins.

Order by NUMBER and NAME Appearing in Large Type

SIGNAL MOVEMENTS

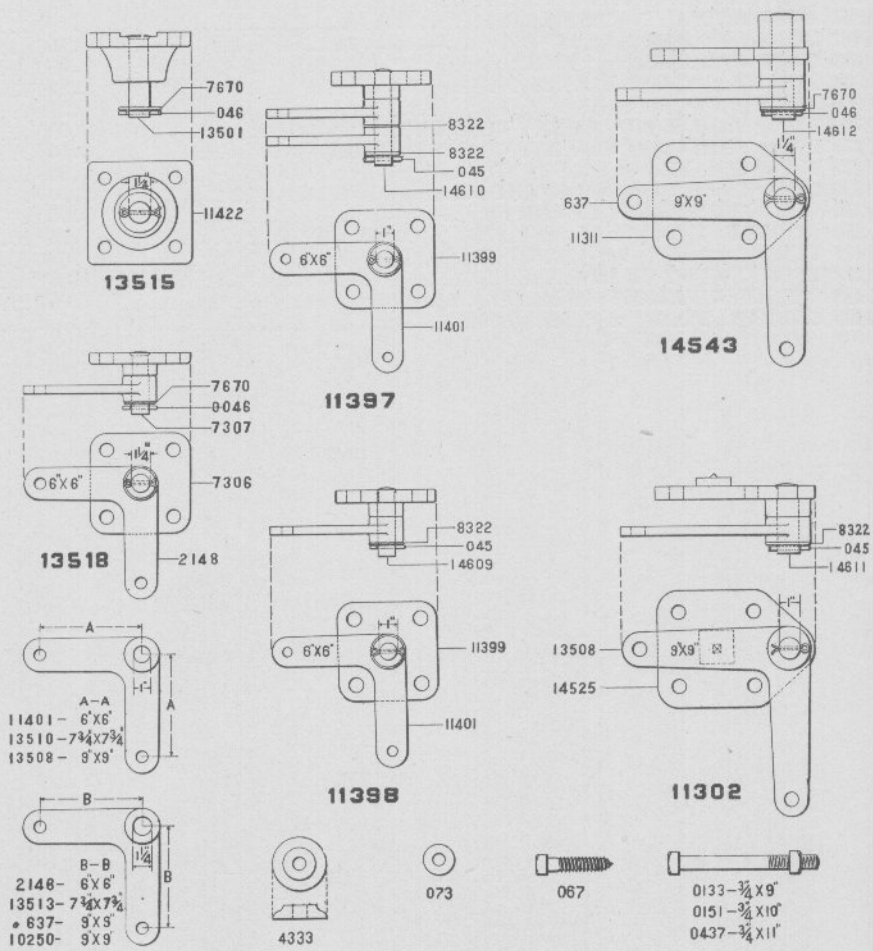


Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	SIGNAL MOVEMENTS	List Price.
06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for 11375.....	.02 .....
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ " for 11388.....	.09 .....
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " for 11377, (per 100).....	.80 .....
050	COTTER PIN, $\frac{1}{4}$ " x 4" for fixing 8208 and 8560 to 11372 and 11373, (per 100).....	.80 .....
067	LAG SCREW $\frac{3}{4}$ " x 4".....	.07 .....
073	$\frac{3}{4}$ " WASHER.....	.02 .....
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16 .....
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11".....	.19 .....
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08 .....
8208	PIN, $1\frac{1}{4}$ " x 4", for 11372.....	.22 .....
8560	PIN, $1\frac{1}{4}$ " x 6", for 11373.....	.27 .....
11369	1 Way SIGNAL MOVEMENT COMPLETE.....	9.00 .....
11370	2 Way SIGNAL MOVEMENT COMPLETE.....	15.50 .....
11372	1 Way Signal Movement STAND, Casting only.....	2.90 .....
11373	2 Way Signal Movement STAND, Casting only.....	3.30 .....
11375	COUNTERWEIGHT LEVER only.....	3.60 .....
11376	ROLLER, $1\frac{1}{4}$ " x $\frac{3}{4}$ " x $\frac{5}{8}$ ", for 11375.....	.16 .....
11377	PIN, $\frac{5}{8}$ " x $1\frac{1}{2}$ " for 11375.....	.08 .....
11378	ESCAPEMENT CRANK.....	.84 .....
11388	COUNTERWEIGHT, 16 lbs., Casting only.....	1.06 .....
13429	COLLAR, 2" x $1\frac{1}{4}$ " x $\frac{3}{4}$ ", for 11370.....	.....

Order by NUMBER and NAME Appearing in Large Type

CRANK AND PIN PLATES



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



Order  
No.

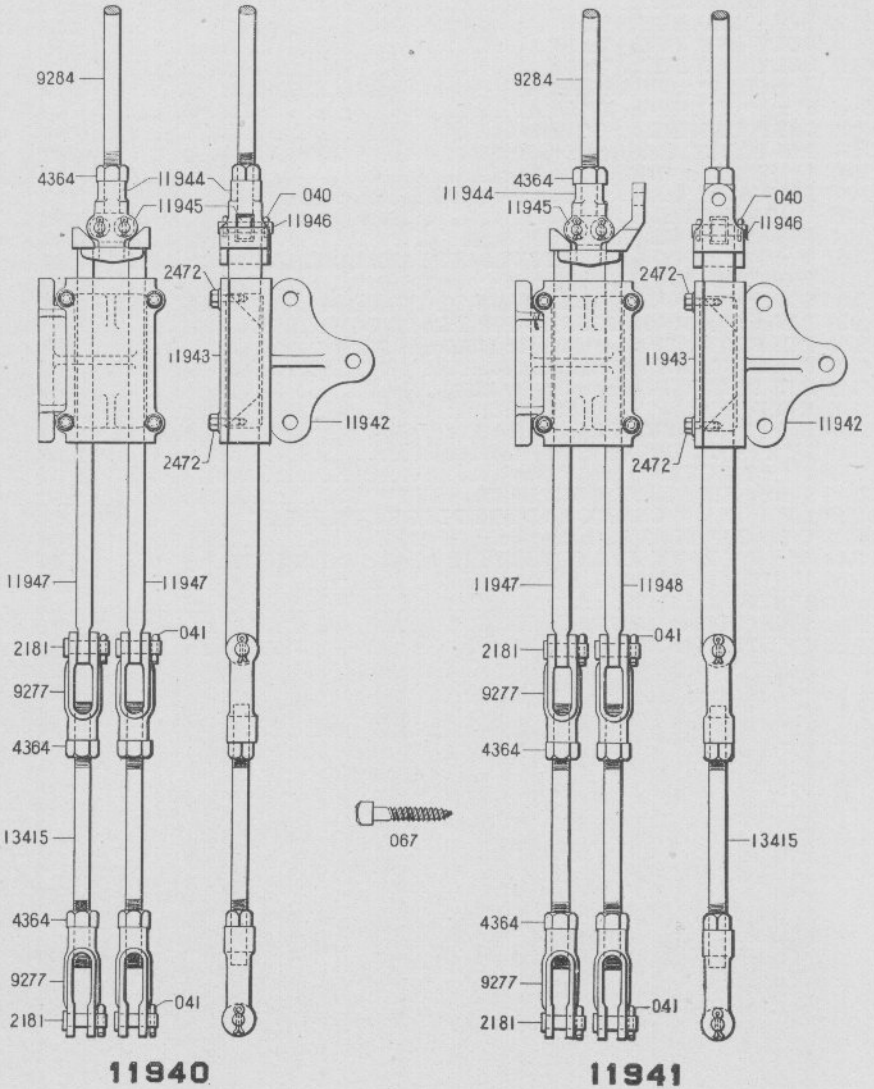
## CRANK AND PIN PLATES

List Price

045	COTTER Pin, $\frac{3}{8}$ " x $1\frac{3}{4}$ ", (per 100)	.80
046	COTTER Pin, $\frac{3}{8}$ " x 2", (per 100)	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9"	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10"	.16
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11"	.19
637	Standard 9" x 9" CRANK for $1\frac{1}{4}$ " Stud	1.12
2148	6" x 6" CRANK for $1\frac{1}{4}$ " Stud	.90
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
7306	PIN PLATE, Casting only, for 13518	.52
7307	$1\frac{1}{4}$ " STUD for 7306	.18
7670	$1\frac{1}{4}$ " WASHER	.02
8322	1" WASHER	.02
10250	Light 9" x 9" CRANK for $1\frac{1}{4}$ " Stud	1.08
11302	9" x 9" CRANK AND OFFSET PIN PLATE COMPLETE	1.84
11311	Offset PIN PLATE, Casting only, for 14543	1.00
11397	2 Way 6" x 6" CRANK AND PIN PLATE COMPLETE	2.50
11398	1 Way 6" x 6" CRANK AND PIN PLATE COMPLETE	1.60
11399	PIN PLATE, Casting only, for 11397 and 11398	.52
11401	6" x 6" CRANK for 1" Stud	.90
11422	PIN PLATE, Casting only, for 13515	.64
13501	STUD $1\frac{1}{4}$ " x $4\frac{1}{8}$ " for 11422	.21
13508	Light 9" x 9" CRANK for 1" Stud	1.08
13510	$7\frac{1}{4}$ " x $7\frac{1}{4}$ " CRANK for 1" Stud	1.00
13513	$7\frac{1}{4}$ " x $7\frac{1}{4}$ " CRANK for $1\frac{1}{4}$ " Stud	1.00
13515	Heavy PIN PLATE COMPLETE, with $1\frac{1}{4}$ " Stud	.90
13518	1 Way 6" x 6" CRANK AND PIN PLATE COMPLETE	1.64
14525	Offset PIN PLATE, Casting only, for 11302	.60
14543	9" x 9" CRANK AND OFFSET PIN PLATE COMPLETE	2.40
14609	1" STUD for 11398	.12
14610	1" STUD for 11397	.17
14611	$1\frac{1}{4}$ " STUD for 14525	
14612	$1\frac{1}{4}$ " STUD for 11311	.26

Order by NUMBER and NAME Appearing in Large Type

MECHANICAL SIGNAL SLOTS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

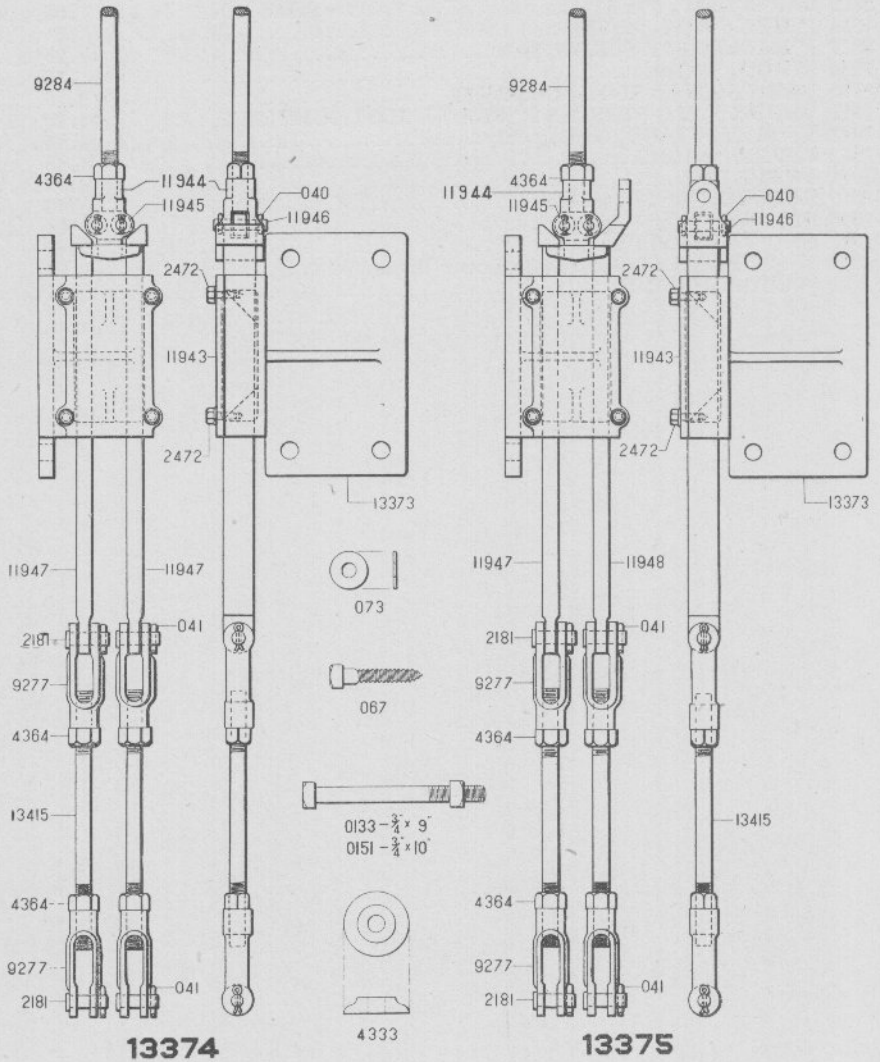
# HIGH SIGNALS

293

Order No.	MECHANICAL SIGNAL SLOTS	List Price.
040	COTTER PIN, $\frac{1}{8}$ " x 1", for 11946, (per100).....	.80
041	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for 2181, (per100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
2181	PIN, $\frac{5}{8}$ " x $1\frac{5}{8}$ " for 9277.....	.07
2472	CAP SCREW, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for fixing Cover 11943 to Stand 11942.....	.05
4364	$\frac{3}{4}$ " HEX; NUT, for 9284 and 13415.....	.04
9277	$\frac{3}{4}$ " MALLEABLE SCREW JAW.....	.26
9284	$\frac{3}{4}$ " ROD, for 11944.....	.16
11940	1 ARM SIGNAL SLOT COMPLETE.....	12.90
11941	"HOME" AND "DISTANT" SIGNAL SLOT COMPLETE.....	14.40
11942	Signal Slot STAND, Casting only.....	1.40
11943	COVER for 11942.....	.48
11944	SWING JAW.....	.72
11945	ROLLER, $\frac{5}{8}$ " x $1\frac{1}{8}$ ", for 11944.....	.48
11946	PIN, $\frac{1}{2}$ " x 2", for 11944.....	.04
11947	No. 1 VERTICAL SLIDE.....	2.40
11948	No. 2 VERTICAL SLIDE, for Lower Distant Slot.....	3.84
13415	$\frac{3}{4}$ " COUPLING ROD.....	.72

Order by NUMBER and NAME Appearing in Large Type

MECHANICAL SIGNAL SLOTS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order  
No.

MECHANICAL SIGNAL SLOTS — CONTINUED

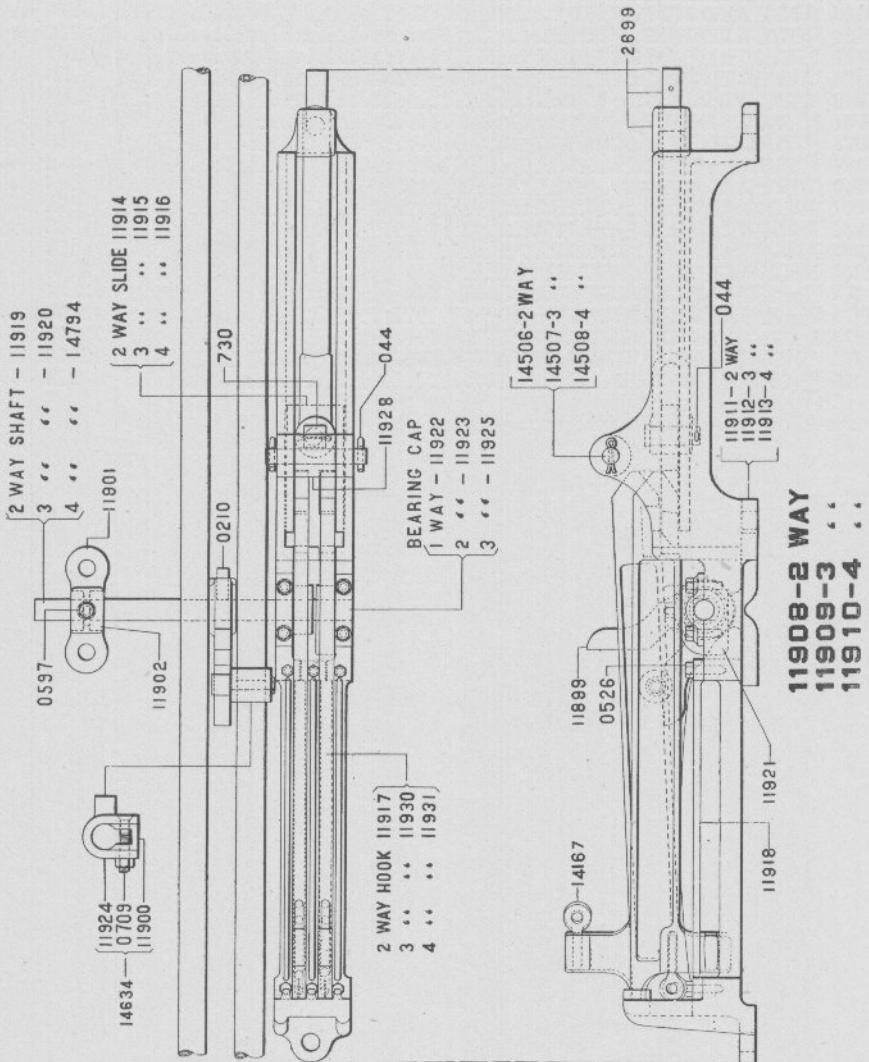
List Price.

040	COTTER PIN, $\frac{1}{8}$ " x 1", (per 100).....	.80	.....
041	COTTER PIN, $\frac{3}{8}$ " x 1 $\frac{1}{4}$ ", (per 100).....	.80	.....
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07	.....
073	$\frac{3}{4}$ " WASHER.....	.02	.....
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16	.....
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16	.....
2151	PIN, $\frac{5}{8}$ " x 1 $\frac{3}{8}$ " for 9277.....	.07	.....
2472	CAP SCREW, $\frac{3}{8}$ " x 1 $\frac{1}{4}$ ", for fixing Cover 11943 to Stand 13373.....	.05	.....
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08	.....
4364	" HEX. NUT, for 9284 and 13415.....	.04	.....
9277	" MALLEABLE SCREW JAW.....	.26	.....
9284	" ROD for 11944.....	.16	.....
11943	COVER for 13373.....	.48	.....
11944	SWING JAW.....	.72	.....
11945	ROLLER, $\frac{3}{8}$ " x 1 $\frac{1}{4}$ ", for 11944.....	.48	.....
11946	PIN, $\frac{1}{2}$ " x 2", for 11944.....	.04	.....
11947	No. 1 VERTICAL SLIDE.....	2.40	.....
11948	No. 2 VERTICAL SLIDE for Lower Distant Slot.....	3.84	.....
13373	Signal Slot STAND, Casting only.....	1.90	.....
13374	1 ARM SIGNAL SLOT COMPLETE.....	13.20	.....
13375	"HOME" AND "DISTANT" SIGNAL SLOT COMPLETE.....	15.70	.....
13415	$\frac{3}{4}$ " COUPLING ROD.....	.72	.....

NOTE.—For Iron Pole Clamps, see page 270.

Order by NUMBER and NAME Appearing in Large Type

SELECTORS. WIRE CONNECTED

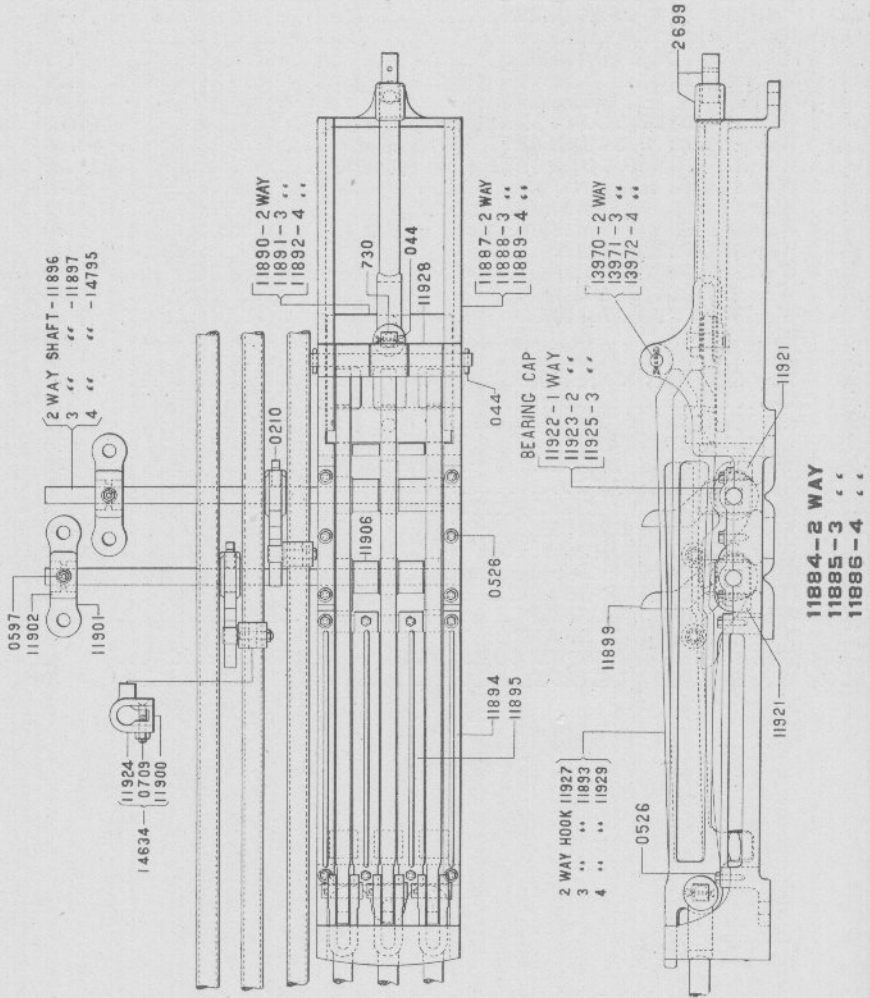


Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	SELECTORS. WIRE CONNECTED	List Price.
044	COTTER PIN, $\frac{3}{8}$ " x $1\frac{1}{2}$ " (per 100).....	.80
0210	SET SCREW, $\frac{1}{2}$ " x 1".....	.04
0526	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{2}$ ".....	.02
0597	TAP BOLT, $\frac{3}{8}$ " x 1".....	.02
0709	BOLT AND NUT, $\frac{1}{2}$ " x $2\frac{1}{2}$ " Special.....	.04
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ".....	.07
2699	1 $\frac{1}{2}$ " SOLID JAW COMPLETE.....	1.08
11899	ESCAPEMENT CRANK.....	.52
11900	FILLING BLOCK for 11924.....	.12
11901	END BEARING.....	.70
11902	BUSHING for End Bearing.....	.44
11908	2 Way SELECTOR COMPLETE Wire connected.....	16.00
11909	3 Way SELECTOR COMPLETE Wire connected.....	22.00
11910	4 Way SELECTOR COMPLETE Wire connected.....	28.00
11911	2 Way STAND only for 11908.....	4.60
11912	3 Way STAND only for 11909.....	5.12
11913	4 Way STAND only for 11910.....	5.50
11914	2 Way SELECTOR SLIDE.....	.48
11915	3 Way SELECTOR SLIDE.....	.64
11916	4 Way SELECTOR SLIDE.....	.80
11917	2 Way SELECTOR HOOK.....	1.80
11918	GUIDE BAR.....	.28
11919	2 Way SELECTOR SHAFT.....	1.28
11920	3 Way SELECTOR SHAFT.....	1.36
11921	CAM.....	.12
11922	No. 1 BEARING CAP.....	.12
11923	No. 2 BEARING CAP.....	.16
11924	Trunnion CLAMP STUD.....	.16
11925	No. 3 BEARING CAP.....	.16
11928	Top ROLLER $1\frac{7}{8}$ " x 2".....	.24
11930	3 Way SELECTOR HOOK.....	1.80
11931	4 Way SELECTOR HOOK.....	1.80
14167	WROUGHT EYE for Selector Hook.....	.14
14506	2 Way Top ROLLER SHAFT.....	.16
14507	3 Way Top ROLLER SHAFT.....	.18
14508	4 Way Top ROLLER SHAFT.....	.32
14634	TRUNNION CLAMP STUD COMPLETE.....	1.40
14794	4 Way SELECTOR SHAFT.....	

Order by NUMBER and NAME Appearing in Large Type

SELECTORS. PIPE CONNECTED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



# HIGH SIGNALS

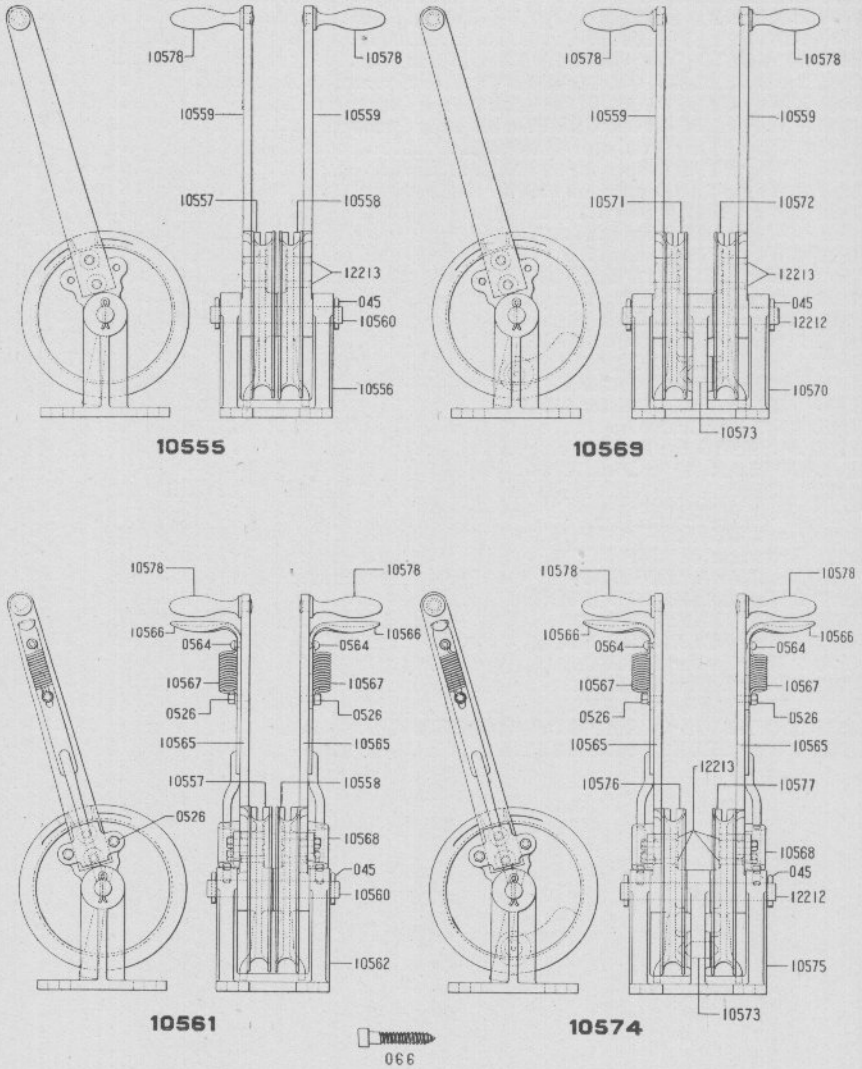
299

Order No.	SELECTORS. PIPE CONNECTED	List Price.
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", (per 100)	.80
0210	SET SCREW, $\frac{1}{4}$ " x 1"	.04
0526	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{2}$ "	.02
0597	TAP BOLT, $\frac{3}{8}$ " x 1"	.02
0709	BOLT AND NUT, $\frac{1}{2}$ " x $2\frac{1}{2}$ " (Special)	.04
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ "	.07
2699	$1\frac{1}{4}$ " SOLID JAW COMPLETE	1.08
11884	2 Way SELECTOR COMPLETE Pipe Connected	17.00
11885	3 Way SELECTOR COMPLETE Pipe Connected	28.50
11886	4 Way SELECTOR COMPLETE Pipe Connected	35.00
11887	2 Way STAND only for 11884	5.20
11888	3 Way STAND only for 11885	6.88
11889	4 Way STAND only for 11886	8.04
11890	2 Way SLIDE only	.60
11891	3 Way SLIDE only	1.04
11892	4 Way SLIDE only	1.44
11893	3 Way SELECTOR HOOK	1.48
11894	Side GUIDE BAR	.40
11895	Center GUIDE BAR	.44
11896	2 Way SELECTOR SHAFT	1.28
11897	3 Way SELECTOR SHAFT	1.36
11899	ESCAPEMENT CRANK	.52
11900	FILLING BLOCK for 11924	.12
11901	END BEARING	.70
11902	BUSHING for End Bearing	.44
11906	COLLAR, $1\frac{1}{4}$ " x 2"	.12
11921	CAM	.12
11922	No. 1 BEARING CAP	.12
11923	No. 2 BEARING CAP	.16
11924	Trunnion CLAMP STUD	.16
11925	No. 3 BEARING CAP	.16
11927	2 Way SELECTOR HOOK	1.40
11928	Top ROLLER, $1\frac{1}{2}$ " x 2"	.24
11929	4 Way SELECTOR HOOK	1.60
13970	2 Way Roller SHAFT	.14
13971	3 Way Roller SHAFT	.16
13972	4 Way Roller SHAFT	.18
14634	TRUNNION CLAMP STUD COMPLETE	.32
14795	4 Way SELECTOR SHAFT	1.40

Order by NUMBER and NAME Appearing in Large Type

BLOCK STATION SIGNAL LEVERS

TABLE LEVERS AND FITTINGS



Numbers Appearing on Castings are Not Order Numbers See pages 464 to 477

# BLOCK STATION SIGNAL LEVERS

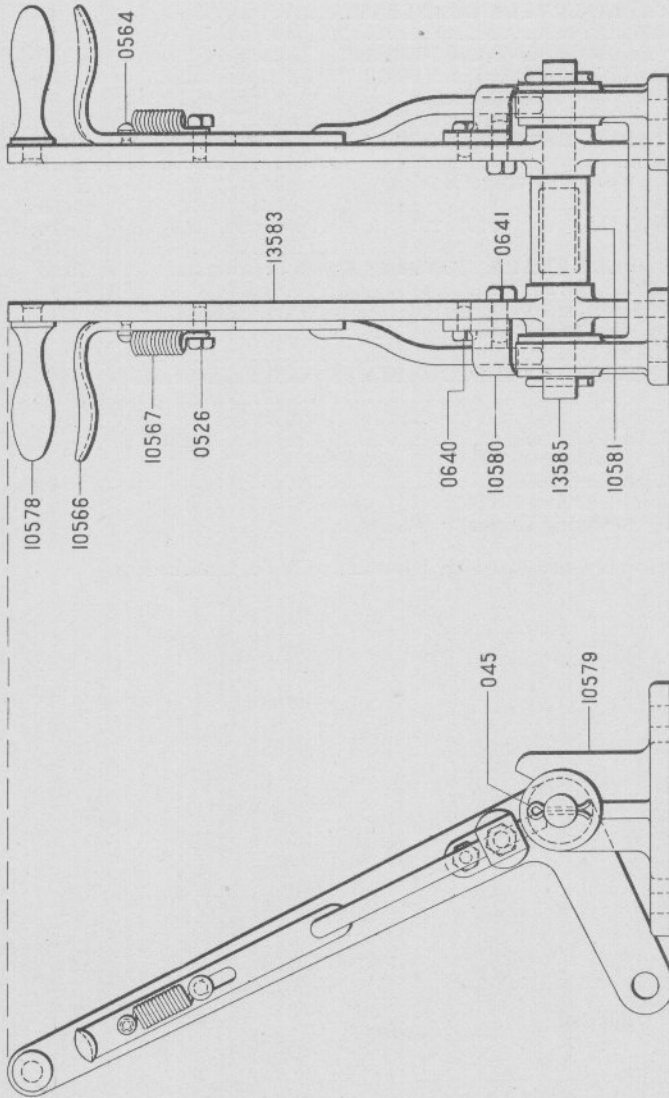
301

Order No.	TABLE LEVERS AND FITTINGS	List Price.
045	COTTER PIN, $\frac{3}{4}$ " x $1\frac{3}{4}$ ", for 10560 and 12212, (per 100).....	.80
066	LAG SCREW, $\frac{5}{8}$ " x 3".....	.05
0526	CAP SCREW, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for fixing one end of 10567 to 10565.....	.02
0564	RIVET, $\frac{1}{4}$ " x $\frac{1}{2}$ ", for fixing one end of 10567 to 10566.....	.02
10555	STYLE "A" TABLE LEVERS COMPLETE.....	7.40
10556	STAND for 10555.....	
10557	WHEEL (Left Hand) for 10555 and 10561.....	1.50
10558	WHEEL (Right Hand) for 10555 and 10561.....	1.50
10559	LEVER only, for 10555 and 10569.....	1.00
10560	PIN, 1" x $7\frac{1}{2}$ ", for 10555 and 10561.....	
10561	STYLE "B" TABLE LEVERS COMPLETE, with Latch Handles.....	10.60
10562	STAND for 10561.....	1.70
10565	LEVER only for 10561 and 10574.....	
10566	LATCH HANDLE.....	.60
10567	LATCH SPRING.....	.16
10568	LATCH SHOE.....	.40
10569	STYLE "C" TABLE LEVERS, COMPLETE with Locking.....	9.50
10570	STAND for 10569.....	
10571	WHEEL (Left Hand) for 10569.....	
10572	WHEEL (Right Hand) for 10569.....	
10573	LOCKING BOLT.....	
10574	STYLE "D" TABLE LEVERS, COMPLETE with Latch Handles and Locking.....	13.00
10575	STAND for 10574.....	
10576	WHEEL (Left Hand) for 10574.....	
10577	WHEEL (Right Hand) for 10574.....	
10578	HANDLE for 10559 and 10565.....	.44
12212	PIN, 1" x $9\frac{1}{4}$ " for 10569 and 10574.....	
12213	RIVET, $\frac{3}{8}$ " x $1\frac{3}{4}$ " for fixing Levers to Wheels.....	

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

TABLE LEVERS AND FITTINGS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# BLOCK STATION SIGNAL LEVERS

303

Order  
No.

## TABLE LEVERS AND FITTINGS—CONTINUED

List Price.

045 COTTER PIN, $\frac{3}{8}$ " x $1\frac{3}{4}$ ", for 13585, (per 100) .....	.80	
066 LAG SCREW, $\frac{5}{8}$ " x 3" .....	.05	
0526 TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for fixing one end of 10567 to 13583.....	.02	
0564 RIVET, $\frac{1}{4}$ " x $\frac{1}{2}$ ", Rd. Hd. for fixing one end of 10567 to 10566.....	.02	
0640 TAP BOLT, $\frac{3}{8}$ " x $\frac{7}{8}$ ", for fixing 10580 to 13583.....	.02	
0641 TAP BOLT, $\frac{1}{2}$ " x $1\frac{1}{4}$ ", for fixing 10580 to 13583.....	.01	
10566 LATCH HANDLE .....	.60	
10567 LATCH SPRING .....	.16	
10578 LEVER HANDLE for 13583.....	.44	
10579 STAND only for 10910.....	1.80	
10580 LATCH GUIDE for 10566.....	.40	
10581 COLLAR, $1\frac{3}{4}$ " x $3\frac{1}{4}$ "-1" Hole for 13583-5.....	.20	
10910 TABLE LEVERS <b>COMPLETE</b> , for Pipe Connections.....	10.00	
13583 LEVER only.....	2.00	
13585 PIN, 1" x $10\frac{1}{4}$ ", for Lever Centers.....	.24	

Order by NUMBER and NAME Appearing in Large Type

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## DWARF SIGNALS

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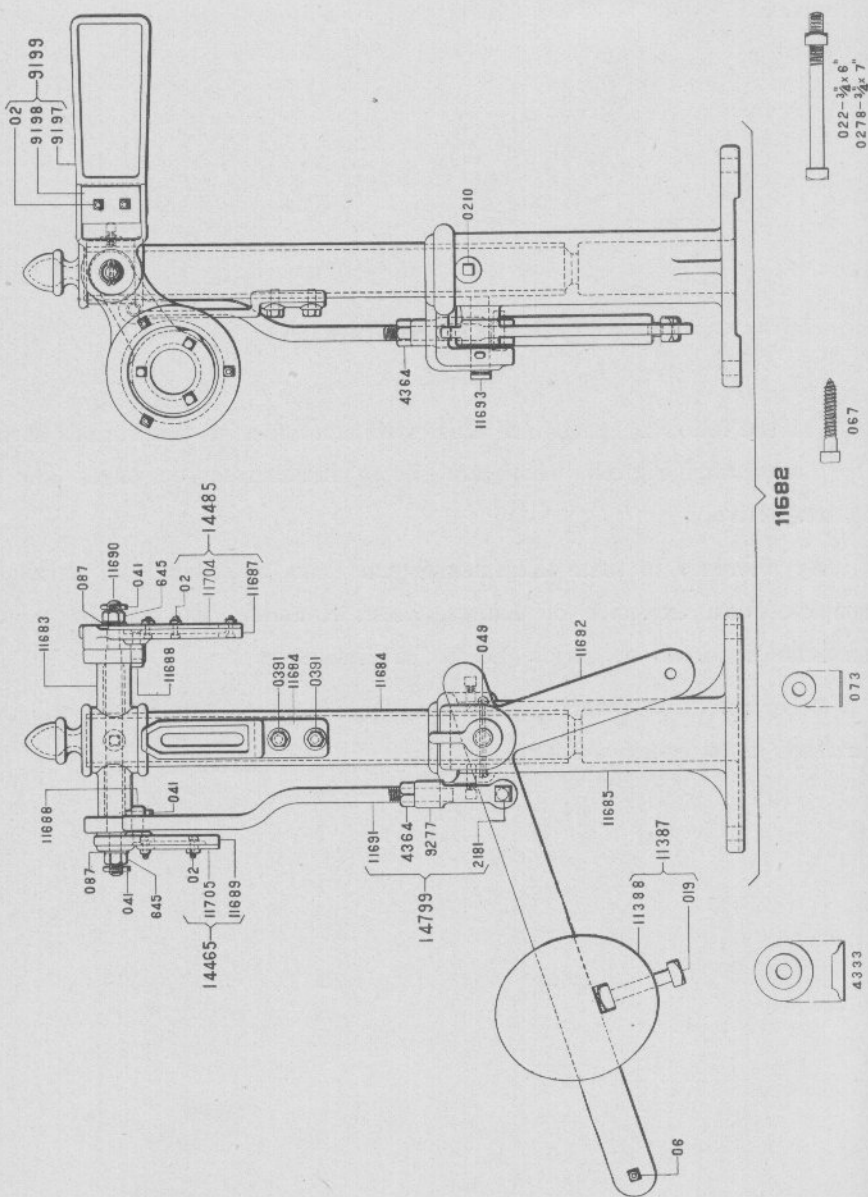
ON the following pages are illustrated a number of the various styles of Dwarf Signals, which are shown in diagrams on pages 306 to 333 respectively.

By reference to these diagrams Signals can be ordered in detail or complete form exclusive of Lamps, Glass, Roundels, Etc., all of which are listed in detail on pages 348 to 351 inclusive.

Other styles of Dwarf Signals not shown in this catalogue will be furnished upon specifications.

DWARF SIGNALS

ONE ARM 60 DEGREE DWARF SIGNAL



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



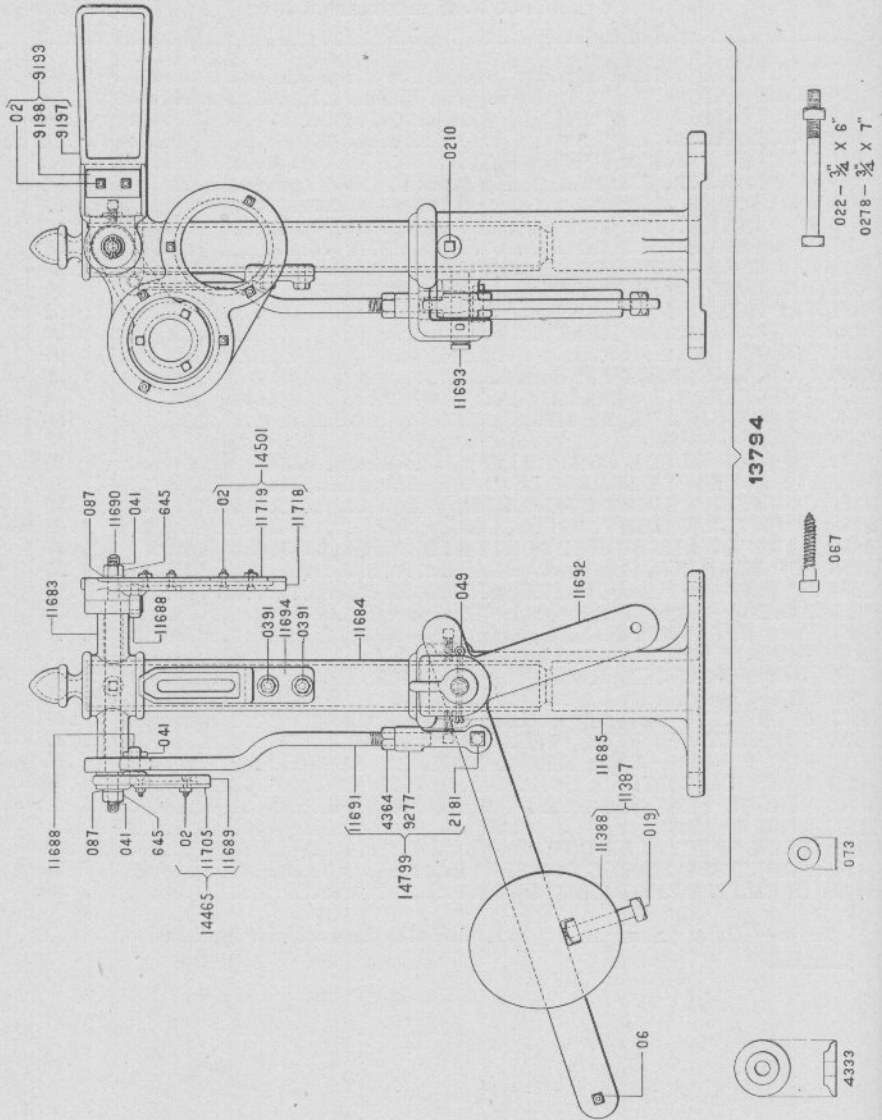
NOTE :—Lamps, Glass and Roundels are not included with Complete Signal, and should be ordered separately, if desired. For Lamps, see page 350 : for Glass or Roundels, see page 348.

Order No.	ONE ARM 60 DEGREE DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x $1\frac{1}{2}$ " for fixing Rings to Spectacles.....	.02
06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for Stop on 11692.....	.02
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ ", for 11388.....	.09
022	BOLT AND NUT, $\frac{3}{4}$ " x 6".....	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", (per 100).....	.80
049	COTTER PIN, $\frac{1}{4}$ " x 3", for fixing 11693 to 11685, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
087	$\frac{5}{8}$ " WASHER, for 11690.....	.01
0210	SET SCREW, $\frac{1}{2}$ " x 1" for fixing 11684 to 11685.....	.04
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14
0391	TAP BOLT, $\frac{1}{2}$ " x 1", for fixing 11694 to 11684.....	.02
645	$\frac{5}{8}$ " HEX. NUT, for 11690.....	.03
2181	PIN, $\frac{5}{8}$ " x $1\frac{5}{8}$ ".....	.07
4333	CAST WASHER, for $\frac{3}{4}$ " Bolts.....	.08
4364	$\frac{3}{8}$ " HEX. NUT, for 11691.....	.04
9197	RUBBER BLADE, for 9199.....	.60
9198	PLATE for 9199.....	.07
9199	RUBBER BLADE COMPLETE, with Bolts and Plate.....	.70
9277	$\frac{3}{4}$ " MALLEABLE SCREW JAW.....	.26
11387	COUNTERWEIGHT COMPLETE, 16 lbs.....	1.16
11388	COUNTERWEIGHT, 16 lbs. Casting only.....	1.06
11682	1 ARM DWARF SIGNAL COMPLETE, 1 Light, 60 Degree Throw....	19.40
11683	TOP BEARING, Casting only.....	1.28
11684	2 $\frac{1}{2}$ " PIPE for 1 Arm Dwarf Signal.....	1.16
11685	BASE for 1 Arm Dwarf Signal. Casting only.....	4.50
11687	Front SPECTACLE, Casting only, for 14485.....	.88
11688	STUD, $\frac{3}{8}$ " x 2".....	.64
11689	Back SPECTACLE, Casting only, for 14465.....	.88
11690	SHAFT only.....	1.04
11691	OPERATING ROD only.....	.54
11692	COUNTERWEIGHT LEVER, $\frac{1}{2}$ " x 2".....	2.32
11693	PIN, 1" x 5", for fixing 11692 to 11685.....	.16
11694	LAMP BRACKET.....	.28
11704	RING for 11687.....	.64
11705	RING for 11689.....	.64
14465	BACK SPECTACLE COMPLETE.....	.88
14485	FRONT SPECTACLE COMPLETE.....	1.08
14799	OPERATING ROD COMPLETE.....	.88

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

ONE ARM 60 DEGREE DWARF SIGNAL



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## DWARF SIGNALS

309

NOTE :—Lamps, Glass and Roundels are not included with Complete Signal, and should be ordered separately, if desired. For Lamps, see page 350 ; for Glass or Roundels, see page 348.

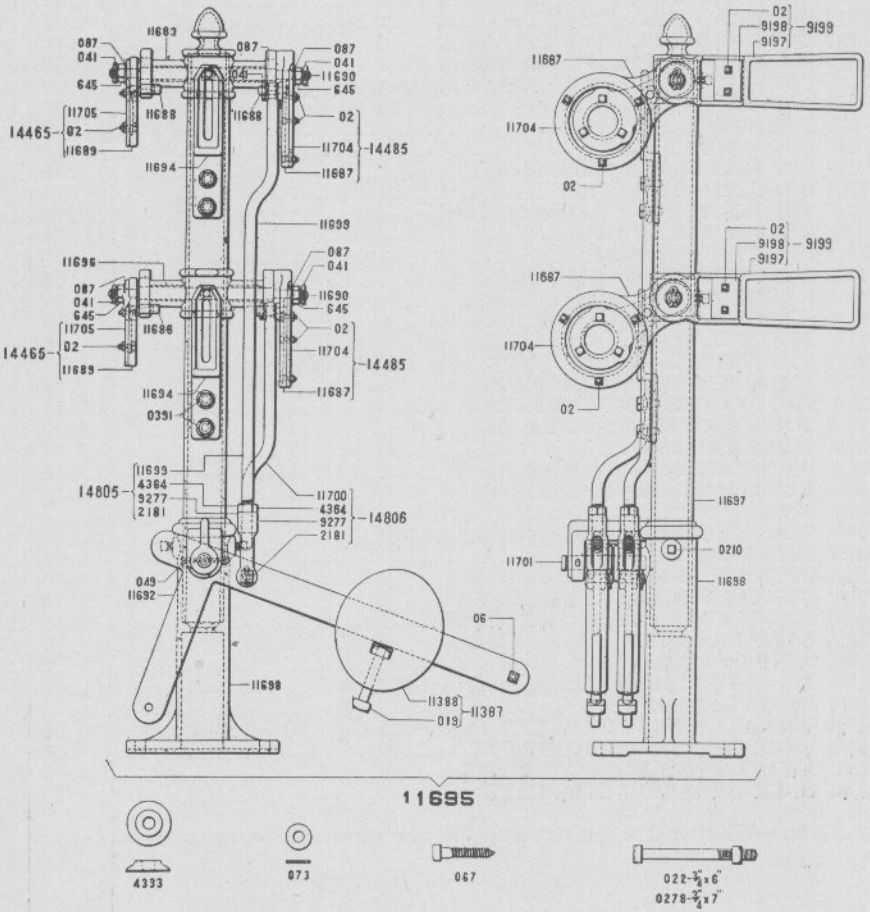
Order No.	ONE ARM 60 DEGREE DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spectacles.....	.02
06	BOLT AND NUT, $\frac{1}{4}$ " x 1" for Stop on 11692.....	.02
019	BOLT AND NUT, $\frac{1}{4}$ " x $4\frac{1}{2}$ " for 11388.....	.09
022	BOLT AND NUT, $\frac{1}{4}$ " x 6".....	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", (per 100).....	.80
049	COTTER PIN, $\frac{1}{4}$ " x 3" for fixing 11693 to 11685, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	" WASHER.....	.02
087	" WASHER for 11690.....	.01
0210	SET SCREW, $\frac{3}{8}$ " x 1", for fixing 11684 to 11685.....	.04
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14
0391	TAP BOLT, $\frac{1}{2}$ " x 1" for fixing 11694 to 11684.....	.02
645	$\frac{3}{8}$ " HEX; NUT for 11690.....	.04
2181	PIN, $\frac{5}{8}$ " x $1\frac{3}{8}$ " for 9277.....	.07
4333	CAST WASHER for $\frac{3}{8}$ " Bolts.....	.08
4364	$\frac{3}{8}$ " HEX. NUT for 11691.....	.04
9197	RUBBER BLADE for 9199.....	.60
9198	PLATE for 9199.....	.07
9199	RUBBER BLADE COMPLETE, with Bolts and Plate.....	.70
9277	$\frac{3}{4}$ " MALLEABLE SCREW JAW.....	.26
11387	COUNTERWEIGHT COMPLETE, 16 lbs.....	1.16
11388	COUNTERWEIGHT, 16 lbs., Casting only.....	1.06
11683	TOP BEARING.....	1.28
11684	WROUGHT PIPE, $2\frac{1}{2}$ " diameter, for one Arm Dwarf Signal Post.....	1.16
11685	BASE for One Arm Dwarf Signal.....	4.50
11688	STUD, $\frac{5}{8}$ " x 2".....	.16
11689	Back SPECTACLE, Casting only, for 14465.....	.28
11690	SHAFT only.....	1.04
11691	OPERATING ROD only.....	.54
11692	COUNTERWEIGHT LEVER, $\frac{1}{2}$ " x 2".....	2.32
11693	PIN, 1" x 5", for fixing 11692 to 11695.....	.16
11694	LAMP BRACKET.....	.28
11705	RING for 11689.....	.28
11718	Front SPECTACLE, Casting only, for 14501.....	.28
11719	Double RING for 11718.....	.28
13794	DWARF SIGNAL COMPLETE, One Arm, 2 Light, 60 Degree Throw... ..	20.60
14465	BACK SPECTACLE COMPLETE.....	.64
14501	FRONT SPECTACLE COMPLETE.....	1.52
14799	OPERATING ROD COMPLETE.....	.88

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

# DWARF SIGNALS

## TWO ARM 60 DEGREE DWARF SIGNAL



Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477

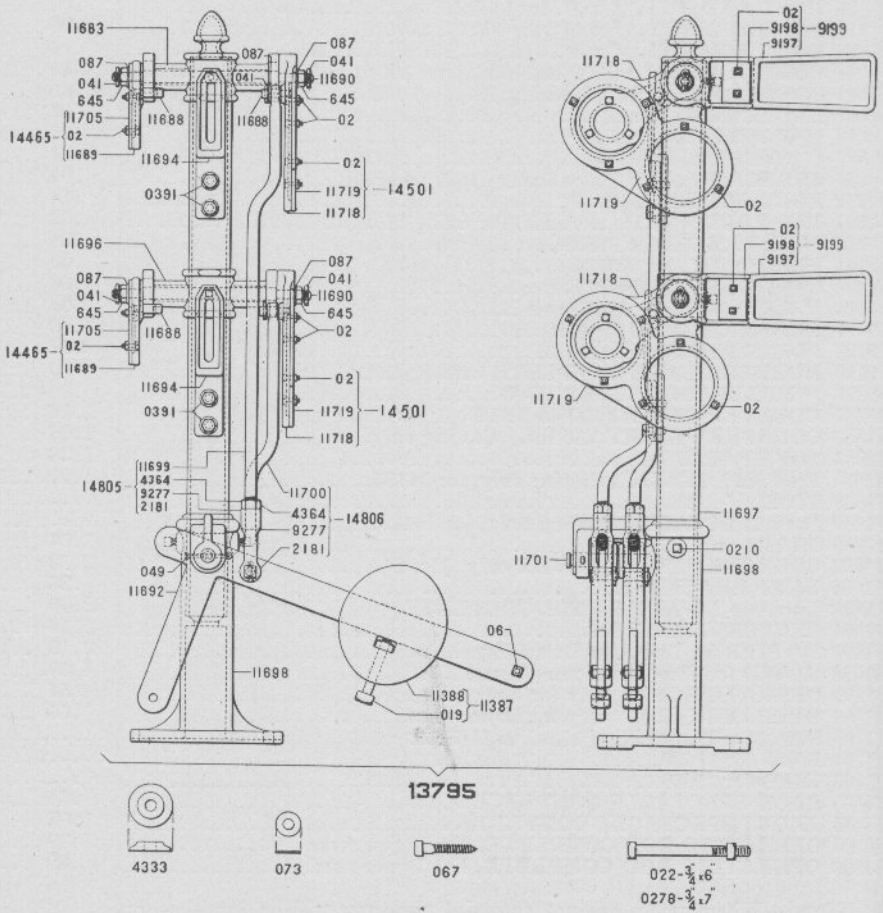
NOTE :—Lamps, Glass and Roundels are not included with Complete Signal, and should be ordered separately, if desired. For Lamps, see page 350: for Glass or Roundels see page 348.

Order No.	TWO ARM 60 DEGREE DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spectacles.....	.02
06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for 11692.....	.02
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ ", for 11388.....	.09
022	BOLT AND NUT, $\frac{3}{4}$ " x 6".....	.14
041	COTTER PIN, $\frac{1}{8}$ " x 1 $\frac{1}{2}$ ", for 11690, (per 100).....	.80
049	COTTER PIN, $\frac{1}{8}$ " x 3", for fixing 11701 to 11698, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
087	$\frac{3}{4}$ " WASHER, for 11690.....	.01
0210	SET SCREW, $\frac{1}{8}$ " x 1", for fixing 11697 to 11698.....	.04
0278	BOLT AND NUT, $\frac{3}{8}$ " x 7".....	.14
0391	TAP BOLT, $\frac{1}{2}$ " x 1", Hex. Hd. for fixing 11694 to 11697.....	.02
645	$\frac{5}{8}$ " HEX. NUT, for 11690.....	.04
2181	PIN, $\frac{5}{8}$ " x 1 $\frac{3}{8}$ ", for 9277.....	.07
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
4364	$\frac{3}{4}$ " HEX. NUT, for 11699 and 11700.....	.04
9197	RUBBER BLADE for 9199.....	.60
9198	PLATE for 9199.....	.07
9199	RUBBER BLADE COMPLETE with Bolts and Plate.....	.70
9277	$\frac{3}{4}$ " MALLEABLE SCREW JAW.....	.26
11387	COUNTERWEIGHT COMPLETE, 16 lbs.....	1.16
11388	COUNTERWEIGHT, 16 lbs. Casting only.....	1.06
11683	TOP BEARING.....	1.28
11687	Front SPECTACLE, Casting only, for 14485.....	.....
11688	STUD, $\frac{3}{8}$ " x 2".....	.....
11689	Back SPECTACLE, Casting only, for 14465.....	.....
11690	SHAFT only.....	1.04
11692	COUNTERWEIGHT LEVER only, $\frac{1}{2}$ " x 2".....	2.32
11694	LAMP BRACKET.....	.28
11695	Two Arm DWARF SIGNAL COMPLETE, 1 Light, 60 Degree Throw..	32.00
11696	CENTER BEARING.....	1.16
11697	2 $\frac{1}{2}$ " PIPE for Two Arm Dwarf Signal.....	2.10
11698	STAND for Two Arm Dwarf Signal.....	4.60
11699	OPERATING ROD only for Upper Arm.....	.54
11700	OPERATING ROD only for Lower Arm.....	.64
11701	PIN, 1" x 7", for fixing 11692 to 11698.....	.....
11704	RING for 11687.....	.....
11705	RING for 11689.....	.....
14465	BACK SPECTACLE COMPLETE.....	.64
14485	FRONT SPECTACLE COMPLETE.....	1.08
14805	OPERATING ROD COMPLETE, For Upper Arm.....	1.00
14806	OPERATING ROD COMPLETE, For Lower Arm.....	.88

NOTE.—Where prices are not extended the same will be furnished on application.

DWARF SIGNALS

TWO ARM 60 DEGREE DWARF SIGNAL



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## DWARF SIGNALS

313

NOTE :—Lamps, Glass and Roundels are not included with Complete Signal, and should be ordered separately if desired. For Lamps, see page 350: for Glass or Roundels, see page 348.

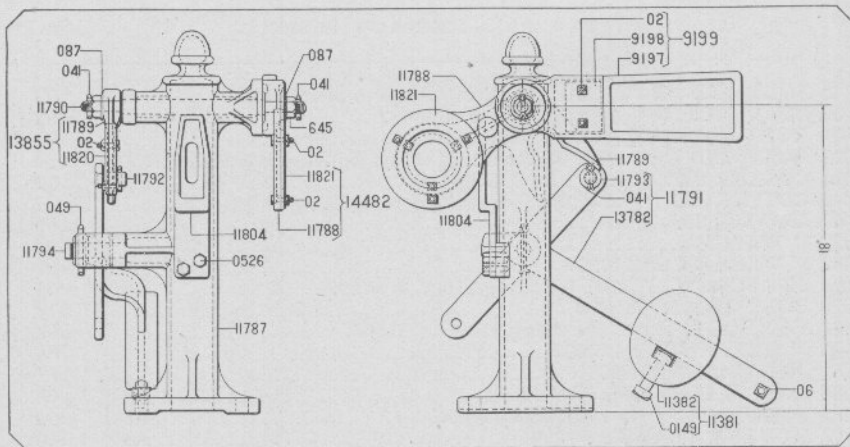
Order No.	TWO ARM 60 DEGREE DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spectacles.....	.02
06 $\frac{1}{2}$	BOLT AND NUT, $\frac{3}{8}$ " x 1" for end of 11692.....	.02
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ " for 11388.....	.09
022	BOLT AND NUT, $\frac{3}{4}$ " x 6", for fixing Dwarf Signal to Foundation.....	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11690, (per 100).....	.80
049	COTTER PIN, $\frac{1}{4}$ " x 3", for fixing 11701 to 11698, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{8}$ " WASHER.....	.02
087	$\frac{3}{8}$ " WASHER for 11690.....	.01
0210	SET SCREW, $\frac{1}{2}$ " x 1", for fixing 11697 to 11698.....	.04
0278	BOLT AND NUT, $\frac{3}{8}$ " x 7".....	.14
0391	TAP BOLT, $\frac{1}{2}$ " x 1" for fixing 11694 to 11697.....	.02
645	$\frac{5}{8}$ " HEX. NUT for 11690.....	.04
2181	PIN, $\frac{5}{8}$ " x $1\frac{1}{8}$ " for 9277.....	.07
4333	CAST WASHER for $\frac{3}{8}$ " Bolts.....	.08
4364	$\frac{3}{4}$ " HEX; NUT for 11699 and 11700.....	.04
9197	RUBBER BLADE for 9199.....	.60
9198	PLATE for 9199.....	.07
9199	RUBBER BLADE COMPLETE with Bolts and Plate.....	.70
9277	$\frac{3}{4}$ " MALLEABLE SCREW JAW.....	.26
11387	COUNTERWEIGHT COMPLETE, 16 lbs.....	1.16
11388	COUNTERWEIGHT, 16 lbs, Casting only.....	1.06
11683	TOP BEARING.....	1.28
11688	STUD, $\frac{5}{8}$ " x 2".....	.02
11689	Back SPECTACLE, Casting only, for 14465.....	.02
11690	SHAFT only.....	1.04
11692	COUNTERWEIGHT LEVER, $\frac{1}{2}$ " x 2".....	2.32
11694	LAMP BRACKET.....	.28
11696	CENTER BEARING.....	1.16
11697	WROUGHT PIPE, 2 $\frac{1}{2}$ " diameter, for Two Arm Dwarf Signal Post.....	2.10
11698	BASE for Two Arm Dwarf Signal.....	4.60
11699	OPERATING ROD for Upper Arm.....	.54
11700	OPERATING ROD for Lower Arm.....	.64
11701	PIN, 1" x 7", for fixing 11692 to 11698.....	.02
11705	RING for 11689.....	.02
11718	Front SPECTACLE, Casting only for 14501.....	.02
11719	Double RING for 11718.....	.02
13795	DWARF SIGNAL COMPLETE, Two Arm, 2 Light 60 Degree Throw.....	33.00
14465	BACK SPECTACLE COMPLETE.....	.64
14501	FRONT SPECTACLE COMPLETE.....	1.52
14805	OPERATING ROD COMPLETE, for Upper Arm.....	1.00
14806	OPERATING ROD COMPLETE, for Lower Arm.....	.88

NOTE.—Where prices are not extended the same will be furnished on application.

**Order by NUMBER and NAME Appearing in Large Type**

DWARF SIGNALS

STYLE "1" COMPENSATING DWARF SIGNAL



11786



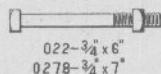
073



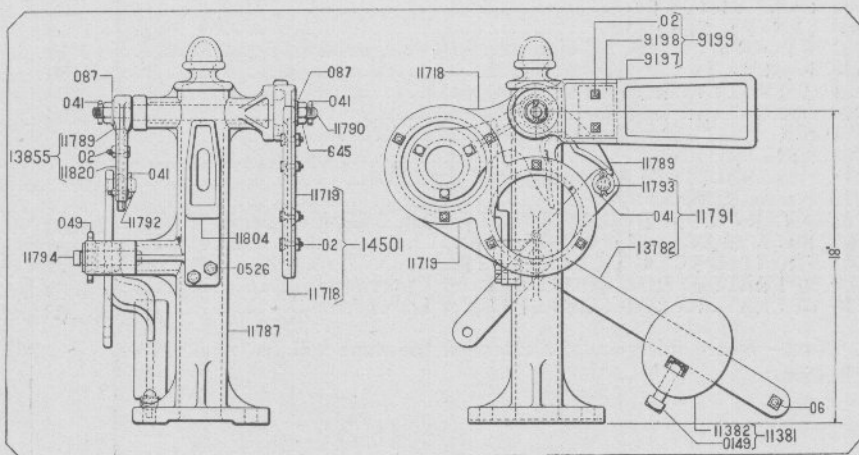
4333



067



022- $\frac{3}{4}$  x 6"  
0278- $\frac{3}{4}$  x 7"



13796

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

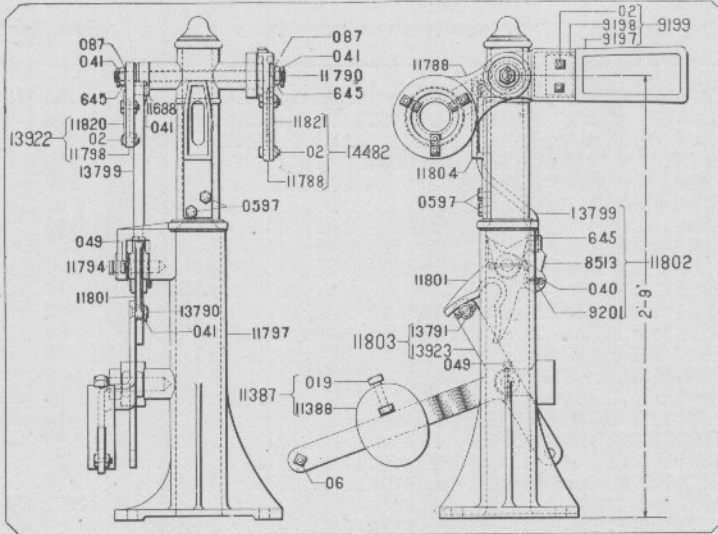


NOTE :—Lamps, Glass and Roundels are not included with Complete Signal, and should be ordered separately, if desired. For Lamps, see page 350; for Glass or Roundels, see page 348.

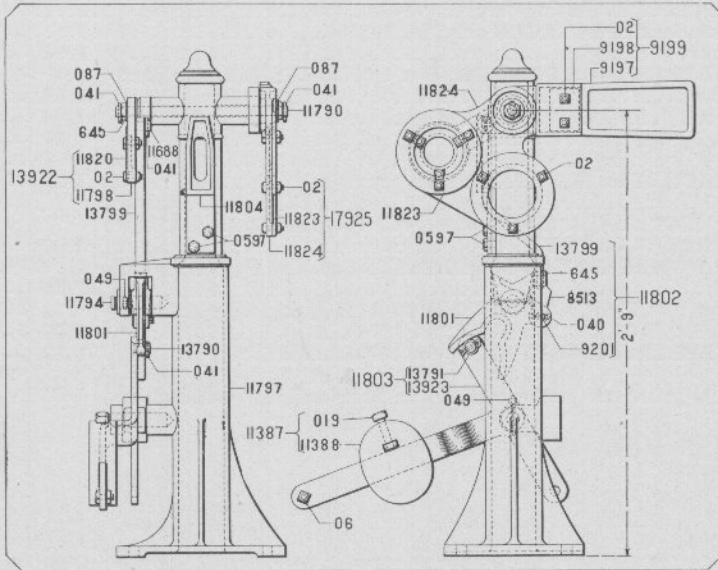
Order No.	STYLE "1" COMPENSATING DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spectacles.....	.02
06	BOLT AND NUT, $\frac{1}{8}$ " x 1", for Stop on 13782.....	.02
022	BOLT AND NUT, $\frac{3}{16}$ " x 6".....	.14
041	COTTER PIN, $\frac{1}{16}$ " x $1\frac{1}{2}$ " for 11792, (per 100).....	.80
049	COTTER PIN, $\frac{1}{16}$ " x 3", for fixing 11794 to 11787.....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
087	$\frac{3}{8}$ " WASHER for 11790.....	.01
0149	BOLT AND NUT, $\frac{1}{8}$ " x $2\frac{1}{2}$ ", for 11382.....	.07
0278	BOLT AND NUT, $\frac{1}{8}$ " x 7".....	.14
0526	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for 11804 to 11787.....	.02
645	$\frac{5}{8}$ " HEX. NUT, for 11790.....	.04
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
9197	RUBBER BLADE, for 9199.....	.60
9198	PLATE, for 9199.....	.07
9199	RUBBER BLADE COMPLETE, with Bolts and Plate.....	.70
11381	COUNTERWEIGHT COMPLETE, 10 lbs.....	.80
11382	COUNTERWEIGHT, 10 lbs., Casting only.....	.70
11718	Front SPECTACLE, Casting only, for 14105.....	
11719	Double RING for 11718.....	
11786	Style "1" DWARF SIGNAL COMPLETE, 1 Light, 60 Degree Throw, 18" High.....	15.50
11787	STAND only.....	6.50
11788	Front SPECTACLE, Casting only, for 14482.....	
11789	Escapement Back SPECTACLE only, for 13855.....	
11790	SHAFT only, $\frac{3}{8}$ " x $12\frac{3}{4}$ ".....	1.04
11791	"T" COUNTERWEIGHT LEVER, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", COMPLETE with Stud and Roller.....	3.50
11792	STUD, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for 13782.....	.08
11793	ROLLER, $1\frac{1}{4}$ " x $\frac{3}{4}$ ", for 11792.....	.14
11794	PIN, $\frac{7}{8}$ " x 4" for fixing 13782 to 11787.....	.16
11804	LAMP BRACKET for 11787.....	.28
11820	RING for 11789.....	
11821	RING for 11788.....	
13782	"T" COUNTERWEIGHT LEVER only.....	3.00
13796	Style "1" DWARF SIGNAL COMPLETE, 2 Light, 60 Degree Throw, 18" High.....	17.00
13855	Escapement BACK SPECTACLE COMPLETE.....	.72
14482	FRONT SPECTACLE COMPLETE, for 11786.....	1.08
14501	FRONT SPECTACLE COMPLETE, for 13796.....	1.52

NOTE.—Where prices are not extended the same will be furnished on application.

STYLE "2" COMPENSATING DWARF SIGNAL



11796



13797

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

NOTE :—Lamps, Glass and Roundels are not included with Complete Signal and should be ordered separately, if desired. For Lamps, see page 350; for Glass or Roundels see page 348. Spectacles can be furnished as Specified, see pages 334 to 345.

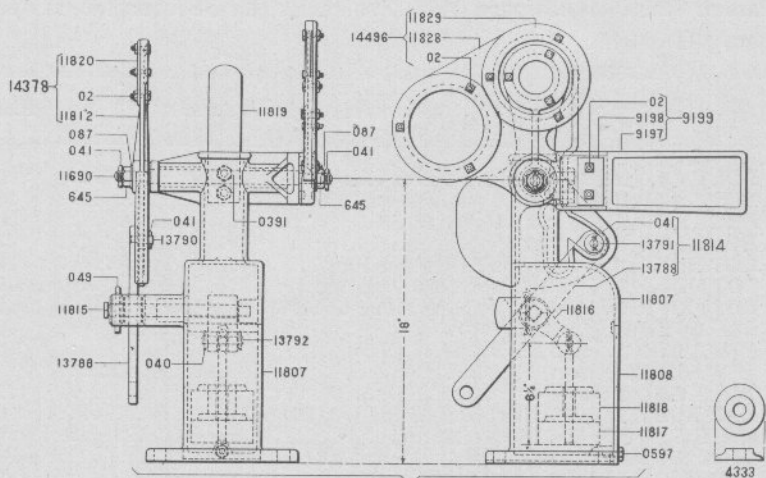
Order No.	STYLE "2" COMPENSATING DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spectacles.....	.02
06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for Stop on 13923.....	.02
019	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ ", for 11388.....	.09
022	BOLT AND NUT, $\frac{3}{8}$ " x 6".....	.14
040	COTTER PIN, $\frac{1}{8}$ " x 1", for 9201, (per 100).....	.80
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11690, (per 100).....	.80
049	COTTER PIN, $\frac{1}{4}$ " x 3", for fixing 11794 to 11797, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{1}{8}$ " WASHER.....	.02
087	$\frac{3}{8}$ " WASHER.....	.01
0278	BOLT AND NUT, $\frac{3}{8}$ " x 7".....	.14
0597	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", Hex ; Hd. for fixing 11804 to 11797.....	.02
645	$\frac{3}{8}$ " HEX ; NUT, for 11690.....	.04
4333	CAST WASHER, for $\frac{3}{4}$ " Bolts.....	.08
8513	$\frac{3}{8}$ " MALLEABLE SCREW JAW.....	.24
9197	RUBBER BLADE, for 9199.....	.60
9198	PLATE, for 9199.....	.07
9199	RUBBER BLADE, COMPLETE, with Bolts and Plate.....	.70
9201	PIN, $\frac{3}{8}$ " x $1\frac{1}{4}$ " for 8513.....	.07
11387	COUNTERWEIGHT, COMPLETE, 16 lbs.....	1.16
11388	COUNTERWEIGHT, 16 lbs. Casting only.....	1.06
11688	STUD, $\frac{5}{8}$ " x 2".....	.16
11788	FRONT SPECTACLE, Casting only, for 14482.....	.16
11790	SHAFT only, $\frac{7}{8}$ " x $12\frac{3}{4}$ ".....	1.04
11794	PIN, $\frac{7}{8}$ " x 4", for fixing 13923 to 11797.....	.16
11796	Style "2" Compensating DWARF SIGNAL COMPLETE, 1 Light, 60 Degree Throw, 2' 9" High.....	19.50
11797	STAND only.....	10.40
11798	BACK SPECTACLE, Casting only for 13922.....	.84
11801	ESCAPEMENT CRANK.....	.84
11802	OPERATING ROD, COMPLETE.....	.84
11803	"T" COUNTERWEIGHT LEVER COMPLETE, with Stud and Roller.....	3.50
11804	LAMP BRACKET.....	.28
11820	RING for 11798.....	.14
11821	RING for 11788.....	.14
11823	RING, for 11824.....	.14
11824	FRONT SPECTACLE, Casting only, for 17925.....	.14
13790	STUD, $\frac{5}{8}$ " x $1\frac{5}{8}$ ", for 13923.....	.08
13791	ROLLER, $\frac{3}{8}$ " x $1\frac{1}{4}$ ", for 13790.....	.14
13797	Style "2" Compensating DWARF SIGNAL COMPLETE, 2 Light, 60 Degree Throw, 2' 9" High.....	20.60
13799	OPERATING ROD, only.....	.64
13922	BACK SPECTACLE, COMPLETE.....	3.00
13923	"T" COUNTERWEIGHT LEVER only, $\frac{1}{2}$ " x 2".....	1.08
14482	FRONT SPECTACLE, COMPLETE, for 11796.....	1.08
17925	FRONT SPECTACLE, COMPLETE, for 13797.....	1.36

NOTE.—Where prices are not extended the same will be furnished on application

Order by NUMBER and NAME Appearing in Large Type

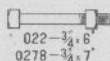
DWARF SIGNALS

STYLE "3" COMPENSATING DWARF SIGNAL



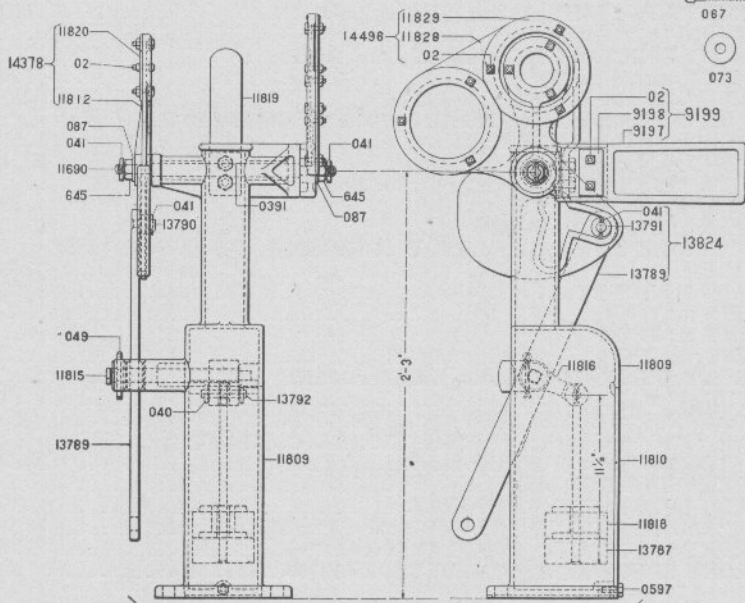
11805 - 1 LIGHT

14803 - 2 "



067

073



11806 - 1 LIGHT

14804 - 2 "

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## DWARF SIGNALS

319

NOTE :—Lamps, Glass and Roundels are not included with Complete Signal, and should be ordered separately, if desired. For Lamps, see page 350; for Glass or Roundels, see page 348. Spectacles can be Furnished as Specified. See pages 334 to 345.

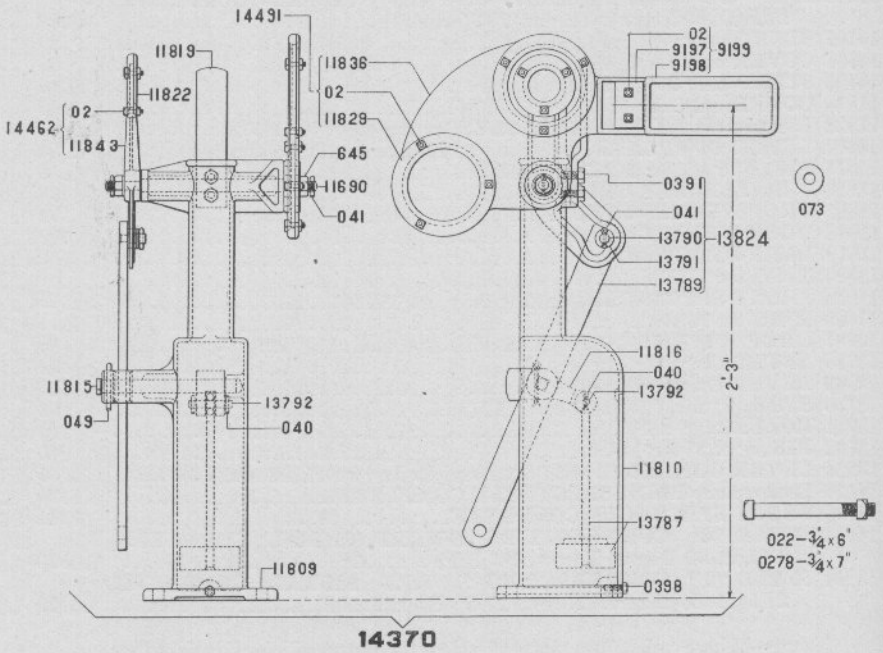
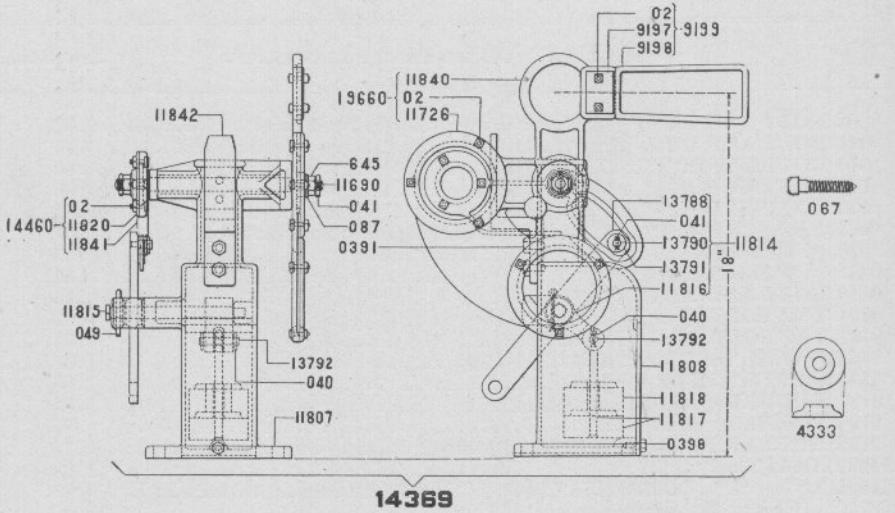
Order No.	STYLE "3" COMPENSATING DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spectacles . . . . .	.02
022	BOLT AND NUT, $\frac{3}{8}$ " x 6", . . . . .	.14
040	COTTER PIN, $\frac{1}{8}$ " x 1", for 13792, (per 100) . . . . .	.80
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11690 and 13791, (per 100) . . . . .	.80
049	COTTER PIN, $\frac{1}{8}$ " x 3", for fixing 11815 to 11807 and 11809, (per 100) . . . . .	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4", for fixing Dwarf Signal to Foundation . . . . .	.07
073	$\frac{3}{4}$ " WASHER . . . . .	.02
087	$\frac{3}{8}$ " WASHER for 11690 . . . . .	.01
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7" . . . . .	.14
0391	TAP BOLT, $\frac{1}{2}$ " x 1" for fixing 11819 to 11807 and 11809 . . . . .	.02
0597	TAP BOLT, $\frac{3}{8}$ " x 1", for fixing 11808 to 11807 and 11810 to 11809 . . . . .	.02
645	$\frac{5}{8}$ " HEX. NUT for 11690 . . . . .	.04
4333	CAST WASHER for $\frac{3}{4}$ " Bolts . . . . .	.08
9197	RUBBER BLADE, for 9199 . . . . .	.60
9198	PLATE, for 9199 . . . . .	.07
9199	RUBBER BLADE COMPLETE, with Bolts and Plate . . . . .	.70
11690	SHAFT only . . . . .	1.04
11805	Style "3" COMPENSATING DWARF SIGNAL COMPLETE, 1 Light 60 Degree Throw, 18" High . . . . .	18.40
11806	Style "3" COMPENSATING DWARF SIGNAL COMPLETE, 1 Light 60 Degree Throw, 2' 3" High . . . . .	19.20
11807	STAND only, 18" high . . . . .	7.80
11808	COVER only for 11807 . . . . .	.50
11809	STAND only 2' 3" high . . . . .	8.80
11810	COVER only, for 11809 . . . . .	.60
11812	Escapement BACK SPECTACLE, Casting only, for 14378 . . . . .	. . . . .
11814	LEVER COMPLETE, with Stud and Roller, for 11805 and 14803 . . . . .	1.54
11815	PIN, $\frac{3}{8}$ " x 9", for 11807 and 11809 . . . . .	.50
11816	3" MALLEABLE CRANK . . . . .	.50
11817	DROP WEIGHT COMPLETE with Eye Rod $6\frac{1}{2}$ " long . . . . .	.74
11818	DROP WEIGHT only . . . . .	.30
11819	LAMP BRACKET . . . . .	.50
11820	RING for 11812 . . . . .	. . . . .
11828	FRONT SPECTACLE, Casting only, for 14496 . . . . .	. . . . .
11829	RING for 11828 . . . . .	. . . . .
13787	DROP WEIGHT COMPLETE with Eye Rod, 11 $\frac{1}{2}$ " long . . . . .	.80
13788	LEVER Only, for 11814 . . . . .	1.04
13789	LEVER Only, for 13824 . . . . .	1.16
13790	STUD, $\frac{3}{8}$ " x $1\frac{1}{8}$ " for 13788 and 13789 . . . . .	.08
13791	ROLLER, $\frac{5}{8}$ " x $1\frac{1}{4}$ ", for 13790 . . . . .	.14
13792	PIN, $\frac{1}{2}$ " x 3" for 11816 . . . . .	.10
13824	LEVER COMPLETE with Stud and Roller, for 11806 and 14804 . . . . .	1.66
14378	Escapement BACK SPECTACLE COMPLETE . . . . .	1.36
14496	FRONT SPECTACLE COMPLETE . . . . .	1.44
14803	STYLE "3" COMPENSATING DWARF SIGNAL COMPLETE, 2 Light 60 Degree Throw, 18" High . . . . .	19.20
14804	STYLE "3" COMPENSATING DWARF SIGNAL COMPLETE, 2 Light 60 Degree Throw, 2' 3" High . . . . .	20.00

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

DWARF SIGNALS

STYLE "4" ONE ARM DWARF SIGNAL



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

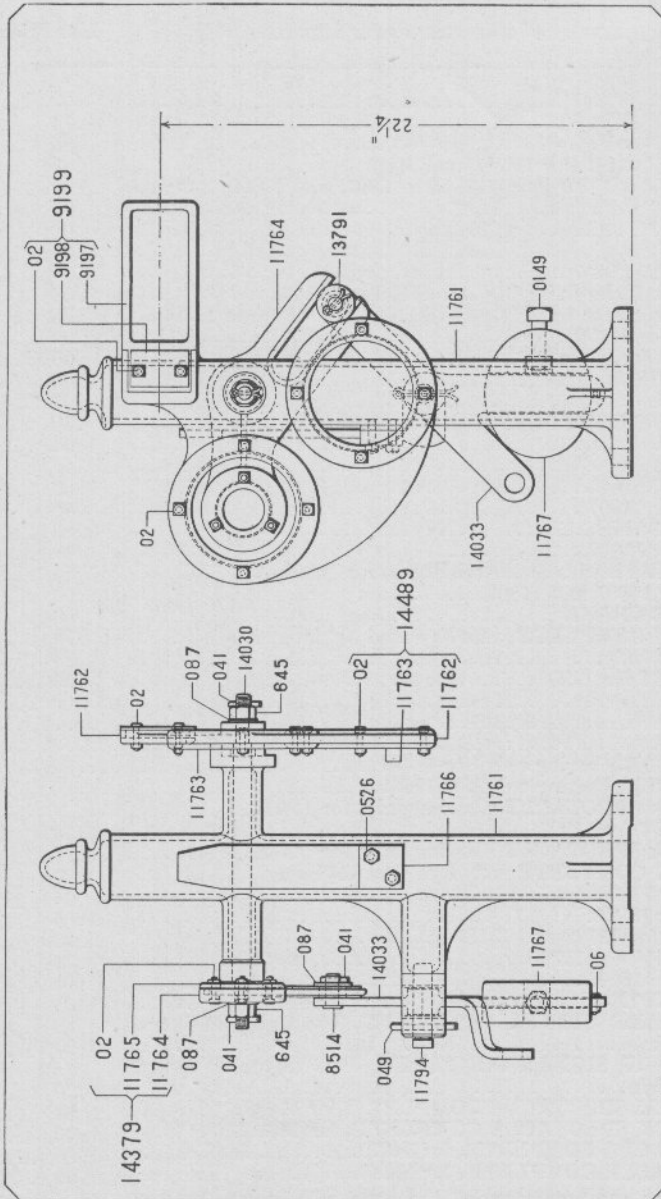
NOTE :—Lamps, Glass and Roundels are not included with Complete Signal, and should be ordered separately if desired. For Lamps see page 350 : for Glass or Roundels see page 348.

Order No.	STYLE "4" ONE ARM DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1"	.02
022	BOLT AND NUT, $\frac{1}{2}$ " x 6"	.14
040	COTTER PIN, $\frac{1}{8}$ " x 1", for 13792, (per 100)	.80
041	COTTER PIN, $\frac{1}{8}$ " x 1 $\frac{1}{4}$ ", for 11690, (per 100)	.80
049	COTTER PIN, $\frac{1}{4}$ " x 3" for fixing 11815 to 11807 and 11809 (per 100)	.80
067	LAG SCREW, $\frac{3}{8}$ " x 4"	.07
073	$\frac{3}{4}$ " WASHER	.02
087	$\frac{3}{8}$ " WASHER	.01
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7"	.14
0391	TAP BOLT, $\frac{1}{2}$ " x 1", for fixing 11819 to 11809 and 11842 to 11807	.02
0398	TAP BOLT, $\frac{3}{8}$ " x $\frac{3}{4}$ ", for fixing 11808 to 11807 and 11810 to 11809	.02
645	HEX. NUT, for 11690	.04
4333	CAST WASHER for $\frac{3}{4}$ " Bolts	.08
9197	RUBBER BLADE for 9199	.60
9198	PLATE for 9199	.07
9199	RUBBER BLADE COMPLETE with Bolts and Plate	.70
11690	SHAFT only	1.04
11726	RING for 11840	.00
11807	STAND only, 18" high	7.80
11808	COVER only, for 11807	.50
11809	STAND only, 2' 3" high	8.80
11810	COVER only, for 11809	.60
11814	LEVER COMPLETE with Stud and Roller, for 14369	1.54
11815	PIN, $\frac{7}{8}$ " x 9", for 11807 and 11809	.50
11816	3" MALLEABLE CRANK	.50
11817	DROP WEIGHT COMPLETE with Eye Rod 6 $\frac{1}{2}$ " long	.74
11818	DROP WEIGHT only	.30
11819	LAMP BRACKET for 11809	.50
11820	RING for 11841	.00
11822	RING for 11843	.00
11829	RING for 11836	.00
11836	Front SPECTACLE, Casting only, for 14491	.00
11840	Front SPECTACLE, Casting only, for 19660	.00
11841	Escapement Back SPECTACLE, Casting only, for 14460	.00
11842	LAMP BRACKET for 11807	.50
11843	Escapement Back SPECTACLE, Casting only, for 14462	.00
13787	DROP WEIGHT COMPLETE with Eye Rod 11 $\frac{1}{2}$ " long	.80
13788	LEVER only for 11814	1.04
13789	LEVER only for 13824	1.16
13790	STUD, $\frac{5}{8}$ " x 1 $\frac{1}{8}$ ", for 13788 and 13789	.08
13791	ROLLER, $\frac{5}{8}$ " x 1 $\frac{1}{4}$ ", for 13790	.14
13792	PIN, $\frac{1}{2}$ " x 3", for 11816	.10
13824	LEVER COMPLETE with Stud and Roller, for 14370	1.66
14369	Style "4" DWARF SIGNAL COMPLETE, Two Light, 90 Degree Throw, 18" high	19.20
14370	Style "4" DWARF SIGNAL COMPLETE, Two Light, 90 Degree Throw, 2' 3" high	20.20
14460	Escapement BACK SPECTACLE COMPLETE, for 14369	1.00
14462	Escapement BACK SPECTACLE COMPLETE, for 14370	1.00
14491	FRONT SPECTACLE COMPLETE, for 14370	1.60
19660	FRONT SPECTACLE COMPLETE, for 14369	1.60

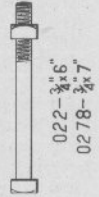
NOTE—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

STYLE "5" ONE ARM DWARF SIGNAL



14034



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



NOTE :—Lamps, Glass and Roundels are not included with Complete Signal, and should be ordered separately if desired. For Lamps, see page 350; for Glass or Roundels, see page 348.

Order No.	STYLE "5" ONE ARM DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spectacles.....	.02
06	BOLT AND NUT, $\frac{3}{32}$ " x 1" for 14033.....	.02
022	BOLT AND NUT, $\frac{3}{32}$ " x 6".....	.14
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " for 14030 and 14031, (per 100).....	.80
049	COTTER PIN, $\frac{1}{4}$ " x 3" for 11794 to 11761, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
087	$\frac{3}{4}$ " WASHER for 8514 and 14030.....	.01
0149	BOLT AND NUT, $\frac{5}{16}$ " x $2\frac{1}{2}$ " for 11767.....	.07
0278	BOLT AND NUT, $\frac{3}{4}$ " x 7".....	.14
0526	TAP BOLT, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for fixing 11766 to 11761.....	.02
645	$\frac{5}{8}$ " HEX. NUT for 14030.....	.04
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
8514	PIN, $\frac{5}{8}$ " x $1\frac{9}{16}$ ", for fixing 13791 to 14033.....	.14
9197	RUBBER BLADE for 9199.....	.60
9198	PLATE for 9199.....	.07
9199	RUBBER BLADE COMPLETE with Bolts and Plate.....	.70
11761	STAND only.....	5.50
11762	FRONT SPECTACLE, Casting only, for 14489.....	.....
11763	RING for Front Spectacle 11762.....	.....
11764	Escapement BACK SPECTACLE, Casting only, for 14379.....	.....
11765	RING for Back Spectacle 11764.....	.....
11766	LAMP BRACKET for 11761.....	.28
11767	COUNTERWEIGHT for 14033, 9 $\frac{1}{2}$ Pounds.....	.72
11794	PIN, $\frac{7}{8}$ " x 4", for fixing 14033 to 11761.....	.16
13791	ROLLER, $\frac{5}{8}$ " x $1\frac{1}{4}$ ".....	.14
14030	SEMAPHORE SHAFT, $\frac{7}{8}$ " x $15\frac{3}{4}$ ".....	1.04
14033	COUNTERWEIGHT LEVER.....	2.30
14034	Style "5" DWARF SIGNAL COMPLETE, 2 Light, 90 Degree Throw.....	14.00
14379	Escapement BACK SPECTACLE COMPLETE.....	1.00
14489	FRONT SPECTACLE COMPLETE.....	1.68

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type



## DWARF SIGNALS

325

NOTE :—Lamps, Glass and Roundels are not included with Complete Signal and should be ordered separately if desired. For Lamps, see page 350; for Glass or Roundels, see page 348. Spectacles can be furnished as Specified, see pages 334 and 345.

Order No.	STYLE "6" ONE ARM DWARF SIGNAL	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spectacles .....	.02
08	BOLT AND NUT, $\frac{3}{8}$ " x 2", for fixing 11734 to 14335.....	.03
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 14069, (per 100).....	.80
043	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{4}$ ", for 14198, (per 100).....	.80
0391	TAP BOLT, $\frac{1}{2}$ " x 1", for fixing 11722 to 11720.....	.02
0551	TAP BOLT, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", for fixing 14459 to 11720.....	.03
645	$\frac{3}{8}$ " HEX. NUT, for 14069.....	.04
1048	$\frac{1}{2}$ " HEX. NUT, for 14275.....	.03
7567	PIN, $\frac{3}{8}$ " x $2\frac{3}{8}$ ", for Stop on 14335.....	.22
8631	$\frac{1}{2}$ " MALLEABLE SCREW JAW.....	.07
9169	PIN, $\frac{1}{2}$ " x $1\frac{3}{16}$ ", for 8631.....	.60
9197	RUBBER BLADE, for 9199.....	.07
9198	PLATE, for 9199.....	.70
9199	RUBBER BLADE, COMPLETE, with Bolts and Plate.....	.90
11203	6" HORIZONTAL WHEEL, COMPLETE, for Dwarf Signals.....	.44
11688	STUD, $\frac{5}{8}$ " x 2".....	.19
11708	MALLEABLE ESCAPEMENT CRANK, 60 Degree Throw.....	.19
11720	COLUMN AND BASE.....	.22
11722	Lower BEARING for Escapement Crank.....	.12
11724	BACK SPECTACLE, Casting only, for 14467.....	.16
11729	ROLLER BRACKET.....	1.16
11730	BOTTOM ROLLER, $1\frac{1}{2}$ " x $1\frac{1}{2}$ ".....	.70
11731	TOP ROLLER, $1\frac{1}{2}$ " x $1\frac{1}{2}$ ".....	.05
11732	TRUNNION BLOCK, for 14335.....	.56
11733	SPRING BLOCK, for 14335.....	.96
11734	MALLEABLE LUG, for 14335.....	.32
11753	FRONT SPECTACLE, Casting only, for 14494.....	.64
11754	RING, for 11753.....	1.36
11756	TOP BEARING.....	.72
11820	RING, for 11724.....	18.20
12144	Style "6" DWARF SIGNAL COMPLETE, Two Light, 60 Degree Throw with 6" Hor. Wheel.....	.70
14069	SHAFT Only.....	.05
14198	PIN, $\frac{3}{8}$ " x $3\frac{3}{8}$ ", for fixing 11708 to 11722: also 11730 and 11731 to 11729.....	.56
14199	SPIRAL SPRING.....	.96
14275	OPERATING ROD, Only.....	.32
14335	OPERATING SHAFT.....	.64
14459	LAMP BRACKET.....	1.36
14467	BACK SPECTACLE, COMPLETE.....	.72
14494	FRONT SPECTACLE, COMPLETE.....	18.20
14800	OPERATING ROD, COMPLETE.....	.70
14801	Style "6" DWARF SIGNAL, COMPLETE, One Light, 60 Degree Throw, with 6" Hor. Wheel.....	.05

NOTE—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type



## DWARF SIGNALS

327

NOTE :—Lamp, Glass and Roundels are not included with Complete Signal and should be ordered separately if desired. For Lamps, see page 350; for Glass or Roundels, see page 348.

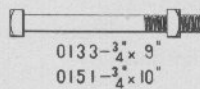
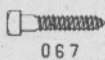
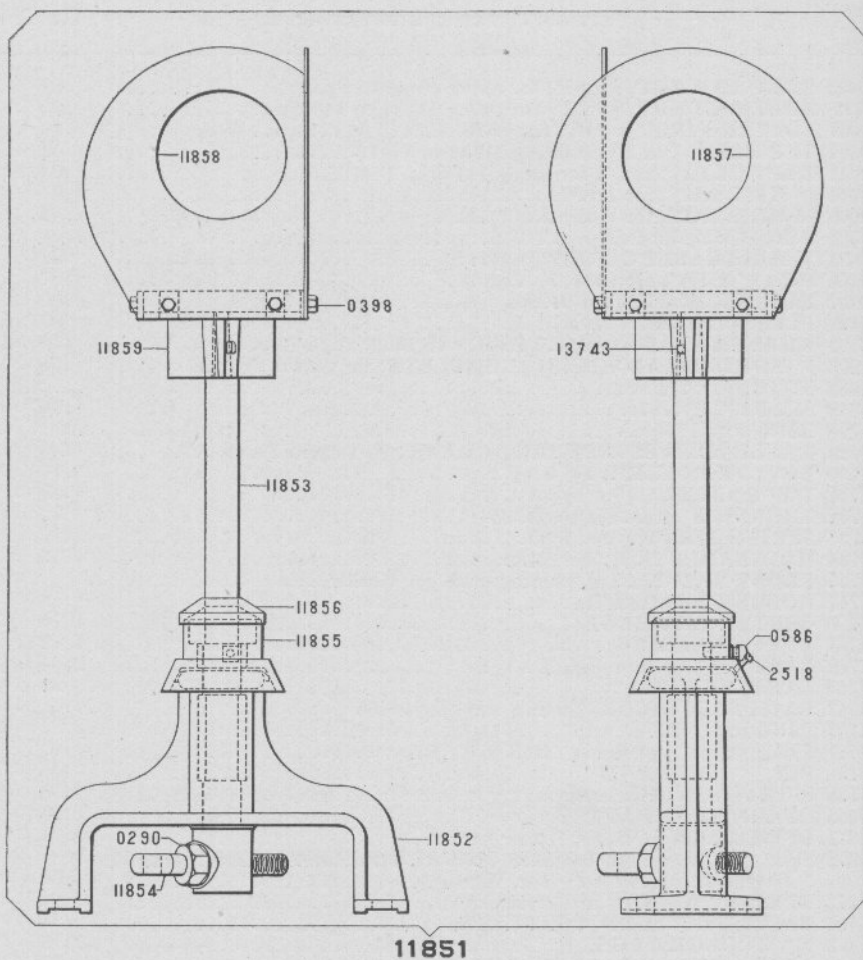
Order No.	STYLE "7" TWO ARM DWARF SIGNAL	List Price
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Rings to Spec's.....	.02
08	BOLT AND NUT, $\frac{3}{8}$ " x 2", for fixing 11734 to 14335.....	.03
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", (per 100).....	.80
0391	TAP BOLT, $\frac{1}{2}$ " x 1" for fixing 11752 to 14473.....	.02
0641	TAP BOLT, $\frac{1}{2}$ " x $1\frac{1}{4}$ ", for fixing 11755 to 14473.....	.04
645	$\frac{5}{8}$ " HEX. NUT, for 11690.....	.04
1048	$\frac{1}{2}$ " HEX. NUT, for Operating Rods.....	.03
7567	PIN, $\frac{3}{8}$ " x $2\frac{3}{8}$ ", for stop on 14335.....	.22
8631	$\frac{1}{2}$ " MALLEABLE SCREW JAW.....	.07
9169	PIN, $\frac{1}{2}$ " x $1\frac{3}{8}$ ", for 8631.....	.60
9197	RUBBER BLADE, for 9199.....	.07
9198	PLATE for 9199.....	.70
9199	RUBBER BLADE, COMPLETE, with Bolts and Plate.....	.90
11203	6" HORIZONTAL WHEEL, COMPLETE, for Dwarf Signals.....	.36
11688	STUD, $\frac{5}{8}$ " x 2".....	.19
11690	SHAFT Only.....	.19
11726	RING for 11735.....	.22
11728	MALLEABLE ESCAPEMENT CRANK, 90 Degree Throw.....	.12
11730	BOTTOM ROLLER, $1\frac{1}{2}$ " x $1\frac{1}{2}$ ".....	.16
11731	TOP ROLLER, $1\frac{1}{2}$ " x $1\frac{1}{2}$ ".....	.88
11732	TRUNNION BLOCK, for 14335.....	1.16
11733	SPRING BLOCK, for 14335.....	1.52
11734	MALLEABLE LUG, for 14335.....	.31
11735	FRONT SPECTACLE, Casting only, for 19660.....	.88
11747	ROLLER BRACKET.....	1.16
11750	CENTER BEARING.....	1.52
11751	UPPER BEARING.....	2.56
11752	BASE, for Two Arm Signal.....	.31
11755	LAMP BRACKET.....	.31
11757	BACK SPECTACLE, Casting only, for 14466.....	.31
11758	RING for 11757.....	.31
13721	PIN, $\frac{3}{8}$ " x $4\frac{1}{8}$ ", for fixing 11728 to 11752.....	.05
14198	PIN, $\frac{3}{8}$ " x $3\frac{3}{8}$ ", for 11747.....	.56
14199	SPIRAL SPRING.....	.96
14335	OPERATING SHAFT.....	.96
14371	OPERATING ROD, for Upper Arm.....	.96
14372	Style "7" Two Arm DWARF SIGNAL COMPLETE, Two Light, 90 Degree Throw, with 6" Hor. Wheels.....	34.00
14373	OPERATING ROD, for Lower Arm.....	.64
14466	BACK SPECTACLE, COMPLETE.....	2.12
14473	$2\frac{1}{2}$ " WROUGHT PIPE, for Two Arm Signal.....	.88
14809	OPERATING ROD, COMPLETE, for Upper Arm.....	.76
14810	OPERATING ROD, COMPLETE, for Lower Arm.....	1.60
19660	FRONT SPECTACLE, COMPLETE.....	1.60

NOTE—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

## DWARF SIGNALS

PIPE CONNECTED POT SIGNAL. 2' 9" HIGH



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# DWARF SIGNALS

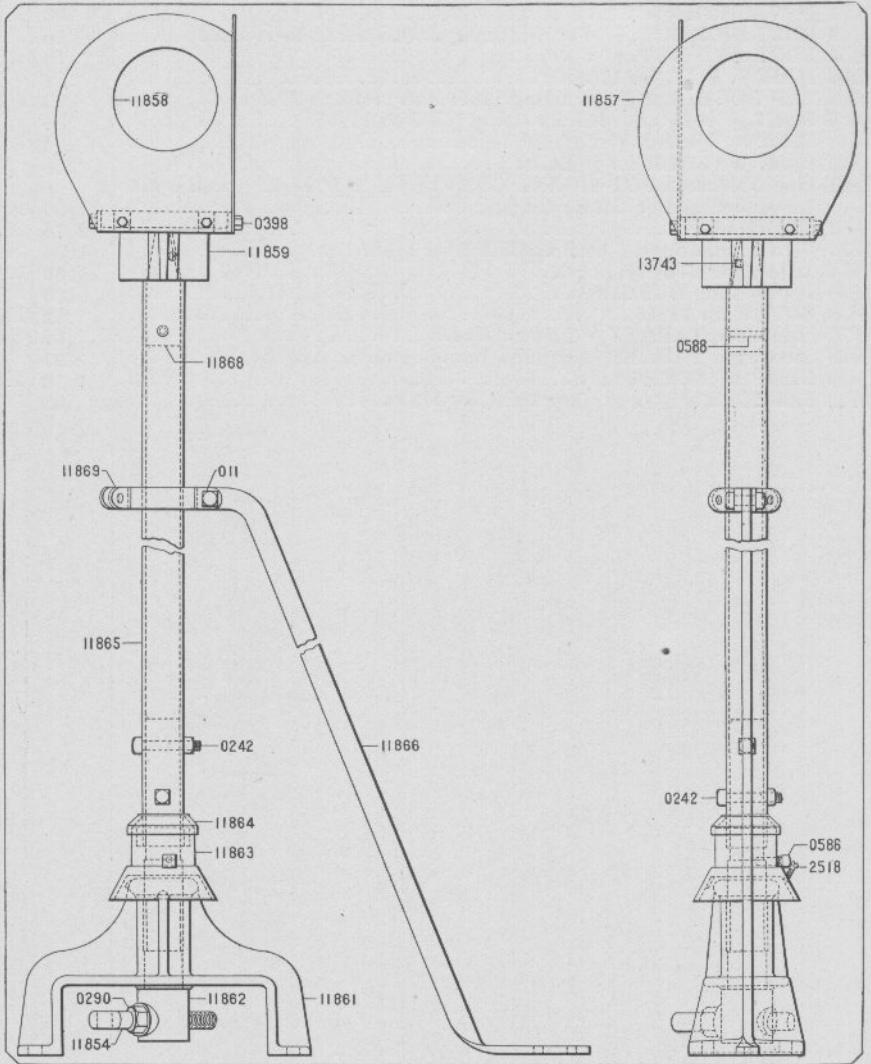
329

Order No.	PIPE CONNECTED POT SIGNAL, 2' 9" HIGH	List Price.
067	LAG SCREW, $\frac{3}{4}$ " x 4", for fixing Pot Signal to Foundation.....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9", for fixing Pot Signal to Ties.....	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16
0290	1" HEX. NUT, for 11854.....	.08
0398	TAP BOLT, $\frac{3}{8}$ " x $\frac{3}{4}$ ", for fixing 11857 and 11858 to 11859.....	.02
0586	BOLT, $\frac{1}{2}$ " x 1 $\frac{1}{2}$ ", Sq. Hd. for fixing 11853 to 11855.....	.04
2518	SCREW, Fil. Hd. $\frac{1}{4}$ " x 1", for 11855.....	.04
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
11851	Pipe Connected POT SIGNAL COMPLETE, 2' 9" high. (Lamp not included). For Lamps see page 350.....	12.00
11852	STAND only.....	2.76
11853	Vertical Shaft and LAMP SOCKET for 11852.....	1.98
11854	Adjustable CRANK only.....	.68
11855	Top Bearing BUSHING.....	.60
11856	COVER for 11855.....	.12
11857	Sheet Iron TARGET,—Painted Red.....	.92
11858	Sheet Iron TARGET,—Painted White.....	.92
11859	LAMP BRACKET only.....	1.10
13743	SET SCREW $\frac{3}{8}$ " x $\frac{3}{4}$ ", Cup Point, for 11859.....	.03

Order by NUMBER and NAME Appearing in Large Type

DWARF SIGNALS

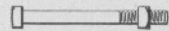
PIPE CONNECTED POT SIGNAL. 6' 0" HIGH



11860



065 - 1/2" x 3"  
067 - 3/4" x 4"



0133 - 3/4" x 9"  
0151 - 3/4" x 10"

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



# DWARF SIGNALS

331

Order  
No.

PIPE CONNECTED POT SIGNAL. 6' 0" HIGH

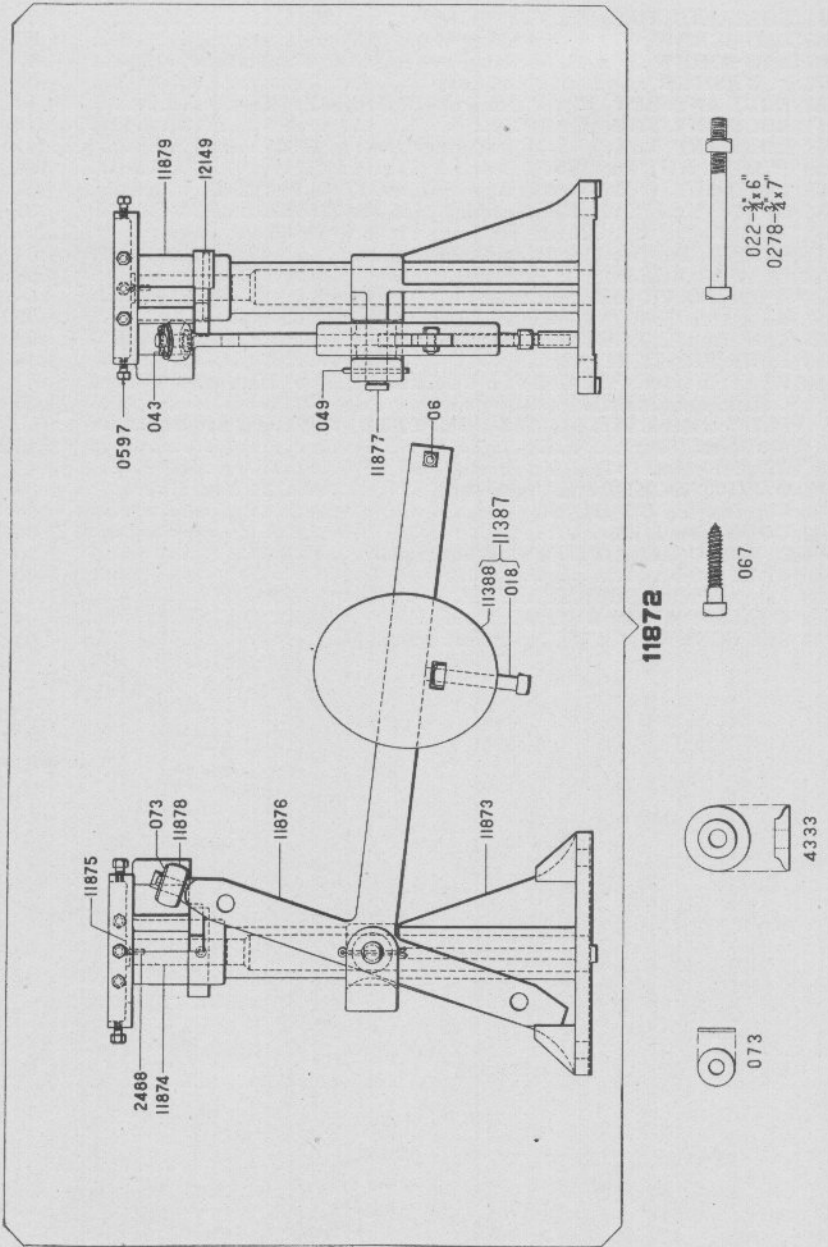
List Price.

011	BOLT AND NUT, $\frac{1}{2}$ " x 2", for 11869.....	.04	.....
065	LAG SCREW, $\frac{1}{2}$ " x 3", for fixing 11866 to Foundation.....	.03	.....
067	LAG SCREW, $\frac{3}{4}$ " x 4", for fixing Pot Signal to Foundation.....	.07	.....
073	$\frac{3}{4}$ " WASHER.....	.02	.....
10133	BOLT AND NUT, $\frac{3}{4}$ " x 9", for fixing Pot Signal to Ties.....	.16	.....
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16	.....
0242	BOLT AND NUT, $\frac{1}{2}$ " x 3", for fixing 11862 to 11865.....	.08	.....
0290	1" HEX. NUT for 11854.....	.08	.....
0398	TAP BOLT, $\frac{3}{8}$ " x $\frac{3}{4}$ ", for fixing 11857 and 11858 to 11859.....	.02	.....
0586	BOLT, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", Sq. Hd. for fixing 11863 to 11862.....	.04	.....
0588	RIVET, $\frac{3}{8}$ " x $2\frac{3}{4}$ ", Ck. Hd. for fixing 11868 to 11865.....	.04	.....
2518	SCREW, Fil. Hd. $\frac{1}{4}$ " x 1", for 11863.....	.04	.....
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08	.....
11854	Adjustable CRANK only.....	.68	.....
11857	Sheet Iron TARGET, Painted Red.....	.92	.....
11858	Sheet Iron TARGET, Painted White.....	.92	.....
11859	LAMP BRACKET only.....	1.10	.....
11860	Pipe Connected POT SIGNAL COMPLETE, 6' 0" High with 3 Stays, (Lamp not included). For Lamps see Page 350.....	23.30	.....
	Pipe Connected POT SIGNAL COMPLETE, 6' 0" High, Same as above without Stays.....	18.60	.....
11861	STAND only.....	4.12	.....
11862	2" PIPE SOCKET and Crank Bush.....	2.68	.....
11863	Top Bearing BUSHING.....	.68	.....
11864	COVER for 11863.....	.36	.....
11865	2" WROUGHT PIPE for 6' 0" Pot Signal.....	2.20	.....
11866	STAY ROD.....	1.40	.....
11868	Lamp Bracket SOCKET.....	.44	.....
11869	COLLAR only for 3 Stays.....	.44	.....
13743	SET SCREW, $\frac{3}{8}$ " x $\frac{3}{4}$ ", Cup Point, for 11859.....	.03	.....

Order by NUMBER and NAME Appearing in Large Type

DWARF SIGNALS

COMPENSATING POT SIGNAL



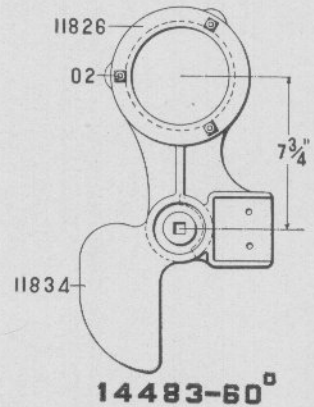
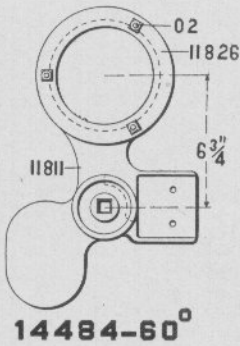
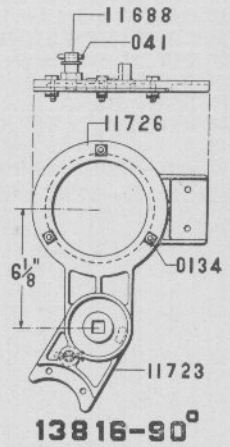
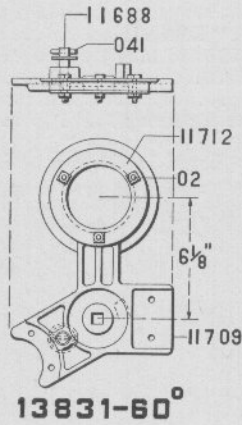
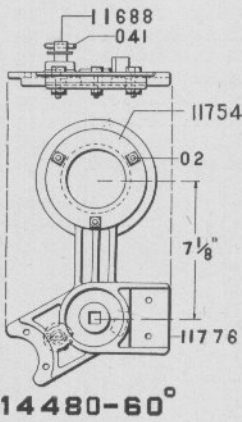
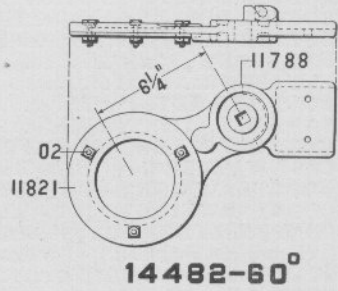
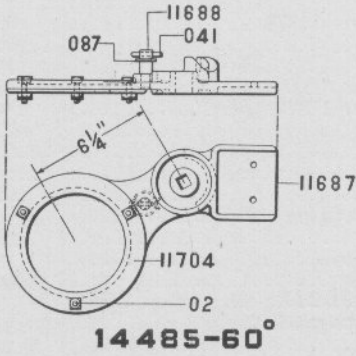
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	COMPENSATING POT SIGNAL	List Price.
06	BOLT AND NUT, $\frac{3}{8}$ " x 1", for end of Lever 11876.....	.02
018	BOLT AND NUT, $\frac{1}{2}$ " x 4", for 11387.....	.14
022	BOLT AND NUT, $\frac{1}{2}$ " x 6".....	.14
043	COTTER PIN, $\frac{3}{16}$ " x 1 $\frac{1}{4}$ ", for 11876, (per 100).....	.80
049	COTTER PIN, $\frac{1}{4}$ " x 3", for fixing 11877 to 11873, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
0278	BOLT AND NUT, $\frac{3}{8}$ " x 7".....	.14
0597	TAP BOLT, $\frac{3}{8}$ " x 1" for 11879.....	.02
2488	MACHINE SCREW, $\frac{1}{4}$ " x $\frac{3}{4}$ ", Fill. Hd. for fixing 11875 to 11874.....	.08
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
11387	COUNTERWEIGHT COMPLETE, 16 lbs.....	1.16
11388	COUNTERWEIGHT, 16 lbs, Casting Only.....	1.06
11872	COMPENSATING POT SIGNAL COMPLETE, 90 Degree Throw (Lamp not included.) For Lamps see page 350.....	20.80
11873	STAND only for 11872.....	4.30
11874	STUD, 1 $\frac{1}{4}$ " x 4 $\frac{1}{8}$ ".....	.40
11875	CAP, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " for 11874.....	.10
11876	COUNTERWEIGHT "T" LEVER.....	6.30
11877	PIN, 1" x 4" for fixing 11876 to 11873.....	.16
11878	ROLLER, 1" x 2" for 11876.....	.60
11879	LAMP BASE.....	2.20
12149	RIVET, $\frac{3}{8}$ " x 3 $\frac{3}{8}$ ", Special, for fixing 11874 to 11873.....	.02

NOTE.—Compensating Pot Signal 11872, can be furnished with Targets if desired. See 11857 and 11858, shown on preceding page.

Order by NUMBER and NAME Appearing in Large Type

## ONE LIGHT FRONT SPECTACLES



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

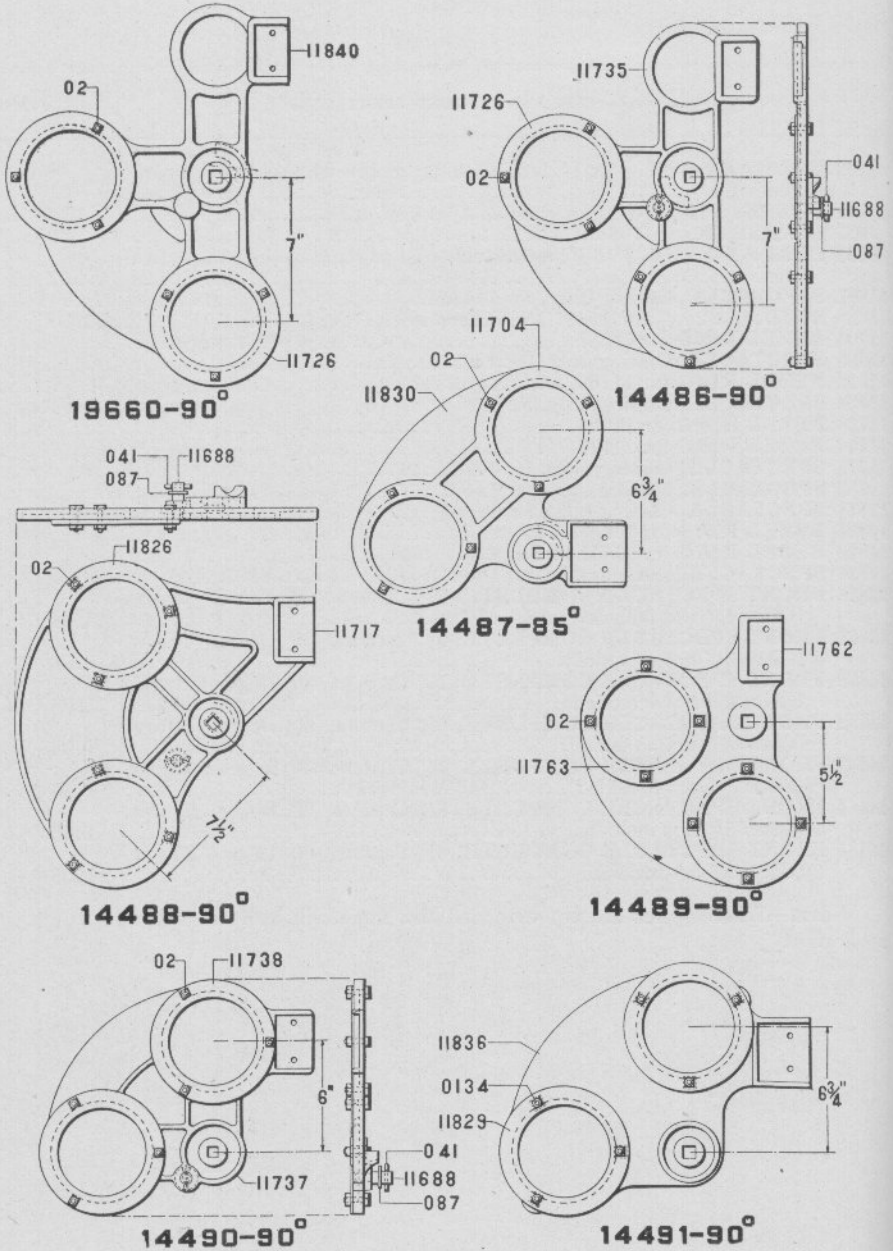
Complete Spectacles as enumerated below do not include Glass or Roundels which should be ordered separately, if required. For Back Spectacles, see pages 342 and 344.

Order No.	ONE LIGHT FRONT SPECTACLES	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fastening Bezel Rings to Spectacle Castings.	.02
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11688 (per 100)	.80
087	$\frac{3}{8}$ " WASHER for 11688	.01
0134	BOLT AND NUT, $\frac{1}{4}$ " x $\frac{3}{4}$ ", for fastening Bezel Rings to Spectacle Castings.	.02
11687	SPECTACLE, Casting only, for 14485	
11688	STUD, $\frac{5}{8}$ " x $2\frac{1}{16}$ ", for 11687 and others	
11704	BEZEL RING for 11687	
11709	SPECTACLE, Casting only, for 13831	
11712	BEZEL RING for 11709	
11723	SPECTACLE, Casting only, for 13816	
11726	BEZEL RING for 11723	
11754	BEZEL RING for 11776	
11776	SPECTACLE, Casting only, for 14480	
11788	SPECTACLE, Casting only, for 14482	
11811	SPECTACLE, Casting only, for 14484	
11821	BEZEL RING for 11788	
11826	BEZEL RING for 11811 and 11834	
11834	SPECTACLE, Casting only, for 14483	
13816	FRONT SPECTACLE COMPLETE, $6\frac{1}{8}$ " Centers, 90 Degree Throw, (Glass $5\frac{3}{8}$ " not included)	1.04
13831	FRONT SPECTACLE COMPLETE, $6\frac{1}{8}$ " Centers, 60 Degree Throw, (Glass $3\frac{1}{2}$ " not included)	1.08
14480	FRONT SPECTACLE COMPLETE, $7\frac{1}{8}$ " Centers, 60 Degree Throw, (Glass $3\frac{1}{2}$ " not included)	1.08
14482	FRONT SPECTACLE COMPLETE, $6\frac{1}{4}$ " Centers, 60 Degree Throw, (Glass $4\frac{3}{4}$ " not included)	1.08
14483	FRONT SPECTACLE COMPLETE, $7\frac{1}{4}$ " Centers, 60 Degree Throw, (Glass $5\frac{3}{8}$ " not included)	1.40
14484	FRONT SPECTACLE COMPLETE, $6\frac{1}{4}$ " Centers, 60 Degree Throw, (Glass $5\frac{3}{8}$ " not included)	1.40
14485	FRONT SPECTACLE COMPLETE, $6\frac{1}{4}$ " Centers, 60 Degree Throw, (Glass $5\frac{3}{8}$ " not included)	1.08

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

TWO LIGHT FRONT SPECTACLES



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## DWARF SIGNALS

337

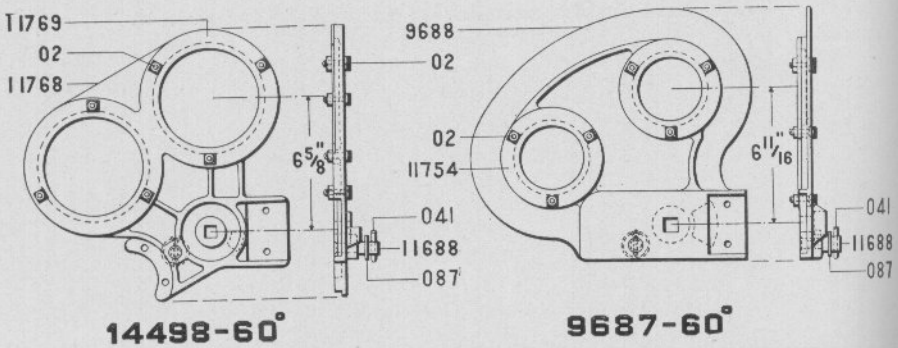
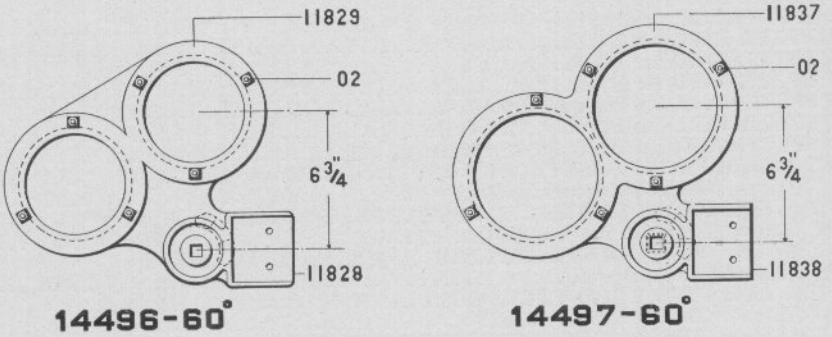
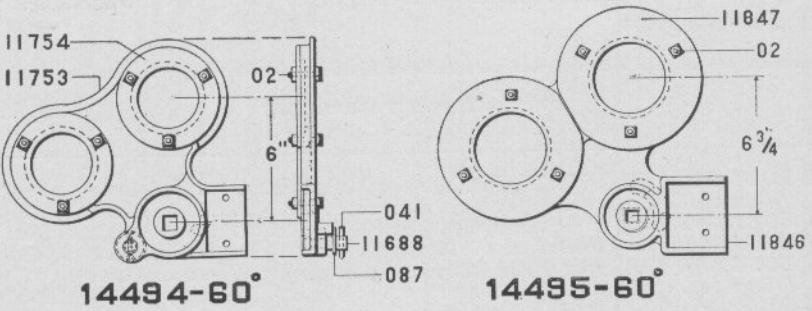
Complete Spectacles as enumerated below, do not include Glass or Roundels which should be ordered separately, if required. For Back Spectacles, see pages 342 and 344.

Order No.	TWO LIGHT FRONT SPECTACLES	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fastening Bezel Rings to Spectacle Castings.....	.02
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11688, (per 100).....	.80
087	$\frac{5}{8}$ " WASHER for 11688.....	.01
0134	BOLT AND NUT, $\frac{1}{4}$ " x $\frac{3}{4}$ ", for fastening Bezel Rings to Spectacle Castings.....	.02
11688	STUD, $\frac{5}{8}$ " x $2\frac{1}{16}$ ", for 11735 and others.....	
11704	BEZEL RING for 11830.....	
11717	SPECTACLE, Casting only, for 14488.....	
11726	BEZEL RING for 11735 and 11840.....	
11735	SPECTACLE, Casting only, for for 14486.....	
11737	SPECTACLE, Casting only, for 14490.....	
11738	BEZEL RING for 11737.....	
11762	SPECTACLE, Casting only, for 14489.....	
11763	BEZEL RING for 11762.....	
11826	BEZEL RING for 11717.....	
11829	BEZEL RING for 11836.....	
11830	SPECTACLE, Casting only, for 14487.....	
11836	SPECTACLE, Casting only, for 14491.....	
11840	SPECTACLE, Casting only, for 19660.....	
14486	Two Light FRONT SPECTACLE COMPLETE, 7" Centers, 90 Degree Throw, (Glass $5\frac{1}{2}$ " not included).....	1.60
14487	Two Light FRONT SPECTACLE COMPLETE, 6 $\frac{3}{4}$ " Centers, 85 Degree Throw (Glass $5\frac{1}{2}$ " not included).....	1.60
14488	Two Light, SPECTACLE COMPLETE, 7 $\frac{1}{2}$ " Centers, 90 Degree Throw (Glass $5\frac{3}{8}$ " not included).....	2.00
14489	Two Light FRONT SPECTACLE COMPLETE, 5 $\frac{1}{2}$ " Centers, 90 Degree Throw, (Glass $5\frac{3}{8}$ " not included).....	1.68
14490	Two Light, FRONT SPECTACLE COMPLETE, 6" Centers, 90 Degree Throw, (Glass $5\frac{3}{8}$ " not included).....	1.60
14491	Two Light FRONT SPECTACLE COMPLETE, 6 $\frac{3}{4}$ " Centers, 90 Degree Throw, (Glass $5\frac{1}{2}$ " not included).....	1.60
19660	Two Light FRONT SPECTACLE COMPLETE, 7" Centers, 90 Degree Throw, (Glass $5\frac{1}{2}$ " not included).....	1.60

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

TWO LIGHT FRONT SPECTACLES—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



## DWARF SIGNALS

339

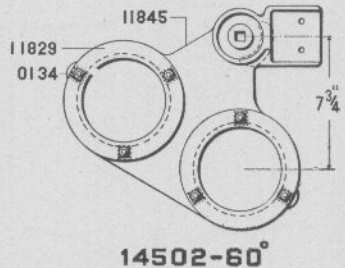
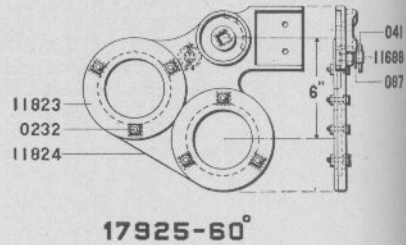
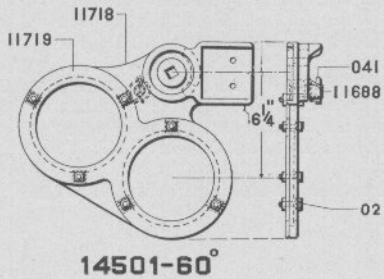
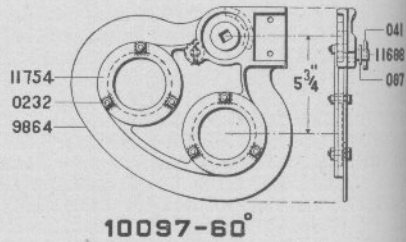
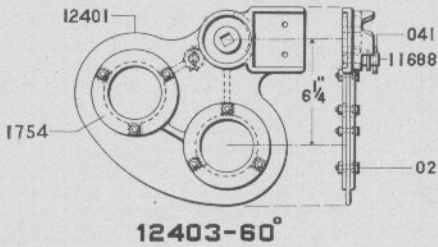
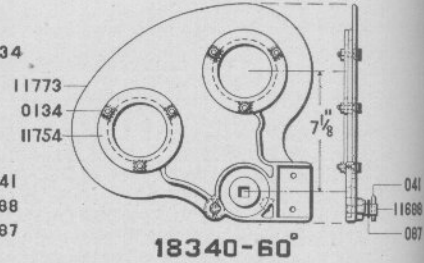
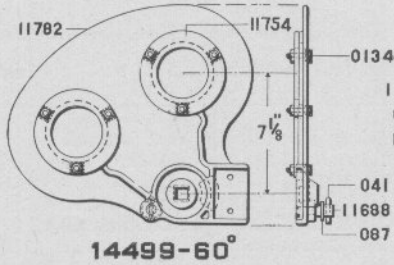
Complete Spectacles as enumerated below, do not include Glass or Roundels, which should be ordered separately, if required. For Back Spectacles, see pages 342 and 344.

Order No.	TWO LIGHT FRONT SPECTACLES—CONTINUED	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fastening Bezel Rings to Spectacle Castings .....	.02
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11688, (per 100).....	.80
087	$\frac{3}{8}$ " WASHER, for 11688.....	.01
9687	Two Light FRONT SPECTACLE COMPLETE, 6 $\frac{1}{8}$ " Centers, 60 Degree Throw ; (Glass $3\frac{1}{2}$ " not included).....	1.56
9688	SPECTACLE, Casting only, for 9687.....	
11688	STUD, $\frac{5}{8}$ " x 2 $\frac{1}{16}$ ", for 11753 and others.....	
11753	SPECTACLE, Casting only, for 14494.....	
11754	BEZEL RING for 9688 and 11753.....	
11768	SPECTACLE, Casting only, for 14498.....	
11769	BEZEL RING for 11768.....	
11828	SPECTACLE, Casting only, for 14496.....	
11829	BEZEL RING for 11828.....	
11837	BEZEL RING for 11838.....	
11838	SPECTACLE, Casting only, for 14497.....	
11846	SPECTACLE, Casting only, for 14495.....	
11847	BEZEL RING for 11846.....	
14494	Two Light SPECTACLE COMPLETE, 6" Centers, 60 Degree Throw, (Glass $3\frac{1}{2}$ " not included).....	1.36
14495	Two Light FRONT SPECTACLE COMPLETE, 6 $\frac{3}{4}$ " Centers, 60 Degree Throw, (Glass 4" not included).....	1.44
14496	Two Light FRONT SPECTACLE COMPLETE, 6 $\frac{3}{4}$ " Centers, 60 Degree Throw ; (Glass $5\frac{1}{2}$ " not included).....	1.44
14497	Two Light FRONT SPECTACLE COMPLETE, 6 $\frac{3}{4}$ " Centers, 60 Degree Throw ; (Glass $6\frac{1}{2}$ " not included).....	1.56
14498	Two Light FRONT SPECTACLE COMPLETE, 5 $\frac{3}{8}$ " Centers, 60 Degree Throw ; (Glass $5\frac{3}{8}$ " not included).....	1.56

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

## TWO LIGHT FRONT SPECTACLES—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

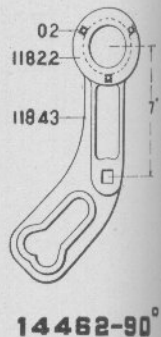
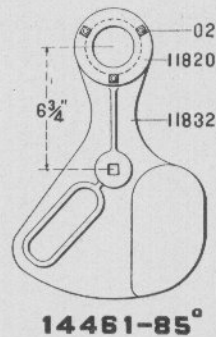
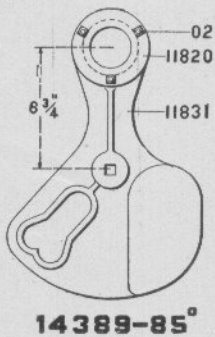
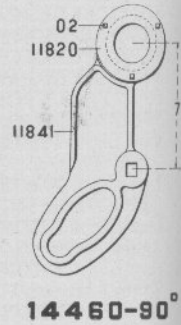
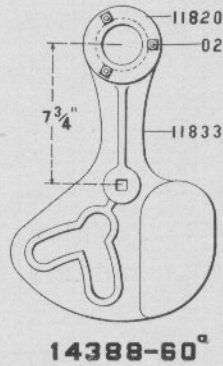
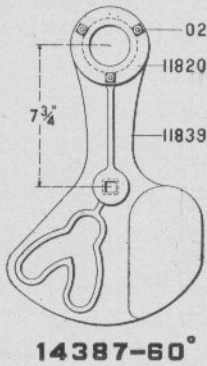
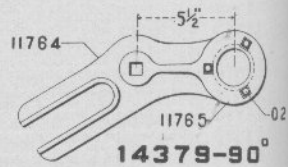
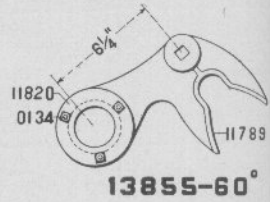
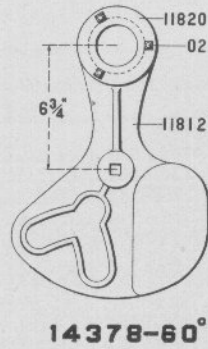
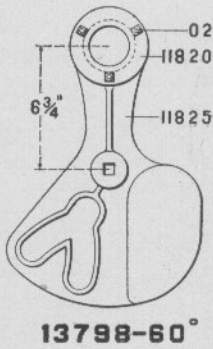
Complete Spectacles as enumerated below, do not include Glass or Round-els, which should be ordered separately, if required. For Back Spectacles, see pages 342 and 344.

Order No.	TWO LIGHT FRONT SPECTACLES—CONTINUED	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fastening Bezel Rings to Spectacle Castings.....	.02
041	COTTER PIN, $\frac{1}{8}$ " x $\frac{1}{4}$ ", for 11688, (per 100).....	.80
087	$\frac{5}{8}$ " WASHER.....	.01
0134	BOLT AND NUT, $\frac{1}{4}$ " x $\frac{3}{4}$ ", for fastening Bezel Rings to Spectacle Castings.....	.02
0232	BOLT AND NUT, $\frac{1}{4}$ " x $\frac{7}{8}$ ", for fastening Bezel Rings to Spectacle Castings.....	.02
9864	SPECTACLE, Casting only, for 10097.....	.02
10097	Two Light FRONT SPECTACLE COMPLETE, $5\frac{3}{4}$ " Centers, 60 Degree Throw, (Glass $3\frac{1}{2}$ " not included).....	1.36
11688	STUD, $\frac{5}{8}$ " x $2\frac{1}{16}$ ", for Front Spectacles.....	1.36
11718	SPECTACLE, Casting only, for 14501.....	
11719	BEZEL RING for 11718.....	
11754	BEZEL RING for 9864, 11773, 11782 and 12401.....	
11773	SPECTACLE, Casting only, for 18340.....	
11782	SPECTACLE, Casting only, for 14499.....	
11823	BEZEL RING for 11824.....	
11824	SPECTACLE, Casting only, for 17925.....	
11829	BEZEL RING for 11845.....	
11845	SPECTACLE, Casting only, for 14502.....	
12401	SPECTACLE, Casting only, for 12403.....	
12403	Two Light FRONT SPECTACLE COMPLETE, $6\frac{1}{4}$ " Centers, 60 Degree Throw : (Glass $3\frac{1}{2}$ " not included).....	1.56
14499	Two Light FRONT SPECTACLE COMPLETE, $7\frac{1}{8}$ " Centers, 60 Degree Throw : (Glass $3\frac{1}{2}$ " not included).....	1.56
14501	Two Light FRONT SPECTACLE COMPLETE, $6\frac{1}{4}$ " Centers, 60 Degree Throw: (Glass $5\frac{3}{8}$ " not included).....	1.52
14502	Two Light FRONT SPECTACLE COMPLETE, $7\frac{3}{8}$ " Centers, 60 Degree Throw : (Glass $5\frac{3}{8}$ " not included).....	1.56
7925	Two Light FRONT SPECTACLE COMPLETE, 6" Centers, 60 Degree Throw : (Glass 4" not included).....	1.36
8340	Two Light FRONT SPECTACLE COMPLETE, $7\frac{1}{8}$ " Centers, 60 Degree Throw : (Glass $3\frac{1}{2}$ " not included).....	1.56

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

## BACK SPECTACLES



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

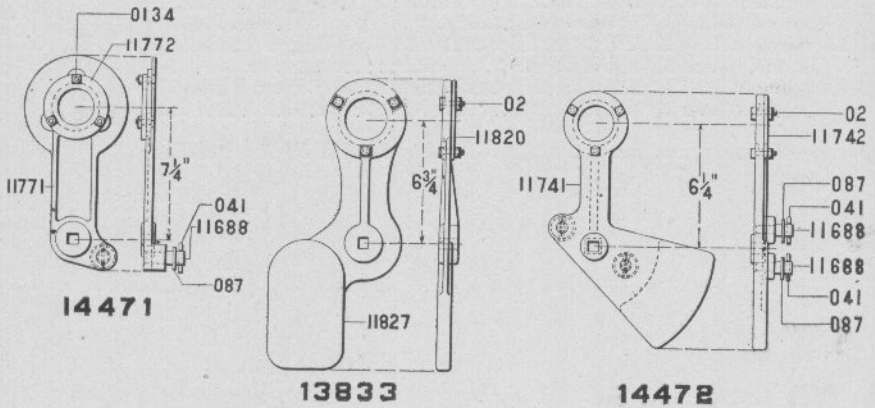
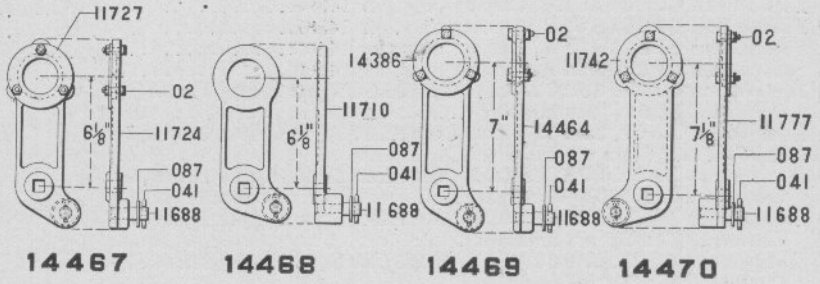
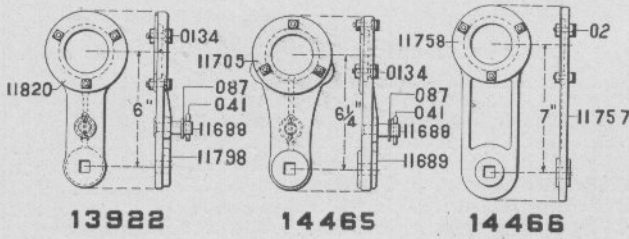
Complete Spectacles as enumerated below, do not include Glass or Roundels, which should be ordered separately, if required. For Front Spectacles, see pages 334 to 340 inclusive.

Order No.	BACK SPECTACLES	List Price.
02	<b>BOLT AND NUT</b> , $\frac{1}{4}$ " x 1", for fastening Bezel Rings to Spectacle Castings	.02
0134	<b>BOLT AND NUT</b> , $\frac{1}{4}$ " x $\frac{3}{4}$ ", for fastening Bezel Rings 11820 to 11789	.02
11764	Escapement <b>SPECTACLE</b> , Casting only, for 14379	
11765	Escapement <b>BEZEL RING</b> , for 11764	
11789	Escapement <b>SPECTACLE</b> , Casting only, for 13855	
11812	Escapement <b>SPECTACLE</b> , Casting only, for 14378	
11820	<b>BEZEL RING</b> for various Spectacles	
11822	<b>BEZEL RING</b> for 11843	
11825	Escapement <b>SPECTACLE</b> , Casting only, for 13798	
11831	Escapement <b>SPECTACLE</b> , Casting only, for 14389	
11832	Escapement <b>SPECTACLE</b> , Casting only, for 14461	
11833	Escapement <b>SPECTACLE</b> , Casting only, for 14388	
11839	Escapement <b>SPECTACLE</b> , Casting only, for 14387	
11841	Escapement <b>SPECTACLE</b> , Casting only, for 14460	
11843	Escapement <b>SPECTACLE</b> , Casting only, for 14462	
13798	Escapement <b>BACK SPECTACLE COMPLETE</b> , 60 Degree Throw, $6\frac{3}{4}$ " Centers, (Glass $2\frac{3}{8}$ " not included)	1.36
13855	Escapement <b>BACK SPECTACLE COMPLETE</b> , 60 Degree Throw, $6\frac{1}{4}$ " Centers, (Glass $2\frac{1}{8}$ " not included)	.72
14378	Escapement <b>BACK SPECTACLE COMPLETE</b> , 60 Degree Throw, $6\frac{3}{4}$ " Centers, (Glass $2\frac{7}{8}$ " not included)	1.36
14379	Escapement <b>BACK SPECTACLE COMPLETE</b> , 90 Degree Throw, $5\frac{1}{2}$ " Centers, (Glass $2\frac{3}{8}$ " not included)	1.00
14387	Escapement <b>BACK SPECTACLE COMPLETE</b> , 60 Degree Throw, $7\frac{3}{4}$ " Centers, (Glass $2\frac{3}{8}$ " not included)	1.40
14388	Escapement <b>BACK SPECTACLE COMPLETE</b> , 60 Degree Throw, $7\frac{3}{4}$ " Centers, (Glass $2\frac{7}{8}$ " not included)	1.40
14389	Escapement <b>BACK SPECTACLE COMPLETE</b> , 85 Degree Throw, $6\frac{3}{4}$ " Centers, (Glass $2\frac{7}{8}$ " not included)	1.40
14460	Escapement <b>BACK SPECTACLE COMPLETE</b> , 90 Degree Throw, 7" Centers, (Glass $2\frac{3}{8}$ " not included)	1.00
14461	Escapement <b>BACK SPECTACLE COMPLETE</b> , 85 Degree Throw, $6\frac{3}{4}$ " Centers, (Glass $2\frac{7}{8}$ " not included)	1.40
14462	Escapement <b>BACK SPECTACLE COMPLETE</b> , 90 Degree Throw, 7" Centers, (Glass $2\frac{3}{8}$ " not included)	1.00

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

BACK SPECTACLES—CONTINUED



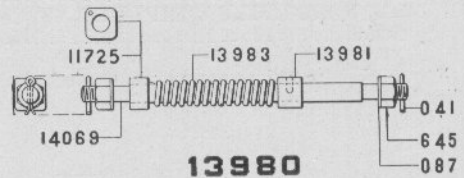
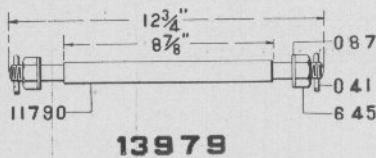
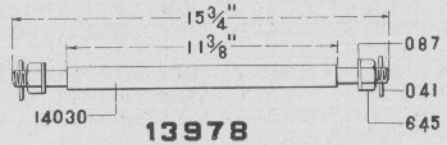
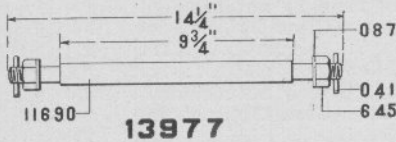
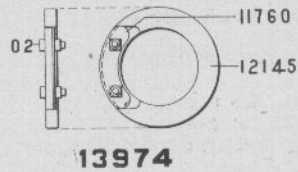
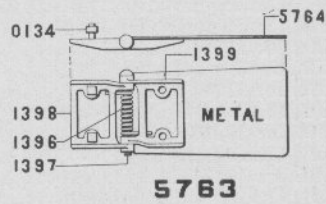
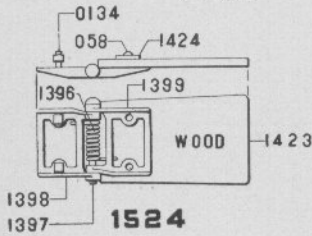
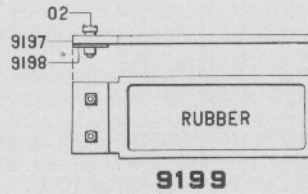
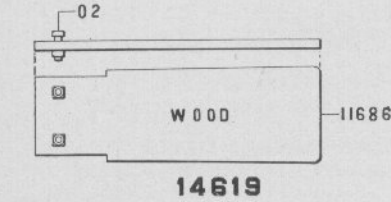
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Complete Spectacles as enumerated below do not include Glass or Roundels, which should be ordered separately, if required. For Front Spectacles, see pages 334 to 340 inclusive.

Order No.	BACK SPECTACLES—CONTINUED	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing Bezel Rings to Spectacle Castings	.02
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 11688, (per 100)	.80
087	$\frac{3}{8}$ " WASHER for 11688	.01
0134	BOLT AND NUT, $\frac{1}{4}$ " x $\frac{3}{4}$ " for fastening Bezel Rings to 11689 and 11798	.02
11688	STUD, $\frac{5}{8}$ " x $2\frac{1}{16}$ " for 13922 and others	
11689	SPECTACLE, Casting only, for 14465	
11705	BEZEL RING for 11689	
11710	SPECTACLE, Casting only, for 14468	
11724	SPECTACLE, Casting only, for 14467	
11727	BEZEL RING for 11724	
11741	SPECTACLE, Casting only, for 14472	
11742	BEZEL RING for 11741 and 11777	
11757	SPECTACLE, Casting only, for 14466	
11758	BEZEL RING for 11757	
11771	SPECTACLE, Casting only, for 14471	
11772	BEZEL RING for 11771	
11777	SPECTACLE, Casting only, for 14470	
11798	SPECTACLE, Casting only, for 13922	
11820	BEZEL RING for 11798	
11827	SPECTACLE, Casting only, for 13833	
13833	BACK SPECTACLE COMPLETE, $6\frac{3}{4}$ " Centers, (Glass $2\frac{7}{8}$ " not included)	1.36
13922	BACK SPECTACLE COMPLETE, 6" Centers, (Glass $2\frac{3}{8}$ " not included)	
14386	BEZEL RING for 14464	
14464	SPECTACLE, Casting only, for 14469	.64
14465	BACK SPECTACLE COMPLETE, $6\frac{1}{4}$ " Centers, (Glass $2\frac{1}{2}$ " not included)	.64
14466	BACK SPECTACLE COMPLETE, 7" Centers, (Glass $2\frac{7}{8}$ " not included)	.64
14467	BACK SPECTACLE COMPLETE, $6\frac{1}{8}$ " Centers, (Glass $2\frac{3}{8}$ " not included)	.64
14468	Blank BACK SPECTACLE COMPLETE, $6\frac{1}{8}$ " Centers	.64
14469	BACK SPECTACLE COMPLETE, 7" Centers, (Glass 3" not included)	.64
14470	BACK SPECTACLE COMPLETE, $7\frac{1}{8}$ " Centers, (Glass $2\frac{3}{8}$ " not included)	.64
14471	BACK SPECTACLE COMPLETE, $7\frac{1}{8}$ " Centers, (Glass $2\frac{3}{8}$ " not included)	.64
14472	BACK SPECTACLE COMPLETE, $6\frac{1}{4}$ " Centers, (Glass $2\frac{3}{8}$ " not included)	1.36

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



# DWARF SIGNALS

347

Order No.	BLADES, SHAFTS, ETC.	List Price.
02	BOLT AND NUT, $\frac{1}{4}$ " x 1", for fixing 9197, 11686 and 12145 to Front Spectacles.....	.02
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", (per 100).....	.80
058	RIVET $\frac{3}{16}$ " x $\frac{3}{4}$ ".....	.01
087	$\frac{5}{16}$ " WASHER.....	.01
0134	BOLT AND NUT, $\frac{1}{4}$ " x $\frac{3}{4}$ ", for fastening Hinged Blades to Front Spectacles.....	.02
645	$\frac{5}{16}$ " HEX. NUT.....	.04
1396	SPRING for Hinged Blades 1524 and 5763.....	.16
1397	PIN for 1524 and 5763.....	.06
1398	STATIONARY HINGE for 1524 and 5763.....	.40
1399	SWINGING HINGE for 1524 and 5763.....	.40
1423	WOOD BLADE for 1524.....	.30
1424	BACK PLATE for 1524.....	.10
1524	WOOD BLADE COMPLETE with Hinge.....	1.50
5763	METAL BLADE COMPLETE with Hinge.....	1.50
5764	METAL BLADE only for 5763.....	.50
9197	RUBBER BLADE only for 9199.....	.60
9198	PLATE for 9199.....	.07
9199	RUBBER BLADE COMPLETE with Bolts and Plate.....	.70
11686	ASH BLADE only for 14619.....	.20
11690	SHAFT only for 13977, $\frac{7}{8}$ " x $14\frac{1}{4}$ ".....	1.04
11725	COLLAR for 14069.....	.10
11760	BACK PLATE for Rubber Disc.....	.02
11790	SHAFT only for 13979, $\frac{7}{8}$ " x $12\frac{3}{4}$ ".....	1.04
12145	RUBBER DISC for 13974.....	.44
13974	RUBBER DISC COMPLETE.....	.52
13977	SHAFT COMPLETE, $\frac{7}{8}$ " x $14\frac{1}{4}$ ".....	1.12
13978	SHAFT COMPLETE, $\frac{7}{8}$ " x $15\frac{1}{4}$ ".....	1.12
13979	SHAFT COMPLETE, $\frac{7}{8}$ " x $12\frac{3}{4}$ ".....	1.08
13980	SHAFT COMPLETE with Spring.....	1.20
13981	COLLAR for 14069.....	.14
13983	SPRING for 14069.....	.20
14030	SHAFT only for 13978.....	1.04
14069	SHAFT only for 13980.....	.70
14619	ASH BLADE COMPLETE with Bolts.....	.24

Order by NUMBER and NAME Appearing in Large Type

## DWARF SIGNALS

GLASS



13590—PLAIN  
13731—ROUNDEL



7066—PLAIN  
9234—ROUNDEL



9226—PLAIN  
9235—ROUNDEL



1680—PLAIN  
9236—ROUNDEL



2600—PLAIN  
9237—ROUNDEL



924—PLAIN  
9238—ROUNDEL



9227—PLAIN  
9239—ROUNDEL



9228—PLAIN  
9240—ROUNDEL



9229—PLAIN  
9241—ROUNDEL



7064—PLAIN  
4682—ROUNDEL



9230—PLAIN  
9242—ROUNDEL



9231—PLAIN  
9243—ROUNDEL



2599—PLAIN  
9244—ROUNDEL



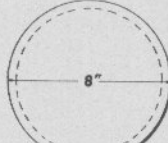
14031—PLAIN  
14032—ROUNDEL



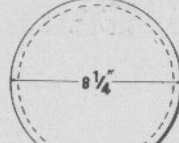
1681—PLAIN  
9245—ROUNDEL



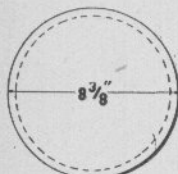
9232—PLAIN  
9246—ROUNDEL



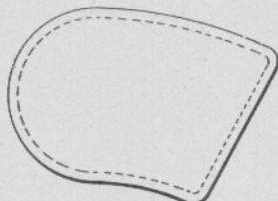
5166—PLAIN  
9247—ROUNDEL



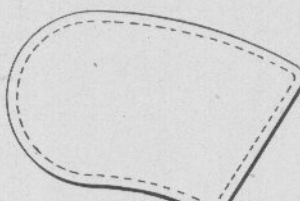
14052—PLAIN  
14080—ROUNDEL



9233—PLAIN  
4679—ROUNDEL



9248



9249

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# DWARF SIGNALS

349

GLASS

## DOUBLE THICK PLAIN SEMAPHORE CIRCLES

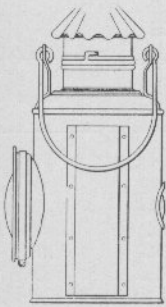
Order Number	Diameter	Flashed Red	Pot Metal Green	Pot Metal Yellow	Pot Metal Blue	Pot Metal Purple	Clear
13590	2 "						
7066	2 $\frac{3}{8}$ "	.10	.10	.10	.10	.10	.04
9226	2 $\frac{1}{2}$ "	.10	.10	.10	.10	.10	.04
1680	2 $\frac{7}{8}$ "	.12	.12	.12	.12	.12	.05
2600	3 "	.12	.12	.12	.12	.12	.05
924	3 $\frac{1}{8}$ "	.14	.14	.14	.14	.14	.06
9227	3 $\frac{3}{8}$ "	.14	.14	.14	.14	.14	.06
9228	4 "	.16	.16	.16	.16	.16	.07
9229	4 $\frac{1}{8}$ "	.17	.17	.17	.17	.17	.08
7064	4 $\frac{1}{4}$ "	.18	.18	.18	.18	.18	.08
9230	4 $\frac{3}{4}$ "	.20	.20	.20	.20	.20	.10
9231	5 "	.22	.22	.22	.22	.22	.10
2599	5 $\frac{3}{8}$ "	.25	.25	.25	.25	.25	.11
14031	5 $\frac{1}{2}$ "						
1681	6 $\frac{1}{4}$ "	.32	.32	.32	.32	.32	.12
9232	6 $\frac{7}{8}$ "	.36	.36	.36	.36	.36	.14
5166	8 "	.45	.45	.45	.45	.45	.20
14052	8 $\frac{1}{8}$ "						
9233	8 $\frac{3}{8}$ "	.50	.50	.50	.50	.50	.20

## SOLID COLOR MOULDED SEMAPHORE ROUNDELS

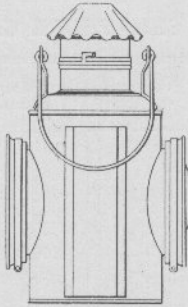
Order Number	Diameter	Red	Green	Yellow	Blue	Purple	Clear
13731	2 "						
9234	2 $\frac{3}{8}$ "	.38	.19	.19	.19	.19	.12
9235	2 $\frac{1}{2}$ "	.38	.19	.19	.19	.19	.12
9236	2 $\frac{7}{8}$ "	.48	.24	.24	.24	.24	.14
9237	3 "	.48	.24	.24	.24	.24	.14
9238	3 $\frac{1}{8}$ "	.58	.29	.29	.29	.29	.19
9239	3 $\frac{3}{8}$ "	.58	.34	.34	.34	.34	.24
9240	4 "	.58	.34	.34	.34	.34	.24
9241	4 $\frac{1}{8}$ "	.67	.38	.38	.38	.38	.26
4682	4 $\frac{1}{4}$ "	.67	.38	.38	.38	.38	.26
9242	4 $\frac{3}{4}$ "	.72	.48	.48	.48	.48	.31
9243	5 "	.72	.48	.48	.48	.48	.31
9244	5 $\frac{3}{8}$ "	.72	.48	.48	.48	.48	.34
14032	5 $\frac{1}{2}$ "						
9245	6 $\frac{1}{4}$ "	1.20	.67	.67	.67	.67	.48
9246	6 $\frac{7}{8}$ "	1.32	.72	.72	.72	.72	.53
9247	8 "	1.80	1.20	1.20	1.20	1.20	.60
14080	8 $\frac{1}{8}$ "						
4679	8 $\frac{3}{8}$ "	1.80	1.20	1.20	1.20	1.20	.60
9248		3.60	1.80	1.80	1.80	1.80	...
9249		4.20	2.11	2.11	2.11	2.11	...

DWARF SIGNALS

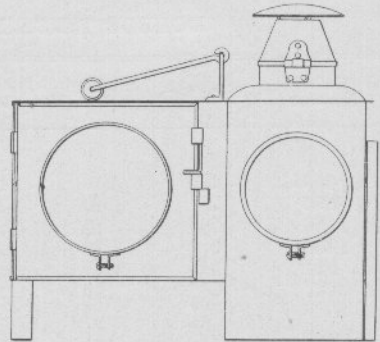
LAMPS AND BURNERS



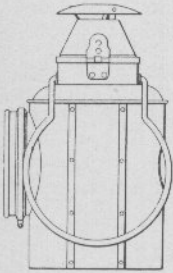
030



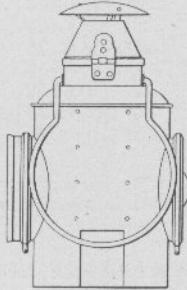
17861



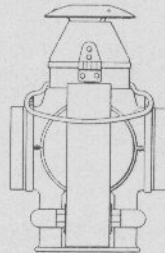
7109



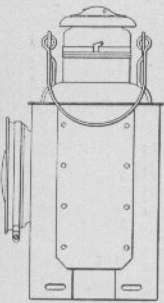
17860



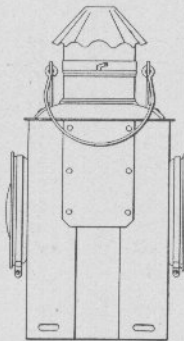
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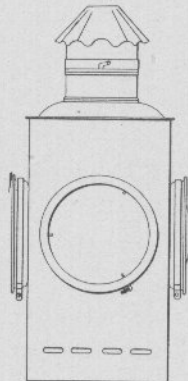
17864



17865



17866



11403



17868



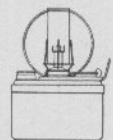
17869



17870



17871



17867

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

NOTE.—On the opposite page are shown a few Standard Semaphore Lamps. There are a number of other makes and designs not shown, all of which we are prepared to furnish.

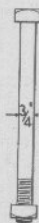
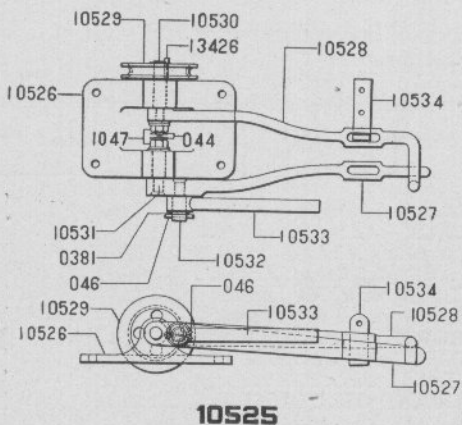
When ordering, specify make, style of body, number of and style of lenses; whether for oil, electric light or convertible.

Order No.	LAMPS AND BURNERS	List Price.
030	No. 8 DRESSEL SEMAPHORE LAMP, Arranged for Oil.....	
7108	No. 605 A. & W. SEMAPHORE LAMP with inside Socket.....	
7109	DISTANT SEMAPHORE LAMP.....	
11403	No. 10 POT SIGNAL LAMP.....	
17860	No. 508 A. & W. SEMAPHORE LAMP with One Lense.....	
17861	No. 8 DRESSEL SEMAPHORE LAMP with Two Lenses.....	
17864	A. & W. STEEL BODY SEMAPHORE LAMP, Two Lenses.....	
17865	SQUARE SEMAPHORE LAMP, One Lense, with Slide Door.....	
17866	SQUARE SEMAPHORE LAMP, Two Lenses.....	
17867	DRESSEL LONG TIME BURNER AND OIL FOUNT.....	
17868	DRESSEL BURNER, Long Stem.....	
17869	DRESSEL BURNER, Short Stem.....	
17870	CALLENDER BURNER, Long Stem.....	
17871	CALLENDER BURNER, Short Stem.....	

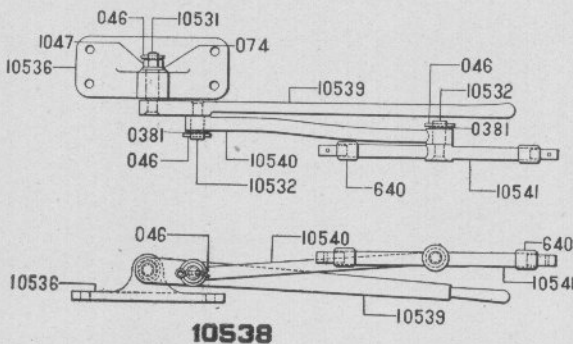
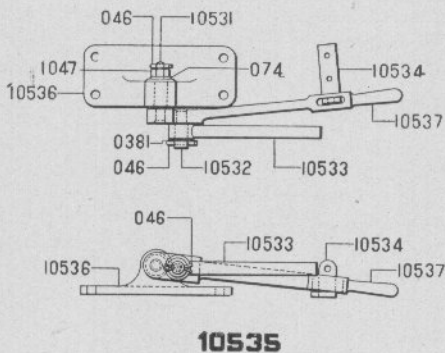
Order by NUMBER and NAME Appearing in Large Type

SWITCH LEVERS

THROW OVER LEVERS



- 0133— $\frac{3}{4}$ " X 9"
- 0151— $\frac{3}{4}$ " X 10"
- 0437— $\frac{3}{4}$ " X 11"
- 0180— $\frac{3}{4}$ " X 12"



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# SWITCH LEVERS

353

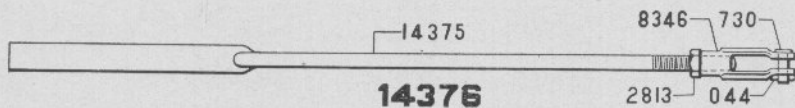
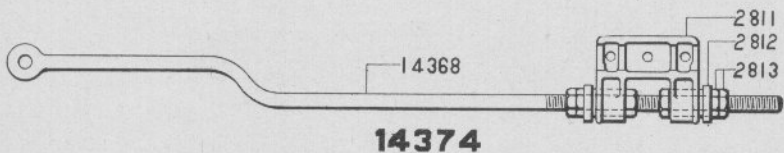
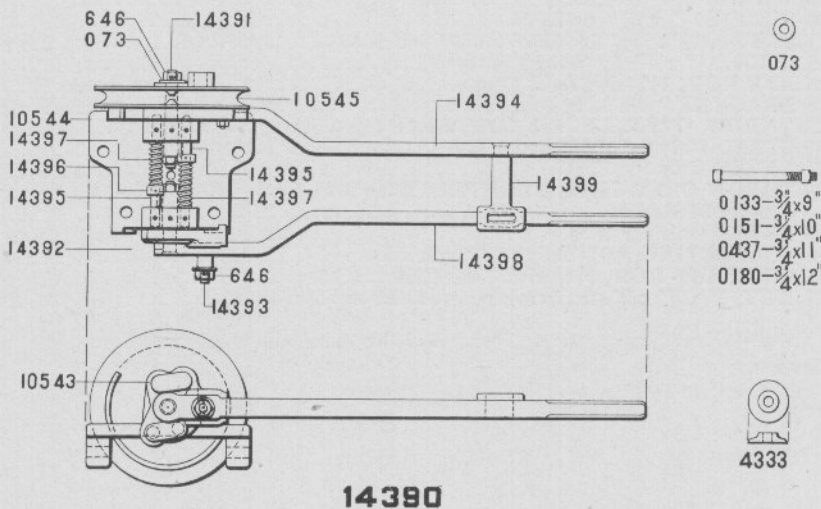
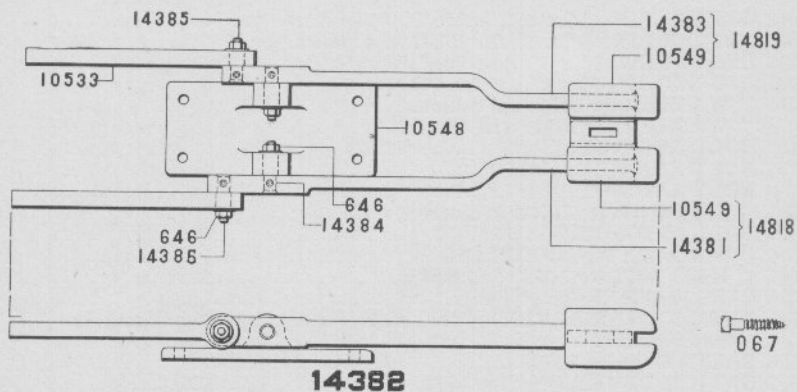
Order No.	THROW OVER LEVERS	List Price.
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 10530 and others, (per 100).....	.80
046	COTTER PIN, $\frac{3}{16}$ " x 2", for 10532 and others, (per 100).....	.80
066	LAG SCREW, $\frac{3}{8}$ " x 3", for fixing 10534 to Ties.....	.05
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER for 0133 and others.....	.02
074	1" WASHER for 10531 and others.....	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16
0150	BOLT AND NUT, $\frac{3}{4}$ " x 12".....	.19
0381	$1\frac{1}{4}$ " WASHER for 10532 and others.....	.03
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11".....	.19
640	1" Reinforced Pipe COUPLING for Pipe Connections.....	.19
1047	1" HEX. NUT for 10530 and others.....	.09
4333	CAST WASHER for $\frac{3}{4}$ " Bolts.....	.08
10525	THROW OVER LEVER COMPLETE, for working Switch and Dis- tant Signal.....	
10526	STAND Only for 10525.....	
10527	SWITCH LEVER Only for 10525.....	
10528	SIGNAL LEVER Only for 10525.....	
10529	WHEEL Only for 10525.....	
10530	SHAFT, $1\frac{1}{4}$ " x $6\frac{3}{4}$ " for 10525.....	
10531	SHAFT, $1\frac{1}{4}$ " x $5\frac{1}{4}$ " for 10525, 10535 and 10538.....	
10532	STUD, $1\frac{1}{4}$ " x 4", for Switch Levers.....	
10533	EYE ROD, $1\frac{1}{4}$ " with Solid Ends.....	
10534	BRACKET for locking levers.....	
10535	THROW OVER LEVER COMPLETE for Working Switch only .....	
10536	STAND Only for 10535 and 10538.....	
10537	LEVER Only for 10535.....	
10538	THROW OVER LEVER COMPLETE for working Switch Con- nections, 9" Stroke.....	
10539	LEVER Only for 10538.....	
10540	CONNECTING ROD Only, 2' 0" long.....	
10541	COUPLING ROD, $1\frac{1}{4}$ ", with Tang Ends.....	
13426	KEY, $\frac{1}{4}$ " x $\frac{3}{8}$ " x 2", for fixing Wheel 10529 to Shaft 10530.....	

NOTE.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

SWITCH LEVERS

THROW OVER LEVERS—CONTINUED



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



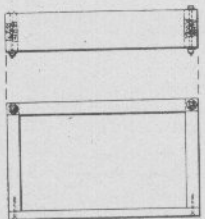
# SWITCH LEVERS

355

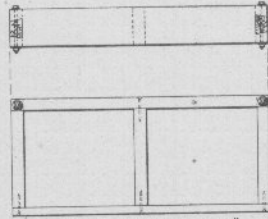
Order No.	THROW OVER LEVERS—CONTINUED	List Price.
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ ", for 730, (per 100).....	.80
067	LAG SCREW, $\frac{3}{4}$ " x 4".....	.07
073	$\frac{3}{4}$ " WASHER.....	.02
0133	BOLT AND NUT, $\frac{3}{4}$ " x 9".....	.16
0151	BOLT AND NUT, $\frac{3}{4}$ " x 10".....	.16
0180	BOLT AND NUT, $\frac{3}{4}$ " x 12".....	.19
0437	BOLT AND NUT, $\frac{3}{4}$ " x 11".....	.19
646	$\frac{3}{4}$ " HEX. NUT.....	.05
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ ".....	.07
2811	THROW ROD BRACKET.....	1.28
2812	BUSHING for 2811.....	.32
2813	$1\frac{1}{4}$ " THIN HEX. NUT.....	.09
4333	CAST WASHER for $\frac{3}{8}$ " Bolts.....	.08
8346	$1\frac{1}{4}$ " MALLEABLE SCREW JAW.....	.41
10533	$1\frac{1}{4}$ " EYE ROD with Stub End.....	.74
10543	LEVER SHOE.....	4.27
10544	LEVER STAND, Casting only.....	3.14
10545	WHEEL for operating Signal.....	3.50
10548	STAND, Casting only.....	2.84
10549	WEIGHT Cast with 14381 and 14383.....	5.40
14368	THROW ROD only for 14374.....	2.90
14374	THROW ROD COMPLETE.....	3.50
14375	LOCK ROD only for 14376.....	.36
14376	LOCK ROD COMPLETE.....	.36
14381	LEFT HAND LEVER for 14382.....	27.50
14382	THROW OVER LEVER COMPLETE.....	.60
14383	RIGHT HAND LEVER for 14382.....	.72
14384	PIN, $1\frac{1}{4}$ " x $4\frac{3}{8}$ ", for 14381 and 14383.....	.40
14385	PIN, $1\frac{1}{4}$ " x 4", for 14381 and 14383.....	.36
14390	THROW OVER Switch and Signal LEVER COMPLETE.....	26.60
14391	STUD, $1\frac{1}{4}$ " x $8\frac{1}{8}$ ", for fixing 10545 and 14394 to 10544.....	.72
14392	STUD, $1\frac{1}{4}$ " x $6\frac{3}{4}$ ", for fixing 14398 to 10554.....	.40
14393	STUD, $1\frac{1}{4}$ " x $4\frac{1}{8}$ ", for fixing 14374 to 14398.....	.36
14394	Right Hand THROW OVER LEVER.....	3.12
14395	LOCKING PLUNGER, 1" x $10\frac{3}{16}$ ".....	.53
14396	COLLAR for Locking Plunger.....	.06
14397	SPRING for Locking Plunger.....	.84
14398	Left Hand THROW OVER LEVER.....	3.12
14399	CROSS ARM for 14394.....	.96
14818	Left Hand LEVER AND WEIGHT COMPLETE, for 14382.....	10.00
14819	Right Hand LEVER AND WEIGHT COMPLETE, for 14382.....	10.00

Order by NUMBER and NAME Appearing in Large Type

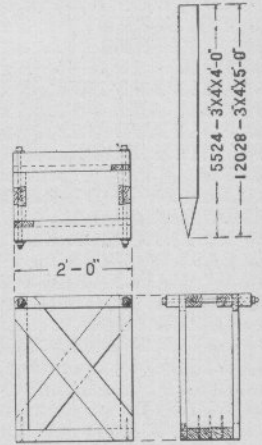
STYLE "A" FOUNDATIONS



12002	-	1 WAY	1'-0"
12003	-	2 "	1'-2 3/4"
12004	-	3 "	1'-5 1/2"
12005	-	4 "	1'-8 1/4"
12006	-	5 "	1'-11"
12007	-	6 "	2'-1 3/4"
12008	-	7 "	2'-4 1/2"
12009	-	8 "	2'-7 1/4"
12010	-	9 "	2'-10"
12011	-	10 "	3'-0 3/4"
12012	-	11 "	3'-3 1/2"
12013	-	12 "	3'-6 1/4"
12014	-	13 "	3'-9"
12015	-	14 "	3'-11 3/4"
12016	-	15 "	4'-2 1/2"



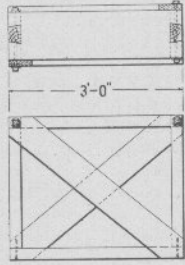
12017	-	16 WAY	4'-5 1/4"
12018	-	17 "	4'-8"
12019	-	18 "	4'-10 3/4"
12020	-	19 "	5'-1 1/2"
12021	-	20 "	5'-4 1/4"
13591	-	21 "	5'-7"
13592	-	22 "	5'-9 3/4"
13593	-	23 "	6'-0 1/2"
13594	-	24 "	6'-3 1/4"
13595	-	25 "	6'-6"
13596	-	26 "	6'-8 3/4"
13597	-	27 "	6'-11 1/2"
13598	-	28 "	7'-2 1/4"
13599	-	29 "	7'-5"
13600	-	30 "	7'-7 3/4"



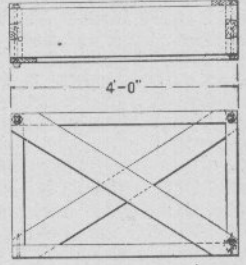
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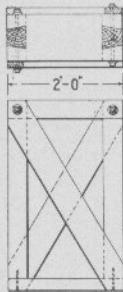
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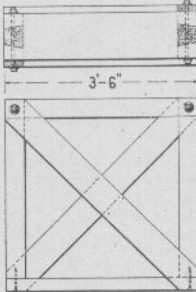
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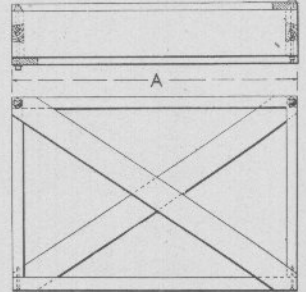
12024



12026



12027



13601 - 3'-0"  
13609 - 5'-0"

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# FOUNDATIONS

357

Order  
No.

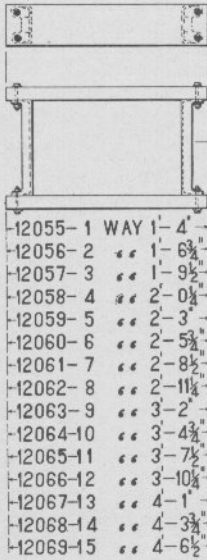
STYLE "A" FOUNDATIONS

List Price.

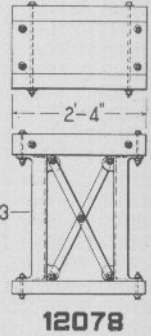
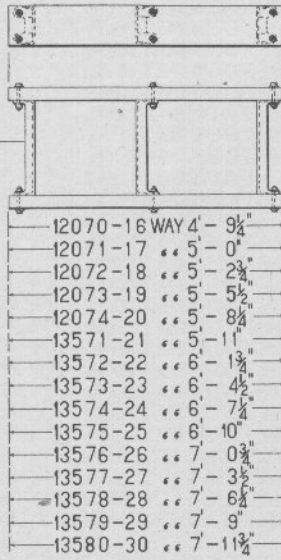
5524	OAK STAKE for Wire Pulleys, 3" x 4" x 4' 0".....	.31	
12002	1 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 1' 0" Oak Top.....	.96	
12003	2 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 1' 2 $\frac{3}{4}$ " Oak Top.....	1.03	
12004	3 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 1' 5 $\frac{1}{2}$ " Oak Top.....	1.08	
12005	4 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 1' 8 $\frac{1}{4}$ " Oak Top.....	1.13	
12006	5 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 1' 11" Oak Top.....	1.20	
12007	6 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 2' 1 $\frac{3}{4}$ " Oak Top.....	1.25	
12008	7 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 2' 4 $\frac{1}{2}$ " Oak Top.....	1.32	
12009	8 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 2' 7 $\frac{1}{4}$ " Oak Top.....	1.37	
12010	9 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 2' 10" Oak Top.....	1.41	
12011	10 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 3' 0 $\frac{3}{4}$ " Oak Top.....	1.48	
12012	11 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 3' 3 $\frac{1}{2}$ " Oak Top.....	1.53	
12013	12 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 3' 6 $\frac{1}{4}$ " Oak Top.....	1.58	
12014	13 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 3' 9" Oak Top.....	1.87	
12015	14 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 3' 11 $\frac{3}{4}$ " Oak Top.....	1.92	
12016	15 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 4' 2 $\frac{1}{2}$ " Oak Top.....	1.99	
12017	16 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 4' 5 $\frac{1}{4}$ " Oak Top.....	2.04	
12018	17 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 4' 8" Oak Top.....	2.08	
12019	18 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 4' 10 $\frac{3}{4}$ " Oak Top.....	2.16	
12020	19 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 5' 1 $\frac{1}{2}$ " Oak Top.....	2.30	
12021	20 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 5' 4 $\frac{1}{2}$ " Oak Top.....	2.37	
12022	WHEEL FOUNDATION, 2 $\frac{1}{2}$ " x 10" x 2' 0" Oak Top, 3' 4" Deep.....	2.40	
12023	WHEEL FOUNDATION, 2 $\frac{1}{2}$ " x 10" x 3' 0" Oak Top, 3' 4" Deep.....	2.82	
12024	WHEEL FOUNDATION, 2 $\frac{1}{2}$ " x 10" x 4' 0" Oak Top, 3' 4" Deep.....	3.24	
12025	Special DWARF SIGNAL FOUNDATION for Style 3 Compensating Dwarf Signal.....	3.12	
12026	CRANK FOUNDATION, 4" x 10" x 2' 0" Oak Top, 3' 4" Deep.....	3.90	
12027	COMPENSATOR FOUNDATION, 3' 0" Top, 4" x 10" x 3' 6" Oak Top, 3' 4" Deep.....	4.06	
12028	OAK STAKE for Wire Pulleys, 3" x 4" x 5' 0".....	.39	
13591	21 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 5' 7" Oak Top.....	2.42	
13592	22 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 5' 9 $\frac{3}{4}$ " Oak Top.....	2.47	
13593	23 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 6' 0 $\frac{1}{2}$ " Oak Top.....	2.54	
13594	24 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 6' 3 $\frac{1}{4}$ " Oak Top.....	2.59	
13595	25 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 6' 6" Oak Top.....	2.64	
13596	26 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 6' 8 $\frac{3}{4}$ " Oak Top.....	2.92	
13597	27 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 6' 11 $\frac{1}{2}$ " Oak Top.....	2.97	
13598	28 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 7' 2 $\frac{1}{4}$ " Oak Top.....	3.04	
13599	29 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 7' 5" Oak Top.....	3.09	
13600	30 Way Pipe Carrier FOUNDATION, 2 $\frac{1}{2}$ " x 8" x 7' 7 $\frac{3}{4}$ " Oak Top.....	3.14	
13601	DWARF SIGNAL FOUNDATION, 2 $\frac{1}{2}$ " x 12" x 3' 0" Oak Top, 3' 4" Deep.....	3.12	
13609	DWARF SIGNAL FOUNDATION, 2 $\frac{1}{2}$ " x 12" x 5' 0" Oak Top, 3' 4" Deep.....	4.03	

Order by NUMBER and NAME Appearing in Large Type

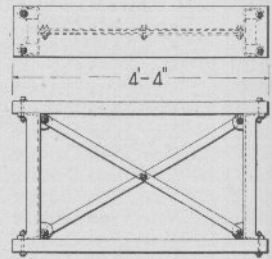
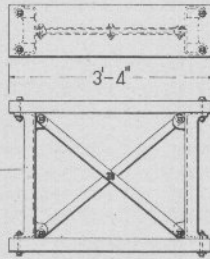
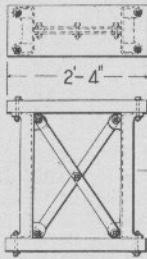
STYLE "C" FOUNDATIONS



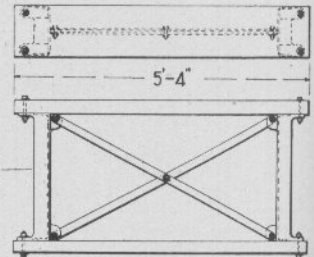
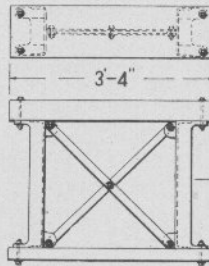
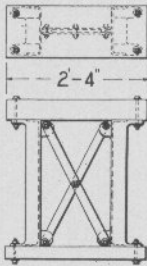
12081



12083



12083



12083

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

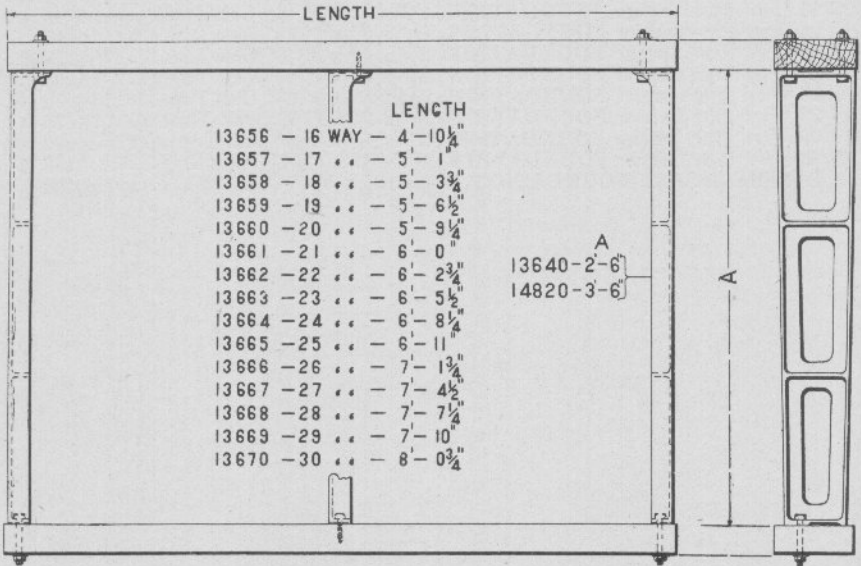
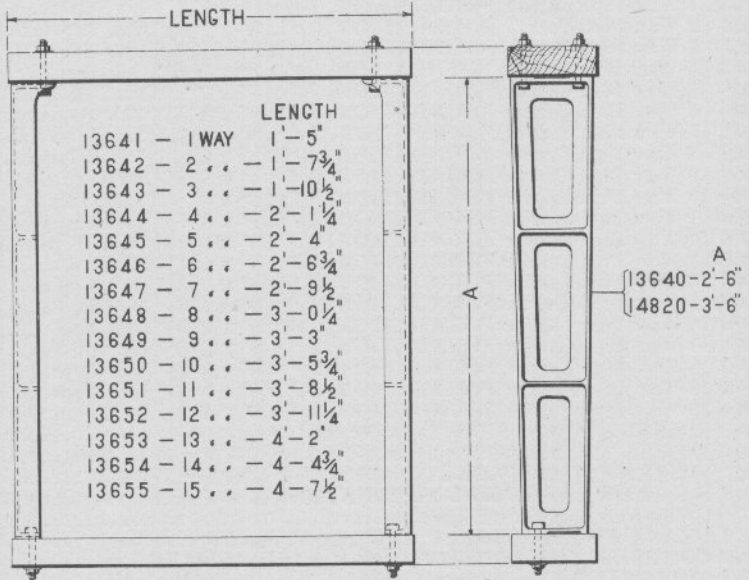
# FOUNDATIONS

359

Order No.	STYLE "C" FOUNDATIONS	List Price.
12055	1 Way Pipe Carrier FOUNDATION, 2½" x 8" x 1' 4" Oak Top.....	2.20
12056	2 Way Pipe Carrier FOUNDATION, 2½" x 8" x 1' 6¾" Oak Top.....	2.26
12057	3 Way Pipe Carrier FOUNDATION, 2½" x 8" x 1' 9½" Oak Top.....	2.32
12058	4 Way Pipe Carrier FOUNDATION, 2½" x 8" x 2' 0¼" Oak Top.....	2.38
12059	5 Way Pipe Carrier FOUNDATION, 2½" x 8" x 2' 3" Oak Top.....	2.44
12060	6 Way Pipe Carrier FOUNDATION, 2½" x 8" x 2' 5¾" Oak Top.....	2.50
12061	7 Way Pipe Carrier FOUNDATION, 2½" x 8" x 2' 8½" Oak Top.....	2.56
12062	8 Way Pipe Carrier FOUNDATION, 2½" x 8" x 2' 11¼" Oak Top.....	2.62
12063	9 Way Pipe Carrier FOUNDATION, 2½" x 8" x 3' 2" Oak Top.....	2.68
12064	10 Way Pipe Carrier FOUNDATION, 2½" x 8" x 3' 4¾" Oak Top.....	2.74
12065	11 Way Pipe Carrier FOUNDATION, 2½" x 8" x 3' 7½" Oak Top.....	2.80
12066	12 Way Pipe Carrier FOUNDATION, 2½" x 8" x 3' 10¼" Oak Top.....	2.86
12067	13 Way Pipe Carrier FOUNDATION, 2½" x 8" x 4' 1" Oak Top.....	2.92
12068	14 Way Pipe Carrier FOUNDATION, 2½" x 8" x 4' 3¾" Oak Top.....	2.98
12069	15 Way Pipe Carrier FOUNDATION, 2½" x 8" x 4' 6½" Oak Top.....	3.04
12070	16 Way Pipe Carrier FOUNDATION, 2½" x 8" x 4' 9¼" Oak Top.....	4.04
12071	17 Way Pipe Carrier FOUNDATION, 2½" x 8" x 5' 0" Oak Top.....	4.10
12072	18 Way Pipe Carrier FOUNDATION, 2½" x 8" x 5' 2¾" Oak Top.....	4.16
12073	19 Way Pipe Carrier FOUNDATION, 2½" x 8" x 5' 5½" Oak Top.....	4.22
12074	20 Way Pipe Carrier FOUNDATION, 2½" x 8" x 5' 8¼" Oak Top.....	4.28
12075	WHEEL FOUNDATION, 2½" x 10" x 2' 4" Oak Top.....	5.60
12076	WHEEL FOUNDATION, 2½" x 10" x 3' 4" Oak Top.....	6.00
12077	WHEEL FOUNDATION, 2½" x 10" x 4' 4" Oak Top.....	6.40
12078	Special DWARF SIGNAL FOUNDATION, 2' 4" Oak Top, for Style 3 Compensating Dwarf Signal.....	6.32
12079	CRANK FOUNDATION, 4" x 10" x 2' 4" Oak Top.....	6.00
12080	COMPENSATOR FOUNDATION, 4" x 10" x 3' 4" Oak Top.....	6.48
12081	SIDE STAND, Casting only, for Style C Pipe Carrier Foundations.....	.96
12083	SIDE STAND, Casting only, for Style C Crank, Compensator, and Wheel Foundations.....	2.16
13571	21 Way Pipe Carrier FOUNDATION, 2½" x 8" x 5' 11" Oak Top.....	4.34
13572	22 Way Pipe Carrier FOUNDATION, 2½" x 8" x 6' 1¾" Oak Top.....	4.40
13573	23 Way Pipe Carrier FOUNDATION, 2½" x 8" x 6' 4½" Oak Top.....	4.46
13574	24 Way Pipe Carrier FOUNDATION, 2½" x 8" x 6' 7¼" Oak Top.....	4.52
13575	25 Way Pipe Carrier FOUNDATION, 2½" x 8" x 6' 10" Oak Top.....	4.58
13576	26 Way Pipe Carrier FOUNDATION, 2½" x 8" x 7' 0¾" Oak Top.....	4.64
13577	27 Way Pipe Carrier FOUNDATION, 2½" x 8" x 7' 3½" Oak Top.....	4.70
13578	28 Way Pipe Carrier FOUNDATION, 2½" x 8" x 7' 6¼" Oak Top.....	4.76
13579	29 Way Pipe Carrier FOUNDATION, 2½" x 8" x 7' 9" Oak Top.....	4.82
13580	30 Way Pipe Carrier FOUNDATION, 2½" x 8" x 7' 11¾" Oak Top.....	4.88
13581	DWARF SIGNAL FOUNDATION, 2½" x 12" x 5' 4" Oak Top.....	6.80

Order by NUMBER and NAME Appearing in Large Type

STYLE "D" PIPE CARRIER FOUNDATIONS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# FOUNDATIONS

361

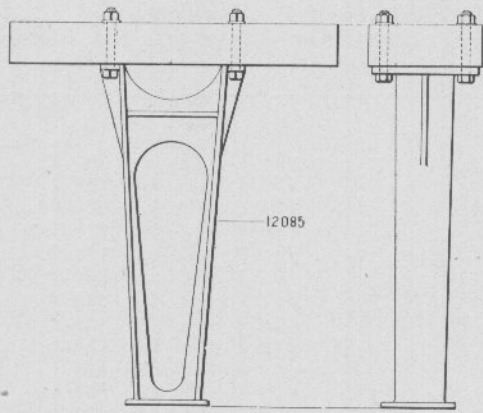
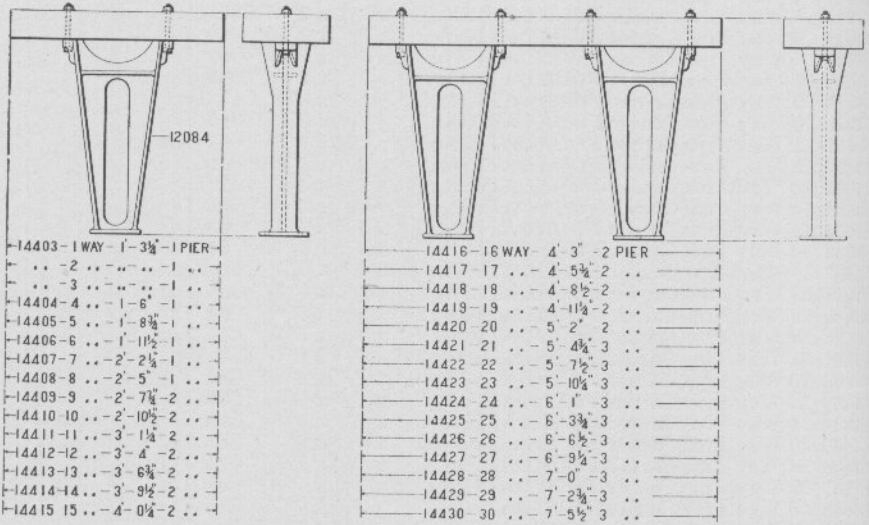
Order No. STYLE "D" PIPE CARRIER FOUNDATIONS List Price.

13640	Pipe Carrier FOUNDATION LEG, 2' 6", Casting only.....	
13641	1 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 1' 5" Oak Top.....	.....
13642	2 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 1' 7 $\frac{1}{2}$ " Oak Top.....	.....
13643	3 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 1' 10 $\frac{1}{2}$ " Oak Top.....	.....
13644	4 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 2' 1 $\frac{1}{2}$ " Oak Top.....	.....
13645	5 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 2' 4" Oak Top.....	.....
13646	6 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 2' 6 $\frac{1}{2}$ " Oak Top.....	.....
13647	7 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 2' 9 $\frac{1}{2}$ " Oak Top.....	.....
13648	8 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 3' 0 $\frac{1}{2}$ " Oak Top.....	.....
13649	9 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 3' 3" Oak Top.....	.....
13650	10 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 3' 5 $\frac{1}{2}$ " Oak Top.....	.....
13651	11 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 3' 8 $\frac{1}{2}$ " Oak Top.....	.....
13652	12 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 3' 11 $\frac{1}{2}$ " Oak Top.....	.....
13653	13 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 4' 2" Oak Top.....	.....
13654	14 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 4' 4 $\frac{1}{2}$ " Oak Top.....	.....
13655	15 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 4' 7 $\frac{1}{2}$ " Oak Top.....	.....
13656	16 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 4' 10 $\frac{1}{2}$ " Oak Top.....	.....
13657	17 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 5' 1" Oak Top.....	.....
13658	18 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 5' 3 $\frac{3}{4}$ " Oak Top.....	.....
13659	19 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 5' 6 $\frac{1}{2}$ " Oak Top.....	.....
13660	20 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 5' 9 $\frac{1}{2}$ " Oak Top.....	.....
13661	21 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 6' 0" Oak Top.....	.....
13662	22 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 6' 2 $\frac{1}{2}$ " Oak Top.....	.....
13663	23 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 6' 5 $\frac{1}{2}$ " Oak Top.....	.....
13664	24 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 6' 8 $\frac{1}{2}$ " Oak Top.....	.....
13665	25 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 6' 11" Oak Top.....	.....
13666	26 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 7' 1 $\frac{1}{2}$ " Oak Top.....	.....
13667	27 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 7' 4 $\frac{1}{2}$ " Oak Top.....	.....
13668	28 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 7' 7 $\frac{1}{2}$ " Oak Top.....	.....
13669	29 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 7' 10" Oak Top.....	.....
13670	30 Way Pipe Carrier FOUNDATION, 2 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " x 8' 0 $\frac{1}{4}$ " Oak Top.....	.....
14820	Pipe Carrier FOUNDATION LEG, 3' 6", Casting only.....	.....

Prices on Application

Order by NUMBER and NAME Appearing in Large Type

STYLE "E" FOUNDATIONS



- 14431 8'-0" TOP.
- 14432 3'-0" ..
- 14433 5'-0" ..



# FOUNDATIONS

363

Order  
No.

STYLE "E" FOUNDATIONS

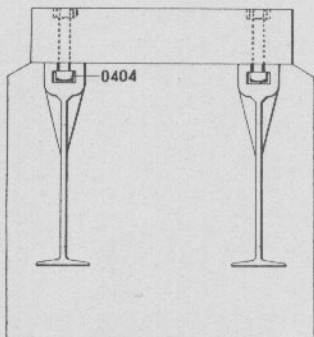
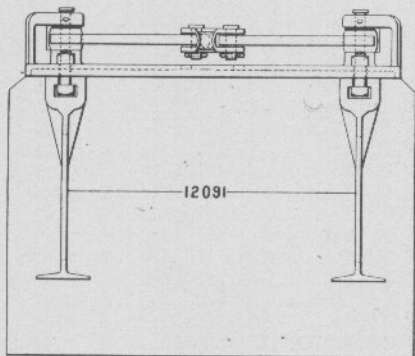
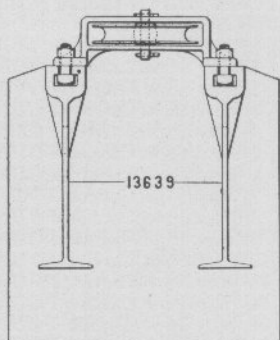
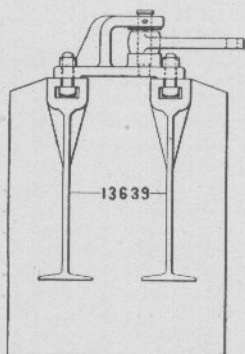
List Price.

12084	PIER for Pipe Carrier Foundation, Casting only.....	2.10
12085	PIER for Crank, Wheel, Compensator, Dwarf Signal and Selector Foundations, Casting only.....	5.20
14403	1 Way Pipe Carrier FOUNDATION, 1' 3 $\frac{1}{4}$ " Top.....	2.56
14403	2 Way Pipe Carrier FOUNDATION, 1' 3 $\frac{1}{4}$ " Top.....	2.56
14403	3 Way Pipe Carrier FOUNDATION, 1' 3 $\frac{1}{4}$ " Top.....	2.56
14404	4 Way Pipe Carrier FOUNDATION, 1' 6" Top.....	2.59
14405	5 Way Pipe Carrier FOUNDATION, 1' 8 $\frac{3}{4}$ " Top.....	2.61
14406	6 Way Pipe Carrier FOUNDATION, 1' 11 $\frac{1}{2}$ " Top.....	2.64
14407	7 Way Pipe Carrier FOUNDATION, 2' 2 $\frac{1}{4}$ " Top.....	2.66
14408	8 Way Pipe Carrier FOUNDATION, 2' 5" Top.....	2.68
14409	9 Way Pipe Carrier FOUNDATION, 2' 7 $\frac{3}{4}$ " Top.....	5.04
14410	10 Way Pipe Carrier FOUNDATION, 2' 10 $\frac{1}{2}$ " Top.....	5.06
14411	11 Way Pipe Carrier FOUNDATION, 3' 1 $\frac{1}{4}$ " Top.....	5.08
14412	12 Way Pipe Carrier FOUNDATION, 3' 4" Top.....	5.11
14413	13 Way Pipe Carrier FOUNDATION, 3' 6 $\frac{3}{4}$ " Top.....	5.13
14414	14 Way Pipe Carrier FOUNDATION, 3' 9 $\frac{1}{2}$ " Top.....	5.16
14415	15 Way Pipe Carrier FOUNDATION, 4' 0 $\frac{1}{4}$ " Top.....	5.18
14416	16 Way Pipe Carrier FOUNDATION, 4' 3" Top.....	5.20
14417	17 Way Pipe Carrier FOUNDATION, 4' 5 $\frac{3}{4}$ " Top.....	5.23
14418	18 Way Pipe Carrier FOUNDATION, 4' 8 $\frac{1}{2}$ " Top.....	5.25
14419	19 Way Pipe Carrier FOUNDATION, 4' 11 $\frac{1}{4}$ " Top.....	5.28
14420	20 Way Pipe Carrier FOUNDATION, 5' 2" Top.....	5.30
14421	21 Way Pipe Carrier FOUNDATION, 5' 4 $\frac{3}{4}$ " Top.....	7.68
14422	22 Way Pipe Carrier FOUNDATION, 5' 7 $\frac{1}{2}$ " Top.....	7.70
14423	23 Way Pipe Carrier FOUNDATION, 5' 10 $\frac{1}{4}$ " Top.....	7.72
14424	24 Way Pipe Carrier FOUNDATION, 6' 1" Top.....	7.75
14425	25 Way Pipe Carrier FOUNDATION, 6' 3 $\frac{3}{4}$ " Top.....	7.77
14426	26 Way Pipe Carrier FOUNDATION, 6' 6 $\frac{1}{2}$ " Top.....	7.80
14427	27 Way Pipe Carrier FOUNDATION, 6' 9 $\frac{1}{4}$ " Top.....	7.82
14428	28 Way Pipe Carrier FOUNDATION, 7' 0" Top.....	7.84
14429	29 Way Pipe Carrier FOUNDATION, 7' 2 $\frac{3}{4}$ " Top.....	7.87
14430	30 Way Pipe Carrier FOUNDATION, 7' 5 $\frac{1}{2}$ " Top.....	7.89
14431	CRANK OR WHEEL FOUNDATION, 2' 0" Top.....	6.28
14432	COMPENSATOR FOUNDATION, 3' 0" Top.....	6.56
14433	DWARF SIGNAL OR SELECTOR FOUNDATION, 5' 0" Top.....	7.14

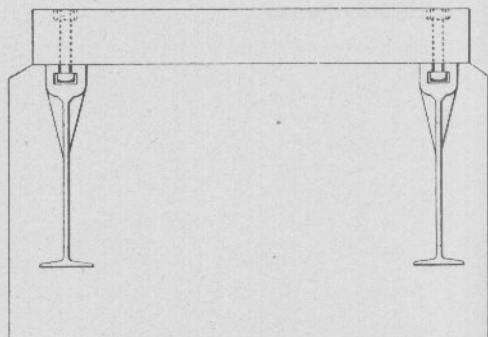
NOTE.—The above Cast Iron Piers with Oak Tops for Pipe Carriers, Cranks, Wheels, Compensators, Dwarf Signals and Selectors, are designed to be used without concrete.

Order by NUMBER and NAME Appearing in Large Type

STYLE "F" FOUNDATIONS



**13702**  
**14365**  
**14366**



**14163**  
**14367**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# FOUNDATIONS

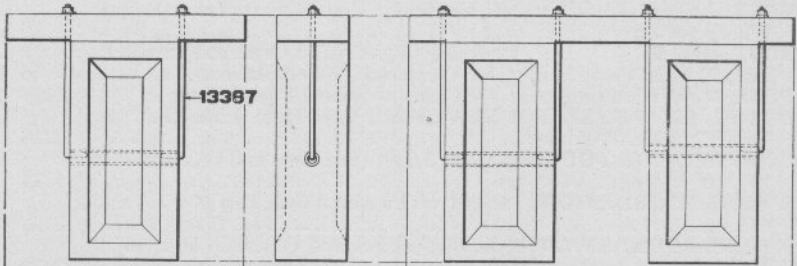
365

Order No.	STYLE "F" FOUNDATIONS	List Price.
0299	BOLT AND NUT, $\frac{3}{4}$ " x $2\frac{1}{2}$ ", for fixing Cranks, Compensators and Wheels to Foundations.....	.10 .....
0404	BOLT AND NUT, $\frac{3}{4}$ " x 4", for fixing Oak Tops to Cast Iron Piers.....	.12 .....
12091	PIER, 9" wide, Casting only, for Compensator Foundations.....	1.16 .....
13639	PIER, 6" wide, Casting only, for Crank or Wheel Foundations.....	1.14 .....
13702	CRANK OR WHEEL FOUNDATION, 2 Cast Iron, Piers and Oak Top, 4" x 10" x 2' 0" long.....	3.28 .....
14163	COMPENSATOR FOUNDATION, 2 Cast Iron Piers and Oak Top 4" x 10" x 3' 6" long.....	4.74 .....
14365	WHEEL FOUNDATION, 2 Cast Iron Piers and Oak Top 4" x 10" x 3' 0" long.....	3.52 .....
14366	WHEEL FOUNDATION, 2 Cast Iron Piers and Oak Top 4" x 10" x 4' 0" long.....	3.76 .....
14367	DWARF SIGNAL FOUNDATION, 2 Cast Iron Piers and Oak Top 4" x 12" x 5' 0" long.....	5.16 .....

NOTE—Style "F" Cast Iron Piers with and without Oak Tops, are de-  
signed to be used with concrete.

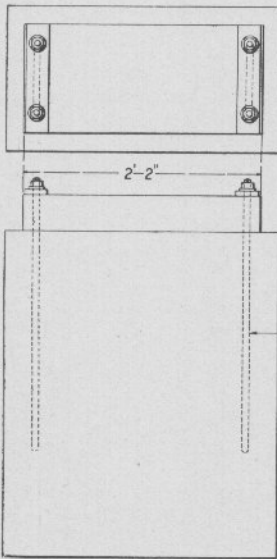
Order by NUMBER and NAME Appearing in Large Type

TOPS AND BOLTS FOR STYLE "G" CONCRETE FOUNDATIONS

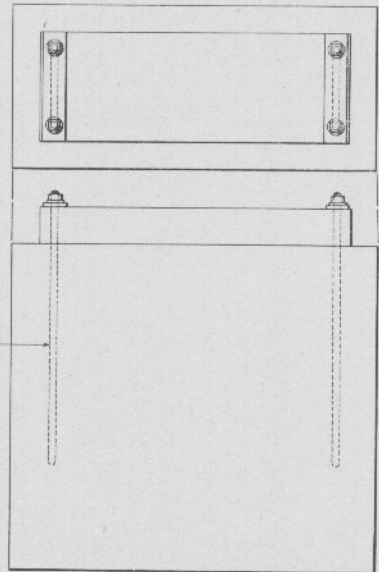


5653	1WAY	1'-4"	1 PIER
5818	2	1'-6 $\frac{3}{4}$ "	1
6320	3	1'-9 $\frac{1}{2}$ "	1
6324	4	2'-0 $\frac{1}{4}$ "	1
6325	5	2'-3"	1
7002	6	2'-5 $\frac{3}{4}$ "	1
6326	7	2'-8 $\frac{1}{2}$ "	1
6327	8	2'-11 $\frac{1}{4}$ "	2
6328	9	3'-2"	2
6329	10	3'-4 $\frac{3}{4}$ "	2
13611	11	3'-7 $\frac{1}{2}$ "	2
13612	12	3'-10 $\frac{1}{4}$ "	2
13613	13	4'-1"	2
13614	14	4'-3 $\frac{3}{4}$ "	2
13615	15	4'-6 $\frac{1}{2}$ "	2

13616	16WAY	4'-9 $\frac{1}{4}$ "	2 PIER
13617	17	5'-0"	2
13618	18	5'-2 $\frac{3}{4}$ "	2
13619	19	5'-5 $\frac{1}{2}$ "	2
13620	20	5'-8 $\frac{1}{4}$ "	3
13621	21	5'-11"	3
13622	22	6'-1 $\frac{3}{4}$ "	3
13623	23	6'-4 $\frac{1}{2}$ "	3
13624	24	6'-7 $\frac{1}{4}$ "	3
13625	25	6'-10"	3
13626	26	7'-0 $\frac{3}{4}$ "	3
13627	27	7'-3 $\frac{1}{2}$ "	3
13628	28	7'-6 $\frac{1}{4}$ "	3
13629	29	7'-9"	3
13630	30	7'-11 $\frac{3}{4}$ "	3



5652



5651 2'-10" TOP.  
13365 3'-6" ..  
6295 5'-0" ..

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# FOUNDATIONS

367

Order No.                      TOPS AND BOLTS FOR STYLE "G" CONCRETE FOUNDATIONS                      List Price.

5651 COMPENSATOR FOUNDATION, 4" x 12" x 2' 10" Oak Top.....		
5652 CRANK OR WHEEL FOUNDATION, 4" x 12" x 2' 2" Oak Top.....		
5653 1 Way Pipe Carrier FOUNDATION, 3" x 8" x 1' 4" Oak Top.....		
5818 2 Way Pipe Carrier FOUNDATION, 3" x 8" x 1' 6 $\frac{1}{2}$ " Oak Top.....		
6295 DWARF SIGNAL FOUNDATION, 4" x 12" x 5' 0" Oak Top.....		
6320 3 Way Pipe Carrier FOUNDATION, 3" x 8" x 1' 9 $\frac{1}{2}$ " Oak Top.....		
6324 4 Way Pipe Carrier FOUNDATION, 3" x 8" x 2' 0 $\frac{1}{2}$ " Oak Top.....		
6325 5 Way Pipe Carrier FOUNDATION, 3" x 8" x 2' 3" Oak Top.....		
6326 7 Way Pipe Carrier FOUNDATION, 3" x 8" x 2' 8 $\frac{1}{2}$ " Oak Top.....		
6327 8 Way Pipe Carrier FOUNDATION, 3" x 8" x 2' 11 $\frac{1}{2}$ " Oak Top.....		
6328 9 Way Pipe Carrier FOUNDATION, 3" x 8" x 3' 2" Oak Top.....		
6329 10 Way Pipe Carrier FOUNDATION, 3" x 8" x 3' 4 $\frac{1}{2}$ " Oak Top.....		
7002 6 Way Pipe Carrier FOUNDATION, 3" x 8" x 2' 5 $\frac{3}{4}$ " Oak Top.....		
13365 COMPENSATOR FOUNDATION, 4" x 12" x 3' 6" Oak Top.....		
13367 Foundation HOOK BOLT, $\frac{1}{2}$ " x 1' 4", including 1-5657, 1-0286, 1-072		
13368 Foundation "U" BOLT, $\frac{3}{4}$ " x 2' 6", including 1-5655, 1-5656, 2-0229,		
2-073.....		
13611 11 Way Pipe Carrier FOUNDATION, 3" x 8" x 3' 7 $\frac{1}{2}$ " Oak Top.....		
13612 12 Way Pipe Carrier FOUNDATION, 3" x 8" x 3' 10 $\frac{1}{2}$ " Oak Top.....		
13613 13 Way Pipe Carrier FOUNDATION, 3" x 8" x 4' 1" Oak Top.....		
13614 14 Way Pipe Carrier FOUNDATION, 3" x 8" x 4' 3 $\frac{3}{4}$ " Oak Top.....		
13615 15 Way Pipe Carrier FOUNDATION, 3" x 8" x 4' 6 $\frac{1}{2}$ " Oak Top.....		
13616 16 Way Pipe Carrier FOUNDATION, 3" x 8" x 4' 9 $\frac{1}{4}$ " Oak Top.....		
13617 17 Way Pipe Carrier FOUNDATION, 3" x 8" x 5' 0" Oak Top.....		
13618 18 Way Pipe Carrier FOUNDATION, 3" x 8" x 5' 2 $\frac{3}{4}$ " Oak Top.....		
13619 19 Way Pipe Carrier FOUNDATION, 3" x 8" x 5' 5 $\frac{1}{2}$ " Oak Top.....		
13620 20 Way Pipe Carrier FOUNDATION, 3" x 8" x 5' 8 $\frac{1}{2}$ " Oak Top.....		
13621 21 Way Pipe Carrier FOUNDATION, 3" x 8" x 5' 11" Oak Top.....		
13622 22 Way Pipe Carrier FOUNDATION, 3" x 8" x 6' 1 $\frac{3}{4}$ " Oak Top.....		
13623 23 Way Pipe Carrier FOUNDATION, 3" x 8" x 6' 4 $\frac{1}{2}$ " Oak Top.....		
13624 24 Way Pipe Carrier FOUNDATION, 3" x 8" x 6' 7 $\frac{1}{2}$ " Oak Top.....		
13625 25 Way Pipe Carrier FOUNDATION, 3" x 8" x 6' 10" Oak Top.....		
13626 26 Way Pipe Carrier FOUNDATION, 3" x 8" x 7' 0 $\frac{3}{4}$ " Oak Top.....		
13627 27 Way Pipe Carrier FOUNDATION, 3" x 8" x 7' 3 $\frac{3}{4}$ " Oak Top.....		
13628 28 Way Pipe Carrier FOUNDATION, 3" x 8" x 7' 6 $\frac{1}{4}$ " Oak Top.....		
13629 29 Way Pipe Carrier FOUNDATION, 3" x 8" x 7' 9" Oak Top.....		
13630 30 Way Pipe Carrier FOUNDATION, 3" x 8" x 7' 11 $\frac{3}{4}$ " Oak Top.....		

Prices on Application

Order by NUMBER and NAME Appearing in Large Type

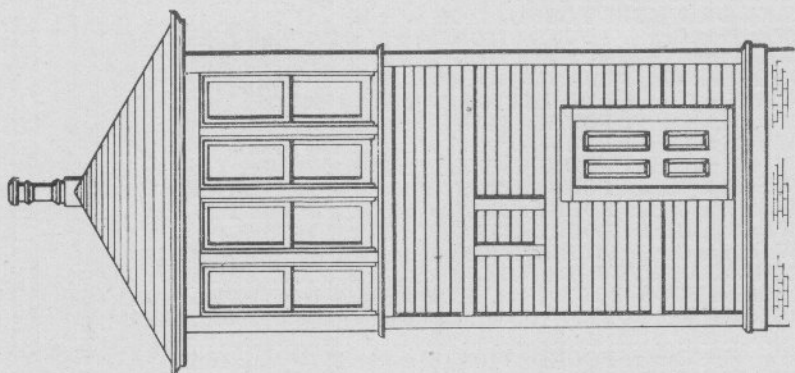


FIG. 2

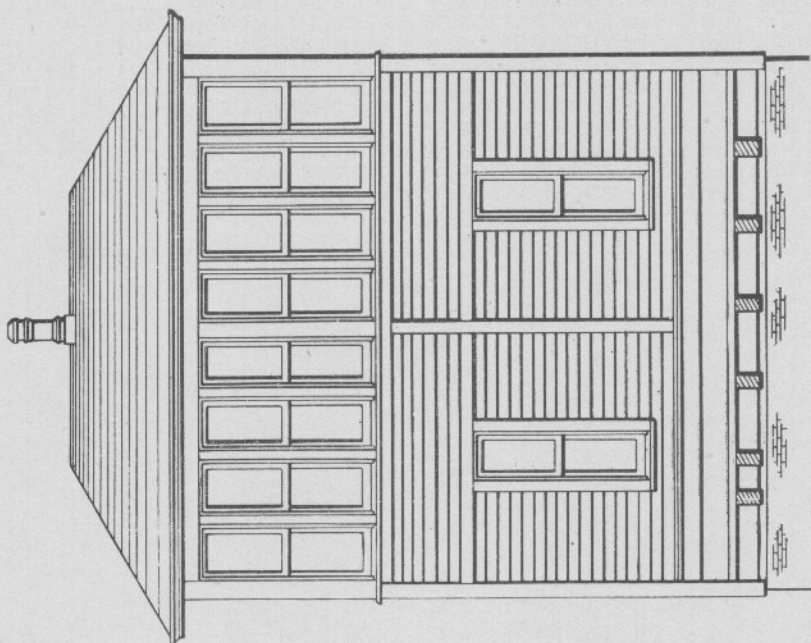


FIG. 1

As towers and buildings for the accomodation of Interlocking Machines are usually built upon specification, we have not attempted to show details of any particular design of such buildings.

We will, however, take pleasure in furnishing estimates for any style of tower or power building upon application, accompanied by detail plans and specifications.

On the opposite page, Fig. 1 shows an Elevation, and Fig. 2 an End View of our Style B Signal Tower for Mechanical Signal Plants.

Below we give a list of various sizes of Towers, most commonly used. Should any other size be required, the dimensions may be determined by multiplying the number of lever spaces in the Interlocking Machine by five inches and adding the required amount of clearance space between the ends of machine and walls of building.

#### SIZES OF TOWERS

For Machines	Length
8 to 16 Levers.....	12' 0"
20 to 24 Levers.....	14' 8½"
28 Levers.....	17' 5"
32 to 36 Levers.....	20' 1½"
40 to 44 Levers.....	23' 3"
48 to 52 Levers.....	26' 4½"
56 Levers.....	29' 1"
60 to 64 Levers.....	31' 9½"
68 Levers.....	34' 6"
72 to 76 Levers.....	37' 2½"
80 Levers.....	39' 11"
84 to 88 Levers.....	42' 7½"
92 to 96 Levers.....	45' 4"
100 to 104 Levers.....	50' 9"

## ELECTRICAL APPLIANCES

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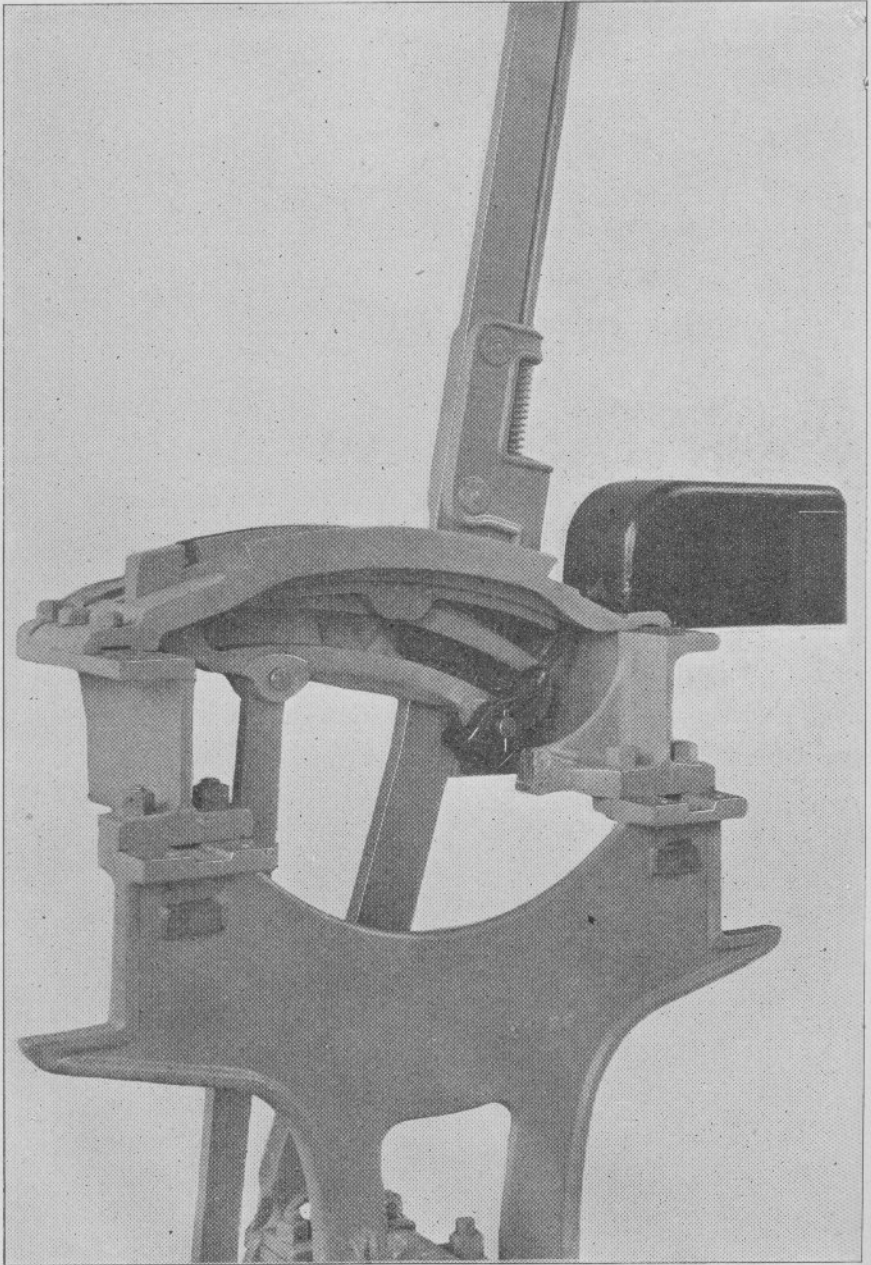
ON the following pages are illustrated a number of Electrical Appliances in general use where additional precautions are supplemental to a Mechanical Interlocking Plant, consisting of Electric Locks, Power Operated Distant Signals, Electric Slots and various other devices in connection therewith.

When contemplating the application of Electrical Controlling Apparatus of any description we would invite inquiry with a statement of existing conditions, also what is desired to be accomplished.

**GENERAL RAILWAY SIGNAL CO.**



## ELECTRIC LOCKS



STYLE "A" OR "B" ELECTRIC LOCK ATTACHED TO STYLE "A" MACHINE

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**ELECTRIC LOCKS**

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On the opposite page is a general arrangement of Style "A" or "B" Electric Lock attached to a Style "A" Interlocking Machine. For detail parts of Locks see pages 374, 375 and 376.



## ELECTRICAL APPLIANCES

375

Order No.	STYLE "A" AND "B" ELECTRIC LOCKS FOR STYLE "A" MACHINE	List Price.
037	COTTER PIN, $\frac{3}{32}$ " x 1", (per 100).....	.80
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", (per 100).....	.80
085	HASP, 1" x 3".....	.10
0453	BRASS WASHER, $\frac{5}{16}$ " x $\frac{13}{32}$ ".....	.02
577	HEX. BRASS NUT, 10-32 x $\frac{1}{8}$ ".....	.02
2431	MACHINE SCREW, Rd. Hd. 8-32 x $\frac{5}{16}$ ".....	.01
2435	MACHINE SCREW, Rd. Hd. 10-32 x $\frac{3}{8}$ ".....	.02
2452	MACHINE SCREW, Rd. Hd. $\frac{1}{4}$ "-24 x $\frac{3}{8}$ ".....	.01
2552	MACHINE SCREW, Rd. Hd. 6-32 x $\frac{3}{8}$ ".....	.08
2854	STAPLE for 085.....	.02
3044	MACHINE SCREW, Rd. Hd. 10-32 x 1".....	.02
3519	MACHINE SCREW, Rd. Hd. 10-32 x $\frac{1}{2}$ ".....	
3891	HEX. BRASS NUT, 8-32.....	
6007	CAP SCREW, $\frac{3}{8}$ " x 2".....	
7395	BRASS NUT, 24 x $\frac{1}{4}$ ".....	.03
8150	MACHINE SCREW, Fil. Hd. 14-24 x $\frac{7}{8}$ ".....	
12601	Style "A" ELECTRIC LOCK COMPLETE with Connecting Rod....	28.00
12602	Style "B" ELECTRIC LOCK COMPLETE with Connecting Rod....	44.00
12603	CONTACTS COMPLETE for Style "B" Electric Locks.....	16.00
12604	BASE for Style "A" or "B" Electric Locks.....	4.90
12605	COVER for Style "A" or "B" Electric Locks.....	2.00
12606	FULL REVERSE LOCK DOG.....	2.00
12607	HALF REVERSE LOCK DOG.....	2.00
12608	NORMAL LOCK DOG.....	1.60
12609	ARMATURE FINGER.....	2.00
12610	ARMATURE.....	.30
12611	Lignum Vitae BLOCK for Binding Posts.....	.30
12613	BRASS SCREW, $\frac{1}{4}$ "-24 x $1\frac{1}{8}$ ", Sq. Hd.....	.08
12614	LOCK BRACKET.....	3.40
12615	CRANK.....	1.00
12616	MAGNET HOLDER.....	
12617	LOCKING KEY.....	

Continued on next page

Order by NUMBER and NAME Appearing in Large Type

Order No.	STYLE "A" AND "B" ELECTRIC LOCKS FOR STYLE "A" MACHINE	List Price.
12618	CRANK SHAFT, $\frac{1}{2}$ " x 3"	.14
12619	Lignum Vitae INSULATING BLOCK, for Style "B" Electric Lock	1.00
12621	CONTACT SPRING	.20
12622	CRANK LEVER	.40
12624	BRASS JAW for 12622	.50
12625	BEARING BRACKET	.50
12626	BRASS CRANK	.70
12627	SPRING BRACE	.28
12628	COMMUTATOR SHAFT	.12
12629	THUMB SCREW for 12627	.03
12630	BEARING for Armature Finger	.03
12631	THREE CONTACT COMMUTATOR for Style "B" Electric Lock	1.60
12634	ONE CONTACT COMMUTATOR for Style "B" Electric Lock	.80
12637	PIN, $\frac{3}{8}$ " x $1\frac{3}{8}$ "	.07
12638	PIN, $\frac{1}{4}$ " x $1\frac{1}{2}$ "	.06
12640	STUD BINDING POST	.04
12641	Special FILISTER HEAD SCREW for 12624	.06
12642	Special FILISTER HEAD SCREW for 12622	.06
12644	2 TAPER DOWEL PIN, 1" long	.06
12646	MACHINE SCREW, Rd. Hd. 6-32 x $\frac{5}{8}$ "	.01
12680	BRASS HEX. NUT, 4-36, for 12641 and 12642	.02
12701	CONNECTING ROD for Styles "A" or "B" Electric Locks	2.00
12702	ROD only for 12701	1.00
12703	JAW only for 12701	.60
12704	PIN for 12703	.20
12976	HEX. HD. CAP SCREW, 14-24 x $\frac{5}{8}$ "	.01
12978	SINGLE MAGNET COIL for Style "A" or "B" Electric Locks Specify winding required	2.50
18266	Style "A" ELECTRIC LOCK COMPLETE without Connecting Rod	.01
18267	Style "B" ELECTRIC LOCK COMPLETE without Connecting Rod	.01

Order by NUMBER and NAME Appearing in Large Type

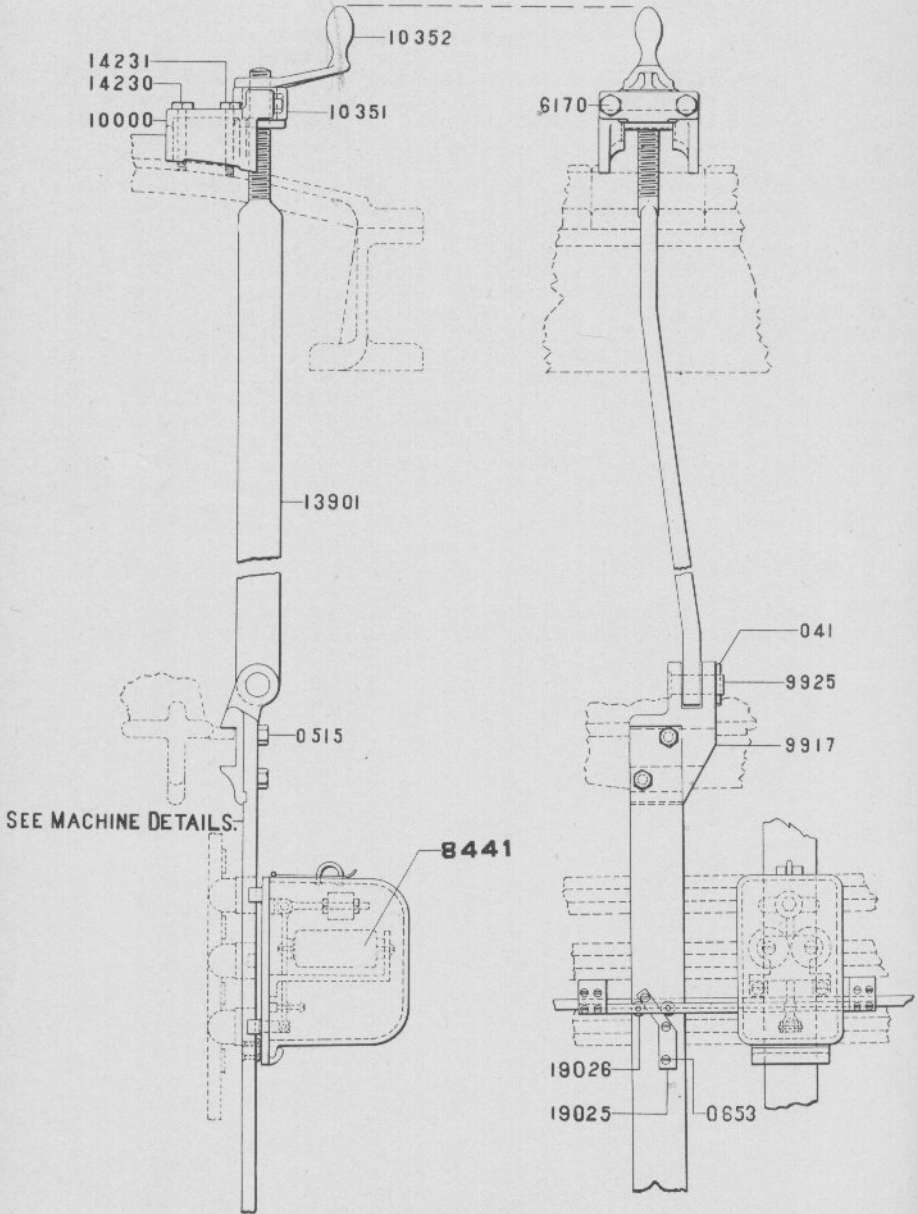
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MECHANICAL HAND RELEASE FOR STYLE "A" MACHINE



**14380**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# ELECTRICAL APPLIANCES

379

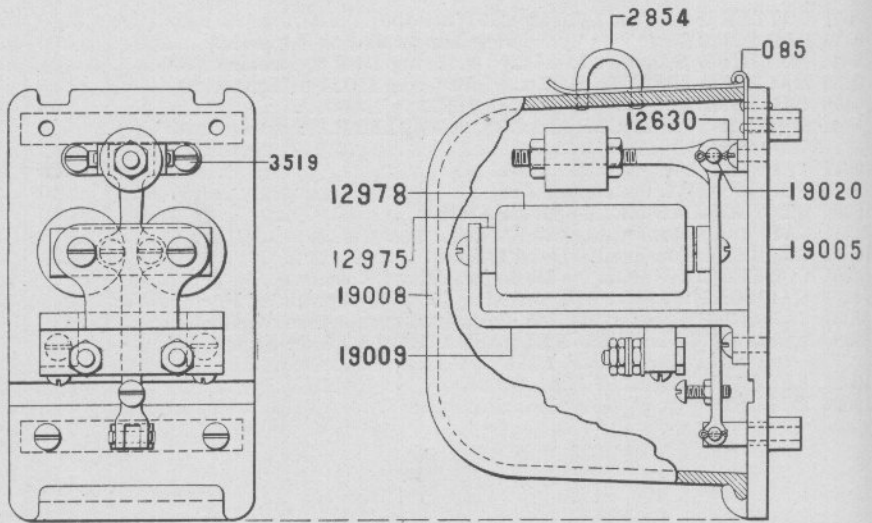
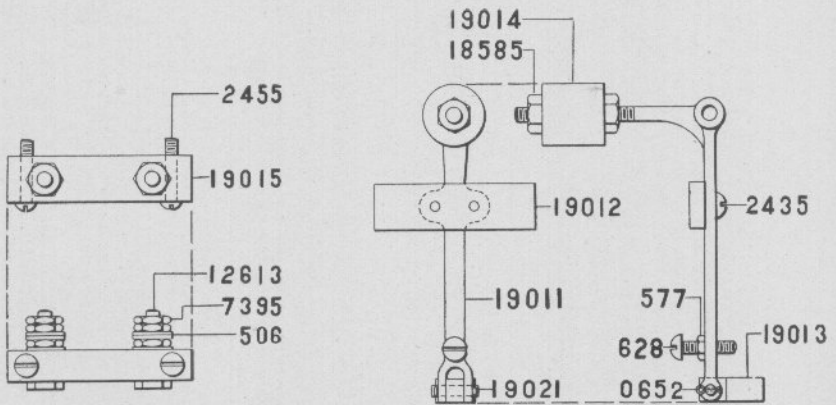
Order No.	MECHANICAL HAND RELEASE FOR STYLE "A" MACHINE	List Price.
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for 9925, (per 100).....	.80 .....
0515	CAP SCREW, $\frac{3}{8}$ " x $1\frac{1}{8}$ ", for fixing Tappet Jaw to Tappet.....	.05 .....
0648	MACHINE SCREW, 14-24x $2\frac{3}{8}$ " for fixing Lock to Locking Plate.....	.....
0653	MACHINE SCREW, 10-32 x $\frac{3}{8}$ ", for fixing 19025 to Tappet.....	.....
6170	CAP SCREW, $\frac{3}{8}$ " x 1", for fixing 10351 to 10000.....	.05 .....
8441	Style "D-2" ELECTRIC LOCK COMPLETE. For details of Lock see page 380.....	.....
9917	TAPPET JAW only.....	1.20 .....
9925	PIN, $\frac{3}{4}$ " x $1\frac{1}{16}$ ", for Tappet Jaw.....	.10 .....
10000	MECHANICAL RELEASE BEARING.....	.....
10351	CAP for Mechanical Release Bearing.....	.....
10352	CRANK for Mechanical Hand Release.....	.....
13901	CONNECTING ROD for Mechanical Hand Release.....	.....
14230	CAP SCREW, $\frac{5}{16}$ " x $2\frac{1}{2}$ ", for fixing 10000 to Segment of Machine....	.....
14231	CAP SCREW, $\frac{5}{16}$ " x $2\frac{1}{8}$ ", for fixing 10000 to Segment of Machine....	.....
14380	MECHANICAL HAND RELEASE COMPLETE for Style "A" In- terlocking Machine.....	.....
19025	RELEASE DOG.....	.....
19026	ROLLER, $\frac{1}{2}$ " x $\frac{1}{2}$ ".....	.....

Prices on Application

Order by NUMBER and NAME Appearing in Large Type



## STYLE "D-2" ELECTRIC LOCK

**8441****14492**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

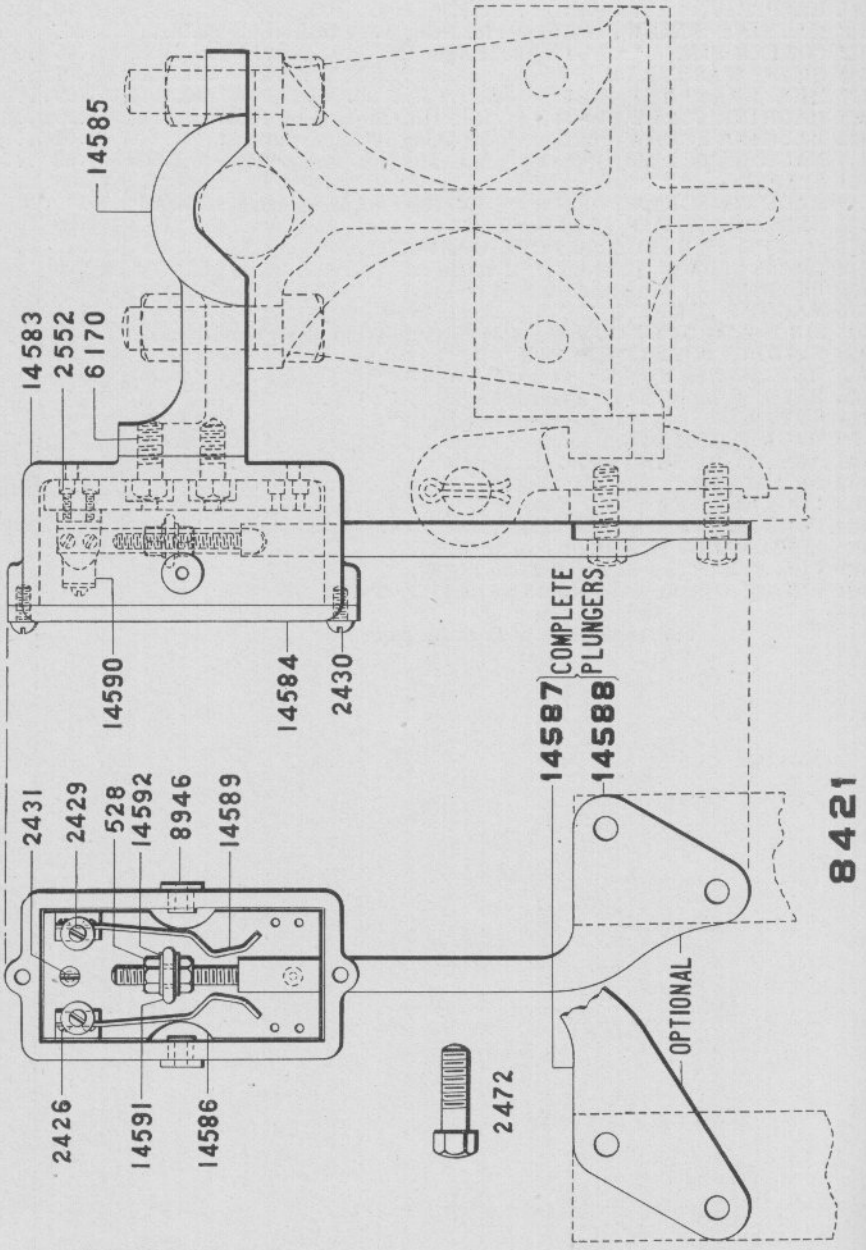
Order No.	STYLE "D-2" ELECTRIC LOCK	List Price.
085	HASP.....	.10
0648	MACHINE SCREW, 14-24 x 2 $\frac{5}{8}$ , for fixing Lock to Locking Plate.....	.80
0652	COTTER PIN, $\frac{1}{16}$ " x $\frac{3}{8}$ ", for 19021, (per 100).....	.01
506	BRASS WASHER for $\frac{1}{4}$ " Screw.....	.02
577	HEX. BRASS NUT, 10-32 for 628.....	.01
628	MACHINE SCREW, 10-32 x $\frac{3}{4}$ ", Rd. Hd. for stop on 19011.....	.02
2435	MACHINE SCREW, 10-32 x $\frac{3}{8}$ ", for fixing 19012 to 19011.....	.08
2455	MACHINE SCREW, $\frac{1}{4}$ "-24 x 1", Rd. Hd. for fixing 14492 to 19009.....	.03
2854	STAPLE.....	.08
3519	MACHINE SCREW, 10-32 x $\frac{1}{2}$ ", Rd. Hd. for fixing 12630 to 19005.....	.08
7395	HEX. BRASS NUT, $\frac{1}{4}$ "-24, for 12613.....	
8441	Style "D-2" ELECTRIC LOCK COMPLETE.....	
12613	BRASS SCREW, $\frac{1}{4}$ "-24 x 1 $\frac{1}{8}$ ", Hex. Hd.....	
12630	BEARING for Armature Finger.....	
12975	MAGNET YOKE.....	
12978	SINGLE MAGNET COIL for 8441, Specify Winding required.....	
14492	BINDING POST COMPLETE.....	
18585	HEX. BRASS NUT No. 14-24 for 19011.....	
19005	BASE for Style "D-2" Electric Lock.....	
19008	COVER for Style "D-2" Electric Lock.....	
19009	MAGNET HOLDER.....	
19011	ARMATURE FINGER.....	
19012	ARMATURE.....	
19013	LOCKING KEY.....	
19014	COUNTERWEIGHT for 19011.....	
19015	INSULATING BLOCK.....	
19020	PIN, $\frac{1}{4}$ " x 1 $\frac{3}{8}$ ", for fixing 19011 to 12630.....	
19021	PIN, $\frac{5}{32}$ " x $\frac{3}{4}$ ", for fixing 19013 to 19011.....	

Prices on application

For Application of Lock see page 378

Order by NUMBER and NAME Appearing in Large Type

LEVER CONTACT BOX FOR STYLE "A" INTERLOCKING MACHINE



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

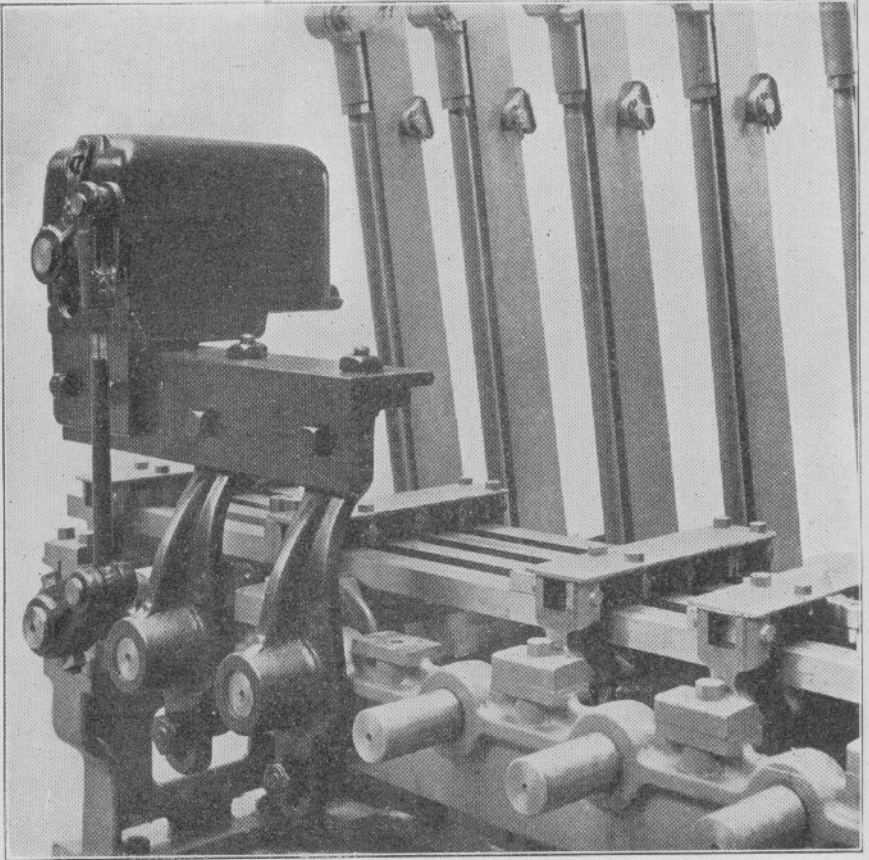
## ELECTRICAL APPLIANCES

383

Order No.	LEVER CONTACT BOX FOR STYLE "A" INTERLOCKING MACHINE	List Price.
528	1/2" HEX. BRASS NUT.....	.02
2426	MACHINE SCREW, 6-32 x 1/4".....	.01
2429	MACHINE SCREW, 8-32 x 7/8".....	.01
2430	MACHINE SCREW, 8-32 x 1/2".....	.01
2431	MACHINE SCREW, 8-32 x 5/8".....	.01
2472	HEX. HEAD CAP SCREW, 3/8" x 1 1/4".....	.05
2552	MACHINE SCREW, 6-32 x 3/8".....	.01
6170	HEX. HEAD CAP SCREW, 3/8" x 1".....	.05
8421	LEVER CONTACT BOX COMPLETE. When ordering specify if Right of Left Hand Plunger it required.....	10.40
8946	FIBRE BUSHING.....	
14583	Lever CONTACT BOX, Casting only.....	
14584	CONTACT BOX COVER, Casting only.....	
14585	CONTACT BOX BRACKET, Casting only.....	
14586	HARD RUBBER BLOCK.....	
14587	Left Hand PLUNGER COMPLETE.....	2.00
14588	Right Hand PLUNGER COMPLETE.....	2.00
14589	CONTACT SPRING.....	.30
14590	BRACKET for 14589.....	.50
14591	BRASS CONTACT WASHER.....	.24
14592	HARD RUBBER WASHER.....	.06

Order by NUMBER and NAME Appearing in Large Type

## ELECTRIC LOCKS

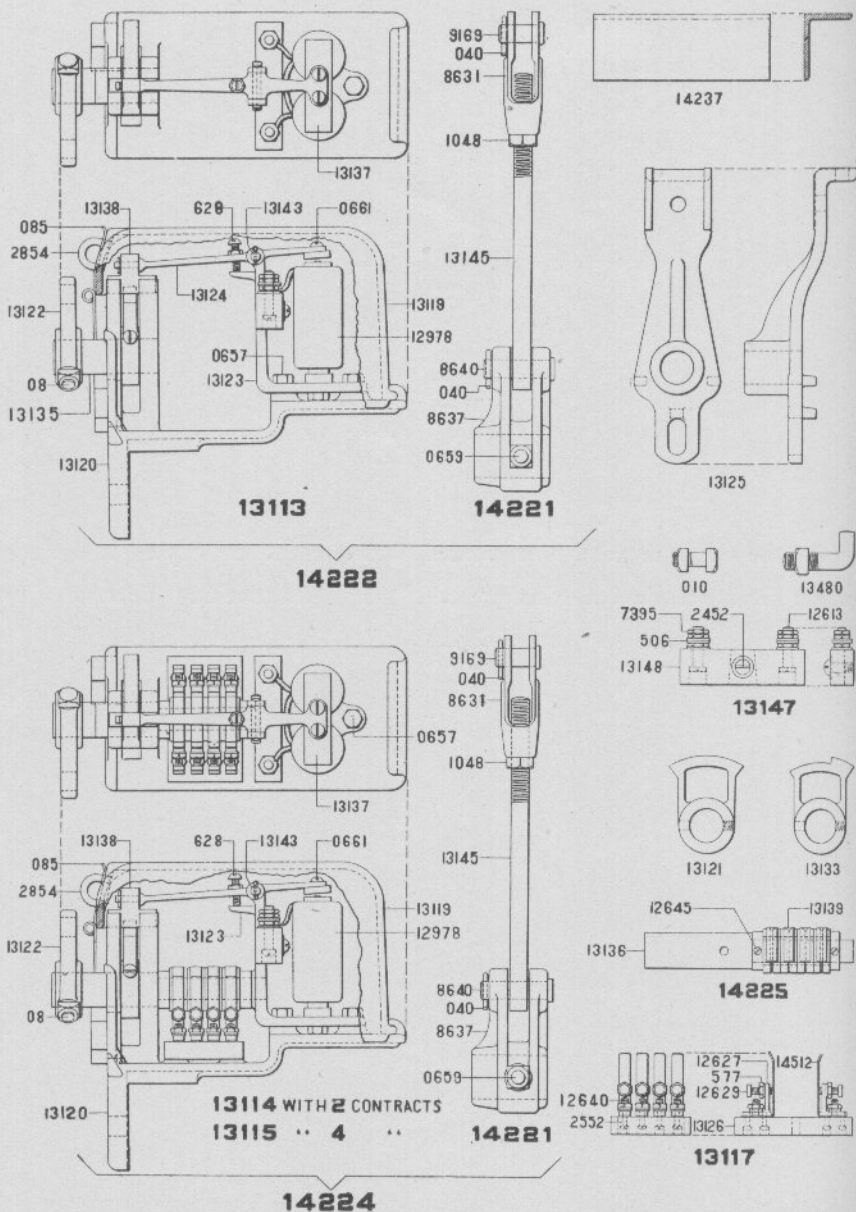


STYLE "E" OR "F" ELECTRIC LOCK ATTACHED TO SAXBY AND FARMER MACHINE

## ELECTRIC LOCKS

On the opposite page is a general arrangement of Style "E" or "F" Electric Lock attached to Saxby and Farmer Interlocking Machine. For Detail Parts of Locks see pages 386 and 387.

STYLE "E" AND "F" ELECTRIC LOCKS FOR SAXBY AND FARMER MACHINE



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## ELECTRICAL APPLIANCES

387

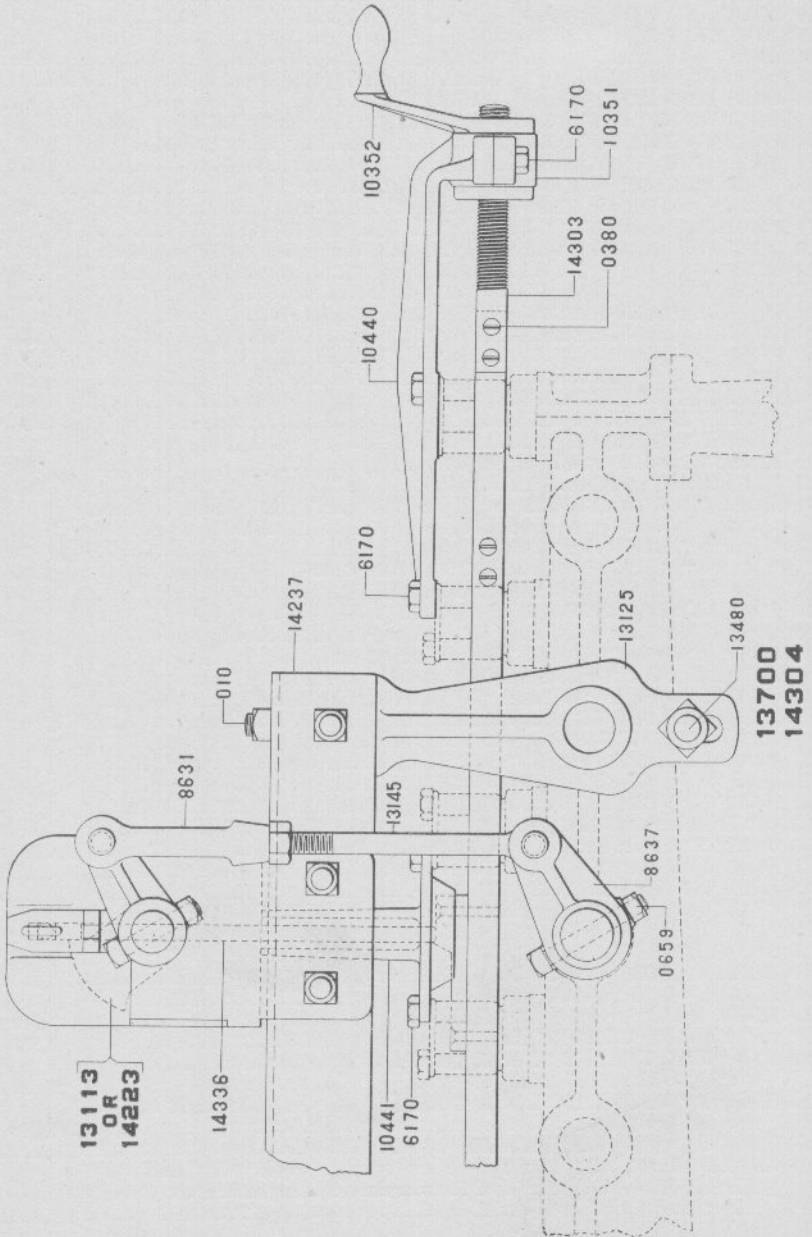
Order No.	STYLE "E" AND "F" ELECTRIC LOCKS FOR SAXBY AND FARMER MACHINE	List Price.
08	BOLT AND NUT, $\frac{3}{8}$ " x 2", for 13122.....	.03
010	BOLT AND NUT, $\frac{3}{8}$ " x $1\frac{1}{2}$ ", for fixing 13120 and 13125 to 14237.....	.04
040	COTTER PIN, $\frac{1}{8}$ " x 1", for 8640 and 9169, (per 100).....	.80
085	HASP.....	.10
0657	CAP SCREW, 14-24 x $\frac{3}{4}$ ", Hex. Hd. for fixing 13123 to 13120.....	
0659	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{1}{4}$ ", for 8637.....	
0661	MACHINE SCREW, 10-32 x $\frac{5}{8}$ ", Rd. Hd. for fixing 13137 to 13124.....	
506	BRASS WASHER for 12613.....	.01
577	HEX. NUT, 10-32, for 12629.....	.02
628	MACHINE SCREW, 10-32 x $\frac{3}{4}$ ", for 13124.....	
1048	$\frac{1}{2}$ " HEX. NUT, for 13145.....	.03
2452	MACHINE SCREW, $\frac{1}{4}$ "-24 x $\frac{3}{4}$ ", Rd. Hd. for 13148.....	.02
2552	MACHINE SCREW, 6-32 x $\frac{3}{8}$ ", Rd. Hd. for fixing 12627 to 13126..	.01
2854	STAPLE for 085.....	.08
7395	HEX. NUT, $\frac{1}{4}$ "-24 x $\frac{1}{8}$ ", for 12613.....	.03
8631	$\frac{1}{2}$ " MALLEABLE SCREW JAW.....	.22
8637	CRANK for Locking Shaft.....	.88
8640	PIN, $\frac{1}{8}$ " x $1\frac{7}{8}$ ", for 8637.....	.08
9169	PIN, $\frac{1}{8}$ " x $1\frac{3}{8}$ ", for 8638.....	.07
12613	BRASS MACHINE SCREW, $\frac{1}{4}$ "-24 x $1\frac{1}{8}$ " for 13148.....	.08
12627	SPRING BRACE for 2552.....	.28
12629	THUMB SCREW for 12627.....	.03
12640	BINDING POST STUD for 12627.....	.04
12645	SET SCREW, 14-24 x $\frac{1}{4}$ ", for 13136.....	.01
12978	SINGLE MAGNET COIL for Style "E" and "F" Electric Locks. Specify winding required.....	2.50
13113	Style "E" ELECTRIC LOCK COMPLETE.....	27.00
13114	Style "F" ELECTRIC LOCK COMPLETE, with 2 Contacts.....	42.00
13115	Style "F" ELECTRIC LOCK COMPLETE, with 4 Contacts.....	43.00
13117	CONTACTS COMPLETE for Style "F" Electric Lock.....	
13119	COVER for Style "E" and "F" Electric Locks.....	2.00
13120	BASE for Style "E" and "F" Electric Locks.....	4.80
13121	NORMAL OR REVERSE LOCK DOG.....	
13122	CRANK for Style "E" and "F" Electric Locks.....	.50
13123	MAGNET HOLDER.....	2.00
13124	ARMATURE FINGER.....	
13125	BRACKET for Style "E" and "F" Electric Locks.....	1.40
13126	Hard Rubber INSULATING BLOCK.....	.90
13133	HALF REVERSE LOCK DOG.....	
13135	OPERATING SHAFT, for 13113.....	
13136	COMMUTATOR SHAFT, for 14225.....	
13137	ARMATURE.....	
13138	LOCKING KEY.....	
13139	COMMUTATOR.....	
13143	PIN, $\frac{1}{8}$ " x $1\frac{3}{8}$ ", for fixing 13124 to 13123.....	
13145	CONNECTING ROD.....	.60
13147	BINDING POST COMPLETE, for Style "E" and "F" Electric Locks.....	
13148	BLOCK only for Binding Post.....	
13480	HOOK BOLT for fixing 13125 to Machine.....	.12
14221	CRANK AND CONNECTING ROD COMPLETE.....	1.90
14222	Style "E" ELECTRIC LOCK COMPLETE, with Crank and Con- necting Rod.....	28.80
14224	Style "F" ELECTRIC LOCK COMPLETE, with Crank and Con- necting Rod.....	44.80
14225	COMMUTATOR AND SHAFT COMPLETE.....	
14237	ANGLE IRON, $\frac{3}{16}$ " x 2" x $2\frac{1}{2}$ " for mounting Style "E" and "F" Electric Locks on Saxby and Farmer Interlocking Machines. Specify length required. Per ft.....	
14512	CONTACT SPRING.....	

Order by NUMBER and NAME Appearing in Large Type



ELECTRICAL APPLIANCES

MECHANICAL HAND RELEASE FOR SAXBY AND FARMER MACHINE



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## ELECTRICAL APPLIANCES

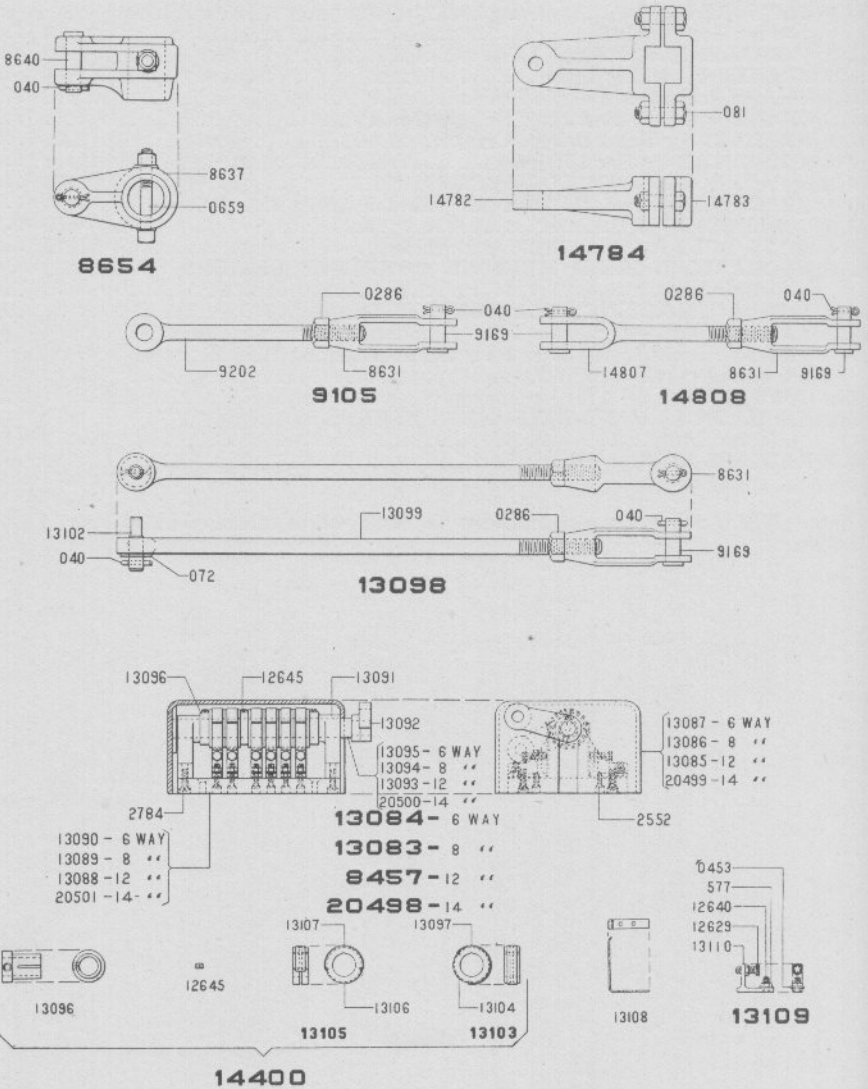
389

Order No.	MECHANICAL HAND RELEASE FOR SAXBY AND FARMER MACHINE	List Price.
010	BOLT AND NUT, $\frac{1}{2}$ " x $1\frac{1}{2}$ ", for fixing Angle Iron 14237 to 13125.....	.04
0380	MACHINE SCREW, 14-24 x 1", C. S. Hd. for fixing 14303 to Locking Bar.....	.....
0659	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{3}{4}$ ", for fixing Crank 8637 to Locking Shaft.....	.....
6170	CAP SCREW, $\frac{3}{8}$ " x 1", for fixing 10351 to 10440, and 10440 and 10441 to Locking Brackets.....	.05
8631	$\frac{1}{2}$ " MALLEABLE SCREW JAW.....	.22
8637	CRANK for Locking Shaft.....	.88
10351	CAP for Mechanical Release Bearing.....	.....
10352	CRANK for Mechanical Hand Release (Brass).....	.....
10440	BRACKET for Hand Release Crank.....	.....
10441	ROD GUIDE for Hand Release.....	.....
13113	Style "E" ELECTRIC LOCK COMPLETE.....	27.00
13125	BRACKET for Style "E" and "F" Electric Locks.....	1.40
13145	CONNECTING ROD.....	.60
13480	HOOK BOLT for fixing 13125 to Machine.....	.12
13700	MECHANICAL HAND RELEASE COMPLETE, with Style "E" Electric Lock.....	.....
14223	Style "F" ELECTRIC LOCK COMPLETE.....	.....
14237	ANGLE IRON, $\frac{3}{16}$ " x 2" x $2\frac{1}{2}$ " for mounting Style "E" and "F" Electric Locks to Saxby and Farmer Interlocking Machine, specify length required. Per ft.....	.....
14303	CONNECTING ROD for Mechanical Hand Release.....	.....
14304	MECHANICAL HAND RELEASE COMPLETE with Style "F" Electric Lock.....	.....
14336	RELEASE ROD for Electric Lock.....	.....

Note.—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

CIRCUIT CONTROLLER

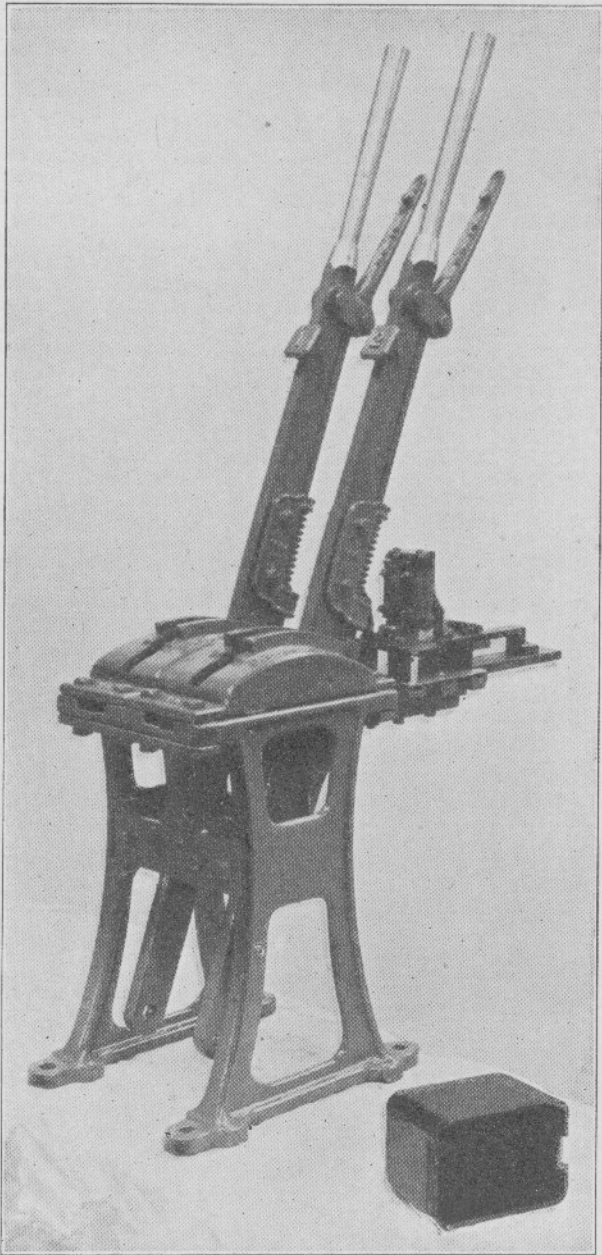


Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	CIRCUIT CONTROLLER	List Price.
040	COTTER PIN, $\frac{1}{8}$ " x 1" (per 100)	.80
072	$\frac{1}{2}$ " WASHER	.01
081	BOLT AND NUT, $\frac{3}{8}$ " x $1\frac{1}{2}$ "	.03
0286	$\frac{1}{2}$ " HEX. NUT	.02
0453	BRASS WASHER	
0659	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{1}{4}$ "	
577	HEX. BRASS NUT, $10-32$ x $\frac{1}{2}$ "	.02
2552	MACHINE SCREW, $6-32$ x $\frac{3}{8}$ "	.01
2784	MACHINE SCREW, $10-32$ x $\frac{3}{8}$ "	
8457	12 Way CIRCUIT CONTROLLER, COMPLETE	26 00
8631	$\frac{1}{2}$ " MALLEABLE SCREW JAW	.22
8637	CRANK, for 8654	.88
8640	PIN, $\frac{1}{2}$ " x $1\frac{1}{8}$ " for 8637	.08
8654	CRANK, COMPLETE, for S. and F. Locking Shaft	1.00
9105	CONNECTING ROD, COMPLETE	.70
9169	PIN, $\frac{1}{2}$ " x $1\frac{3}{16}$ "	.07
9202	EYE ROD, for 9105	.39
12629	BRASS THUMB SCREW	.03
12640	BINDING POST STUD	.04
12645	HEADLESS SCREW, $14-24$ x $\frac{1}{2}$ "	.01
13083	8 Way CIRCUIT CONTROLLER, COMPLETE	20.00
13084	6 Way CIRCUIT CONTROLLER, COMPLETE	17.00
13085	COVER, for 12 Way Circuit Controller	.68
13086	COVER, for 8 Way Circuit Controller	.56
13087	COVER, for 6 Way Circuit Controller	.50
13088	12 Way SLATE BASE	5.60
13089	8 Way SLATE BASE	4.20
13090	6 Way SLATE BASE	3.50
13091	BEARING, for Circuit Controller	.64
13092	CRANK, for Circuit Controller	1.30
13093	12 Way SHAFT	.22
13094	8 Way SHAFT	.18
13095	6 Way SHAFT	.14
13096	BUSHING, for Commutator	.60
13097	CONTACT, for Commutator	
13098	CONNECTING ROD, COMPLETE, for Style "A" Machine Tappet	1.36
13099	EYE ROD, for 13098	
13102	STUD, $\frac{1}{2}$ " x $1\frac{1}{8}$ " for 13098	.08
13103	COMMUTATOR AND CONTACT	.80
13104	COMMUTATOR, for 13103	
13105	COMMUTATOR AND CONTACT	
13106	COMMUTATOR, for 13105	.48
13107	CONTACT, for 13103 and 13105	
13108	CONTACT SPRING	.12
13109	CONTACT BRACE, COMPLETE	
13110	CONTACT BRACE, for 13109	
14400	DOUBLE CONTACT, COMPLETE	2.50
14782	CRANK, for 14784	
14783	CAP, for Crank 14782	
14784	CRANK, COMPLETE, for S. and F. Locking Shaft	.56
14807	JAW ROD, for 14808	
14808	CONNECTING ROD, COMPLETE	1.16
20498	14 Way CIRCUIT CONTROLLER, COMPLETE	29.00
20499	COVER, for 14 Way Circuit Controller	.74
20500	14 Way SHAFT	.28
20501	14 Way SLATE BASE	6.30

Order by NUMBER and NAME Appearing in Large Type

## ELECTRIC LOCKS



STYLE "D" ELECTRIC LOCK ATTACHED TO STYLE "D" MACHINE

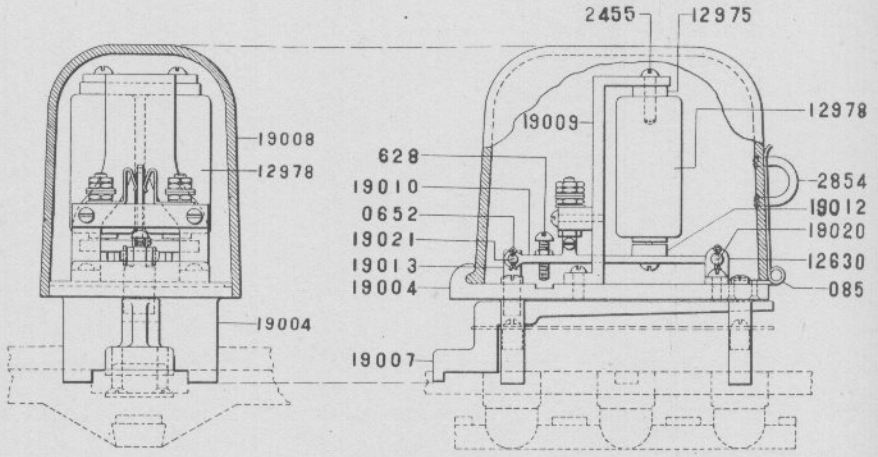
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**ELECTRIC LOCKS**

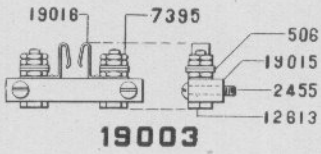
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On the opposite page is shown a Style "D" Electric Lock attached to Style "D" Dwarf Interlocking Machine. For Detail Parts of Locks see pages 394 and 395.

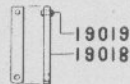
STYLE "D" ELECTRIC LOCK



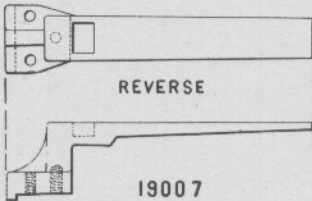
**8440**



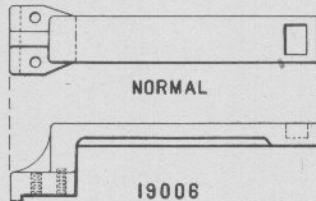
**19003**



**19017**



**19007**



**19006**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# ELECTRICAL APPLIANCES

395

Order No.	STYLE "D" ELECTRIC LOCK	List Price.
085	HASP.....	.10
0648	MACHINE SCREW, 14-24 x 2 $\frac{5}{8}$ " , for fixing Lock to Locking Plate .....	.80
0652	COTTER PIN, $\frac{1}{16}$ " x $\frac{3}{8}$ " , for 19021, (per 100).....	.01
506	BRASS WASHER for 12613.....	.02
628	MACHINE SCREW, 10-32 x $\frac{3}{4}$ " , Rd. Hd. for 19010.....	.08
2455	MACHINE SCREW, $\frac{1}{4}$ " x 1" , Rd. Hd. for fixing 19003 to 19009.....	.03
2854	STAPLE.....	.08
7395	HEX. BRASS NUT $\frac{1}{4}$ " , for 12613.....	.03
8440	Style "D" ELECTRIC LOCK COMPLETE. For application of Lock to Machine see page 392.....	.08
12613	BRASS SCREW, 14-24 x 1 $\frac{1}{8}$ " , Hex. Hd. for 19015.....	.08
12630	BEARING for Armature Finger.....	.08
12975	MAGNET YOKE.....	.08
12978	SINGLE MAGNET COIL, for 8440. Specify winding required.....	2.50
19003	CONTACT BLOCK COMPLETE.....	.08
19004	BASE for Style "D" Electric Lock.....	.08
19006	NORMAL LOCK FINGER.....	.08
19007	REVERSE LOCK FINGER.....	.08
19008	COVER for Style "D" Electric Lock.....	.08
19009	MAGNET HOLDER.....	.08
19010	ARMATURE FINGER.....	.08
19012	ARMATURE.....	.08
19013	LOCKING KEY.....	.08
19015	INSULATING BLOCK.....	.08
19016	CONTACT for 19003.....	.08
19017	CONTACT HOLDER COMPLETE.....	.08
19018	CONTACT HOLDER only.....	.08
19019	SILVER CONTACT.....	.08
19020	PIN, $\frac{1}{4}$ " x 1 $\frac{3}{8}$ " for fixing 19010 to 12630 .....	.08
19021	PIN, $\frac{5}{32}$ " x $\frac{3}{4}$ " for fixing 19013 to 19010.....	.08

Prices on Application

Order by NUMBER and NAME Appearing in Large Type



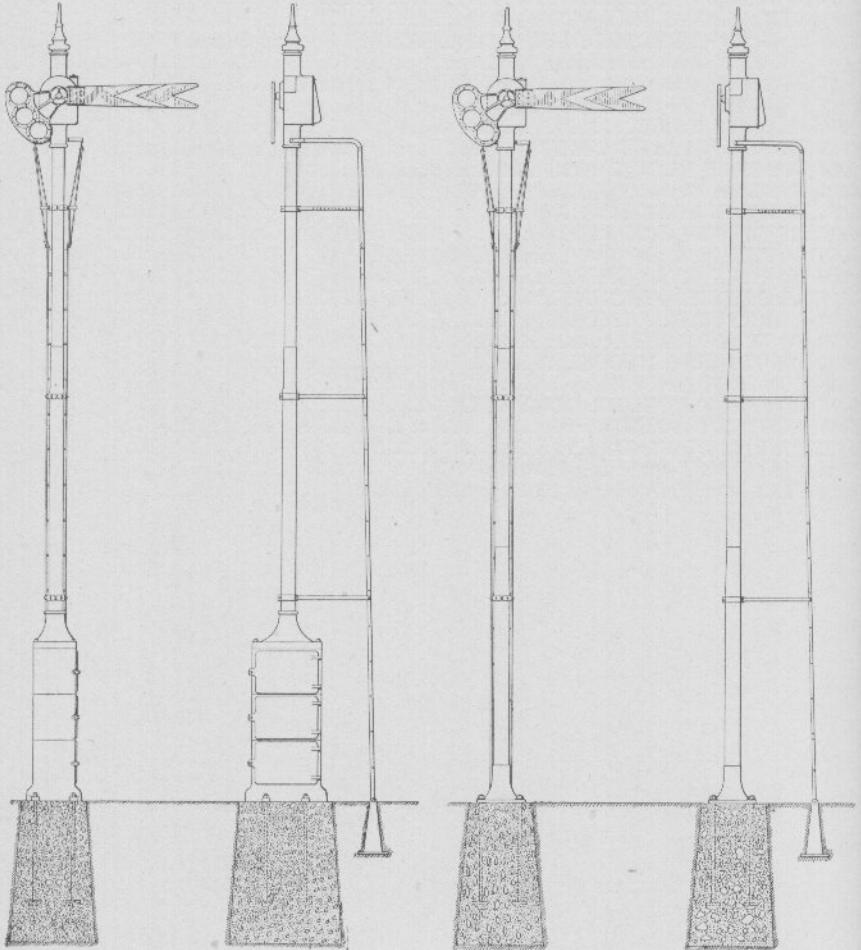


FIG. 1.

FIG. 2.

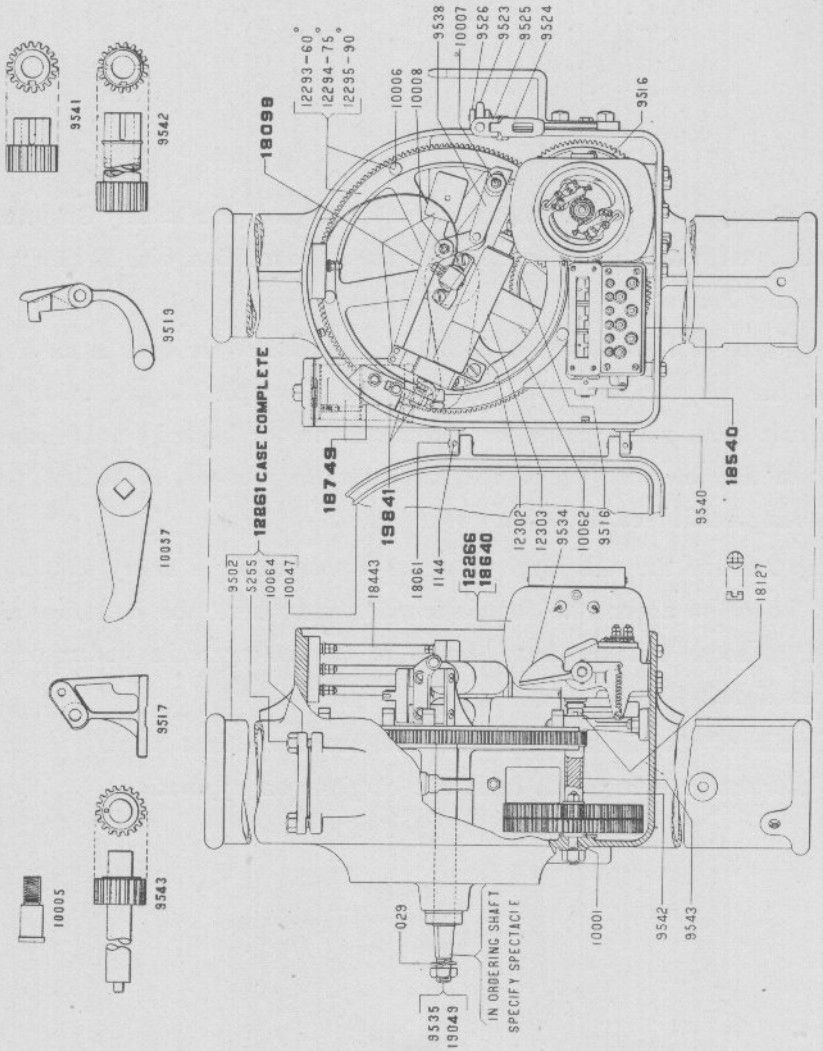
On the opposite page is shown our latest type of Electrically Operated Distant Signal, which we recommend for use in connection with Mechanical Interlocking Plants.

This type of signal has the actuating mechanism enclosed in an iron case at the top of the mast. Fig. 1 shows a complete signal mounted on an iron base, which provides accommodation for batteries and relays. The base may be made up of one, two or three sections, as desired, the whole being carried on a concrete foundation.

Fig. 2 shows the same type of signal supported by a heavy cast iron socket bolted to a concrete foundation, for use where the batteries are located at some distance from signal, or in battery wells underground near the signal.

Details of the signal mechanism are shown on next page. If any other information is required, same will be given on application.

POWER OPERATED DISTANT SIGNALS



9500

Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477

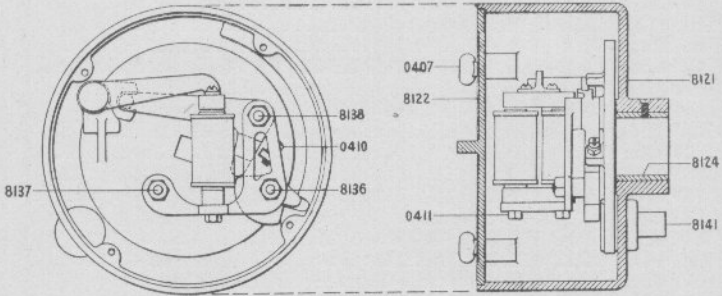
ELECTRICAL APPLIANCES

Order No.	POWER OPERATED DISTANT SIGNALS	List Price.
029	3" LOCK WASHER.....	.02
1144	PIN, 1/8" x 1 1/8" for fixing 18061 to 9540.....	
5255	Hex. Head CAP SCREW, 1/2" x 1 1/4".....	.07
9500	Model 5 SIGNAL MACHINE, COMPLETE, for Power Distant Signal.....	
9502	CASE, for 9500 Casting only.....	
9516	Intermediate GEAR, 120 teeth, 16 pitch 7 1/2" pitch diameter.....	
9517	BEARING, for Pinion 9543.....	
9519	LOCKING DOG.....	
9523	HASP SCREW.....	
9524	HASP TONGUE.....	
9525	HASP NUT.....	
9526	BRACKET, FOR HASP SCREW.....	
9534	CAM, FOR CIRCUIT BREAKER.....	
9535	SHAFT, used in connection with Front Spectacle 9733.....	
9538	DOG FOR SLOT.....	
9540	POST FOR HINGE.....	
9541	Intermediate PINION, 20 teeth 16 pitch 1 1/4" pitch diameter.....	
9542	MAIN PINION, 17 teeth 14 pitch 1.214" pitch diameter.....	
9543	DRIVING PINION, 20 teeth 16 pitch 1 1/4" pitch diameter.....	
10001	STUD, for Intermediate Gear.....	
10005	STUD, for Locking Dog.....	
10006	STUD, for Main Gear.....	
10007	STUD, for Dog 9538.....	
10008	STUD, for Lever 9537.....	
10047	DOOR, for Case.....	
10057	BUFFER CRANK.....	
10062	DISC, for Slot.....	
10064	CAP, for Dash Pot.....	
12261	CASE, COMPLETE, for Model 5 Signal Machine.....	
12266	MOTOR, COMPLETE, for Model 5 Signal Machine.....	
12293	Main GEAR, COMPLETE, for 60 Degree Front Spectacle.....	
12294	Main GEAR, COMPLETE, for 75 Degree Front Spectacle.....	
12295	Main GEAR, COMPLETE, for 90 Degree Front Spectacle.....	
12302	MAGNET COIL, COMPLETE, Specify Resistance.....	
12303	RETAINING COIL COMPLETE, Specify Resistance.....	
18061	PIN, for Hinge.....	
18099	SLOT LEVER, COMPLETE.....	
18127	Connecting CLUTCH, between Motor and Signal Movement.....	
18443	CONNECTOR, for Slot Magnet.....	
18540	CIRCUIT BREAKER, COMPLETE.....	
18640	MOTOR, COMPLETE, for Model 5 Signal Machine (High Resistance).....	
18749	PISTON, COMPLETE, for Dash Pot.....	
19409	SHAFT, used in connection with Front Spectacle 9711.....	
19841	INDICATION CONTACT, COMPLETE.....	

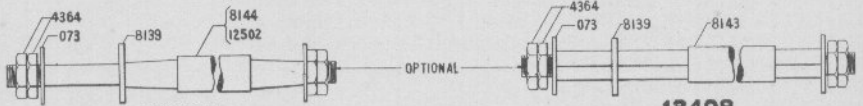
Prices on Application

Order by NUMBER and NAME Appearing in Large Type

SPINDLE SLOTS



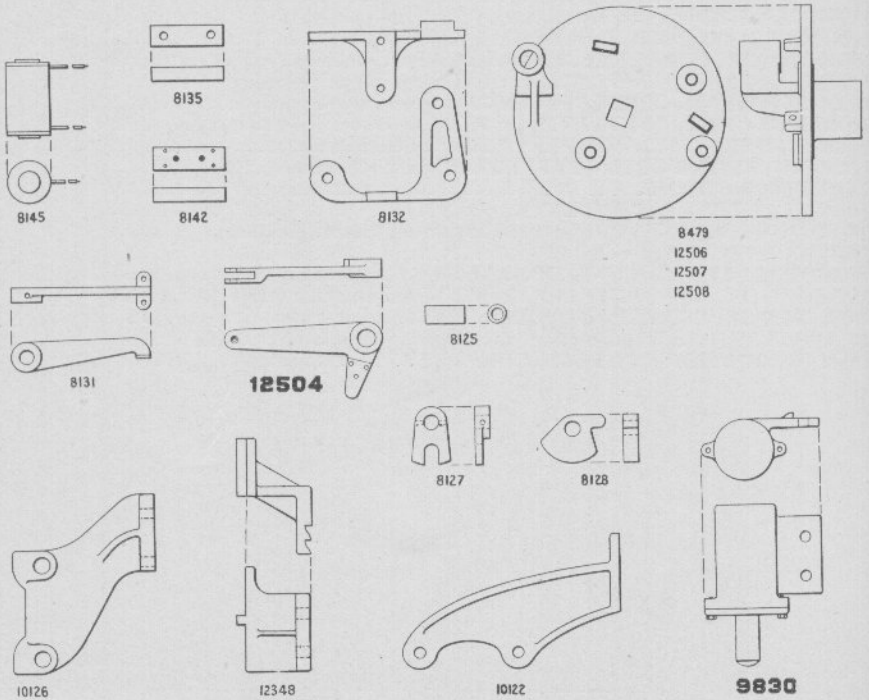
**8120**



**12407  
12503**

**12408**

**12400**



Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477

## ELECTRICAL APPLIANCES

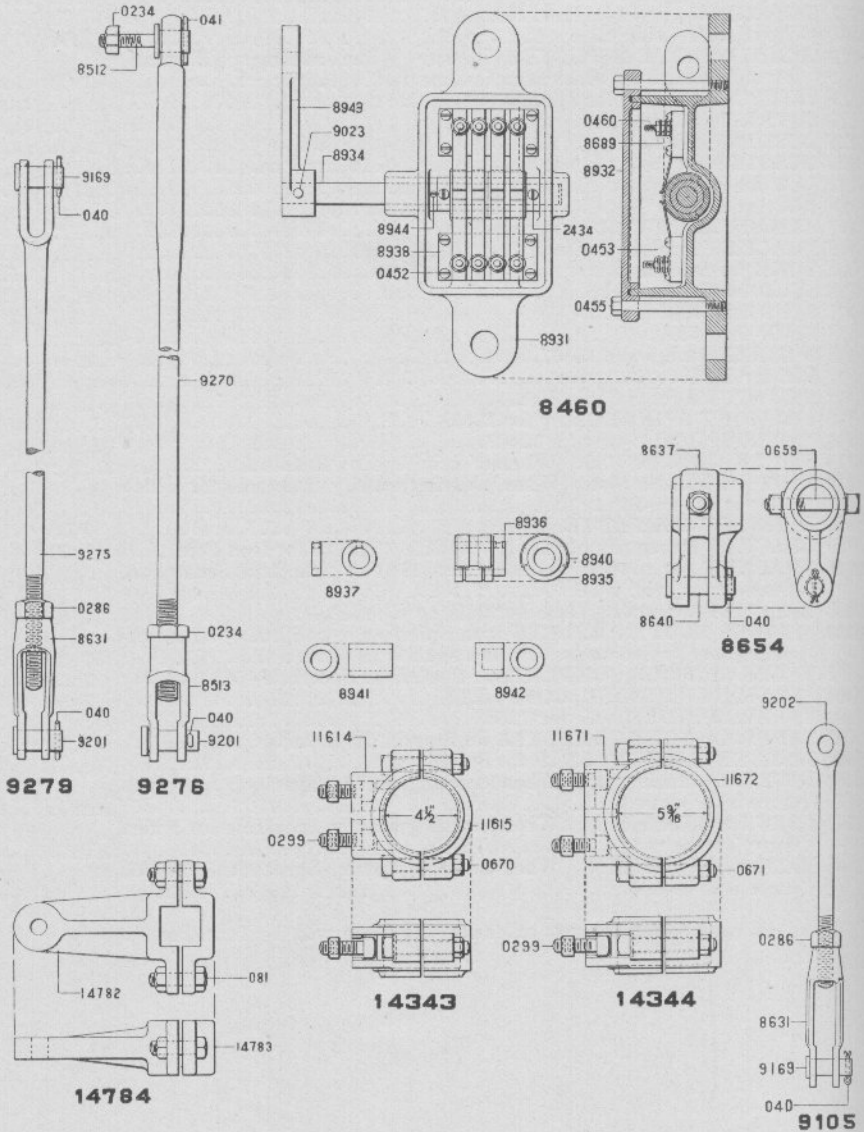
401

Order No.	SPINDLE SLOTS	List Price.
073	WASHER for $\frac{3}{4}$ " Bolt.....	.02
0407	THUMB SCREW, $\frac{1}{4}$ " x $\frac{3}{4}$ ".....	.10
0410	SCREW, $\frac{1}{4}$ " x $\frac{3}{4}$ " Fil. Hd.....	.02
0411	CAP SCREW, $\frac{1}{4}$ " x $1\frac{1}{4}$ " Hex. Hd.....	.03
4364	$\frac{3}{4}$ " Hex. NUT (Thin).....	.04
8120	SPINDLE SLOT COMPLETE as shown. When ordering specify number of Spectacle for which same is to be used.....	50.00
8121	CASE, Casting only, for 8120.....	
8122	COVER for 8120.....	
8124	BUSHING for 8120.....	
8125	BUSHING for Base Plates.....	
8127	JAW for Spindle Slot.....	
8128	DOG for Spindle Slot.....	
8131	ARMATURE LEVER for Spindle Slot.....	
8132	BRACKET for Spindle Slot.....	
8135	YOKE for Spindle Slot.....	
8136	STUD for 8120.....	
8137	STUD for 8120.....	
8138	STUD for 8120.....	
8139	WASHER for Spindle 12407, Etc.....	
8141	PIN for 8120.....	
8142	ARMATURE for Spindle Slot.....	
8143	STRAIGHT SPINDLE only for 12408.....	
8144	TAPER SPINDLE only for 12407.....	
8145	SINGLE COIL for 8120. When ordering specify Resistance.....	
8479	BASE for Spindle Slot. When ordering specify Spectacle for which same is to be used.....	
9830	DASH POT COMPLETE.....	6.00
10122	BRACKET for supporting Dash Pot 9830. Special for Iron Pole.....	1.50
10126	BRACKET for supporting Dash Pot 9830 to Standard Semaphore Bearing for Iron Pole.....	1.50
12348	BRACKET supporting Dash Pot 9830 to Wood Pole.....	1.50
12400	SPINDLE SLOT COMPLETE with Spindle as specified. When ordering specify Spectacle for which same is to be used.....	57.50
12407	TAPER SPINDLE COMPLETE. Special for Spectacle 4562.....	7.50
12408	STRAIGHT SPINDLE COMPLETE.....	7.50
12502	TAPER SPINDLE only for 12503.....	
12503	TAPER SPINDLE COMPLETE for Standard Spectacles.....	7.50
12504	LOCK LEVER COMPLETE for Spindle Slot.....	
12506	BASE for Spindle Slot. When ordering specify Spectacle for which same is to be used.....	
12507	BASE for Spindle Slot. When ordering specify Spectacle for which same is to be used.....	
12508	BASE for Spindle Slot. When ordering specify Spectacle for which same is to be used.....	

NOTE—Where prices are not extended the same will be furnished on application.

Order by NUMBER and NAME Appearing in Large Type

SIGNAL COMMUTATOR



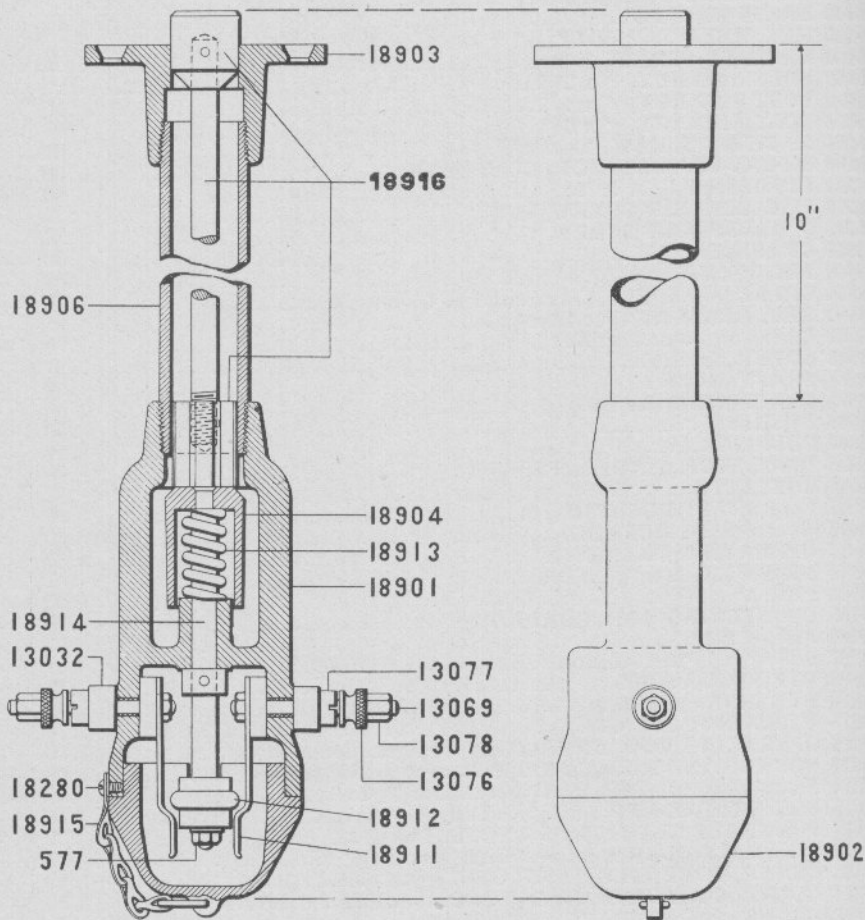
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	SIGNAL COMMUTATOR	List Price.
040	COTTER PIN, $\frac{1}{8}$ " x 1" (per 100)	.80
041	COTTER PIN, $\frac{1}{8}$ " x $1\frac{1}{4}$ " (per 100)	.80
051	BOLT AND NUT, $\frac{3}{8}$ " x $1\frac{1}{2}$ "	.03
0234	$\frac{3}{8}$ " HEX. NUT	.02
0286	$\frac{3}{8}$ " HEX. NUT	.02
0299	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{1}{2}$ "	.10
0452	MACHINE SCREW, 8-32 x $\frac{5}{8}$ "	
0453	BRASS WASHER	
0455	HEX. HEAD TAP BOLT, $\frac{5}{16}$ " x 3"	
0460	MACHINE SCREW, 10-32 x $1\frac{1}{4}$ "	
0659	BOLT AND NUT, $\frac{3}{8}$ " x $2\frac{1}{2}$ "	
0670	BOLT AND NUT, $\frac{3}{8}$ " x $4\frac{1}{2}$ "	.12
0671	BOLT AND NUT, $\frac{3}{8}$ " x $6\frac{1}{2}$ "	.11
2434	MACHINE SCREW, 10-32 x $\frac{1}{4}$ "	.01
8460	SIGNAL COMMUTATOR, COMPLETE	15.60
8512	STUD, Special, for 9270	.40
8513	$\frac{5}{8}$ " MALLEABLE SCREW JAW	.24
8631	$\frac{3}{4}$ " MALLEABLE SCREW JAW	.22
8637	CRANK, for 8654	.88
8640	PIN, $\frac{1}{2}$ " x $1\frac{7}{8}$ " for 8637	.08
8654	CRANK, COMPLETE, for S. and F. Locking Shaft	1.00
8689	HEX. BRASS NUT, 10-32 x $\frac{1}{8}$ "	.01
8931	CASE, for 8460	.90
8932	COVER, for 8460	.27
8934	SHAFT, only	.20
8935	INSULATING SLEEVE	1.00
8936	BUSHING	.80
8937	COLLAR	.14
8938	INSULATOR, for Contact Spring	.90
8940	CONTACT	.12
8941	Long SHAFT BUSHING	.60
8942	Short SHAFT BUSHING	.60
8943	OPERATING CRANK	.30
8944	SCREW, 10-32 x $\frac{5}{16}$ "	.01
9023	PIN, $\frac{3}{16}$ " x $1\frac{7}{16}$ "	.06
9105	CONNECTING ROD, COMPLETE	.70
9169	PIN, $\frac{1}{2}$ " x $1\frac{3}{16}$ "	.07
9201	PIN, $\frac{3}{8}$ " x $1\frac{3}{8}$ "	.07
9202	EYE ROD, for 9105	.39
9270	EYE ROD, for 9276	.50
9275	$\frac{1}{2}$ " JAW ROD, for 9279	.70
9276	OPERATING ROD, COMPLETE, for Signal Commutator	1.20
9279	CONNECTING ROD, COMPLETE average $24\frac{1}{2}$ " centers	1.08
11614	Front HALF CLAMP, for $4\frac{1}{2}$ " O. D. Iron Pole	.70
11615	Back HALF CLAMP, for $4\frac{1}{2}$ " O. D. Iron Pole	.46
11671	Front HALF CLAMP, for $5\frac{9}{16}$ " O. D. Iron Pole	.72
11672	Back HALF CLAMP, for $5\frac{9}{16}$ " O. D. Iron Pole	.48
14343	CLAMP, COMPLETE, for $4\frac{1}{2}$ " O. D. Iron Pole	1.60
14344	CLAMP, COMPLETE, for $5\frac{9}{16}$ " O. D. Iron Pole	1.60
14782	CRANK, for 14784	
14783	CAP, for Crank 14782	
14784	CRANK, COMPLETE, for S. and F. Locking Shaft	.56

Order by NUMBER and NAME appearing in Large Type



## FLOOR CIRCUIT CONTROLLER

**18900**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

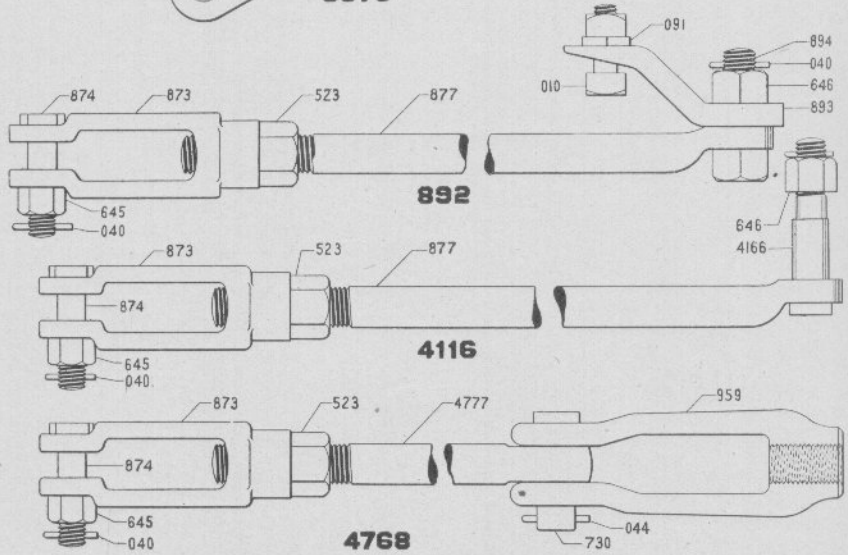
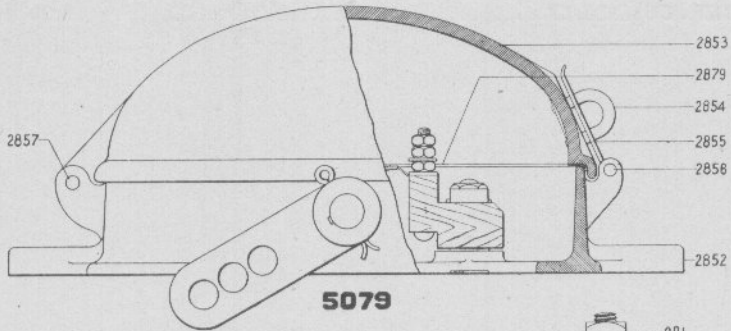
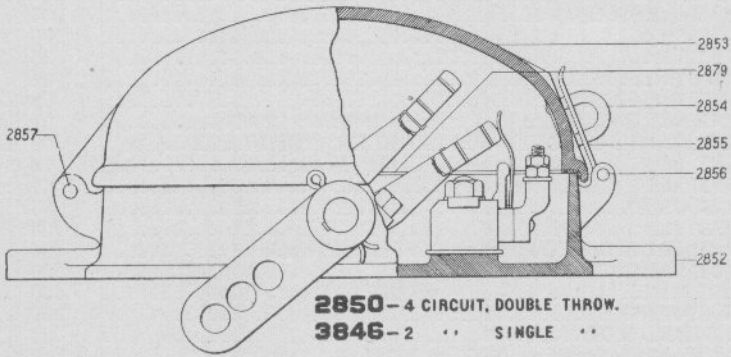
## ELECTRICAL APPLIANCES

405

Order No.	FLOOR CIRCUIT CONTROLLER	List Price.
577	BRASS NUT, 10-32 x $\frac{1}{8}$ ", for fixing 18912 to 18914.....	.02 .....
13032	Lignum Vitae BUSHING .....	.06 .....
13069	STUD, .189" x 2 $\frac{5}{16}$ ".....	.08 .....
13076	BRASS NUT.....	.06 .....
13077	BRASS NUT.....	.02 .....
13078	BRASS NUT.....	.02 .....
18280	MACHINE SCREW, 8-32 x $\frac{1}{4}$ ", for fixing 18915 to 18901.....	.01 .....
18900	MODEL 2 FLOOR CIRCUIT CONTROLLER, COMPLETE.....	8.00 .....
18901	CONTACT BOX, for Model 2 Circuit Controller.....	1.12 .....
18902	CAP, for Model 2 Circuit Controller.....	1.44 .....
18903	FLOOR SOCKET.....	.86 .....
18904	SHIELD.....	.20 .....
18906	1" Wrought IRON PIPE, 9" Long with Special Thread.....	.24 .....
18911	CONTACT SPRING.....	.20 .....
18912	CONTACT RING.....	.20 .....
18913	SPIRAL SPRING.....	.16 .....
18914	$\frac{3}{8}$ " C. D. STEEL ROD.....	.24 .....
18915	BRASS CHAIN, for holding 18902 to 18901.....	.12 .....
18916	PLUNGER, COMPLETE.....	1.20 .....

Order by NUMBER and NAME Appearing in Large Type

SWITCH BOXES AND SELECTORS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## ELECTRICAL APPLIANCES

407

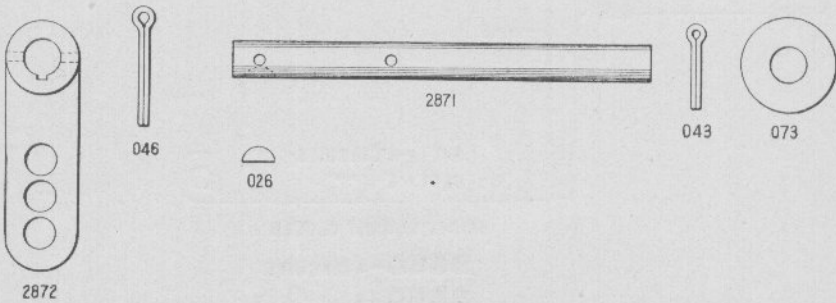
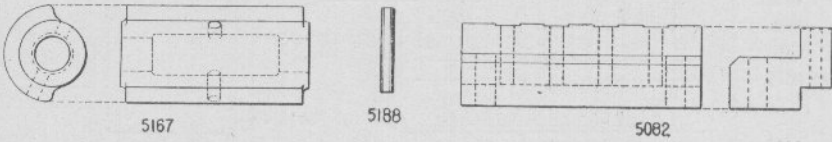
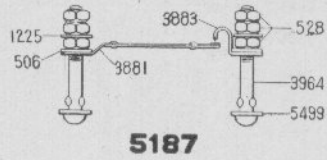
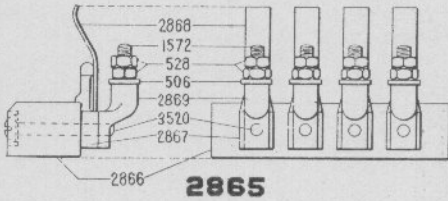
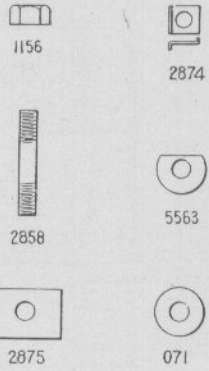
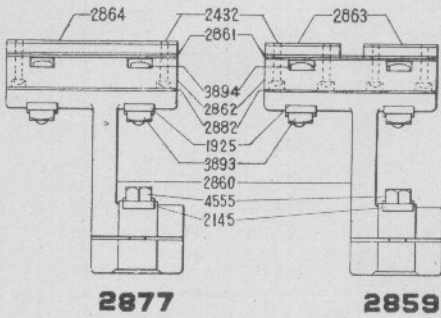
Order No.	SWITCH BOXES AND SELECTORS	List Price.
010	BOLT with Nut, $\frac{1}{2}$ " x $1\frac{1}{2}$ "	.04
026	KEY for Shaft 2871	.07
040	COTTER PIN, $\frac{3}{8}$ " x 1" (per 100)	.80
043	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{4}$ " (per 100)	.80
044	COTTER PIN, $\frac{3}{16}$ " x $1\frac{1}{2}$ " (per 100)	.80
046	COTTER PIN, $\frac{3}{16}$ " x 2" (per 100)	.80
065	LAG SCREW, $\frac{1}{2}$ " x 3"	.03
071	WASHER used under 5082 for 5079	.01
073	WASHER used on 2871	.02
091	NUT LOCK for 892	.02
506	BRASS WASHER for $\frac{1}{4}$ " Screw	.01
523	$\frac{7}{8}$ " HEX. NUT	.07
528	BRASS NUT for $\frac{1}{4}$ " Screw	.02
645	$\frac{5}{8}$ " HEX. NUT	.04
646	$\frac{3}{4}$ " HEX. NUT	.05
730	PIN, $\frac{7}{8}$ " x $2\frac{3}{8}$ "	.07
873	SCREW JAW for 892, 4116 or 4768	.33
874	PIN for 892, 4116 or 4768	.30
877	ROD for 892 or 4116	1.50
892	OPERATING ROD COMPLETE, connecting Switch Box to Switch Points	3.30
893	FOOT for 892	.80
894	BOLT for 892	.20
959	$1\frac{1}{4}$ " WROUGHT SCREW JAW for 4768	1.10
1156	NUT for Stud 2858	.02
1225	WASHER for 5187	.01
1572	SCREW for 2865	.03
1925	LOCK WASHER for 2859 or 2877	.01
2145	LOCK WASHER for 2859 or 2877	.01
2432	SCREW for 2859 or 2877	.02
2850	SWITCH BOX COMPLETE, Model 2, Four Circuits, Double Throw	30.00
2852	BASE, Casting only, for 2850, 3846 or 5079	5.00
2853	COVER, Casting only, for 2850, etc.	2.50
2854	STAPLE for Hasp, for 2850, etc.	.08
2855	HASP for 2850, etc.	.04
2856	PIN for Hasp for 2850, etc.	.04
2857	PIN for Hinge for 2850, etc.	.03
2858	STUD holding 2865 or 5082 to 2852 Base	.06
2859	CONTACT FORK COMPLETE, with Two Contacts for 2850 or 3846	4.00
2860	ARM for 2859 or 2877	1.50
2861	INSULATOR for 2859 or 2877	.24
2862	BLOCK, Insulating, for 2859 or 2877	.80
2863	CONTACT for 2859	.30
2864	CONTACT for 2877	.50
2865	BLOCK COMPLETE, with Contact Springs for 2850 or 3846	6.00
2866	Contact BLOCK for 2865	1.00
2867	Spring HOLDER for 2865	.40
2868	SPRING, Contact, for 2865	.24
2869	Contact POST for 2865	.50
2871	SHAFT for 2850, 3846 or 5079	.50
2872	CRANK, Outside, for 2850, 3846 or 5079	.40
2874	LOCK WASHER for Nut 1156 on Stud 2858	.02
2875	Felt WASHER used under 2865 for 2850 or 3846	.02
2877	Contact FORK COMPLETE with One Contact (Special)	4.00
2879	Felt GASKET for 2850, 3846 or 5079	.20
2882	INSULATOR for 2859 or 2877	.24
3520	SCREW for 2865	.08
3846	SWITCH BOX COMPLETE, Model 2, Two Circuit, Single Throw	20.00

Order by NUMBER and NAME Appearing in Large Type

Order No.	SWITCH BOXES AND SELECTORS—CONTINUED	List Price.
3881	SPRING CONTACT for 5187.....	2.00 .....
3883	CONTACT for 5187.....	1.50 .....
3893	NUT for Bolt 3894.....	.06 .....
3894	BOLT for 2859 or 2877.....	.06 .....
3964	SCREW for 5187.....	.10 .....
4116	OPERATING ROD COMPLETE, connecting Switch Box to Front Rods, with Jaw Ends.....	2.30 .....
4166	PIN for 4116.....	.40 .....
4555	SCREW for 2859 or 2877.....	.05 .....
4768	OPERATING ROD COMPLETE, connecting Switch Box to Front Rods, with Screw Ends.....	3.50 .....
4777	ROD for 4768.....	1.60 .....
5079	SWITCH BOX COMPLETE, Model 3, four independent Shunt Contacts	30.00 .....
5082	BLOCK for 5079.....	.80 .....
5167	CAM for Shunt Springs for 5079.....	2.00 .....
5187	SPRING CONTACT COMPLETE, with Binding Post for one Shunt Contact, for 5079.....	4.00 .....
5188	PIN fastening 5167 to 2871 for 5079.....	.04 .....
5499	WASHER for 5187.....	.02 .....
5563	WASHER used on Block 5082 under Washer 2874, for 5079.....	.02 .....

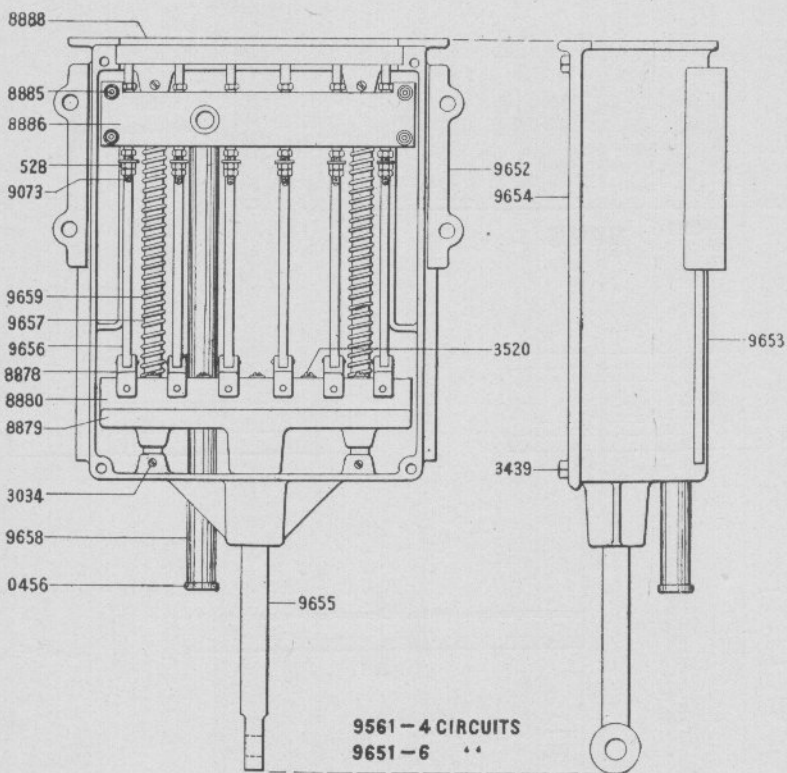
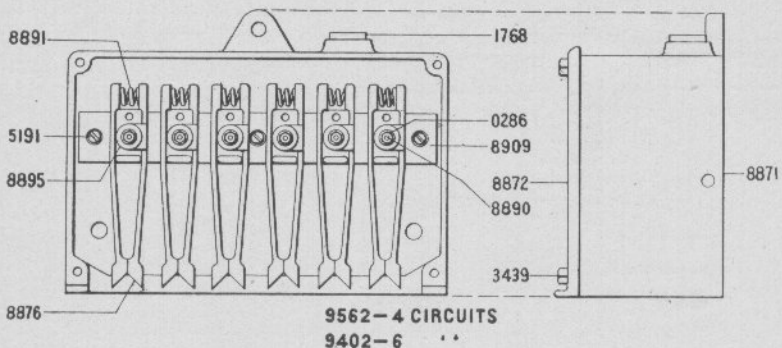
Order by NUMBER and NAME Appearing in Large Type

SWITCH BOXES AND SELECTORS



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

BRIDGE CIRCUIT CLOSER



BRIDGE CIRCUIT CLOSER

**9580-4 CIRCUITS**

**9650-6 ..**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## ELECTRICAL APPLIANCES

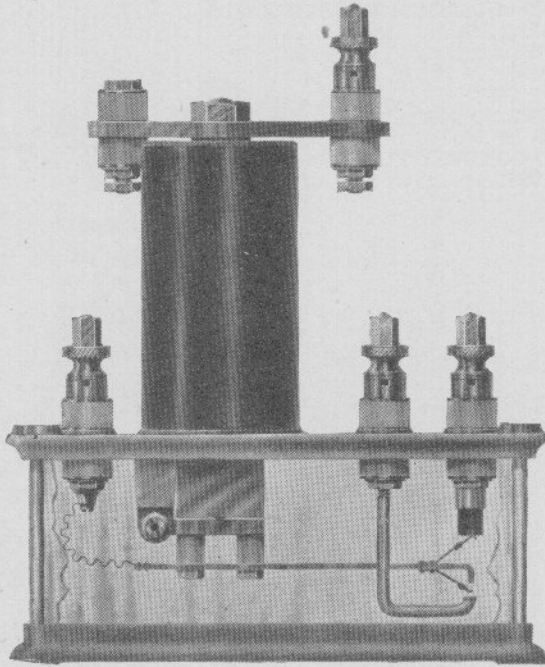
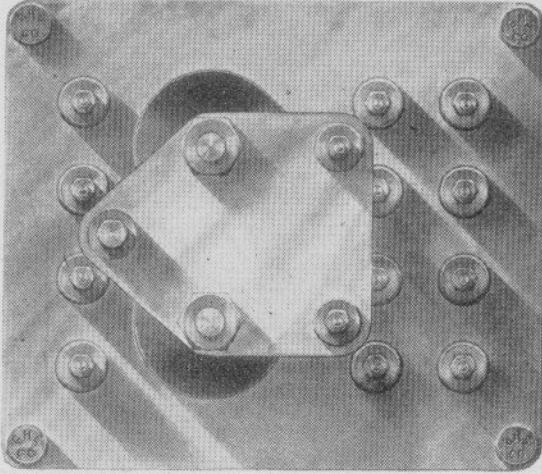
411

Order No.	BRIDGE CIRCUIT CLOSER	List Price
0286	$\frac{3}{8}$ " HEX. NUT.....	.02
0456	BUSHING for Lead Conduit 9658.....	.20
528	BRASS NUT, $\frac{1}{4}$ "-24.....	.02
1768	INSULATED BUSHING for Inlet Wires.....	.30
3034	SCREW, Rod to Case.....	.06
3439	CAP SCREW, holding Cover to Case.....	.04
3520	SCREW, $\frac{1}{4}$ " x 2", Rd. Hd. Brass.....	.08
5191	SCREW, $\frac{3}{8}$ " x 1 $\frac{1}{4}$ ", F. Hd. Insulator to Base.....	.06
8871	CASE, Casting only, for 9402.....	14.00
8872	COVER, Casting only, for 9402.....	2.50
8876	CONTACT CASTING for 9402.....	2.50
8878	SOCKET for Contact Blade for 9651.....	2.00
8879	SLIDING YOKES for Blades, for 9651.....	10.00
8880	INSULATOR for Yoke 8879.....	2.00
8885	STUD supporting Spring Insulator, for 9651.....	.50
8886	INSULATOR for Contact Springs.....	2.00
8888	WOOD CAP, for moving Case, for 9651.....	2.50
8890	CONTACT STUD for 9402.....	1.00
8891	Contact Compression SPRING for 9402.....	.20
8895	WASHER for 9402.....	.10
8909	CONTACT INSULATOR for 9402.....	4.50
9073	Contact Spring STUD for 9651.....	.10
9402	SHORE END of CIRCUIT CLOSER 9650.....	74.00
9560	BRIDGE CIRCUIT CLOSER, COMPLETE for Four Circuits.....	140.00
9561	BRIDGE END OF CIRCUIT CLOSER 9560.....	86.00
9562	SHORE END OF CIRCUIT CLOSER 9560.....	54.00
9650	BRIDGE CIRCUIT CLOSER, COMPLETE for Six Circuits.....	190.00
9651	BRIDGE END OF CIRCUIT CLOSER 9650.....	116.00
9652	BASE for 9651.....	7.00
9653	CASE for 9651.....	18.00
9654	COVER for 9651.....	6.00
9655	EYE ROD for 9651.....	3.00
9656	CONTACT BAR for 9651.....	2.00
9657	GUIDE ROD for 9651.....	.40
9658	INSULATED CONDUIT TUBE for 9651.....	3.00
9659	SPRING for 9651.....	1.00

Order by NUMBER and NAME Appearing in Large Type



MODEL 9 RELAY



MODEL 9. NEUTRAL TYPE RELAY.

RELAYS

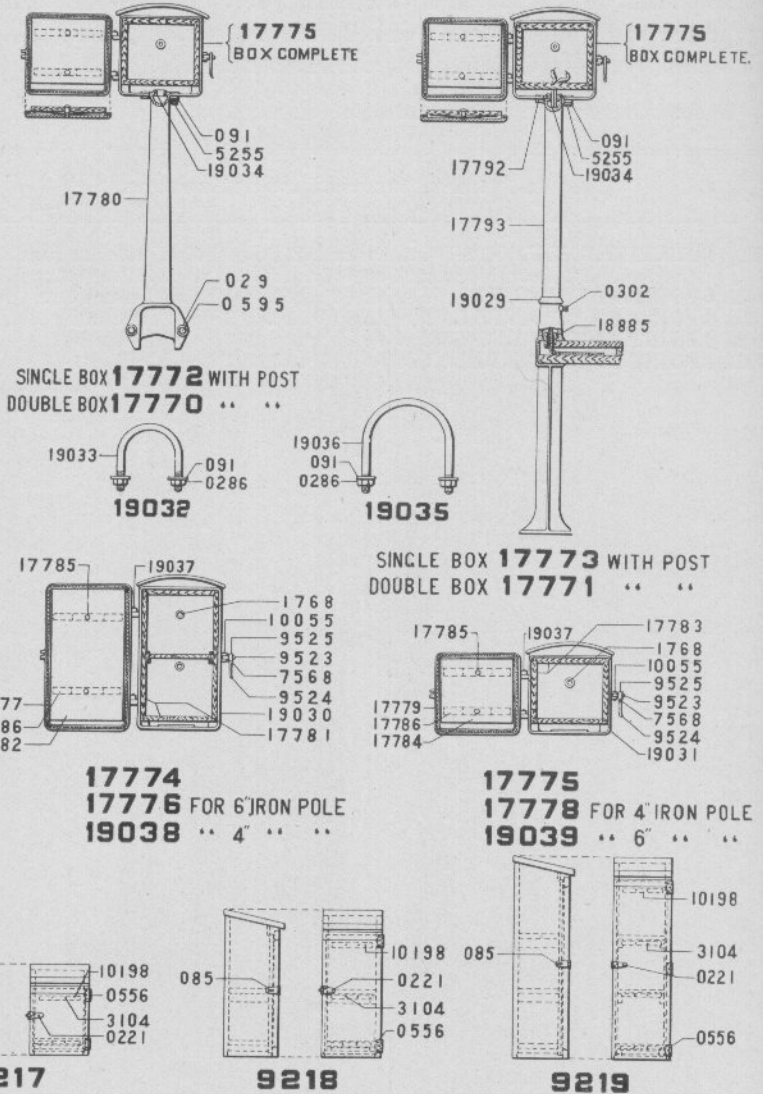
On the opposite page (412) is shown our Model 9 Relay, Neutral Type. This Relay is made with from one to four Front and Back Contacts inclusive. We also make this model in a polarized type, which has the same outside appearance and dimensions. Unless otherwise specified, this style of Relay will be furnished with Carbon Front and Platinum Back Contacts.

When ordering specify resistance of Magnets.

Order No.	MODEL 9 RELAY. NEUTRAL AND POLARIZED TYPE	List Price.
13020	POLARIZED RELAY, 2 Point Neutral, 2 Point Polar, with 2 Front Carbon and 2 Back Platinum Contacts.....	
13021	4 POINT NEUTRAL RELAY, with 4 Front and 4 Back Contacts.....	
13022	3 POINT NEUTRAL RELAY, with 3 Front and 3 Back Contacts.....	
13023	2 POINT NEUTRAL RELAY, with 2 Front and 2 Back Contacts.....	
13024	1 POINT NEUTRAL RELAY, with 1 Front and 1 Back Contact.....	

Order by NUMBER and NAME Appearing in Large Type

RELAY BOXES



Numbers Appearing on Castings are Not Order Numbers. See pages 461 to 477

## ELECTRICAL APPLIANCES

415

Order No.	RELAY BOXES	List Price.
029	$\frac{3}{8}$ " LOCK WASHER.....	.02
085	HASP.....	.10
091	$\frac{1}{2}$ " WASHER.....	.02
0221	No. 12-1" Wood SCREW.....	
0286	$\frac{1}{2}$ " HEX. NUT.....	.02
0302	SET SCREW, $\frac{3}{8}$ " x 1".....	
0556	STEEL HINGE, $1\frac{1}{2}$ " x 2".....	
0595	BOLT AND NUT, $\frac{3}{4}$ " x 2 $\frac{1}{2}$ ".....	
1768	BUSHING for Inlet Wires.....	.30
3104	No. 4- $\frac{1}{2}$ " WOOD SCREW.....	
5255	HEX. HEAD CAP SCREWS, $\frac{1}{2}$ " x 1 $\frac{1}{4}$ ".....	.07
7568	PIN, $\frac{3}{8}$ " x 2 $\frac{3}{8}$ ".....	
9217	SINGLE RELAY BOX, Wood.....	6.00
9218	DOUBLE RELAY BOX, Wood.....	8.30
9219	TREBLE RELAY BOX, Wood.....	10.60
9523	HASP SCREW.....	
9524	HASP TONGUE.....	
9525	HASP NUT.....	
10055	PIN, $\frac{3}{8}$ " x 1 $\frac{5}{8}$ ".....	
10198	SPRING, $\frac{1}{16}$ " x $\frac{3}{8}$ " x 7".....	
17770	DOUBLE RELAY BOX, COMPLETE, with post for Battery Chute, 1-17774 and 1-17780.....	27.30
17771	DOUBLE RELAY BOX, COMPLETE, with Post, 1-17774, 1-17793 and 1-19029.....	33.60
17772	SINGLE RELAY BOX, COMPLETE, with Post for Battery Chute, 1-17775 and 1-17780.....	20.60
11773	SINGLE RELAY BOX, COMPLETE, with Post 1-17775, 1-17793 and 1-19029.....	27.00
17774	DOUBLE RELAY BOX, COMPLETE, Wood Lined.....	21.20
17775	SINGLE RELAY BOX, COMPLETE, Wood Lined.....	14.48
17776	DOUBLE RELAY BOX, COMPLETE, for Mounting on 6" Pole 1-17774 and 2-19035.....	22.50
17777	DOOR FOR DOUBLE RELAY BOX, Casting only.....	
17778	SINGLE RELAY BOX, COMPLETE, for Mounting on 4" Pole 1-17775 and 2-19032.....	15.80
17779	DOOR FOR SINGLE RELAY BOX, Casting only.....	
17780	RELAY BOX POST, for Battery Chute.....	5.20
17781	WOOD LINING, for Double Relay Box.....	
17782	DOOR LINING, for Double Relay Box.....	
17783	WOOD LINING, for Single Relay Box.....	
17784	DOOR LINING, for Single Relay Box.....	
17785	STUD, $\frac{7}{8}$ " x 1 $\frac{1}{4}$ ".....	
17786	SPRING, $\frac{1}{16}$ " x 1" x 7".....	
17792	PIPE FLANGE, for 17793.....	
17793	POST, for 17771 and 17793.....	3.00
18885	BUSHING, for 19029.....	.40
19029	BASE, for Post 17793.....	5.20
19030	DOUBLE RELAY BOX, Casting only.....	
19031	SINGLE RELAY BOX, Casting only.....	
19032	CLAMP, COMPLETE, for fixing Relay Boxes to 4 $\frac{1}{2}$ " O. D. Iron Pole.....	
19033	"U" BOLT for 19032.....	
19034	Hard MAPLE BUSHING.....	.40
19035	CLAMP, COMPLETE, for fixing Relay Boxes to 6" O. D. Iron Pole.....	
18036	"U" BOLT for 19035.....	
19037	PIN, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ ".....	
19038	DOUBLE RELAY BOX, COMPLETE, for Mounting on 4" Pole 1-17774 and 2-19032.....	22.50
19039	SINGLE RELAY BOX, COMPLETE, for Mounting on 6" Pole 1-17775 and 2-19036.....	15.80

Order by NUMBER and NAME Appearing in Large Type

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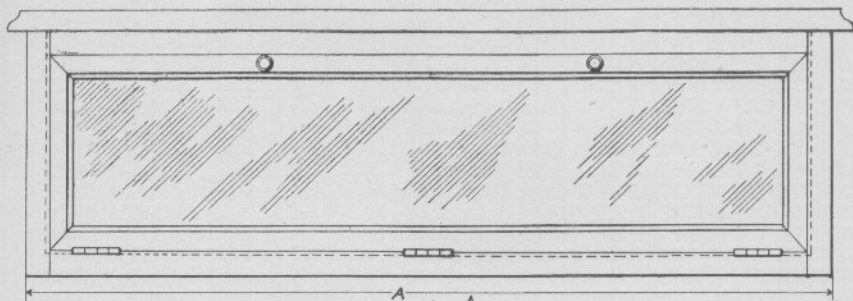
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RELAY BOXES

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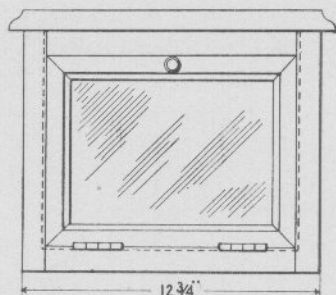
RELAY CASES AND BOXES



	A	A"
4468 - FOR 1 RELAY -	12 3/4"	
1028 " 2 "	23 3/4"	
1659 " 3 "	2'-10 5/16"	
1027 " 4 "	2'-4 3/4"	
6259 " 5 "	2'-10 3/4"	
4554 " 6 "	3'-4 3/4"	
5282 " 7 "	3'-10 3/4"	
6199 " 8 "	4'-4 3/4"	
6839 " 9 "	4'-10 3/4"	



051



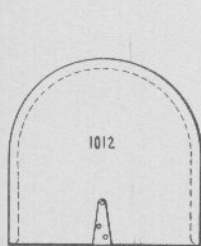
6 202 - FOR 1 RELAY - 3590



062



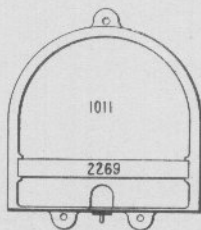
0362



1012



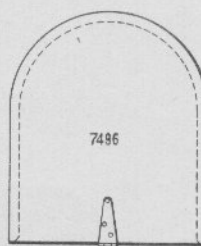
085



1011

2269

2265

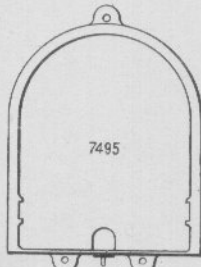


7496



085

7512



7495

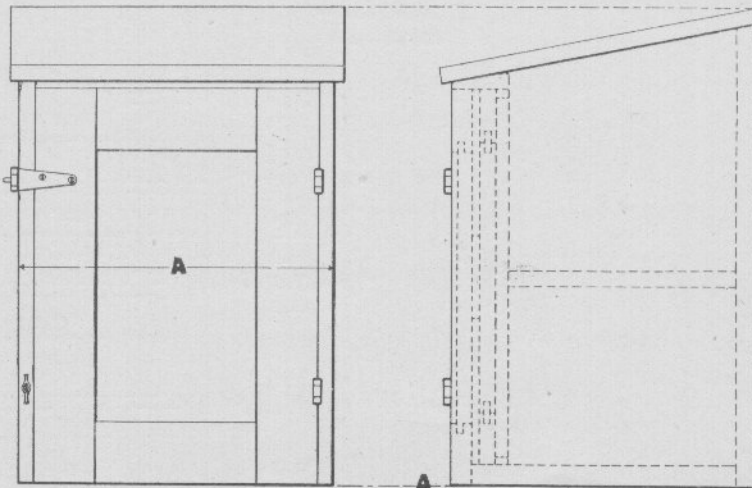
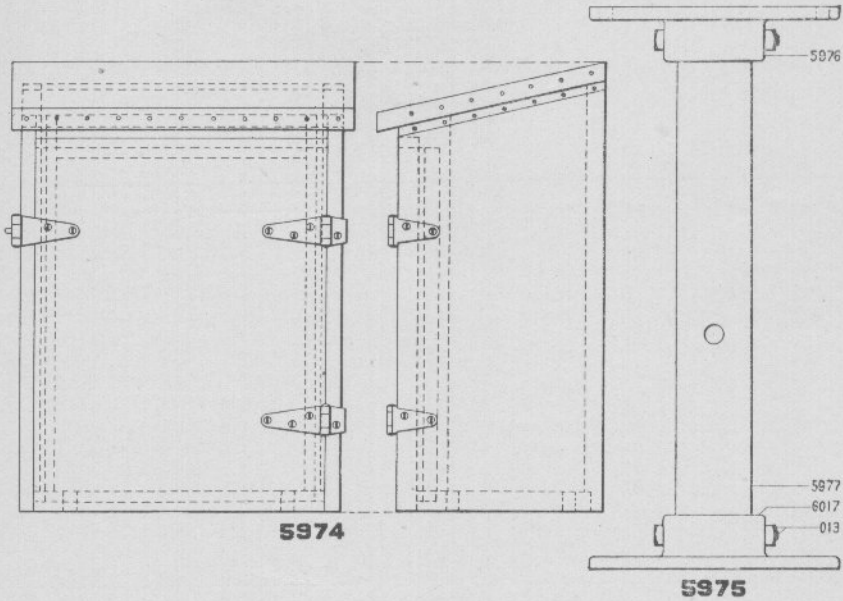
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## ELECTRICAL APPLIANCES

Order No.	RELAY CASES AND BOXES	List Price.
013	BOLT and Nut, $\frac{1}{2}$ " x 6"	.07
051	PADLOCK only. (If Keys are required order separately)	1.20
062	LAG SCREW, $\frac{3}{8}$ " x 2 $\frac{1}{2}$ "	.02
085	HASP with Staple	.10
0382	KEY for Padlock 051	.16
1011	BOX, Cast Iron, for 2265	4.50
1012	COVER for 2265	2.20
1027	OAK CASE for 4 Relays. (Side by side)	24.00
1028	OAK CASE for 2 Relays. (End to end)	20.00
1659	OAK CASE for 3 Relays. (End to end)	24.00
2265	IRON CASE COMPLETE, for Track Relays	7.00
2269	WOOD BLOCK for 2265	.30
4468	OAK CASE for 1 Relay 1880, etc.	12.00
4554	OAK CASE for 6 Relays. (Side by Side)	28.00
4845	RELAY BOX for 4 Relays	12.00
4846	RELAY BOX for 6 Relays	20.00
5292	OAK CASE for 7 Relays. (Side by side)	30.00
5974	RELAY BOX, used with Post 5975	12.00
5975	POST COMPLETE, for supporting Relay Box 5974	11.00
5976	CAP for Post 5975	2.50
5977	IRON POST only for 5975	6.00
6017	BASE for Post 5975	2.50
6199	OAK CASE for 8 Relays. (Side by side)	32.00
6202	OAK CASE for 1 Relay 3590	12.00
6259	OAK CASE for 5 Relays. (Side by side)	26.00
6839	OAK CASE for 9 Relays. (Side by side)	34.00
7495	BOX, Cast Iron, for 7512	5.00
7496	COVER for 7512	2.80
7512	IRON CASE COMPLETE, for Glass Encased Relays	8.00
7927	RELAY BOX for 10 Relays	27.00

Order by NUMBER and NAME Appearing in Large Type

RELAY CASES AND BOXES

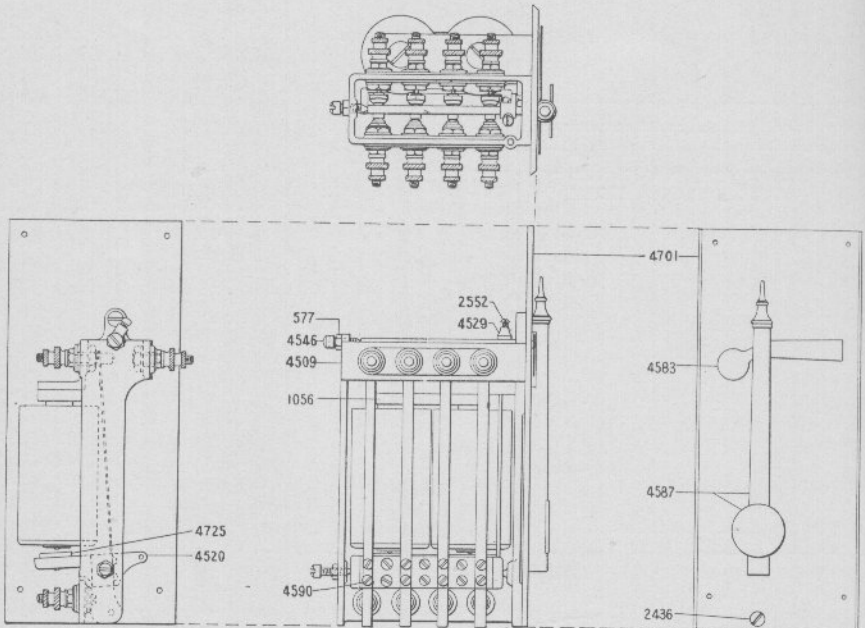


4845	FOR 4 RELAYS	15 3/4"
4846	" 6 "	21 3/4"
7927	" 10 "	34 3/4"

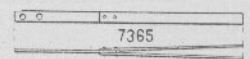
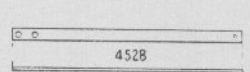
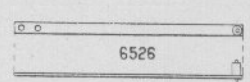
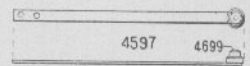
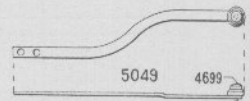
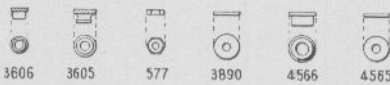
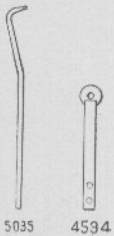
Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477



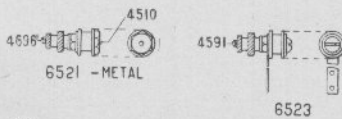
INDICATORS



- 4581** - 1 CIRCUIT.
- 4580** - 2 "
- 4507** - 3 "
- 14616** - 4 "



- 3933 - SINGLE MAG. COMP. 1.6 OHMS.
- 6552 - " " " " " " 7.5 "
- 6553 - " " " " " " 25.0 "



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order No.	INDICATORS	List Price.
577	BRASS NUT for No. 10-32 Screw.....	.02
1056	YOKE for Magnets.....	.40
1103	SCREW, $\frac{5}{16}$ " x $\frac{3}{8}$ ", F. H. Machine.....	.02
2436	BRASS SCREW, No. 10 x $\frac{3}{8}$ ", F. H.....	.01
2552	IRON SCREW, No. 6 x $\frac{3}{8}$ ", R. H.....	.01
2729	BONE STOP for 6520.....	.18
3605	NUT for various Binding Posts.....	.06
3606	LOCK NUT for various Binding Posts.....	.05
3890	BRASS WASHER for No. 10 Screws.....	.01
3933	MAGNET (Single Magnet) COMPLETE 1.6 ohms resistance. Two required per each Indicator.....	5.50
4507	INDICATOR COMPLETE, for Three Circuits. When ordering specify kind of Contacts, Front and Back; also resistance of Magnets.....	32.00
4509	FRAME, Casting only, for Indicators 4507, etc.....	6.00
4510	SILVER CONTACT PIN for 6521.....	.10
4520	ARM supporting Armature for 4517, etc.....	1.20
4528	CONTACT SPRING for use with Indicators.....	.50
4529	CRANK for Blade Shaft for various Indicators.....	.50
4546	ADJUSTING SCREW for various Indicators.....	.16
4565	INSULATING WASHER for various Binding Posts.....	.06
4566	INSULATING BUSHING for various Binding Posts.....	.12
4580	INDICATOR COMPLETE, for Two Circuits. When ordering specify kind of Contacts, Front and Back; also resistance of Magnets.....	30.00
4581	INDICATOR COMPLETE, for One Circuit. When ordering specify kind of Contacts, Front and Back; also resistance of Magnets.....	28.00
4583	ARM with Shaft COMPLETE, for various Indicators. When ordering specify whether for Home or Distant.....	1.50
4587	POST COMPLETE, with Number Plate. When ordering specify Number or Letter.....	3.00
4590	BRASS SCREW, No. 6 x $\frac{1}{4}$ ", F. H. Machine.....	.01
4591	BRASS SCREW, No. 10 x $1\frac{1}{4}$ " Round Head.....	.03
4594	FLEXIBLE CONNECTING STRIP COMPLETE, with washer.....	.30
4597	CONTACT ARM COMPLETE, with Metal and Carbon Contacts.....	1.00
4696	CONTACT SCREW for Binding Posts 6520 or 6521.....	.20
4698	CONTACT SCREW for Binding Post 6527.....	.24
4699	CARBON CONTACT.....	.40
4701	PLATE for Mounted Indicators.....	2.50
4725	ARMATURE for various Indicators.....	.80
5035	OPERATING ROD used on Indicators when Normal Position is clear.....	1.00
5049	CONTACT ARM COMPLETE, with Metal and Carbon Contacts. Special.....	2.00
6520	BINDING POST COMPLETE, with Bone Stop. For various Indicators.....	.80
6521	BINDING POST COMPLETE, with Metal Contact. Used Front or Back, as required.....	.60
6522	BINDING POST COMPLETE. Used on various Indicators.....	.40
6523	BINDING POST COMPLETE, with Flexible Conductor for Lower Terminals.....	.60
6524	SCREW (Special), for 6525.....	.16
6525	STOP COMPLETE, for Kick-Off Spring. For use on various Indicators.....	.40
6526	CONTACT ARM COMPLETE, with Metal Contact, Front and Back.....	.80
6527	BINDING POST COMPLETE, with Carbon Contact.....	1.00
6552	MAGNET (Single Magnet) COMPLETE. 7.5 ohms resistance. Two required per each Indicator.....	5.50
6553	MAGNET (Single Magnet) COMPLETE. 25.00 ohms resistance. Two required per each Indicator.....	5.50
7365	CONTACT SPRING COMPLETE. Special for making Front Contact before breaking Rear.....	4.00
14616	INDICATOR COMPLETE, for Four Circuits. When ordering specify kind of Contacts, Front and Back; also resistance of Magnets.....	34.00

Order by NUMBER and NAME Appearing in Large Type

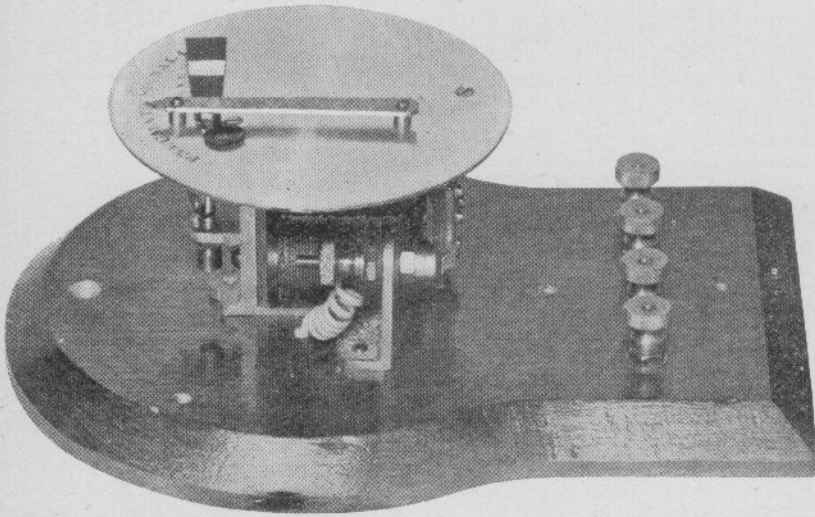
ELECTRICAL APPLIANCES

Order No.	INDICATORS—CONTINUED	List Price.
8462	<b>HOME SIGNAL INDICATOR</b> without Contacts. When ordering specify resistance of Magnets . . . . .	30.00 . . . . .
	If Front and Back Contacts are required add to List Price . . . . .	6.00 . . . . .
8463	<b>DISTANT SIGNAL INDICATOR COMPLETE.</b> When ordering specify resistance of Magnets . . . . .	36.00 . . . . .

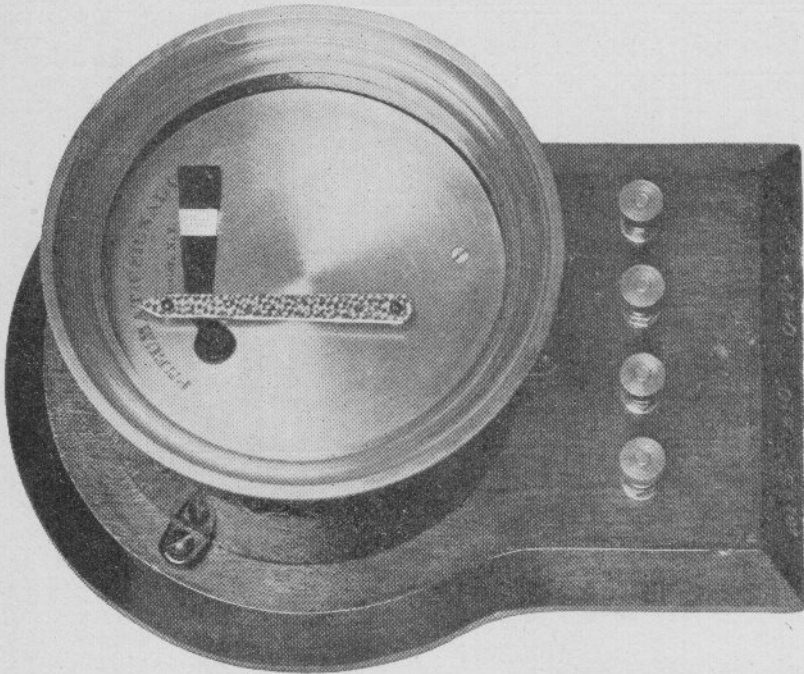
NOTE—The illustration on the opposite page shows another form of Home Signal Indicator. This Indicator can be supplied with either one Front or one Back Contact. We also manufacture a Three-Position Distant Signal Indicator which has the same external appearance as the Home Signal Indicator, but has two pair of Magnets so arranged that current is required to operate the blade to either the danger or clear position. This style of Indicator cannot be furnished with Contacts.

Order by NUMBER and NAME Appearing in Large Type

INDICATORS—CONTINUED



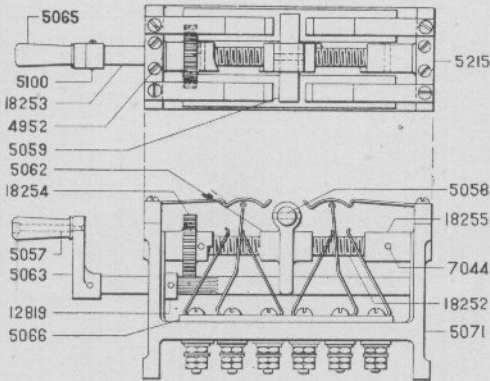
HOME SIGNAL INDICATOR—CASE REMOVED



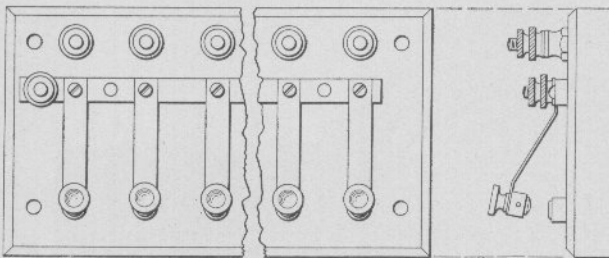
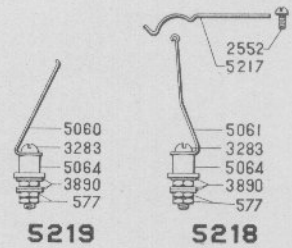
HOME SIGNAL INDICATOR—COMPLETE

- 8462 HOME SIGNAL INDICATOR
- 8643 DISTANT SIGNAL INDICATOR

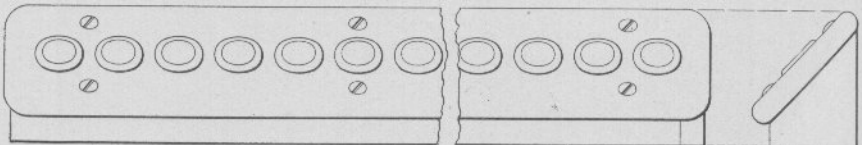
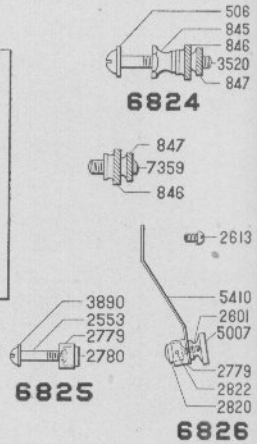
RELEASE KEYS, PUSH BUTTONS, ETC.



**6922 - SINGLE**  
**4987 - DOUBLE**



- |             |   |           |                  |
|-------------|---|-----------|------------------|
| <b>5412</b> | - | <b>2</b>  | SPRING HAND KEYS |
| <b>7852</b> | - | <b>3</b>  | .. .. .          |
| <b>7853</b> | - | <b>4</b>  | .. .. .          |
| <b>5411</b> | - | <b>5</b>  | .. .. .          |
| <b>5483</b> | - | <b>6</b>  | .. .. .          |
| <b>5551</b> | - | <b>7</b>  | .. .. .          |
| <b>5550</b> | - | <b>8</b>  | .. .. .          |
| <b>7854</b> | - | <b>9</b>  | .. .. .          |
| <b>7855</b> | - | <b>10</b> | .. .. .          |
| <b>7352</b> | - | <b>11</b> | .. .. .          |



**7343- 8** PUSH BUTTONS  
**4882-11**

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

Order  
No.

RELEASE KEYS, PUSH BUTTONS, ETC.

List Price.

506	BRASS WASHER for $\frac{1}{4}$ " Screw.....	.01
577	BRASS NUT for No. 10-32 Screw.....	.02
845	BASE for Binding Posts.....	.08
846	NUT for Binding Posts.....	.06
847	NUT LOCK for Binding Posts.....	.05
2552	IRON SCREW, No. 6 x $\frac{3}{8}$ ", Rd. Hd.....	.01
2553	BRASS SCREW, No. 8 x $\frac{1}{2}$ ", Rd. Hd.....	.02
2601	BRASS SCREW, No. 6 x $\frac{1}{4}$ ", F. Hd.....	.01
2613	BRASS SCREW, No. 6 x $\frac{1}{4}$ ", Rd. Hd.....	.01
2779	HOLDER for Carbon Contacts.....	.20
2780	CARBON CONTACT for 6825.....	.30
2820	UPPER CARBON CONTACT for Spring Keys.....	.40
2822	PIN holding 2820 to 2779.....	.02
3283	BRASS SCREW, No. 10 x $1\frac{1}{4}$ ", for 5208 or 5219.....	.03
3520	BRASS SCREW, $\frac{1}{4}$ " x 2", Rd. Hd.....	.08
3890	BRASS WASHER for No. 10 Screw.....	.01
4882	BOX COMPLETE, with 11 Push Buttons.....	10.00
4952	IRON SCREW, No. 6 x $\frac{3}{4}$ ", Rd. Hd.....	.01
4987	SCREW HAND KEY Complete, equipped on both sides with Contacts.....	.30
5007	INSULATING BUTTON for Spring Hand Keys.....	.20
5057	PIN, Handle to Crank.....	.20
5058	PIN, $\frac{1}{16}$ " x $\frac{9}{16}$ ".....	.04
5059	INSULATOR for Crosshead, for 4987 or 6922.....	.30
5060	SIDE CONTACT SPRING for 5219.....	.50
5061	CENTER CONTACT SPRING for 5218.....	.50
5062	CROSSHEAD for 4987.....	2.50
5063	CRANK for 4987.....	2.00
5064	INSULATING BUSHING for 5218 or 5219.....	.20
5065	CRANK HANDLE for 4987 or 6922.....	.30
5066	CONTACT POST INSULATOR for 4987 or 6922.....	.80
5071	FRAME, Casting only, for 4987 or 6922.....	10.00
5100	SCREW fastening 5063 to 5070.....	.12
5215	INSULATING BLOCK for retaining Springs for 4987 or 6922.....	.70
5217	RETAINING SPRING for 5218.....	.70
5218	CENTER CONTACT COMPLETE, for 4987 or 6922.....	1.40
5219	SIDE CONTACT COMPLETE, for 4987 or 6922.....	.70
5410	SPRING for Hand Keys.....	.30
5411	5 SPRING HAND KEYS Mounted COMPLETE.....	26.00
5412	2 SPRING HAND KEYS Mounted COMPLETE.....	14.00
5483	6 SPRING HAND KEYS Mounted COMPLETE.....	30.00
5550	8 SPRING HAND KEYS Mounted COMPLETE.....	38.00
5551	7 SPRING HAND KEYS Mounted COMPLETE.....	34.00
6824	BINDING POST COMPLETE, for Spring Hand Keys.....	.30
6825	LOWER CONTACT COMPLETE.....	.52
6826	SPRING CONTACT COMPLETE, for Spring Hand Keys.....	1.20
6922	SCREW HAND RELEASE KEY COMPLETE, equipped on one side with Contacts.....	25.00
7044	PIN, $\frac{3}{32}$ " x $\frac{7}{8}$ ".....	.02
7343	BOX COMPLETE, with 8 Push Buttons.....	8.00
7352	11 SPRING HAND KEYS, Mounted COMPLETE.....	50.00
7359	Binding Post STUD.....	.06
7852	3 SPRING HAND KEYS, Mounted COMPLETE.....	18.00
7853	4 SPRING HAND KEYS, Mounted COMPLETE.....	22.00
7854	9 SPRING HAND KEYS, Mounted COMPLETE.....	42.00
7855	10 SPRING HAND KEYS, Mounted COMPLETE.....	46.00
18252	OPERATING SCREW.....	
18253	PINION SHAFT.....	
18254	BRASS GEAR WHEEL.....	
18255	BACK SLEEVE.....	

Order by NUMBER and NAME Appearing in Large Type

## ELECTRICAL APPLIANCES

## BELL KEY AND HAND SWITCH

## BELL KEY

On the upper part of the opposite page is shown the Bell Key (8448), which is the standard of this company. It has front and back contacts, and may therefore be used on open or closed circuit or as a two-way circuit controller. The contacts are all of platinum. To change the circuit, considerable pressure must be applied to the push button. The binding posts are carefully insulated from the frame.

Order  
No.

List Price.

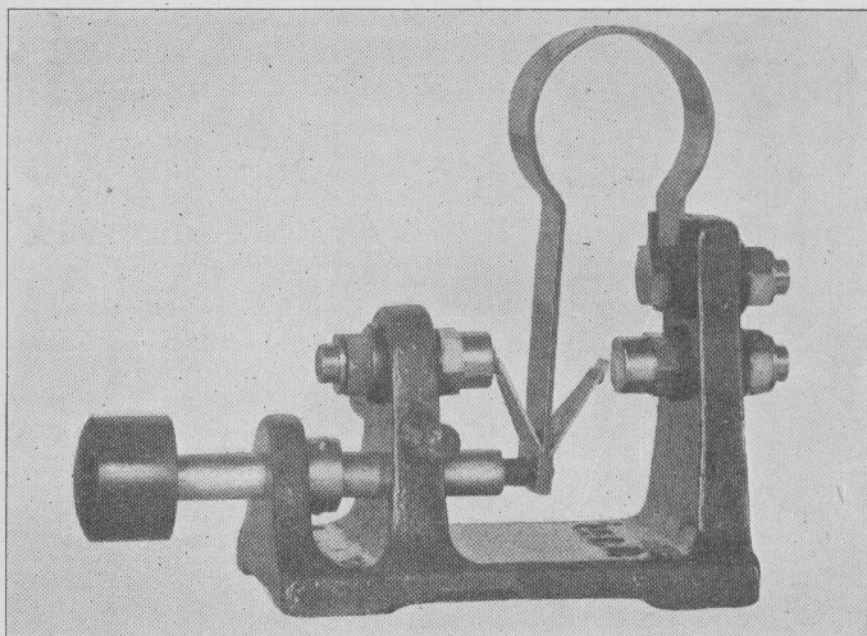
8448 Bell Key .....		
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## HAND SWITCH

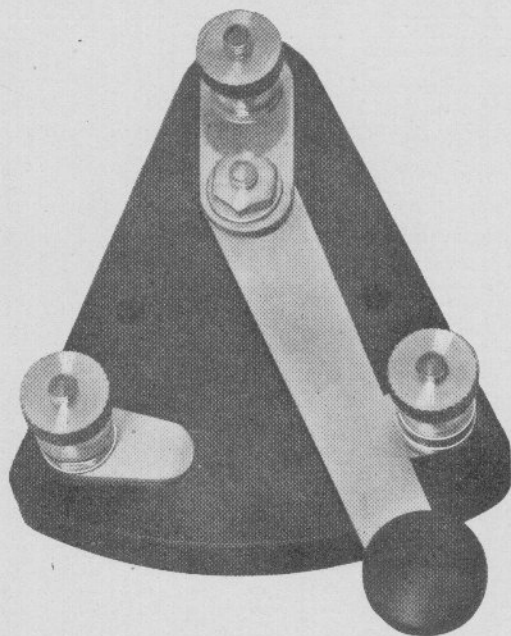
On the lower part of the same page is represented one form of Hand Switch (12431) made by this company. As made in this form it is suitable for a number of different purposes. This same style of switch will be furnished with as many poles as desired.

12431 Hand Switch .....		
-------------------------	--	--

Order by NUMBER and NAME Appearing in Large Type



BELL KEY (8448)

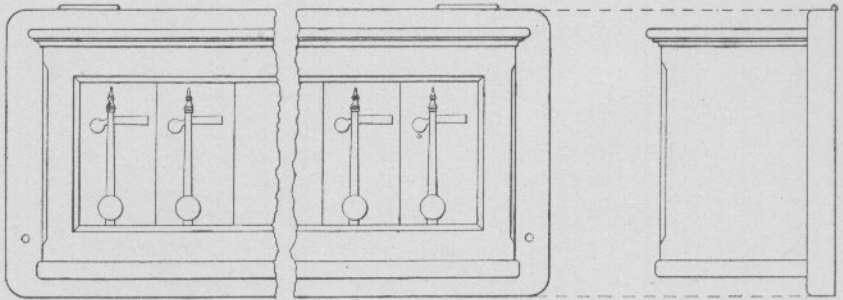


HAND SWITCH (12431)



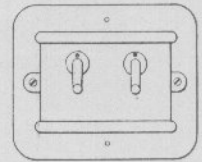
## ELECTRICAL APPLIANCES

## INDICATOR AND RELEASE KEY CASES

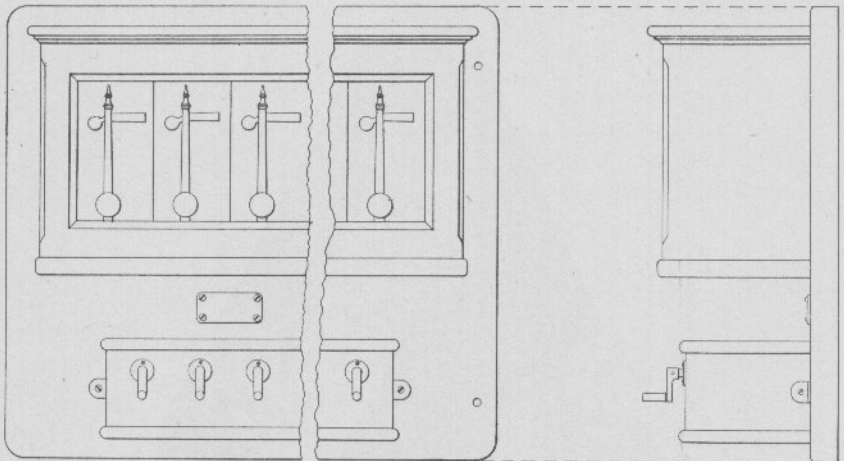


5514, CASE WITH 1 INDICATOR.

5457	“	“	2	“	“
6630	“	“	3	“	“
6260	“	“	4	“	“
5456	“	“	5	“	“
5484	“	“	6	“	“
5552	“	“	7	“	“
5508	“	“	8	“	“
6631	“	“	9	“	“
5509	“	“	10	“	“
7858	“	“	11	“	“
6238	“	“	12	“	“
7859	“	“	13	“	“
7860	“	“	14	“	“
7351	“	“	15	“	“



5275



6223, CASES WITH 1 INDICATOR &amp; 1 RELEASE KEY.

7684	“	“	2	“	“	“
6583	“	“	3	“	3	“
6251	“	“	4	“	3	“
4984	“	“	4	“	4	“
8670	“	“	5	“	4	“
9701	“	“	6	“	5	“

Numbers Appearing on Castings are Not Order Numbers See pages 464 to 477

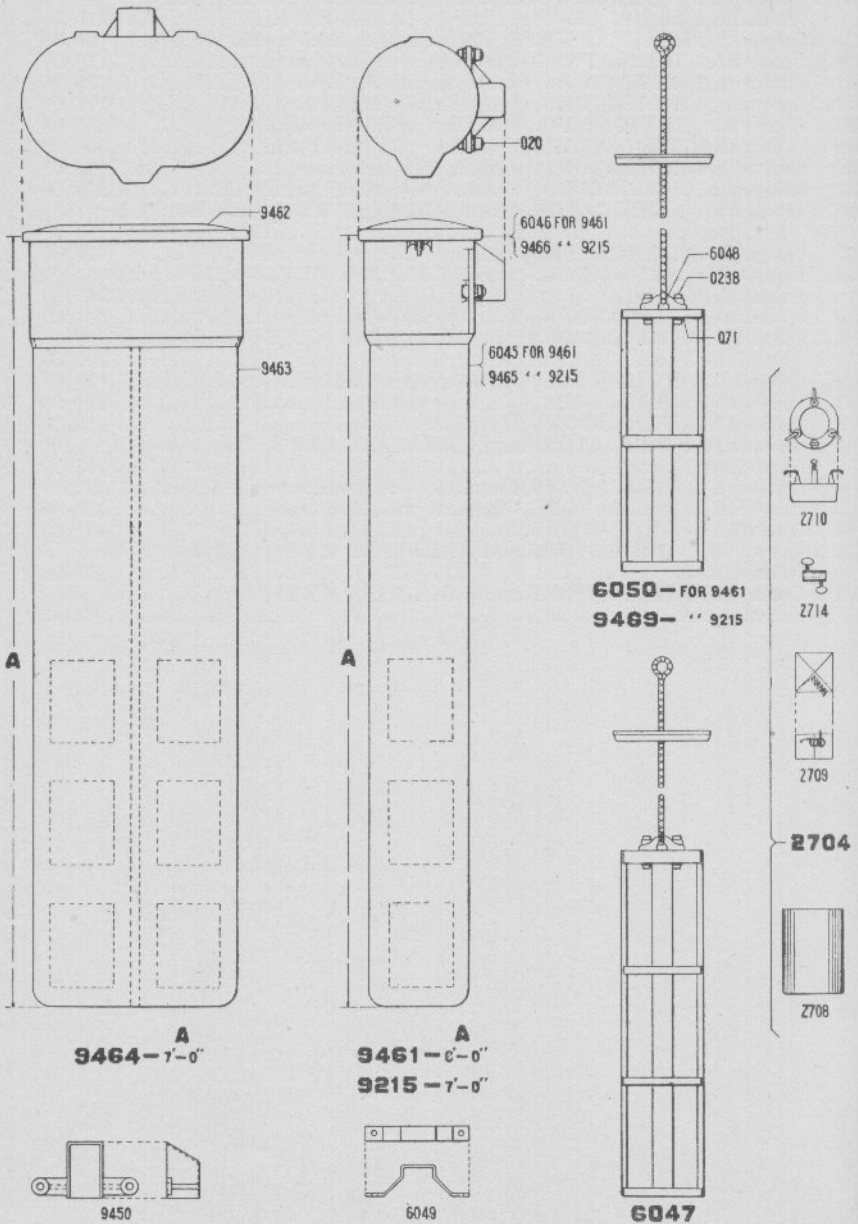
## ELECTRICAL APPLIANCES

429

Order No.	INDICATOR AND RELEASE KEY CASES	List Price.
4984	2 Cases with 4 INDICATORS and 4 RELEASE KEYS, Complete with Backboard.....	272.00 .....
5275	1 Case with 2 RELEASE KEYS, Complete with Backboard.....	66.00 .....
5456	1 Case with 5 INDICATORS, Complete with Backboard.....	178.00 .....
5457	1 Case with 2 INDICATORS, Complete with Backboard.....	76.00 .....
5484	1 Case with 6 INDICATORS, Complete with Backboard.....	212.00 .....
5508	1 Case with 8 INDICATORS, Complete with Backboard.....	280.00 .....
5509	1 Case with 10 INDICATORS, Complete with Backboard.....	348.00 .....
5514	1 Case with 1 INDICATOR, Complete with Backboard.....	42.00 .....
5552	1 Case with 7 INDICATORS, Complete with Backboard.....	246.00 .....
6223	2 Cases with 1 INDICATOR and 1 RELEASE KEY, Complete with Backboard.....	76.00 .....
6238	1 Case with 12 INDICATORS, Complete with Backboard.....	416.00 .....
6251	2 Cases with 4 INDICATORS, and 3 RELEASE KEYS Complete with Backboard.....	240.00 .....
6260	1 Case with 4 INDICATORS, Complete with Backboard.....	144.00 .....
6583	2 Cases with 3 INDICATORS, and 3 RELEASE KEYS Complete with Backboard.....	206.00 .....
6630	1 Case with 3 INDICATORS, Complete with Backboard.....	110.00 .....
6631	1 Case with 9 INDICATORS, Complete with Backboard.....	314.00 .....
7351	1 Case with 15 INDICATORS, Complete with Backboard.....	518.00 .....
7684	2 Cases with 2 INDICATORS and 2 RELEASE KEYS, Complete with Backboard.....	142.00 .....
7858	1 Case with 11 INDICATORS, Complete with Backboard.....	382.00 .....
7859	1 Case with 13 INDICATORS, Complete with Backboard.....	450.00 .....
7860	1 Case with 14 INDICATORS, Complete with Backboard.....	484.00 .....
8670	2 Cases with 5 INDICATORS and 4 RELEASE KEYS, Complete with Backboard.....	306.00 .....
9701	2 Cases with 6 INDICATORS and 5 RELEASE KEYS, Complete with Backboard.....	372.00 .....

Order by NUMBER and NAME Appearing in Large Type

BATTERIES AND CHUTES



Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## ELECTRICAL APPLIANCES

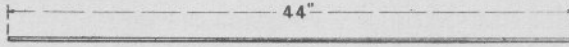
431

Order No.	BATTERIES AND CHUTES	List Price.
020	BOLT WITH NUT, $\frac{3}{4}$ " x 2"	.08
071	WASHER for $\frac{3}{4}$ " Bolt	.01
0238	BOLT WITH NUT, $\frac{3}{4}$ " x 3"	.03
2704	GRAVITY BATTERY COMPLETE	
2708	GLASS JAR, 6" x 8", for 2704	.34
2709	COPPER, with Connecting Wire, for 2704	.20
2710	4 POUND ZINC for 2704	
2714	CONNECTOR for Wire Terminal	
6045	BATTERY CHUTE, Casting only, for 9461	
6046	COVER for 9461	
6047	THREE-CELL ELEVATOR for use with 9461, etc.	2.10
6048	HANGER for Battery Elevators	
6049	STRAP for holding Trunking to 9461	
6050	TWO-CELL ELEVATOR for use with 9461	1.82
9215	7-FOOT CAST IRON BATTERY CHUTE COMPLETE with Elevator and Frost Board to hold 2 or 3 cells, 6" x 8" Gravity Battery. When ordering specify whether for two or three cells	30.50
9450	CAP for holding Trunking to 9215	
9461	6-FOOT CAST IRON BATTERY CHUTE COMPLETE with Elevator and Frost Board, to hold 2 or 3 cells, 6" x 8" Gravity Battery. When ordering specify whether for two or three cells	26.30
9462	COVER for Double Battery Chute 9464	
9463	BATTERY CHUTE, Casting only, for 9464	
9464	7-FOOT DOUBLE BATTERY CHUTE COMPLETE with Elevators and Frost Board, to hold 4 or 6 cells of 6" x 8" Gravity Battery. When ordering specify whether for four or six cells	54.00
9465	BATTERY CHUTE, Casting only, for 9215	
9466	COVER only for 9215	
9469	TWO-CELL ELEVATOR for use with 9215	

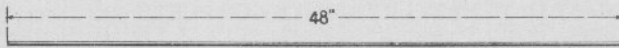
Order by NUMBER and NAME Appearing in Large Type

ELECTRICIAL APPLIANCES

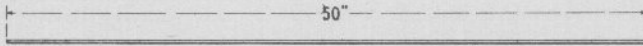
SPLICE BARS, CHANNEL PINS AND BOND WIRES



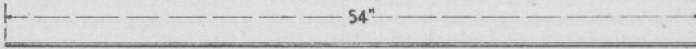
12350



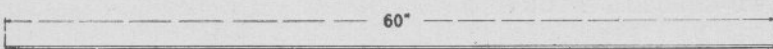
12351



12352



12353



12354



12391 - 4 <sup>1</sup>/<sub>4</sub>"

12392 - 4 <sup>1</sup>/<sub>2</sub>"

12393 - 4 <sup>3</sup>/<sub>4</sub>"

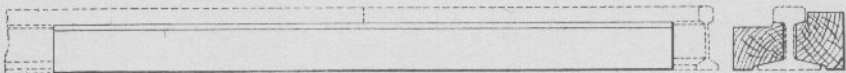
12394 - 5"

12395 - 5 <sup>3</sup>/<sub>8</sub>"

12396 - 5 <sup>3</sup>/<sub>4</sub>"



10350



12349

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

# ELECTRICAL APPLIANCES

433

Order No. SPLICE BARS, CHANNEL PINS AND BOND WIRES List Price.

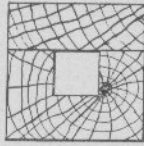
10350	CHANNEL PIN for No. 8 Bond Wire.....		
12349	WOOD SPLICE BAR for Insulated Rail Joint. When ordering send print of Rail Section.....		
12350	No. 8 GALVANIZED BOND WIRE 44" long.....	Prices on Application.	
12351	No. 8 GALVANIZED BOND WIRE 48" long.....		
12352	No. 8 GALVANIZED BOND WIRE 50" long.....		
12353	No. 8 GALVANIZED BOND WIRE 54" long.....		
12354	No. 8 GALVANIZED BOND WIRE 60" long.....		
12391	FIBRE END POST for rail 4 $\frac{1}{2}$ " high.....		
12392	FIBRE END POST for rail 4 $\frac{1}{2}$ " high.....		
12393	FIBRE END POST for rail 4 $\frac{3}{4}$ " high.....		
12394	FIBRE END POST for rail 5" high.....		
12395	FIBRE END POST for rail 5 $\frac{3}{8}$ " high.....		
12396	FIBRE END POST for rail 5 $\frac{3}{4}$ " high.....		

Order by NUMBER and NAME Appearing in Large Type

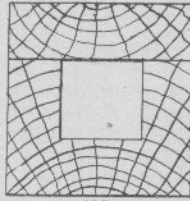
TRUNKING AND STAKES



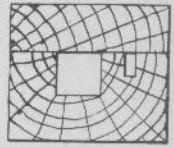
2747



898



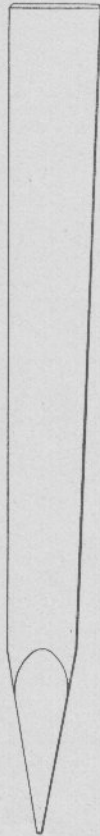
897



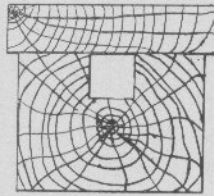
2059



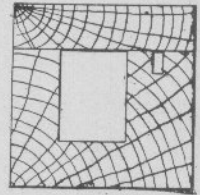
5524-3" X 4" X 4'-0"  
6034-4" X 4" X 3'-6"



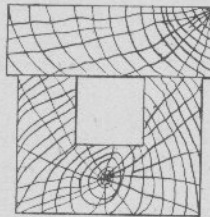
915-4" DIA. X 3'-0"



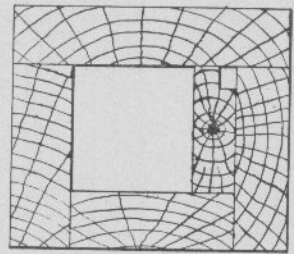
6033



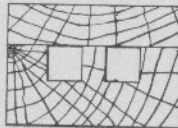
2058



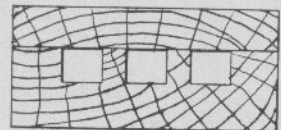
5246



2057



5731



5730

Numbers Appearing on Castings are Not Order Numbers. See pages 464 to 477

## ELECTRICAL APPLIANCES

435

Order No.	TRUNKING AND STAKES	List Price
897	TRUNKING, 3" x 4", with lid 1 $\frac{1}{2}$ " x 4", grooves 1 $\frac{3}{4}$ " x 1 $\frac{3}{4}$ ", per foot.....	.10
898	TRUNKING, 2" x 3", with lid 1" x 3", grooves 1" x 1", per foot.....	.06
915	STAKE, 4" dia. 3" long.....	.30
2057	TRUNKING, 4" x 6", with lid 1 $\frac{1}{2}$ " x 6", grooves 2 $\frac{3}{8}$ " x 2 $\frac{5}{8}$ " and $\frac{1}{2}$ " x $\frac{3}{4}$ " per foot.....	.10
2058	TRUNKING, 3" x 4", with lid 1" x 4", grooves 1 $\frac{1}{2}$ " x 2" and $\frac{1}{2}$ " x $\frac{1}{2}$ " per ft.....	.10
2059	TRUNKING, 2" x 3 $\frac{1}{2}$ ", with lid 1" x 3", grooves 1" x 1" and 1 $\frac{1}{2}$ " x $\frac{1}{2}$ " per ft.....	.08
2747	TRUNKING, for Wood poles 1 $\frac{3}{4}$ " x 3", grooves $\frac{3}{4}$ " x 1" per ft.....	.06
5246	TRUNKING, 3" x 4", with lid 1 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ ", grooves 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " per ft.....	.10
5524	STAKE, 3" x 4" x 4' long.....	.31
5730	TRUNKING, 1 $\frac{3}{4}$ " x 5 $\frac{3}{4}$ ", with lid $\frac{7}{8}$ " x 5 $\frac{3}{4}$ ", with three grooves $\frac{3}{4}$ " x $\frac{7}{8}$ " per ft.....	.10
5731	TRUNKING, 1 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ ", with lid $\frac{7}{8}$ " x 3 $\frac{3}{4}$ ", with two grooves $\frac{3}{4}$ " x $\frac{3}{4}$ " per ft.....	.07
6033	TRUNKING, 3" x 4", with lid 1" x 4 $\frac{1}{2}$ ", grooves 1" x 1" per ft.....	.10
6034	STAKE, 4" x 4" x 3' 6" long.....	.36

Order by NUMBER and NAME Appearing in Large Type



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On the following pages will be found lists of various sizes of Commercial Bolts, Screws, Lag Screws, Cotter Pins, Rivets, Etc., used in connection with Mechanical Interlocking Devices to which our order numbers have been assigned.

# BOLTS, SCREWS, COTTER PINS, ETC.

## SQUARE HEAD MACHINE BOLTS WITH SQUARE NUTS

Order No.	Size	Order No.	Size	Order No.	Size
14067	$\frac{7}{8}$ " x $1\frac{5}{8}$ "	098	1" x $3\frac{3}{4}$ "	086	$\frac{7}{8}$ " x 12"
13362	$\frac{7}{8}$ " x 2 $\frac{1}{4}$ "	0150	1" x 4"	0269	$\frac{7}{8}$ " x 13"
13363	$\frac{7}{8}$ " x 2 $\frac{1}{2}$ "	0579	1" x 4 $\frac{1}{4}$ "	0130	$\frac{7}{8}$ " x 14 $\frac{1}{2}$ "
13364	$\frac{7}{8}$ " x 3 $\frac{1}{2}$ "	0191	1" x 4 $\frac{1}{2}$ "	0271	$\frac{7}{8}$ " x 13"
0300	$\frac{7}{8}$ " x 3 $\frac{1}{2}$ "	0185	1" x 5"	020	$\frac{7}{8}$ " x 2"
0134	1" x 3 $\frac{3}{8}$ "	0192	1" x 5 $\frac{1}{2}$ "	024	$\frac{7}{8}$ " x 2 $\frac{1}{2}$ "
0232	1" x 4"	013	1" x 6"	0299	$\frac{7}{8}$ " x 2 $\frac{1}{2}$ "
02	1" x 1"	014	1" x 6 $\frac{1}{2}$ "	0424	$\frac{7}{8}$ " x 2 $\frac{1}{4}$ "
05	1" x 1 $\frac{1}{4}$ "	015	1" x 7"	0314	$\frac{7}{8}$ " x 3 $\frac{1}{4}$ "
03	1" x 1 $\frac{1}{2}$ "	016	1" x 7 $\frac{1}{2}$ "	0276	$\frac{7}{8}$ " x 3 $\frac{1}{2}$ "
04	1" x 1 $\frac{3}{4}$ "	017	1" x 8"	0404	$\frac{7}{8}$ " x 4"
0256	1" x 2"	0117	1" x 9"	0193	$\frac{7}{8}$ " x 4 $\frac{1}{2}$ "
0258	1" x 2 $\frac{1}{4}$ "	0190	1" x 9 $\frac{1}{2}$ "	0162	$\frac{7}{8}$ " x 5"
0343	1" x 2 $\frac{1}{2}$ "	0194	1" x 10"	0163	$\frac{7}{8}$ " x 5 $\frac{1}{2}$ "
0257	1" x 2 $\frac{3}{4}$ "	0118	1" x 12"	022	$\frac{7}{8}$ " x 6"
0196	1" x 5"	0369	1" x 13"	023	$\frac{7}{8}$ " x 6 $\frac{1}{2}$ "
0417	1" x 14"	0119	1" x 14"	0278	$\frac{7}{8}$ " x 7"
0418	1" x 16"	0233	1" x 16"	0214	$\frac{7}{8}$ " x 7 $\frac{1}{2}$ "
06	1" x 1"	0575	1" x 19"	0427	$\frac{7}{8}$ " x 8"
07	1" x 1 $\frac{1}{4}$ "	0322	1" x 1 $\frac{1}{2}$ "	0227	$\frac{7}{8}$ " x 8 $\frac{1}{2}$ "
0175	1" x 1 $\frac{1}{2}$ "	090	1" x 1 $\frac{3}{4}$ "	0133	$\frac{7}{8}$ " x 9"
0291	1" x 1 $\frac{3}{4}$ "	0161	1" x 2"	0692	$\frac{7}{8}$ " x 9 $\frac{1}{2}$ "
08	1" x 2"	0419	1" x 2 $\frac{1}{4}$ "	0151	$\frac{7}{8}$ " x 10"
0505	1" x 2 $\frac{1}{4}$ "	0149	1" x 2 $\frac{1}{2}$ "	0437	$\frac{7}{8}$ " x 11"
0655	1" x 2 $\frac{1}{2}$ "	0195	1" x 3"	0180	$\frac{7}{8}$ " x 12"
0659	1" x 2 $\frac{3}{4}$ "	0621	1" x 3 $\frac{1}{4}$ "	0131	$\frac{7}{8}$ " x 13"
0238	1" x 3"	0126	1" x 3 $\frac{1}{2}$ "	0181	$\frac{7}{8}$ " x 14"
0492	1" x 3 $\frac{1}{4}$ "	018	1" x 4"	0153	$\frac{7}{8}$ " x 14 $\frac{1}{2}$ "
0435	1" x 4"	0211	1" x 4 $\frac{1}{4}$ "	0333	$\frac{7}{8}$ " x 15"
09	1" x 1"	019	1" x 4 $\frac{1}{2}$ "	0152	$\frac{7}{8}$ " x 20"
010	1" x 1 $\frac{1}{2}$ "	0366	1" x 5"	0132	$\frac{7}{8}$ " x 22"
0390	1" x 1 $\frac{3}{4}$ "	0216	1" x 6"	0619	$\frac{7}{8}$ " x 24"
011	1" x 2"	0208	1" x 7"	0434	$\frac{7}{8}$ " x 2 $\frac{1}{2}$ "
0136	1" x 2 $\frac{1}{4}$ "	0219	1" x 8"	0425	$\frac{7}{8}$ " x 5"
012	1" x 2 $\frac{1}{2}$ "	0135	1" x 9"	0627	$\frac{7}{8}$ " x 9"
0445	1" x 2 $\frac{3}{4}$ "			0628	$\frac{7}{8}$ " x 11"
0242	1" x 3"			0379	1" x 5 $\frac{1}{2}$ "
0589	1" x 3 $\frac{1}{4}$ "			0202	1" x 12"

## SQUARE HEAD MACHINE BOLTS WITH HEX. NUTS

Order No.	Size	Order No.	Size	Order No.	Size
0626	1" x 1 $\frac{1}{4}$ "	0592	1" x 7"	0617	$\frac{3}{4}$ " x 2 $\frac{1}{2}$ "
0522	1" x 1 $\frac{1}{2}$ "	0582	1" x 2"	0423	$\frac{3}{4}$ " x 2 $\frac{1}{2}$ "
0620	1" x 1 $\frac{3}{8}$ "	0127	1" x 2 $\frac{1}{4}$ "	0432	$\frac{3}{4}$ " x 2 $\frac{3}{4}$ "
0524	1" x 2"	0501	1" x 2 $\frac{1}{2}$ "	0583	$\frac{3}{4}$ " x 3"
092	1" x 2 $\frac{1}{2}$ "	0502	1" x 3 $\frac{1}{4}$ "	0412	$\frac{3}{4}$ " x 3 $\frac{1}{2}$ "
0525	1" x 2 $\frac{3}{4}$ "	0671	1" x 6 $\frac{1}{4}$ "	0670	$\frac{3}{4}$ " x 4 $\frac{1}{2}$ "
0666	1" x 3 $\frac{1}{2}$ "	0672	1" x 7 $\frac{1}{4}$ "	0673	$\frac{3}{4}$ " x 5 $\frac{1}{2}$ "
				0674	$\frac{3}{4}$ " x 6"

Order by NUMBER and NAME Appearing in Large Type

BOLTS, SCREWS, COTTER PINS, ETC.

HEX. HEAD MACHINE BOLTS, WITH HEX. NUTS

Order No.	Size	Order No.	Size	Order No.	Size
0512	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	0438	$\frac{3}{8}$ " x $2\frac{1}{8}$ "	0519	$\frac{1}{4}$ " x $3\frac{1}{4}$ "
0102	$\frac{5}{16}$ " x 1"	078	$\frac{1}{2}$ " x $1\frac{1}{2}$ "	0624	$\frac{1}{4}$ " x 2"
0101	$\frac{5}{16}$ " x $1\frac{1}{4}$ "	0436	$\frac{3}{8}$ " x 2"	0451	$\frac{1}{4}$ " x $2\frac{3}{8}$ "
0532	$\frac{5}{16}$ " x $2\frac{1}{2}$ "	0629	$\frac{1}{2}$ " x $2\frac{3}{8}$ "	0283	$\frac{1}{4}$ " x 3"
081	$\frac{5}{16}$ " x $1\frac{1}{2}$ "	076	$\frac{1}{2}$ " x $2\frac{1}{2}$ "	0560	$\frac{1}{4}$ " x $3\frac{1}{4}$ "
0521	$\frac{5}{8}$ " x 2"	0439	$\frac{1}{2}$ " x $3\frac{1}{2}$ "		

HEX. HEAD TAP BOLTS

Order No.	Size	Order No.	Size	Order No.	Size
0511	$\frac{1}{4}$ " x $\frac{3}{8}$ "	0597	$\frac{3}{8}$ " x 1"	0645	$\frac{1}{4}$ " x $1\frac{3}{4}$ "
0643	$\frac{1}{8}$ " x 1"	0526	$\frac{3}{8}$ " x $1\frac{1}{8}$ "	0520	$\frac{1}{4}$ " x 3"
0455	$\frac{5}{16}$ " x 3"	0391	$\frac{3}{8}$ " x 1"	0528	$\frac{1}{4}$ " x $1\frac{1}{8}$ "
0398	$\frac{5}{16}$ " x $3\frac{3}{8}$ "	0641	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	0503	$\frac{1}{4}$ " x $1\frac{1}{2}$ "
0640	$\frac{5}{16}$ " x $\frac{5}{8}$ "	0551	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	0591	$\frac{1}{4}$ " x $1\frac{1}{2}$ "

COUNTERSUNK HEAD BOLTS WITH NUTS

Order No.	Size	Order No.	Size	Order No.	Size
0255	$\frac{1}{4}$ " x $2\frac{3}{8}$ "	0346	$\frac{3}{8}$ " x 2"	021	$\frac{3}{8}$ " x $2\frac{3}{8}$ "
0261	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	0128	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	0448	$\frac{3}{8}$ " x $3\frac{1}{4}$ "
0531	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	0296	$\frac{3}{8}$ " x 2"		
0260	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	0537	$\frac{3}{8}$ " x $2\frac{1}{4}$ "		

HEX. HEAD CAP SCREWS

Order No.	Size	Order No.	Size	Order No.	Size
0607	$\frac{1}{4}$ " x $3\frac{3}{8}$ "	2472	$\frac{3}{8}$ " x $1\frac{1}{8}$ "	6601	$\frac{3}{8}$ " x $1\frac{1}{4}$ "
0394	$\frac{1}{4}$ " x $3\frac{3}{8}$ "	0514	$\frac{3}{8}$ " x $1\frac{1}{8}$ "	2891	$\frac{3}{8}$ " x $1\frac{1}{2}$ "
0656	$\frac{1}{4}$ " x 1"	6376	$\frac{3}{8}$ " x $1\frac{1}{8}$ "	0601	$\frac{3}{8}$ " x $1\frac{1}{2}$ "
0321	$\frac{1}{4}$ " x $1\frac{1}{4}$ "	0280	$\frac{3}{8}$ " x $2\frac{1}{8}$ "	6768	$\frac{3}{8}$ " x $1\frac{1}{4}$ "
0668	$\frac{1}{4}$ " x $1\frac{3}{4}$ "	0281	$\frac{3}{8}$ " x $4\frac{3}{8}$ "	6007	$\frac{3}{8}$ " x 2"
0441	$\frac{5}{16}$ " x 1"	0606	$\frac{3}{8}$ " x 1"	2890	$\frac{3}{8}$ " x 2 $\frac{1}{4}$ "
3439	$\frac{5}{16}$ " x 1"	4814	$\frac{3}{8}$ " x $1\frac{1}{8}$ "	4811	.657" x $2\frac{1}{4}$ "
2878	$\frac{5}{16}$ " x $1\frac{1}{4}$ "	5255	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	0610	$\frac{3}{8}$ " x $2\frac{1}{4}$ "
3440	$\frac{5}{16}$ " x $1\frac{1}{2}$ "	2818	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	2521	$\frac{3}{8}$ " x $3\frac{3}{8}$ "
5048	$\frac{5}{16}$ " x $2\frac{1}{4}$ "	5221	$\frac{3}{8}$ " x $1\frac{3}{4}$ "	6014	$\frac{3}{8}$ " x 2"
0395	$\frac{5}{16}$ " x $2\frac{3}{4}$ "	3343	$\frac{3}{8}$ " x 2"	6013	$\frac{3}{8}$ " x $2\frac{1}{4}$ "
6170	$\frac{5}{16}$ " x 1"	5190	$\frac{3}{8}$ " x $2\frac{1}{4}$ "	6015	$\frac{3}{8}$ " x $2\frac{1}{4}$ "
0515	$\frac{5}{16}$ " x $1\frac{3}{8}$ "	3065	$\frac{3}{8}$ " x $2\frac{1}{2}$ "	0388	$\frac{3}{8}$ " x $3\frac{1}{4}$ "
		6006	$\frac{3}{8}$ " x $\frac{3}{4}$ "		

Order by NUMBER and NAME Appearing in Large Type

SQUARE HEAD CAP SCREWS

Order No.	Size	Order No.	Size	Order No.	Size
4780	No. 10 x $\frac{5}{16}$ "	2461	$\frac{5}{16}$ " x $1\frac{1}{2}$ "	2481	$\frac{1}{2}$ " x $1\frac{1}{4}$ "
6821	No. 10 x $1\frac{1}{8}$ "	2469	" x $\frac{3}{4}$ "	4965	" x $1\frac{1}{2}$ "
3144	" x $\frac{7}{8}$ "	2471	" x 1"	3259	" x 2"
2762	" x $\frac{1}{4}$ "	4555	" x $1\frac{1}{8}$ "	3056	" x $3\frac{1}{4}$ "
2447	" x $\frac{1}{4}$ "	1762	" x $1\frac{3}{4}$ "	2483	" x $2\frac{1}{2}$ "
3029	" x 1"	2476	" x $2\frac{1}{2}$ "	2484	" x $2\frac{3}{4}$ "
3034	" x $1\frac{1}{4}$ "	1761	" x 3"	4693	" x 3"
2457	$\frac{5}{16}$ " x $\frac{1}{4}$ "	2894	" x $4\frac{1}{2}$ "	2485	" x $3\frac{1}{4}$ "
1104	$\frac{5}{16}$ " x 1"	2478	" x $\frac{3}{4}$ "		
2458	$\frac{5}{16}$ " x $1\frac{1}{4}$ "	2479	" x 1"		

ROUND HEAD IRON MACHINE SCREWS

Order No.	Size	Order No.	Size	Order No.	Size
3790	No. 3 x $\frac{1}{4}$ "	628	No. 10 x $\frac{3}{8}$ "	0660	No. 14 x $1\frac{1}{2}$ "
2519	No. 4 x $\frac{1}{8}$ "	3044	No. 10 x 1"	3955	$\frac{1}{4}$ " x $\frac{1}{2}$ "
2426	No. 6 x $\frac{1}{4}$ "	0454	No. 10 x $1\frac{1}{4}$ "	2450	$\frac{1}{4}$ " x $1\frac{1}{8}$ "
2552	No. 6 x $\frac{3}{8}$ "	2556	No. 12 x $\frac{1}{4}$ "	2451	$\frac{1}{4}$ " x $\frac{5}{8}$ "
0662	No. 6 x $\frac{1}{2}$ "	2440	No. 12 x $\frac{3}{8}$ "	2452	$\frac{1}{4}$ " x $\frac{3}{4}$ "
4952	No. 6 x $\frac{5}{8}$ "	2441	No. 12 x $\frac{1}{2}$ "	2455	$\frac{1}{4}$ " x 1"
2427	No. 8 x $\frac{5}{16}$ "	2442	No. 12 x 1"	0320	$\frac{1}{4}$ " x $1\frac{1}{8}$ "
2429	No. 8 x $1\frac{1}{8}$ "	2169	No. 12 x $1\frac{1}{4}$ "	3357	$\frac{1}{4}$ " x 1"
2430	No. 8 x $\frac{1}{2}$ "	1410	No. 12 x $1\frac{1}{2}$ "	2555	$\frac{1}{4}$ " x $1\frac{1}{8}$ "
2431	No. 8 x $\frac{3}{4}$ "	2444	No. 12 x 2"	0217	$\frac{1}{4}$ " x $1\frac{1}{8}$ "
0554	No. 8 x $\frac{7}{8}$ "	2170	No. 12 x $2\frac{1}{2}$ "	2464	$\frac{5}{16}$ " x 1"
2433	No. 8 x $1\frac{1}{8}$ "	2830	No. 12 x $2\frac{1}{2}$ "	2317	$\frac{5}{16}$ " x $1\frac{1}{8}$ "
3523	No. 8 x $1\frac{1}{4}$ "	2831	No. 12 x $3\frac{1}{8}$ "	2486	$\frac{5}{16}$ " x $1\frac{1}{4}$ "
2434	No. 10 x $\frac{1}{4}$ "	0517	14 x $\frac{3}{8}$ "	1584	$\frac{5}{16}$ " x $1\frac{1}{2}$ "
0661	No. 10 x $\frac{5}{16}$ "	0649	14 x $1\frac{1}{8}$ "	3084	$\frac{5}{16}$ " x 2"
2435	No. 10 x $\frac{3}{8}$ "	0523	14 x $\frac{1}{2}$ "	0396	$\frac{3}{8}$ " x $\frac{3}{4}$ "
3519	No. 10 x $\frac{1}{2}$ "	0658	14 x $\frac{7}{8}$ "	0442	$\frac{3}{8}$ " x 2"
2784	No. 10 x $\frac{5}{8}$ "	0516	14 x $1\frac{1}{8}$ "	0443	$\frac{3}{8}$ " x $2\frac{1}{2}$ "

FLAT HEAD IRON MACHINE SCREWS

Order No.	Size	Order No.	Size	Order No.	Size
0401	No. 6 x $\frac{1}{4}$ "	0409	No. 14 x $\frac{5}{8}$ "	0600	$\frac{5}{16}$ " x $\frac{7}{8}$ "
4909	No. 6 x $\frac{3}{8}$ "	0380	No. 14 x 1"	0303	$\frac{5}{16}$ " x 1"
1366	No. 6 x $\frac{1}{2}$ "	5263	$\frac{1}{4}$ " x $\frac{1}{2}$ "	0609	$\frac{5}{16}$ " x $1\frac{1}{8}$ "
0408	No. 8 x $\frac{1}{4}$ "	2559	$\frac{1}{4}$ " x $\frac{3}{8}$ "	2462	$\frac{5}{16}$ " x $1\frac{1}{2}$ "
0405	No. 10 x $\frac{1}{4}$ "	2453	$\frac{1}{4}$ " x $\frac{1}{2}$ "	4851	" x $1\frac{3}{4}$ "
2437	No. 10 x $\frac{3}{8}$ "	7518	$\frac{1}{4}$ " x 1"	2473	" x $1\frac{1}{4}$ "
2439	No. 10 x $\frac{1}{2}$ "	5733	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	5580	" x $1\frac{5}{8}$ "
0653	No. 10 x $\frac{3}{4}$ "	6105	$\frac{1}{4}$ " x 2"	2480	$\frac{1}{2}$ " x 1"
9998	No. 10 x 1"				
0461	No. 12 x $\frac{3}{4}$ "	1103	$\frac{1}{8}$ " x $\frac{3}{4}$ "	2983	$\frac{3}{4}$ " x $1\frac{1}{2}$ "

Order by NUMBER and NAME Appearing in Large Type

BOLTS, SCREWS, COTTER PINS, ETC.

FILISTER HEAD IRON MACHINE SCREWS

Order No.	Size	Order No.	Size	Order No.	Size
12280	No. 10 x 1"	0504	No. 14 x 1"	12301	" x "
0325	No. 10 x 1"	0651	No. 14 x 1 1/4"	7662	" x 1 1/4"
0472	No. 10 x 1"	0648	No. 14 x 2 3/4"	0602	" x 1 1/2"
0327	No. 10 x 1"	2488	1/4" x 3/4"	2474	" x 1 3/4"
3043	No. 10 x 1"	2518	1/4" x 1"	5191	" x 1 3/4"
0518	No. 14 x 1"	3282	1/4" x 1 3/8"		
8150	No. 14 x 1"	10265	1/4" x 1 1/2"		
		12273	5/16" x 1"		

LAG SCREWS

Order No.	Size	Order No.	Size	Order No.	Size
0541	3/8" x 2"	0566	1" x 3 1/2"	068	3/8" x 5"
062	3/8" x 2 1/2"	066	" x 3"	0231	" x 6"
063	3/8" x 2"	0440	" x 3 1/2"	0567	" x 7"
064	3/8" x 2 1/2"	082	" x 4"	0568	" x 8"
065	3/8" x 3"	067	" x 4"		

COMMERCIAL IRON WASHERS

Order No.	Size	Order No.	Size	Order No.	Size
0177	1 3/8"	072	1"	074	1"
069	1 1/4"	087	1 1/2"	0381	1 1/4"
070	1 5/8"	073	1 3/4"	0625	1 1/2"
071	1 3/8"	0393	1 7/8"		

COTTER PINS

Order No.	Size	Order No.	Size	Order No.	Size
0652	1/6" x 2 3/8"	040	1/8" x 1"	0475	7/32" x 3"
0563	1/8" x 1 1/2"	041	1/8" x 1 1/4"	0476	7/32" x 4"
033	3/32" x 3/8"	0169	1/8" x 1 1/2"		
034	3/32" x 3/4"	088	" x 1 3/4"	047	1/2" x 1 1/2"
035	3/32" x 3/4"	042	1/8" x 1"	048	" x 1 1/4"
036	3/32" x 3/4"	043	1/8" x 1 1/4"	0446	" x 2"
0184	3/32" x 1"	044	1/8" x 1 1/2"	0213	" x 2 1/4"
037	3/32" x 1"	045	1/8" x 1 3/4"	049	" x 3"
0156	3/32" x 1 1/4"	046	1/8" x 2"	0277	" x 3 1/2"
038	1/8" x 1 1/8"	0576	1/8" x 2 1/2"	050	" x 4"
039	1/8" x 1 1/8"	0590	3/32" x 1 1/2"	0577	" x 2"
0663	1/8" x 1 1/8"	0474	3/32" x 1 3/4"	0273	" x 2"
				0311	" x 1 1/2"

Order by NUMBER and NAME Appearing in Large Type

COMMERCIAL LOCK WASHERS

Order No.	Size	Order No.	Size	Order No.	Size
0622	$\frac{3}{16}$ "	0569	$\frac{3}{16}$ "	029	$\frac{3}{16}$ "
0510	$\frac{1}{4}$ "	091	$\frac{1}{4}$ "	0426	$\frac{1}{4}$ "
0623	$\frac{1}{8}$ "	0113	$\frac{1}{8}$ "	0570	$\frac{1}{8}$ "

ROUND HEAD IRON RIVETS

Order No.	Size	Order No.	Size	Order No.	Size
0178	$\frac{3}{32}$ " x 7"	0114	$\frac{1}{4}$ " x 14"	0347	$\frac{1}{4}$ " x 14"
0342	$\frac{3}{32}$ " x 7"	075	$\frac{1}{4}$ " x 13"	0414	$\frac{1}{4}$ " x 23"
055	$\frac{3}{32}$ " x 8"	0561	$\frac{1}{4}$ " x 14"	0687	$\frac{1}{4}$ " x 1"
056	$\frac{3}{32}$ " x 1"	0574	$\frac{1}{4}$ " x 14"	060	$\frac{1}{4}$ " x 18"
057	$\frac{3}{32}$ " x 14"	0305	$\frac{1}{4}$ " x 14"	0457	$\frac{1}{4}$ " x 14"
0361	$\frac{3}{32}$ " x 14"	080	$\frac{1}{4}$ " x 24"	0572	$\frac{1}{4}$ " x 13"
0125	$\frac{3}{16}$ " x 16"	0313	$\frac{1}{4}$ " x 14"	0447	$\frac{1}{4}$ " x 24"
0203	$\frac{3}{16}$ " x 16"	0413	$\frac{1}{4}$ " x 1"	0571	$\frac{1}{4}$ " x 23"
0204	$\frac{3}{16}$ " x 16"	0360	$\frac{1}{4}$ " x 14"	0688	$\frac{1}{4}$ " x 6"
0220	$\frac{3}{16}$ " x 16"	0171	$\frac{1}{4}$ " x 14"	093	$\frac{1}{4}$ " x 14"
058	$\frac{3}{16}$ " x 16"	0428	$\frac{1}{4}$ " x 14"	061	$\frac{1}{4}$ " x 13"
0323	$\frac{3}{16}$ " x 14"	0207	$\frac{1}{4}$ " x 24"	0420	$\frac{1}{4}$ " x 2"
0675	$\frac{3}{16}$ " x 14"	0235	$\frac{1}{4}$ " x 1"	097	$\frac{1}{4}$ " x 23"
0564	$\frac{3}{16}$ " x 14"			0421	$\frac{1}{4}$ " x 23"
0224	$\frac{3}{16}$ " x 14"	059	$\frac{1}{4}$ " x 14"	0200	$\frac{1}{4}$ " x 3"
0115	$\frac{3}{16}$ " x 14"	0228	$\frac{1}{4}$ " x 13"	0415	$\frac{1}{4}$ " x 6 $\frac{1}{2}$ "
0578	$\frac{3}{16}$ " x 14"	0450	$\frac{1}{4}$ " x 13"	0416	$\frac{1}{4}$ " x 8 $\frac{1}{2}$ "

COUNTERSUNK HEAD IRON RIVETS

Order No.	Size	Order No.	Size	Order No.	Size
0230	$\frac{1}{4}$ " x 7"	0647	$\frac{3}{8}$ " x 1"	089	$\frac{5}{8}$ " x 1"
0172	$\frac{3}{8}$ " x 7"	0218	$\frac{3}{8}$ " x 1 $\frac{1}{2}$ "	0225	$\frac{5}{8}$ " x 1 $\frac{1}{2}$ "
096	$\frac{3}{8}$ " x 14"	0588	$\frac{3}{8}$ " x 2 $\frac{1}{2}$ "	0580	$\frac{5}{8}$ " x 1 $\frac{1}{2}$ "
0265	$\frac{3}{8}$ " x 1 $\frac{1}{2}$ "	0529	$\frac{3}{8}$ " x 1"	0581	$\frac{5}{8}$ " x 2 $\frac{1}{2}$ "
0166	$\frac{3}{8}$ " x 1 $\frac{1}{2}$ "	0449	$\frac{3}{8}$ " x 1 $\frac{1}{2}$ "	099	$\frac{5}{8}$ " x 1 $\frac{1}{2}$ "
0243	$\frac{3}{8}$ " x 1 $\frac{1}{2}$ "	0527	$\frac{3}{8}$ " x 1 $\frac{1}{2}$ "	0226	$\frac{5}{8}$ " x 1 $\frac{1}{2}$ "
				0295	$\frac{5}{8}$ " x 2"

Order by NUMBER and NAME Appearing in Large Type



## INDEX TO ORDER NUMBERS

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
02	249	.02	091	135	.02	0343	255	.02	0525	63	.05
03	249	.02	093	129	.03	0346	147	.07	0526	63	.02
04	249	.02	098	97	.05	0347	141	.02	0527	237	.02
05	233	.02	0113	17	.02	0366	263	.10	0528	75	.03
06	245	.02	0114	101	.01	0380	389	....	0529	129	.02
07	25	.02	0115	267	.01	0381	353	.03	0537	21	.09
08	387	.03	0127	17	.07	0382	418	.16	0547	183	....
010	107	.04	0131	77	.19	0390	233	.04	0548	183	.03
011	97	.04	0133	65	.16	0391	263	.02	0549	183	.17
012	245	.04	0134	251	.02	0393	95	.02	0550	183	.72
013	418	.07	0149	141	.07	0398	331	.02	0551	263	.03
014	245	.07	0150	265	.06	0404	65	.12	0552	183	....
018	333	....	0151	65	.16	0407	401	.10	0556	415	....
019	233	.09	0162	71	.12	0410	401	.02	0558	17	.10
020	431	.08	0163	77	.12	0411	401	.03	0560	237	.05
022	65	.14	0167	45	.05	0412	111	.10	0564	303	.02
023	77	.14	0171	141	.01	0419	107	.07	0577	151	.08
024	271	.08	0175	97	.03	0424	65	.10	0578	47	.01
025	267	.14	0180	77	.19	0425	160	.16	0580	147	.02
026	407	.07	0190	245	.09	0426	160	.02	0581	147	.03
029	65	.02	0192	245	.06	0427	65	.16	0582	147	.07
030	351	....	0193	53	.12	0432	107	.10	0583	147	.09
035	47	.008	0194	245	.09	0435	97	.04	0585	157	.04
037	375	.008	0208	233	.12	0437	77	.19	0586	329	.04
040	45	.008	0210	81	.04	0440	97	.05	0588	331	....
041	19	.008	0214	65	.14	0446	53	.008	0591	89	.04
042	97	.008	0215	25	.04	0447	111	.03	0592	89	.07
043	21	.008	0219	233	.12	0449	135	.02	0593	89	.03
044	89	.008	0221	415	....	0450	141	.02	0595	415	....
045	241	.008	0225	129	.02	0451	45	.14	0597	297	.02
046	69	.008	0226	129	.03	0452	403	....	0615	187	.80
047	137	.008	0227	77	.16	0453	375	....	0616	187	.80
048	147	.008	0228	151	.02	0454	403	....	0617	33	.14
049	187	.008	0229	137	.03	0455	403	....	0618	33	.04
050	71	.008	0231	133	.09	0456	411	.20	0620	39	.04
051	418	1.20	0232	341	.02	0457	135	.02	0624	35	.07
054	267	....	0234	65	.02	0460	403	....	0625	53	.04
058	347	.01	0238	431	.03	0474	151	.008	0626	53	.04
059	141	.02	0242	331	....	0475	285	.008	0632	153	.07
060	141	.02	0255	259	.02	0476	155	.008	0633	151	.06
062	97	.02	0256	253	.02	0477	89	.06	0634	183	.72
064	39	.03	0257	255	.02	0496	183	.07	0635	183	.03
065	97	.03	0260	135	.06	0501	17	.07	0636	183	.07
066	237	.05	0261	135	.04	0502	17	.07	0640	303	.02
067	65	.07	0272	111	.03	0503	17	.04	0641	327	.04
068	138	.08	0273	263	.008	0504	17	.02	0642	183	.03
071	19	.01	0276	25	.10	0512	21	.02	0643	173	....
072	97	.01	0277	73	.008	0514	19	.05	0645	35	.03
073	17	.02	0278	69	.14	0515	19	.05	0652	381	.008
074	259	.02	0286	89	.02	0516	19	.01	0653	379	....
076	35	.05	0288	129	.03	0517	19	.01	0657	387	....
077	245	.04	0290	243	.08	0518	29	.01	0659	389	....
078	175	....	0293	267	.02	0519	53	.06	0661	387	....
081	391	.03	0295	141	.03	0520	53	.04	0664	21	.04
082	97	.06	0296	135	.09	0521	53	.03	0666	63	.05
085	418	.10	0299	65	.10	0522	63	.04	0670	271	.12
087	17	.01	0302	415	....	0523	63	.01	0671	83	.11
089	141	.01	0314	25	.10	0524	63	.04	0672	239	.12

# INDEX TO ORDER NUMBERS

445

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
0673	281	.14	893	407	.80	1808	265	1.76	2600	349	....
0674	271	.14	894	407	.20	1819	141	.50	2601	425	.01
0678	183	.03	897	435	.10	1868	411	....	2613	425	.01
0679	183	.16	898	435	.06	1869	79	3.02	2632	107	3.00
0692	73	.16	915	435	.30	1871	137	1.86	2658	141	.12
0709	297	.04	924	349	....	1872	141	.70	2667	107	.40
0710	243	.14	931	101	.74	1874	101	2.60	2668	107	1.30
441	249	.12	933	101	2.00	1889	125	.08	2669	107	.40
506	407	.01	935	101	1.14	1890	125	.08	2671	137	2.52
523	259	.07	937	249	.16	1925	407	.01	2672	137	1.92
528	407	.02	939	259	.10	1941	259	1.16	2685	141	.64
558	129	.40	944	101	.44	1944	249	.16	2686	141	.64
559	129	.30	947	171	.12	1948	243	.32	2687	135	2.70
577	421	.02	959	101	1.10	1949	243	.80	2688	69	1.36
628	381	....	962	107	7.70	2014	135	8.00	2693	97	.31
633	135	4.00	963	107	7.90	2057	435	....	2694	97	.21
634	141	.14	983	243	.40	2058	435	.10	2695	97	.09
635	107	.12	1011	418	4.50	2059	435	.08	2696	97	.05
636	97	.12	1012	418	2.20	2064	245	1.28	2697	101	1.90
637	69	1.12	1027	418	24.00	2065	245	1.40	2698	141	.92
638	137	1.10	1028	418	20.00	2066	245	1.50	2699	89	2.08
639	141	.40	1037	267	.60	2067	245	1.56	2704	431	....
640	83	.19	1047	107	.09	2145	407	.01	2708	431	.34
641	141	.24	1048	233	.03	2148	291	.90	2709	431	.20
642	137	.36	1056	421	.40	2172	121	.30	2710	431	....
645	25	.04	1098	141	.52	2181	267	.07	2714	431	....
646	259	.05	1103	421	.02	2236	245	1.32	2729	421	.18
649	137	.12	1144	399	....	2237	245	1.40	2732	107	.40
653	101	....	1156	407	.02	2238	245	1.50	2747	435	.06
659	101	1.34	1225	407	.01	2239	245	1.56	2779	425	.20
660	101	.50	1230	137	.36	2243	245	1.40	2780	425	.30
661	141	.72	1285	135	8.00	2244	245	1.44	2784	391	....
694	259	1.60	1318	45	.03	2265	418	7.00	2789	107	2.70
709	267	1.30	1361	101	1.12	2269	418	.30	2790	107	2.70
710	267	1.40	1396	347	.16	2300	79	1.36	2791	107	1.60
729	141	.50	1397	347	.06	2371	265	.60	2792	107	.64
730	89	.07	1398	347	.40	2372	265	.24	2796	133	2.20
743	69	1.12	1399	347	.40	2373	265	.40	2797	133	.64
744	83	.84	1423	347	.30	2426	383	.01	2799	107	4.90
771	267	1.30	1424	347	.10	2429	383	....	2811	121	1.28
775	267	1.40	1524	347	1.50	2430	383	.01	2812	111	.32
776	267	1.34	1572	407	.03	2431	375	....	2813	77	.09
786	141	.36	1651	259	1.68	2432	407	.02	2820	425	.40
793	107	1.70	1654	233	.40	2434	403	.01	2822	425	.02
794	107	1.70	1659	418	24.00	2435	375	.01	2828	129	.60
796	243	4.00	1661	233	1.50	2436	421	.01	2850	407	30.00
799	141	.12	1671	265	.05	2452	375	.02	2852	407	5.00
836	265	.50	1678	233	....	2455	381	.02	2853	407	2.50
845	425	.08	1680	349	....	2468	35	.03	2854	407	.08
846	425	.06	1681	349	....	2472	39	.05	2855	407	.04
847	425	.05	1768	415	.30	2478	233	.05	2856	407	.04
861	121	1.30	1775	107	1.60	2479	177	.05	2857	407	.03
873	407	.33	1776	107	1.60	2481	263	.05	2857	407	.06
874	407	.30	1788	267	.70	2488	333	....	2859	407	4.00
877	407	1.50	1789	267	.68	2518	329	.04	2860	407	1.50
890	267	.28	1790	243	3.00	2552	421	.01	2861	407	.24
891	267	.33	1791	251	.12	2553	425	.02	2862	407	.80
892	407	3.30	1807	265	1.76	2599	349	....	2863	407	.30

## INDEX TO ORDER NUMBERS

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price
2864	407	.50	3606	421	.05	4088	246	13.00	4326	65	.72
2865	407	6.00	3649	79	3.50	4089	246	15.00	4327	65	.62
2866	407	1.00	3846	407	20.00	4096	246	.18	4328	65	1.48
2867	407	.40	3881	408	2.00	4098	246	.20	4329	65	1.40
2868	407	.24	3883	408	1.50	4100	246	1.10	4330	65	2.00
2869	407	.50	3890	421	.01	4101	246	.46	4331	65	1.36
2871	407	.50	3891	375	....	4102	246	.30	4333	65	.08
2872	407	.40	3893	408	.06	4104	246	.20	4354	233	.90
2874	407	.02	3894	408	.06	4116	408	2.30	4364	137	.04
2875	407	.02	3905	245	2.60	4121	246	.42	4374	101	1.50
2877	407	4.00	3906	245	3.10	4122	246	.38	4375	101	1.32
2879	407	.20	3907	245	2.20	4123	246	.22	4425	65	1.70
2882	407	.24	3908	245	3.00	4129	243	3.00	4432	243	.80
2890	65	.14	3909	245	4.00	4130	243	10.00	4461	135	8.00
2922	107	.12	3910	245	4.90	4134	243	.90	4468	418	12.00
2923	97	.12	3933	421	5.50	4137	243	.90	4474	142	.76
2924	97	.12	3964	408	.10	4142	243	1.20	4475	142	.28
2927	97	.53	3966	267	1.36	4145	246	.42	4476	142	.36
2928	97	.024	4007	245	.28	4147	265	.60	4499	259	.08
2929	97	.31	4008	245	.32	4148	265	.24	4507	421	32.00
2933	101	.07	4009	245	.38	4151	243	4.00	4509	421	6.00
2934	97	.05	4014	245	.70	4152	246	.10	4510	421	.10
2938	267	.38	4015	245	.80	4153	246	1.00	4515	97	.48
2939	267	1.44	4016	245	.90	4155	243	4.00	4519	97	.16
2940	267	1.48	4018	245	.24	4157	243	4.00	4520	421	1.20
2941	267	1.40	4019	245	.28	4160	125	.08	4527	97	.05
2943	267	.07	4020	245	.30	4166	408	.40	4528	421	.50
2947	267	.90	4021	245	.36	4167	121	6.10	4529	421	.50
2948	267	1.08	4023	245	17.50	4168	121	1.20	4535	97	1.20
2974	137	.36	4024	245	19.50	4170	121	3.16	4536	97	1.48
2975	137	.36	4025	245	15.00	4172	121	2.20	4537	97	1.76
2976	137	.36	4026	245	17.00	4195	101	1.10	4538	97	2.04
2977	141	.70	4046	243	136.00	4196	142	.72	4546	421	.16
2979	141	.64	4047	243	80.00	4197	101	1.90	4549	142	.28
2982	137	.12	4055	245	.28	4198	101	2.00	4554	418	28.00
3034	411	.06	4056	245	.30	4199	101	1.12	4555	408	.05
3044	375	.02	4057	245	.34	4200	101	.80	4562	251	5.40
3072	183	.30	4058	245	.38	4201	101	1.20	4565	421	.06
3079	183	.40	4068	245	19.50	4202	101	1.44	4566	421	.12
3090	97	.12	4069	245	22.00	4203	101	1.70	4580	421	30.00
3104	415	....	4070	245	7.50	4204	101	2.00	4581	421	28.00
3113	243	13.00	4071	245	11.00	4205	101	2.46	4582	251	4.80
3114	243	30.00	4072	245	14.00	4206	101	2.26	4583	421	1.50
3115	243	40.00	4073	245	5.90	4207	101	1.10	4587	421	3.00
3116	243	14.50	4074	245	8.70	4211	233	24.50	4590	421	.01
3117	243	34.00	4075	245	11.00	4233	233	....	4591	421	.03
3118	243	43.00	4076	245	8.00	4234	233	.70	4594	421	.30
3283	425	.03	4077	246	11.50	4235	233	3.70	4597	421	1.00
3402	137	.02	4078	246	14.90	4236	233	....	4621	255	1.80
3439	411	.04	4079	246	6.50	4237	233	.36	4625	255	1.25
3469	137	.12	4080	246	9.20	4238	233	.50	4635	107	3.70
3519	375	....	4081	246	12.00	4247	267	1.40	4640	107	3.40
3520	407	.08	4082	246	4.00	4262	101	.11	4641	107	3.40
3553	107	12.50	4083	246	7.50	4295	125	.10	4643	129	.30
3557	107	2.00	4084	246	11.00	4322	65	5.50	4649	255	8.68
3558	107	.24	4085	246	3.10	4323	65	2.80	4650	255	7.50
3559	107	2.50	4086	246	5.90	4324	65	1.30	4651	255	.30
3605	421	.06	4087	246	8.80	4325	65	.50	4652	259	1.16

# INDEX TO ORDER NUMBERS

447

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
4653	259	1.00	5227	233	25.00	5862	97	.09	6465	121	1.16
4654	259	.16	5235	233	....	5863	97	.03	6466	121	3.80
4656	259	.70	5236	233	....	5868	97	.44	6479	107	1.08
4667	259	1.40	5239	233	3.70	5922	107	2.00	6480	107	1.08
4668	259	1.10	5246	435	.10	5923	267	.28	6482	111	2.68
4679	349	....	5255	33	.07	5924	267	.33	6487	129	1.30
4682	349	....	5275	429	66.00	5925	267	1.30	6490	107	6.25
4690	267	1.48	5292	418	30.00	5926	267	1.30	6504	129	....
4691	267	1.20	5410	425	.30	5927	267	1.34	6506	263	4.00
4696	421	.20	5411	425	26.00	5928	268	1.40	6507	263	1.80
4698	421	.24	5412	425	14.00	5930	115	2.00	6508	263	1.52
4699	421	.40	5456	429	178.00	5946	265	1.76	6513	142	.12
4701	421	2.50	5457	429	76.00	5947	265	1.76	6520	421	.80
4718	142	.80	5470	246	.42	5951	265	.50	6521	421	.60
4725	421	.80	5472	246	.44	5959	129	1.60	6522	421	.40
4734	137	1.32	5483	425	30.00	5961	243	.20	6523	421	.60
4735	129	2.00	5484	429	212.00	5962	243	.20	6524	421	.16
4737	133	1.80	5492	121	7.00	5974	418	12.00	6525	421	.40
4747	107	2.32	5493	121	3.60	5975	418	11.00	6526	421	.80
4748	113	.48	5499	408	.02	5976	418	2.50	6527	421	1.00
4767	107	11.30	5508	429	280.00	5977	418	6.00	6528	129	8.00
4768	408	3.50	5509	429	348.00	6007	375	....	6529	129	7.50
4769	107	3.30	5514	429	42.00	6012	243	7.50	6552	421	5.50
4777	408	1.60	5517	265	.60	6017	418	2.50	6553	421	5.50
4804	137	.12	5524	357	.31	6033	435	.10	6567	142	.80
4845	418	12.00	5544	263	1.60	6034	435	.36	6568	268	1.20
4846	418	20.00	5545	259	1.60	6045	431	....	6575	268	1.04
4882	425	10.00	5550	425	38.00	6046	431	....	6578	137	.64
4952	425	.01	5551	425	34.00	6047	431	2.10	6583	429	206.00
4984	429	272.00	5552	429	246.00	6048	431	....	6616	107	4.00
4987	425	30.00	5554	259	1.68	6049	431	....	6617	108	4.00
5007	425	.20	5563	408	.02	6050	431	1.82	6618	108	3.08
5035	421	1.00	5630	65	1.74	6170	333	.05	6630	429	110.00
5049	421	2.00	5631	65	.80	6176	81	.30	6631	429	314.00
5057	425	.20	5646	65	1.32	6199	418	32.00	6655	183	.20
5058	425	.04	5647	65	2.80	6202	418	12.00	6656	183	.28
5059	425	.30	5648	65	5.30	6223	429	76.00	6663	101	....
5060	425	.50	5649	65	.40	6234	101	1.70	6664	183	.07
5061	425	.50	5650	65	1.60	6235	101	2.50	6675	257	9.00
5062	425	2.50	5651	367	....	6238	429	416.00	6685	79	5.50
5063	425	2.00	5652	367	....	6251	429	240.00	6686	79	5.00
5064	425	.20	5653	367	....	6255	265	.70	6687	257	8.00
5065	425	.30	5657	367	....	6259	418	26.00	6709	108	7.30
5066	425	.80	5674	65	1.46	6260	429	144.00	6768	65	.12
5071	425	10.00	5693	79	1.28	6295	367	....	6781	129	6.00
5079	408	30.00	5694	79	1.28	6298	268	1.36	6784	165	4.84
5082	408	.80	5696	79	1.96	6299	268	1.40	6786	165	7.80
5090	255	.12	5697	79	1.96	6320	367	....	6787	165	1.20
5100	425	.12	5730	435	.10	6324	367	....	6789	165	1.28
5166	349	....	5731	435	.07	6325	367	....	6801	268	1.48
5167	408	2.00	5763	347	1.50	6326	367	....	6824	425	.30
5187	408	4.00	5764	347	.50	6327	367	....	6825	425	.52
5188	408	.04	5776	243	28.00	6328	367	....	6826	425	1.20
5191	411	.06	5777	243	32.00	6329	367	....	6839	418	34.00
5215	425	.70	5779	243	38.00	6412	265	1.00	6877	183	....
5217	425	.70	5780	243	42.00	6413	265	1.00	6878	183	....
5218	425	1.40	5818	367	....	6433	107	1.60	6879	183	....
5219	425	.70	5861	97	.15	6434	107	1.60	6880	183	....

## INDEX TO ORDER NUMBERS

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price
6881	183	1.20	7670	79	.02	8136	401	.....	8313	160	12.00
6882	108	6.30	7684	429	142.00	8137	401	.....	8314	160	3.80
6883	108	5.00	7697	108	.12	8138	401	.....	8315	160	.30
6891	101	.50	7764	246	2.00	8139	401	.....	8316	160	4.00
6892	101	2.80	7779	268	.60	8141	401	.....	8317	160	.30
6893	101	.09	7815	265	1.76	8142	401	.....	8318	160	.30
6901	253	4.80	7816	265	1.76	8143	401	.....	8319	160	8.00
6902	251	.16	7852	425	18.00	8144	401	.....	8320	160	.20
6919	246	3.00	7853	425	22.00	8145	401	.....	8321	101	.02
6922	425	25.00	7854	425	42.00	8150	375	.....	8322	142	.02
6942	251	.30	7855	425	46.00	8206	79	1.44	8323	160	24.00
6993	243	.50	7856	79	4.40	8207	77	1.20	8324	160	7.80
6994	243	.90	7858	429	382.00	8208	75	.22	8325	160	12.00
7002	367	.....	7859	429	450.00	8209	79	1.80	8326	160	8.00
7015	108	8.00	7860	429	484.00	8210	77	1.48	8327	160	14.00
7017	108	10.30	7862	253	6.80	8237	268	.07	8328	160	6.00
7044	425	.02	7863	259	1.20	8243	137	.....	8329	160	8.00
7064	349	.....	7864	259	1.10	8246	125	2.12	8333	160	.18
7066	349	.....	7865	259	.10	8247	125	2.12	8334	160	14.00
7067	108	10.30	7927	418	27.00	8248	125	2.64	8335	160	8.00
7108	351	.....	7936	29	.09	8249	125	2.64	8336	108	3.08
7109	351	.....	7994	129	.....	8250	125	3.80	8337	108	3.16
7196	246	16.50	8010	243	.40	8251	125	3.80	8338	108	4.00
7212	79	7.00	8055	129	1.70	8252	125	3.96	8339	108	3.35
7276	108	4.30	8069	121	1.50	8253	125	3.96	8346	101	.41
7293	243	18.00	8070	121	4.15	8254	125	3.40	8347	108	3.70
7306	291	.52	8071	121	5.20	8255	125	3.40	8348	108	3.92
7307	291	.18	8072	121	1.60	8256	125	1.72	8349	101	2.76
7318	246	4.80	8073	121	4.00	8257	125	1.80	8350	101	2.50
7326	129	2.20	8081	108	6.40	8258	125	3.60	8351	101	.68
7334	133	2.04	8082	108	.90	8259	125	3.60	8352	101	1.00
7335	133	.70	8083	108	4.00	8260	125	3.50	8355	101	.14
7340	465	1.76	8084	108	6.84	8261	125	3.50	8356	101	2.50
7341	265	1.76	8085	108	6.20	8262	125	3.10	8357	101	.....
7342	265	1.00	8087	108	7.75	8263	125	3.10	8358	101	2.00
7343	425	8.00	8088	108	2.00	8264	125	2.30	8359	102	1.90
7351	429	518.00	8089	108	1.70	8265	125	.84	8360	102	1.90
7352	425	50.00	8090	108	.64	8266	125	.84	8361	102	1.80
7359	425	.06	8091	108	2.00	8267	125	1.70	8362	102	1.20
7365	421	4.00	8092	108	1.40	8268	125	1.70	8363	102	1.94
7395	375	.03	8093	108	.24	8269	125	1.00	8364	102	1.66
7426	101	2.30	8094	108	4.50	8270	125	2.30	8365	102	1.28
7428	101	.44	8095	108	3.80	8271	125	2.20	8366	102	1.04
7432	233	1.40	8096	108	4.00	8272	126	.84	8367	102	1.90
7433	233	.90	8102	137	.....	8273	111	1.50	8368	102	1.26
7434	233	1.70	8104	137	.....	8274	108	.10	8369	102	1.84
7435	233	.50	8105	137	.....	8275	108	.10	8370	102	1.20
7436	233	.50	8106	137	.....	8276	108	.10	8370	102	1.44
7437	233	1.20	8120	401	50.00	8277	108	.12	8372	102	2.50
7476	111	1.04	8121	401	.....	8278	126	.07	8373	102	2.00
7477	121	4.90	8122	401	.....	8279	108	.09	8421	383	10.40
7486	246	2.80	8124	401	.....	8280	125	.08	8440	395	.....
7495	418	5.00	8125	401	.....	8281	108	.10	8441	381	.....
7496	418	2.80	8127	401	.....	8282	126	1.35	8448	426	.....
7512	418	8.00	8128	401	.....	8288	137	.....	8457	391	26.00
7567	327	.....	8131	401	.....	8310	246	11.20	8460	403	15.60
7568	415	.....	8132	401	.....	8311	160	24.00	8462	422	30.00
7665	129	.24	8135	401	.....	8312	160	7.80	8463	422	36.00

# INDEX TO ORDER NUMBERS

449

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
8465	65	1.44	8581	79	2.30	8709	97	.45	8777	142	.22
8466	65	.90	8582	79	3.58	8710	97	.31	8780	142	.76
8479	401	....	8583	79	2.08	8711	97	.86	8781	142	.32
8481	65	1.80	8584	79	2.58	8712	97	.05	8782	142	1.36
8482	65	3.40	8585	79	2.58	8713	97	.26	8783	142	.54
8483	65	4.80	8586	79	3.90	8714	97	.05	8784	142	.80
8484	65	6.00	8587	77	1.48	8716	97	.24	8785	142	.80
8485	65	.40	8588	79	4.50	8717	98	.29	8788	137	.12
8486	65	1.32	8602	79	.22	8718	98	.29	8790	137	1.56
8487	65	2.80	8603	66	2.80	8719	98	.21	8791	137	1.80
8488	65	4.10	8604	66	5.40	8721	98	....	8792	137	1.80
8489	65	5.30	8605	66	7.80	8722	98	....	8793	137	.36
8490	65	4.10	8606	66	10.00	8723	98	....	8794	137	.36
8510	65	.60	8607	66	1.80	8724	98	....	8795	137	.36
8512	268	.40	8608	66	3.70	8725	98	.57	8798	138	.40
8513	268	.24	8609	66	5.50	8726	98	.91	8799	138	.40
8514	323	.14	8610	66	7.14	8727	98	1.58	8800	138	.40
8515	65	1.90	8611	287	.70	8728	98	1.88	8801	138	.40
8516	65	.92	8617	66	2.60	8729	98	2.14	8804	142	.56
8517	65	1.70	8618	66	2.70	8730	98	2.50	8836	138	.72
8518	66	1.30	8619	66	1.50	8731	98	2.76	8837	138	1.30
8519	66	.10	8620	66	1.80	8732	98	1.82	8838	138	1.30
8520	66	2.00	8621	66	3.70	8733	98	1.10	8847	138	1.20
8521	66	2.50	8622	66	5.50	8734	98	.64	8848	138	.70
8522	66	1.90	8623	66	7.14	8735	98	.34	8849	138	.12
8523	66	1.44	8624	66	5.00	8741	133	2.04	8851	138	.36
8526	66	2.28	8625	160	14.10	8742	133	2.10	8852	138	.36
8527	66	1.60	8626	160	.17	8743	133	2.22	8853	138	.36
8528	66	1.05	8627	160	28.80	8744	133	2.28	8854	138	.36
8531	66	1.60	8630	66	2.80	8745	133	2.04	8855	138	.36
8532	66	5.50	8631	268	.22	8746	133	1.64	8856	138	.36
8533	66	1.50	8635	160	13.70	8747	133	2.10	8857	138	.36
8534	66	1.20	8637	391	.88	8748	133	2.22	8858	138	1.75
8535	66	2.80	8640	391	.08	8749	133	.60	8859	138	.12
8536	66	3.56	8654	391	1.00	8750	133	.17	8860	138	.12
8537	66	2.50	8655	108	4.80	8751	133	.08	8861	138	.12
8538	66	2.94	8658	121	2.80	8752	133	.68	8862	138	.12
8539	66	1.56	8659	121	5.30	8753	133	3.80	8863	138	1.50
8540	66	2.80	8668	102	.70	8754	133	2.60	8864	138	1.60
8560	77	.27	8670	429	306.00	8755	133	2.50	8865	138	1.96
8561	79	2.00	8678	108	7.00	8756	133	2.30	8866	138	1.00
8562	77	1.60	8679	108	5.50	8757	133	7.10	8867	138	.84
8563	77	.34	8680	108	7.70	8760	98	.12	8871	411	14.00
8564	79	1.36	8686	108	6.00	8761	98	.12	8872	411	2.50
8565	79	1.36	8687	108	6.70	8762	98	.12	8876	411	2.50
8566	77	4.50	8688	129	3.00	8764	142	.36	8878	411	2.00
8567	77	2.84	8689	403	.01	8765	142	.08	8879	411	10.00
8568	91	2.84	8697	97	.14	8766	142	.16	8880	411	2.00
8571	79	1.50	8698	97	.45	8767	142	1.20	8885	411	.50
8572	79	1.20	8699	97	.96	8768	142	.40	8886	411	2.00
8573	79	1.12	8700	97	.45	8769	142	.12	8888	411	2.50
8574	79	2.56	8701	97	.31	8770	142	.22	8890	411	1.00
8575	75	1.24	8702	97	1.02	8771	142	.22	8891	411	.20
8576	77	2.56	8704	97	.31	8772	142	.22	8895	411	.10
8577	79	1.12	8705	97	.45	8773	142	.22	8897	138	.40
8578	79	2.56	8706	97	.19	8774	142	.22	8898	138	.40
8579	79	2.56	8707	97	.14	8775	142	.22	8899	138	.40
8580	79	1.53	8708	97	.31	8776	142	.22	8900	138	.40

## INDEX TO ORDER NUMBERS

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No. *	Page	List Price
8909	411	4.50	9154	153	.21	9250	268	.70	9465	431	.....
8910	138	.064	9155	153	.29	9259	268	.36	9466	431	.....
8921	138	.40	9156	153	.19	9261	268	.90	9469	431	.....
8931	403	.90	9157	153	.17	9262	268	.70	9470	263	1.30
8932	403	.27	9158	151	.19	9263	268	.90	9500	399	.....
8934	403	.20	9159	151	.09	9264	268	1.04	9502	399	.....
8935	403	1.00	9160	153	.57	9265	268	1.20	9516	399	.....
8936	403	.80	9161	153	.57	9266	268	.64	9517	399	.....
8937	403	.14	9162	153	.12	9267	268	.72	9519	399	.....
8938	403	.90	9163	153	.12	9268	268	.48	9523	399	.....
8940	403	.12	9164	153	.24	9269	268	.55	9524	399	.....
8941	403	.60	9165	153	.19	9270	268	.50	9525	399	.....
8942	403	.60	9166	153	.12	9271	268	.77	9526	399	.....
8943	403	.30	9169	268	.07	9272	268	.60	9534	399	.....
8944	403	.01	9170	157	14.76	9273	268	1.24	9535	399	.....
8946	383	.....	9171	157	5.80	9274	268	1.50	9538	399	.....
8953	138	1.00	9172	157	.96	9275	268	.70	9540	399	.....
8954	138	.36	9173	157	.43	9276	268	1.20	9541	399	.....
8955	135	7.20	9174	155	.21	9277	268	.26	9542	399	.....
8956	135	9.20	9175	157	.69	9278	268	1.50	9543	399	.....
8957	135	7.20	9176	157	.69	9279	268	1.08	9557	138	.....
8958	135	9.20	9177	157	.57	9280	268	.60	9560	411	140.00
8959	135	7.20	9197	347	.60	9281	268	.33	9561	411	86.00
8960	135	9.20	9198	347	.07	9282	268	.16	9562	411	54.00
8961	135	7.20	9199	347	.70	9283	268	.42	9595	17	17.00
8962	135	8.00	9201	268	.07	9284	268	.16	9596	17	10.00
8963	135	9.20	9202	391	.39	9285	268	.48	9597	17	13.00
8964	135	2.40	9215	431	30.50	9286	268	.64	9598	17	19.00
8965	135	3.60	9217	415	6.00	9287	268	1.04	9599	17	.....
8966	135	3.00	9218	415	8.30	9288	268	.76	9600	17	.....
8967	135	4.60	9219	415	10.60	9289	268	1.04	9605	17	.....
8969	135	.36	9223	102	.09	9290	268	2.80	9606	17	4.70
8970	135	.48	9224	102	.12	9292	268	2.40	9607	17	6.20
8978	138	.36	9225	153	.02	9294	268	2.40	9608	17	7.50
8979	138	.36	9226	349	.....	9300	268	2.90	9609	17	8.70
8981	138	.36	9227	349	.....	9302	268	2.90	9610	17	12.00
8982	138	.36	9228	349	.....	9304	268	3.48	9611	17	14.50
8989	138	.36	9229	349	.....	9306	268	3.48	9612	17	.18
8994	138	.12	9230	349	.....	9341	246	1.30	9614	17	3.60
9008	246	1.40	9231	349	.....	9342	246	1.36	9615	17	3.60
9009	246	3.30	9232	349	.....	9343	246	1.44	9616	17	2.70
9023	403	.06	9233	349	.....	9344	246	1.50	9617	17	3.60
9025	138	.....	9234	349	.....	9345	246	2.10	9618	17	2.70
9026	138	.....	9235	349	.....	9346	246	2.40	9619	17	3.60
9041	263	1.08	9236	349	.....	9382	263	4.00	9634	253	5.00
9042	263	.96	9237	349	.....	9383	263	4.00	9635	253	4.80
9043	263	.12	9238	349	.....	9384	263	4.00	9636	253	4.80
9045	138	1.84	9239	349	.....	9386	263	2.60	9637	255	8.40
9047	138	.....	9240	349	.....	9387	263	2.60	9638	255	7.80
9060	249	.12	9241	349	.....	9388	263	2.60	9639	255	5.60
9061	249	.20	9242	349	.....	9391	263	1.00	9640	257	4.80
9073	411	.10	9243	349	.....	9402	411	74.00	9650	411	190.00
9105	391	.70	9244	349	.....	9429	111	.....	9651	411	116.00
9143	21	.01	9245	349	.....	9450	431	.....	9652	411	7.00
9150	153	13.56	9246	349	.....	9461	431	26.30	9653	411	18.00
9151	153	4.84	9247	349	.....	9462	431	.....	9654	411	6.00
9152	153	.96	9248	549	.....	9463	431	.....	9655	411	3.00
9153	153	.26	9249	349	.....	9464	431	54.00	9656	411	2.00

# INDEX TO ORDER NUMBERS

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
9657	411	.40	9738	257	10.50	9818	77	3.40	9927	27	1.00
9658	411	3.00	9739	257	14.00	9819	77	1.80	9928	27	1.00
9659	411	1.00	9740	249	3.70	9820	77	.80	9929	27	1.00
9660	257	6.00	9741	249	4.10	9821	77	1.84	9930	27	1.00
9671	249	4.10	9742	263	4.40	9830	401	6.00	9931	27	1.00
9672	249	4.10	9743	263	1.50	9856	265	1.76	9932	27	.50
9673	249	3.70	9744	263	2.40	9857	265	1.76	9933	27	.70
9674	249	4.80	9745	263	4.00	9864	341	.....	9934	27	.70
9675	249	4.80	9746	263	2.60	9866	260	1.60	9935	27	.70
9676	249	5.80	9747	259	1.60	9867	260	1.68	9936	27	.70
9677	249	5.80	9748	259	1.68	9871	21	6.00	9937	27	.70
9678	251	4.40	9749	259	1.60	9872	21	.10	9938	27	.40
9679	251	4.40	9750	259	1.68	9873	21	.70	9939	27	.66
9680	251	6.60	9751	259	1.60	9874	21	.60	9940	27	.60
9681	251	4.20	9752	259	1.70	9875	21	.20	9941	27	.60
9682	257	4.60	9753	259	1.30	9876	21	1.00	9942	27	.60
9683	257	8.00	9754	259	1.40	9877	21	2.20	9943	27	.60
9684	257	4.80	9755	259	1.40	9878	21	.10	9944	27	.70
9685	257	5.60	9756	259	1.68	9879	21	.20	9945	27	.90
9687	339	1.56	9757	259	.20	9880	21	.12	9946	27	.90
9688	339	.....	9758	263	4.00	9881	21	3.10	9947	27	.90
9700	294	5.40	9759	263	2.60	9882	21	.90	9948	27	.90
9701	429	372.00	9760	259	1.68	9883	21	.10	9949	27	.90
9702	249	4.10	9761	260	1.60	9884	21	.12	9950	27	.60
9703	249	4.50	9762	263	4.00	9885	21	.10	9951	27	.80
9704	249	4.50	9763	263	2.60	9886	21	13.20	9952	27	.80
9705	249	5.50	9764	260	1.00	9887	21	17.50	9953	27	.80
9706	249	6.50	9765	260	1.16	9895	183	.36	9954	27	.80
9707	249	6.60	9766	262	1.20	9896	183	.44	9955	27	.80
9708	251	6.40	9767	263	1.40	9897	21	.03	9956	27	.40
9709	251	6.40	9768	263	1.20	9898	21	.26	9957	27	.60
9710	251	7.60	9769	263	3.00	9899	21	.30	9958	27	.60
9711	251	6.20	9770	263	1.50	9901	25	2.58	9959	27	.60
9712	253	8.00	9781	263	.70	9902	25	2.68	9960	27	.60
9713	253	5.40	9782	260	1.32	9903	25	3.62	9961	27	.60
9714	253	5.40	9783	260	.....	9904	25	3.72	9962	27	.01
9715	255	9.00	9784	260	.....	9905	21	1.60	9963	27	.70
9716	255	8.60	9785	260	.....	9906	19	9.00	9964	27	.70
9717	255	6.60	9786	263	1.30	9907	19	16.80	9965	27	.70
9718	257	5.20	9787	260	1.00	9908	183	.....	9966	27	.44
9719	257	6.70	9788	260	1.16	9909	183	.05	9967	27	.44
9720	257	5.00	9789	260	1.00	9910	17	.08	9968	27	.44
9721	257	8.50	9790	260	1.16	9911	19	.20	9969	29	1.10
9722	257	5.40	9791	260	1.00	9912	19	.09	9970	29	.10
9724	251	4.20	9792	260	1.16	9913	19	.20	9971	29	.80
9725	251	6.40	9793	265	1.76	9914	19	.20	9972	29	.80
9726	251	4.00	9794	265	1.76	9915	19	.16	9973	29	.50
9727	251	6.00	9795	265	1.76	9916	19	.20	9974	29	.50
9728	255	5.60	9796	265	1.76	9917	19	1.20	9975	29	.40
9729	255	6.15	9797	265	1.76	9918	19	1.44	9976	29	.70
9730	253	4.80	9798	265	1.76	9919	19	2.20	9977	29	.70
9731	253	5.40	9811	77	2.72	9920	19	2.90	9978	29	.90
9732	255	6.60	9812	77	4.16	9921	19	3.60	9979	29	.90
9733	255	7.50	9813	77	3.16	9922	19	4.30	9980	29	.90
9734	253	4.80	9814	77	5.50	9923	19	5.00	9981	29	.40
9735	253	6.00	9815	77	4.60	9924	19	5.70	9982	29	.60
9736	255	2.00	9816	77	7.50	9925	19	.10	9983	29	.60
9737	255	1.28	9817	77	4.20	9926	27	.80	9984	29	.60



## INDEX TO ORDER NUMBERS

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price
9985	29	.36	10331	251	.30	10399	39	1.58	10471	54	....
9986	29	.56	10332	251	.60	10400	39	2.08	10473	57	22.00
9987	29	.56	10333	251	1.00	10401	47	.03	10481	57	5.50
9988	29	.56	10334	253	.24	10402	47	....	10482	57	.18
9989	29	.50	10335	255	.30	10403	39	2.44	10483	61	6.10
9990	29	.50	10336	253	1.00	10404	39	3.60	10484	61	6.10
9991	29	.50	10337	253	.30	10406	35	.07	10485	61	2.00
9992	29	.70	10338	253	.70	10407	39	1.99	10486	61	.28
9993	29	.70	10339	253	.14	10408	39	1.76	10487	63	.28
9994	29	.44	10340	253	.80	10409	47	.16	10489	63	.56
9995	29	.44	10341	251	.60	10410	47	.16	10490	63	.84
9996	29	.36	10342	255	.16	10411	47	.06	10491	63	1.12
9997	29	.36	10343	257	2.00	10412	47	.06	10494	61	1.90
9998	29	.01	10344	265	1.50	10413	47	.05	10495	63	10.00
10000	379	....	10345	265	.32	10414	47	.05	10496	57	5.50
10001	399	....	10350	433	....	10415	47	.05	10497	57	.70
10005	399	....	10351	379	....	10416	39	7.12	10498	57	.60
10006	399	....	10352	379	....	10417	39	2.90	10499	57	.50
10007	399	....	10353	33	12.15	10418	39	4.15	10500	63	.10
10008	399	....	10354	33	4.90	10419	39	9.04	10501	61	2.00
10047	399	....	10355	33	8.80	10420	47	.03	10510	63	1.00
10055	415	....	10357	33	.07	10421	47	.03	10511	237	18.80
10057	399	....	10358	33	7.32	10422	47	.03	10512	237	19.30
10062	399	....	10359	33	12.86	10423	39	1.36	10513	237	3.40
10064	399	....	10360	33	.62	10424	39	1.94	10514	237	3.52
10097	341	1.36	10361	33	.62	10425	39	3.02	10515	237	.24
10115	195	.03	10362	35	2.97	10426	45	.10	10516	237	1.60
10122	401	1.50	10363	35	2.71	10427	39	1.77	10518	237	1.77
10126	401	1.50	10364	35	.07	10428	39	2.28	10520	237	4.16
10198	415	....	10366	35	.30	10429	39	2.52	10522	237	.76
10250	291	1.08	10367	35	10.40	10430	45	.24	10523	237	5.00
10261	102	1.00	10368	35	5.08	10431	39	3.07	10524	237	.30
10284	183	1.90	10369	35	1.32	10432	39	3.69	10525	353	....
10285	183	....	10371	35	1.15	10433	39	6.16	10526	353	....
10286	183	....	10372	35	.21	10434	39	7.84	10527	353	....
10287	183	....	10373	35	.67	10435	39	2.68	10528	353	....
10288	183	....	10374	37	.74	10438	49	12.14	10529	353	....
10289	243	.90	10375	37	1.03	10439	49	1.32	10530	353	....
10311	260	1.00	10376	37	1.30	10440	389	....	10531	353	....
10312	260	1.16	10377	35	.14	10441	389	....	10532	353	....
10313	260	1.30	10380	35	.60	10444	54	9.76	10533	353	....
10314	260	1.44	10381	39	5.61	10445	54	3.90	10534	353	....
10315	260	.20	10382	33	.31	10446	54	8.40	10535	353	....
10316	260	.06	10383	33	.31	10447	54	3.20	10536	353	....
10317	265	1.00	10384	33	.36	10448	54	.42	10537	353	....
10318	265	.12	10385	33	2.52	10449	54	.30	10538	353	....
10319	265	.30	10386	45	.15	10450	54	.70	10539	353	....
10320	265	.50	10387	39	2.04	10451	54	.76	10540	353	....
10321	265	.50	10389	35	.30	10453	54	1.04	10541	353	....
10322	249	.20	10390	33	4.32	10454	54	2.10	10543	355	.74
10323	249	.20	10391	33	3.65	10456	54	2.76	10544	355	4.27
10324	249	.20	10392	33	2.71	10458	54	1.10	10545	355	3.14
10325	249	.20	10393	33	1.90	10459	61	7.50	10548	355	3.50
10326	249	.30	10394	33	1.28	10460	61	11.50	10549	355	....
10327	251	.60	10395	33	4.20	10461	61	15.00	10555	301	7.40
10328	251	.16	10396	33	3.04	10465	61	.40	10556	301	....
10329	251	.30	10397	33	2.28	10466	61	.60	10557	301	1.50
10330	251	.16	10398	33	1.60	10467	61	.80	10558	301	1.50

# INDEX TO ORDER NUMBERS

453

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price
10559	301	1.00	10636	71	30.52	10716	81	1.80	10955	169	1.96
10560	301	....	10637	71	35.44	10717	81	.70	10956	169	2.50
10561	301	10.60	10638	71	36.56	10718	81	.50	10957	169	.28
10562	301	1.70	10639	71	40.82	10721	81	.96	10958	169	2.00
10565	301	....	10640	71	41.94	10722	81	1.04	10959	165	3.40
10566	301	.60	10641	71	47.30	10730	129	.16	10962	171	....
10567	301	.16	10642	71	48.42	10731	129	.22	10963	171	....
10568	301	.40	10643	71	53.40	10737	129	5.10	10966	163	4.00
10569	301	9.50	10644	71	54.52	10748	129	3.92	10968	169	7.50
10570	301	....	10646	75	6.80	10749	129	4.54	10969	169	3.60
10571	301	....	10647	75	6.44	10750	129	5.20	10970	171	3.20
10572	301	....	10648	75	3.30	10751	129	5.72	10971	171	....
10573	301	....	10649	75	.36	10753	129	6.76	10972	171	....
10574	301	13.00	10650	71	4.50	10758	145	9.08	10973	167	4.00
10575	301	....	10651	71	3.92	10759	145	8.60	10974	171	....
10576	301	....	10652	71	2.30	10760	145	3.30	10975	171	....
10577	301	....	10653	71	6.00	10761	145	.19	10976	175	13.50
10578	301	.44	10654	71	5.10	10764	145	.17	10977	175	4.00
10579	303	1.80	10655	71	3.56	10765	145	.14	10978	175	3.50
10580	303	.40	10659	71	7.46	10766	145	.81	10979	175	4.00
10581	303	.20	10660	71	6.76	10770	147	25.00	10980	175	....
10591	69	3.12	10661	71	4.48	10771	147	....	10981	173	21.00
10592	69	5.76	10662	71	8.82	10772	147	....	10982	173	....
10593	69	8.54	10663	71	7.88	10773	147	....	10983	173	....
10594	69	11.32	10664	71	5.28	10775	147	.90	10984	173	....
10595	69	3.12	10667	71	12.98	10776	147	.90	10985	173	....
10596	69	5.76	10668	71	11.06	10777	147	3.50	10986	173	....
10597	69	8.54	10669	71	7.52	10778	147	.64	10987	173	....
10598	69	11.32	10673	71	11.36	10779	147	1.50	10988	173	....
10599	69	1.56	10674	71	10.10	10780	147	1.00	10989	173	....
10600	69	2.88	10675	71	7.10	10781	147	1.00	10990	173	11.00
10601	69	4.30	10676	71	18.40	10783	147	2.96	10991	173	....
10602	69	5.70	10677	71	15.90	10784	149	5.80	10993	173	....
10603	69	.18	10678	71	11.00	10785	149	.96	10994	173	....
10604	69	.36	10679	71	10.04	10794	155	4.72	10995	173	....
10605	69	.52	10680	71	8.66	10795	151	.96	10997	177	....
10606	69	.68	10681	71	5.84	10799	151	4.44	10998	177	....
10608	69	2.08	10683	71	14.22	10800	151	.26	10999	177	....
10610	69	3.86	10684	71	12.18	10801	151	.29	11000	177	....
10616	85	5.50	10685	71	8.70	10802	151	.21	11001	177	....
10617	85	10.40	10686	91	2.90	10803	145	3.00	11002	177	....
10618	85	15.80	10687	91	5.08	10804	145	2.60	11003	177	....
10619	91	2.72	10688	91	.66	10805	151	.21	11004	177	....
10620	91	4.60	10689	91	.19	10806	149	11.20	11005	177	....
10621	87	4.70	10690	91	.26	10814	115	3.48	11006	177	....
10622	87	8.72	10691	91	8.40	10815	117	5.90	11007	177	....
10623	87	13.00	10692	91	15.00	10816	115	4.20	11008	177	....
10625	85	3.08	10693	91	2.90	10817	117	8.60	11009	177	....
10626	85	3.70	10694	91	3.08	10822	111	3.40	11014	177	....
10627	85	4.20	10695	91	1.76	10823	115	4.00	11015	177	....
10628	87	2.28	10696	91	.10	10910	303	10.00	11017	184	.42
10629	87	2.72	10700	93	2.90	10947	163	4.28	11028	89	15.00
10630	87	3.16	10701	93	3.08	10948	163	6.90	11029	89	8.00
10631	71	15.80	10702	93	2.90	10949	163	2.00	11030	89	23.00
10632	71	17.00	10703	91	.08	10950	163	3.10	11031	89	7.00
10633	71	22.60	10704	91	2.90	10952	163	1.28	11032	89	3.20
10634	71	23.72	10705	91	3.10	10953	169	11.70	11033	89	4.50
10635	71	29.34	10715	81	3.00	10954	169	3.96	11138	191	1.84

## INDEX TO ORDER NUMBERS

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
11139	191	1.92	11211	197	.92	11276	201	....	11392	273	2.56
11140	191	2.11	11212	197	1.08	11277	201	....	11393	273	6.52
11141	189	.84	11213	197	1.04	11278	201	....	11394	273	6.40
11142	191	.92	11214	197	1.70	11279	203	2.60	11397	291	2.50
11144	189	.98	11215	197	2.28	11280	203	2.76	11398	291	1.60
11145	191	1.18	11216	197	2.80	11281	201	....	11399	291	.52
11146	189	1.28	11217	197	3.38	11282	201	....	11401	291	.90
11147	191	1.38	11218	197	3.96	11283	205	6.40	11403	351	....
11148	189	1.40	11219	197	.57	11284	205	7.96	11422	291	.64
11149	191	1.60	11220	197	.90	11285	203	2.46	11435	255	.30
11150	189	1.56	11221	197	1.12	11286	203	3.28	11436	255	.30
11151	191	1.75	11222	197	1.32	11287	205	5.60	11485	260	1.00
11152	189	.60	11223	197	1.56	11288	205	7.20	11487	285	1.52
11153	189	.64	11224	197	1.76	11289	205	4.80	11488	285	1.65
11154	189	.79	11225	197	1.32	11290	205	4.00	11549	221	70.20
11155	189	.96	11226	197	2.04	11299	260	1.60	11552	243	7.30
11156	189	1.08	11227	197	2.82	11302	291	1.84	11559	221	108.00
11157	189	.04	11228	197	4.00	11307	235	145.10	11561	243	7.40
11158	189	.12	11229	197	5.04	11308	235	145.10	11606	271	.80
11159	191	.19	11230	197	6.06	11309	235	72.60	11607	271	.53
11160	189	.28	11231	197	.64	11311	291	1.00	11609	93	10.84
11161	191	.48	11232	197	.86	11341	265	1.60	11610	93	3.60
11162	195	3.64	11233	197	1.16	11345	275	4.90	11611	93	1.96
11163	195	3.80	11234	197	1.80	11346	275	8.30	11612	93	1.96
11164	195	3.96	11235	197	2.40	11347	275	11.84	11613	93	.44
11165	195	4.08	11236	197	3.00	11349	275	1.52	11614	271	.70
11168	193	1.80	11237	195	3.32	11350	275	1.65	11615	271	.46
11169	193	2.90	11238	195	6.22	11351	275	1.92	11617	271	.80
11170	193	4.00	11239	195	8.20	11354	275	1.80	11618	271	.60
11171	193	5.10	11240	195	12.52	11355	277	5.60	11649	281	1.88
11172	193	1.20	11241	195	....	11356	277	9.68	11650	281	2.08
11173	193	1.70	11242	195	....	11357	277	13.88	11651	271	.84
11174	193	2.20	11243	195	....	11359	279	5.64	11652	243	3.08
11175	193	2.70	11244	195	....	11360	279	9.76	11653	243	3.08
11176	193	1.40	11245	203	....	11361	279	14.10	11656	271	.72
11177	193	2.40	11246	203	2.90	11367	277	2.70	11657	271	.48
11178	193	3.40	11247	203	3.86	11368	279	2.32	11671	271	.72
11179	193	4.40	11248	203	5.00	11369	289	9.00	11672	271	.48
11180	193	.80	11249	203	....	11370	289	15.50	11673	283	2.40
11181	193	1.20	11250	203	1.86	11372	289	2.90	11682	307	19.40
11182	193	1.60	11251	203	2.28	11373	289	3.30	11683	307	1.28
11183	193	2.00	11252	203	3.28	11375	289	3.60	11684	307	1.16
11184	193	2.30	11253	211	2.56	11376	289	.16	11685	307	4.50
11185	193	1.70	11254	211	3.48	11377	289	.08	11686	347	.20
11186	193	.05	11255	211	4.92	11378	289	.84	11687	335	....
11196	195	....	11256	211	6.40	11379	273	.58	11688	335	....
11198	189	.96	11257	211	....	11380	273	.50	11689	345	....
11199	189	1.28	11258	211	....	11381	273	.80	11690	347	1.04
11200	189	1.72	11259	211	1.74	11382	273	.70	11691	307	.54
11201	189	1.90	11260	211	1.92	11383	273	.80	11692	307	2.32
11203	197	.90	11261	211	2.40	11384	273	.70	11693	307	.16
11204	197	.57	11262	211	2.80	11385	273	1.08	11694	307	.28
11205	197	.90	11263	211	3.20	11386	273	.98	11695	311	32.00
11206	197	1.36	11264	211	....	11387	273	1.16	11696	311	1.16
11207	197	1.76	11265	203	2.20	11388	273	1.06	11697	311	2.10
11208	197	2.16	11271	205	2.46	11389	273	1.84	11698	311	4.60
11209	197	.56	11272	205	2.00	11390	273	1.74	11699	311	.54
11210	197	.76	11275	201	....	11391	273	2.68	11700	311	.64

# INDEX TO ORDER NUMBERS

455

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price
11701	311	....	11789	343	....	11856	329	.12	11927	299	1.40
11704	335	....	11790	347	1.04	11857	329	.92	11928	297	.24
11705	345	....	11791	315	3.50	11858	329	.92	11929	299	1.60
11708	325	.36	11792	315	.08	11859	329	1.10	11930	297	1.80
11709	335	....	11793	315	.14	11860	331	23.30	11931	297	1.80
11710	345	....	11794	315	.16	11861	331	4.12	11937	297	.08
11712	335	....	11796	317	19.50	11862	331	2.68	11940	293	12.90
11717	337	....	11797	317	10.40	11863	331	.68	11941	293	14.40
11718	341	....	11798	345	....	11864	331	.36	11942	293	1.40
11719	341	....	11801	317	.84	11865	331	2.20	11943	293	.48
11720	325	....	11802	317	....	11866	331	1.40	11944	293	.72
11722	325	1.08	11803	317	3.50	11868	331	....	11945	293	.48
11723	335	....	11804	315	.28	11869	331	.44	11946	293	.04
11724	345	....	11805	319	18.40	11872	333	20.80	11947	293	2.40
11725	347	....	11806	319	19.20	11873	333	4.30	11948	293	3.84
11726	335	....	11807	319	7.80	11874	333	.40	11951	239	31.80
11727	345	....	11808	319	.50	11875	333	.10	11954	239	13.30
11728	327	.36	11809	319	8.80	11876	333	6.30	11955	239	2.50
11729	325	.44	11810	319	.60	11877	333	.16	11956	239	.69
11730	325	.19	11811	335	....	11878	333	.60	11957	241	26.50
11731	325	.19	11812	343	....	11879	333	2.20	11958	241	....
11732	325	.22	11814	319	1.54	11884	299	17.00	11959	241	....
11733	325	.12	11815	319	.50	11885	299	28.50	11960	241	....
11734	325	.16	11816	319	.50	11886	299	35.00	11961	241	....
11735	337	....	11817	319	.74	11887	299	5.20	11962	241	....
11737	337	....	11818	319	.30	11888	299	6.88	11963	241	....
11738	338	....	11819	319	.50	11889	299	8.04	11964	241	....
11741	345	....	11820	343	....	11890	299	.60	11965	241	....
11742	345	....	11821	335	....	11891	299	1.04	11966	241	....
11747	327	.88	11822	343	....	11892	299	1.44	11974	187	.09
11750	327	1.16	11823	341	....	11893	299	1.48	11976	187	.07
11751	327	1.52	11824	341	....	11894	299	.40	11977	187	.12
11752	327	2.56	11825	343	....	11895	299	.44	11978	187	.17
11753	339	....	11826	335	....	11896	299	1.28	11979	187	.26
11754	339	....	11827	345	....	11897	299	1.36	11980	187	.10
11755	327	.31	11828	337	....	11899	297	.52	11981	187	.05
11756	325	1.16	11829	339	....	11900	297	.12	11982	187	.05
11757	345	....	11830	337	....	11901	297	.70	11983	187	.05
11758	345	....	11831	343	....	11902	297	.44	11984	187	.05
11760	347	.02	11832	343	....	11906	299	.12	11987	187	.07
11761	323	5.50	11833	343	....	11908	297	16.00	11988	187	.12
11762	337	....	11834	335	....	11909	297	22.00	11989	184	.05
11763	337	....	11836	337	....	11910	297	28.00	11990	187	.05
11764	343	....	11837	339	....	11911	297	4.60	11991	187	.16
11765	343	....	11838	339	....	11912	297	5.12	11992	187	.26
11766	323	.28	11839	343	....	11913	297	5.50	11993	184	.07
11767	323	.72	11840	337	....	11914	297	.48	11994	184	.07
11768	339	....	11841	343	....	11915	297	.64	11995	187	.05
11769	339	....	11842	321	.50	11916	297	.80	11999	184	.05
11771	345	....	11843	321	....	11917	297	1.80	12002	357	.96
11772	345	....	11845	341	....	11918	297	.28	12003	357	1.03
11773	341	....	11846	339	....	11919	297	1.28	12004	357	1.08
11776	335	....	11847	339	....	11920	297	1.36	12005	357	1.13
11777	345	....	11851	329	12.00	11921	297	.12	12006	357	1.20
11782	341	....	11852	329	2.76	11922	297	.12	12007	357	1.25
11786	315	15.50	11853	321	1.98	11923	297	.16	12008	357	1.32
11787	315	6.50	11854	329	.68	11924	297	.16	12009	357	1.37
11788	335	....	11855	329	.60	11925	297	.16	12010	357	1.41

## INDEX TO ORDER NUMBERS

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
12011	357	1.48	12153	191	.62	12211	201	....	12603	375	16.00
12012	357	1.53	12154	237	4.80	12212	301	....	12604	375	4.90
12013	357	1.58	12155	193	3.04	12213	301	....	12605	375	2.00
12014	357	1.87	12156	193	2.20	12218	171	1.04	12606	375	2.00
12015	357	1.92	12157	189	.05	12219	171	1.24	12607	375	2.00
12016	357	1.99	12158	193	.06	12261	399	....	12608	375	1.60
12017	357	2.04	12159	193	.07	12266	399	....	12609	375	2.00
12018	357	2.08	12160	197	.08	12293	399	....	12610	375	.30
12019	357	2.16	12161	197	.08	12294	399	....	12611	375	.30
12020	357	2.30	12162	199	....	12295	399	....	12613	375	.08
12021	357	2.37	12163	199	....	12302	399	....	12614	375	3.40
12022	357	2.40	12164	199	....	12303	399	....	12615	375	1.00
12023	357	2.82	12165	199	....	12339	243	60.00	12616	375	....
12024	357	3.24	12166	199	....	12348	401	1.50	12617	375	....
12025	357	3.12	12167	199	....	12349	433	....	12618	376	.14
12026	357	3.90	12168	199	....	12350	433	....	12619	376	1.00
12027	357	4.06	12169	199	....	12351	433	....	12621	376	.20
12028	357	.39	12170	199	....	12352	433	....	12622	376	.40
12055	359	2.20	12171	199	....	12353	433	....	12624	376	.50
12056	359	2.26	12172	199	....	12354	433	....	12625	376	.50
12057	359	2.32	12173	199	....	12357	243	68.00	12626	376	.70
12058	359	2.38	12174	199	....	12358	243	70.00	12627	376	.28
12059	359	2.44	12175	199	....	12359	243	92.00	12628	376	.12
12060	359	2.50	12176	199	....	12360	243	84.00	12629	376	.03
12061	359	2.56	12177	199	....	12383	257	6.00	12630	376	....
12062	359	2.62	12178	199	....	12384	257	5.40	12631	376	1.60
12063	359	2.68	12179	199	....	12388	260	1.00	12634	376	.80
12064	359	2.74	12180	199	....	12389	260	1.16	12637	376	.07
12065	359	2.80	12181	199	....	12391	433	....	12638	376	.06
12066	359	2.86	12182	199	....	12392	433	....	12640	376	.04
12067	359	2.92	12183	199	....	12393	433	....	12641	376	.06
12068	359	2.98	12184	199	....	12394	433	....	12642	376	.06
12069	359	3.04	12185	199	....	12395	433	....	12644	376	.06
12070	359	4.04	12186	199	....	12396	433	....	12645	387	.01
12071	359	4.10	12187	199	....	12400	401	57.50	12646	376	.01
12072	359	4.16	12188	199	....	12401	341	....	12680	376	.02
12073	359	4.22	12189	199	....	12403	341	1.56	12701	376	2.00
12074	359	4.28	12190	199	....	12407	401	7.50	12702	376	1.00
12075	359	5.60	12191	199	....	12408	401	7.50	12703	376	.60
12076	359	6.00	12192	199	....	12431	426	....	12704	376	.20
12077	359	6.40	12193	201	....	12489	205	3.28	12719	260	1.16
12078	359	6.32	12194	201	....	12490	205	2.96	12720	260	1.50
12079	359	6.00	12195	201	.80	12491	205	4.20	12738	219	15.00
12080	359	6.48	12196	201	1.00	12492	205	5.58	12739	219	20.00
12081	359	.96	12197	201	1.24	12493	205	6.84	12831	33	1.60
12083	359	2.16	12198	201	....	12494	205	8.24	12832	33	2.95
12084	363	2.10	12199	201	....	12495	205	9.64	12833	33	2.95
12085	363	5.20	12200	201	....	12496	205	11.06	12840	39	2.35
12091	365	1.16	12201	201	....	12497	205	12.48	12844	39	1.36
12141	184	.13	12202	201	....	12498	205	13.90	12845	39	1.58
12142	184	.05	12203	201	....	12502	401	....	12846	39	1.77
12143	184	1.12	12204	201	....	12503	401	7.50	12847	39	1.99
12144	325	19.00	12205	201	....	12504	401	....	12848	39	2.04
12145	347	.44	12206	201	....	12506	401	....	12849	39	2.28
12149	333	....	12207	201	....	12507	401	....	12850	39	2.35
12150	69	3.88	12208	201	....	12508	401	....	12851	39	2.44
12151	69	7.22	12209	201	....	12601	375	28.00	12852	39	2.68
12152	199	.76	12210	201	....	12602	375	44.00	12853	39	2.90

# INDEX TO ORDER NUMBERS

457

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price
12854	39	.26	13023	413	....	13353	203	6.40	13411	181	....
12855	39	.28	13024	413	....	13554	203	....	13412	181	....
12856	39	.31	13032	405	.06	13355	203	3.50	13413	181	....
12857	39	.36	13069	405	.08	13556	203	....	13415	293	.72
12858	39	.38	13076	405	.06	13357	203	4.90	13416	71	.20
12859	39	.40	13077	405	.02	13358	203	6.90	13417	71	59.68
12860	39	.43	13078	405	.02	13359	203	8.64	13418	71	60.80
12861	39	.45	13083	391	20.00	13360	203	....	13419	71	66.48
12862	39	.48	13084	391	17.00	13361	203	3.40	13420	71	67.60
12863	39	.50	13085	391	.68	13362	187	....	13421	71	74.90
12874	41	1.39	13086	391	.56	13363	187	....	13422	71	15.84
12875	41	1.53	13087	391	.50	13364	187	....	13423	71	13.80
12876	41	1.68	13088	391	5.60	13365	367	....	13424	71	9.62
12877	41	1.82	13089	391	4.20	13366	287	2.90	13425	193	.05
12878	41	1.96	13090	391	3.50	13367	367	....	13426	350	....
12879	41	2.08	13091	391	.64	13368	367	....	13427	203	4.10
12880	41	2.16	13092	391	1.30	13369	163	1.56	13429	289	....
12881	41	2.25	13093	391	.22	13370	237	9.80	13432	81	2.12
12882	41	2.37	13094	391	.18	13371	163	1.56	13433	81	2.52
12883	41	2.56	13095	391	.14	13372	237	10.10	13434	81	3.96
12884	41	3.16	13096	391	.60	13373	295	1.90	13435	81	6.32
12885	41	3.74	13097	391	....	13374	295	13.20	13436	81	2.72
12886	41	3.86	13098	391	1.36	13375	295	15.70	13437	81	4.60
12887	41	4.00	13099	391	....	13376	181	....	13438	81	7.50
12888	41	4.28	13102	391	.08	13377	181	....	13439	81	2.72
12889	41	4.60	13103	391	.80	13378	181	....	13440	81	4.60
12941	47	.05	13104	391	....	13379	181	....	13441	81	7.50
12944	47	.09	13105	391	.80	13380	181	....	13442	197	2.66
12945	47	2.56	13106	391	.48	13381	181	....	13443	197	3.08
12946	47	2.56	13107	391	....	13382	181	....	13445	195	....
12947	47	2.64	13108	391	.12	13383	181	....	13450	195	.70
12948	47	2.64	13109	391	....	13384	181	....	13454	181	....
12949	47	.91	13110	391	....	13385	181	....	13455	181	....
12950	47	.91	13113	387	27.00	13386	181	....	13456	181	....
12951	47	.14	13114	387	42.00	13387	181	....	13457	181	....
12952	47	.21	13115	387	43.00	13388	181	....	13458	181	....
12953	47	.48	13117	387	....	13389	181	....	13459	197	1.22
12955	47	....	13119	387	2.00	13390	181	....	13460	197	1.39
12956	47	....	13120	387	4.80	13391	181	....	13461	181	....
12957	47	.07	13121	387	....	13392	181	....	13462	181	....
12958	47	.07	13122	387	.50	13393	181	....	13463	181	....
12959	47	.07	13123	387	2.00	13394	181	....	13464	181	....
12960	47	.09	13124	387	....	13395	181	....	13465	181	....
12961	47	.07	13125	387	1.40	13396	181	....	13466	179	30.00
12962	47	.09	13126	387	.90	13397	181	....	13467	179	46.00
12963	47	.09	13133	387	....	13398	181	....	13468	179	58.00
12964	47	.12	13135	387	....	13399	181	....	13469	179	71.60
12965	47	.17	13136	387	....	13400	181	....	13470	179	83.60
12966	47	.17	13137	387	....	13401	287	5.30	13471	179	96.00
12967	47	.17	13138	387	....	13402	287	9.40	13472	179	110.00
12968	47	.17	13139	387	....	13403	287	13.40	13473	179	.48
12969	47	.11	13143	387	....	13404	181	....	13480	387	.12
12975	381	....	13145	387	.60	13405	181	....	13481	27	.80
12976	376	....	13147	387	....	13406	181	....	13489	91	8.40
12978	376	2.50	13148	387	....	13407	181	....	13490	91	15.00
13020	413	....	13350	203	....	13408	181	....	13491	91	....
13021	413	....	13351	203	3.70	13409	181	....	13492	91	....
13022	413	....	13352	203	4.90	13410	181	....	13493	91	....

## INDEX TO ORDER NUMBERS

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price
13494	91	....	13555	25	2.36	13614	367	....	13674	173	....
13495	93	8.40	13556	25	2.46	13615	367	....	13675	173	....
13497	93	15.00	13557	25	2.56	13616	367	....	13676	173	....
13498	93	10.50	13558	25	2.66	13617	367	....	13677	173	....
13499	93	2.90	13559	25	1.84	13618	367	....	13678	173	....
13500	93	....	13560	25	1.96	13619	367	....	13679	173	....
13501	291	.21	13561	25	2.10	13620	367	....	13680	173	....
13503	93	....	13562	25	2.22	13621	367	....	13681	133	.17
13504	93	....	13563	25	2.36	13622	367	....	13682	133	2.50
13505	93	....	13564	25	2.50	13623	367	....	13683	221	54.00
13506	93	8.40	13565	25	2.96	13624	367	....	13684	221	65.00
13507	93	....	13566	25	3.04	13625	367	....	13685	221	90.20
13508	291	1.08	13567	25	3.22	13626	367	....	13686	221	101.00
13509	93	....	13568	25	3.34	13627	367	....	13687	221	123.60
13510	291	1.00	13569	25	3.48	13628	367	....	13688	221	44.00
13511	93	2.50	13570	25	3.62	13629	367	....	13689	221	56.80
13512	93	2.50	13571	359	4.34	13630	367	....	13690	221	83.00
13513	291	1.00	13572	359	4.40	13631	285	.14	13691	221	93.40
13514	93	2.80	13573	359	4.46	13632	285	.18	13692	221	119.50
13515	291	.90	13574	359	4.52	13633	285	.22	13693	221	48.70
13516	93	2.50	13575	359	4.58	13634	281	6.84	13694	221	61.60
13517	93	2.50	13576	359	4.64	13635	281	1.80	13695	221	87.50
13518	291	1.64	13577	359	4.70	13636	281	10.60	13696	221	98.20
13519	93	2.80	13578	359	4.76	13637	113	2.80	13697	221	124.40
13520	93	....	13579	359	4.82	13638	283	14.50	13698	221	138.20
13521	93	....	13580	359	4.88	13639	365	1.14	13699	221	181.50
13522	91	1.76	13581	359	6.80	13640	361	....	13700	389	....
13524	187	.40	13582	45	.06	13641	361	....	13701	221	125.60
13525	23	.70	13583	303	2.00	13642	361	....	13702	365	3.28
13526	23	.74	13584	45	.42	13643	361	....	13703	221	168.80
13527	23	.78	13585	303	.24	13644	361	....	13704	221	212.50
13528	23	.84	13586	45	.42	13645	361	....	13705	221	129.00
13529	23	.88	13587	281	.18	13646	361	....	13706	221	141.20
13530	23	.94	13588	281	.22	13647	361	....	13707	221	172.00
13531	23	.98	13589	283	.26	13648	361	....	13708	221	184.50
13532	23	1.04	13590	349	....	13649	361	....	13709	221	228.20
13533	23	1.12	13591	357	2.42	13650	361	....	13710	219	183.50
13534	23	1.20	13592	357	2.47	13651	361	....	13711	219	271.00
13535	23	1.26	13593	357	2.54	13652	361	....	13712	169	.12
13536	23	.76	13594	357	2.59	13653	361	....	13713	169	1.20
13537	23	.80	13595	357	2.64	13654	361	....	13714	169	21.00
13538	23	.84	13596	357	2.92	13655	361	....	13715	169	1.00
13539	23	.88	13597	357	2.97	13656	361	....	13716	171	....
13540	23	.94	13598	357	3.04	13657	361	....	13717	171	....
13541	23	.98	13599	357	3.09	13658	361	....	13718	169	4.20
13542	23	1.04	13600	357	3.14	13659	361	....	13719	171	....
13543	23	1.12	13601	357	3.12	13660	361	....	13720	169	4.70
13544	23	1.20	13602	54	.56	13661	361	....	13721	211	....
13545	23	1.26	13603	165	1.20	13662	361	....	13722	211	....
13546	23	1.32	13604	165	8.60	13663	361	....	13723	211	....
13547	25	1.70	13605	165	3.02	13664	361	....	13724	211	....
13548	25	1.80	13606	165	5.24	13665	361	....	13725	211	....
13549	25	1.90	13608	165	7.10	13666	361	....	13726	211	....
13550	25	2.00	13609	357	4.03	13667	361	....	13727	147	3.20
13551	25	2.10	13610	165	7.90	13668	361	....	13728	147	.16
13552	25	2.20	13611	367	....	13669	361	....	13729	147	.20
13553	25	2.16	13612	367	....	13670	361	....	13730	147	....
13554	25	2.26	13613	367	....	13673	173	....	13731	349	....

# INDEX TO ORDER NUMBERS

459

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
13732	147	....	13824	319	1.66	13960	209	....	14021	131	6.20
13734	171	....	13830	33	6.82	13961	209	....	14022	131	6.72
13737	187	.16	13831	335	1.08	13962	209	....	14023	131	7.96
13738	187	.28	13832	33	7.52	13963	209	....	14024	131	8.60
13741	177	....	13833	345	1.36	13964	209	....	14025	131	7.80
13742	177	....	13838	77	2.70	13965	209	....	14026	131	8.60
13743	329	.03	13842	47	.13	13966	209	....	14027	131	9.40
13752	207	....	13843	47	.13	13967	209	....	14028	131	10.20
13753	207	....	13855	343	.72	13968	209	....	14029	131	11.00
13754	207	....	13863	33	.05	13969	209	....	14030	347	1.04
13755	207	....	13864	39	.02	13970	299	.14	14031	349	....
13756	207	....	13865	35	.11	13971	299	.16	14032	349	....
13757	207	....	13874	221	113.40	13972	299	.18	14033	323	2.30
13758	207	....	13875	219	110.80	13974	347	.52	14034	323	14.00
13759	207	....	13876	221	156.60	13976	39	3.32	14035	37	1.02
13760	207	....	13877	219	150.50	13977	347	1.12	14036	37	1.30
13761	207	....	13888	113	2.80	13978	347	1.12	14037	37	1.58
13762	207	....	13889	113	3.60	13979	347	1.08	14038	37	.74
13763	207	....	13901	379	....	13980	347	1.20	14039	37	1.03
13764	89	1.80	13902	113	1.64	13981	347	.14	14040	37	1.30
13765	89	5.00	13922	345	....	13982	39	6.79	14041	37	1.34
13766	89	2.50	13923	317	3.00	13983	347	.20	14042	37	1.64
13767	89	.10	13924	41	.85	13984	285	1.92	14043	37	1.90
13768	89	1.50	13925	41	1.84	13985	285	2.50	14044	63	....
13769	89	.34	13926	41	2.00	13987	95	3.80	14046	63	....
13770	89	.56	13927	41	2.12	13988	129	4.82	14047	63	....
13771	89	42.00	13928	41	2.26	13989	95	4.27	14048	63	....
13772	89	23.00	13929	41	2.40	13990	95	7.84	14052	349	....
13773	47	.01	13930	41	2.54	13991	129	6.24	14053	187	.024
13774	47	.01	13931	41	2.68	13992	95	10.00	14054	187	.14
13775	47	.01	13932	41	2.82	13993	113	2.50	14055	187	.16
13776	47	.01	13933	41	2.96	13994	129	7.92	14056	187	.26
13777	47	....	13934	42	....	13995	129	6.24	14057	187	.16
13778	47	....	13935	42	....	13996	129	6.90	14058	187	.36
13779	47	....	13936	42	....	13997	129	7.60	14059	187	.36
13780	47	....	13937	42	....	13998	129	8.24	14060	187	....
13781	47	....	13938	42	....	13999	129	8.88	14061	187	....
13782	315	3.00	13939	42	....	14000	129	4.48	14062	187	....
13783	47	....	13940	42	....	14001	129	5.32	14063	187	....
13784	49	5.08	13941	42	....	14002	129	6.28	14064	187	....
13785	49	10.50	13942	42	....	14003	129	6.88	14065	187	....
13787	319	.80	13943	42	....	14004	129	5.96	14066	187	....
13788	319	1.04	13944	42	....	14005	129	6.88	14067	187	....
13789	319	1.16	13945	42	....	14006	129	8.10	14068	35	.06
13790	317	.08	13946	42	....	14007	129	8.90	14069	347	.70
13791	317	.14	13947	42	....	14008	129	9.72	14070	35	.04
13792	319	.10	13948	42	....	14009	129	10.54	14071	33	.07
13793	89	.42	13949	42	....	14010	131	5.12	14072	33	.12
13794	309	20.60	13950	42	....	14011	131	5.60	14073	35	.09
13795	313	33.00	13951	42	....	14012	131	6.08	14074	35	6.20
13796	315	17.00	13952	42	....	14013	131	6.56	14075	35	5.08
13797	317	20.60	13953	42	....	14014	131	7.04	14076	35	10.40
13798	343	1.36	13954	42	3.70	14015	131	6.56	14077	35	.06
13799	317	....	13955	42	4.00	14016	131	7.20	14078	39	.04
13805	115	3.00	13956	42	4.20	14017	131	7.20	14079	149	10.72
13806	117	5.60	13957	42	4.40	14018	131	7.84	14080	349	....
13809	113	2.80	13958	42	4.60	14019	131	8.48	14081	177	....
13816	335	1.04	13959	42	4.90	14020	131	9.12	14082	177	....



## INDEX TO ORDER NUMBERS

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
14083	177	....	14144	167	1.24	14228	184	.14	14293	175	.58
14084	177	....	14145	165	1.56	14229	184	.09	14294	175	....
14085	113	1.60	14146	167	1.56	14230	379	....	14295	175	.80
14086	113	2.20	14150	167	9.28	14231	379	....	14296	175	.80
14087	113	1.90	14152	167	10.48	14232	184	....	14297	175	8.32
14088	113	2.50	14153	167	6.92	14233	184	.64	14298	175	3.88
14089	113	2.20	14154	167	7.72	14234	184	.07	14299	175	5.64
14090	113	3.10	14155	167	4.28	14235	184	.20	14300	175	30.30
14091	113	2.50	14156	167	4.68	14236	184	.17	14301	175	7.92
14092	113	1.40	14157	167	3.12	14237	387	....	14302	175	....
14093	113	1.80	14158	165	2.00	14238	184	.45	14303	389	....
14094	113	2.40	14159	119	5.10	14239	184	.36	14304	389	....
14095	113	3.00	14160	119	9.50	14240	23	.88	14305	239	.72
14096	113	2.80	14161	119	3.50	14241	23	.92	14306	239	....
14097	113	3.40	14162	173	....	14242	23	.96	14310	155	.57
14098	113	2.40	14163	365	4.74	14243	23	1.02	14311	155	.57
14099	113	3.00	14164	119	5.10	14244	23	1.06	14312	155	.65
14100	113	3.32	14165	119	3.50	14245	23	1.12	14313	155	.65
14101	113	3.72	14166	119	9.50	14246	23	1.16	14314	155	12.96
14102	113	3.10	14167	297	....	14247	23	1.22	14315	155	.12
14103	115	3.50	14168	119	3.50	14248	23	1.30	14316	155	13.08
14104	115	3.62	14169	119	5.10	14249	23	1.38	14317	153	.65
14105	115	3.08	14170	119	9.50	14250	23	1.44	14318	153	.65
14106	115	3.56	14171	119	3.50	14251	23	.94	14320	153	13.68
14107	115	3.40	14172	119	9.50	14252	23	.98	14321	151	.17
14108	115	3.60	14173	119	5.10	14253	23	1.02	14323	151	.13
14109	115	3.60	14174	111	....	14254	23	1.06	14324	171	....
14110	115	4.20	14175	111	....	14255	23	1.12	14325	151	.65
14111	115	3.80	14176	111	....	14256	23	1.16	14326	151	.65
14112	115	4.40	14177	111	....	14257	23	1.22	14327	151	.69
14113	115	3.60	14178	111	....	14258	23	1.30	14328	151	12.40
14114	115	3.96	14179	111	....	14259	23	1.38	14329	151	.69
14115	115	3.70	14180	54	.40	14260	23	1.44	14330	151	12.48
14116	115	4.06	14181	54	.60	14261	23	1.50	14331	33	3.24
14120	184	1.03	14182	54	.80	14263	184	....	14332	175	....
14121	184	.50	14183	54	.94	14264	184	....	14333	243	7.65
14122	184	.34	14185	54	1.22	14265	184	.59	14335	325	.96
14123	117	4.90	14186	54	1.90	14266	184	.26	14336	389	....
14124	117	6.00	14187	54	2.60	14267	184	.10	14337	171	....
14125	117	5.80	14188	54	2.36	14271	45	....	14338	171	6.50
14126	163	4.68	14189	54	3.12	14272	45	.28	14339	171	2.00
14127	163	7.60	14190	54	3.22	14273	45	....	14340	171	7.00
14128	163	10.48	14191	54	3.88	14274	45	....	14341	33	4.06
14129	163	8.28	14192	54	4.50	14275	325	....	14343	271	1.60
14130	117	5.40	14193	54	.34	14276	45	....	14344	271	1.60
14131	117	5.20	14194	54	.16	14277	45	....	14345	271	1.60
14132	117	5.80	14195	111	....	14278	45	....	14346	271	1.80
14133	117	5.60	14198	325	.05	14279	45	.10	14347	271	1.84
14134	117	8.10	14199	325	.56	14280	45	....	14348	271	.80
14135	117	7.90	14200	111	....	14281	45	....	14349	271	.84
14136	117	5.40	14201	111	....	14282	45	....	14350	271	3.12
14137	117	5.20	14221	387	1.90	14283	45	....	14351	271	1.88
14138	117	5.80	14222	387	28.80	14284	45	....	14352	271	.22
14139	117	5.60	14223	389	....	14287	175	....	14353	271	1.88
14140	117	8.10	14224	387	44.80	14289	175	2.40	14354	271	3.30
14141	117	7.90	14225	387	....	14290	175	10.48	14355	271	2.08
14142	117	5.20	14226	184	.07	14291	175	4.32	14356	271	2.08
14143	117	7.90	14227	184	.05	14292	175	2.40	14357	271	2.40

# INDEX TO ORDER NUMBERS

461

Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price	Order No.	Page	List Price
14358	271	2.50	14418	363	5.25	14484	335	1.40	14557	73	8.66
14359	271	.28	14419	363	5.28	14485	335	1.08	14558	73	5.84
14360	271	3.56	14420	363	5.30	14486	337	1.60	14559	73	11.36
14361	271	3.76	14421	363	7.68	14487	337	1.60	14560	73	10.10
14362	271	4.20	14422	363	7.70	14488	337	2.00	14561	73	7.10
14363	271	4.30	14423	363	7.72	14489	337	1.68	14562	73	12.98
14364	271	.34	14424	363	7.75	14490	337	1.60	14563	73	11.06
14365	365	3.52	14425	363	7.77	14491	337	1.60	14564	73	7.52
14366	365	3.76	14426	363	7.80	14492	381		14565	73	14.22
14367	365	5.16	14427	363	7.82	14494	339	1.36	14566	73	12.18
14368	355	2.84	14428	363	7.84	14495	339	1.44	14567	73	8.70
14369	321	19.20	14429	363	7.87	14496	339	1.44	14568	73	15.84
14370	321	20.20	14430	363	7.89	14497	339	1.56	14569	73	13.50
14371	327	....	14431	363	6.28	14498	339	1.56	14570	73	9.62
14372	327	34.00	14432	363	6.56	14499	341	1.56	14571	83	6.72
14373	327	....	14433	363	7.14	14500	77	3.04	14572	83	6.36
14374	355	5.40	14434	219	53.50	14501	341	1.52	14573	83	33.18
14375	355	2.90	14435	219	64.00	14502	341	1.56	14577	47	.33
14376	355	3.50	14436	219	87.50	14505	163	.05	14579	151	.21
14377	184	....	14437	219	98.00	14506	297	.14	14580	73	.21
14378	343	1.36	14438	219	122.20	14507	297	.16	14581	95	.21
14379	343	1.00	14439	219	44.00	14508	297	.18	14582	95	.28
14380	379	....	14440	219	56.80	14512	387	....	14583	383	....
14381	355	....	14441	219	83.00	14513	285	5.60	14584	383	....
14382	355	27.50	14442	219	93.40	14514	285	9.70	14585	383	....
14383	355	....	14443	219	119.50	14515	285	14.00	14586	383	....
14384	355	.36	14444	219	48.70	14525	291	.60	14587	383	2.00
14385	355	.36	14445	219	61.60	14526	73	17.00	14588	383	2.00
14386	345	....	14446	219	87.50	14527	73	22.60	14589	383	.30
14387	343	1.40	14447	219	98.20	14528	73	23.72	14590	383	.50
14388	343	1.40	14448	219	124.40	14529	73	29.34	14591	383	.24
14389	343	1.40	14449	219	121.00	14530	73	30.52	14592	383	.06
14390	355	26.60	14450	219	160.80	14531	73	35.44	14593	83	6.42
14391	355	.72	14451	219	204.00	14532	73	36.56	14594	83	1.36
14392	355	.40	14452	219	126.40	14533	73	40.82	14595	83	.67
14393	355	.36	14453	219	136.60	14534	73	41.94	14596	193	4.20
14394	355	3.12	14454	219	166.00	14535	73	47.30	14597	83	....
14395	355	.53	14455	219	176.40	14536	73	48.42	14600	193	8.80
14396	355	.06	14456	219	219.50	14537	73	53.40	14608	193	15.38
14397	355	.84	14457	219	135.60	14538	73	54.52	14609	291	.12
14398	355	3.12	14458	219	175.40	14539	73	59.68	14610	291	.17
14399	355	.96	14459	325	.32	14540	73	60.80	14611	291	....
14400	391	2.50	14460	343	1.00	14541	73	66.48	14612	291	.26
14403	363	2.56	14461	343	1.40	14542	73	67.60	14613	163	1.00
14404	363	2.59	14462	343	1.00	14543	291	2.40	14614	163	1.16
14405	363	2.61	14464	345	.64	14544	73	4.50	14615	147	5.52
14406	363	2.64	14465	345	.64	14545	73	3.92	14616	421	34.00
14407	363	2.66	14466	345	.64	14546	73	2.30	14617	169	7.40
14408	363	2.68	14467	345	.64	14547	73	6.00	14618	169	8.40
14409	363	5.04	14468	345	.64	14548	73	5.10	14619	347	.24
14410	363	5.06	14469	345	.64	14549	73	3.56	14620	347	....
14411	363	5.08	14470	345	.64	14550	73	7.46	14621	187	.48
14412	363	5.11	14471	345	.64	14551	73	6.76	14622	187	.16
14413	363	5.13	14472	345	1.36	14552	73	4.48	14623	187	.28
14414	363	5.16	14473	327	2.12	14553	73	8.82	14624	187	.48
14415	363	5.18	14480	335	1.08	14554	73	7.88	14625	187	.03
14416	363	5.20	14482	335	1.08	14555	73	5.28	14626	203	4.16
14417	363	5.23	14483	335	1.40	14556	73	10.04	14627	203	5.56

## INDEX TO ORDER NUMBERS

Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.	Order No.	Page.	List Price.
14628	203	6.84	14803	319	19.20	17829	33	.02	18916	405	1.20
14629	203	8.20	14804	319	20.00	17860	351	.....	19003	395	.....
14630	203	9.68	14805	311	1.00	17861	351	.....	19004	395	.....
14631	203	11.10	14806	311	.88	17864	351	.....	19005	381	.....
14632	203	12.50	14807	391	.....	17865	351	.....	19006	395	.....
14633	203	13.90	14808	391	1.16	17866	351	.....	19007	395	.....
14634	297	.32	14809	327	.88	17867	351	.....	19008	381	.....
14636	203	4.00	14810	327	.76	17868	351	.....	19009	381	.....
14637	203	4.80	14818	355	10.00	17869	351	.....	19010	395	.....
14438	203	5.60	14819	355	10.00	17870	351	.....	19011	381	.....
14639	203	6.40	14820	361	.....	17871	351	.....	19012	381	.....
14640	203	7.20	15275	111	.....	17925	341	1.36	19013	381	.....
14641	203	7.96	15276	111	.....	18061	399	.....	19014	381	.....
14642	239	36.60	15597	83	.19	18099	399	.....	19015	381	.....
14643	219	360.00	17356	66	.12	18127	399	.....	19016	395	.....
14644	219	415.00	17460	187	.16	18252	425	.....	19017	395	.....
14645	221	209.00	17461	187	.28	18253	425	.....	19018	395	.....
14646	221	291.00	17590	138	.064	18254	425	.....	19019	395	.....
14647	221	360.00	17591	138	.064	18255	425	.....	19020	381	.....
14648	221	415.00	17687	153	.02	18266	376	.....	19021	381	.....
14650	243	18.00	17729	153	.02	18267	376	.....	19025	379	.....
14651	243	9.00	17770	415	27.30	18280	405	.01	19026	379	.....
14652	243	17.00	17771	415	33.60	18322	151	.02	19029	415	5.20
14782	391	.....	17772	415	20.60	18340	341	1.56	19030	415	.....
14783	391	.....	17773	415	27.00	18443	399	.....	19031	415	.....
14784	391	.56	17774	415	21.20	18540	399	.....	19032	415	.....
14785	243	6.68	17775	415	14.48	18585	387	.....	19033	415	.....
14786	243	7.50	17776	415	22.50	18640	399	.....	19034	415	.40
14787	243	.....	17777	415	.....	18749	399	.....	19035	415	.....
14788	243	.....	17778	415	15.80	18885	415	.40	19036	415	.....
14789	271	1.88	17779	415	.....	18900	405	8.00	19037	415	.....
14790	271	3.30	17780	415	5.20	18901	405	1.12	19038	415	22.50
14794	297	1.40	17781	415	.....	18902	405	1.44	19039	415	15.80
14795	299	1.40	17782	415	.....	18903	405	.86	19409	399	.....
14796	271	1.68	17783	415	.....	18904	405	.20	19660	337	1.60
14797	271	1.86	17784	415	.....	18906	405	.24	19841	399	.....
14798	271	2.12	17785	415	.....	18911	405	.20	20498	391	29.00
14799	307	.88	17786	415	.....	18912	405	.20	20499	391	.74
14800	325	.72	17792	415	.....	18913	405	.16	20500	391	.28
14801	325	18.20	17793	415	3.00	18914	405	.24	20501	391	6.30
14802	281	2.70	17828	33	.05	18915	405	.12	.....	.....	.....



INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
01-B F	9595	02-A W	10360	02-E L	10410
01-B G	9612	02-A X	10361	02-E M	10411
01-B J	9596	02-A Y	10362	02-E N	10412
01-B K	9597	02-A Z	10363	02-E P	10413
01-B L	9598	02-B J	10369	02-E R	10414
01-B M	9599	02-B K	10370	02-E S	10415
01-B N	9600	02-B P	10373	02-E S	12941
01-B P	9605	02-B W	10377	02-E T	10416
01-B T	9608	02-D A	10381	02-E V	10417
01-B V	9611	02-D B	10382	02-E V	12853
01-B Z	9606	02-D D	10383	02-E W	10418
01-D A	9609	02-D E	10384	02-E X	10419
01-D D	9607	02-D G	10385	02-E Y	10420
01-D E	9610	02-D H	10386	02-E Z	10421
01-D F	9614	02-D J	10387	02-G A	10422
01-D G	9616	02-D J	12848	02-G B	10423
01-D H	9617	02-D M	10390	02-G B	12844
01-D J	9615	02-D N	10391	02-G D	10424
01-D T	9872	02-D P	10392	02-G E	10425
01-D W	9873	02-D R	10393	02-G F	10426
01-E D	9876	02-D S	10394	02-G G	10427
01-E F	9877	02-D T	10395	02-G G	12846
01-E J	9905	02-D V	10396	02-G H	10428
01-E P	9881	02-D W	10397	02-G H	12849
01-F F	9906	02-D X	10398	02-G J	10429
01-F H	9907	02-D Y	10399	02-G K	10430
01-F Y	9917	02-D Y	12845	02-G L	10431
01-L A	9619	02-D Z	10400	02-G M	10432
01-L B	9618	02-E A	10401	02-G N	10433
01-L E	10000	02-E B	10402	02-G P	10434
01-L G	10351	02-E D	10403	02-G R	10435
01-L H	10352	02-E D	12851	02-G R	12852
02-A M	10353	02-E E	10404	02-G V	10438
02-A N	10354	02-E G	10406	02-G W	10439
02-A P	10355	02-E H	10407	02-G X	10440
02-A S	10357	02-E H	12847	02-G Y	10441
02-A T	10358	02-E J	10408	03-A P	10444
02-A V	10359	02-E K	10409	03-A R	10445

INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

465

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
03-A Z	13602	06-B A	10576	13-G K	10674
03-B K	10458	06-B B	10577	13-G L	10675
03-B M	10459	06-B N	10578	13-G M	10676
03-B N	10460	06-B P	10579	13-G N	10677
03-B P	10461	06-B R	10580	13-G P	10678
04-A L	10481	06-B S	10581	13-G R	10679
04-A N	10483	11-A G	5631	13-G S	10680
04-A R	10484	11-A T	8520	13-G T	10681
04-A S	10485	11-B L	8527	13-G W	10683
04-A T	10486	11-B M	8528	13-G X	10684
04-B B	10494	12-A K	10599	13-G Y	10685
04-B J	10498	12-A L	10600	14-A D	10688
04-B M	10499	12-A M	10601	14-A J	10693
04-B P	10501	12-A N	10602	14-A K	10694
05-A D	10513	12-A X	10608	14-A Z	10700
05-A E	10514	12-A Y	10610	14-B A	10701
05-A G	10516	13-A T	8572	14-B B	10702
05-A J	10518	13-A W	8207	14-B D	10703
05-A V	10526	13-A X	8210	14-B E	10704
05-A Y	10529	13-A Y	8562	14-B F	10705
05-B G	10536	13-D T	10648	15-A M	10716
05-B P	10543	13-D V	10649	15-A P	10718
05-B R	10544	13-D Y	10650	16-A Y	8744
05-B S	10545	13-D Z	10651	16-B B	9746
05-B W	10548	13-E A	10652	16-B D	8741
05-B X	10549	13-E B	10653	16-B F	8747
06-A B	10556	13-E D	10654	16-B J	8742
06-A D	10557	13-E E	10655	C 17	712
06-A E	10558	13-E J	10659	C 17	873
06-A F	10559	13-E K	10660	17-A F	10760
06-A J	10562	13-E L	10661	17-A M	10766
06-A K	10563	13-E M	10662	17-A P	8748
06-A L	10564	13-E N	10663	17-B E	10775
06-A M	10565	13-E P	10664	17-B F	10776
06-A T	10570	13-E V	10667	17-B H	10778
06-A V	10571	13-E W	10668	17-B J	10779
06-A W	10572	13-E X	10669	17-B K	10780
06-A Z	10575	13-G J	10673	17-B L	10781

## INDEX TO PATTERN NUMBERS WITH CORRESPONDING ORDER NUMBERS

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
17-B T	10784	20-G R	8855	23-A M	10986
17-B V	10785	20-G S	8853	23-A W	10993
17-D G	10794	20-G T	8852	23-A X	10994
17-D H	10795	20-G V	8898	23-A Z	10995
17-D M	10799	20-G X	8847	24-A K	11005
17-D N	10800	20-G Y	8764	24-A L	11006
17-D P	10801	20-G Z	4475	24-A M	11007
17-DR	10802	20-HE	8765	25-A M	11028
17-D S	10803	20-H F	8766	25-A N	11029
17-D T	10804	20-H K	8801	25-A P	11030
17-D V	10805	20-H N	8102	25-A R	11031
17-D W	6433	20-H P	9557	25-A S	11032
17-D X	6434	20-H S	8979	25-A T	11033
18-A B	8272	20-H X	8799	25-A W	8324
19-G	14053	A-21	638	25-A Z	8328
19-A M	729	C-21	1663*	25-B A	8312
A-20	1230	22-A D	10949	25-B B	8313
20-A J	8849	22-A E	10950	25-B D	8329
20-C B	8921	22-A J	10954	25-B E	8335
20-DE	8838	22-A K	10955	26-A L	8346
20-D K	8837	22-A N	10958	27-A D	2929
20-D T	8770	22-A P	10959	27-A E	8698
20-D V	8771	22-A T	10962	27-A F	2695
20-D W	8772	22-A V	10963	27-A G	2928
20-D X	8773	22-A Y	10966	27-A P	8719
20-D Y	8774	22-B A	10968	27-A Y	4519
20-D Z	8775	22-B B	10969	27-B F	8712
20-E A	8776	22-B D	10970	27-B G	8707
20-E B	8777	22-B E	10971	27-B H	8706
20-E E	8795	22-B G	10972	27-B K	8711
20-E J	8794	22-B H	10973	27-B L	8710
20-F D	8793	22-B J	10974	27-B M	8705
20-F H	8836	22-B K	10975	27-B N	8704
20-F K	8848	23-A B	10977	27-B R	8697
20-G K	8851	23-A D	10978	27-B V	4549
20-G L	8854	23-A H	10982	27-B X	6513
20-G M	8856	23-A K	10984	27-D A	8708
20-G P	8857	23-A L	10985	27-D B	4515

INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

467

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
27-D L	8701	36-A X	11221	36-G B	11287
27-D M	8700	36-A Y	11222	36-G D	11288
27-D N	8713	36-A Z	11233	36-G E	11289
27-D P	8716	36-B A	11224	36-G F	11290
27-D S	8718	36-B J	11231	37-A L	11302
27-D T	8717	36-B K	11232	37-A R	9684
27-E Y	5863	36-B L	11233	37-A S	9685
27-E Z	5861	36-B M	11234	37-A Z	11311
35-B	10325	36-B N	11235	37-B D	10334
35-C	10324	36-B P	11236	37-B E	9042
35-A S	11152	36-B W	11241	38-A	13491
35-A T	11153	36-B X	11242	38-B	13493
35-A V	11154	36-B Y	11243	38-B B	9768
35-A W	11155	36-B Z	11244	38-B E	9640
35-A X	11156	36-D F	11249	38-B F	9660
35-A Z	11158	36-D G	11250	38-B G	9683
35-B A	11159	36-D H	11251	38-B H	9682
35-B B	11160	36-D S	11259	38-B K	9671
35-B D	11161	36-D T	11260	38-B L	9676
35-B R	11172	36-D V	11261	38-B M	9677
35-B S	11173	36-D W	11262	38-B X	9764
35-B T	11174	36-D X	11263	38-D H	11349
35-B V	11175	36-D Y	11264	38-D J	11350
35-D A	11180	36-D Z	11265	38-D K	11351
35-D B	11181	36-E H	11271	38-E L	11372
35-D D	11182	36-E J	11272	38-E M	11373
35-D E	11183	36-E M	11275	38-E V	11380
35-D G	11185	36-E N	11276	38-E W	11382
35-D V	11196	36-E P	11277	38-E X	11384
35-D X	11198	36-E R	11278	38-E Y	11386
35-E B	11201	36-E S	11279	38-E Z	11388
36-A B	11204	36-E T	11280	38-F A	11390
36-A Π	11209	36-E V	11281	38-F B	9901
36-A J	11210	36-E W	11282	38-F D	11392
36-A K	11211	36-E X	11283	38-F E	9903
36-A L	11212	36-E Y	11284	38-F F	11394
36-A V	11219	36-E Z	11285	38-G E	9277
36-A W	11220	36-G A	11286	38-G J	9281



INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
38-G N	11399	38-P K	11488	41-A J	11689
38-G R	11401	38-P P	9732	41-A P	11694
38-H M	9791	38-P R	5090	41-A S	11696
38-H R	9770	38-P Z	9679	41-A V	11698
38-H V	9728	38-R A	10330	41-B D	11704
38-H X	4621	38-R J	9724	41-B E	11705
38-H Y	9673	38-R P	8611	41-B H	11708
38-H Z	937	38-R Y	9678	41-B J	11709
38-J H	9470	38-R Z	10328	41-B K	11710
38-J J	11422	38-S G	9636	41-B M	11712
38-J L	939	40-A E	11552	41-B T	11717
38-J M	10323	40-A P	11561	41-B V	11718
38-J W	9767	40-D X	11606	41-B W	11719
38-J X	9672	40-D Y	11607	41-B X	11720
38-J Y	10322	40-E A	7293	41-B Z	11722
38-K J	9639	40-E B	11614	41-D A	11723
38-K K	11435	40-E D	11615	41-D B	11724
38-K L	10335	40-E G	11617	41-D D	11725
38-K M	11436	40-E H	11618	41-D E	11726
38-K S	9635	40-G T	9759	41-D F	11727
38-L H	9734	40-G V	9391	41-D G	11728
38-L T	9638	40-G Z	9386	41-D H	11729
38-L X	9781	40-H A	9388	41-D J	11730
38-L Y	9730	40-H J	9387	41-D K	11731
38-L Z	9787	40-H K	9763	41-D L	11732
38-M D	9674	40-H L	11649	41-D M	11733
38-M H	9061	40-H M	11650	41-D N	11734
38-M P	4653	40-H N	11651	41-D P	11735
38-M R	4654	40-H P	11652	41-D S	11737
38-M Z	4650	40-H R	11653	41-D T	11738
38-N E	9637	40-H V	11656	41-D X	11741
38-N L	4651	40-H W	11657	41-D Y	11742
38-N N	10311	40-J P	11671	41-E L	11750
38-N V	9786	40-J R	11672	41-E M	11751
38-N Z	9680	40-J S	11673	41-E N	11752
38-P A	10333	41-A B	11683	41-E P	11753
38-P G	11485	41-A E	11685	41-E R	11754
38-P J	11487	41-A G	11687	41-E T	11756

INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

469

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
41-E V	11757	42-B Z	11824	50-A H	11890
41-E W	11758	42-D A	11825	50-A J	11891
41-E Z	11761	42-D B	11826	50-A K	11892
41-F A	11762	42-D D	11827	50-A L	11893
41-F B	11763	42-D E	11828	50-A M	11894
41-F D	11764	42-D G	11829	50-A N	11895
41-F E	11765	42-D H	11830	50-A S	11898
41-F G	11766	42-D J	11831	50-A T	11899
41-F H	11767	42-D K	11832	50-A V	11900
41-F J	11768	42-D L	11833	50-A W	11901
41-F K	11769	42-D M	11834	50-A X	11902
41-F M	11771	42-D P	11836	50-B B	11906
41-F N	11772	42-D R	11837	50-B H	11911
41-F P	11773	42-D S	11838	50-B J	11912
41-F T	11776	42-D T	11839	50-B K	11913
41-F V	11777	42-D V	11840	50-B L	11914
41-G A	11782	42-D W	11841	50-B M	11915
41-G D	9864	42-D X	11842	50-B N	11916
42-A B	11787	42-D Y	11843	50-B P	11917
42-A D	11788	42-E A	11845	50-B R	11918
42-A E	11789	42-E B	11846	50-B V	11921
42-A P	11797	42-E D	11847	50-B W	11922
42-A R	11798	43-A B	11852	50-B X	11923
42-A V	11801	43-A D	11853	50-B Z	11925
42-A Y	11804	43-A F	11855	50-D D	11928
42-B D	11807	43-A G	11856	50-D E	11929
42-B E	11808	43-A K	11859	50-D G	11930
42-B F	11809	43-A M	11861	50-D J	11931
42-B G	11810	43-A N	11862	51-A D	11942
42-B H	11811	43-A P	11863	51-A E	11943
42-B J	11812	43-A R	11864	51-A F	11944
42-B N	11816	43-A W	11868	52-A K	11958
42-B P	11817	43-A X	11869	52-A L	11959
42-B R	11818	44-A B	11873	52-A V	11966
42-B T	11820	44-A J	11879	53-A D	11976
42-B W	11821	50-A E	11887	53-A E	11977
42-B X	11822	50-A F	11888	53-A F	11978
42-B Y	11823	50-A G	11889	53-A G	11979

INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
53-A J	11981	121-D S	19007	653	1819
53-A K	11982	121-D V	19006	667	1944
53-A L	11983	121-DW	19011	781	2852
53-A R	12142	121-D X	19014	782	2853
53-A S	9909	121-E D	13120	782	5958
53-A X	9895	121-E E	13119	792	2860
53-A Y	11984	121-E G	13123	793	2872
53-B B	11987	121-E H	13124	802	2371
53-B D	11988	121-E J	13121	803	2372
53-B E	11989	121-E K	13122	844	2667
53-B F	11990	121-E L	13125	852	2732
53-B H	11992	121-E M	13133	1002	3557
53-B J	11993	C-123	1616	1045	4007
53-B K	11994	150-J F	13110	1046	4008
53-B L	11995	150-J F	13127	1047	4009
53-B R	11999	152-A	14583	1058	4101
55.51	9523	152-B	14584	1064	4129
55.52	9524	152-D	14585	1065	4130
55.54	9525	152-E	14588	1069	4134
57-E X	12081	152-F	14587	1071	4137
57-E Z	12083	152-A B	13086	1074	4145
57-F A	12084	152-A G	13085	1075	4147
57-F B	12085	167-G	9465	1076	4148
57-F L	12091	167-J	9450	1078	4152
A-107	639	374	729	1113	2811
121-M	12703	386	4668	1114	2812
121-A U	12606	406	861	1119	4234
121-A U	12607	417	1790	1120	4237
121-A U	12608	418	2976	1132	4425
121-A W	8637	419	642	1133	4324
121-B H	12604	428	2658	1134	4325
121-B J	12605	467	1011	1135	4327
121-B L	12627	468	1012	1136	4333
121-B M	12614	494	4549	1144	4354
121-D M	19004	523	1398	1177	4475
121-D N	19008	523	1399	1178	4476
121-D P	19009	632	937	1186	4509
121-D R	19010	633	939	1188	4498

INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

471

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
1188.....	10313	1751.....	6513	2250.....	9516
1189.....	4515	1795.....	6687	2251.....	10062
1190.....	4519	1880.....	6902	2256.....	8513
1192.....	4520	1881.....	6901	2257.....	8631
1194.....	2974	1936.....	7306	2258.....	9502
1195.....	2975	1970.....	6919	2259.....	8637
1196.....	2928	1976.....	7293	2264.....	9526
1197.....	2695	1979.....	12348	2268.....	10064
1217.....	4582	1989.....	7334	2276.....	8931
1229.....	4621	2037.....	7495	2276.....	8933
1232.....	4650	2063.....	7434	2277.....	8932
1233.....	4651	2061.....	7437	2278.....	8943
1234.....	4653	2062.....	7433	2280.....	8871
1235.....	4654	2063.....	7434	2281.....	8872
1236.....	5544	2064.....	7436	2285.....	8876
1251.....	4737	2081.....	7864	2287.....	8878
1255.....	4748	2082.....	7865	2288.....	8879
1283.....	5071	2127.....	9681	2304.....	9042
1285.....	5062	2131.....	11311	2305.....	9151
1311.....	5090	2167.....	11610	2306.....	9152
1330.....	2796	2210.....	8121	2307.....	9153
1461.....	5630	2211.....	8122	2308.....	9171
1462.....	5631	2212.....	8123	2309.....	9172
1470.....	5646	2212.....	8479	2310.....	9173
1470.....	8486	2213.....	8124	2323.....	9386
1471.....	5647	2215.....	8131	2324.....	9387
1472.....	5648	2216.....	8132	2325.....	9388
1473.....	5649	2219.....	8102	2327.....	9391
1548.....	5976	2229.....	8481	2336.....	5863
1549.....	6017	2230.....	8466	2340.....	9652
1570.....	5861	2231.....	8482	2341.....	9653
1571.....	5862	2235.....	8314	2342.....	9654
1576.....	6046	2238.....	9513	2344.....	9688
1687.....	6993	2238.....	9514	2345.....	9690
1691.....	6433	2238.....	9515	2347.....	10047
1692.....	6434	2238.....	18243	2353.....	9523
1749.....	6507	2244.....	8611	2354.....	9524
1750.....	6508	2246.....	8513	2355.....	9525

INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
2377.....	10122	12168-X.....	12168	13382-X.....	13382
2378.....	10126	12169-X.....	12169	13384-X.....	13384
2392.....	9466	12170-X.....	12170	13385-X.....	13385
2406.....	9534	12171-X.....	12171	13422-X.....	13422
2437.....	8465	12172-X.....	12172	13423-X.....	13423
2438.....	8485	12177-X.....	12177	13424-X.....	13424
2439.....	8534	12178-X.....	12178	13427-X.....	13427
2444.....	12401	12179-X.....	12179	13459-X.....	13459
2446.....	8978	12180-X.....	12180	13460-X.....	13460
2447.....	12388	12185-X.....	12185	13499-X.....	13499
2456.....	8954	12186-X.....	12186	13503-X.....	13503
2457.....	8989	12187-X.....	12187	13521-X.....	13521
2458.....	8798	12188-X.....	12188	13605-X.....	13605
2459.....	8799	12194-X.....	12194	13639-X.....	13639
2460.....	8897	12195-X.....	12195	13640-X.....	13640
2461.....	8899	12196-X.....	12196	13675-X.....	13675
2462.....	8900	12197-X.....	12197	13676-X.....	13676
2463.....	8921	12198-X.....	12198	13752-X.....	13752
2464.....	8979	12199-X.....	12199	13753-X.....	13753
2465.....	8981	12489-X.....	12489	13754-X.....	13754
2466.....	8982	12831-X.....	12831	13755-X.....	13755
2473.....	9726	12832-X.....	12832	13756-X.....	13756
2488.....	8288	12833-X.....	12833	13757-X.....	13757
2489.....	9026	12840-X.....	12840	13960-X.....	13960
2502.....	14625	12840-X.....	12850	13961-X.....	13961
2611.....	9154	13087-X.....	13087	13962-X.....	13962
2612.....	9155	13091-X.....	13091	13963-X.....	13963
2615.....	17460	13354-X.....	13354	13964-X.....	13964
2671.....	17777	13355-X.....	13355	13976-X.....	13976
2673.....	17779	13360-X.....	13360	13982-X.....	13982
2674.....	17780	13361-X.....	13361	13984-X.....	13984
2675.....	17792	13373-X.....	13373	13987-X.....	13987
8709-X.....	8709	13376-X.....	13376	13989-X.....	13989
9675-X.....	9675	13377-X.....	13377	14062-X.....	14062
10047-X.....	10047	13378-X.....	13378	14063-X.....	14063
12156-X.....	12156	13379-X.....	13379	14064-X.....	14064
12166-X.....	12166	13380-X.....	13380	14157-X.....	14157
12167-X.....	12167	13381-X.....	13381	14158-X.....	14158

INDEX TO PATTERN NUMBERS  
WITH CORRESPONDING ORDER NUMBERS

Pattern No.	Order No.	Pattern No.	Order No.	Pattern No.	Order No.
14192-X	14192	14547-X	14547	14595-X	14595
14194-X	14194	14548-X	14548	14636-X	14636
14239-X	14239	14549-X	14549	14637-X	14637
14271-X	14271	14550-X	14550	14638-X	14638
14273-X	14273	14551-X	14551	14639-X	14639
14283-X	14283	14552-X	14552	14640-X	14640
14291-X	14291	14553-X	14553	14641-X	14641
14292-X	14292	14554-X	14554	14650-X	14650
14293-X	14293	14555-X	14555	14651-X	14651
14295-X	14295	14556-X	14556	14652-X	14652
14297-X	14297	14557-X	14557	14653-X	14653
14298-X	14298	14558-X	14558	14654-X	14654
14348-X	14348	14559-X	14559	14782-X	14782
14349-X	14349	14560-X	14560	14783-X	14783
14351-X	14351	14561-X	14561	14789-X	14789
14353-X	14353	14562-X	14562	14820-X	14820
14355-X	14355	14563-X	14563	18901-X	18901
14356-X	14356	14564-X	14564	18902-X	18902
14357-X	14357	14565-X	14565	18903-X	18903
14358-X	14358	14566-X	14566	18904-X	18904
14386-X	14386	14567-X	14567	19005-X	19005
14464-X	14464	14568-X	14568	19028-X	19028
14525-X	14525	14569-X	14569	19029-X	19029
14544-X	14544	14570-X	14570	19031-X	19031
14545-X	14545	14571-X	14571	20499-X	20499
14546-X	14546	14572-X	14572		

Preface.....	Page	9		
How to Order.....	"	11		
<b>Interlocking Machine, Style "A"</b>				
Elevation of Locking.....	Pages	12 to	13	Inclusive
Elevations of Machine.....	"	14	" 15	"
Large Detail Parts.....	"	16	" 17	"
Locking Plates, Tappets, Etc.....	"	18	" 19	"
Lever, Rocker, Etc.....	"	20	" 21	"
Tail Levers.....	"	22	" 25	"
Locking Dogs.....	"	26	" 29	"
<b>Interlocking Machine, (Saxby and Farmer)</b>				
Elevations of Machine.....	"	30	" 31	"
Large Detail Parts.....	"	32	" 33	"
Levers, Rocker, Quadrant, Etc.....	"	34	" 35	"
Tail Levers and Counterweights.....	"	36	" 37	"
Locking Brackets and Bearings.....	"	38	" 39	"
Locking Shafts.....	"	40	" 42	"
Cranks and Drivers.....	"	44	" 45	"
Locking Dogs.....	"	46	" 47	"
Machine for Horizontal Leadout.....	"	48	" 49	"
<b>Interlocking Machine, Style "C"</b>				
Elevations of Machine.....	"	50	" 50	"
Detail Parts.....	"	52	" 54	"
<b>Interlocking Machine, Style "D"</b>				
Elevations of Machine.....	"	56	" 29	"
Detail Parts.....	"	60	" 63	"
<b>Leadout Connections</b>				
Rocker Shaft Material.....	"	64	" 66	"
Vertical Cranks.....	"	68	" 69	"
Box Cranks.....	"	70	" 75	"
<b>Ground Connections</b>				
Horizontal Cranks.....	"	76	" 79	"
Deflection Bars.....	"	80	" 83	"
Horizontal "T" Cranks.....	"	84	" 85	"
Horizontal Cross Bars.....	"	86	" 87	"
Water-tight Box Crank.....	"	88	" 89	"
Pipe Compensators.....	"	90	" 95	"
Pipe Carriers.....	"	96	" 99	"
Jaws, Rods, Lugs, Etc.....	"	100	" 103	"
<b>Switch Connections</b>				
Front Rods.....	"	104	" 111	"
Lock Rods.....	"	112	" 119	"
Throw Rods.....	"	120	" 121	"
Switch Point Lugs.....	"	122	" 126	"
Tie Plates and Rail Braces.....	"	128	" 131	"
Facing Point Locks.....	"	132	" 133	"
Detector Bars.....	"	134	" 135	"
Rail Clips.....	"	136	" 139	"
Stops and Driving Plates.....	"	140	" 142	"

**Switch and Lock Movements**

Switch and Lock Movement, Style "A" . . . . .	Pages 144 to 145 Inclusive
"    "    "    "    Style "B" . . . . .	"    146    "    147    "
"    "    "    "    Style "E" . . . . .	"    148    "    149    "
"    "    "    "    No. 5 and 10 . . . . .	"    150    "    151    "
"    "    "    "    No. 6 and 7 . . . . .	"    152    "    153    "
"    "    "    "    No. 8 and 9 . . . . .	"    154    "    155    "
"    "    "    "    No. 13 . . . . .	"    156    "    157    "

A-B Derail and Scotch Block . . . . .	"    158    "    160    "
---------------------------------------	---------------------------

<b>Bolt Locks</b> . . . . .	"    162    "    171    "
-----------------------------	---------------------------

<b>Bridge Locks and Couplers</b> . . . . .	"    172    "    181    "
--	---------------------------

**Wire Connections**

Wire, Wire Eyes, Shackles, Etc. . . . .	"    182    "    184    "
Wire Carriers . . . . .	"    186    "    187    "

**Chain Wheel Connections**

Vertical Wheels . . . . .	"    188    "    193    "
Anti-Friction Wheels . . . . .	"    194    "    195    "
Horizontal Wheels, Style "A" . . . . .	"    196    "    197    "
Horizontal Wheels, Style "B" . . . . .	"    198    "    199    "
Multiple Horizontal Wheels . . . . .	"    200    "    201    "
Horizontal Tandem Wheels . . . . .	"    202    "    203    "
Horizontal Box Wheels . . . . .	"    204    "    209    "
Signal Wheels . . . . .	"    210    "    211    "

**High Signals**

Directions for Ordering . . . . .	Page 217
Diagrams of Various Signals, Wire Connected . . . . .	Pages 218 to 219 Inclusive.
Diagrams of Various Signals, Pipe Connected . . . . .	"    220    "    221    "
Diagrams of Various Styles of Signals . . . . .	"    222    "    230    "
Off-set Brackets . . . . .	"    232    "    233    "
Distant Switch Signal . . . . .	"    234    "    237    "
Distant Signal, Wire Compensators . . . . .	"    238    "    241    "
Detail Parts for Iron Poles . . . . .	"    242    "    243    "
Ladders and Fittings . . . . .	"    244    "    247    "
Front Spectacles . . . . .	"    248    "    255    "
Block Station Spectacles . . . . .	"    256    "    257    "
Back Spectacles and Shafts . . . . .	"    258    "    261    "
Semaphore Bearings . . . . .	"    262    "    263    "
Lamp Brackets and Blades . . . . .	"    264    "    265    "
Operating Rods and Guides . . . . .	"    266    "    269    "
Clamps and Bearings . . . . .	"    270    "    271    "
Counterweights . . . . .	"    272    "    273    "
Counterweight Levers and Stands . . . . .	"    274    "    287    "
Signal Movements . . . . .	"    288    "    289    "
Cranks and Pin Plates . . . . .	"    290    "    291    "
Signal Slots . . . . .	"    292    "    295    "
Selectors . . . . .	"    296    "    299    "

**Block Station Signal Levers**

Table Levers and Fittings . . . . .	"    300    "    303    "
-------------------------------------	---------------------------



<b>Dwarf Signals</b>			
Various Styles of Dwarf Signals.....	Pages	306 to 327	Inclusive.
Pot Signals .....	“	328 “	333 “
Front Spectacles .....	“	334 “	341 “
Back Spectacles.....	“	342 “	345 “
Blades and Shafts.....	“	346 “	347 “
Glass.....	“	348 “	349 “
Lamps.....	“	350 “	351 “
<b>Throw-Over Levers.....</b>	“	352 “	355 “
<b>Foundations.....</b>	“	356 “	367 “
<b>Towers.....</b>	“	368 “	369 “
<b>Electrical Appliances</b>			
Electric Lock for Style “A” Machine.....	“	372 “	376 “
Hand Release for Style “A” Machine.....	“	378 “	379 “
Electric Lock Style “D-2”.....	“	380 “	381 “
Lever Contact Box.....	“	382 “	383 “
Electric Lock for Saxby and Farmer Machine..	“	384 “	387 “
Hand Release for Saxby and Farmer Machine..	“	388 “	389 “
Circuit Controller.....	“	390 “	391 “
Electric Lock Style “D”.....	“	392 “	395 “
Power Operated Distant Signals.....	“	396 “	399 “
Spindle Slots.....	“	400 “	401 “
Signal Commutator.....	“	402 “	403 “
Floor Circuit Controller.....	“	404 “	405 “
Switch Boxes and Selectors.....	“	406 “	409 “
Bridge Circuit Closer.....	“	410 “	411 “
Relays.....	“	412 “	413 “
Relay Boxes.....	“	414 “	419 “
Indicators.....	“	420 “	423 “
Release Keys, Push Buttons, Etc.....	“	424 “	427 “
Indicator and Release Key Cases.....	“	428 “	429 “
Battery Chutes.....	“	430 “	431 “
Splice Bars, Channel Pins and Bond Wires.....	“	432 “	433 “
<b>Trunking and Stakes.....</b>	“	434 “	435 “
<b>List of Bolts, Screws, Cotter Pins, Rivets, Etc... </b>	“	438 “	443 “
<b>Index to Order Numbers.....</b>	“	444 “	463 “
<b>Index to Pattern Numbers.....</b>	“	464 “	477 “
<b>Table of Contents.....</b>	“	478 “	480 “

