

The
Union Switch & Signal Co.
Swissvale, Pa.



Catalogue of
Pennsylvania Railroad
Standard Appliances

John Curry

A CATALOGUE AND PRICE LIST

OF

Interlocking and Signaling Devices

MADE BY

**THE
UNION SWITCH & SIGNAL CO.**

OF PITTSBURGH, PA.

**Owners of the Westinghouse System of Electro-
Pneumatic Block Signaling and Interlocking.**

**Also Designers, Manufacturers and Erectors of Pneumatic,
Electro-Pneumatic, Electric, Electro-Mechanical
and Purely Mechanical Appliances
for Railway Protection.**

**Automatic, Semi-Automatic and Manually Operated
Block Signals,**

**Electro-Pneumatic, Electric and Mechanical Interlockings
to suit conditions.**

Plans and Estimates on Application.

**General Offices and Works
SWISSVALE, PA.**

**New York
Central Bldg.**

**Chicago
Monadnock Bldg**

**St. Louis
Frisco Bldg.**

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PLATE 01801

DIAGRAMS OF GROUND AND BRIDGE SIGNALS

CATALOGUE OF PENNSYLVANIA RAILROAD STANDARD APPLIANCES

PREFACE

THIS Catalogue contains such signaling apparatus as has been adopted for standard by the Pennsylvania Railroad, and which so far has not been included in our other publications.

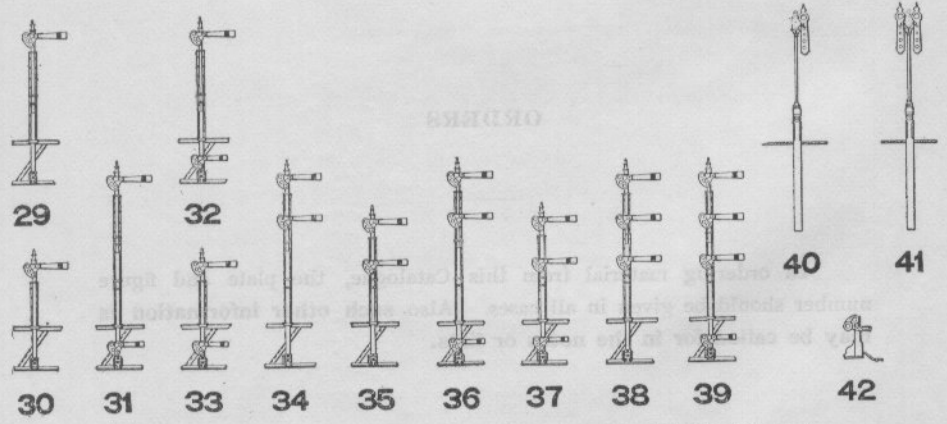
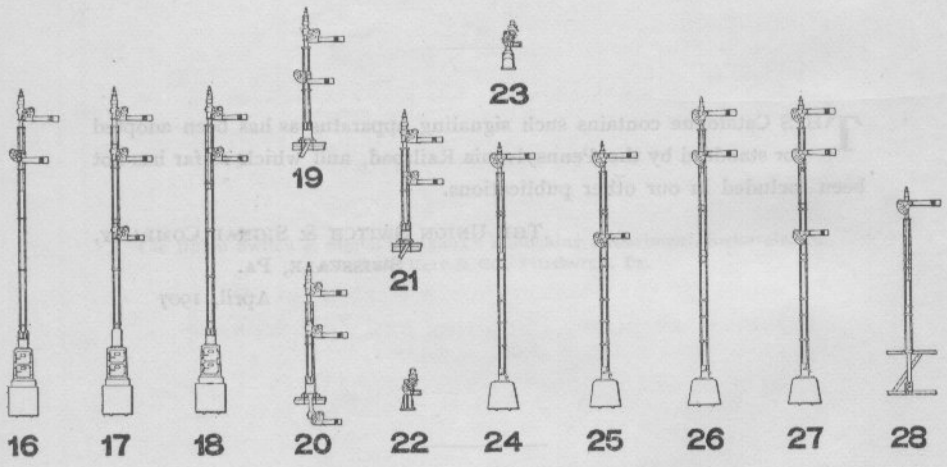
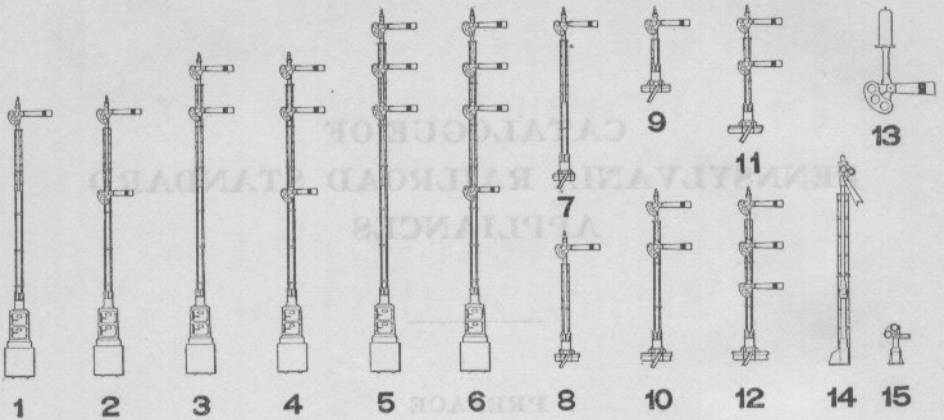
THE UNION SWITCH & SIGNAL COMPANY,
SWISSVALE, PA.

April, 1907

ORDERS

In ordering material from this Catalogue, the plate and figure number should be given in all cases. Also **such other information as may be called for in the notes or lists.**

DIAGRAMS OF GROUND AND BRIDGE SIGNALS



DIAGRAMS OF GROUND AND BRIDGE SIGNALS

DIAGRAMS OF GROUND AND BRIDGE SIGNALS

The signals listed below include blades, glass, front spectacles, back spectacles or counterweights, ladders and ladder foundations, anchor bolts and all other fittings shown on the following plates.

They do not include lamps, circuit controllers (except in Figs. 14, 15, 22 and 23, where a circuit controller forms a part of the mechanism), pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the following plates must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
1	One-Arm, 75 deg., Two-Position Electro-Pneumatic Home Ground Signal with pedestal. See Plate 01517.....	24-E-2615	422 00
1a	as above, without pedestal. See Plate 01505	2-E-2615	251 00
2	One-Arm and Low Speed, 75 deg., Two-Position Electro-Pneumatic Home Ground Signal. See Plate 01519.....	27-E-2615	556 00
2a	as above, without pedestal. See Plate 01507	6-E-2615	376 00
3	Two-Arm, 75 deg., Two-Position Electro-Pneumatic Home Ground Signal with pedestal. See Plate 01521.....	29-E-2615	572 00
3a	as above, without pedestal. See Plate 01509	8-E-2615	392 00
4	Two-Arm and Low Speed, 75 deg., Two-Position Electro-Pneumatic Home Ground Signal with pedestal. See Plate 01523.....	33-E-2615	744 00
4a	as above, without pedestal. See Plate 01511	12-E-2615	570 00
5	Three-Arm, 75 deg., Two-Position Electro-Pneumatic Home Ground Signal with pedestal. See Plate 01525.....	36-E-2615	750 00
5a	as above, without pedestal. See Plate 01513	16-E-2615	592 00
6	Three-Arm and Low Speed, 75 deg., Two-Position Electro-Pneumatic Home Ground Signal with pedestal. See Plate 01527.....	41-E-2615	893 00

DIAGRAMS OF GROUND AND BRIDGE SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
6a	Three-Arm and Low Speed, 75 deg., Two-Position Electro-Pneumatic Home Ground Signal, without pedestal. See Plate 01515.....	21-E-2615	730 00
7	One-Arm, 75 deg., Two-Position Electro-Pneumatic Home Bridge Signal, twenty feet from top of platform to center line of blade. See Plate 01529	1-C-5946	199 00
8	as above, fourteen feet from top of platform to center line of blade. See Plate 01529.....	4-C-5946	186 00
9	as above, eight feet from top of platform to center line of blade. See Plate 01529.....	7-C-5946	173 00
10	Two-Arm, 75 deg., Two-Position Electro-Pneumatic Home Bridge Signal, fourteen feet from top of platform to center line of bottom blade. See Plate 01531.....	10-C-5946	309 00
11	as above, eight feet from top of platform to center line of bottom blade. See Plate 01531	14-C-5946	296 00
12	Three-Arm, 75 deg., Two-Position Electro-Pneumatic Home Bridge Signal. See Plate 01533.....	18-C-5946	462 00
13	One-Arm, Low Speed, 75 deg., Two-Position Suspended Home Signal. See Plate 01545.....	1-D-982	120 00
14	One-Arm, 60 deg., Electro-Pneumatic Flag Station Signal, twelve feet from base to center line of blade. See Plate 01547.....	2-C-6675	116 00
15	One-Arm, 60 deg., Electro-Pneumatic Dwarf Signal. See Plate 01549.....	1-C-6885	82 00
16	90 deg., Automatic Ground Signal with pedestal, giving indications in the upper quadrant, top arm three-position, bottom arm fixed. See Plate 01571	1-B-9795	580 00
16a	90 deg., Interlocking Approach Ground Signal with pedestal, giving indications in the upper quadrant, top arm three-position, bottom arm two-position. See Plate 01571.....	3a-B-9795	714 00

DIAGRAMS OF GROUND AND BRIDGE SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
17	90 deg., Interlocking Ground Signal with pedestal, giving indications in the upper quadrant, all blades three-position. See Plate 01573.....		
18	90 deg., Telegraph or Controlled Manual Block Ground Signal with pedestal, giving indications in the upper quadrant, top blade three-position, bottom blade fixed. See Plate 01573.....	13-B-9795	580 00
18a	90 deg., Train Order Ground Signal with pedestal, giving indications in the upper quadrant, top blade two-position, bottom blade fixed. See Plate 01573	7a-B-9795	550 00
19	90 deg., Automatic Bridge Signal, giving indications in the upper quadrant, top arm three-position, bottom arm fixed. See Plate 01577..	5-B-9795	306 00
19a	90 deg., Interlocking Approach Bridge Signal, giving indications in the upper quadrant, top arm three-position, bottom arm two-position. See Plate 01577.....	5a-B-9795	440 00
20	90 deg., Interlocking Bridge Signal, giving indications in the upper quadrant, all blades three-position. See Plate 01577.....		
21	90 deg., Telegraph or Controlled Manual Block Bridge Signal, giving indications in the upper quadrant, top blade three-position, bottom blade fixed. See Plate 01577.....	12-B-9795	306 00
21a	90 deg., Train Order Bridge Signal, giving indications in the upper quadrant, top blade two-position, bottom blade fixed. See Plate 01577.....	12a-B-9795	276 00
22	One-Arm, 45 deg., Two-Position Electro-Pneumatic Dwarf Signal, giving indication in the upper quadrant. See Plate 01579.....	1-C-6903	82 00
23	One-Arm, 90 deg., Three-Position Electro-Pneumatic Dwarf Signal, giving indications in the upper quadrant. See Plate 01581.....	1-D-1205	150 00

DIAGRAMS OF GROUND AND BRIDGE SIGNALS

Order by Plate and Figure

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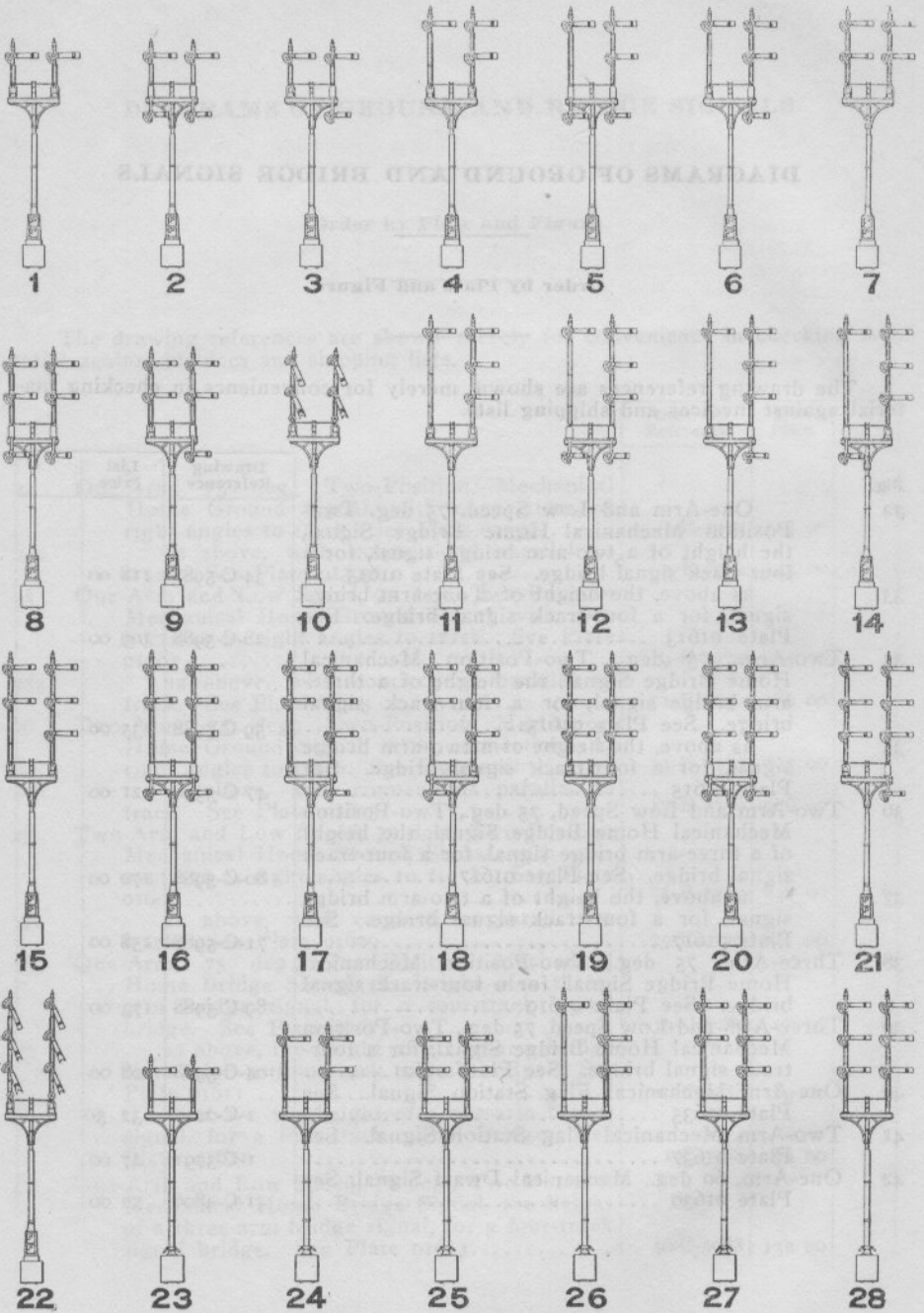
Fig.	Description	Drawing Reference	List Price
24	One-Arm, 75 deg., Two-Position Mechanical Home Ground Signal, with connections at right angles to track. See Plate 01599.....	1-E-2270	144 00
24a	as above, with connections parallel to track. See Plate 01599.....	3-E-2270	145 00
25	One-Arm and Low Speed, 75 deg., Two-Position Mechanical Home Ground Signal, with connections at right angles to track. See Plate 01603	9-E-2270	185 00
25a	as above, with connections parallel to track. See Plate 01603	11-E-2270	186 00
26	Two-Arm, 75 deg., Two-Position Mechanical Home Ground Signal, with connections at right angles to track. See Plate 01605.....	13-E-2270	205 00
26a	as above, with connections parallel to track. See Plate 01605.....	17-E-2270	206 00
27	Two-Arm and Low Speed, 75 deg., Two-Position Mechanical Home Ground Signal, with connections at right angles to track. See Plate 01609	22-E-2270	246 00
27a	as above, with connections parallel to track. See Plate 01609.....	25-E-2270	247 00
28	One-Arm, 75 deg., Two-Position Mechanical Home Bridge Signal, the height of a three-arm bridge signal, for a four-track signal bridge. See Plate 01611.....	19-C-5988	97 00
29	as above, the height of a two-arm bridge signal for a four-track signal bridge. See Plate 01611	10-C-5988	83 00
30	as above, the height of a one-arm bridge signal, for a four-track signal bridge. See Plate 01611	1-C-5988	74 00
31	One-Arm and Low Speed, 75 deg., Two-Position Mechanical Home Bridge Signal, the height of a three-arm bridge signal, for a four-track signal bridge. See Plate 01613.....	40-C-5988	132 00

DIAGRAMS OF GROUND AND BRIDGE SIGNALS

Order by Plate and Figure

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Fig.		Drawing Reference	List Price
32	One-Arm and Low Speed, 75 deg., Two-Position Mechanical Home Bridge Signal, the height of a two-arm bridge signal, for a four-track signal bridge. See Plate 01613,...	34-C-5988	118 00
33	as above, the height of a one-arm bridge signal, for a four-track signal bridge. See Plate 01613	28-C-5988	109 00
34	Two-Arm, 75 deg., Two-Position Mechanical Home Bridge Signal, the height of a three-arm bridge signal, for a four-track signal bridge. See Plate 01615.....	59-C-5988	135 00
35	as above, the height of a two-arm bridge signal, for a four-track signal bridge. See Plate 01615	47-C-5988	121 00
36	Two-Arm and Low Speed, 75 deg., Two-Position Mechanical Home Bridge Signal, the height of a three-arm bridge signal, for a four-track signal bridge. See Plate 01617.....	80-C-5988	170 00
37	as above, the height of a two-arm bridge signal, for a four-track signal bridge. See Plate 01617	71-C-5988	158 00
38	Three-Arm, 75 deg., Two-Position Mechanical Home Bridge Signal, for a four-track signal bridge. See Plate 01619.....	89-C-5988	173 00
39	Three-Arm and Low Speed, 75 deg., Two-Position Mechanical Home Bridge Signal, for a four-track signal bridge. See Plate 01621.....	104-C-5988	208 00
40	One-Arm Mechanical Flag Station Signal. See Plate 01635	1-C-2217	32 50
41	Two-Arm Mechanical Flag Station Signal. See Plate 01637	1-C-3791	47 00
42	One-Arm, 60 deg., Mechanical Dwarf Signal. See Plate 01639	1-C-4806	52 00



DIAGRAMS OF BRACKET SIGNALS

DIAGRAMS OF BRACKET SIGNALS

The signals listed below include blades, glass, front spectacles, back spectacles or counterweights, ladders and ladder foundations, anchor bolts and all other fittings shown on the following plates.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variations from the general dimensions shown on the following plates must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

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Fig.	Description	Drawing Reference	List Price
1	Two-Arm, 75 deg., Electro-Pneumatic Bracket Signal with pedestal; two one-arm two-position home signals on post eight feet from top of platform to center line of blade. Type of main post as per Plate 01535.....		768 00
2	Two-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal; two one-arm two-position home signals on post, eight feet from top of platform to center line of blade, and two low speed two-position suspended home signals. See Plate 01535.....	1-D-1209	1008 00
3	Two-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal; two one-arm two-position home signals on post, eight feet from top of platform to center line of blade, and one low speed two-position suspended home signal. Type of main post as per Plate 01535.....		888 00
4	Three-Arm, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one one-arm and one two-arm two-position home signals on post, fourteen feet from top of platform to center line of top blades. Type of main post as per Plate 01537.....		904 00

DIAGRAMS OF BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
5	Three-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one one-arm and one two-arm two-position home signals on post, fourteen feet from top of platform to center line of top blades, and two low speed two-position suspended home signals. Type of main post as per Plate 01537.		1144 00
6	Three-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal, with pedestal, one one-arm and one two-arm two-position home signals on post, fourteen feet from top of platform to center line of top blades, and one low speed two-position suspended home signal. Type of main post as per Plate 01537..		1024 00
7	Four-Arm, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, two two-arm two-position home signals on post, eight feet from top of platform to center line of bottom blades. Type of main post as per Plate 01537.....		1014 00
8	Four-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, two two-arm two-position home signals on post, eight feet from top of platform to center line of bottom blades and two low speed two-position suspended home signals. Type of main post as per Plate 01535.....		1254 00
9	Four-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, two two-arm two-position home signals on post, eight feet from top of platform to center line of bottom blades, and one low speed two-position suspended home signal. Type of main post as per Plate 01537.....		1134 00
10	Four-Arm, 75 deg., Electro-Pneumatic Automatic Bracket Signal with pedestal, two two-arm two-position home and distant signals on post, eight feet from top of platform to center line of bottom blades. See Plate 01537..	19-D-1181	1030 00

DIAGRAMS OF BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
11	Four-Arm, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one one-arm and one three-arm two-position home signal on post, twenty feet from top of platform to center line of top blades. Type of main post as per Plate 01539.....		1083 00
12	Four-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one one-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades, and two low speed two-position suspended home signals. Type of main post as per Plate 01535.....		1323 00
13	Four-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one one-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades, and one low speed two-position suspended home signal for the three-arm signal. Type of main post as per Plate 01535.....		1203 00
14	Four-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one one-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades, and one low speed two-position suspended home signal for the one-arm signal. Type of main post as per Plate 01535.....		1203 00
15	Five-Arm, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one two-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades. Type of main post as per Plate 01539.....		1193 00

DIAGRAMS OF BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
16	Five-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one two-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades, and two low speed two-position suspended home signals. Type of main post as per Plate 01535..		1433 00
17	Five-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, one two-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades, and one low speed two-position suspended home signal for the three-arm signal. Type of main post as per Plate 01535.....		1313 00
18	Five-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal, with pedestal, one two-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades, and one low speed two-position suspended home signal for the two-arm signal. Type of main post as per Plate 01535.....		1313 00
19	Six-Arm, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, two three-arm two-position home signals on post, eight feet from top of platform to center line of bottom blades. Type of main post as per Plate 01539.....		1346 00
20	Six-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, two three-arm two-position home signals on post, eight feet from top of platform to center line of bottom blades, and two low speed two-position suspended home signals. Type of main post as per Plate 01535.....		1586 00

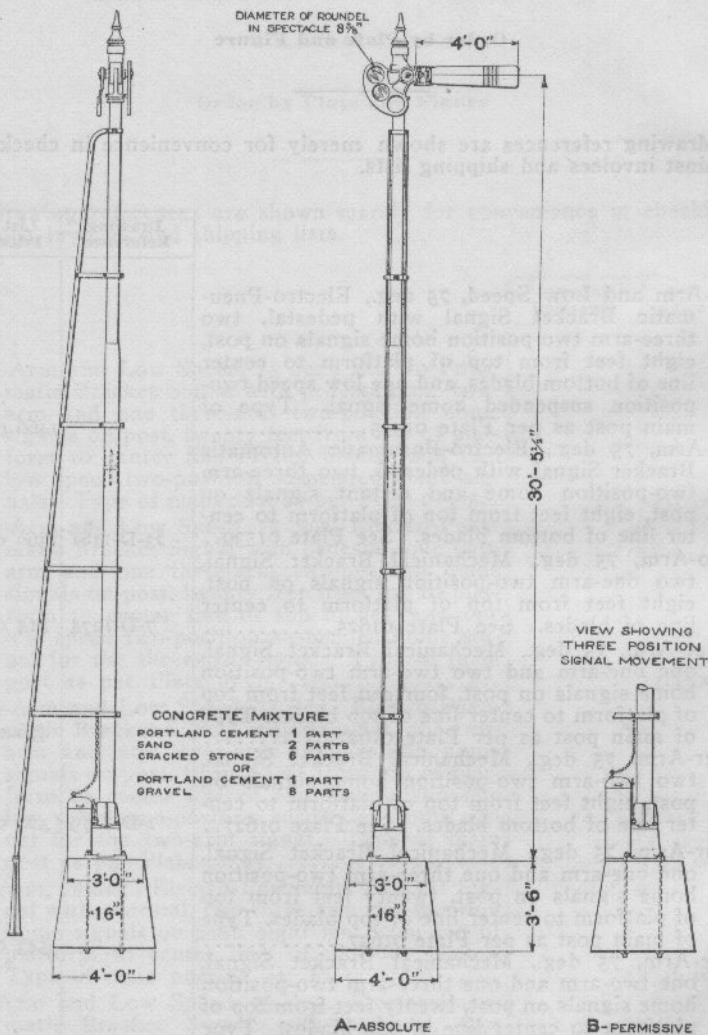
DIAGRAMS OF BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
21	Six-Arm and Low Speed, 75 deg., Electro-Pneumatic Bracket Signal with pedestal, two three-arm two-position home signals on post, eight feet from top of platform to center line of bottom blades, and one low speed two-position suspended home signal. Type of main post as per Plate 01535.....		1466 00
22	Six-Arm, 75 deg., Electro-Pneumatic Automatic Bracket Signal with pedestal, two three-arm two-position home and distant signals on post, eight feet from top of platform to center line of bottom blades. See Plate 01539..	23-D-1181	1360 00
23	Two-Arm, 75 deg., Mechanical Bracket Signal, two one-arm two-position signals on post, eight feet from top of platform to center line of blades. See Plate 01625.....	7-D-1274	414 00
24	Three-Arm, 75 deg., Mechanical Bracket Signal, one one-arm and two two-arm two-position home signals on post, fourteen feet from top of platform to center line of top blades. Type of main post as per Plate 01627.....		476 00
25	Four-Arm, 75 deg., Mechanical Bracket Signal, two two-arm two-position home signals on post, eight feet from top of platform to center line of bottom blades. See Plate 01627..	1-D-1179	520 00
26	Four-Arm, 75 deg., Mechanical Bracket Signal, one one-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades. Type of main post as per Plate 01627.....		543 00
27	Five-Arm, 75 deg., Mechanical Bracket Signal, one two-arm and one three-arm two-position home signals on post, twenty feet from top of platform to center line of top blades. Type of main post as per Plate 01627.....		596 00
28	Six-Arm, 75 deg., Mechanical Bracket Signal, two three-arm two-position home signals on post, eight feet from top of platform to center line of bottom blades. Type of main post as per Plate 01627.....		649 00

DIAGRAM OF BRACKET SIGNALS



SIGNAL COMPLETE DOES NOT INCLUDE LAMP OR FOUNDATION

ONE ARM ELECTRO-PNEUMATIC GROUND SIGNAL

ONE ARM ELECTRO-PNEUMATIC GROUND SIGNAL

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

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Fig.

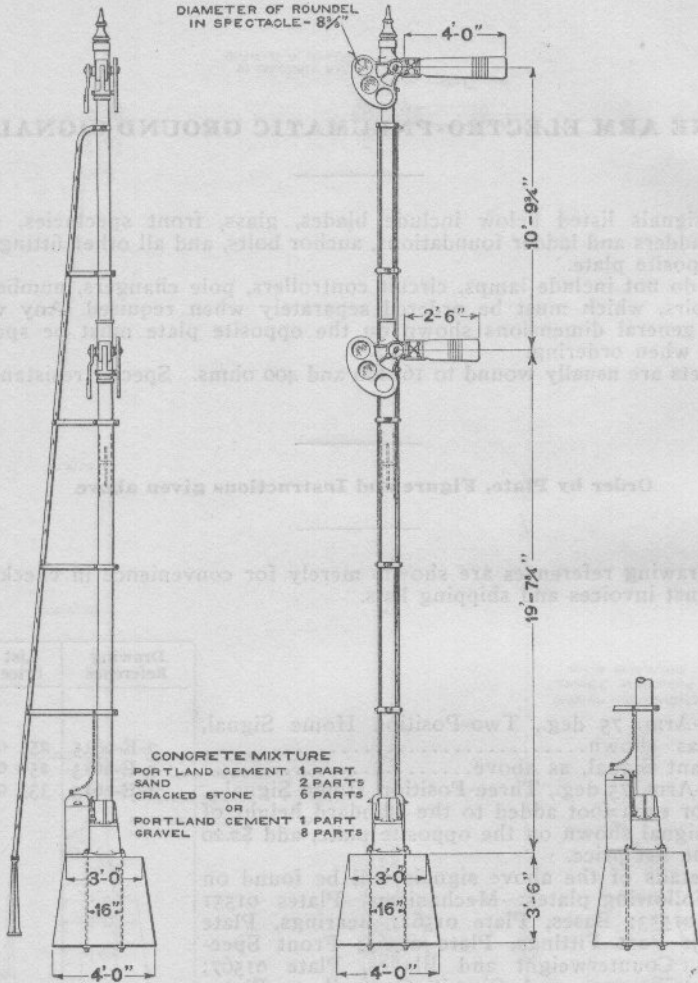
- A One-Arm, 75 deg., Two-Position Home Signal, as shown.....
- Aa Distant Signal, as above.....
- B One-Arm, 75 deg., Three-Position Home Signal..

Drawing Reference	List Price	
2-E-2615	251 00	
3-E-2615	250 00	
1-E-2615	333 00	

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.20 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals with pedestals see Plate 01517.



A-BOTH BLADES ABSOLUTE.
 B-TOP BLADE PERMISSIVE.

VIEW SHOWING THREE POSITION SIGNAL MOVEMENT.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

ONE ARM AND LOW SPEED ELECTRO-PNEUMATIC GROUND SIGNAL

**ONE ARM AND LOW SPEED ELECTRO-PNEUMATIC
GROUND SIGNAL**

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- A One-Arm and Low Speed, 75 deg., Home Signal; both blades two-position, as shown.....
- B One-Arm and Low Speed, 75 deg., Home Signal; top blade three-position, and bottom blade two-position

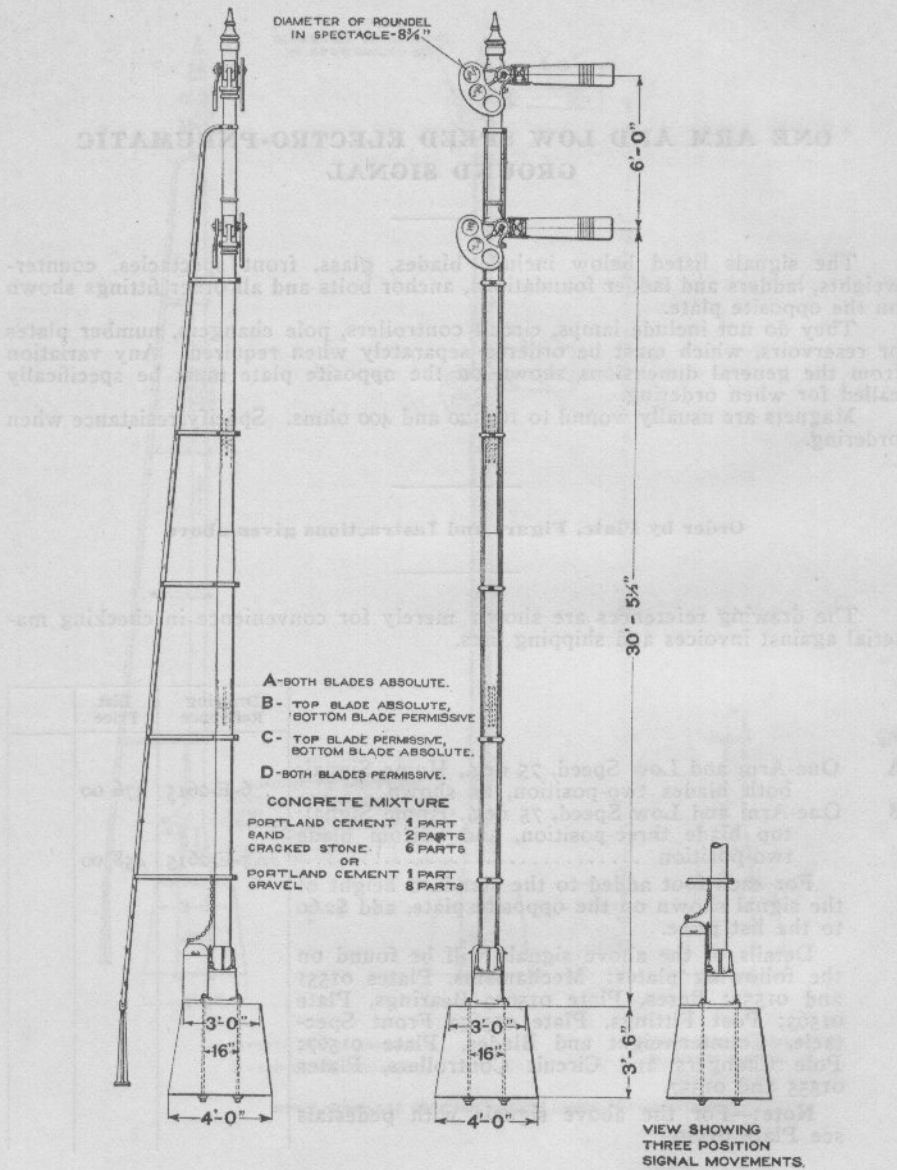
Drawing Reference	List Price
6-E-2615	376 00
7-E-2615	458 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.60 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals with pedestals see Plate 01519.

PLATE 01509



- A-BOTH BLADES ABSOLUTE.
- B- TOP BLADE ABSOLUTE, BOTTOM BLADE PERMISSIVE
- C- TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
- D-BOTH BLADES PERMISSIVE.

CONCRETE MIXTURE

PORTLAND CEMENT	1 PART
SAND	2 PARTS
CRACKED STONE	6 PARTS
OR	
PORTLAND CEMENT	1 PART
GRAVEL	8 PARTS

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

TWO ARM ELECTRO-PNEUMATIC GROUND SIGNAL

TWO ARM ELECTRO-PNEUMATIC GROUND SIGNAL

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

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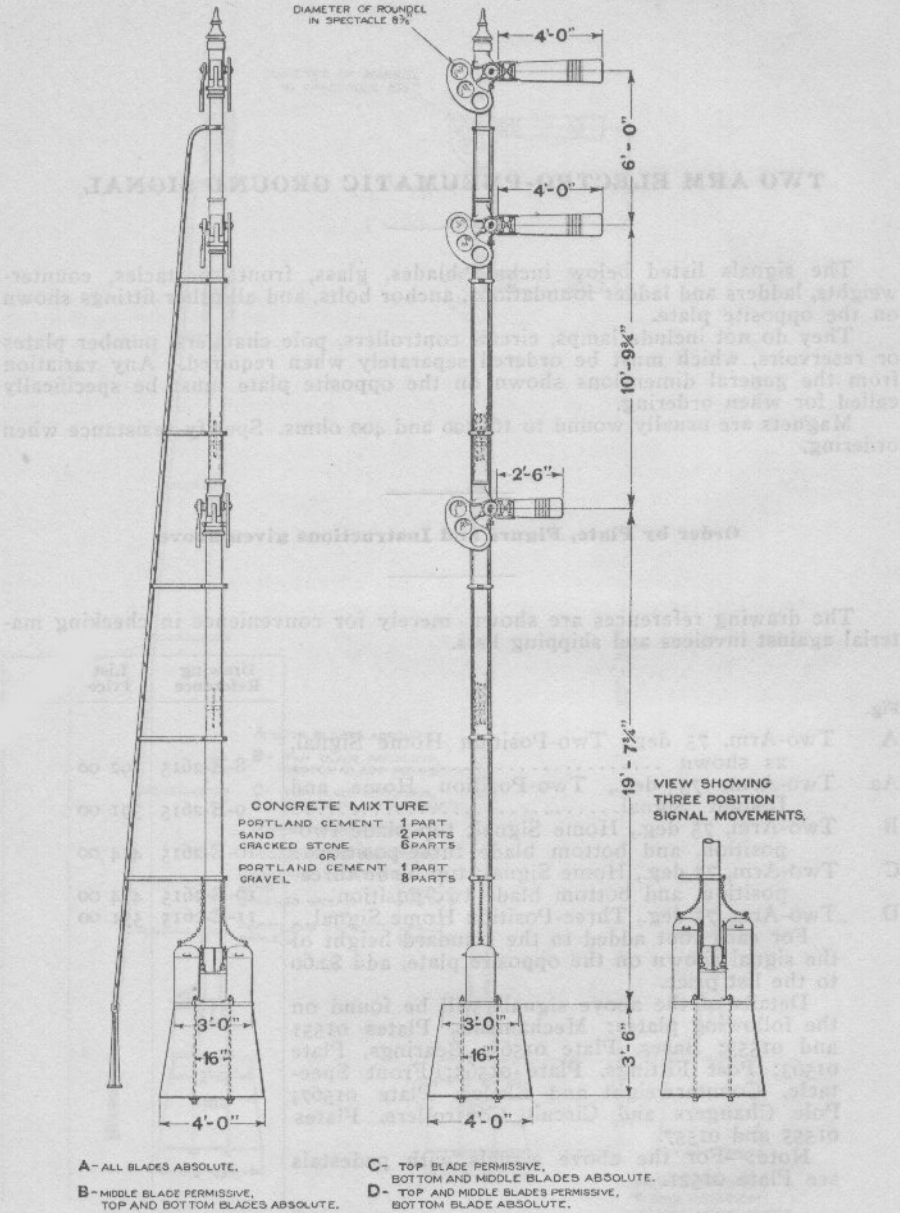
- Fig.
 A Two-Arm, 75 deg., Two-Position Home Signal, as shown
 Aa Two-Arm, 75 deg., Two-Position Home and Distant Signal.....
 B Two-Arm, 75 deg., Home Signal; top blade two-position, and bottom blade three-position..
 C Two-Arm, 75 deg., Home Signal; top blade three-position, and bottom blade two-position...
 D Two-Arm, 75 deg., Three-Position Home Signal..

Drawing Reference	List Price
8-E-2615	392 00
9-E-2615	391 00
10-E-2615	474 00
10-E-2615	474 00
11-E-2615	551 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.60 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals with pedestals see Plate 01521.



SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

TWO ARM AND LOW SPEED ELECTRO-PNEUMATIC GROUND SIGNAL

**TWO ARM AND LOW SPEED ELECTRO-PNEUMATIC
GROUND SIGNAL**

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

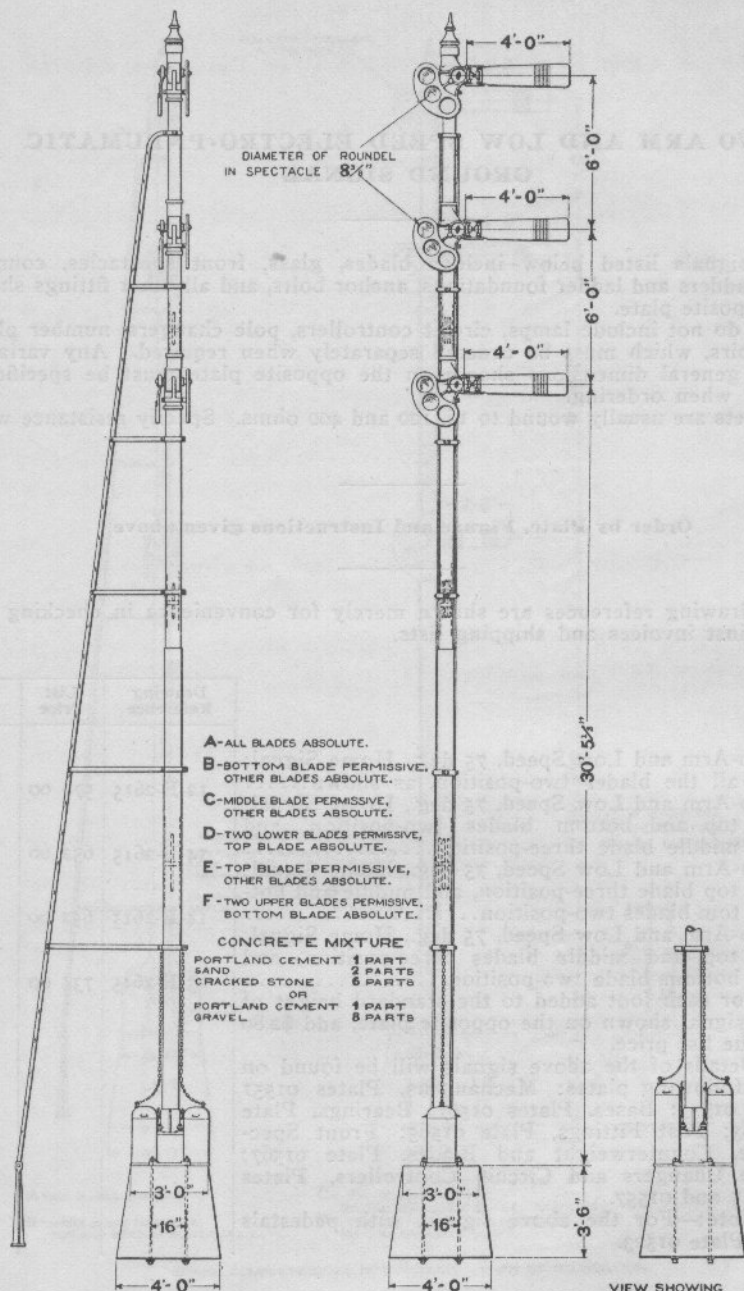
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Two-Arm and Low Speed, 75 deg., Home Signal; all the blades two-position, as shown.....	12-E-2615	570 00
B	Two-Arm and Low Speed, 75 deg., Home Signal; top and bottom blades two-position, and middle blade three-position.....	14-E-2615	652 00
C	Two-Arm and Low Speed, 75 deg., Home Signal; top blade three-position, and middle and bottom blades two-position.....	14-E-2615	652 00
D	Two-Arm and Low Speed, 75 deg., Home Signal; top and middle blades three-position, and bottom blade two-position.....	13-E-2615	734 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.80 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plates 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals with pedestals see Plate 01523.



- A-ALL BLADES ABSOLUTE.
- B-BOTTOM BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.
- C-MIDDLE BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.
- D-TWO LOWER BLADES PERMISSIVE, TOP BLADE ABSOLUTE.
- E-TOP BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.
- F-TWO UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.

CONCRETE MIXTURE
 PORTLAND CEMENT 1 PART
 SAND 2 PARTS
 CRACKED STONE 6 PARTS
 OR
 PORTLAND CEMENT 1 PART
 GRAVEL 8 PARTS

VIEW SHOWING THREE POSITION SIGNAL MOVEMENTS.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

THREE ARM ELECTRO-PNEUMATIC GROUND SIGNAL

THREE ARM ELECTRO-PNEUMATIC GROUND SIGNAL

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

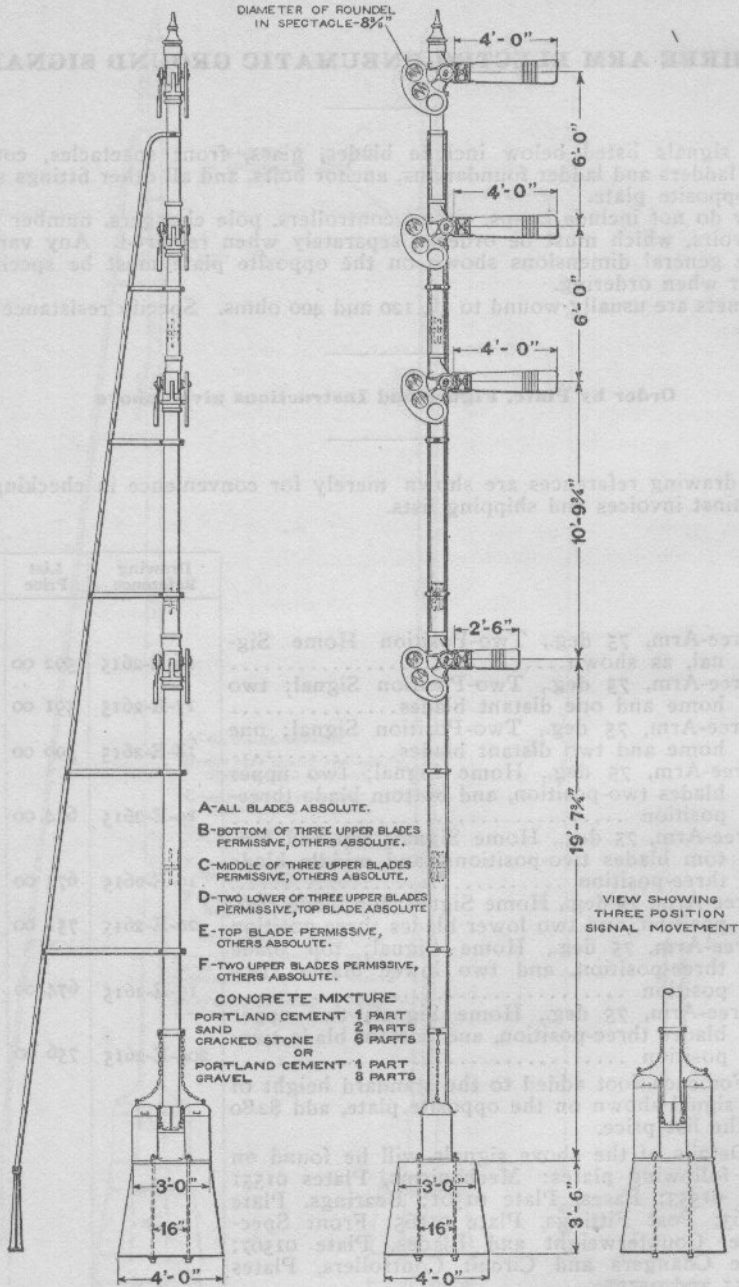
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Three-Arm, 75 deg., Two-Position Home Signal, as shown.....	16-E-2615	592 00
Aa	Three-Arm, 75 deg., Two-Position Signal; two home and one distant blades.....	17-E-2615	591 00
Ab	Three-Arm, 75 deg., Two-Position Signal; one home and two distant blades.....	18-E-2615	590 00
B	Three-Arm, 75 deg., Home Signal; two upper blades two-position, and bottom blade three-position	19-E-2615	674 00
C	Three-Arm, 75 deg., Home Signal; top and bottom blades two-positions, and middle blade three-position	19-E-2615	674 00
D	Three-Arm, 75 deg., Home Signal; top blade two-position, and two lower blades three-position	20-E-2615	751 00
E	Three-Arm, 75 deg., Home Signal; top blade three-position, and two lower blades two-position	19-E-2615	674 00
F	Three-Arm, 75 deg., Home Signal; two upper blades three-position, and bottom blade two-position	20a-E-2615	756 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.80 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals with pedestals see Plate 01525.



SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

THREE ARM AND LOW SPEED ELECTRO-PNEUMATIC GROUND SIGNAL

**THREE ARM AND LOW SPEED ELECTRO-PNEUMATIC
GROUND SIGNAL**

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

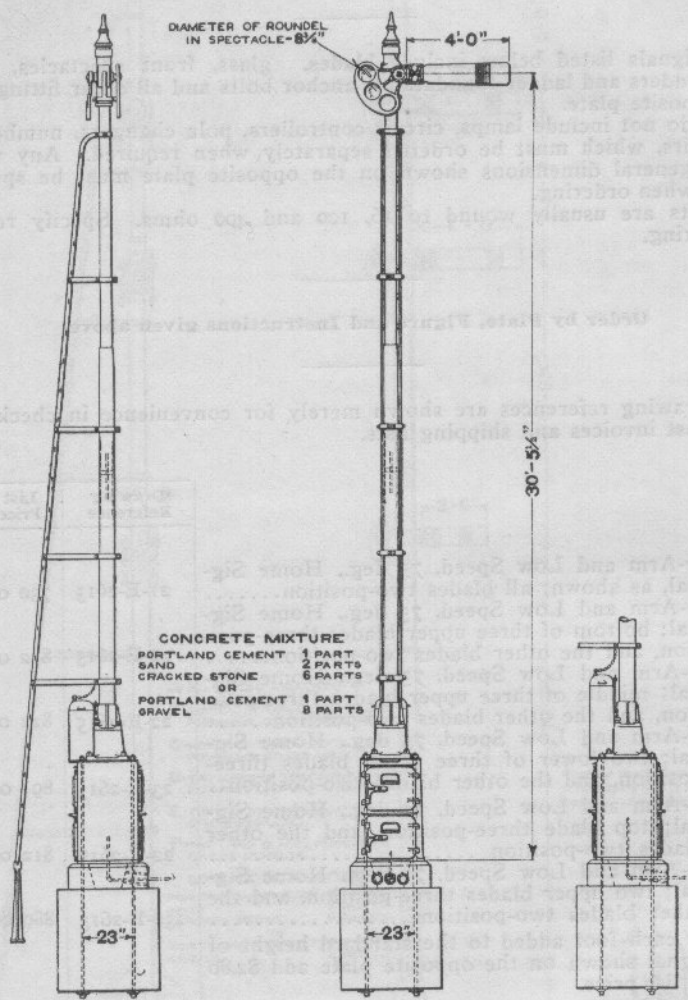
Fig.		Drawing Reference	List Price
A	Three-Arm and Low Speed, 75 deg., Home Signal, as shown; all blades two-position.....	21-E-2615	730 00
B	Three-Arm and Low Speed, 75 deg., Home Signal; bottom of three upper blades three-position, and the other blades two-position.....	22-E-2615	812 00
C	Three-Arm and Low Speed, 75 deg., Home Signal; middle of three upper blades three-position, and the other blades two-position.....	22-E-2615	812 00
D	Three-Arm and Low Speed, 75 deg., Home Signal; two lower of three upper blades three-position, and the other blades two-position..	23-E-2615	894 00
E	Three-Arm and Low Speed, 75 deg., Home Signal; top blade three-position, and the other blades two-position	22-E-2615	812 00
F	Three-Arm and Low Speed, 75 deg., Home Signal; two upper blades three-position, and the other blades two-position.....	23a-E-2615	889 00

For each foot added to the standard height of the signal shown on the opposite plate add \$2.80 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals with pedestals see Plate 01527.

GROUND SIGNAL
THREE ARM AND LOW BEED ELECTRO-PNEUMATIC



A - ABSOLUTE.

B - PERMISSIVE.

VIEW SHOWING THREE POSITION SIGNAL MOVEMENT.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

**ONE ARM ELECTRO-PNEUMATIC GROUND SIGNAL,
WITH PEDESTAL**

**ONE ARM ELECTRO-PNEUMATIC GROUND SIGNAL,
WITH PEDESTAL**

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

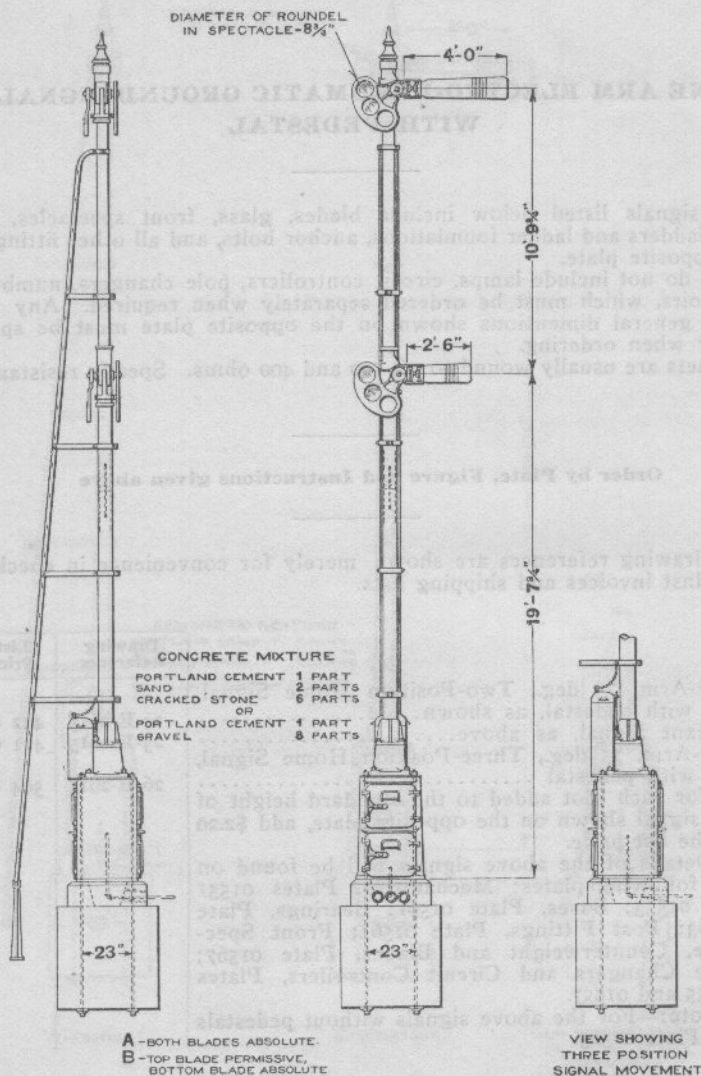
- Fig.
 A One-Arm, 75 deg., Two-Position Home Signal, with pedestal, as shown.....
 Aa Distant Signal, as above.....
 B One-Arm, 75 deg., Three-Position Home Signal, with pedestal

Drawing Reference	List Price
24-E-2615	422 00
25-E-2615	421 00
26-E-2615	504 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.20 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals without pedestals see Plate 01505.



ONE ARM AND LOW SPEED ELECTRO-PNEUMATIC GROUND SIGNAL, WITH PEDESTAL

ONE ARM AND LOW SPEED ELECTRO-PNEUMATIC GROUND SIGNAL, WITH PEDESTAL

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

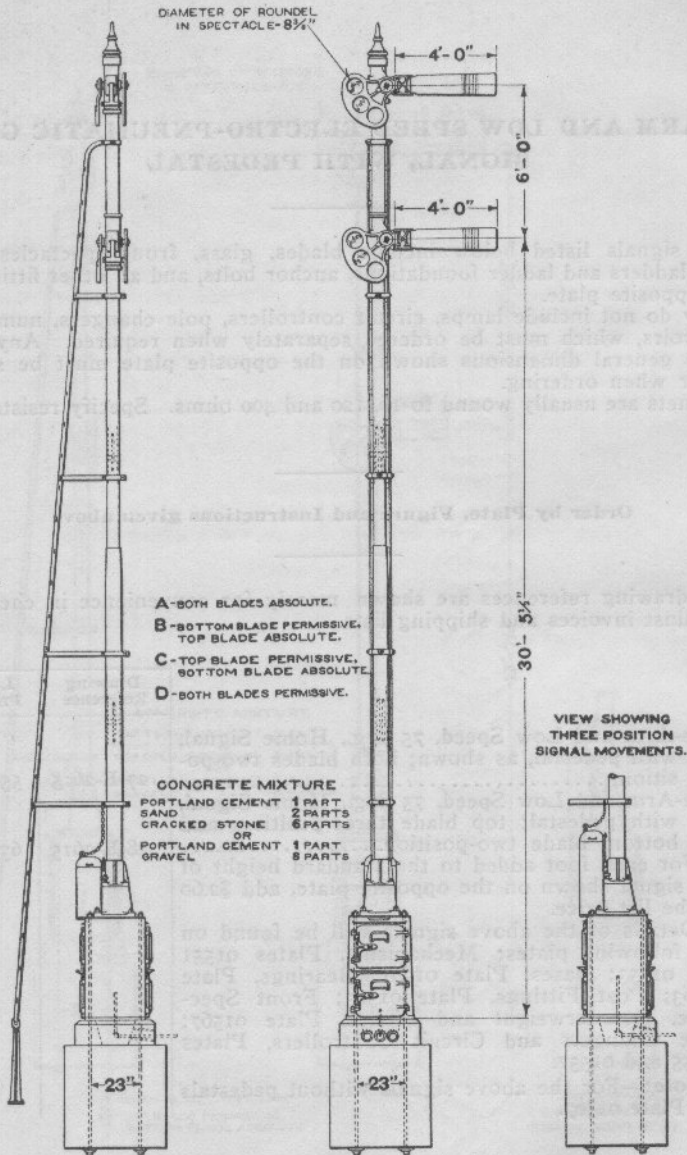
- Fig. A One-Arm and Low Speed, 75 deg., Home Signal, with pedestal, as shown; both blades two-position
- B One-Arm and Low Speed, 75 deg., Home Signal, with pedestal; top blade three-position, and bottom blade two-position

Drawing Reference	List Price
27-E-2615	556 00
28-E-2615	638 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.60 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals without pedestals see Plate 01507.



SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

**TWO ARM ELECTRO-PNEUMATIC GROUND SIGNAL,
WITH PEDESTAL**

**TWO ARM ELECTRO-PNEUMATIC GROUND SIGNAL,
WITH PEDESTAL**

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

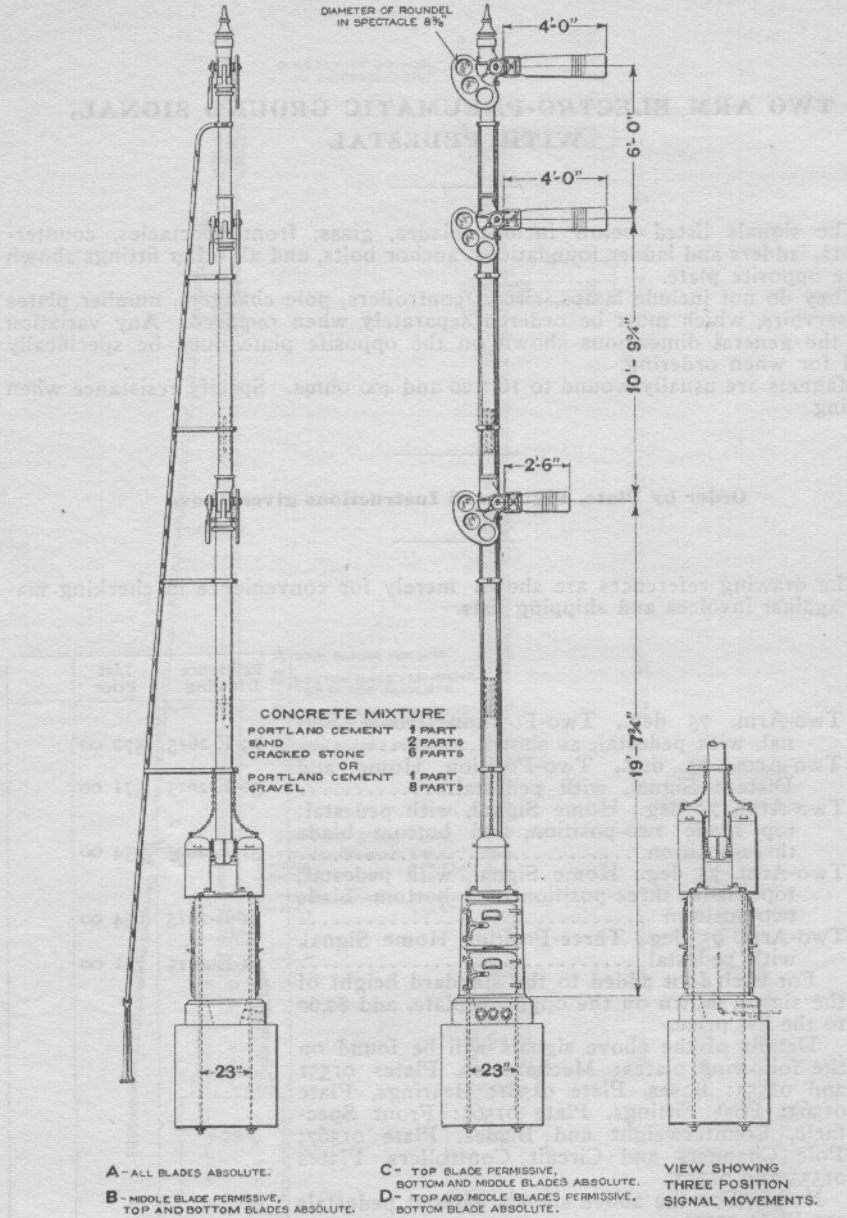
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Reference Drawing	List Price
A	Two-Arm, 75 deg., Two-Position Home Signal, with pedestal, as shown.....	29-E-2615	572 00
Aa	Two-Arm, 75 deg., Two-Position Home and Distant Signal, with pedestal.....	30-E-2615	571 00
B	Two-Arm, 75 deg., Home Signal, with pedestal; top blade two-position, and bottom blade three-position	31-E-2615	654 00
C	Two-Arm, 75 deg., Home Signal, with pedestal; top blade three-position, and bottom blade two-position	31-E-2615	654 00
D	Two-Arm, 75 deg., Three-Position Home Signal, with pedestal	32-E-2615	731 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.60 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals without pedestals see Plate 01509.



SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

**TWO ARM AND LOW SPEED ELECTRO-PNEUMATIC
GROUND SIGNAL, WITH PEDESTAL**

**TWO ARM AND LOW SPEED ELECTRO-PNEUMATIC
GROUND SIGNAL, WITH PEDESTAL**

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

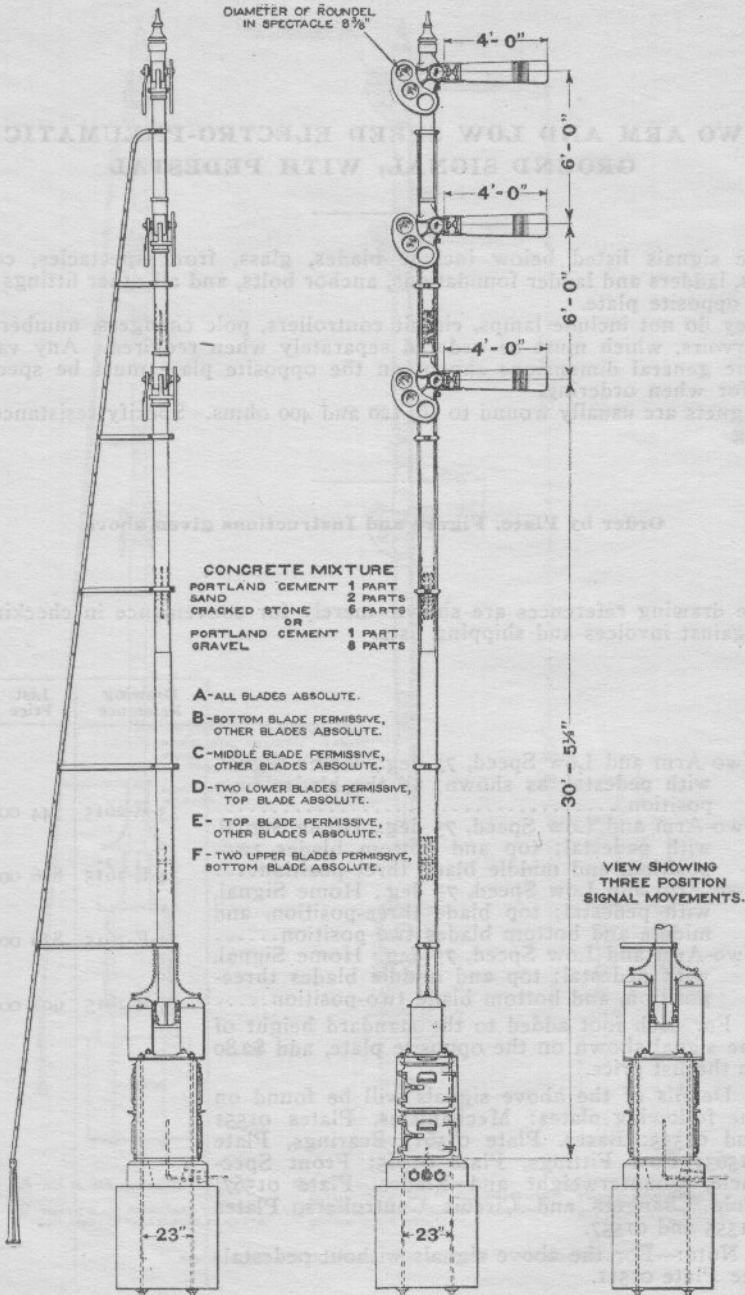
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Two-Arm and Low Speed, 75 deg., Home Signal, with pedestal, as shown; all the blades two-position	33-E-2615	744 00
B	Two-Arm and Low Speed, 75 deg., Home Signal, with pedestal; top and bottom blades two-position, and middle blade three-position....	34-E-2615	826 00
C	Two-Arm and Low Speed, 75 deg., Home Signal, with pedestal; top blade three-position, and middle and bottom blades two-position.....	34-E-2615	826 00
D	Two-Arm and Low Speed, 75 deg., Home Signal, with pedestal; top and middle blades three-position, and bottom blade two-position.....	35-E-2615	908 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.80 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals without pedestals see Plate 01511.



SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

THREE ARM ELECTRO-PNEUMATIC GROUND SIGNAL, WITH PEDESTAL

**THREE ARM ELECTRO-PNEUMATIC GROUND SIGNAL,
WITH PEDESTAL**

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

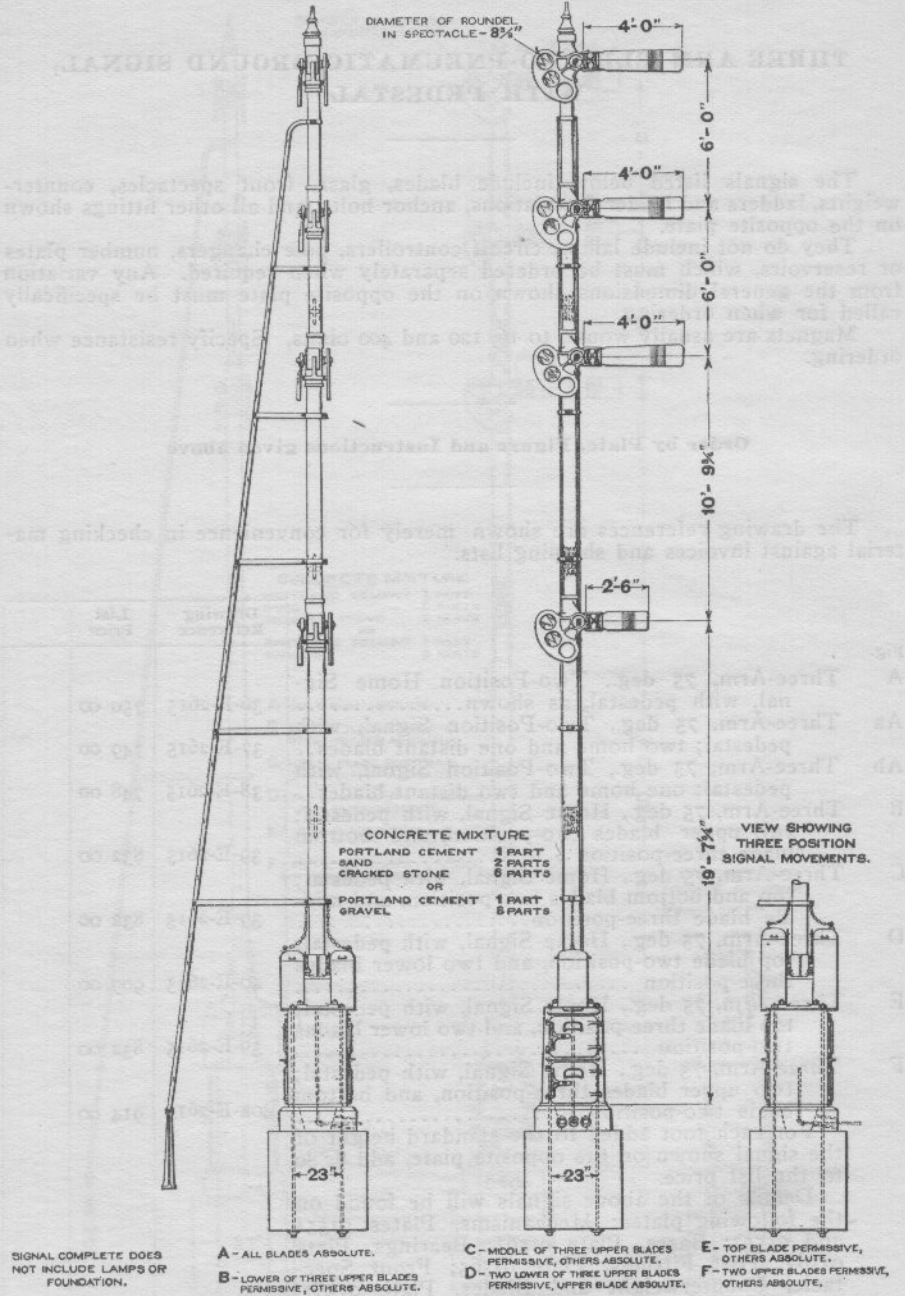
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Three-Arm, 75 deg., Two-Position Home Signal, with pedestal, as shown.....	36-E-2615	750 00
Aa	Three-Arm, 75 deg., Two-Position Signal, with pedestal; two home and one distant blades..	37-E-2615	749 00
Ab	Three-Arm, 75 deg., Two-Position Signal, with pedestal; one home and two distant blades..	38-E-2615	748 00
B	Three-Arm, 75 deg., Home Signal, with pedestal; two upper blades two-position, and bottom blade three-position	39-E-2615	832 00
C	Three-Arm, 75 deg., Home Signal, with pedestal; top and bottom blades two-position, and middle blade three-position.....	39-E-2615	832 00
D	Three-Arm, 75 deg., Home Signal, with pedestal; top blade two-position, and two lower blades three-position	40-E-2615	909 00
E	Three-Arm, 75 deg., Home Signal, with pedestal; top blade three-position, and two lower blades two-position	39-E-2615	832 00
F	Three-Arm, 75 deg., Home Signal, with pedestal; two upper blades three-position, and bottom blade two-position	40a-E-2615	914 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.80 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals without pedestals see Plate 01513.



THREE ARM AND LOW SPEED ELECTRO-PNEUMATIC GROUND SIGNAL, WITH PEDESTAL

THREE ARM AND LOW SPEED ELECTRO-PNEUMATIC GROUND SIGNAL, WITH PEDESTAL

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

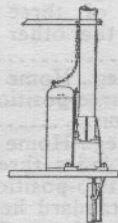
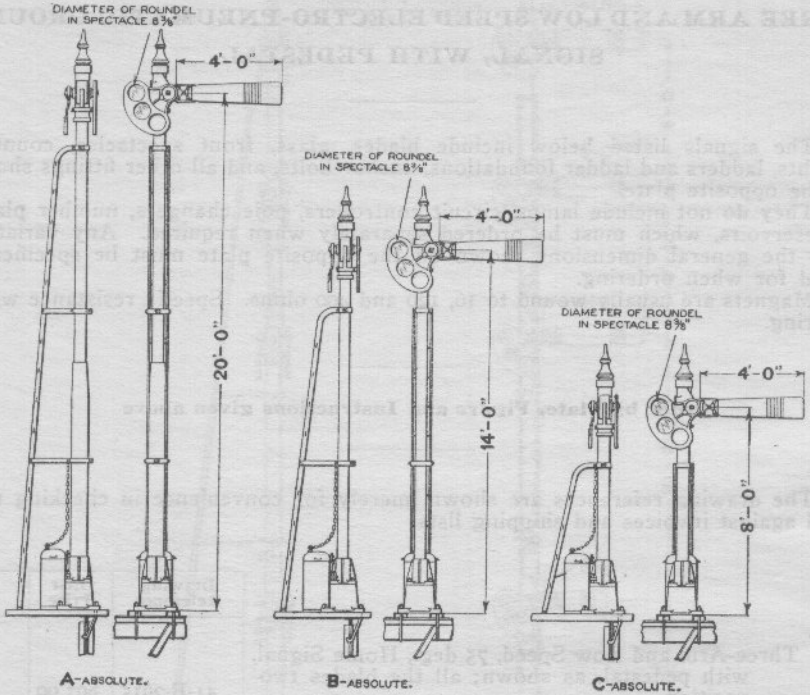
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Three-Arm and Low Speed, 75 deg., Home Signal, with pedestal, as shown; all the blades two-position	41-E-2615	893 00
B	Three-Arm and Low Speed, 75 deg., Home Signal, with pedestal; bottom of three upper blades three-position, and the other blades two-position	42-E-2615	975 00
C	Three-Arm and Low Speed, 75 deg., Home Signal, with pedestal; middle of three upper blades three-position, and the other blades two-position	42-E-2615	975 00
D	Three-Arm and Low Speed, 75 deg., Home Signal, with pedestal; two lower of three upper blades three-position, and the other blades two-position	43-E-2615	1061 00
E	Three-Arm and Low Speed, 75 deg., Home Signal, with pedestal; top blade three-position, and the other blades two-position.....	42-E-2615	975 00
F	Three-Arm and Low Speed, 75 deg., Home Signal, with pedestal; two upper blades three-position, and the other blades two-position....	43a-E-2615	1052 00

For each foot added to the standard height of the signal shown on the opposite plate, add \$2.80 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.

Note:—For the above signals without pedestals see Plate 01515.



VIEW SHOWING THREE POSITION SIGNAL MOVEMENT.

- D-PERMISSIVE, HEIGHT OF 3 ARM POST.
- E-PERMISSIVE, HEIGHT OF 2 ARM POST.
- F-PERMISSIVE, HEIGHT OF 1 ARM POST.

SIGNAL COMPLETE DOES NOT INCLUDE LAMP.

ONE ARM ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS

ONE ARM ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS

The signals listed below include blades, glass, front spectacles, counterweights, ladders, hook bolts, channel irons and all other fittings shown on the opposite plate.

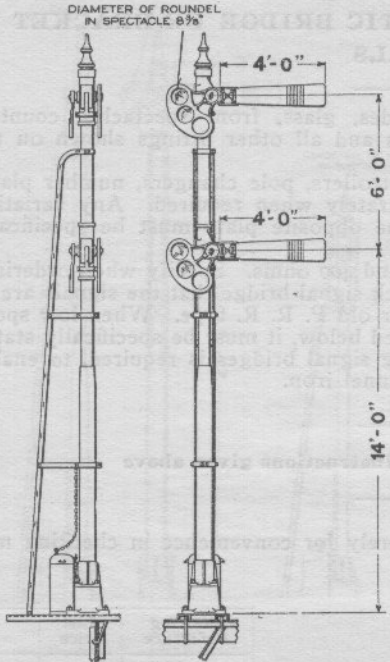
They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify when ordering: Resistance of magnets. The number of track signal bridge that the signals are to be applied to, also whether bridge is new or old P. R. R. type. When low speed signal is to be applied to bridge signals listed below, it must be specifically stated when ordering. This information regarding signal bridges is required, to enable us to furnish the correct length of the channel iron.

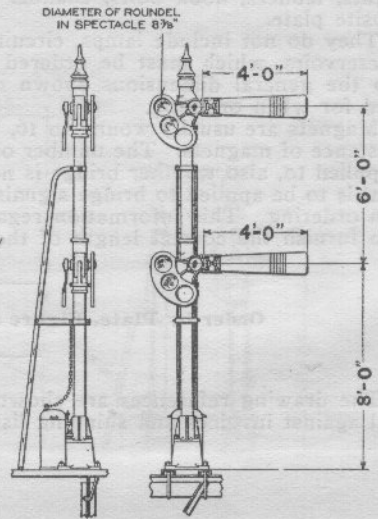
Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	One-Arm, 75 deg., Two-Position Home Signal, as shown; twenty feet from top of platform to center line of blade.....	1-C-5946	199 00
Aa	Distant Signal, as above.....	2-C-5946	198 00
B	One-Arm, 75 deg., Two-Position Home Signal, as shown; fourteen feet from top of platform to center line of blade.....	4-C-5946	186 00
Ba	Distant Signal, as above.....	5-C-5946	185 00
C	One-Arm, 75 deg., Two-Position Home Signal, as shown; eight feet from top of platform to center line of blade.....	7-C-5946	173 00
Ca	Distant Signal, as above.....	8-C-5946	172 00
D	One-Arm, 75 deg., Three-Position Home Signal; twenty feet from top of platform to center line of blade.....	3-C-5946	281 00
E	One-Arm, 75 deg., Three-Position Home Signal; fourteen feet from top of platform to center line of blade.....	6-C-5946	268 00
F	One-Arm, 75 deg., Three-Position Home Signal; eight feet from top of platform to center line of blade.....	9-C-5946	255 00
<p>For each foot added to the standard height of the signals shown on the opposite plate, add \$2.20 to the list price.</p> <p>Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.</p>			

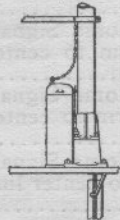


A-BOTH BLADES ABSOLUTE.



B-BOTH BLADES ABSOLUTE.

VIEW SHOWING THREE POSITION SIGNAL MOVEMENT.



HEIGHT OF THREE ARM POST.

- C-BOTH BLADES PERMISSIVE.
- D-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
- E-BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE.

HEIGHT OF TWO ARM POST.

- F-BOTH BLADES PERMISSIVE.
- G-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
- H-BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS.

TWO ARM ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS

TWO ARM ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS

The signals listed below include blades, glass, front spectacles, counterweights, ladders, hook bolts, channel irons and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

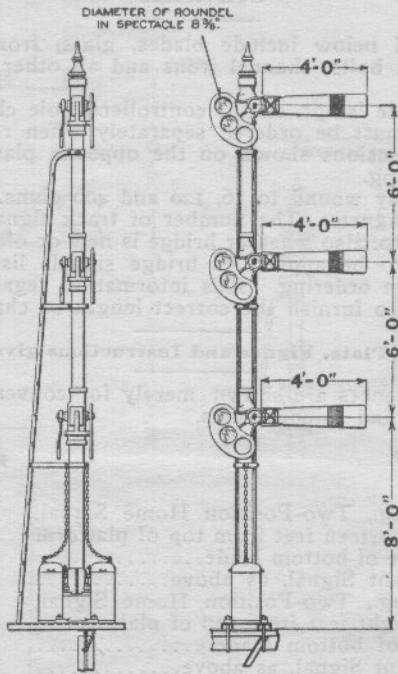
Magnets are usually wound to 16, 120 and 400 ohms. Specify when ordering: Resistance of magnets. The number of track signal bridge, that the signals are to be applied to, also whether bridge is new or old P. R. R. type. When low-speed signal is to be applied to bridge signals listed below, it must be specifically stated when ordering. This information regarding signal bridges is required to enable us to furnish the correct length of channel iron.

Order by Plate, Figure and Instructions given above

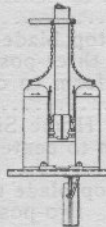
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Two-Arm, 75 deg., Two-Position Home Signal, as shown; fourteen feet from top of platform to center line of bottom blade.....	10-C-5946	309 00
Aa	Home and Distant Signal, as above.....	11-C-5946	308 00
B	Two-Arm, 75 deg., Two-Position Home Signal, as shown; eight feet from top of platform to center line of bottom blade.....	14-C-5946	296 00
Ba	Home and Distant Signal, as above.....	15-C-5946	295 00
C	Two-Arm, 75 deg., Three-Position Home Signal, fourteen feet from top of platform to center line of bottom blade.....	12-C-5946	468 00
D	Two-Arm, 75 deg., Home Signal; top blade three-position, and bottom blade two-position; fourteen feet from top of platform to center line of bottom blade.....	13-C-5946	391 00
E	Two-Arm, 75 deg., Home Signal; top blade two-position, and bottom blade three-position; fourteen feet from top of platform to center line of bottom blade.....	13-C-5946	391 00
F	Two-Arm, 75 deg., Three-Position Home Signal; eight feet from top of platform to center line of bottom blade.....	16-C-5946	455 00
G	Two-Arm, 75 deg., Home Signal; top blade three-position, and bottom blade two-position; eight feet from top of platform to center line of bottom blade.....	17-C-5946	378 00
H	Two-Arm, 75 deg., Home Signal; top blade two-position, and bottom blade three-position; eight feet from top of platform to center line of bottom blade.....	17-C-5946	378 00
	For each foot added to the standard height of the signals shown on the opposite plate, add \$2.20 to the list price.....		
Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.....			

TWO ARM ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS



A-ALL BLADES ABSOLUTE.



VIEW SHOWING THREE POSITION SIGNAL MOVEMENTS.

- B-TWO UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
- C-TWO LOWER BLADES PERMISSIVE, TOP BLADE ABSOLUTE
- D-TOP BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.
- E-MIDDLE BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.
- F-BOTTOM BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS.

THREE ARM ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS

THREE ARM ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS

The signals listed below include blades, glass, front spectacles, counterweights, ladders, hook bolts, channel irons and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically stated when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify when ordering: Resistance of magnets. The number of track signal bridge that the signals are to be applied to, also whether bridge is new or old P. R. R. type. When low speed signal is to be applied to bridge signals listed below, it must be specifically stated when ordering. This information regarding signal bridges is required, to enable us to furnish the correct length of channel iron.

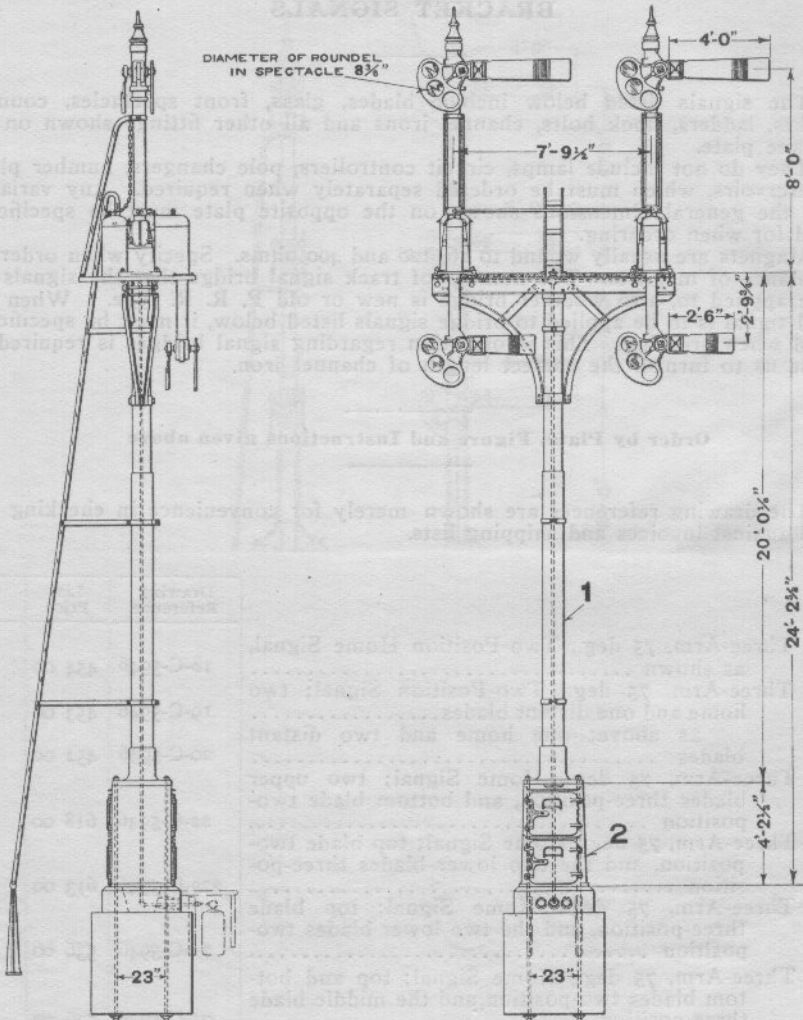
Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Three-Arm, 75 deg., Two-Position Home Signal, as shown	18-C-5946	462 00
A ₁	Three-Arm, 75 deg., Two-Position Signal; two home and one distant blades.....	19-C-5946	461 00
Ab	as above; one home and two distant blades	20-C-5946	460 00
B	Three-Arm, 75 deg., Home Signal; two upper blades three-position, and bottom blade two-position	22-C-5946	626 00
C	Three-Arm, 75 deg., Home Signal; top blade two-position, and the two lower blades three-position	22a-C-5946	621 00
D	Three-Arm, 75 deg., Home Signal; top blade three-position, and the two lower blades two-position	21-C-5946	544 00
E	Three-Arm, 75 deg., Home Signal; top and bottom blades two-position, and the middle blade three-position	21-C-5946	544 00
F	Three-Arm, 75 deg., Home Signal; two upper blades two-position, and the bottom blade three-position	21-C-5946	544 00

For each foot added to the standard height of the signals shown on the opposite plate, add \$2.20 to the list price.

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557.



A - BRACKET POST COMPLETE WITHOUT FOUNDATION, BOXING, RESERVOIR OR LAMPS.

CONCRETE MIXTURE

PORTLAND CEMENT	1 PART
SAND	2 PARTS
CRACKED STONE	6 PARTS
OR	
PORTLAND CEMENT	1 PART
GRAVEL	8 PARTS

TWO ARM AND LOW SPEED ELECTRO-PNEUMATIC BRACKET SIGNAL

**TWO ARM AND LOW SPEED ELECTRO-PNEUMATIC
BRACKET SIGNAL**

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, pipe fittings, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

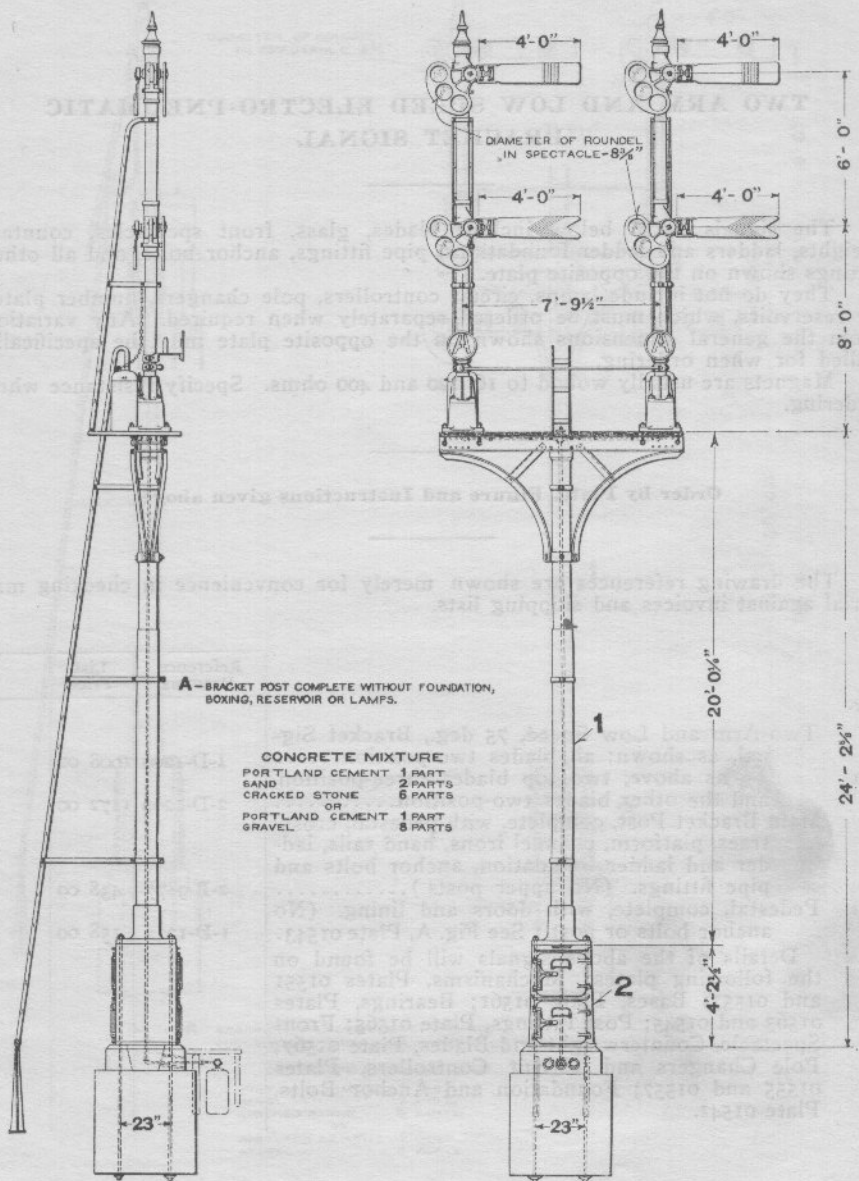
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- A Two-Arm and Low Speed, 75 deg., Bracket Signal, as shown; all blades two-position.....
- Aa as above, two top blades three-position, and the other blades two-position.....
- 1 Main Bracket Post, complete, with pedestal, cross-trees, platform, channel irons, hand rails, ladder and ladder foundation, anchor bolts and pipe fittings. (No upper posts.).....
- 2 Pedestal, complete, with doors and lining. (No anchor bolts or post.) See Fig. A, Plate 01543.

Reference Drawing	List Price	
1-D-1209	1008 00	
2-D-1209	1172 00	
2-B-9877	438 00	
1-D-1232	158 00	

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plates 01563 and 01545; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557; Foundation and Anchor Bolts, Plate 01541.



FOUR ARM ELECTRO-PNEUMATIC BRACKET SIGNAL

FOUR ARM ELECTRO-PNEUMATIC BRACKET SIGNAL

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, pipe fittings, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

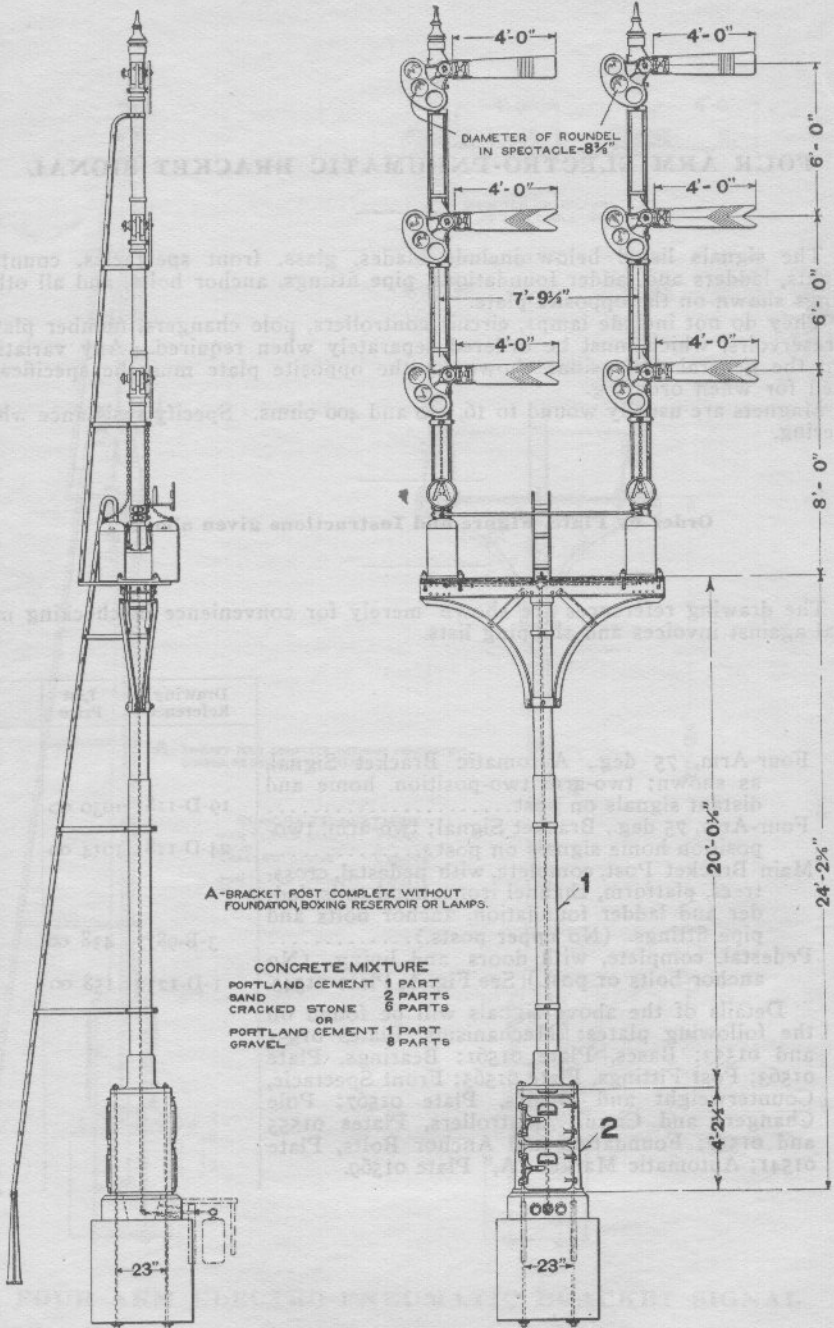
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- A Four-Arm, 75 deg., Automatic Bracket Signal, as shown; two-arm two-position. home and distant signals on post.....
- Aa Four-Arm, 75 deg., Bracket Signal; two-arm, two-position home signals on post.....
- 1 Main Bracket Post, complete, with pedestal, cross-trees, platform, channel irons, hand rails, ladder and ladder foundation, anchor bolts and pipe fittings. (No upper posts.).....
- 2 Pedestal, complete, with doors and lining. (No anchor bolts or post.) See Fig. A, Plate 01543.

Drawing Reference	List Price
19-D-1181	1030 00
24-D-1181	1014 00
3-B-9877	438 00
1-D-1232	158 00

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557; Foundation and Anchor Bolts, Plate 01541; Automatic Marker "A," Plate 01569.



SIX ARM ELECTRO-PNEUMATIC BRACKET SIGNAL

SIX ARM ELECTRO-PNEUMATIC BRACKET SIGNAL

The signals listed below include blades, glass, front spectacles, counterweights, ladders and ladder foundations, pipe fittings, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

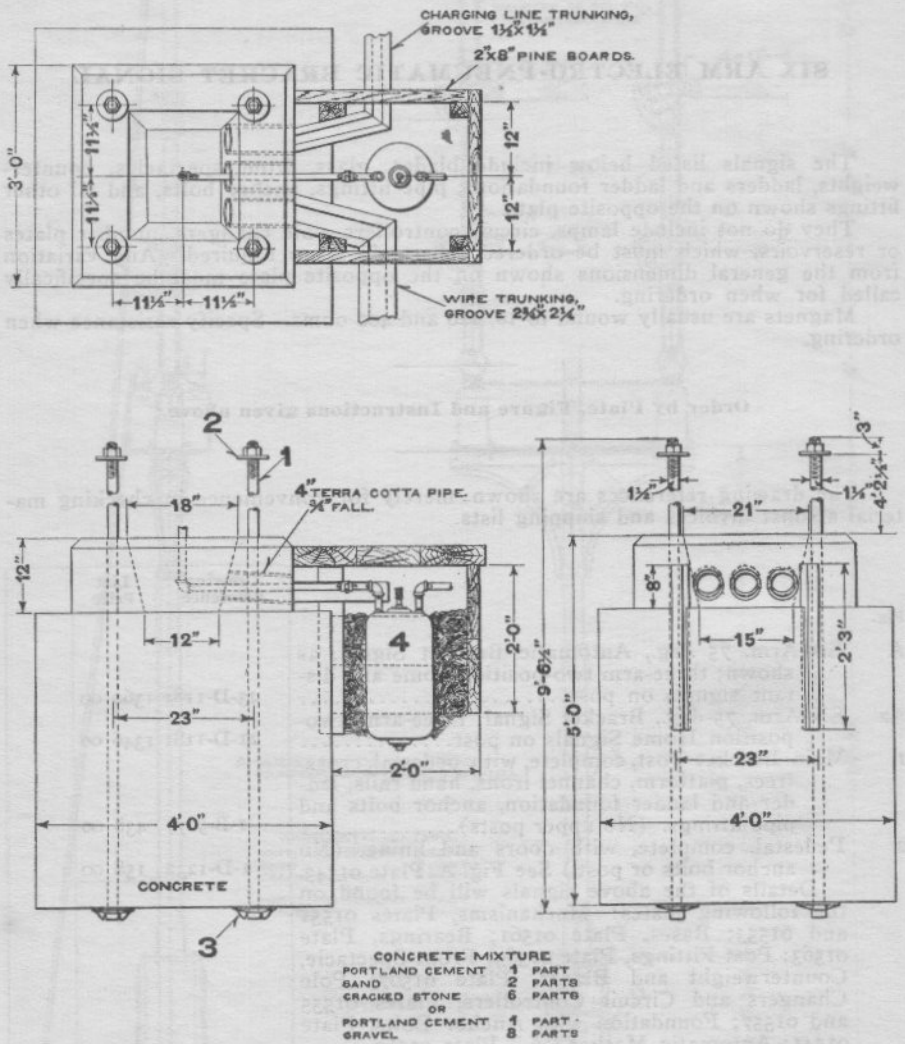
Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

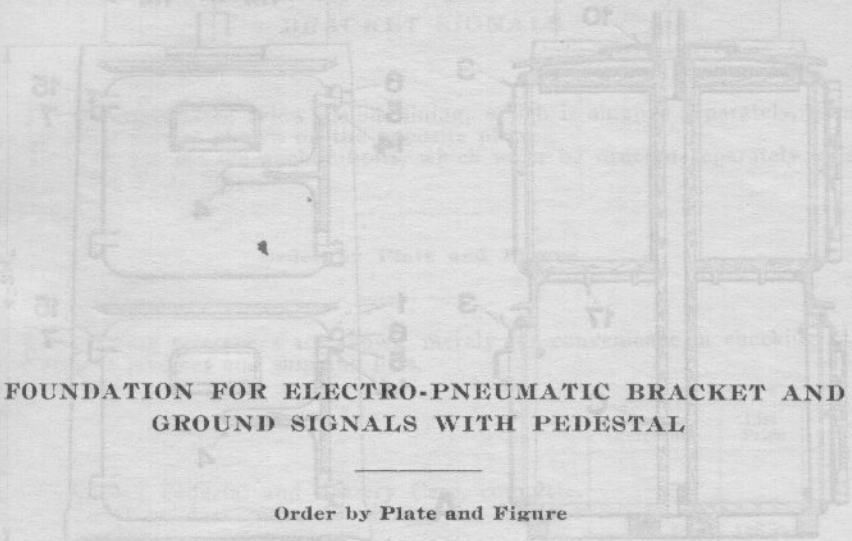
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Six-Arm, 75 deg., Automatic Bracket Signal, as shown; three-arm two-position home and distant signals on post.....	23-D-1181	1360 00
Aa	Six-Arm, 75 deg., Bracket Signal; three-arm, two-position Home Signals on post.....	21-D-1181	1346 00
I	Main Bracket Post, complete, with pedestal, cross-trees, platform, channel irons, hand rails, ladder and ladder foundation, anchor bolts and pipe fittings. (No upper posts).....	1-B-9877	438 00
2	Pedestal, complete, with doors and lining. (No anchor bolts or post.) See Fig. A, Plate 01543.	1-D-1232	158 00

Details of the above signals will be found on the following plates: Mechanisms, Plates 01551 and 01553; Bases, Plate 01561; Bearings, Plate 01563; Post Fittings, Plate 01565; Front Spectacle, Counterweight and Blades, Plate 01567; Pole Changers and Circuit Controllers, Plates 01555 and 01557; Foundation with Anchor Bolts, Plate 01541; Automatic Marker "A," Plate 01569.



**FOUNDATION FOR ELECTRO-PNEUMATIC BRACKET AND
GROUND SIGNALS WITH PEDESTAL**



**FOUNDATION FOR ELECTRO-PNEUMATIC BRACKET AND
GROUND SIGNALS WITH PEDESTAL**

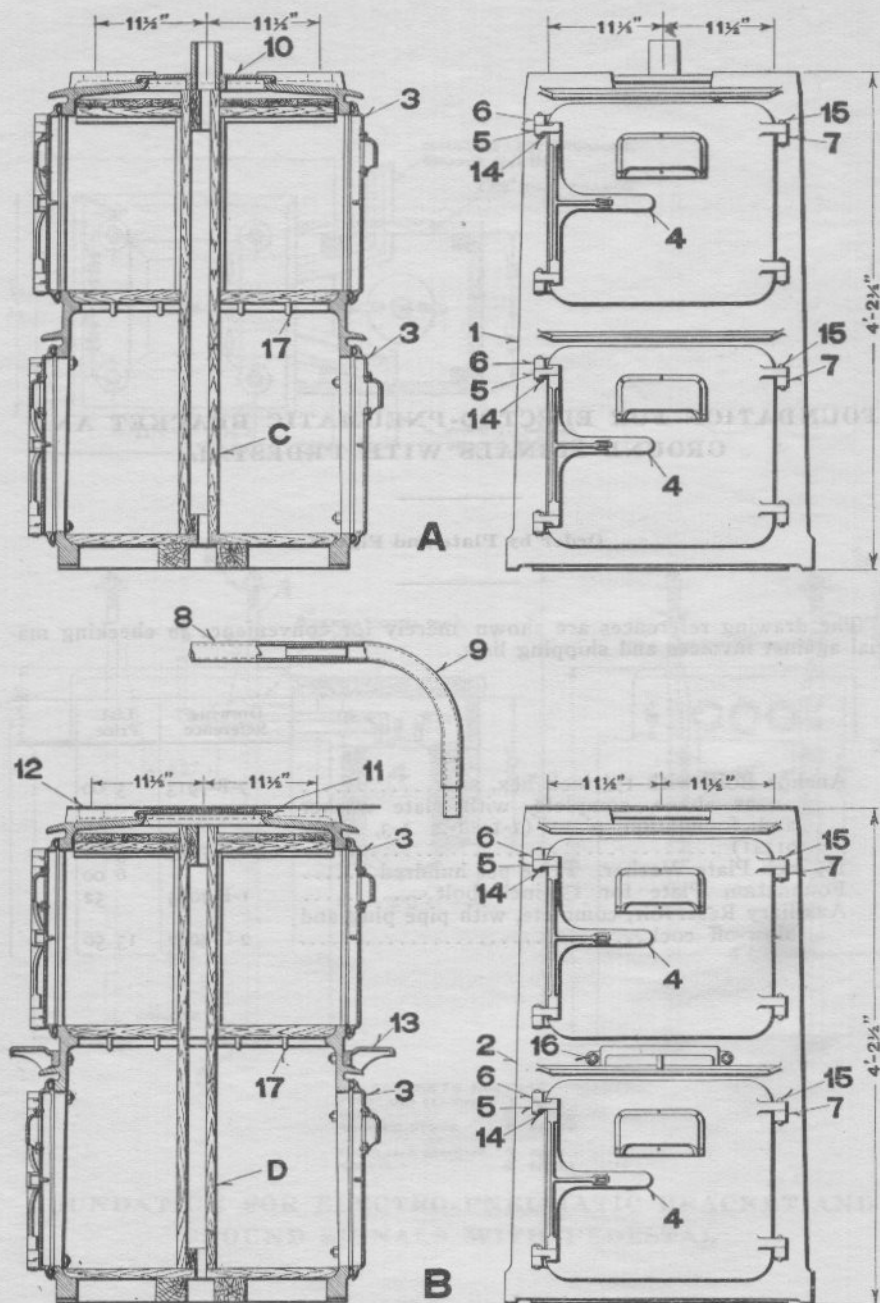
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- 1 Anchor Bolt, with 1½ inch hex. nut.....
- 1a as above, complete, with plate washer and foundation plate (1-1, 1-2, 1-3, Plate 01541)
- 2 1½ inch Plate Washer. Price per hundred.....
- 3 Foundation Plate for 1½-inch bolt.....
- 4 Auxiliary Reservoir, complete, with pipe plug and blow-off cock.....

Drawing Reference	List Price
7-B-7913	5 00
7a-B-7913	5 60
1-B-7065	52
2-C-4047	13 50



PEDESTALS FOR ELECTRO-PNEUMATIC GROUND AND BRACKET SIGNALS

PEDESTALS FOR ELECTRO-PNEUMATIC GROUND AND BRACKET SIGNALS

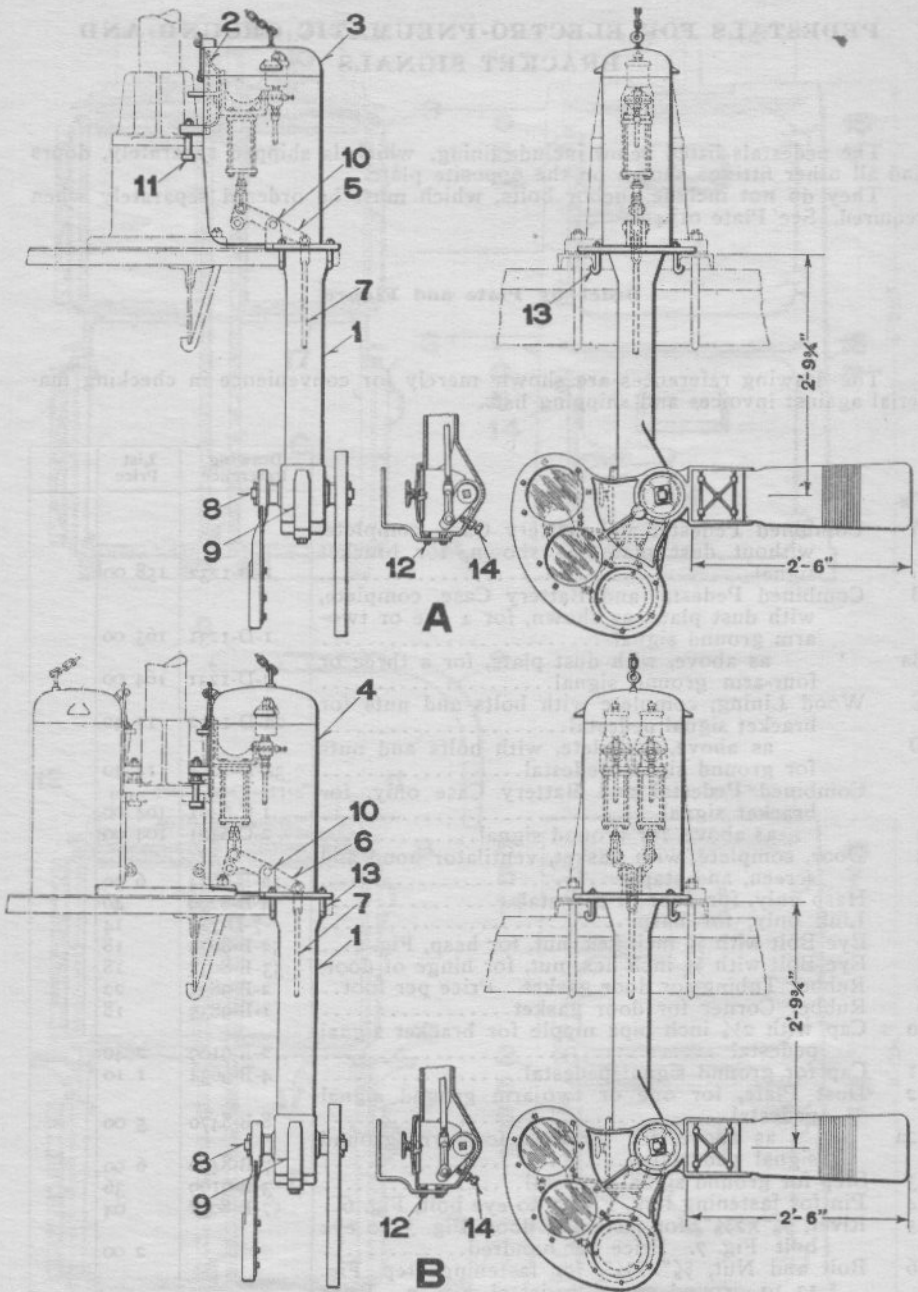
The pedestals listed below include lining, which is shipped separately, doors and all other fittings shown on the opposite plate.

They do not include anchor bolts, which must be ordered separately when required. See Plate 01541.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Combined Pedestal and Battery Case, complete, without dust plate, as shown, for bracket signal	1-D-1232	158 00
B	Combined Pedestal and Battery Case, complete, with dust plate, as shown, for a one or two-arm ground signal	1-D-1231	163 00
Ba	as above, with dust plate, for a three or four-arm ground signal.....	2-D-1231	164 00
C	Wood Lining, complete with bolts and nuts for bracket signal pedestal.....	2a-D-1232	12 40
D	as above, complete, with bolts and nuts for ground signal pedestal.....	3a-D-1231	12 40
1	Combined Pedestal and Battery Case only, for bracket signal	1-C-6401	104 00
2	as above, for ground signal.....	2-C-6401	104 00
3	Door, complete, with gasket, ventilator hood and screen, and staple.....	1a-B-9634	6 90
4	Hasp only, for door of pedestal.....	4-B-8299	40
5	Link only, for hasp.....	7-D-783	14
6	Eye Bolt with $\frac{5}{8}$ inch hex. nut, for hasp, Fig. 4... ..	52-B-8034	18
7	Eye Bolt with $\frac{5}{8}$ inch hex. nut, for hinge of door. ..	53-B-8034	18
8	Rubber Tubing for door gasket. Price per foot.. ..	2-B-9835	22
9	Rubber Corner for door gasket.....	1-B-9835	18
10	Cap with $2\frac{1}{2}$ inch pipe nipple for bracket signal pedestal	2-B-9109	2 40
11	Cap for ground signal pedestal.....	4-B-9634	1 10
12	Dust Plate, for one or two-arm ground signal pedestal	8-B-8470	5 00
12a	as above, for three or four-arm ground signal pedestal	7-B-8470	6 00
13	Step for ground signal pedestal.....	3-B-9109	36
14	Pin for fastening link, Fig. 5, to eye bolt, Fig. 6.. ..	57-B-8058	04
15	Rivet, $\frac{3}{8}$ "x $2\frac{3}{8}$ ", for fastening door Fig. 3 to eye bolt Fig. 7. Price per hundred.....		2 00
16	Bolt and Nut, $\frac{5}{8}$ "x $1\frac{3}{4}$ ", for fastening step Fig. 13 to ground signal pedestal Fig. 2. Price per hundred		6 00
17	Hook Bolt, $\frac{1}{2}$ "x $2\frac{1}{2}$ ", with nut and washer, for fastening wood lining to pedestal Fig. 1 or 2. ..	2-B-7913	16



SIGNAL COMPLETE DOES NOT INCLUDE LAMP.

ONE ARM ELECTRO-PNEUMATIC LOW SPEED SUSPENDED SIGNAL

**ONE ARM ELECTRO-PNEUMATIC LOW SPEED
SUSPENDED SIGNAL**

This signal is designed to be attached to the base of an existing bridge or bracket signal as shown on the opposite plate.

If required as a separate signal, the fact must be stated when ordering, so that a special support can be furnished.

The signals listed below include mechanisms, blades, glass, front spectacle and counterweight, anchor bolts and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required.

Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify when ordering: The resistance of magnets and, if channel irons are desired, the number and type (new or old P. R.) of track signal bridge.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

	Drawing Reference	List Price
Fig. A	One-Arm Low Speed, 75 deg., Suspended Home Signal, complete, as shown, with mechanism and mechanism bracket, without channel irons, for applying to a one or two-arm bridge or bracket signal.....	1-D-982 120 00
Aa	One-Arm Low Speed, 75 deg., Suspended Distant Signal, complete, with mechanism and mechanism bracket, without channel irons, for applying to a one or two-arm bridge or bracket signal	2-D-982 119 00
B	One-Arm Low Speed, 75 deg., Suspended Home Signal, complete, as shown, with mechanism, without channel irons, for applying to a three-arm bridge or bracket signal.....	1-C-434I 120 00

**ONE ARM ELECTRO-PNEUMATIC LOW SPEED
SUSPENDED SIGNAL**

Order by Plate and Figure.

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
Ba	One-Arm Low Speed, 75 deg., Suspended Distant Signal, complete, with mechanism, without channel irons, for applying to a three-arm bridge or bracket signal.....	2-C-434I	119 00
1	Combined Post and Semaphore Bearing.....	3-C-414I	16 50
1a	as above, complete, with hand hole plate, clamp and handle for hand hole plate, tap bolt and lock nut, semaphore shaft with journals, cotters and washers, semaphore crank, and lamp bracket with bolts and nuts (1-48, 1-46a, 1-33, Plate 01565), (1-1, 1-14, 1-8, 1-9, 2-12, Plate 01545).....	3a-C-414I	25 30
2	Mechanism Bracket for a suspended signal applied to a one or two-arm bridge or bracket signal	1-B-9210	3 30
3	Mechanism Cover, complete, with staple and eye bolt, for a suspended signal applied to a one or two-arm bridge or bracket signal.....	1-C-1969	10 24
4	Mechanism Cover, complete, with staple and eye bolt, for a suspended signal applied to a three-arm bridge or bracket signal.....	3-C-1969	12 00
5	Compensating Lever for a suspended signal applied to a one or two-arm bridge or bracket signal	15-B-7960	6 00

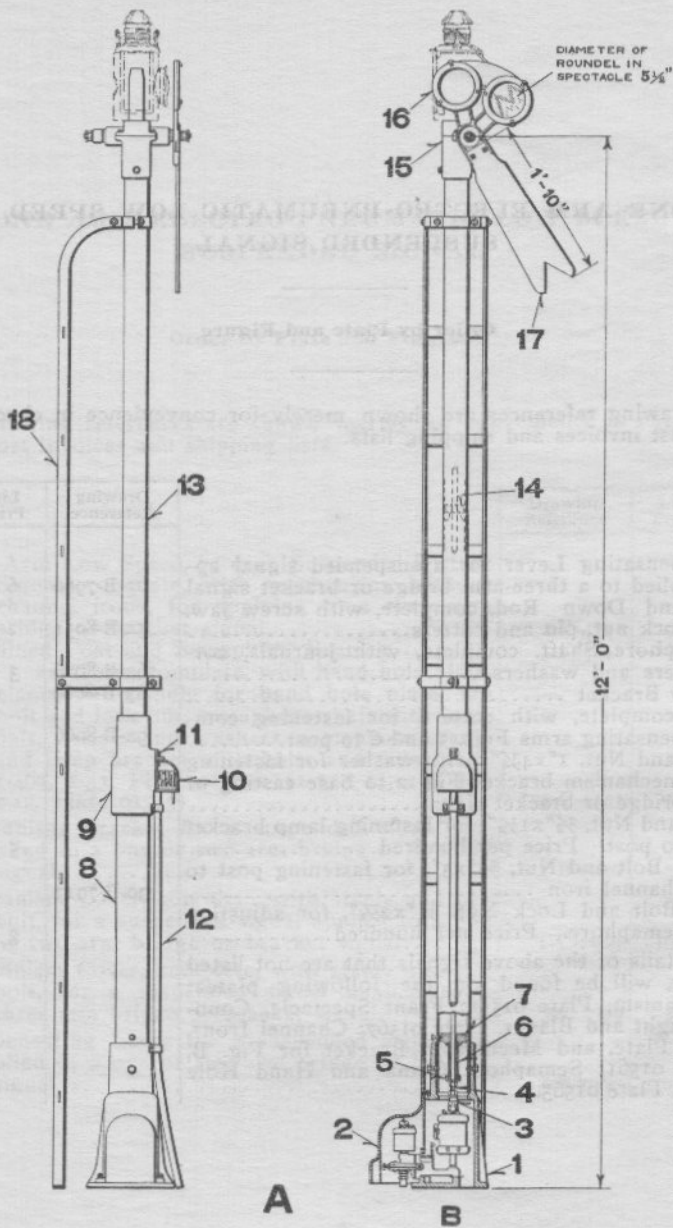
**ONE ARM ELECTRO-PNEUMATIC LOW SPEED
SUSPENDED SIGNAL**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
6	Compensating Lever for a suspended signal applied to a three-arm bridge or bracket signal	22-B-7960	6 00
7	Up and Down Rod, complete, with screw jaw, lock nut, pin and cotters.....	5a-B-8051	2 00
8	Semaphore Shaft, complete, with journals, cotters and washers.....	16a-B-8026	3 90
9	Lamp Bracket	83-B-8069	90
10	Pin, complete, with cotters, for fastening compensating arms Figs. 5 and 6 to post.....	9a-B-8066	14
11	Bolt and Nut, 1"x4 ³ / ₄ ", with washer for fastening mechanism bracket Fig. 2 to base casting of bridge or bracket signal.....		30
12	Bolt and Nut, 1/2"x1 1/2", for fastening lamp bracket to post. Price per hundred.....		5 00
13	Hook Bolt and Nut, 5/8"x3", for fastening post to channel iron	30-B-7913	08
14	Tap Bolt and Lock Nut, 3/4"x2 1/2", for adjusting semaphore. Price per hundred.....		8 00

Details of the above signals that are not listed above, will be found on the following plates: Mechanism, Plate 01551; Frant Spectacle, Counterweight and Blades, Plate 01567; Channel Irons, Dust Plate, and Mechanism Bracket for Fig. B, Plate 01561; Semaphore Crank and Hand Hole Plate, Plate 01565.



SIGNAL COMPLETE DOES NOT INCLUDE LAMP

ELECTRO-PNEUMATIC FLAG STATION SIGNAL

ELECTRO-PNEUMATIC FLAG STATION SIGNAL

The signals listed below include blades, glass, front spectacles, ladders and all other fittings shown on the opposite plate.

They do not include lamps, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	60 deg., Electro-Pneumatic Flag Station Signal, complete, as shown, twelve feet from base to center line of blade.....	2-C-6675	116 00
Aa	as above, fourteen feet from base to center line of blade.....	1-C-6675	118 00
B	Mechanism, complete, with cylinder and circuit controller, valve base, valve and magnet. Specify resistance of magnet. For details see Plate 01549.....	1-C-6719	54 00
1	Combined Post and Base, complete, with tap bolts and studs.....	2a-C-6717	10 44
2	Mechanism Cover	3-C-2588	1 80
3	Jaw for up and down rod, complete, with pin and cotter	12a-B-7742	68
4	Up and Down Rod, complete, with two lock nuts for signal twelve feet from base to center line of blade	2-B-8051	2 28
4a	as above, for signal fourteen feet from base to center line of blade.....	3-B-8051	2 44

ELECTRO-PNEUMATIC FLAG STATION SIGNAL

Order by Plate, and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

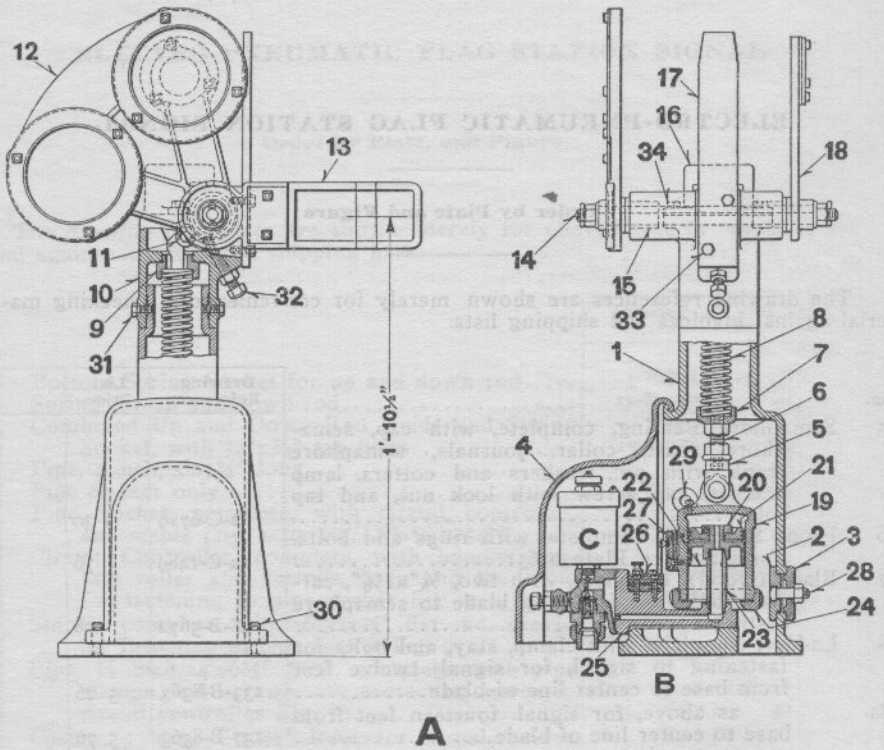
Fig.	Description	Drawing Reference	List Price
5	Bottom Spring Socket for up and down rod.....	3-B-8084	08
6	Spring for up and down rod.....	11-B-7770	40
7	Combined Up and Down Rod Guide and Spring Socket, with $\frac{3}{8}$ "x $\frac{7}{8}$ " tap bolts.....	27-B-8084	30
8	Pipe, 4 inch, 3'x $\frac{9}{4}$ " long.....		4 26
9	Pipe Socket only	4-C-6717	5 28
9a	Pipe Socket, complete, with circuit controller, and staple (1-9, 1-10, 1-11, Plate 01547).....	3a-C-6719	15 90
10	Circuit Controller, complete, with handle, contact roller and springs, hasp and tap bolts for fastening to pipe socket Fig. 9.....	3-C-6719	10 00
11	Staple, complete, with 6-32x $\frac{3}{8}$ " flat hd. screws for fastening to pipe socket Fig. 9.....	9-B-8191	54
12	Pipe, $\frac{1}{2}$ inch, 4'x6 $\frac{3}{4}$ " long, complete, with pipe clamps and screws, for protecting wires to circuit controller Fig. 10.....	3a-C-6717	42
13	Casing, 3 inch, 6'-10 $\frac{3}{8}$ " long, for signal, twelve feet from base to centre line of blade.....		4 10
13a	as above, 8'-10 $\frac{3}{8}$ " long, for signal, fourteen feet from base to center line of blade..		5 40
14	Top Guide for up and down rod with $\frac{1}{2}$ "x $\frac{3}{4}$ " tap bolts	9-B-7488	30

ELECTRO-PNEUMATIC FLAG STATION SIGNAL

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
15	Semaphore Bearing, complete, with cap, semaphore shaft, collar, journals, semaphore crank with pin, washers and cotters, lamp bracket, cap screw with lock nut, and tap bolts		
16	Front Spectacle, complete, with rings and bolts. For glass see Plate 01651.....	2-C-6719	9 30
17	Blade (wood), complete, with two, $\frac{1}{4} \times 1\frac{1}{8}$ ", carriage bolts for fastening blade to semaphore casting	1a-C-1489	1 76
18	Ladder, complete, with clamp, stay, and bolts for fastening to signal, for signal twelve feet from base to center line of blade.....	98-B-5672	78
18a	as above, for signal fourteen feet from base to center line of blade.....	133-B-8363	5 26
		137-B-8363	5 76



SIGNAL COMPLETE DOES NOT INCLUDE LAMP

ONE ARM ELECTRO-PNEUMATIC DWARF SIGNAL

ONE ARM ELECTRO-PNEUMATIC DWARF SIGNAL

The signal listed below includes blade, glass, front and back spectacles, and all other fittings shown on the opposite plate.

It does not include lamp, number plate or reservoir, which must be ordered separately when required.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	One Arm, 60 deg., Electro-Pneumatic Dwarf Signal, complete, as shown. Specify resistance of magnet	1-C-6885	82 00
B	Mechanism, complete, with cylinder and circuit controller, valve base, valve and magnet. Specify resistance of magnet, (1-19a, 1-25, 1-C, Plate 01549)	1a-A-2585	54 00
Ba	as above, without valve and magnet (1-19a, 1-25, Plate 01549)	1-A-2585	24 00
C	Valve and Magnet, complete, as shown. Specify resistance of magnet. For details see Plate 01559	2-A-2583	30 00
1	Combined Post and Base only	1-C-4841	9 40
1a	as above, complete, with plugs, bolt, studs and pipe plugs (1-1, 1-2, 1-3, 1-28, 2-30, 2-29, Plate 01549)	1a-C-4841	9 70
2	Inside Plug for base	4-C-4841	06
3	Outside Plug for base	3-C-4841	06
4	Mechanism Cover	3-C-2588	1 80
5	Jaw for up and down rod, complete, with pin and cotter	12a-B-7742	68
6	Up and Down Rod, complete, with two 5/8 inch lock nuts	1-B-8051	44
7	Bottom Spring Socket for up and down rod	3-B-8084	08
8	Spring for up and down rod	11-B-7770	40
9	Top Spring Socket for up and down rod	2-B-8084	06
10	Semaphore Bearing	3-C-4117	4 70

ONE ARM ELECTRO-PNEUMATIC DWARF SIGNAL

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
11	Semaphore Crank, complete, with pin, washers and cotters.....	3a-B-8102	54
12	Front Spectacle, complete, with rings and bolts.. For glass see Plate 01651.....	1a-C-1489	1 76
13	Rubber Blade, complete, with plate and bolts...	47c-B-5672	76
14	Semaphore Shaft, complete, with nuts, washers and cotters.....	38a-B-8026	80
15	Journal for semaphore shaft.....	5-B-8093	66
16	Cap for semaphore bearing.....	5-C-2588	44
17	Lamp Bracket.....	1-B-8069	24
18	Back Spectacle, complete, with ring and bolts...	11a-B-7654	52
19	Cylinder only, with oil plug.....	9a-B-8194	5 30
19a	Cylinder, complete, with piston, piston rings, cage for piston rings, nut, hollow piston rod, cap, gasket, and circuit controller, (1-19, 1-22, 2-21a, 1-21, 1-20, 1-23, 1-24, 1-24a, 1-26, 1-27, Plate 01549).....	1b-A-2585	24 00
20	Nut for fastening cage for piston rings to piston.	104-B-8109	36
21	Cage for piston rings.....	6-C-2218	2 00
21a	Piston Ring.....	1-B-8197	66
22	Piston	15-B-8328	2 42
22a	Piston, complete, with piston rings, cage for piston rings, and nut (1-22, 2-21a, 1-21, 1-20, Plate 01549)	1-B-9878	6 00

ONE ARM ELECTRO-PNEUMATIC DWARF SIGNAL

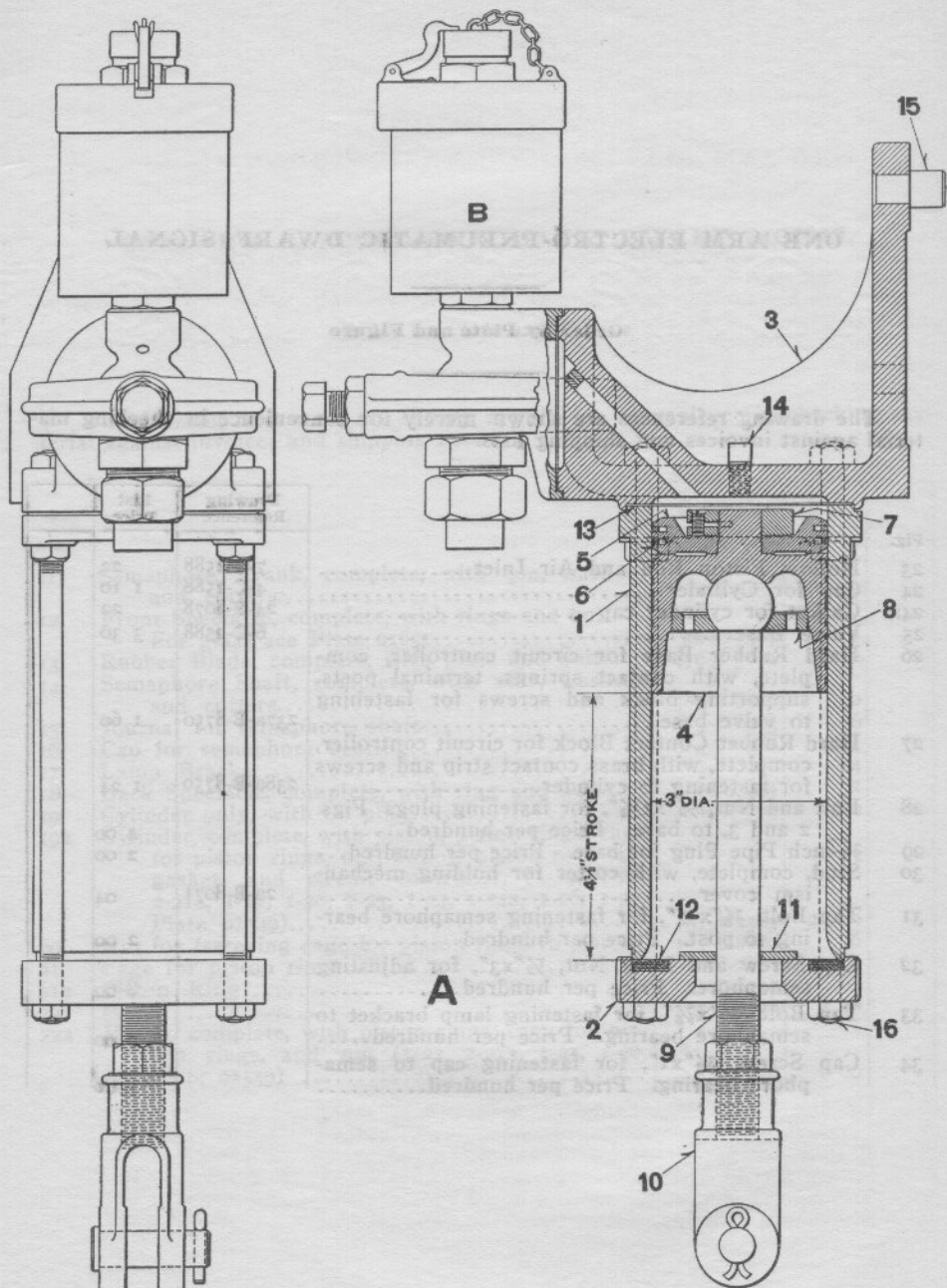
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- 23 Hollow Piston Rod and Air Inlet.....
- 24 Cap for Cylinder.....
- 24a Gasket for cylinder cap.....
- 25 Valve Base.....
- 26 Hard Rubber Base for circuit controller, complete, with contact springs, terminal posts, supporting block and screws for fastening to valve base.....
- 27 Hard Rubber Contact Block for circuit controller, complete, with brass contact strip and screws for fastening to cylinder.....
- 28 Bolt and Nut, $\frac{1}{2}'' \times 1\frac{1}{2}''$, for fastening plugs Figs. 2 and 3, to base. Price per hundred.....
- 29 $\frac{3}{8}$ -inch Pipe Plug for base. Price per hundred...
- 30 Stud, complete, with cotter for holding mechanism cover.....
- 31 Tap Bolt, $\frac{3}{8}'' \times \frac{3}{4}''$, for fastening semaphore bearing to post. Price per hundred.....
- 32 Cap Screw and Lock Nut, $\frac{1}{2}'' \times 3''$, for adjusting semaphore. Price per hundred.....
- 33 Tap Bolt, $\frac{3}{8}'' \times 7\frac{1}{8}''$, for fastening lamp bracket to semaphore bearing. Price per hundred.....
- 34 Cap Screw, $\frac{3}{8}'' \times 1''$, for fastening cap to semaphore bearing. Price per hundred.....

Drawing Reference	List Price
7-C-2588	22
4-C-2588	1 10
24-B-8078	22
6-C-2588	3 30
237a-B-8750	1 60
238a-B-8750	1 24
	4 00
	2 00
2a-B-8071	04
	2 00
	8 00
	2 00
	3 00



MECHANISM FOR TWO POSITION ELECTRO-PNEUMATIC HIGH SIGNALS

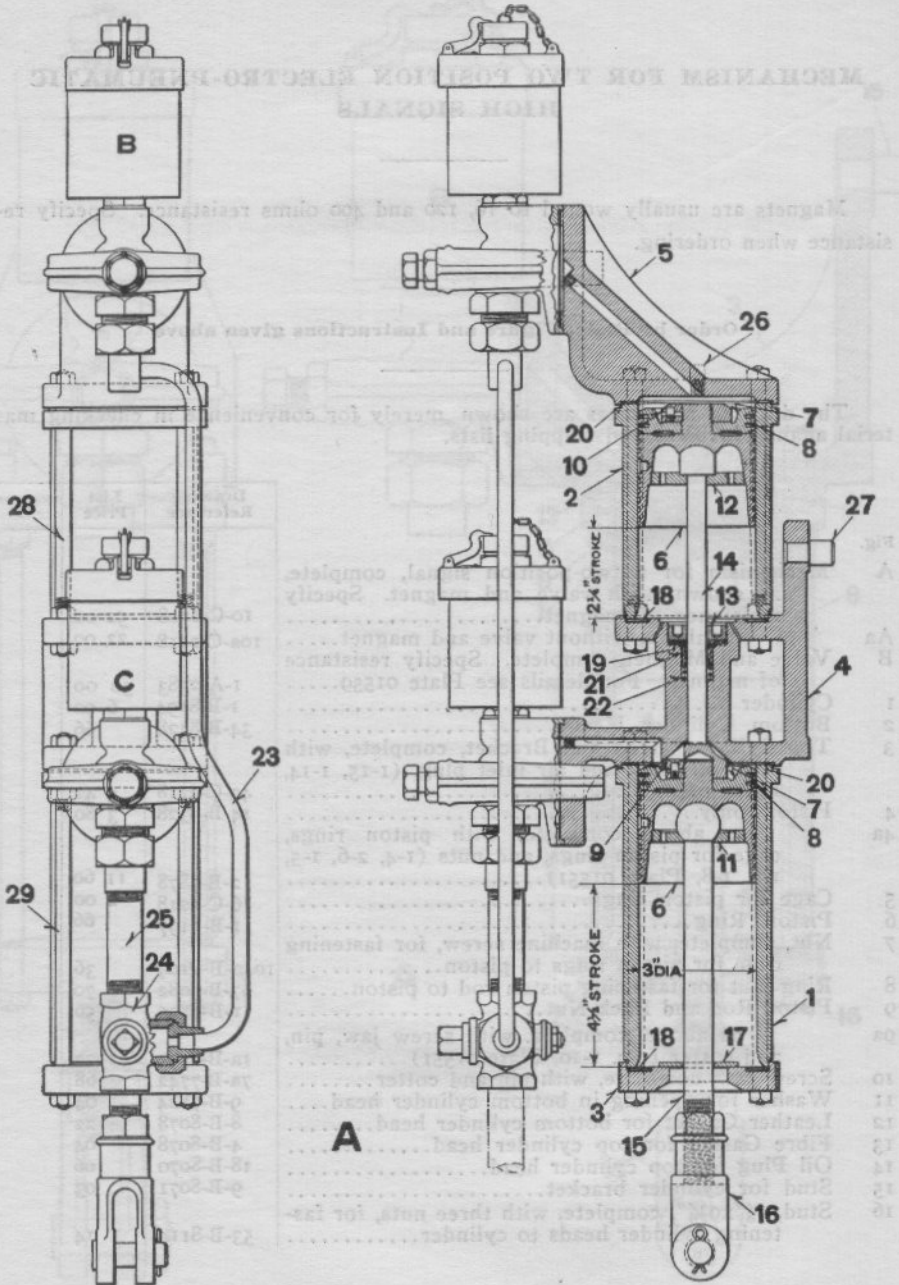
MECHANISM FOR TWO POSITION ELECTRO-PNEUMATIC HIGH SIGNALS

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Mechanism for a two-position signal, complete, as shown, with valve and magnet. Specify resistance of magnet.....	10-C-2218	52 00
Aa	as above, without valve and magnet.....	10a-C-2218	22 00
B	Valve and Magnet, complete. Specify resistance of magnet. For details see Plate 01559.....	1-A-2583	30 00
1	Cylinder	1-B-8194	6 00
2	Bottom Cylinder Head.....	34-B-8428	66
3	Top Cylinder Head and Bracket, complete, with stud, oil plug, and air inlet plug, (1-15, 1-14, Plate 01551).....	4a-C-2218	3 42
4	Piston only.....	14-B-8328	3 80
4a	as above, complete, with piston rings, cage for piston rings, and nuts (1-4, 2-6, 1-5, 1-7, 1-8, Plate 01551).....	2-B-9878	11 60
5	Cage for piston rings.....	6-C-2218	2 00
6	Piston Ring.....	1-B-8197	66
7	Nut, complete, with machine screw, for fastening cage for piston rings to piston.....	104a-B-8109	36
8	Ring Nut for fastening piston rod to piston.....	67-B-8082	70
9	Piston Rod and Lock Nut.....	1-B-8195	56
9a	as above, complete, with screw jaw, pin, and cotter (1-9, 1-10, Plate 01551).....	1a-B-8195	1 22
10	Screw Jaw, complete, with pin and cotter.....	7a-B-7742	68
11	Washer for opening in bottom cylinder head....	9-B-7824	04
12	Leather Gasket for bottom cylinder head.....	8-B-8078	22
13	Fibre Gasket for top cylinder head.....	4-B-8078	04
14	Oil Plug for top cylinder head.....	18-B-8070	06
15	Stud for cylinder bracket.....	9-B-8071	03
16	Stud, 3/8"x9 3/4", complete, with three nuts, for fastening cylinder heads to cylinder.....	53-B-8114	14



MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC HIGH SIGNALS

**MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC
HIGH SIGNALS**

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Mechanism for a three-position signal, complete, as shown, with valves and magnets, pipe connections and cock between the valves. Specify resistance of magnets.....	9-C-3729	130 00
Aa	as above, without valves and magnets, pipe connections or cock.....	9a-C-3729	63 00
B	Valve and Magnet, complete, for top cylinder. Specify resistance of magnet. For details see Plate 01559.....	7-A-2583	30 00
C	Valve and Magnet, complete, for bottom cylinder. Specify resistance of magnet. For details see Plate 01559.....	1-A-2583	30 00
1	Bottom Cylinder.....	1-B-8194	6 00
2	Top Cylinder.....	3-B-8194	6 00
3	Bottom Head for bottom cylinder.....	34-B-8422	66
4	Cylinder Bracket and Head for bottom cylinder, complete, with air inlet plug, oil plug, and stud, (1-26, 1-27, Plate 01553).....	6a-C-3729	16 00
5	Top Head for top cylinder, complete, with air inlet plug and oil plug Fig. 26.....	7a-C-3729	4 86
6	Piston only, for top or bottom cylinder.....	14-B-8328	3 80
6a	Piston for bottom cylinder, complete, with piston rings, cage for piston rings, and nuts, (1-6, 2-8, 1-7, 1-9, 1-11, Plate 01553).....	3-B-9878	11 60

**MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC
HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

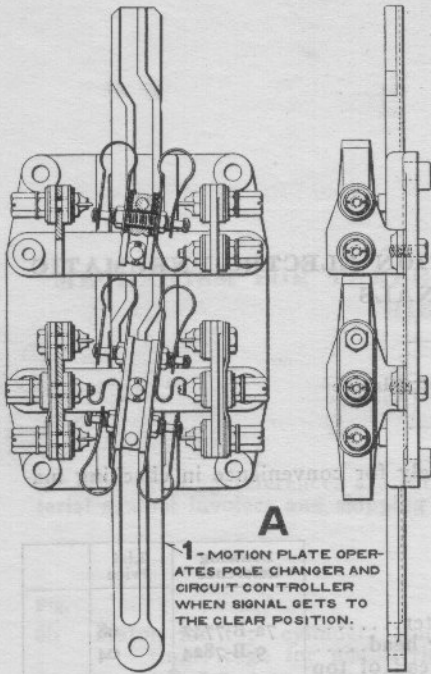
Fig.	Description	Drawing Reference	List Price
6b	Piston for top cylinder, complete, with piston rings, cage for piston rings and nuts, (1-6, 2-8, 1-7, 1-10, 1-12, Plate 01553).....	6-B-9878	12 00
7	Cage for piston rings for top or bottom cylinder.	6-C-2218	2 00
8	Piston Ring for top or bottom cylinder.....	1-B-8197	66
9	Nut, complete, with machine screw, for fastening cage for piston rings to piston in bottom cylinder	56a-B-8265	1 70
10	Nut, complete, with machine screw, for fastening cage for piston rings to piston in top cylinder	4a-B-8082	36
11	Ring Nut for fastening piston rod to piston in bottom cylinder.....	67-B-8082	70
12	Ring Nut for fastening piston rod to piston in top cylinder.....	10-C-3729	88
13	Ring Nut for stuffing box in cylinder bracket Fig. 4.....	86-B-8109	48
14	Piston Rod for top cylinder.....	16-B-8195	1 32
15	Piston Rod and Lock Nut for bottom cylinder..	1-B-8195	56
15a	as above, complete, with screw jaw, pin and cotter (1-15, 1-16, Plate 01553).....	1a-B-8195	1 22

MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC HIGH SIGNALS

Order by Plate and Figure

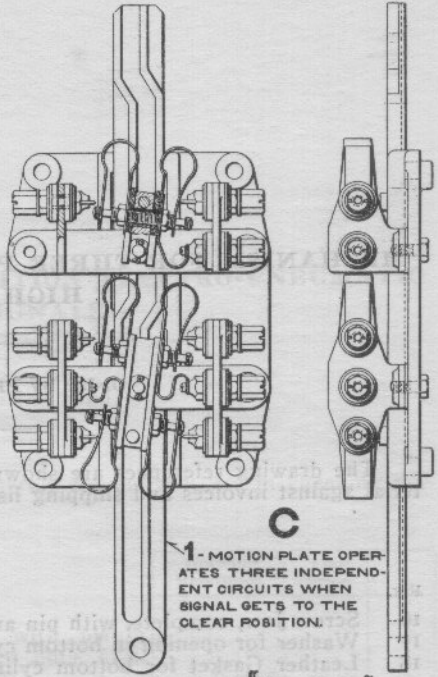
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
16	Screw Jaw, complete, with pin and cotter.....	7a-B-7742	68
17	Washer for opening in bottom cylinder head.....	9-B-7824	04
18	Leather Gasket for bottom cylinder head of top or bottom cylinder.....	8-B-8078	22
19	Leather Packing for stuffing box in cylinder bracket Fig. 4.....	18-B-8078	14
20	Fibre Gasket for top cylinder head of top or bottom cylinder.....	4-B-8078	04
21	Gland for stuffing box in cylinder bracket Fig. 4.....	32-B-8350	14
22	Spring for stuffing box in cylinder bracket. Fig. 4.....	20-B-8124	18
23	Pipe Connection between valves, complete, with unions	5-C-3729	5 40
24	Cock, 3 Way, 1/2-inch, without union.....	3-C-3729	3 20
25	Air Inlet between cock and valve for bottom cylinder	4a-B-7710	22
26	Oil Plug for top cylinder head of top or bottom cylinder	18-B-8070	06
27	Stud for cylinder bracket.....	9-B-8071	03
28	Stud, 3/8"x7 1/4", with three nuts, for fastening cylinder head and bracket to top cylinder... ..	54-B-8114	14
29	Stud, 3/8"x9 3/4", with three nuts, for fastening cylinder head and bracket to bottom cylinder	53-B-8114	14



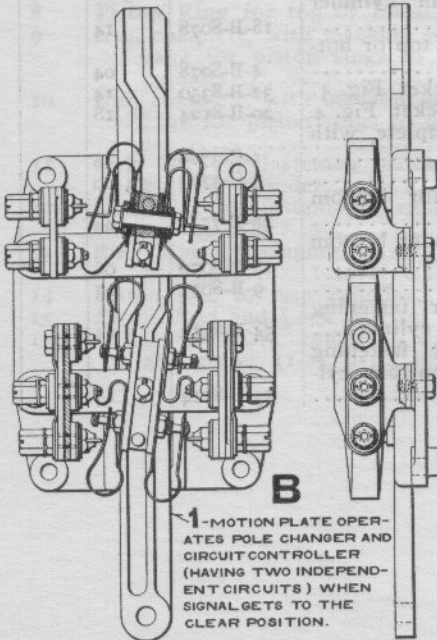
A

1-MOTION PLATE OPERATES POLE CHANGER AND CIRCUIT CONTROLLER WHEN SIGNAL GETS TO THE CLEAR POSITION.



C

1-MOTION PLATE OPERATES THREE INDEPENDENT CIRCUITS WHEN SIGNAL GETS TO THE CLEAR POSITION.

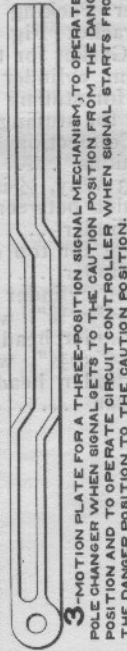


B

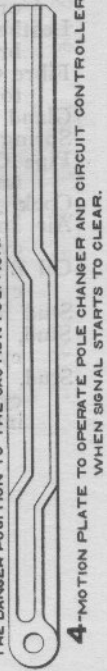
1-MOTION PLATE OPERATES POLE CHANGER AND CIRCUIT CONTROLLER (HAVING TWO INDEPENDENT CIRCUITS) WHEN SIGNAL GETS TO THE CLEAR POSITION.



2-MOTION PLATE TO OPERATE POLE CHANGER WHEN SIGNAL GETS TO THE CLEAR POSITION AND TO OPERATE CIRCUIT CONTROLLER WHEN SIGNAL STARTS TO CLEAR.



3-MOTION PLATE FOR A THREE-POSITION SIGNAL MECHANISM, TO OPERATE POLE CHANGER WHEN SIGNAL GETS TO THE CAUTION POSITION FROM THE DANGER POSITION AND TO OPERATE CIRCUIT CONTROLLER WHEN SIGNAL STARTS FROM THE DANGER POSITION TO THE CAUTION POSITION.



4-MOTION PLATE TO OPERATE POLE CHANGER AND CIRCUIT CONTROLLER WHEN SIGNAL STARTS TO CLEAR.

MOTION PLATE POLE CHANGERS AND CIRCUIT CONTROLLERS

MOTION PLATE POLE CHANGERS AND CIRCUIT CONTROLLERS

Orders for repair parts of the instruments shown on the opposite plate should always be accompanied by samples of the parts required.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Combined Motion Plate Pole Changer and Circuit Controller, complete, as shown, with motion plate Fig. 1, to operate pole changer and circuit controller when signal gets to the clear position	3-C-573I	14 50
Aa	as above, with motion plate Fig. 4, to operate pole changer and circuit controller when signal starts to clear.....	6-C-573I	14 50
Ab	as above, with motion plate Fig. 2, to operate pole changer when signal gets to the clear position, and to operate circuit controller when signal starts to clear.....	4-C-573I	14 50
Ac	as above, for a three-position signal mechanism, with motion plate Fig. 3, to operate pole changer when signal gets to the caution position from the danger position, and to operate circuit controller when signal starts from the danger position to the caution position	5-C-573I	14 50
B	Combined Motion Plate Pole Changer and Circuit Controller Having Two Independent Circuits, complete, as shown, with motion plate Fig. 1, to operate pole changer and circuit controller when signal gets to the clear position.....	9-C-573I	16 30
Ba	as above, with motion plate Fig. 4, to operate pole changer and circuit controller when signal starts to clear.....	12-C-573I	16 30
Bb	as above, with motion plate Fig. 2, to operate pole changer when signal gets to the clear position and to operate circuit controller when signal starts to clear.....	10-C-573I	16 30
Bc	as above, for a three-position signal mechanism, with motion plate Fig. 3, to operate pole changer when signal gets to the caution position from the danger position, and to operate circuit controller when signal starts from the danger position to the caution position	11-C-573I	16 30

MOTION PLATE POLE CHANGERS AND CIRCUIT CONTROLLERS

MOTION PLATE POLE CHANGERS AND CIRCUIT CONTROLLERS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
C	Motion Plate Circuit Controller for three independent circuits, with motion plate Fig. 1, to operate three independent circuits when signal gets to the clear position.....	17-C-5731	14 50
Ca	as above, with motion plate Fig. 1a, to operate one independent circuit when signal starts to clear, and to operate two independent circuits when signal gets to the clear position	1-C-5731	14 50
Cb	as above, with motion plate Fig. 1b, to operate two independent circuits when signal starts to clear, and to operate one independent circuit when signal gets to the clear position	2-C-5731	14 50
I	Motion Plate only, to operate pole changer and circuit controller or three independent circuits, when signal gets to the clear position, for Figs. A, B and C.....	3-B-7440	90
1a	Motion Plate only, to operate one independent circuit when signal starts to clear, and to operate two independent circuits when signal gets to the clear position, for Fig. Ca.....	1-B-7440	90

MOTION PLATE POLE CHANGERS AND CIRCUIT CONTROLLERS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

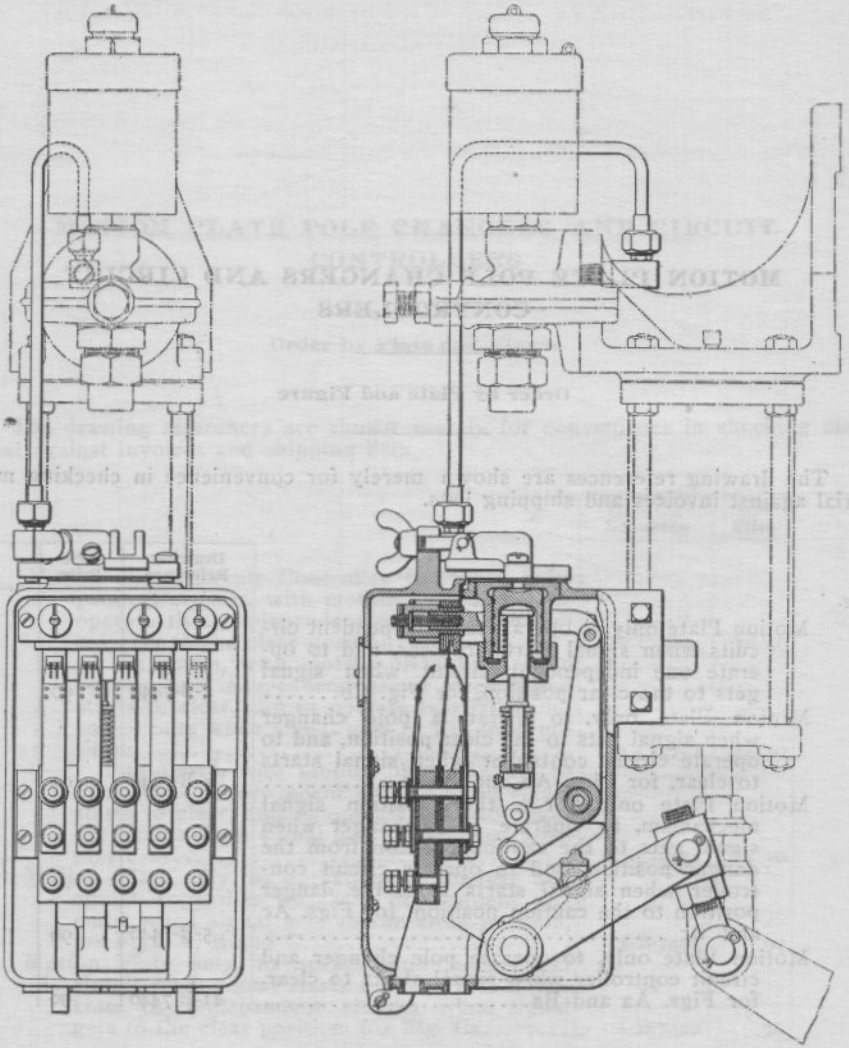
- Fig.
- 1b Motion Plate only, to operate two independent circuits when signal starts to clear, and to operate one independent circuit when signal gets to the clear position, for Fig. Cb.....
 - 2 Motion Plate only, to operate a pole changer when signal gets to the clear position, and to operate circuit controller when signal starts to clear, for Figs. Ab and Bb.....
 - 3 Motion Plate only, for a three-position signal mechanism, to operate pole changer when signal gets to the caution position from the danger position, and to operate circuit controller when signal starts from the danger position to the caution position, for Figs. Ac and Bc
 - 4 Motion Plate only, to operate pole changer and circuit controller when signal starts to clear, for Figs. Aa and Ba.....

Drawing Reference	List Price
2-B-7440	90
4-B-7440	90
5-B-7440	90
11-B-7440	90

A

PARTS THAT ARE SHOWN IN DOT AND DASH LINES ARE
 ALTERNATE PARTS OF THE SIGNAL AND ARE NOT INCLUDED WITH
 THE POLE CHANGER COMPLETE.

ELECTRO-PNEUMATIC POLE CHANGER AND
 CIRCUIT CONTROLLER



A

PARTS THAT ARE SHOWN IN DOT AND DASH LINES ARE
 ADJACENT PARTS OF THE SIGNAL AND ARE NOT INCLUDED WITH
 THE POLE CHANGER COMPLETE.

**ELECTRO-PNEUMATIC POLE CHANGER AND
 CIRCUIT CONTROLLER**

**ELECTRO-PNEUMATIC POLE CHANGER AND
CIRCUIT CONTROLLER**

Orders for repair parts of the instrument shown on the opposite plate should always be accompanied by samples of the parts required.

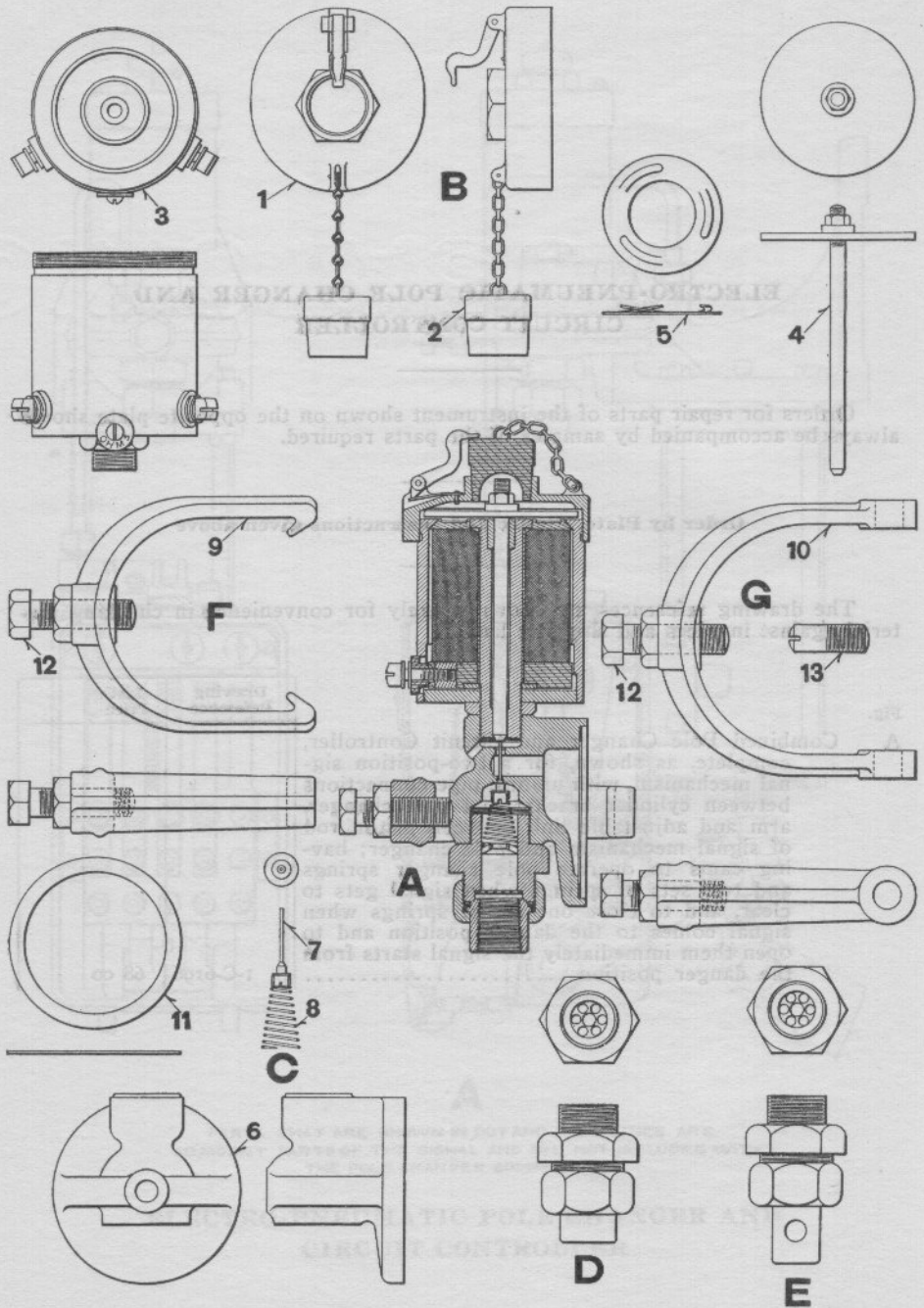
Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

A Combined Pole Changer and Circuit Controller, complete, as shown, for a two-position signal mechanism, with unions, pipe connections between cylinder bracket and pole changer, arm and adjustable link between piston rod of signal mechanism and pole changer; having cams to operate pole changer springs and two sets of springs when signal gets to clear, and to close one set of springs when signal comes to the danger position and to open them immediately the signal starts from the danger position.....

Drawing Reference	List Price	
1-C-6196	68 00	



VALVE AND MAGNET FOR ELECTRO-PNEUMATIC SIGNALS

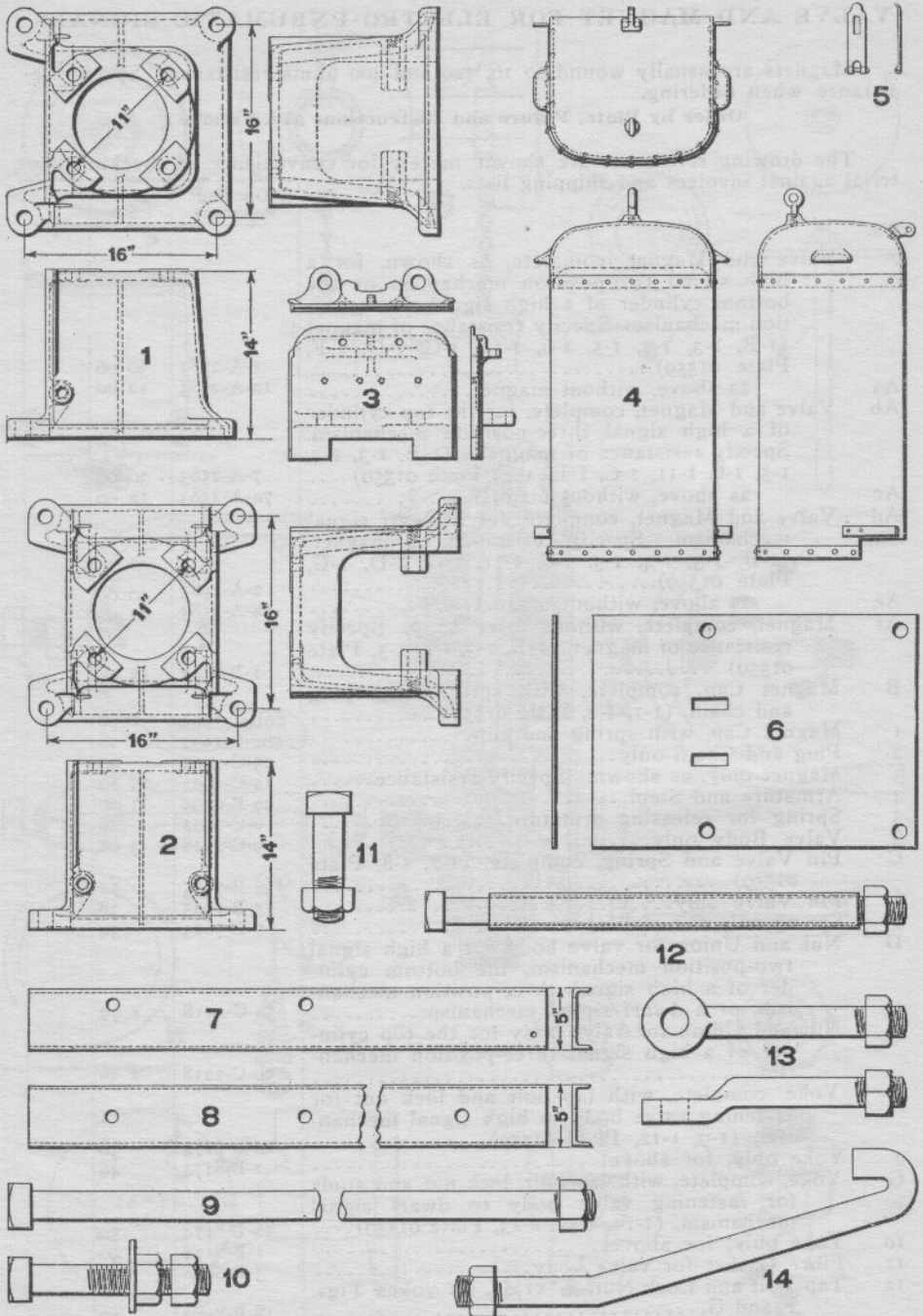
VALVE AND MAGNET FOR ELECTRO-PNEUMATIC SIGNALS

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Valve and Magnet, complete, as shown, for a high signal two-position mechanism or the bottom cylinder of a high signal three-position mechanism. Specify resistance of magnet (1-B, 1-3, 1-4, 1-5, 1-6, 1-11, 1-C, 1-D, 1-F, Plate 01559).....	1-A-2583	30 00
Aa	as above, without magnet.....	1a-A-2583	12 00
Ab	Valve and Magnet, complete, for the top cylinder of a high signal three-position mechanism. Specify resistance of magnet. (1-B, 1-3, 1-4, 1-5, 1-6, 1-11, 1-C, 1-E, 1-F, Plate 01559)....	7-A-2583	30 00
Ac	as above, without magnet.....	7a-A-2583	12 00
Ad	Valve and Magnet, complete, for a dwarf signal mechanism. Specify resistance of magnet. (1-B, 1-3, 1-4, 1-5, 1-6, 1-11, 1-C, 1-D, 1-G, Plate 01559).....	2-A-2583	30 00
Ae	as above, without magnet.....	2a-A-2583	12 00
Af	Magnet, complete, without valve body. Specify resistance of magnet. (1-B, 1-3, 1-4, 1-5, Plate 01559)	1-B-8342	18 00
B	Magnet Cap, complete, with spring, clip, plug and chain, (1-1, 1-2, Plate 01559).....	26b-C-1992	1 68
1	Magnet Cap, with spring and clip.....	26a-C-1992	1 28
2	Plug and Chain only.....	25-C-1992	40
3	Magnet only, as shown. Specify resistance.....	1a-C-1992	13 80
4	Armature and Stem.....	9a-B-9595	3 00
5	Spring for releasing armature.....	6-C-1992	16
6	Valve Body only.....	9-C-2218	3 08
C	Pin Valve and Spring, complete, (1-7, 1-8, Plate 01559)	15a-B-7625	72
7	Pin Valve only.....	15-B-7625	38
8	Spring only, for pin valve.....	7-B-7625	34
D	Nut and Union for valve body for a high signal two-position mechanism, the bottom cylinder of a high signal three-position mechanism, or a dwarf signal mechanism.....	5a-C-2218	1 72
E	Nut and Union for valve body for the top cylinder of a high signal three-position mechanism	5b-C-2218	2 36
F	Yoke, complete, with tap bolt and lock nut for fastening valve body to high signal mechanism, (1-9, 1-12, Plate 01559).....	2a-B-8174	56
9	Yoke only, for above.....	2-B-8174	46
G	Yoke, complete, with tap bolt, lock nut and studs for fastening valve body to dwarf signal mechanism, (1-10, 1-12, 2-13, Plate 01559)....	1a-B-8174	50
10	Yoke only, for above.....	1-B-8174	40
11	Fibre Gasket for valve body.....	3-B-8078	04
12	Tap Bolt and Lock Nut, 1/2"x1 3/4", for yokes Figs. F and G.....	18-B-8280	10
13	Stud, 1/2"x1 3/8", for fastening yoke Fig. 10 to valve base	1-B-8115	06



BASES, MECHANISM COVERS, CHANNEL IRONS, ETC., FOR ELECTRO-PNEUMATIC HIGH SIGNALS

**BASES, MECHANISM COVERS, CHANNEL IRONS, ETC., FOR
ELECTRO-PNEUMATIC HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
1	Base Casting only, as shown, for a one or two-arm signal.....	1-C-4918	16 50
2	Base Casting only, as shown, for a three or four-arm signal.....	1-C-4872	21 00
3	Mechanism Bracket only, as shown, for bridge or bracket signals and one or two arm ground signals.....	2-C-4873	3 30
3a	as above, with hasp Fig. 5.....	2a-C-4873	3 50
3b	as above, with hasp Fig. 5a.....	2b-C-4873	3 60
3c	Mechanism Bracket for a three or four-arm ground signal.....	2-C-6315	2 90
3d	as above, with hasp Fig. 5a.....	2a-C-6315	3 20
3e	as above, with hasp and hinge Fig. 5b....	2b-C-6315	4 25
4	Cover, as shown, complete, with eye bolt and staple, for a two-position signal mechanism.....	7-C-1969	8 80
4a	as above, for a three-position signal mechanism.....	9-C-1969	14 30
5	Hasp, with $\frac{1}{4} \times 1\frac{3}{4}$ " rd. hd. rivet, as shown, for fastening a two-position mechanism cover to mechanism bracket Fig. 3.....	14-B-8299	10
5a	as above, for fastening a three-position mechanism cover to mechanism bracket, Fig. 3 or 3c.....	16-B-8299	20
5b	Hasp and Hinge, complete, with $\frac{1}{4} \times 1\frac{3}{4}$ " rd. hd. rivets, for fastening a two-position mechanism cover to mechanism bracket Fig. 3c.....	19a-B-8299	1 25
6	Dust Plate, as shown, for a one or two arm bridge or bracket signal.....	5-B-8470	3 66
6a	as above, for a one or two-arm bridge or bracket signal with suspended low speed signal.....	10-B-8470	4 30

**BASES, MECHANISM COVERS, CHANNEL IRONS, ETC., FOR
ELECTRO-PNEUMATIC HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

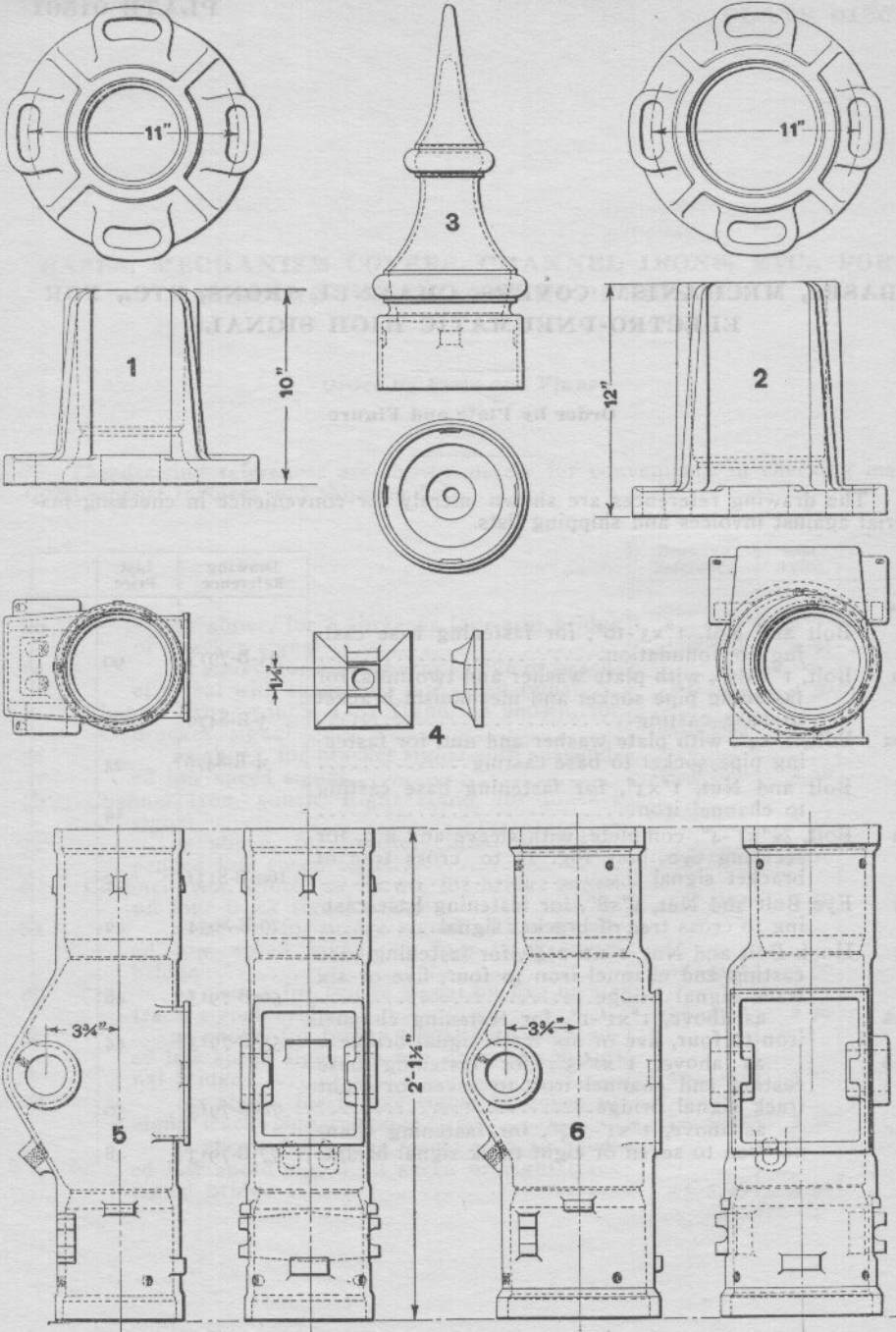
Fig.		Drawing Reference	List Price
6b	as above, for a three or four-arm bridge or bracket signal.....	6-B-8470	3 94
6c	as above, for a three-arm bridge or bracket signal with suspended low speed signal....	11-B-8470	4 30
7	Channel Iron, 5-inch, Left Hand, as shown, for bracket signal.....	16a-B-8861	1 72
7a	as above, for bracket signal with suspended low speed signal.....	16c-B-8861	2 10
7b	Channel Iron, 5-inch, Right Hand, for bracket signal	16b-B-8861	1 72
7c	as above, for bracket signal with suspended low speed signal.....	16d-B-8861	2 10
8	Channel Iron, 5-inch, as shown, for bridge signal on four track signal bridge.....	1-C-4151	2 50
8a	as above, for bridge signal with suspended low speed signal on four track signal bridge	2-C-4151	2 90
8b	as above, for bridge signal on five or six track signal bridge.....	3-C-4151	2 70
8c	as above, for bridge signal with suspended low speed signal on five or six track signal bridge	4-C-4151	3 10
8d	as above, for bridge signal on seven or eight track signal bridge.....	1-C-5743	3 40
8e	as above, for bridge signal with suspended low speed signal on seven or eight track signal bridge	2-C-5743	3 90

**BASES, MECHANISM COVERS, CHANNEL IRONS, ETC., FOR
ELECTRO-PNEUMATIC HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
9	Bolt and Nut, 1"x3'-10", for fastening base casting to foundation.....	95-B-7913	90
10	Bolt, 1"x6¼", with plate washer and two nuts, for fastening pipe socket and mechanism bracket to base casting.....	3-B-8479	32
10a	Bolt, 1"x4", with plate washer and nut, for fastening pipe socket to base casting.....	4-B-8479	24
11	Bolt and Nut, 1"x3", for fastening base casting to channel iron.....		14
12	Bolt, 7/8"x1'-4", complete, with sleeve and nut, for securing eye bolt Fig. 13 to cross tree of bracket signal	16a-B-8131	32
13	Eye Bolt and Nut, 1"x8", for fastening base casting to cross tree of bracket signal.....	29-B-8034	42
14	Hook Bolt and Nut, 1"x1'-2¾", for fastening base casting and channel iron to four, five or six track signal bridge.....	56-B-7913	46
14a	as above, 1"x1'-1", for fastening channel iron to four, five or six track signal bridge..	55-B-7913	44
14b	as above, 1"x1'-5", for fastening base casting and channel iron to seven or eight track signal bridge.....	78-B-7913	50
14c	as above, 1"x1'-3¼", for fastening channel iron to seven or eight track signal bridge..	77-B-7913	48



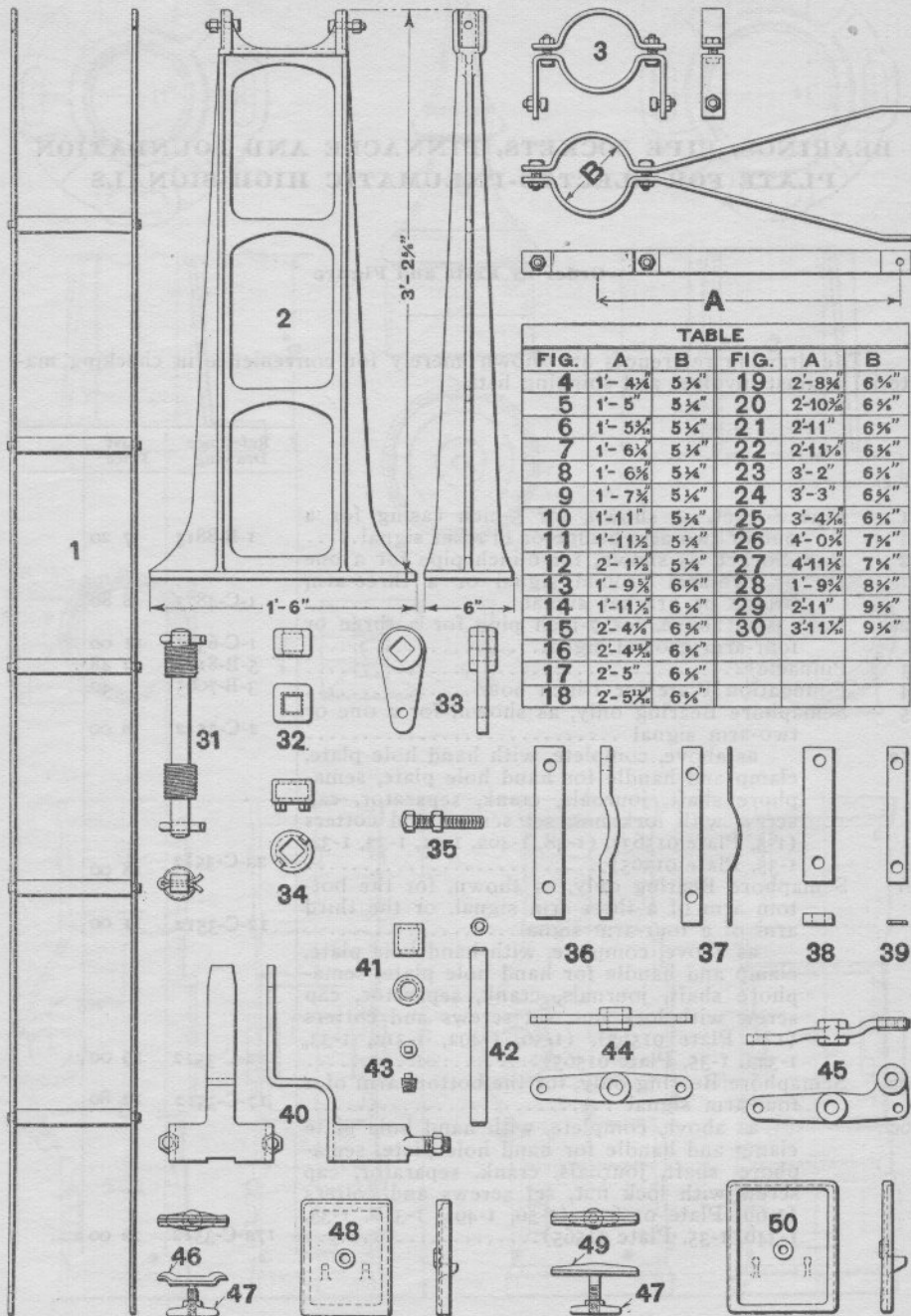
BEARINGS, PIPE SOCKETS, PINNACLE AND FOUNDATION
 PLATE FOR ELECTRO-PNEUMATIC HIGH SIGNALS

**BEARINGS, PIPE SOCKETS, PINNACLE AND FOUNDATION
PLATE FOR ELECTRO-PNEUMATIC HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Reference Drawing	List Price
1	Pipe Socket, as shown, for 5-inch casing for a one or two-arm bridge or bracket signal.....	1-B-8813	7 20
2	Pipe Socket, as shown, for 6-inch pipe for a one or two-arm ground signal or a three-arm bridge or bracket signal.....	1-C-4873	8 80
2a	as above, for 7-inch pipe for a three or four-arm ground signal.....	1-C-6315	11 00
3	Pinnacle	5-B-8121	2 48
4	Foundation Plate for 1-inch bolt.....	3-B-7065	40
5	Semaphore Bearing only, as shown, for a one or two-arm signal	2-C-3512	8 00
5a	as above, complete, with hand hole plate, clamp and handle for hand hole plate, semaphore shaft, journals, crank, separator, cap screw with lock nut, set screws and cotters (1-5, Plate 01563), (1-48, 1-46a, 1-31, 1-33, 1-34, 1-35, Plate 01565).....	2a-C-3512	18 00
6	Semaphore Bearing only, as shown, for the bottom arm of a three-arm signal, or the third arm of a four-arm signal.....	12-C-3512	11 00
6a	as above, complete, with hand hole plate, clamp and handle for hand hole plate, semaphore shaft, journals, crank, separator, cap screw with lock nut, set screws and cotters (1-6, Plate 01563), (1-50, 1-49a, 1-31a, 1-33, 1-34a, 1-35, Plate 01565).....	12a-C-3512	19 00
6b	Semaphore Bearing only, for the bottom arm of a four-arm signal	17-C-3512	12 80
6c	as above, complete, with hand hole plate clamp and handle for hand hole plate, semaphore shaft, journals, crank, separator, cap screw with lock nut, set screws and cotters (1-6b, Plate 01563), (1-50, 1-49a, 1-31b, 1-33, 1-34b, 1-35, Plate 01565).....	17a-C-3512	22 00



TABLE

FIG.	A	B	FIG.	A	B
4	1'-4 1/4"	5 3/4"	19	2'-8 3/4"	6 3/4"
5	1'-5"	5 3/4"	20	2'-10 1/2"	6 3/4"
6	1'-5 1/2"	5 3/4"	21	2'-11"	6 3/4"
7	1'-6 1/4"	5 3/4"	22	2'-11 1/2"	6 3/4"
8	1'-6 1/2"	5 3/4"	23	3'-2"	6 3/4"
9	1'-7 1/4"	5 3/4"	24	3'-3"	6 3/4"
10	1'-11"	5 3/4"	25	3'-4 1/2"	6 3/4"
11	1'-11 1/2"	5 3/4"	26	4'-0 1/2"	7 3/4"
12	2'-1 1/2"	5 3/4"	27	4'-11 1/2"	7 3/4"
13	1'-9 3/4"	6 3/4"	28	1'-9 3/4"	8 3/4"
14	1'-11 1/4"	6 3/4"	29	2'-11"	9 3/4"
15	2'-4 1/4"	6 3/4"	30	3'-11 1/2"	9 3/4"
16	2'-4 3/4"	6 3/4"			
17	2'-5"	6 3/4"			
18	2'-5 1/2"	6 3/4"			

**FITTINGS FOR ELECTRO-PNEUMATIC
HIGH SIGNALS**

FITTINGS FOR ELECTRO-PNEUMATIC HIGH SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
1	Ladder. Specify length when ordering. Price per foot	7-B-8365	32
2	Ladder Foundation, complete, with bolts and nuts for fastening ladder.....	21a-B-8848	5 60
3	Top Clamp for ladder, complete, as shown, with bolts and nuts	13-B-7501	54
4	Top Ladder Stay for a three-arm bridge or bracket signal	11-B-7501	76
5	Top Ladder Stay for two-arm, and two-arm and low speed signals without pedestals.....	11-B-7501	76
6	Top Ladder Stay for one-arm, and one-arm and low speed signals with or without pedestals..	11-B-7501	76
7	Top Ladder Stay for two-arm, and two-arm and low speed signals with pedestals.....	11-B-7501	82
8	Ladder Stay for a two-arm bridge or bracket signal	11-B-7501	82
9	Top Ladder Stay for three-arm, and three-arm and low speed signals with or without pedestals	11-B-7501	84
10	Second Ladder Stay for two-arm, and two-arm and low speed signals without pedestals.....	11-B-7501	86
11	Second Ladder Stay for one-arm and low speed signals with or without pedestals.....	11-B-7501	86
12	Second Ladder Stay for two-arm, and two-arm and low speed signals with pedestals.....	11-B-7501	88
13	Bottom Ladder Stay for a three-arm bridge or bracket signal	4-B-7501	88
14	Second Ladder Stay for one-arm signal with or without pedestal.....	4-B-7501	88
15	Second Ladder Stay for three-arm, and three-arm and low speed signals with or without pedestals	4-B-7501	1 00
16	Third Ladder Stay for one-arm, and one-arm and low speed signals with pedestals.....	4-B-7501	1 00
17	Third Ladder Stay for two-arm, and two-arm and low speed signals without pedestals.....	4-B-7501	1 00
18	Third Ladder Stay for one-arm, and one-arm and low speed signals with pedestals.....	4-B-7501	1 00
19	Third Ladder Stay for two-arm, and two-arm and low speed signals with pedestals.....	4-B-7501	1 04

FITTINGS FOR ELECTRO-PNEUMATIC HIGH SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

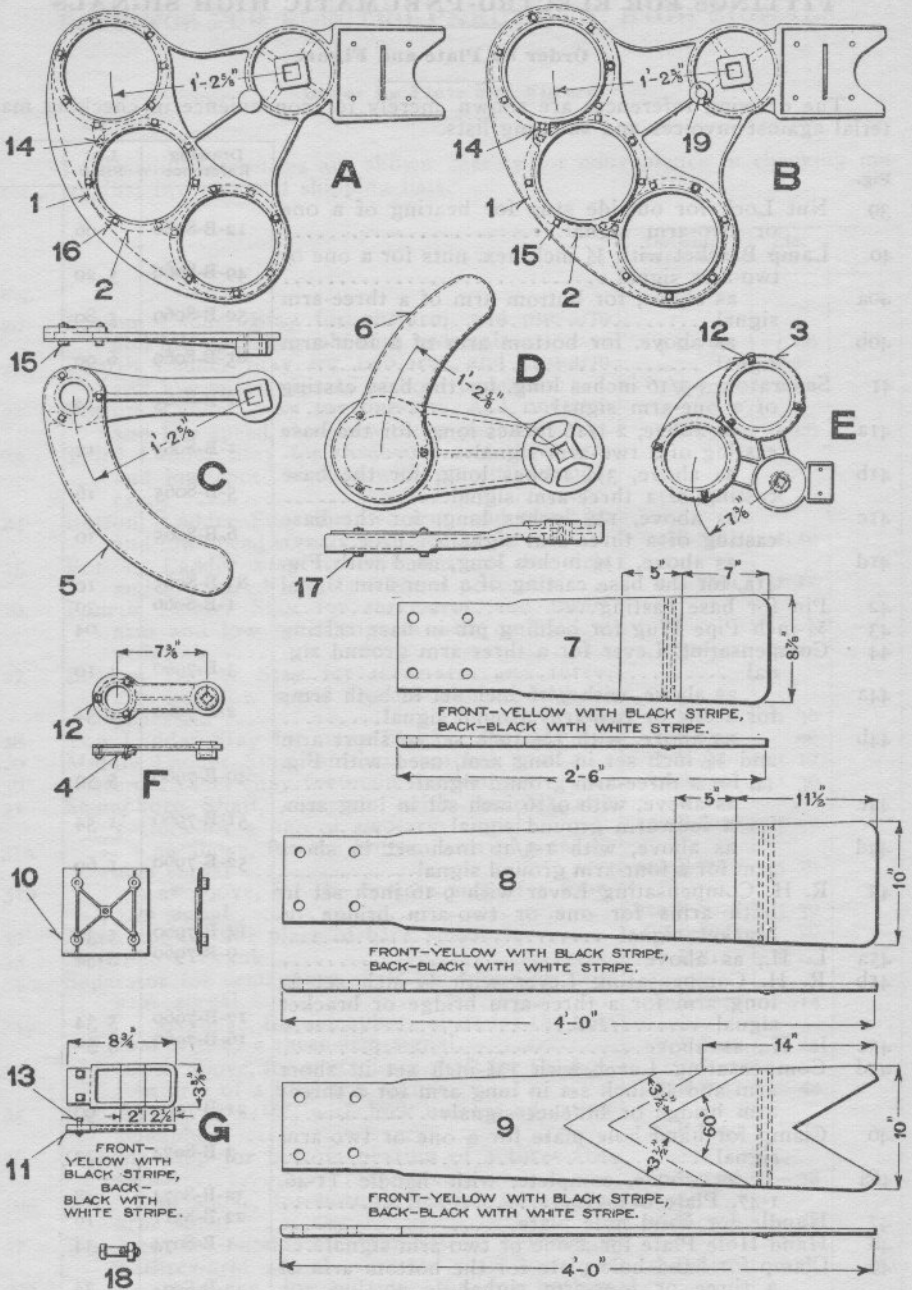
Fig.		Drawing Reference	List Price
20	Bottom Ladder Stay for one-arm, and one-arm and low speed signals with pedestals.....	4-B-7501	1 06
21	Fourth Ladder Stay for two-arm, and two-arm and low speed signals without pedestals.....	4-B-7501	1 06
22	Bottom Ladder Stay for one-arm, and one-arm and low speed signals without pedestals.....	4-B-7501	1 06
23	Third Ladder Stay for three-arm and three-arm and low speed signals with or without pedestals	4-B-7501	1 10
24	Bottom Ladder Stay for two-arm, and two-arm and low speed signals with pedestals.....	4-B-7501	1 10
25	Bottom Ladder Stay for two-arm and two-arm and low speed signals without pedestals.....	4-B-7501	1 12
26	Fourth Ladder Stay for three-arm, and three-arm and low speed signals with or without pedestals	5-B-7501	1 20
27	Bottom Ladder Stay for three-arm and three-arm and low speed signals with or without pedestals	5-B-7501	1 30
28	Top Ladder Stay for main bracket post.....	6-B-7501	90
29	Middle Ladder Stay for main bracket post.....	17-B-7501	1 12
30	Bottom Ladder Stay for main bracket post.....	17-B-7501	1 30
31	Semaphore Shaft, complete, with journals and cotters for a one or two-arm signal.....	15a-B-8026	3 90
31a	as above, for the bottom arm of a three-arm signal	17a-B-8026	5 30
31b	as above, for the bottom arm of a four-arm signal	92a-B-8026	5 30
32	Separator to take place of back spectacle.....	9-B-8047	20
33	Semaphore Crank	2-B-8103	1 00
34	Separator for semaphore shaft for a one or two-arm signal.....	2-B-8047	14
34a	as above, for semaphore shaft for the bottom arm of a three-arm signal.....	5-B-8047	24
34b	as above, for semaphore shaft for the bottom arm of a four-arm signal.....	17-B-8047	44
35	Cap Screw, 3/4"x4 1/2", with lock nut for adjusting semaphore	20-B-8099	24
36	Outside Stop for bottom bearing of a three-arm signal	3-B-9716	78
36a	as above, for bottom bearing of a four-arm signal	10-B-9716	82
37	Nut Lock for outside stop for bottom bearing of a three-arm signal.....	14-B-8486	12
37a	as above, for outside stop for bottom bearing of a four-arm signal.....	9-B-8486	18
38	Outside Stop for bearing of a one or two-arm signal	1-B-9716	40

FITTINGS FOR ELECTRO-PNEUMATIC HIGH SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
39	Nut Lock for outside stop for bearing of a one or two-arm signal.....	12-B-8486	06
40	Lamp Bracket with 3/4 inch hex. nuts for a one or two-arm signal	49-B-8069	5 20
40a	as above, for bottom arm of a three-arm signal	50-B-8069	5 80
40b	as above, for bottom arm of a four-arm signal	85-B-8069	6 00
41	Separator, 3-9/16 inches long, for the base casting of a one-arm signal.....	2-B-8065	14
41a	as above, 2-1/16 inches long, for the base casting of a two-arm signal.....	1-B-8065	12
41b	as above, 3 1/4 inches long, for the base casting of a three-arm signal.....	5-B-8065	16
41c	as above, 1 3/4 inches long, for the base casting of a three-arm signal.....	6-B-8065	10
41d	as above, 1 3/8 inches long, used with Fig. 41a, for the base casting of a four-arm signal	83-B-8065	10
42	Pin for base casting.....	1-B-8066	30
43	3/4-inch Pipe Plug for holding pin in base casting		04
44	Compensating Lever for a three-arm ground signal	3-B-7960	1 10
44a	as above, with 9/16 inch set in both arms for a one or two-arm ground signal.....	2-B-7960	1 54
44b	as above, with 1 3/8 inch set in short arm and 3/4 inch set in long arm, used with Fig. 44, for a three-arm ground signal.....	40-B-7960	5 50
44c	as above, with 9/16 inch set in long arm, for a four-arm ground signal.....	51-B-7960	1 54
44d	as above, with 1-3/16 inch set in short arm for a four-arm ground signal.....	52-B-7960	1 60
45	R. H. Compensating Lever with 9-16 inch set in both arms for one or two-arm bridge or bracket signal	14-B-7960	5 34
45a	L. H., as above.....	9-B-7960	5 34
45b	R. H. Compensating Lever with 1/4-inch set in long arm for a three-arm bridge or bracket signal	17-B-7960	5 34
45c	L. H., as above.....	16-B-7960	5 50
45d	Compensating Lever with 1 5/8-inch set in short arm and 3/4-inch set in long arm for a three-arm bridge or bracket signal.....	21-B-7960	5 90
46	Clamp for hand hole plate for a one or two-arm signal	3-B-8074	12
46a	as above, complete, with handle (1-46, 1-47, Plate 01565).....	3a-B-8074	28
47	Handle for hand hole plate.....	22-B-8311	16
48	Hand Hole Plate for a one or two-arm signal....	1-B-8074	34
49	Clamp for hand hole plate for the bottom arm of a three or four-arm signal.....	7-B-8074	34
49a	as above, complete, with handle (1-49, 1-47, Plate 01565).....	7a-B-8074	50
50	Hand Hole Plate for the bottom arm of a three or four-arm signal.....	5-B-8074	68



FRONT AND BACK SPECTACLES, COUNTERWEIGHT AND SIGNAL BLADES

**FRONT AND BACK SPECTACLES, COUNTERWEIGHT
AND SIGNAL BLADES**

No glass included in this list. For glass see Plate 01651.
Wood blades are given one priming coat of white lead before shipment, unless otherwise specified.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Three Light, 75 deg., Front Spectacle, for 8 $\frac{3}{8}$ -in. glass, complete, with rings and bolts for electro-pneumatic high signals (3-1, 3-2, 12-16, 9-14, Plate 01567).....	1a-C-3964	7 50
Aa	Three Light, 75 deg., Front Spectacle, for 8 $\frac{3}{8}$ -in. glass, complete, with rings, bolts, stud, washer and cotter, for mechanical high signals (3-1, 3-2, 12-16, 9-14, 1-19, Plate 01567).....	2a-C-3964	7 70
B	Three Light, 75 deg., Front Spectacle, for 8 $\frac{3}{8}$ -in. glass, complete, with rings, bolts, stud, washer and cotter, for electrically slotted mechanical high signals, (3-1, 3-2, 12-15, 9-14, 1-19, Plate 01567)	2a-C-6128	6 50
C	Back Spectacle, complete, with shield and bolts, for mechanical high signals, (1-5, 3-15, Plate 01567)	19a-B-7601	2 00
D	Counterweight, complete, with shield and bolts, for electro-pneumatic high signals (1-6, 3-17, Plate 01567)	4a-C-4489	3 70
E	Two Light, 60 deg., Front Spectacle, for 5 $\frac{3}{8}$ -in. glass, complete, with rings and bolts, for dwarf signals (2-3, 6-12, Plate 01567).....	1a-C-1489	1 76
F	Back Spectacle, complete, with ring and bolts, for dwarf signals (1-4, 3-12, Plate 01567).....	11a-B-7654	60

**FRONT AND BACK SPECTACLES, COUNTERWEIGHT
AND SIGNAL BLADES**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

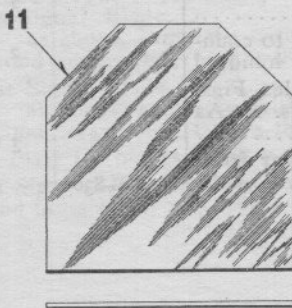
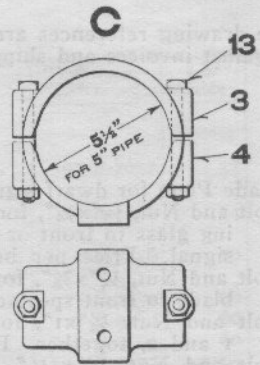
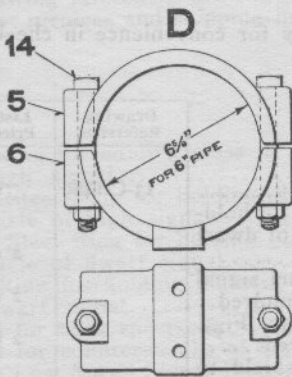
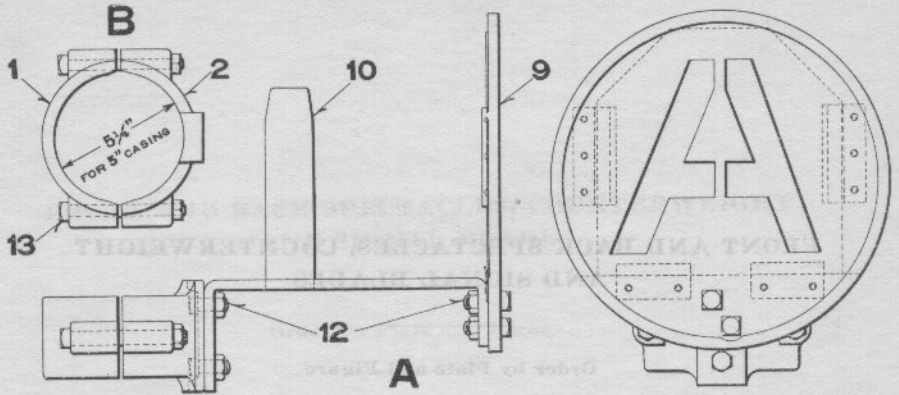
Fig.		Drawing Reference	List Price
1	Cast Ring for holding glass in front spectacle of high signal.....	93-B-7632	32
2	Sheet Steel Ring for holding glass in front spectacle of high signal.....	18-B-7436	14
3	Sheet Steel Ring for holding glass in front spectacle of dwarf signal.....	1-B-7436	10
4	Cast Ring for holding glass in back spectacle of dwarf signal.....	1-B-7632	06
5	Shield for back spectacle of high signal.....	1-B-9164	60
6	Shield for counterweight of high signal.....	2-B-9164	60
7	Home Low Speed Signal Blade.....	46-B-5672	2 00
7a	as above, complete, with plate, bolts, and wood screw, (1-7, 1-10, 4-18, Plate 01567)....	46a-B-5672	2 42
7b	Distant Low Speed Signal Blade.....	104-B-5672	2 00
7c	as above, complete, with plate, bolts, and wood screw, (1-7b, 1-10, 4-18, Plate 01567)...	104a-B-5672	2 42
8	Home Signal Blade.....	49-B-5672	2 20
8a	as above, complete, with plate, bolts, and wood screw (1-8, 1-10, 4-18, Plate 01567)...	49a-B-5672	2 62
9	Distant Signal Blade.....	50-B-5672	2 20
9a	as above, complete, with plate, bolts and wood screw (1-9, 1-10, 4-18, Plate 01567)...	50a-B-5672	2 62
10	Blade Plate for blades, Figs. 7, 8 and 9.....	2-B-8466	28
G	Dwarf Signal Blade, Rubber, complete, with plate and bolts (1-11, 2-13, Plate 01567).....	47c-B-5672	76

**FRONT AND BACK SPECTACLES, COUNTERWEIGHT
AND SIGNAL BLADES**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
11	Blade Plate for dwarf signal blade.....	13-C-1489	04
12	Bolt and Nut, $\frac{1}{4}$ "x $\frac{3}{4}$ ", for fastening ring for holding glass to front or back spectacle of dwarf signal. Price per hundred.....		2 00
13	Bolt and Nut, $\frac{1}{4}$ "x $\frac{7}{8}$ ", for fastening dwarf signal blade to front spectacle. Price per hundred..		2 00
14	Bolt and Nut, $\frac{1}{4}$ "x1", for fastening rings, Figs. 1 and 2, together. Price per hundred.....		2 00
15	Bolt and Nut, $\frac{1}{4}$ "x1 $\frac{1}{2}$ ", for fastening shield to back spectacle of high signal, and for fastening ring for holding glass to front spectacle Fig. B. Price per hundred.....		2 00
16	Bolt and Nut, $\frac{1}{4}$ "x1 $\frac{7}{8}$ ", for fastening ring for holding glass to front spectacle Fig. A. Price per hundred.....		2 20
17	Bolt and Nut, $\frac{1}{4}$ "x2", for fastening shield to counterweight of high signal. Price per hundred		2 20
18	Bolt and Nut, $\frac{3}{8}$ "x1 $\frac{3}{4}$ ", for fastening blades, Figs. 7, 8 and 9, to front spectacles, Figs. A, Aa and B. Price per hundred.....		3 00
19	Stud, complete, with washer and cotter for front spectacles Figs. Aa and B.....	1-B-8301	14



MARKER COMPLETE DOES NOT INCLUDE LAMP

AUTOMATIC SIGNAL MARKER FOR GROUND, BRIDGE OR BRACKET SIGNALS.

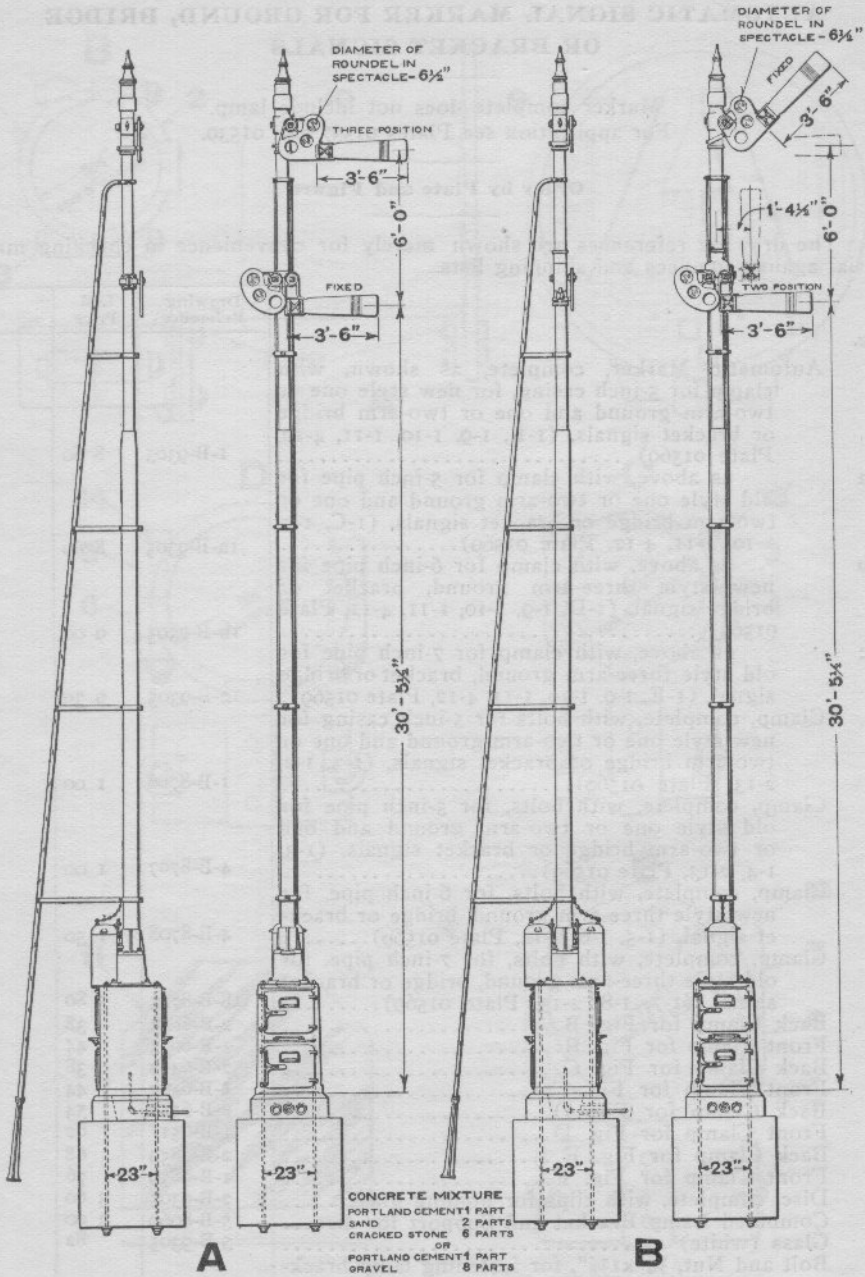
**AUTOMATIC SIGNAL MARKER FOR GROUND, BRIDGE
OR BRACKET SIGNALS**

Marker complete does not include lamp.
For application see Plates 01537 and 01539.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Automatic Marker, complete, as shown, with clamp for 5-inch casing, for new style one or two-arm ground and one or two-arm bridge or bracket signals, (1-B, 1-9, 1-10, 1-11, 4-12, Plate 01569)	1-B-9305	8 60
Aa	as above, with clamp for 5-inch pipe for old style one or two-arm ground and one or two-arm bridge or bracket signals, (1-C, 1-9, 1-10, 1-11, 4-12, Plate 01569).....	1a-B-9305	8 60
Ab	as above, with clamp for 6-inch pipe for new style three-arm ground, bracket or bridge signal, (1-D, 1-9, 1-10, 1-11, 4-12, Plate 01569)	1b-B-9305	9 00
Ac	as above, with clamp for 7-inch pipe for old style three-arm ground, bracket or bridge signal, (1-E, 1-9, 1-10, 1-11, 4-12, Plate 01569).	1c-B-9305	9 30
B	Clamp, complete, with bolts for 5-inch casing for new style one or two-arm ground and one or two-arm bridge or bracket signals, (1-1, 1-2, 2-13, Plate 01569).....	1-B-8706	1 00
C	Clamp, complete, with bolts, for 5-inch pipe for old style one or two-arm ground and one or two-arm bridge or bracket signals, (1-3, 1-4, 2-13, Plate 01569).....	4-B-8707	1 00
D	Clamp, complete, with bolts, for 6-inch pipe, for new style three-arm ground, bridge or bracket signal, (1-5, 1-6, 2-14, Plate 01569).....	4-B-8708	1 50
E	Clamp, complete, with bolts, for 7-inch pipe, for old style three-arm ground, bridge or bracket signal, (1-7, 1-8, 2-15, Plate 01569).....	18-B-8725	1 80
1	Back Clamp for Fig. B.....	2-B-6035	38
2	Front Clamp for Fig. B.....	1-B-6035	44
3	Back Clamp for Fig. C.....	2-B-6467	38
4	Front Clamp for Fig. C.....	1-B-6467	44
5	Back Clamp for Fig. D.....	2-B-6517	54
6	Front Clamp for Fig. D.....	1-B-6517	62
7	Back Clamp for Fig. E.....	2-B-9859	68
8	Front Clamp for Fig. E.....	1-B-9859	76
9	Disc, complete, with clips for holding glass.....	2-B-9305	3 60
10	Combined Lamp Bracket and Support for disc...	15-B-8069	3 00
11	Glass (white)	5-B-9305	82
12	Bolt and Nut, 1/2"x1 3/8", for fastening lamp bracket to clamp and for fastening disc to lamp bracket. Price per hundred.....		4 00
13	Bolt and Nut, 1/2"x4 1/2", for clamps Figs. B and C.....		08
14	Bolt and Nut, 5/8"x6", for clamp Fig. D.....		12
15	Bolt and Nut, 5/8"x6 1/2", for clamp Fig. E.....		12



SIGNALS COMPLETE DO NOT INCLUDE LAMPS OR FOUNDATIONS.

ELECTRO-PNEUMATIC GROUND SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

ELECTRO-PNEUMATIC GROUND SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

The signals listed below include blades, glass, front spectacles, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

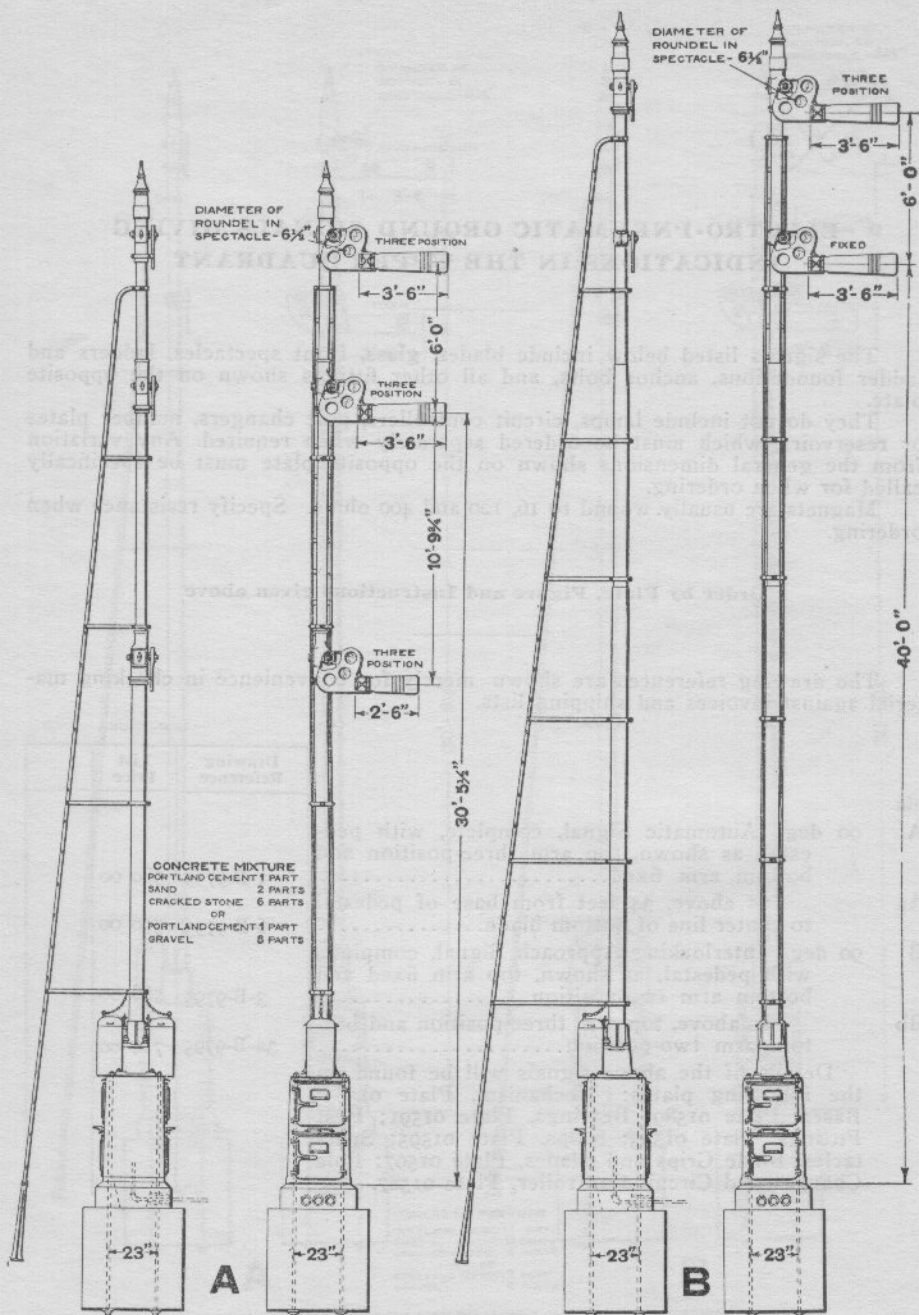
Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	90 deg., Automatic Signal, complete, with pedestal, as shown, top arm three-position and bottom arm fixed.....	1-B-9795	580 00
Aa	as above, 34 feet from base of pedestal to center line of bottom blade.....	6-B-9795	590 00
B	90 deg., Interlocking Approach Signal, complete, with pedestal, as shown, top arm fixed and bottom arm two-position.....	3-B-9795	566 00
Bb	as above, top arm three-position and bottom arm two-position.....	3a-B-9795	714 00

Details of the above signals will be found on the following plates: Mechanism, Plate 01585; Bases, Plate 01589; Bearings, Plate 01591; Post Fittings, Plate 01593; Stops, Plate 01595; Spectacles, Blade Grips and Blades, Plate 01597; Pole Changer and Circuit Controller, Plate 01587.



SIGNALS COMPLETE DO NOT INCLUDE LAMPS OR FOUNDATIONS.

ELECTRO-PNEUMATIC GROUND SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

ELECTRO-PNEUMATIC GROUND SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

The signals listed below include blades, glass, front spectacles, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

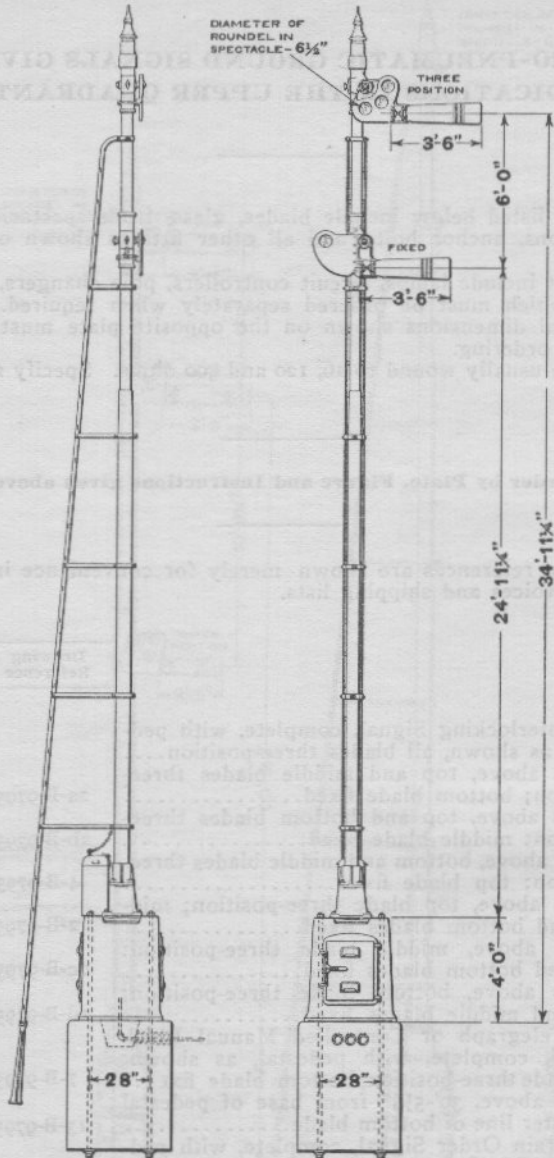
Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	90 deg., Interlocking Signal, complete, with pedestal, as shown, all blades three-position....		
Aa	as above, top and middle blades three-position; bottom blade fixed.....	2a-B-9795	860 00
Ab	as above, top and bottom blades three-position; middle blade fixed.....	2b-B-9795	860 90
Ac	as above, bottom and middle blades three-position; top blade fixed.....	4-B-9795	860 00
Ad	as above, top blade three-position; middle and bottom blades fixed.....	2-B-9795	725 00
Ae	as above, middle blade three-position; top and bottom blades fixed.....	2c-B-9795	725 00
Af	as above, bottom blade three-position; top and middle blades fixed.....	2d-B-9795	725 00
B	90 deg., Telegraph or Controlled Manual Block Signal, complete, with pedestal, as shown; top blade three-position, bottom blade fixed..	7-B-9795	606 00
Ba	as above, 30'-5½" from base of pedestal to center line of bottom blade.....	13-B-9795	580 00
Bb	90 deg., Train Order Signal, complete, with pedestal, 30'-5½" from base of pedestal to center line of bottom blade; top blade two-position, bottom blade fixed.....	7a-B-9795	550 00

Details of the above signals will be found on the following plates: Mechanism, Plate 01585; Bases, Plate 01589; Bearings, Plate 01591; Post Fittings, Plate 01593; Stops, Plate 01595; Spectacles, Blade Grips and Blades, Plate 01597; Pole Changer and Circuit Controller, Plate 01587.



A

ELECTRO-PNEUMATIC AUTOMATIC GROUND SIGNAL GIVING INDICATIONS IN THE UPPER QUADRANT

(Showing two-arm 75 degree in the lower quadrant electro-pneumatic signal changed)

ELECTRO-PNEUMATIC AUTOMATIC GROUND SIGNAL GIVING INDICATIONS IN THE UPPER QUADRANT.

(Showing two-arm 75 deg. in lower quadrant electro-pneumatic signal changed)

The fittings listed below do not include pole changer.

Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

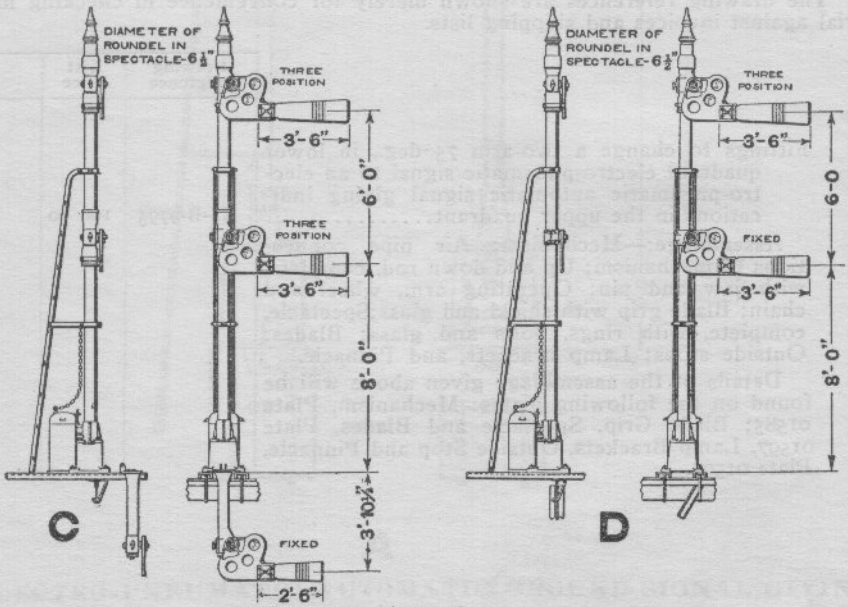
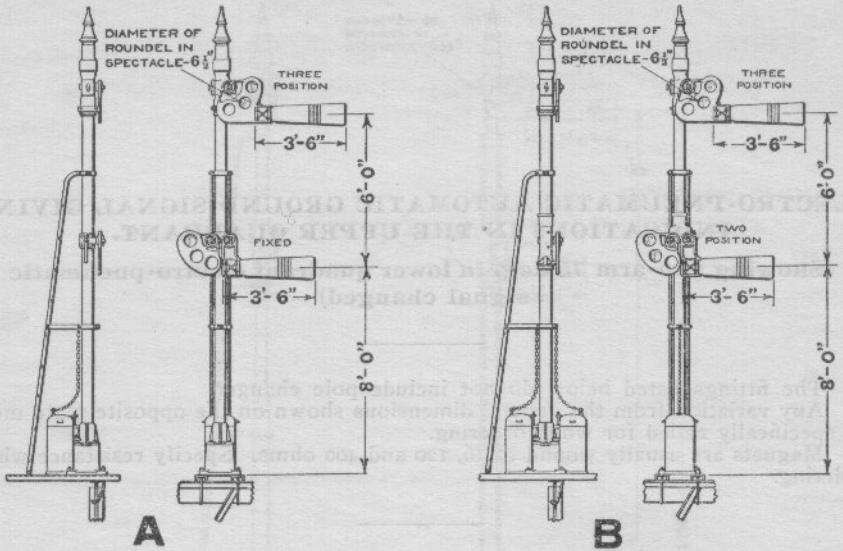
Fig.

- A Fittings to change a two-arm 75 deg., in lower quadrant electro-pneumatic signal to an electro-pneumatic automatic signal giving indications in the upper quadrant.....

Assemblage:—Mechanism; Air pipe connections to mechanism; Up and down rod, complete, with jaw and pin; Operating arm, wheel and chain; Blade grip with shield and glass; Spectacle, complete, with rings, bolts and glass; Blades; Outside stops; Lamp brackets, and Pinnacle.

Details of the assemblage given above will be found on the following plates: Mechanism, Plate 01585; Blade Grip, Spectacle and Blades, Plate 01597, Lamp Brackets, Outside Stop and Pinnacle, Plate 01595.

Drawing Reference	List Price
11-B-9795	166 00



SIGNALS COMPLETE DO NOT INCLUDE LAMPS.

ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

**ELECTRO-PNEUMATIC BRIDGE OR BRACKET SIGNALS
GIVING INDICATIONS IN THE UPPER QUADRANT**

The signals listed below include blades, glass, front spectacles, ladders, hook bolts, channel irons and all other fittings shown on the opposite plate.

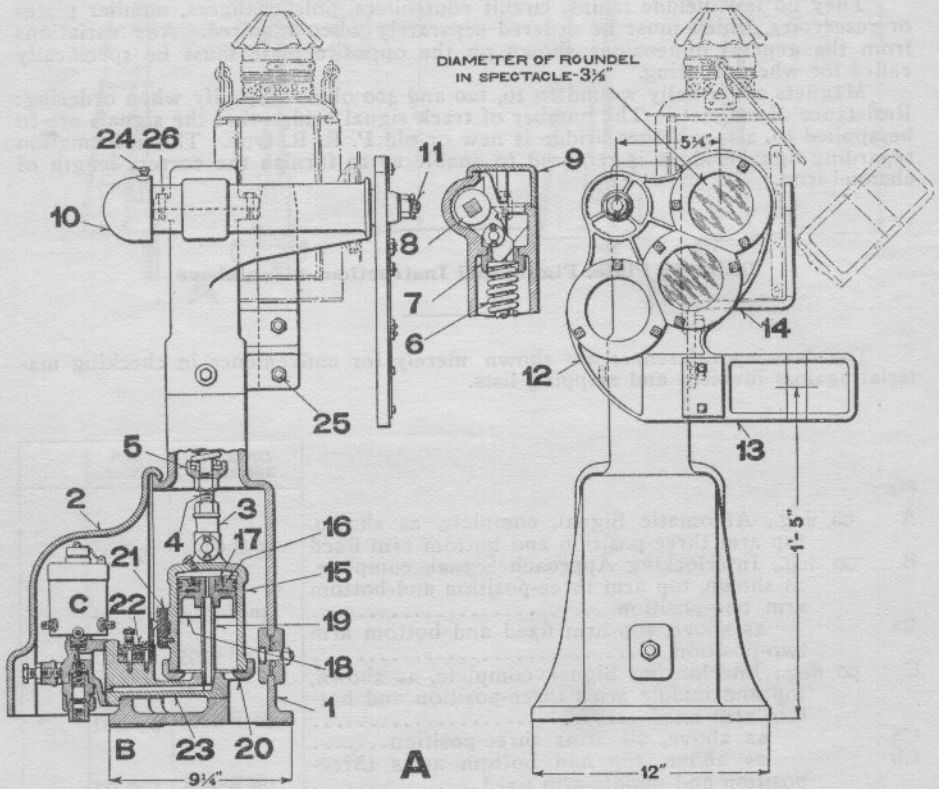
They do not include lamps, circuit controllers, pole changers, number plates or reservoirs, which must be ordered separately when required. Any variations from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Magnets are usually wound to 16, 120 and 400 ohms. Specify when ordering: Resistance of magnets. The number of track signal bridge that the signals are to be applied to, also whether bridge is new or old P. R. R. type. This information regarding signal bridges is required to enable us to furnish the correct length of channel iron.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	90 deg., Automatic Signal, complete, as shown, top arm three-position and bottom arm fixed	5-B-9795	306 00
B	90 deg., Interlocking Approach Signal, complete, as shown, top arm three-position and bottom arm two-position.....	5a-B-9795	440 00
Ba	as above, top arm fixed and bottom arm two-position	5b-B-9795	288 00
C	90 deg., Interlocking Signal, complete, as shown, top and middle arms three-position and bottom arm fixed.....	9a-B-9795	538 00
Ca	as above, all arms three-position.....		
Cb	as above, top and bottom arms three-position and middle arm fixed.....	9b-B-9795	538 00
Cc	as above, top arm, three-position and middle and bottom arms fixed.....	9-B-9795	388 00
Cd	as above, top arm fixed and middle and bottom arms three-position.....	9c-B-9795	538 00
Ce	as above, top and bottom arms fixed and middle arm three-position.....	9d-B-9795	388 00
Cf	as above, top and middle arms fixed and bottom arm three-position.....	9e-B-9795	388 00
D	90 deg., Telegraph or Controlled Manual Block Signal, complete, as shown, top arm three-position and bottom arm fixed.....	12-B-9795	306 00
Da	90 deg., Train Order Signal, complete, top arm two-position, bottom arm fixed.....	12a-B-9795	276 00



SIGNAL COMPLETE DOES NOT INCLUDE LAMP.

ONE ARM TWO POSITION ELECTRO-PNEUMATIC DWARF SIGNAL
 GIVING INDICATION IN THE UPPER QUADRANT

**ONE ARM TWO POSITION ELECTRO-PNEUMATIC
DWARF SIGNAL GIVING INDICATION
IN THE UPPER QUADRANT**

The signal listed below includes blade, glass, front spectacle and all other fittings shown on the opposite plate.

It does not include lamp, number plate or reservoir, which must be ordered separately when required.

Magnets are usually wound to 16, 120 and 400 ohms. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	One-Arm, 45 deg., Two-Position Dwarf Signal, complete, as shown, giving indication in the upper quadrant. Specify resistance of magnet	1-C-6903	82 00
B	Mechanism, complete, with cylinder and circuit controller, valve base, valve and magnet. Specify resistance of magnet. (1-15a, 1-23, 1-C, Plate 01579).....	3-A-2585	54 00
Ba	as above, without valve and magnet, (1-15a, 1-23, Plate 01579).....	2-A-2585	24 00
C	Valve and Magnet, complete. Specify resistance of magnet. For details see Plate 01559.....	2-A-2583	30 00
I	Combined Post and Base only.....	1-C-4841	9 40
1a	as above, complete, with plugs, bolts, studs and pipe plugs, (1-1, 1-2, 1-3, 1-28, 2-29, Plate 01549), (2-1c, Plate 01579).....	1a-C-4841	9 70
1b	Bushing for Semaphore Bearing.....	5-B-8093	66
1c	Stud, complete, with cotter, for fastening mechanism cover to post.....	1a-B-8071	04
1d	Semaphore Bearing only.....	1-C-6851	4 70
1e	Tap Bolt, $\frac{3}{8}$ "x $\frac{3}{4}$ ", for fastening base to bearing. Price per hundred.....		2 00
2	Mechanism Cover	3-C-2588	1 80
3	Jaw for up and down rod, complete, with pin and cotter	12a-B-7742	68
4	Up and Down Rod, complete, with two lock nuts.	6-B-8051	44
5	Bottom Spring Socket for up and down rod....	3-B-8084	08
6	Spring for up and down rod.....	30-B-7770	40

ONE ARM TWO POSITION ELECTRO-PNEUMATIC
DWARF SIGNAL GIVING INDICATION
IN THE UPPER QUADRANT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

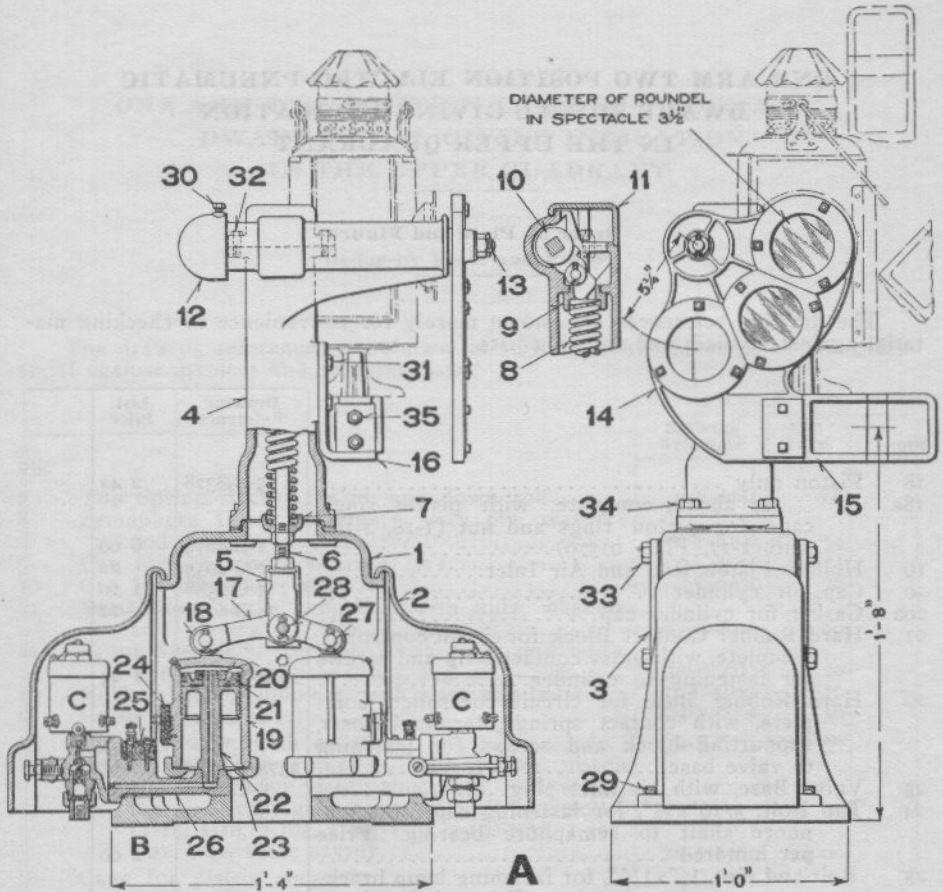
Fig.		Drawing Reference	List Price
7	Top Spring Socket for up and down rod.....	2-B-8084	06
8	Semaphore Crank, complete, with pin, washers and cotters	4a-B-8102	54
9	Cap for semaphore bearing.....	5-C-4055	44
10	Cap for semaphore shaft.....	3-C-6439	28
11	Semaphore Shaft, complete, with nuts, washers and cotters	94a-B-8026	80
12	Front Spectacle, complete, with rings and bolts. For glass see Plate 01651, Fig. 4a.....	1a-B-9633	3 20
13	Rubber Blade, complete, with plate and bolts....	47c-B-5672	76
14	Lamp Bracket	123-B-8069	50
15	Cylinder only, with oil plug.....	11a-B-8194	5 30
15a	as above, complete, with piston, piston rings, cage for piston rings, nut, hollow piston rod, cap, gasket and circuit controller (1-15, 1-18, 2-16a, 1-16, 1-17, 1-19, 1-20, 1-20a, 1-21, 1-22, Plate 01579).....	2a-A-2585	24 00
16	Cage for piston rings.....	6-C-2218	2 00
16a	Piston Ring	1-B-8197	66
17	Nut, complete, with machine screw, for fastening cage for piston rings to piston.....	104a-B-8109	36

**ONE ARM TWO POSITION ELECTRO-PNEUMATIC
DWARF SIGNAL GIVING INDICATION
IN THE UPPER QUADRANT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
18	Piston only	15-B-8328	2 42
18a	as above, complete, with piston rings, cage for piston rings and nut (1-18, 2-16a, 1-16, 1-17, Plate 01579).....	1-B-9879	6 00
19	Hollow Piston Rod and Air Inlet.....	2-C-4055	22
20	Cap for cylinder	4-C-2588	1 10
20a	Gasket for cylinder cap.....	24-B-8078	22
21	Hard Rubber Contact Block for circuit controller, complete, with brass contact strip and screws for fastening to cylinder.....	238a-B-8750	1 24
22	Hard Rubber Base for circuit controller, complete, with contact springs, terminal posts, supporting block and screws for fastening to valve base.....	237a-B-8750	1 60
23	Valve Base, with air inlet plug.....	6-C-2588	3 30
24	Tap Bolt, 5/16"x5/8", for fastening cap for semaphore shaft to semaphore bearing. Price per hundred		2 00
25	Bolt and Nut, 1/2"x1 1/2", for fastening lamp bracket to semaphore bearing. Price per hundred.....		4 00
26	Tap Bolt, 3/8"x1 1/8", for fastening cap to semaphore bearing. Price per hundred.....		3 00



SIGNAL COMPLETE DOES NOT INCLUDE LAMP

ONE ARM THREE POSITION ELECTRO-PNEUMATIC
DWARF SIGNAL GIVING INDICATIONS
IN THE UPPER QUADRANT

**ONE ARM THREE POSITION ELECTRO-PNEUMATIC
DWARF SIGNAL GIVING INDICATIONS
IN THE UPPER QUADRANT**

The signal listed below includes blades, glass, front spectacle and all other fittings shown on the opposite plate.

It does not include lamp, number plate or reservoir, which must be ordered separately when required.

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	One-Arm, 90 deg., Three-Position Dwarf Signal, complete, as shown, giving indications in upper quadrant. Specify resistance of magnets	1-D-1205	150 00
B	Single Mechanism, complete, with cylinder and circuit controller, valve base, valve and magnet. Specify resistance of magnet. (1-19a, 1-26, 1-C, Plate 01581)	5-A-2585	54 00
Ba	as above, without valve and magnet (1-19a, 1-26, Plate 01581)	4-A-2585	24 00
C	Valve and Magnet, complete. Specify resistance of magnet. For details see Plate 01559.....	2-A-2583	30 00
1	Base only	1-C-6439	11 50
1a	as above, complete, with post, guides, tap bolts and studs, (1-1, 2-3, 1-4, 4-34, 4-33, 4-29, Plate 01581)	1a-C-6439	22 20
2	Mechanism Cover	3-C-2588	1 80
3	Guide for up and down rod	4-C-6439	36
4	Combined Post and Semaphore Bearing, complete, with two bushings Fig. 4a	1a-C-6469	6 60
4a	Bushing for Semaphore Bearing	5-B-8093	66
5	Jaw only for up and down rod	54-B-7742	60
5a	as above, complete, with pin and cotters (1-5, 1-28, Plate 01581)	54a-B-7742	78
6	Up and Down Rod, complete, with two 5/8-inch lock nuts	167-B-8051	1 72
7	Bottom Spring Socket for up and down rod....	3-B-8084	08
8	Spring for up and down rod	119-B-7770	40
9	Top Spring Socket for up and down rod	2-B-8084	06

**ONE ARM THREE POSITION ELECTRO-PNEUMATIC
DWARF SIGNAL GIVING INDICATIONS
IN THE UPPER QUADRANT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

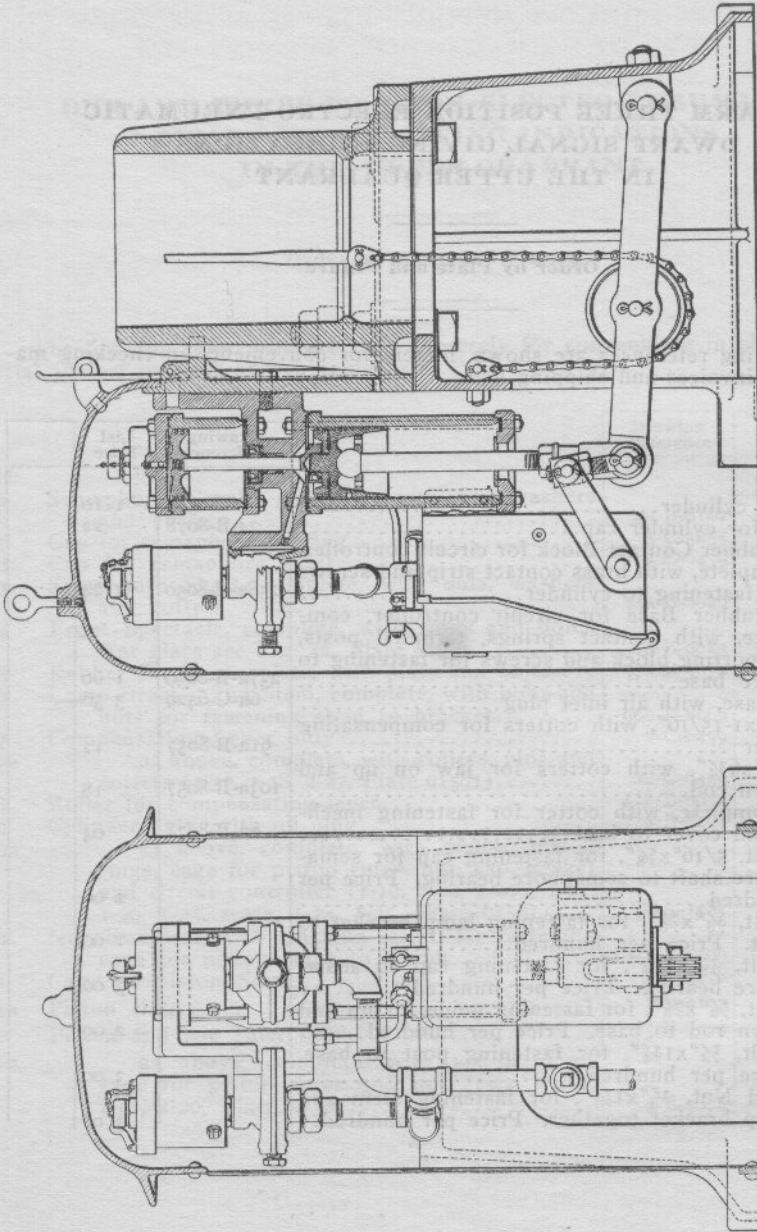
Fig.	Description	Drawing Reference	List Price
10	Semaphore Crank, complete, with pin, washers and cotters	4a-B-8102	54
11	Cap for semaphore bearing	5-C-4055	44
12	Cap for semaphore shaft.....	3-C-6439	28
13	Semaphore Shaft, complete, with nuts, washers and cotters	94a-B-8026	80
14	Front Spectacle, complete, with rings and bolts. For glass see Fig. 4a, Plate 01651.....	1a-B-9633	3 20
15	Rubber Blade, complete, with plate and bolts....	47c-B-5672	76
16	Lamp Bracket and Stem, complete, with bolts and nuts for fastening stem to bracket.....	96a-B-8069	1 54
17	Compensating Lever only	2-C-6439	30
17a	as above, complete, with rollers, pins and cotters (1-17, 2-18, 2-27, Plate 01581).....	2a-C-6439	90
18	Roller for compensating lever.....	118-B-8072	16
19	Cylinder only, with oil plug.....	13a-B-8194	5 30
19a	as above, complete, with piston, piston rings, cage for piston rings, nut, cap, gasket and circuit controller (1-19, 1-22, 2-21a, 1-21, 1-20, 1-23, 1-23a, 1-24, 1-25, Plate 01581)....	4a-A-2585	24 00
20	Nut, complete, with machine screw, for fastening cage for piston rings to piston.....	104a-B-8109	36
21	Cage for piston rings.....	6-C-2218	2 00
21a	Piston ring.....	1-B-8197	66
22	Piston and Air Inlet only.....	25-B-8328	4 70
22a	as above, complete, with piston rings, cage for piston rings and nut (1-22, 2-21a, 1-21, 1-20, Plate 01581).....	4-B-9878	8 40

**ONE ARM THREE POSITION ELECTRO-PNEUMATIC
DWARF SIGNAL GIVING INDICATIONS
IN THE UPPER QUADRANT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

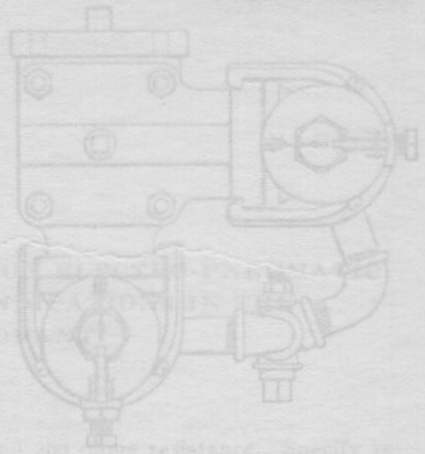
Fig.		Drawing Reference	List Price
23	Cap for cylinder.....	4-C-2588	1 10
23a	Gasket for cylinder cap.....	24-B-8078	22
24	Hard Rubber Contact Block for circuit controller, complete, with brass contact strip and screws for fastening to cylinder.....	238a-B-8050	1 24
25	Hard Rubber Base for circuit controller, complete, with contact springs, terminal posts, supporting block and screws for fastening to valve base.....	237a-B-8050	1 60
26	Valve Base, with air inlet plug.....	6a-C-6429	3 30
27	Pin, $\frac{5}{8}$ "x1-15/16", with cotters for compensating lever	91a-B-8057	12
28	Pin, $\frac{5}{8}$ "x6 $\frac{3}{4}$ ", with cotters for jaw on up and down rod.....	103a-B-8057	18
29	Stud, complete, with cotter for fastening mechanism cover to base.....	1a-B-8071	04
30	Tap Bolt, $\frac{5}{16}$ "x $\frac{5}{8}$ ", for fastening cap for semaphore shaft to semaphore bearing. Price per hundred		2 00
31	Tap Bolt, $\frac{3}{8}$ "x $\frac{7}{8}$ ", for fastening lamp bracket to post. Price per hundred.....		2 00
32	Tap Bolt, $\frac{3}{8}$ "x1 $\frac{1}{8}$ ", for fastening cap to semaphore bearing. Price per hundred.....		3 00
33	Tap Bolt, $\frac{1}{2}$ "x $\frac{7}{8}$ ", for fastening guide for up and down rod to base. Price per hundred.....		2 00
34	Tap Bolt, $\frac{1}{2}$ "x1 $\frac{3}{4}$ ", for fastening post to base. Price per hundred.....		3 00
35	Bolt and Nut, $\frac{3}{8}$ "x1 $\frac{1}{4}$ ", for fastening stem and lamp bracket together. Price per hundred..		3 00



SIDE VIEW IN SECTION.

FRONT VIEW
WITH MECHANISM COVER SECTIONED.

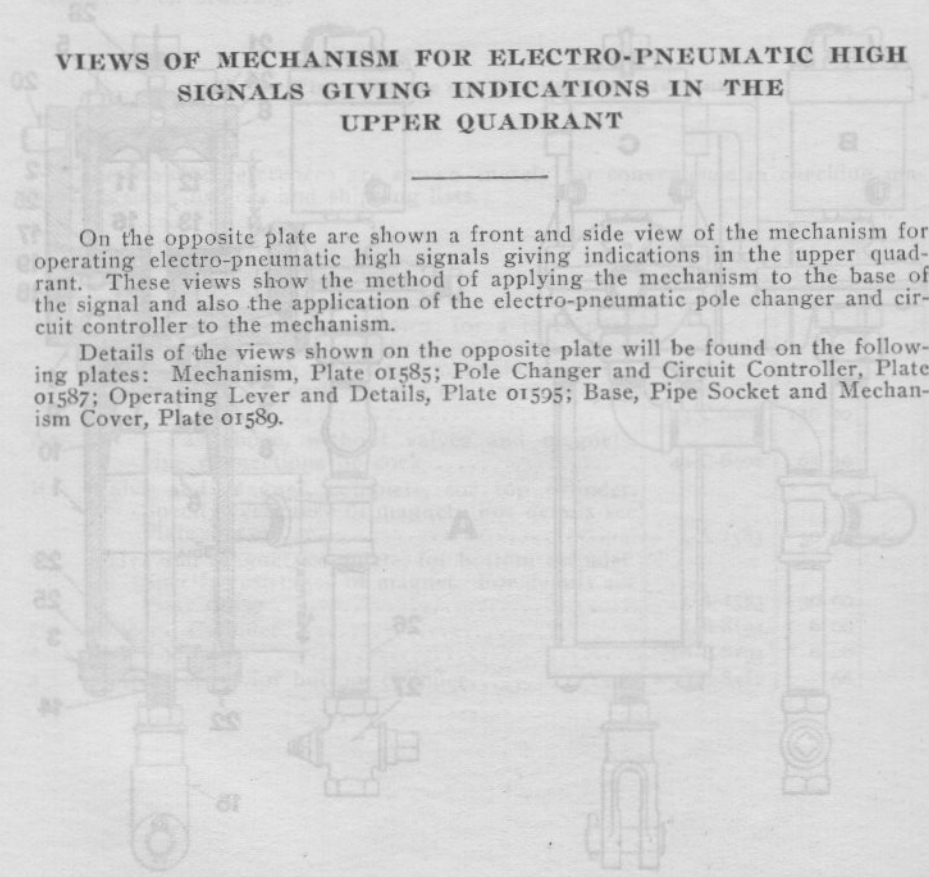
VIEWS OF MECHANISM FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT



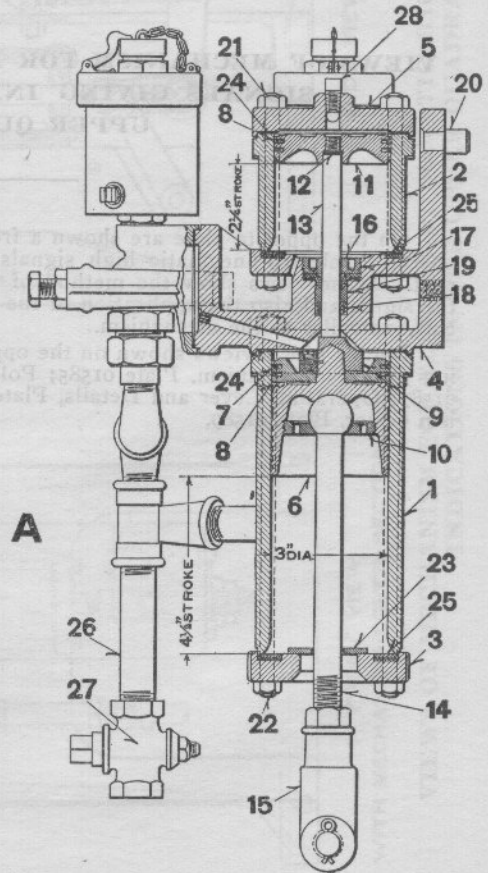
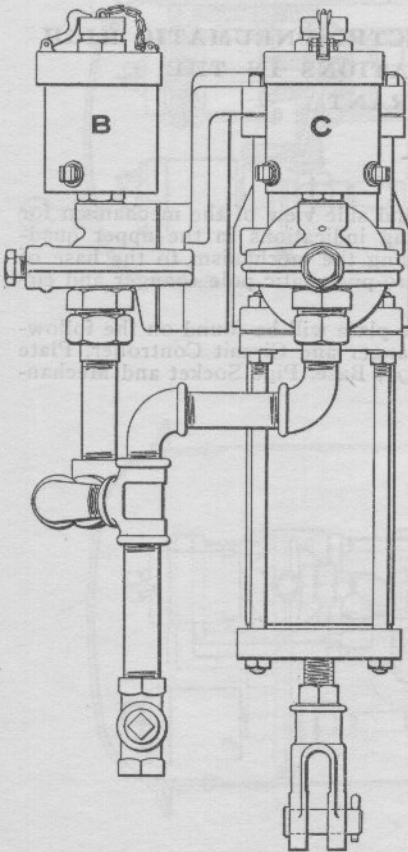
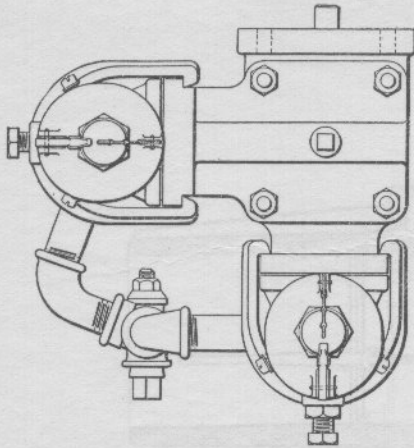
VIEWS OF MECHANISM FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

On the opposite plate are shown a front and side view of the mechanism for operating electro-pneumatic high signals giving indications in the upper quadrant. These views show the method of applying the mechanism to the base of the signal and also the application of the electro-pneumatic pole changer and circuit controller to the mechanism.

Details of the views shown on the opposite plate will be found on the following plates: Mechanism, Plate 01585; Pole Changer and Circuit Controller, Plate 01587; Operating Lever and Details, Plate 01595; Base, Pipe Socket and Mechanism Cover, Plate 01589.



MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT



MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

**MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC
HIGH SIGNALS, GIVING INDICATIONS IN THE
UPPER QUADRANT**

For application see Plate 01583.

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Mechanism, complete, as shown, for a three-position signal, giving indications in the upper quadrant, with valves and magnets, pipe connections and cock. Specify resistance of magnets	4-C-6408	130 00
Aa	as above, without valves and magnets, pipe connections or cock.....	4a-C-6408	65 40
B	Valve and Magnet, complete, for top cylinder. Specify resistance of magnet. For details see Plate 01559.....	3-A-2583	30 00
C	Valve and Magnet, complete, for bottom cylinder. Specify resistance of magnet. For details see Plate 01559	1-A-2583	30 00
1	Bottom Cylinder.....	1-B-8194	6 00
2	Top Cylinder.....	10-B-8194	6 00
3	Bottom Head for bottom cylinder.....	34-B-8422	66

**MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC
HIGH SIGNALS, GIVING INDICATIONS IN
THE UPPER QUADRANT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

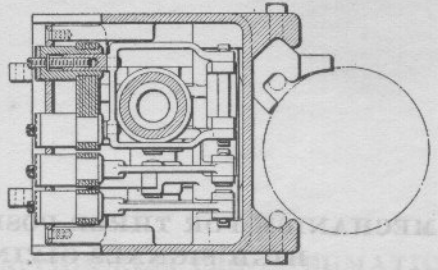
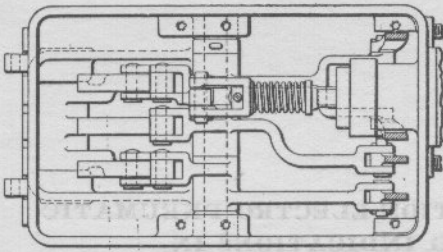
Fig.	Description	Drawing Reference	List Price
4	Cylinder Bracket and Head, complete, for bottom cylinder with air inlet plug, oil plug, stud and and tap bolts, (1-28a, 1-20, Plate 01585).....	1a-C-6408	16 00
5	Top Head for top cylinder, complete, with air inlet plug and oil plug, Fig. 28.....	2a-C-6408	6 00
6	Piston only, for bottom cylinder.....	14-B-8328	3 80
6a	as above, complete, with piston rings, cage for piston rings, and nuts (1-6, 2-8, 1-7, 1-9, 1-10, Plate 01585).....	3-B-9878	11 60
7	Cage for piston rings.....	6-C-2218	2 00
8	Piston Ring.....	1-B-8197	66
9	Nut, complete, with machine screw, for fastening cage for piston rings to piston.....	56a-B-8265	1 70
10	Ring Nut, for fastening piston rod to piston....	67-B-8082	70
11	Piston only, for top cylinder.....	40-B-8328	2 60
11a	as above, complete, with piston rod, piston rings, and lead washer (1-11, 1-13, 2-8, 1-12, Plate 01585).....	5-B-9878	4 20
12	Lead Washer for piston rod for top cylinder....	22-B-8274	02
13	Piston Rod only, for top cylinder.....	34-B-8195	10
14	Piston Rod and $\frac{5}{8}$ " Lock Nut for bottom cylinder, as above, complete, with screw jaw, pin and cotter (1-14, 1-15, Plate 01585).....	1-B-8195	56
14a		1a-B-8195	1 22

**MECHANISM FOR THREE POSITION ELECTRO-PNEUMATIC
HIGH SIGNALS GIVING INDICATIONS IN
THE UPPER QUADRANT**

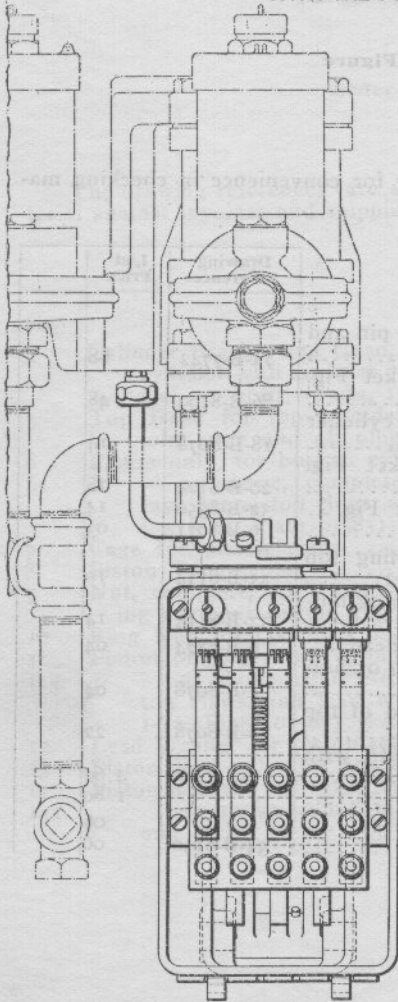
Order by Plate and Figure

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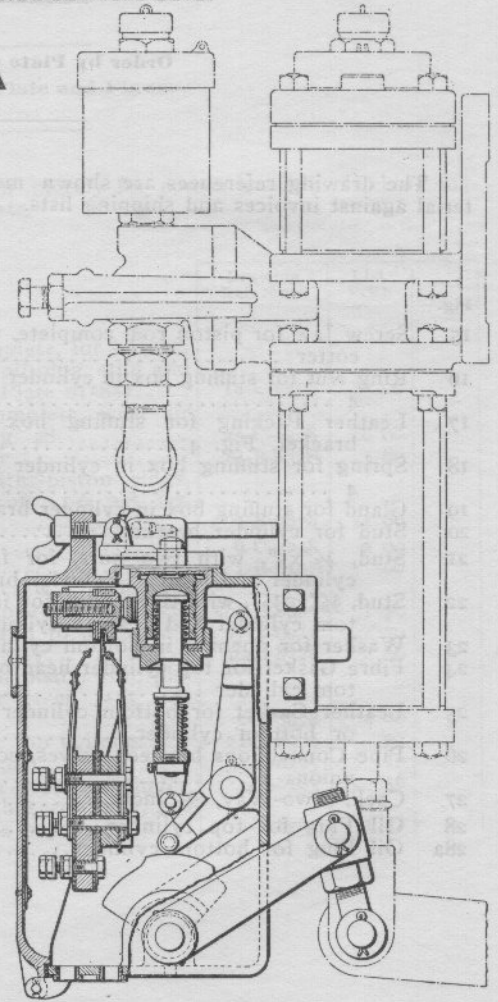
Fig.	Description	Drawing Reference	List Price
15	Screw Jaw for piston rod, complete, with pin and cotter	7a-B-7742	68
16	Ring Nut for stuffing box in cylinder bracket Fig. 4	86-B-8109	48
17	Leather Packing for stuffing box in cylinder bracket, Fig. 4.....	18-B-8078	14
18	Spring for stuffing box in cylinder bracket Fig. 4	20-B-8124	18
19	Gland for stuffing box in cylinder bracket Fig. 4.	32-B-8350	14
20	Stud for cylinder bracket.....	9-B-8071	03
21	Stud, 3/8"x5", with two nuts, for fastening top cylinder and head to cylinder bracket.....	45-B-8114	10
22	Stud, 3/8"x9 3/4", with three nuts, for fastening bottom cylinder and head to cylinder bracket..	53-B-8114	14
23	Washer for opening in bottom cylinder head....	9-B-7824	04
24	Fibre Gasket for top cylinder head of top or bottom cylinder	4-B-8078	04
25	Leather Gasket for bottom cylinder head of top or bottom cylinder.....	8-B-8078	22
26	Pipe Connections between valves, complete, with unions	9-B-7710	4 60
27	Cock, Two-Way, 1/2 inch.....		1 80
28	Oil Plug for top cylinder.....		06
28a	Oil Plug for bottom cylinder.....	34-B-8190	06



PARTS THAT ARE SHOWN IN DOT AND DASH LINES ARE ADJACENT PARTS OF THE SIGNAL AND ARE NOT INCLUDED WITH THE POLE CHANGER COMPLETE.



A



ELECTRO-PNEUMATIC POLE CHANGER AND CIRCUIT CONTROLLER FOR HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

ELECTRO-PNEUMATIC POLE CHANGER AND CIRCUIT CONTROLLER FOR HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

For application see Plate 01583.

Orders for repair parts of the instrument shown on the opposite plate should always be accompanied by samples of the parts required.

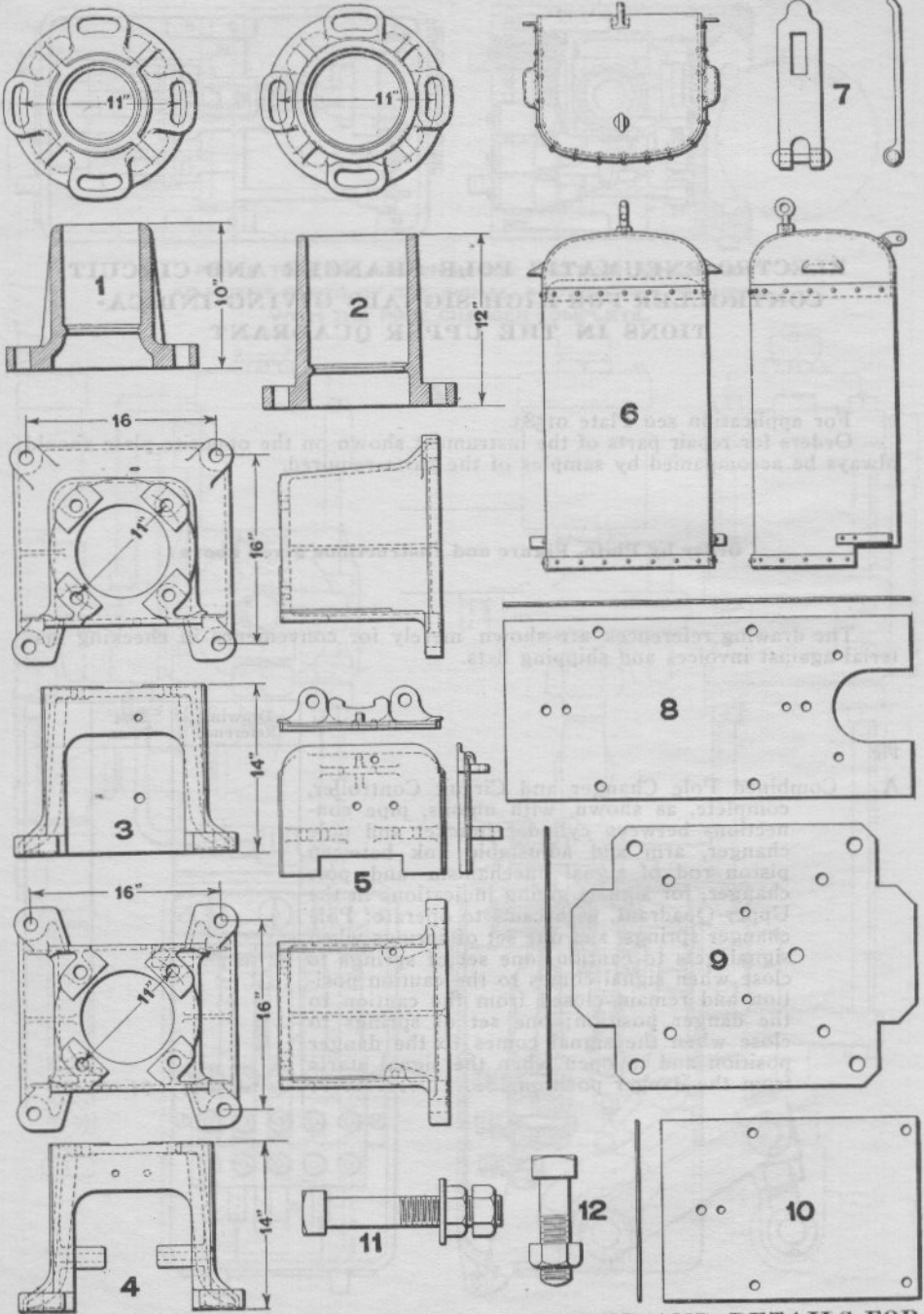
Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

A Combined Pole Changer and Circuit Controller, complete, as shown, with unions, pipe connections between cylinder bracket and pole changer, arm and adjustable link between piston rod of signal mechanism and pole changer, for signals giving indications in the Upper Quadrant, with cams to operate: Pole changer springs and one set of springs when signal gets to caution; one set of springs to close when signal comes to the caution position and remain closed from the caution to the danger position; one set of springs to close when the signal comes to the danger position and to open when the signal starts from the danger position.....

Drawing Reference	List Price	
1-C-6817	74 00	



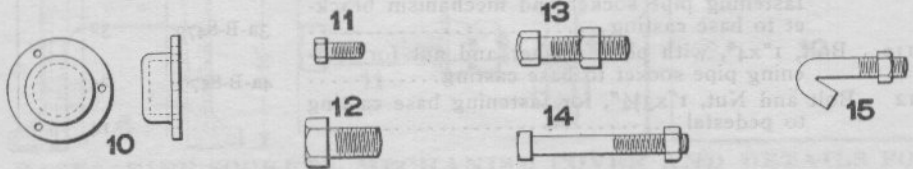
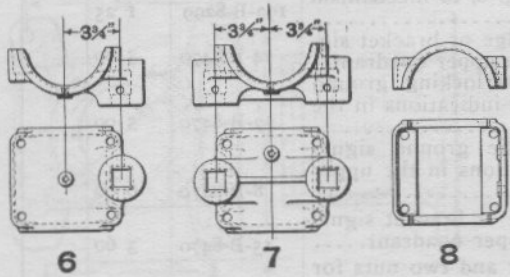
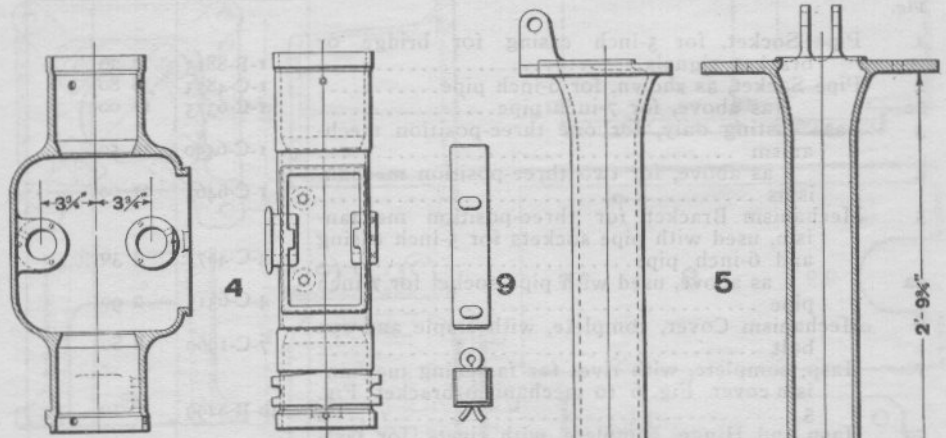
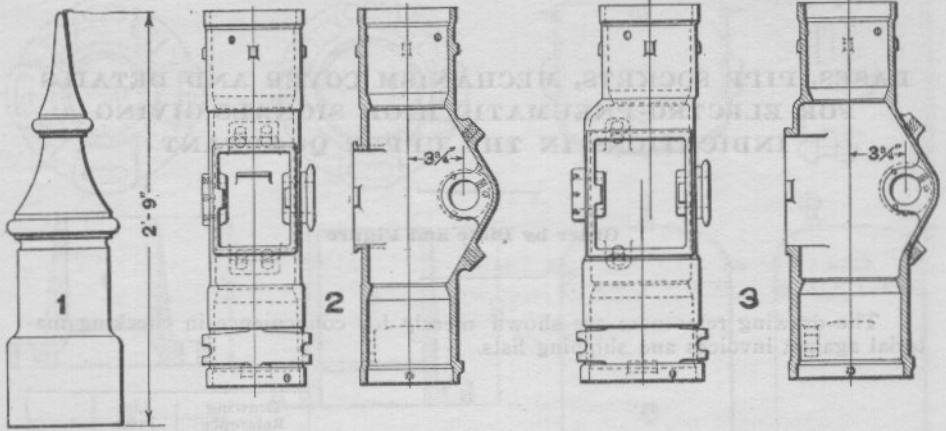
BASES, PIPE SOCKETS, MECHANISM COVER AND DETAILS FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

**BASES, PIPE SOCKETS, MECHANISM COVER AND DETAILS
FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING
INDICATIONS IN THE UPPER QUADRANT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
1	Pipe Socket, for 5-inch casing for bridge or bracket signals.....	1-B-8813	7 20
2	Pipe Socket, as shown, for 6-inch pipe.....	1-C-4873	8 80
2a	as above, for 7-inch pipe.....	1-C-6315	11 00
3	Base casting only, for one three-position mechanism	1-C-6450	16 50
4	as above, for two three-position mechanisms	1-C-6463	21 00
5	Mechanism Bracket, for three-position mechanism, used with pipe sockets for 5-inch casing and 6-inch pipe.....	3-C-4873	3 30
5a	as above, used with pipe socket for 7-inch pipe	4-C-6315	2 90
6	Mechanism Cover, complete, with staple and eye bolt	7-C-1969	8 80
7	Hasp, complete, with rivet for fastening mechanism cover Fig. 6 to mechanism bracket Fig. 5	14b-B-8299	10
7a	Hasp and Hinge, complete, with rivets, for fastening mechanism cover Fig. 6, to mechanism bracket, Fig. 5a	19a-B-8299	1 25
8	Dust Plate for interlocking bridge or bracket signal giving indications in the upper quadrant..	14-B-8470	3 80
9	Dust Plate, as shown, for interlocking ground signal with pedestal, giving indications in the upper quadrant.....	7-B-8470	5 00
9a	as above, for automatic ground signal with pedestal giving indications in the upper quadrant	8-B-8470	6 00
10	Dust Plate for automatic bridge or bracket signal giving indications in the upper quadrant.....	15-B-8470	3 60
11	Bolt, 1"x6 $\frac{1}{4}$ ", with plate washer and two nuts for fastening pipe socket and mechanism bracket to base casting.....	3a-B-8479	32
11a	Bolt, 1"x4", with plate washer and nut for fastening pipe socket to base casting.....	4a-B-8479	24
12	Bolt and Nut, 1"x3 $\frac{3}{4}$ ", for fastening base casting to pedestal		14



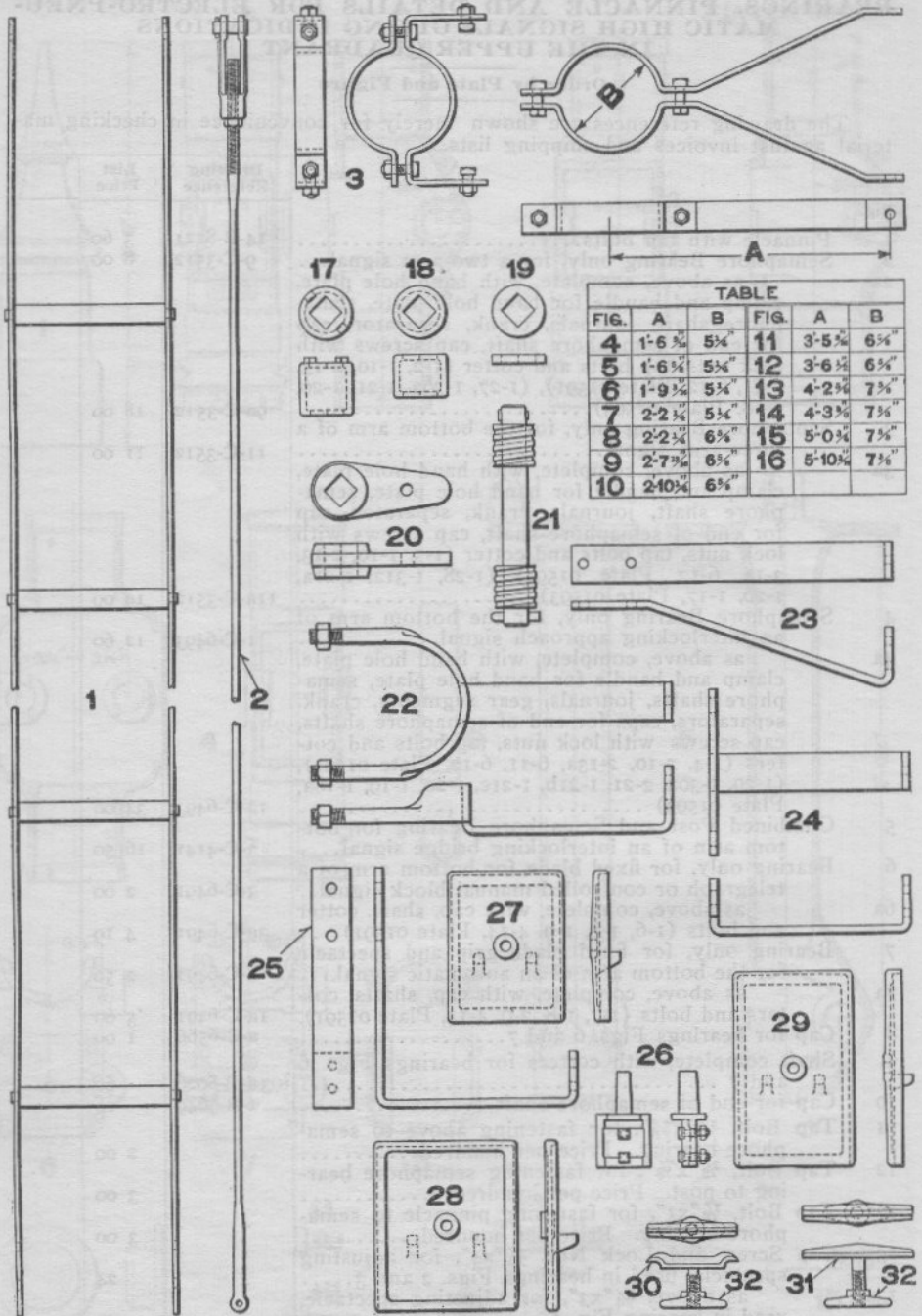
BEARINGS, PINNACLE AND DETAILS FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

BEARINGS, PINNACLE AND DETAILS FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
1	Pinnacle with tap bolts.....	14-B-8121	3 60
2	Semaphore Bearing only, for a two-arm signal...	9-C-3512	8 00
2a	as above, complete, with hand hole plate, clamp and handle for hand hole plate, semaphore shaft, journals, crank, separator, cap for end of semaphore shaft, cap screws with lock nuts, tap bolts and cotter (1-2, 1-10, 2-13, 3-11, 6-12, Plate 01591), (1-27, 1-30a, 1-21, 1-20, 1-18, Plate 01593).....	9a-C-3512	18 00
3	Semaphore Bearing only, for the bottom arm of a three-arm signal.....	11-C-3512	11 00
3a	as above, complete, with hand hole plate, clamp and handle for hand hole plate, semaphore shaft, journals, crank, separator, cap for end of semaphore shaft, cap screws with lock nuts, tap bolts and cotter (1-3, 1-10, 2-13, 3-11, 6-12, Plate 01591), (1-28, 1-31a, 1-21a, 1-20, 1-17, Plate 01593).....	11a-C-3512	19 00
4	Semaphore Bearing only, for the bottom arm of an interlocking approach signal.....	1-C-6493	12 60
4a	as above, complete, with hand hole plate, clamp and handle for hand hole plate, semaphore shafts, journals, gear segments, crank, separators, caps for end of semaphore shafts, cap screws with lock nuts, tap bolts and cotteners (1-4, 2-10, 2-13a, 6-11, 6-12, Plate 01591), (1-29, 1-30a, 2-21, 1-21b, 1-21c, 1-20; 1-19, 1-18a, Plate 01593).....	1a-C-6493	34 00
5	Combined Post and Semaphore Bearing for bottom arm of an interlocking bridge signal....	3-C-4141	16 50
6	Bearing only, for fixed blade for bottom arm of a telegraph or controlled manual block signal..	3-C-6491	2 00
6a	as above, complete, with cap, shaft, cotter and bolts (1-6, 1-8, 1-9, 4-14, Plate 01591)....	3a-C-6491	4 10
7	Bearing only, for fixed blade grip and spectacle for the bottom arm of an automatic signal....	1-C-6491	2 50
7a	as above, complete, with cap, shafts, cotteners and bolts (1-7, 1-8, 2-9, 4-14, Plate 01591).	1a-C-6491	5 60
8	Cap for bearings Figs. 6 and 7.....	2-C-6566	1 00
9	Shaft complete, with cotteners for bearings Figs. 6 and 7.....	103 a-B-8026	60
10	Cap for end of semaphore shaft.....	2-B-9649	18
11	Tap Bolt, 1/4"x5/8", for fastening above to semaphore bearing. Price per hundred.....		2 00
12	Tap Bolt, 1/2"x7/8", for fastening semaphore bearing to post. Price per hundred.....		3 00
12a	Tap Bolt, 1/2"x1", for fastening pinnacle to semaphore bearing. Price per hundred.....		3 00
13	Cap Screw and Lock Nut, 3/4"x4", for adjusting spectacle, used in bearings Figs. 2 and 3.....		24
13a	as above, 3/4"x3", for adjusting spectacle, used in bearing Fig. 4.....		20
14	Bolt and Nut, 5/8"x5 1/4", for fastening cap to bearings Figs. 6 and 7. Price per hundred.....		12 00
15	Hook bolt, 5/8"x3", for fastening combined post and semaphore bearing Fig. 5 to channel iron on signal bridge.....	30-B-7913	08



LADDER, LADDER STAYS AND DETAILS FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

LADDER, LADDER STAYS AND DETAILS FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
1	Ladder. Specify length when ordering. Price per foot	7-B-8365	32
1a	Ladder Foundation, complete, with bolts and nuts for fastening to ladder. See Fig. 2, Plate 01565	21a-B-8848	5 60
2	Up and Down Rod, complete, as shown with jaw, lock nut, pin and cotter, for top arm of an interlocking ground signal.....	172a-B-8051	4 00
2a	as above, for middle arm of an interlocking ground signal.....	173a-B-8051	3 80
2b	as above, for bottom arm of an interlocking ground signal.....	177a-B-8051	3 60
2c	as above, for top arm of an automatic ground signal, 34'-0" from base of pedestal to center line of bottom blade.....	174a-B-8051	4 30
2d	as above, for top arm of a telegraph or controlled manual block ground signal, 40'-0" from base of pedestal to center line of bottom blade	175a-B-8051	5 00
2e	as above, for top arm of an interlocking bridge signal	176a-B-8051	3 30
2f	as above, for middle arm of an interlocking bridge signal.....	256a-B-8051	3 10
3	Top Clamp for ladder, complete, as shown, with bolts and nuts.....	13-B-7501	54
4	Top Ladder Stay for an automatic ground signal, 30'-5½" from base of pedestal to center line of bottom blade.....	11-B-7501	82
5	Ladder Stay for a bridge signal.....	11-B-7501	82
6	Top Ladder Stay for an automatic ground signal, 34'-0" from base of pedestal to center line of bottom blade, and a telegraph or controlled manual block ground signal, 40'-0" from base of pedestal to center line of bottom blade....	11-B-7501	84
7	Second Ladder Stay for an interlocking ground signal	11-B-7501	88
8	Second Ladder Stay for an automatic ground signal, 30'-5½" from base of pedestal to center line of bottom blade.....	4 B-7501	96

LADDER, LADDER STAYS AND DETAILS FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

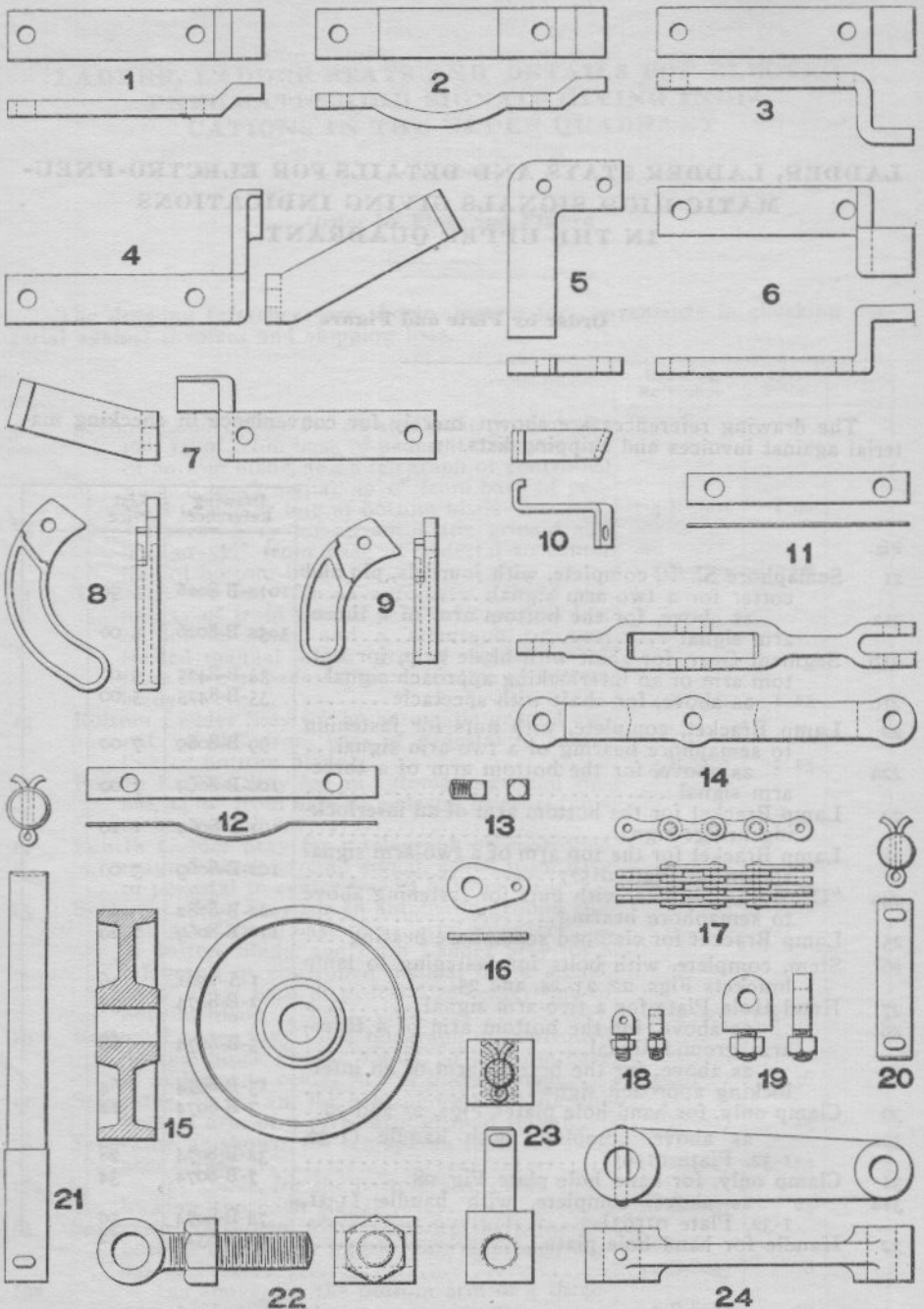
Fig.		Drawing Reference	List Price
9	Second Ladder Stay for an automatic ground signal, 34'-0" from base of pedestal to center line of bottom blade, and a telegraph or controlled manual block signal, 40'-0" from base of pedestal to center line of bottom blade.....	4-B-7501	1 02
10	Third Ladder Stay for an automatic ground signal, 30'-5½" from base of pedestal to center line of bottom blade.....	4-B-7501	1 06
11	Third Ladder Stay for an automatic ground signal, 34'-0" from base of pedestal to center line of bottom blade, and a telegraph or controlled manual block ground signal, 40'-0" from base of pedestal to center line of bottom blade	4-B-7501	1 12
12	Bottom Ladder Stay for an automatic ground signal, 30'-5½" from base of pedestal to center line of bottom blade.....	4-B-7501	1 14
13	Fourth Ladder Stay for an automatic ground signal, 34'-0" from base of pedestal to center line of bottom blade.....	5-B-7501	1 22
14	Fourth Ladder Stay for a telegraph or controlled manual block ground signal, 40'-0" from base of pedestal to center line of bottom blade....	5-B-7501	1 22
15	Bottom Ladder Stay for an automatic ground signal, 34'-0" from base of pedestal to center line of bottom blade, and Fifth Ladder Stay for a telegraph or controlled manual block signal, 40'-0" from base of pedestal to center line of bottom blade	5-B-7501	1 30
16	Bottom Ladder Stay for a telegraph or controlled manual block ground signal, 40'-0" from base of pedestal to center line of bottom blade....	5-B-7501	1 36
17	Separator, as shown, for semaphore shaft for the bottom arm of a three-arm ground signal....	5-B-8047	24
18	Separator, as shown, for semaphore shaft for two-arm signal	18-B-8047	14
18a	as above, for the bottom arm of an interlocking approach signal.....	20-B-8047	24
19	Separator, as shown, for semaphore shaft, for the bottom arm of an interlocking approach signal	21-B-8047	08
19a	as above, for the bottom arm of a three-arm bridge signal.....	3-B-8047	06
20	Semaphore Crank	18-B-8103	1 00

LADDER, LADDER STAYS AND DETAILS FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
21	Semaphore Shaft, complete, with journals, pin and cotter for a two-arm signal.....	101a-B-8026	3 90
21a	as above, for the bottom arm of a three-arm signal	105a-B-8026	4 00
21b	Segment Gear, for shaft with blade grip, for bottom arm of an interlocking approach signal..	34-B-8425	5 00
21c	as above, for shaft with spectacle.....	35-B-8425	5 00
22	Lamp Bracket, complete, with nuts for fastening to semaphore bearing of a two-arm signal...	99-B-8069	7 00
22a	as above, for the bottom arm of a three-arm signal	100-B-8069	7 00
23	Lamp Bracket for the bottom arm of an interlocking bridge signal.....	101-B-8069	1 10
24	Lamp Bracket for the top arm of a two-arm signal shown on Plate 01577.....	102-B-8069	3 00
24a	"U" Bolt, complete, with nuts for fastening above to semaphore bearing.....	22-B-8782	50
25	Lamp Bracket for clamped semaphore bearing....	110-B-8069	1 20
26	Stem, complete, with bolts for fastening to lamp brackets Figs. 22, 23, 24, and 25.....	1-A-2591	36
27	Hand Hole Plate for a two-arm signal.....	1-B-8074	34
28	as above, for the bottom arm of a three-arm ground signal.....	5-B-8074	68
29	as above, for the bottom arm of an interlocking approach signal.....	15-B-8074	64
30	Clamp only, for hand hole plates Figs. 27 and 29..	3-B-8074	12
30a	as above, complete, with handle (1-30, 1-32, Plate 01593).....	3a-B-8074	28
31	Clamp only, for hand hole plate Fig. 28.....	7-B-8074	34
31a	as above, complete, with handle (1-31, 1-32, Plate 01593).....	7a-B-8074	50
32	Handle for hand hole plate.....	22-B-8311	12



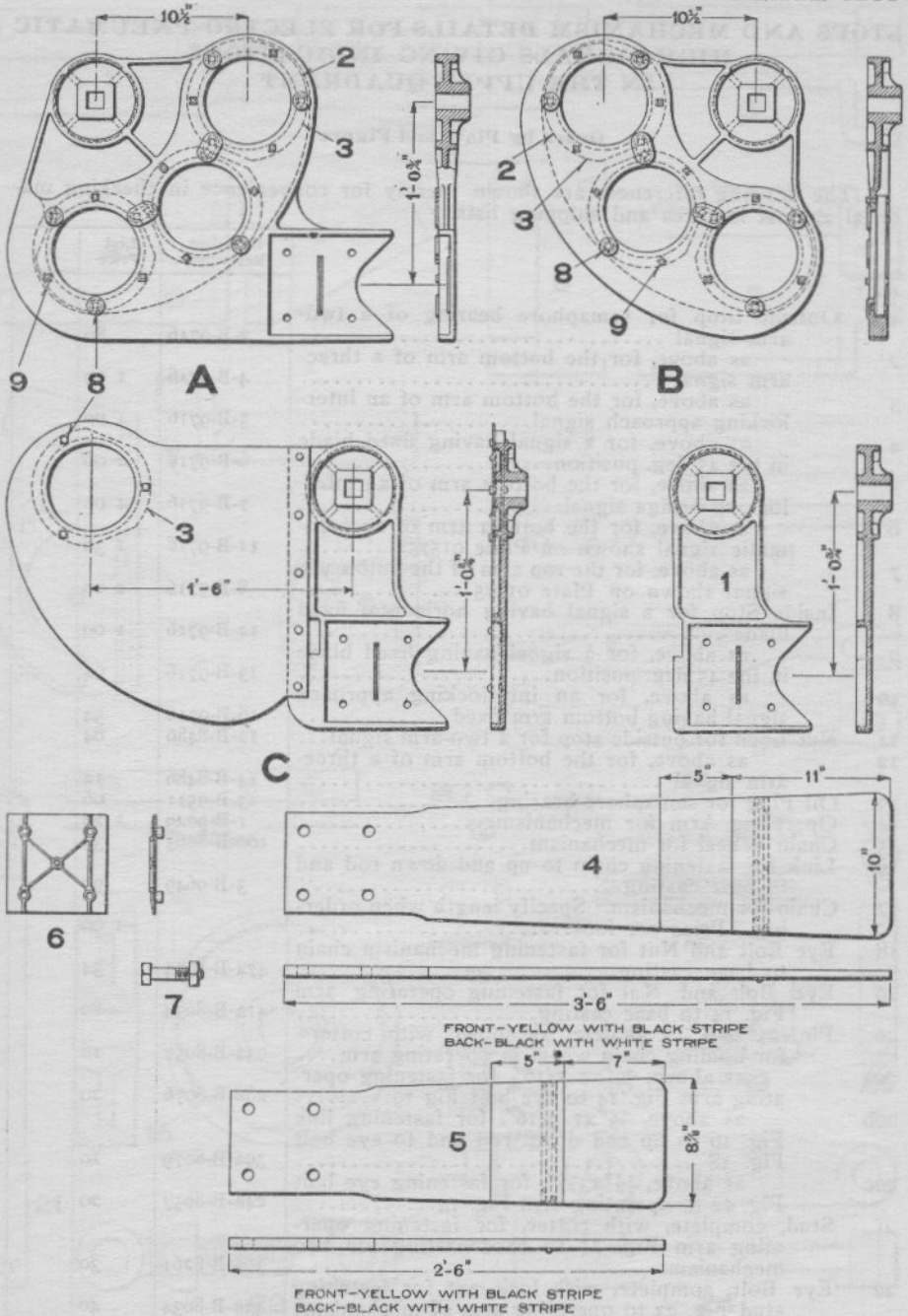
STOPS AND MECHANISM DETAILS FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

**STOPS AND MECHANISM DETAILS FOR ELECTRO-PNEUMATIC
HIGH SIGNALS GIVING INDICATIONS
IN THE UPPER QUADRANT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
1	Outside Stop for semaphore bearing of a two-arm signal	2-B-9716	80
2	as above, for the bottom arm of a three-arm signal	4-B-9716	1 00
3	as above, for the bottom arm of an interlocking approach signal.....	5-B-9716	1 00
4	as above, for a signal having fixed blade in the 45 deg. position.....	6-B-9716	2 00
5	as above, for the bottom arm of an interlocking bridge signal.....	7-B-9716	1 00
6	as above, for the bottom arm of an automatic signal shown on Plate 01575.....	11-B-9716	1 30
7	as above, for the top arm of the automatic signal shown on Plate 01575.....	8-B-9716	2 00
8	Inside Stop for a signal having horizontal fixed blade	12-B-9716	1 00
9	as above, for a signal having fixed blade in the 45 deg. position.....	13-B-9716	94
10	as above, for an interlocking approach signal having bottom arm fixed.....	16-B-9716	54
11	Nut Lock for outside stop for a two-arm signal...	12-B-8486	04
12	as above, for the bottom arm of a three-arm signal	14-B-8486	12
13	Oil Plug for semaphore bearing.....	13-B-9511	06
14	Operating Arm for mechanism.....	1-B-9649	1 20
15	Chain Wheel for mechanism.....	100-B-8065	30
16	Link for fastening chain to up and down rod and to base casting.....	3-B-9649	90
17	Chain for mechanism. Specify length when ordering. Price per foot.....		1 00
18	Eye Bolt and Nut for fastening mechanism chain to base casting.....	47a-B-8034	34
19	Eye Bolt and Nut for fastening operating arm Fig. 14 to base casting.....	41a-B-8034	80
20	Pin, 5/8"x2 3/4", complete, as shown with cotters, for holding chain wheel in operating arm....	93a-B-8057	16
20a	as above, 3/4"x2 7/16", for fastening operating arm Fig. 14 to eye bolt Fig 19.....	28a-B-8076	20
20b	as above, 3/8"x1 5/16", for fastening link Fig. 16 to up and down rod and to eye bolt Fig. 18	39a-B-8079	10
20c	as above, 5/8"x3 1/2", for fastening eye bolt Fig. 22 to operating arm Fig. 14.....	24a-B-8057	20
21	Stud, complete, with cotter, for fastening operating arm Fig. 14 to base casting for two mechanisms	39a-B-8261	30
22	Eye Bolt, complete, with lock nut for fastening stud Fig. 23 to operating arm of mechanism.	43a-B-8034	40
23	Stud, complete, with cotter, for operating arm of pole changer	3a-B-9262	54
24	Operating Arm, complete, with dowel pin, for pole changer	59a-B-8192	40



SPECTACLES, BLADE GRIPS AND SIGNAL BLADES FOR
ELECTRO-PNEUMATIC HIGH SIGNALS GIVING
INDICATIONS IN THE UPPER QUADRANT

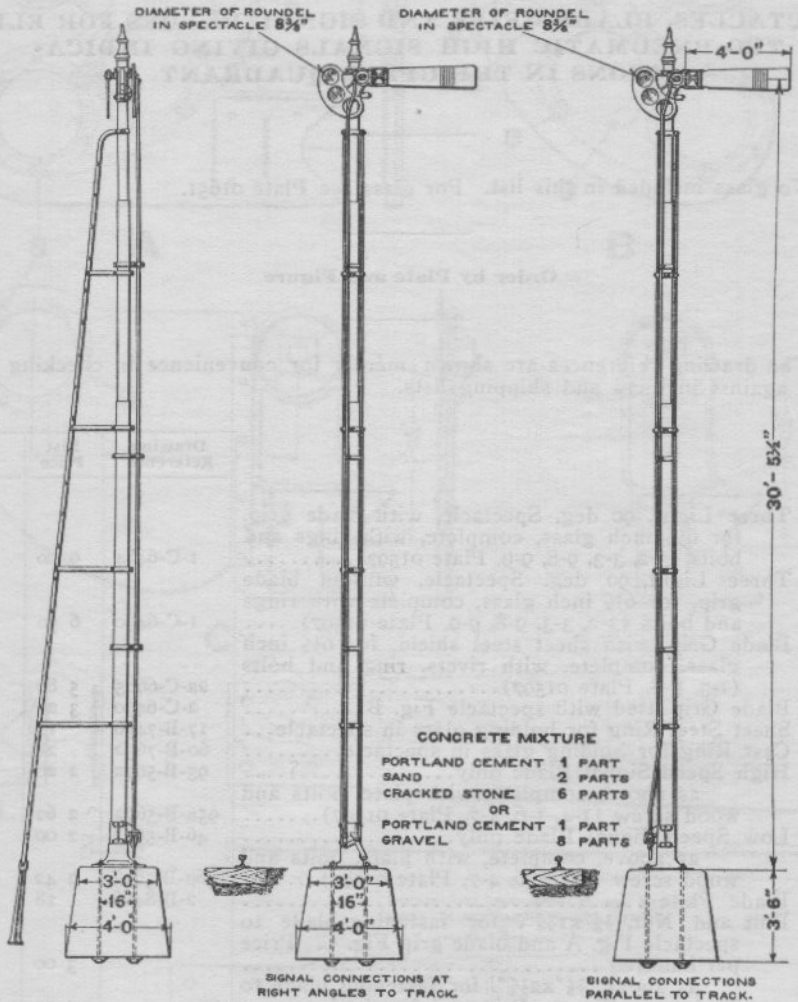
SPECTACLES, BLADE GRIPS AND SIGNAL BLADES FOR ELECTRO-PNEUMATIC HIGH SIGNALS GIVING INDICATIONS IN THE UPPER QUADRANT

No glass included in this list. For glass see Plate 01651.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Three Light, 90 deg. Spectacle, with blade grip, for 6½ inch glass, complete, with rings and bolts (3-2, 3-3, 9-8, 9-9, Plate 01597).....	1-C-6484	9 00
B	Three Light, 90 deg. Spectacle, without blade grip, for 6½ inch glass, complete with rings and bolts (3-2, 3-3, 9-8, 9-9, Plate 01597).....	1-C-6490	6 50
C	Blade Grip, with sheet steel shield, for 6½ inch glass, complete, with rivets, ring and bolts (1-3, 3-8, Plate 01597).....	2a-C-6685	5 80
1	Blade Grip used with spectacle Fig. B.....	2-C-6490	3 20
2	Sheet Steel Ring for holding glass in spectacle...	17-B-7436	10
3	Cast Ring for holding glass in spectacle.....	60-B-7632	28
4	High Speed Signal Blade only.....	95-B-5672	2 20
4a	as above, complete, with plate, bolts and wood screw (1-4, 1-6, 4-7, Plate 01597).....	95a-B-5672	2 62
5	Low Speed Signal Blade only.....	46-B-5672	2 00
5a	as above, complete, with plate, bolts and wood screw (1-5, 1-6, 4-7, Plate 01597).....	46a-B-5672	2 42
6	Blade Plate	2-B-8466	28
7	Bolt and Nut, ⅜"x1¼", for fastening blade to spectacle Fig. A and blade grip Fig. C. Price per hundred		3 00
7a	as above, ⅜"x2¼", for fastening blade to blade grip Fig. 1. Price per hundred.....		4 00
8	Bolt and Nut, ¼"x1", for fastening rings Figs. 2 and 3 together. Price per hundred.....		2 00
9	Bolt and Nut, ¼"x1⅜", for fastening rings Figs. 2 and 3 to spectacle. Price per hundred.....		2 00



- A - ABSOLUTE
 - C - PERMISSIVE
 - B - ABSOLUTE
 - D - PERMISSIVE
- SIGNAL COMPLETE DOES NOT INCLUDE LAMP OR FOUNDATION.

ONE ARM MECHANICAL GROUND SIGNALS

ONE ARM MECHANICAL GROUND SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders and ladder foundations, anchor bolts and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

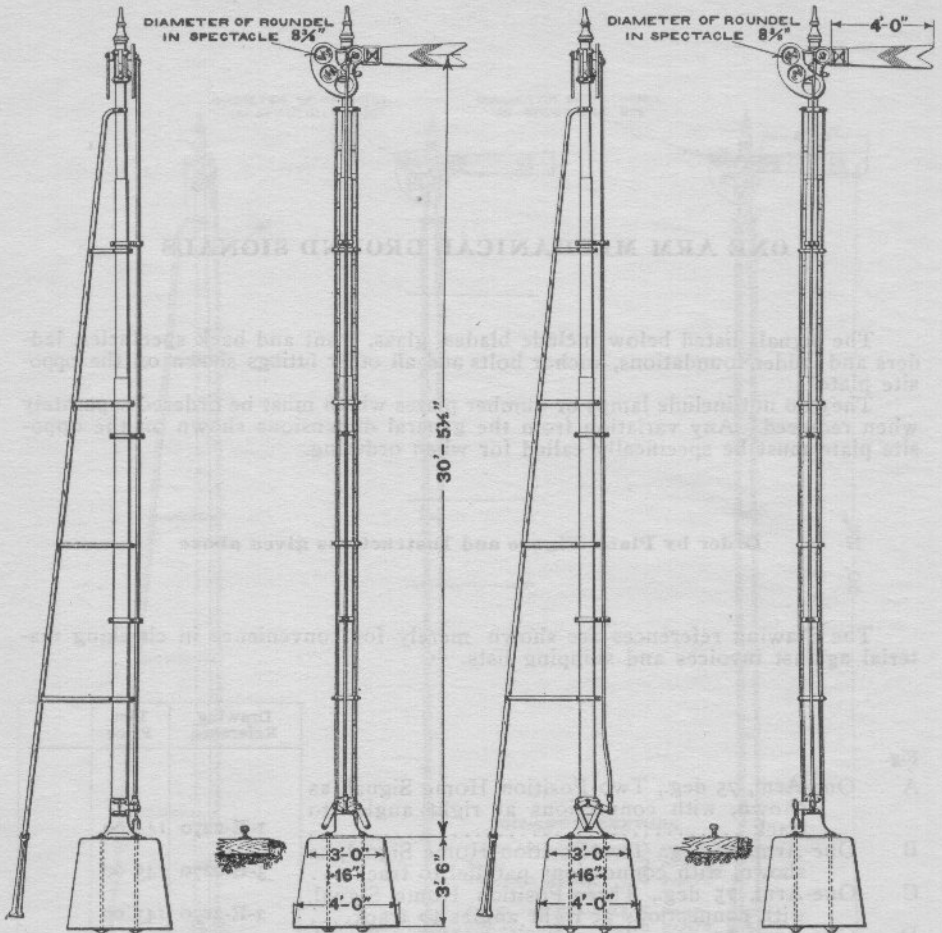
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- A One-Arm, 75 deg., Two-Position Home Signal, as shown, with connections at right angles to track
- B One-Arm, 75 deg., Two-Position Home Signal, as shown, with connections parallel to track....
- C One-Arm, 75 deg., Three-Position Home Signal, with connections at right angles to track....
- D One-Arm, 75 deg., Three-Position Home Signal, with connections parallel to track.....

Drawing Reference	List Price
1-E-2270	144 00
3-E-2270	145 00
2-E-2270	143 00
4-E-2270	144 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bases and Bearings, Plate 01641; Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



A
 SIGNAL CONNECTIONS AT
 RIGHT ANGLES TO TRACK.

B
 SIGNAL CONNECTIONS
 PARALLEL TO TRACK.

SIGNAL COMPLETE DOES NOT INCLUDE LAMP OR FOUNDATION.

CONCRETE MIXTURE

PORTLAND CEMENT	1 PART
SAND	2 PARTS
CRACKED STONE	6 PARTS
OR	
PORTLAND CEMENT	1 PART
GRAVEL	8 PARTS

ONE ARM MECHANICAL DISTANT GROUND SIGNALS

(Wire Connected)

ONE ARM MECHANICAL DISTANT GROUND SIGNALS

(Wire Connected)

The signals listed below include blades, glass, front and back spectacles, ladders and ladder foundations, anchor bolts and all other fittings shown on the opposite plate.

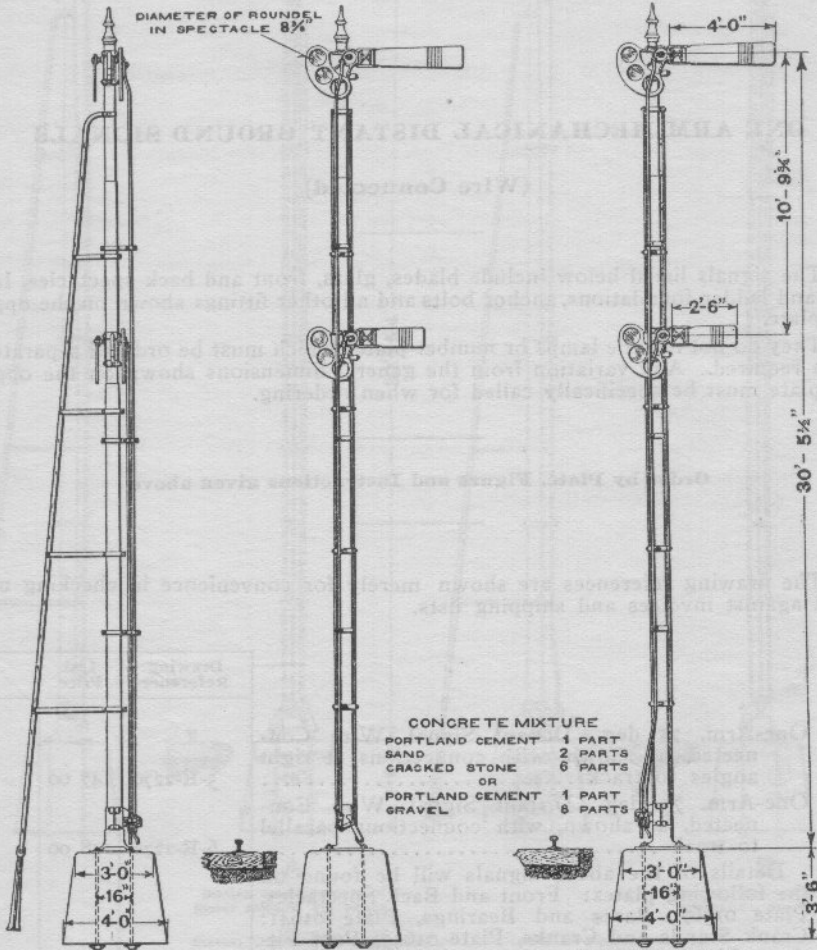
They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	One-Arm, 75 deg., Distant Signal, Wire Connected, as shown, with connections at right angles to track.....	5-E-2270	147 00
B	One-Arm, 75 deg., Distant Signal, Wire Connected, as shown, with connections parallel to track	6-E-2270	148 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bases and Bearings, Plate 01641; Crank Stands and Cranks, Plate 01645; Post Fittings, Plate 01647.



SIGNAL CONNECTIONS AT RIGHT ANGLES TO TRACK.

A- BOTH BLADES ABSOLUTE.
C- TOP BLADE PERMISSIVE.

SIGNAL CONNECTIONS PARALLEL TO TRACK.

B- BOTH BLADES ABSOLUTE.
D- TOP BLADE PERMISSIVE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

ONE ARM AND LOW SPEED MECHANICAL GROUND SIGNALS

**ONE ARM AND LOW SPEED MECHANICAL
GROUND SIGNALS**

The signals listed below include blades, glass, front and back spectacles, ladders and ladder foundations, anchor bolts and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

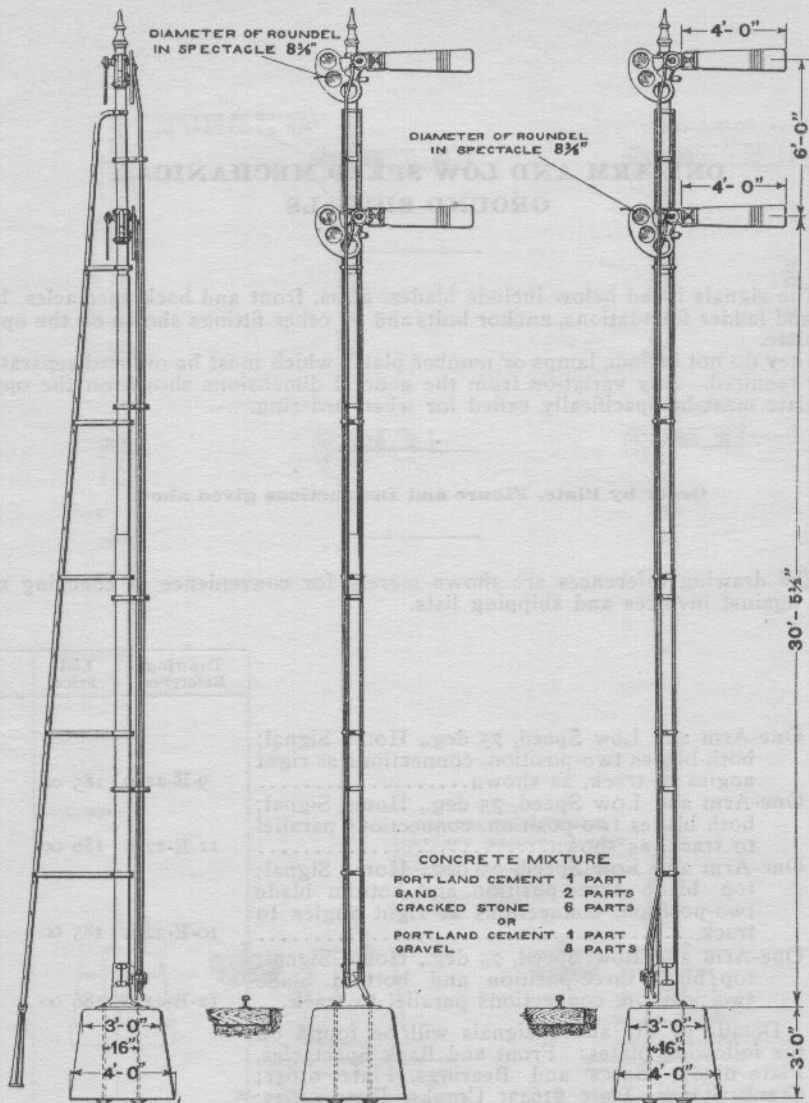
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- A One-Arm and Low Speed, 75 deg., Home Signal; both blades two-position, connections at right angles to track, as shown.....
- B One-Arm and Low Speed, 75 deg., Home Signal; both blades two-position, connections parallel to track, as shown.....
- C One-Arm and Low Speed, 75 deg., Home Signal; top blade three-position and bottom blade two-position, connections at right angles to track
- D One-Arm and Low Speed, 75 deg., Home Signal; top blade three-position and bottom blade two-position, connections parallel to track...

Drawing Reference	List Price
9-E-2270	185 00
11-E-2270	186 00
10-E-2270	185 00
12-E-2270	186 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bases and Bearings, Plate 01641; Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



CONCRETE MIXTURE
 PORTLAND CEMENT 1 PART
 SAND 2 PARTS
 CRACKED STONE 6 PARTS
 OR
 PORTLAND CEMENT 1 PART
 GRAVEL 8 PARTS

- SIGNAL CONNECTIONS AT RIGHT ANGLES TO TRACK.
- A - BOTH BLADES ABSOLUTE.
 - C - BOTH BLADES PERMISSIVE.
 - E - TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
 - G - BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE.

- SIGNAL CONNECTIONS PARALLEL TO TRACK.
- B - BOTH BLADES ABSOLUTE.
 - D - BOTH BLADES PERMISSIVE.
 - F - TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
 - H - BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

TWO ARM MECHANICAL GROUND SIGNALS

TWO ARM MECHANICAL GROUND SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders and ladder foundations, anchor bolts and all other fittings shown on the opposite plate.

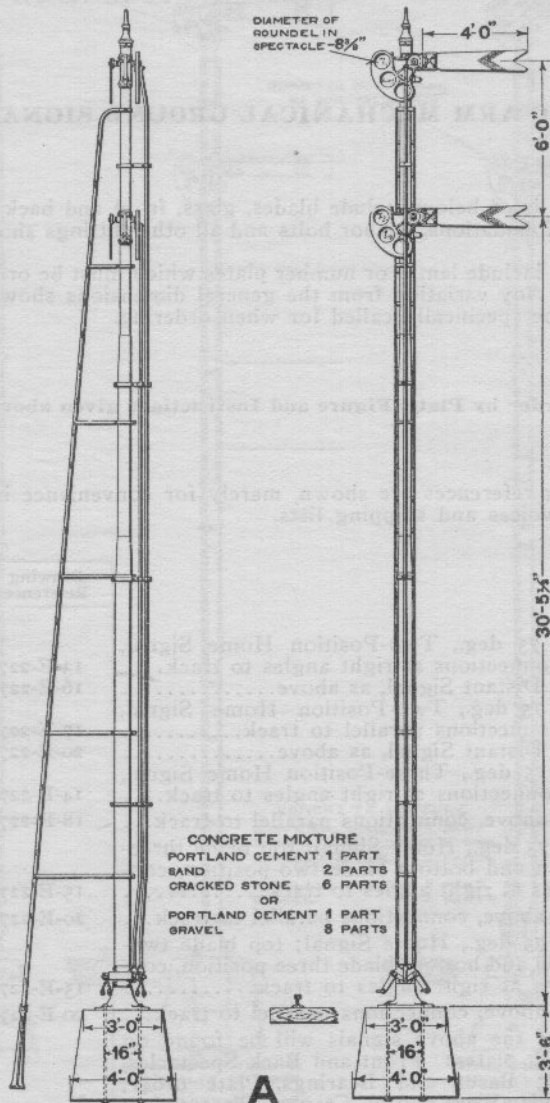
They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Two-Arm, 75 deg., Two-Position Home Signal, with connections at right angles to track....	13-E-2270	205 00
Aa	Home and Distant Signal, as above.....	16-E-2270	204 00
B	Two-Arm, 75 deg., Two-Position Home Signal, with connections parallel to track.....	17-E-2270	206 00
Ba	Home and Distant Signal, as above.....	20-E-2270	205 00
C	Two-Arm, 75 deg., Three-Position Home Signal, with connections at right angles to track....	14-E-2270	204 00
D	as above, connections parallel to track...	18-E-2270	205 00
E	Two-Arm, 75 deg., Home Signal; top blade three-position and bottom blade two-position, connections at right angles to track.....	15-E-2270	205 00
F	as above, connections parallel to track...	20-E-2270	206 00
G	Two-Arm, 75 deg., Home Signal; top blade two-position and bottom blade three position, connections at right angles to track.....	15-E-2270	205 00
H	as above, connections parallel to track...	20-E-2270	206 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bases and Bearings, Plate 01641; Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



SIGNAL CONNECTIONS AT RIGHT ANGLES TO TRACK.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

TWO ARM MECHANICAL DISTANT GROUND SIGNAL
(Wire Connected)

**TWO ARM MECHANICAL DISTANT GROUND SIGNALS
(Wire Connected)**

The signals listed below include blades, glass, front and back spectacles, ladders and ladder foundations, anchor bolts and all other fittings shown on the opposite plate.

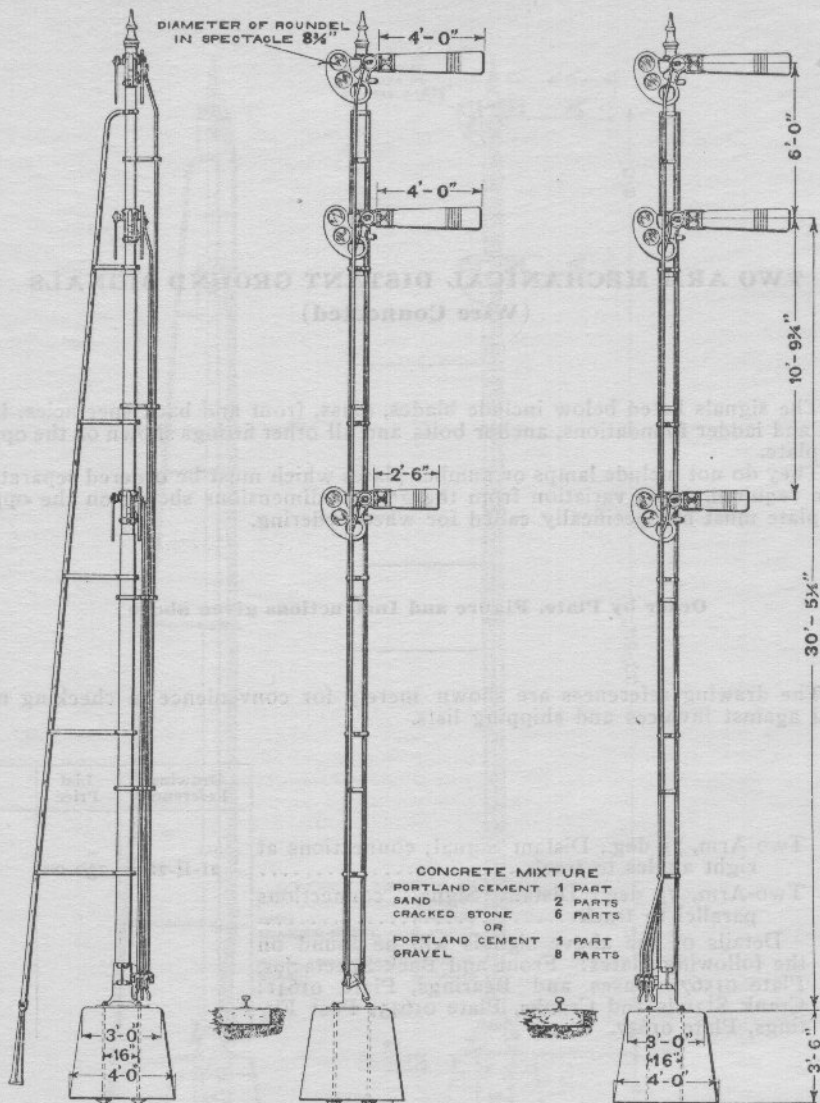
They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Two-Arm, 75 deg., Distant Signal; connections at right angles to track.....	21-E-2270	230 00
Aa	Two-Arm, 75 deg., Distant Signal; connections parallel to track.....		

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bases and Bearings, Plate 01641; Crank Stands and Cranks, Plate 01645; Post Fittings, Plate 01647.



SIGNAL CONNECTIONS AT RIGHT ANGLES TO TRACK.

- A - THREE BLADES ABSOLUTE
- C - TWO UPPER BLADES PERMISSIVE
- E - TOP BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.
- G - MIDDLE BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.

SIGNAL CONNECTIONS PARALLEL TO TRACK.

- B - THREE BLADES ABSOLUTE.
- D - TWO UPPER BLADES PERMISSIVE.
- F - TOP BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.
- H - MIDDLE BLADE PERMISSIVE, OTHER BLADES ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

TWO ARM AND LOW SPEED MECHANICAL GROUND SIGNALS

TWO ARM AND LOW SPEED MECHANICAL GROUND SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders and ladder foundations, anchor bolts and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

		Drawing Reference	List Price
A	Two-Arm and Low Speed, 75 deg., Home Signal; all the blades two-position, connections at right angles to track.....	22-E-2270	246 00
B	as above, connections parallel to track...	25-E-2270	247 00
C	Two-Arm and Low Speed, 75 deg., Home Signal; top and middle blades three-position and bottom blade two-position, connections at right angles to track.....	24-E-2270	245 00
D	as above, connections parallel to track...	27-E-2270	246 00
E	Two-Arm and Low Speed, 75 deg., Home Signal; top blade three-position and middle and bottom blades two-position, connections at right angles to track.....	23-E-2270	246 00
F	as above, connections parallel to track...	26-E-2270	247 00
G	Two-Arm and Low Speed, 75 deg., Home Signal; middle blade three-position and top and bottom blades two-position, connections at right angles to track.....	23-E-2270	246 00
H	as above, connections parallel to track...	26-E-2270	247 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bases and Bearings, Plate 01641; Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.

ONE ARM MECHANICAL BRIDGE SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders, hook bolts, and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	One-Arm, 75 deg., Two-Position Home Signal; the height of a three-arm bridge signal, for four-track signal bridge.....	19-C-5988	97 00
Aa	Distant Signal, as above.....	21-C-5988	96 00
B	One-Arm, 75 deg., Three-Position Home Signal; the height of a three-arm bridge signal, for four-track signal bridge.....	20-C-5988	97 00
C	One-Arm, 75 deg., Two-Position Home Signal; the height of a two-arm bridge signal, for four-track signal bridge.....	10-C-5988	83 00
Ca	Distant Signal, as above.....	12-C-5988	82 00
D	One-Arm, 75 deg., Three-Position Home Signal; the height of a two-arm bridge signal, for four-track signal bridge.....	11-C-5988	83 00
E	One-Arm, 75 deg., Two-Position Home Signal; the height of a one-arm bridge signal, for four-track signal bridge.....	1-C-5988	74 00
Ea	Distant Signal, as above.....	3-C-5988	73 00
F	One-Arm, 75 deg., Three-Position Home Signal; the height of a one-arm bridge signal, for four-track signal bridge.....	2-C-5988	74 00

ONE ARM MECHANICAL BRIDGE SIGNALS

ONE ARM MECHANICAL BRIDGE SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
G	One-Arm, 75 deg., Two-Position Home Signal; the height of a three-arm bridge signal, for five or six-track signal bridge.....	22-C-5988	100 00
Ga	Distant Signal, as above.....	24-C-5988	99 00
H	One-Arm, 75 deg., Three-Position Home Signal; the height of a three-arm bridge signal, for five or six-track signal bridge.....	23-C-5988	100 00
J	One-Arm, 75 deg., Two-Position Home Signal; the height of a two-arm bridge signal, for five or six-track signal bridge.....	13-C-5988	86 00
Ja	Distant Signal, as above.....	15-C-5988	85 00
K	One-Arm, 75 deg., Three-Position Home Signal; the height of a two-arm bridge signal, for five or six-track signal bridge.....	14-C-5988	86 00
L	One-Arm, 75 deg., Two-Position Home Signal; the height of a one-arm bridge signal, for five or six-track signal bridge.....	4-C-5988	77 00
La	Distant Signal, as above.....	6-C-5988	76 00
M	One-Arm, 75 deg., Three-Position Home Signal; the height of a one-arm bridge signal, for five or six-track signal bridge.....	5-C-5988	77 00
N	One-Arm, 75 deg., Two-Position Home Signal; the height of a three-arm bridge signal, for seven or eight-track signal bridge.....	25-C-5988	103 00

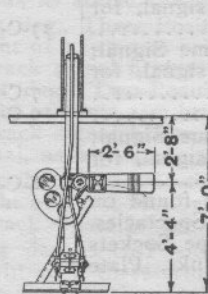
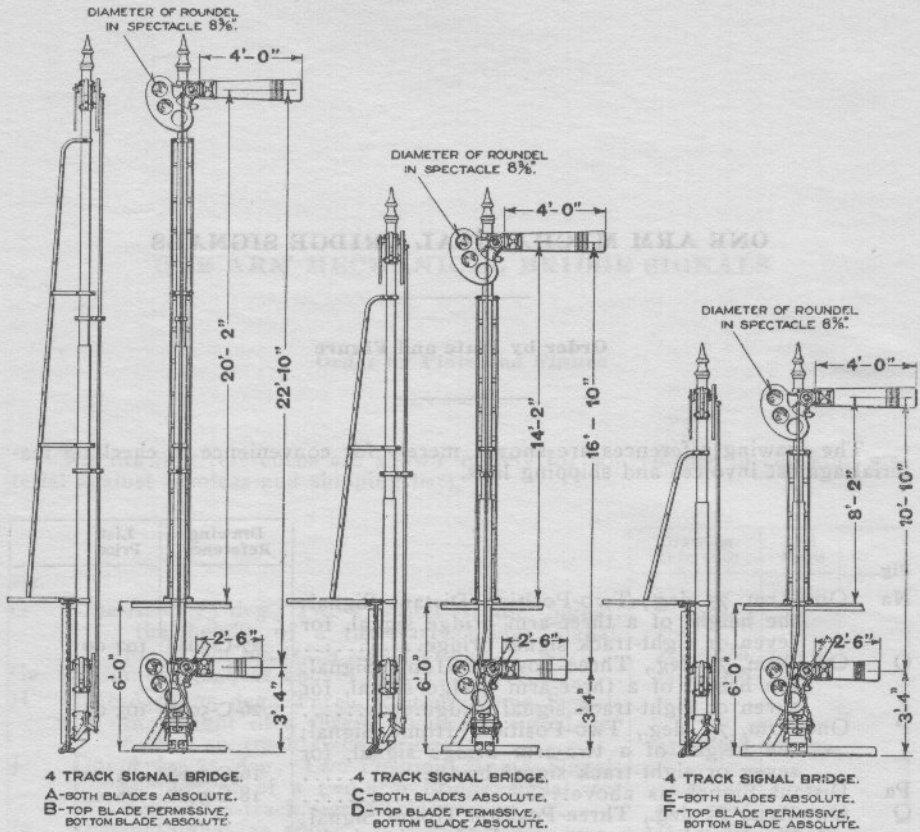
ONE ARM MECHANICAL BRIDGE SIGNALS

Order by Plate and Figure

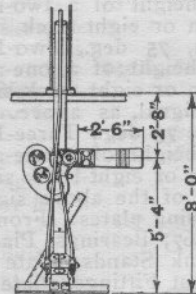
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
Na	One-Arm, 75 deg., Two-Position Distant Signal; the height of a three-arm bridge signal, for seven or eight-track signal bridge.....	27-C-5988	102 00
O	One-Arm, 75 deg., Three-Position Home Signal; the height of a three-arm bridge signal, for seven or eight-track signal bridge.....	26-C-5988	103 00
P	One-Arm, 75 deg., Two-Position Home Signal; the height of a two-arm bridge signal, for seven or eight-track signal bridge.....	16-C-5988	89 00
Pa	Distant Signal, as above.....	18-C-5988	88 00
Q	One-Arm, 75 deg., Three-Position Home Signal; the height of a two-arm bridge signal, for seven or eight-track signal bridge.....	17-C-5988	89 00
R	One-Arm, 75 deg., Two-Position Home Signal; the height of a one-arm bridge signal, for seven or eight track signal bridge.....	7-C-5988	80 00
Ra	Distant Signal, as above.....	9-C-5988	79 00
S	One-Arm, 75 deg., Three-Position Home Signal; the height of a one-arm bridge signal, for seven or eight-track signal bridge.....	8-C-5988	80 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bearings, Plate 01641; Pipe Sockets and Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



HEIGHT OF 3 ARM POST. **G**-BOTH BLADES ABSOLUTE.
H-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
 HEIGHT OF 2 ARM POST. **J**-BOTH BLADES ABSOLUTE.
K-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
 HEIGHT OF 1 ARM POST. **L**-BOTH BLADES ABSOLUTE.
M-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.



HEIGHT OF 3 ARM POST. **N**-BOTH BLADES ABSOLUTE.
O-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
 HEIGHT OF 2 ARM POST. **P**-BOTH BLADES ABSOLUTE.
Q-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
 HEIGHT OF 1 ARM POST. **R**-BOTH BLADES ABSOLUTE.
S-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS.

ONE ARM AND LOW SPEED MECHANICAL BRIDGE SIGNALS

ONE ARM AND LOW SPEED MECHANICAL BRIDGE SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders, hook bolts, and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	One-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, both blades two-position, for four-track signal bridge	40-C-5988	132 00
B	One-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, top blade three-position and bottom blade two-position, for four-track signal bridge.....	41-C-5988	132 00
C	One-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, both blades two-position for four-track signal bridge	34-C-5988	118 00
D	One-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, top blade three-position and bottom blade two-position, for four-track signal bridge.....	35-C-5988	118 00
E	One-Arm and Low Speed, 75 deg., Home Signal; the height of a one-arm bridge signal, both blades two-position, for four-track signal bridge	28-C-5988	109 00
F	One-Arm and Low Speed, 75 deg., Home Signal; the height of a one-arm bridge signal, top blade three-position and bottom blade two-position, for four-track signal bridge.....	29-C-5988	109 00

ONE ARM AND LOW SPEED MECHANICAL BRIDGE SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
G	One-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, both blades two-position, for five or six-track signal bridge.....	42-C-5988	135 00
H	One-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, top blade three-position and bottom blade two-position, for five or six-track signal bridge..	43-C-5988	135 00
J	One-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, both blades two-position, for five or six-track signal bridge.....	36-C-5988	121 00
K	One-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, top blade three-position and bottom blade two-position, for five or six-track signal bridge...	37-C-5988	121 00
L	One-Arm and Low Speed, 75 deg., Home Signal; the height of a one-arm bridge signal, both blades two-position, for five or six-track signal bridge	30-C-5988	112 00
M	One-Arm and Low Speed, 75 deg., Home Signal; the height of a one-arm bridge signal, top blade three-position and bottom blade two-position, for five or six-track signal bridge...	31-C-5988	112 00
N	One-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, both blades two-position, for seven or eight-track signal bridge.....	44-C-5988	138 00

ONE ARM AND LOW SPEED MECHANICAL BRIDGE SIGNALS

Order by Plate and Figure

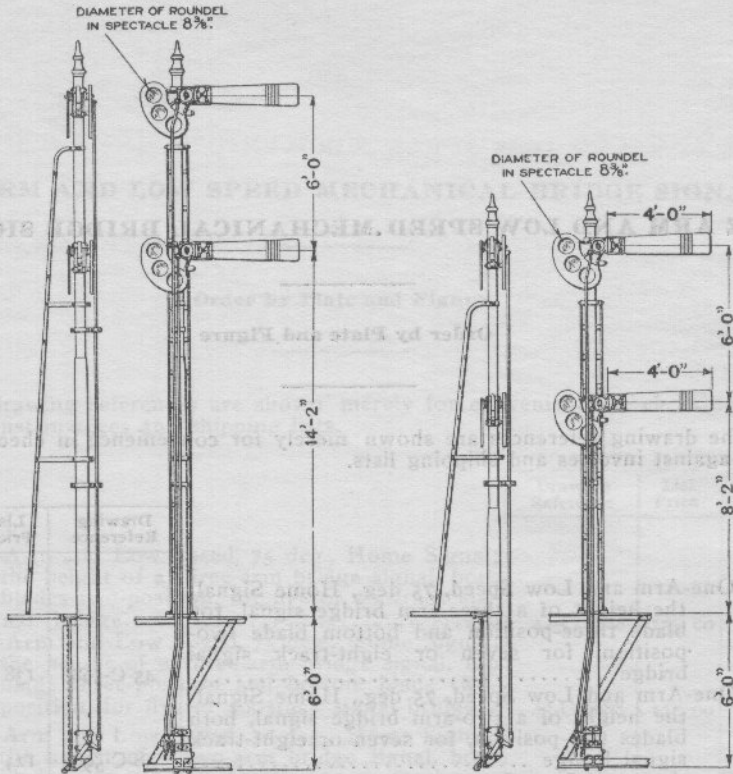
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- O One-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, top blade three-position and bottom blade two-position, for seven or eight-track signal bridge
- P One-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, both blades two-position, for seven or eight-track signal bridge
- Q One-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, top blade three-position, and bottom blade two-position, for seven or eight-track signal bridge
- R One-Arm and Low Speed, 75 deg., Home Signal; the height of a one-arm bridge signal, both blades two-position, for seven or eight-track signal bridge.....
- S One-Arm and Low Speed, 75 deg., Home Signal; the height of a one-arm bridge signal, top blade three-position and bottom blade two-position, for seven or eight-track signal bridge

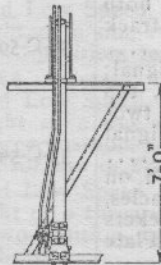
Drawing Reference	List Price
45-C-5988	138 00
38-C-5988	124 00
39-C-5988	124 00
32-C-5988	115 00
33-C-5988	115 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bearings, Plate 01641; Pipe Sockets and Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



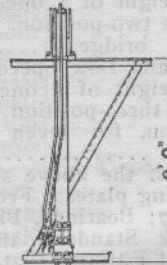
- 4 TRACK SIGNAL BRIDGE.**
A-BOTH BLADES ABSOLUTE.
B-BOTH BLADES PERMISSIVE.
C-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
D-BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE.

- 4 TRACK SIGNAL BRIDGE.**
E-BOTH BLADES ABSOLUTE.
F-BOTH BLADES PERMISSIVE.
G-TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE.
H-BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE.



5 AND 6 TRACK SIGNAL BRIDGE.

- | | |
|--|--|
| HEIGHT OF 3 ARM POST. | HEIGHT OF 2 ARM POST. |
| J -BOTH BLADES ABSOLUTE. | N -BOTH BLADES ABSOLUTE. |
| K -BOTH BLADES PERMISSIVE. | O -BOTH BLADES PERMISSIVE. |
| L -TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE. | P -TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE. |
| M -BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE. | Q -BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE. |



7 AND 8 TRACK SIGNAL BRIDGE.

- | | |
|--|--|
| HEIGHT OF 3 ARM POST. | HEIGHT OF 2 ARM POST. |
| R -BOTH BLADES ABSOLUTE. | V -BOTH BLADES ABSOLUTE. |
| S -BOTH BLADES PERMISSIVE. | W -BOTH BLADES PERMISSIVE. |
| T -TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE. | X -TOP BLADE PERMISSIVE, BOTTOM BLADE ABSOLUTE. |
| U -BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE. | Y -BOTTOM BLADE PERMISSIVE, TOP BLADE ABSOLUTE. |

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS.

TWO ARM MECHANICAL BRIDGE SIGNALS

TWO ARM MECHANICAL BRIDGE SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders, hook bolts, and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Two-Arm, 75 deg., Two-Position Home Signal; the height of a three-arm bridge signal, for four-track signal bridge.....	59-C-5988	135 00
Aa	Home and Distant Signal, as above.....	62-C-5988	134 00
B	Two-Arm, 75 deg., Home Signal; the height of a three-arm bridge signal, both blades three-position, for four-track signal bridge.....	60-C-5988	134 00
C	as above, top blade three-position and bottom blade two-position.....	61-C-5988	135 00
D	as above, top blade two-position and bottom blade three-position.....	61-C-5988	135 00
E	Two-Arm, 75 deg., Two-Position Home Signal; the height of a two-arm bridge signal, for four-track signal bridge.....	47-C-5988	121 00
Ea	Home and Distant Signal, as above.....	50-C-5988	120 00
F	Two-Arm, 75 deg., Home Signal; the height of a two-arm bridge signal, both blades three-position, for four-track signal bridge.....	48-C-5988	120 00
G	as above, top blade three-position and bottom blade two-position.....	49-C-5988	121 00
H	as above, top blade two-position and bottom blade three-position.....	49-C-5988	121 00

TWO ARM MECHANICAL BRIDGE SIGNALS

TWO ARM MECHANICAL BRIDGE SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
J	Two-Arm, 75 deg., Two-Position Home Signal; the height of a three-arm bridge signal, for five or six-track signal bridge.....	63-C-5988	138 00
Ja	Home and Distant Signal, as above.....	66-C-5988	137 00
K	Two-Arm, 75 deg., Home Signal; the height of a three-arm bridge signal, both blades three-position, for five or six-track signal bridge..	64-C-5988	137 00
L	as above, top blade three-position and bottom blade two-position.....	65-C-5988	138 00
M	as above, top blade two-position and bottom blade three-position.....	65-C-5988	138 00
N	Two-Arm, 75 deg., Two-Position Home Signal; the height of a two-arm bridge signal, for five or six-track signal bridge.....	51-C-5988	124 00
Na	Home and Distant Signal; as above.....	54-C-5988	123 00
O	Two-Arm, 75 deg., Home Signal; the height of a two-arm bridge signal, both blades three-position, for five or six-track signal bridge.....	52-C-5988	123 00
P	as above, top blade three-position and bottom blade two-position.....	53-C-5988	124 00
Q	as above, top blade two-position and bottom blade three-position.....	53-C-5988	124 00
R	Two-Arm, 75 deg., Two-Position Home Signal; the height of a three-arm bridge signal, for seven or eight-track signal bridge.....	67-C-5988	141 00

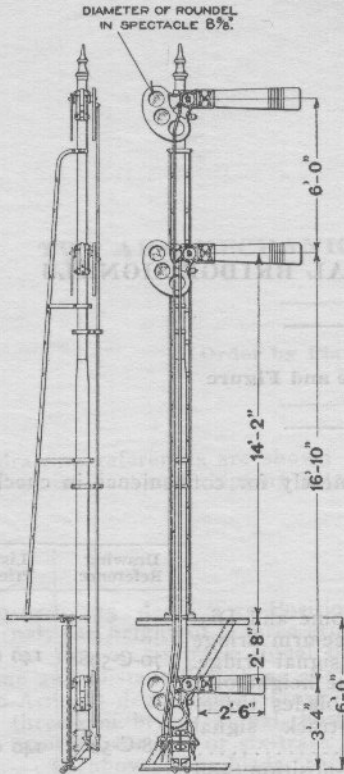
TWO ARM MECHANICAL BRIDGE SIGNALS

Order by Plate and Figure

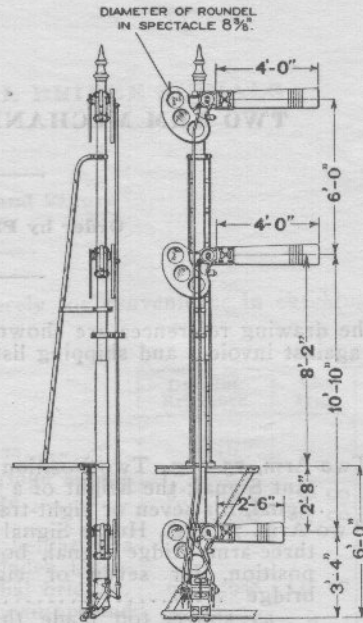
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
Ra	Two-Arm, 75 deg., Two-Position Home and Distant Signal; the height of a three-arm bridge signal, for seven or eight-track signal bridge.	70-C-5988	140 00
S	Two-Arm, 75 deg., Home Signal; the height of a three-arm bridge signal, both blades three-position, for seven or eight-track signal bridge	68-C-5988	140 00
T	as above, top blade three-position and bottom blade two-position.....	69-C-5988	141 00
U	as above, top blade two-position and bottom blade three-position.....	69-C-5988	141 00
V	Two-Arm, 75 deg., Two-Position Home Signal; the height of a two-arm bridge signal, for seven or eight-track signal bridge.....	55-C-5988	127 00
Va	Home and Distant Signal, as above.....	58-C-5988	126 00
W	Two-Arm, 75 deg., Home Signal; the height of a two-arm bridge signal, both blades three-position, for seven or eight-track signal bridge.	56-C-5988	126 00
X	as above, top blade three-position and bottom blade two position.....	57-C-5988	127 00
Y	as above, top blade two-position and bottom blade three-position.....	57-C-5988	127 00

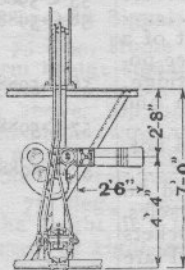
Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bearings, Plate 01641; Pipe Sockets and Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



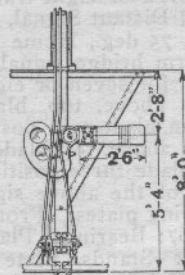
4 TRACK SIGNAL BRIDGE.
A-ALL BLADES ABSOLUTE.
B-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
C-TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
D-MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.



4 TRACK SIGNAL BRIDGE.
E-ALL BLADES ABSOLUTE.
F-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
G-TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
H-MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.



5 AND 6 TRACK SIGNAL BRIDGE.
 HEIGHT OF 3 ARM POST.
J-ALL BLADES ABSOLUTE.
K-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
L-TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
M-MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.
 HEIGHT OF 2 ARM POST.
N-ALL BLADES ABSOLUTE.
O-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
P-TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
Q-MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.



7 AND 8 TRACK SIGNAL BRIDGE.
 HEIGHT OF 3 ARM POST.
R-ALL BLADES ABSOLUTE.
S-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
T-TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
U-MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.
 HEIGHT OF 2 ARM POST.
V-ALL BLADES ABSOLUTE.
W-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
X-TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
Y-MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS.

TWO ARM AND LOW SPEED MECHANICAL BRIDGE SIGNALS

**TWO ARM AND LOW SPEED MECHANICAL
BRIDGE SIGNALS**

The signals listed below include blades, glass, front and back spectacles, ladders, hook bolts, and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Two-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, all blades two-position, for four-track signal bridge	80-C-5988	170 00
B	as above, top and middle blades three-position, and bottom blade two-position.....	82-C-5988	169 00
C	as above, top blade three-position, middle and bottom blades two-position.....	81-C-5988	170 00
D	as above, top and bottom blades two-position, and middle blade three-position.....	81-C-5988	170 00
E	Two-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, all blades two-position, for four-track signal bridge	71-C-5988	158 00
F	as above, top and middle blades three-position, and bottom blade two-position.....	73-C-5988	157 00
G	as above, top blade three-position, middle and bottom blades two-position.....	72-C-5988	158 00
H	as above, top and bottom blades two-position, and middle blade three-position.....	72-C-5988	158 00

**TWO ARM AND LOW SPEED MECHANICAL
BRIDGE SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
J	Two-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, all blades two-position, for five or six-track signal bridge	83-C-5988	173 00
K	as above, top and middle blades, three-position, and bottom blade two-position.....	85-C-5988	172 00
L	as above, top blade three-position, middle and bottom blades two-position.....	84-C-5988	173 00
M	as above, top and bottom blades two-position, and middle blade three-position.....	84-C-5988	173 00
N	Two-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, all blades two-position, for five or six-track signal bridge	74-C-5988	161 00
O	as above, top and middle blades three-position, and bottom blade two-position.....	76-C-5988	160 00
P	as above, top blade three-position, middle and bottom blades two-position.....	75-C-5988	161 00
Q	as above, top and bottom blades two-position, and middle blade three-position.....	75-C-5988	161 00

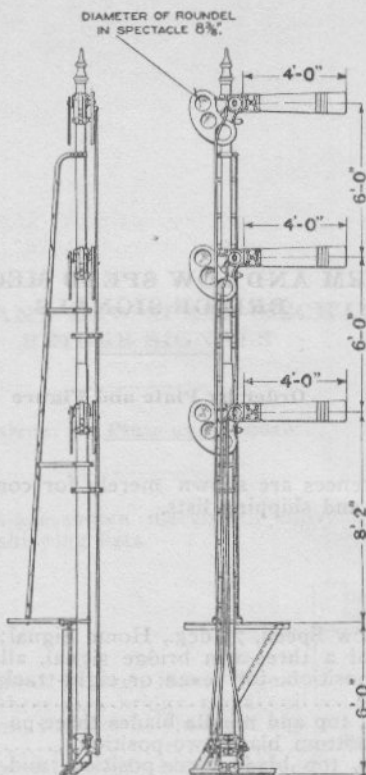
**TWO ARM AND LOW SPEED MECHANICAL
BRIDGE SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

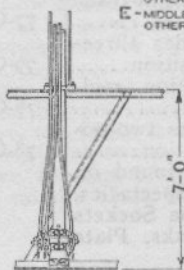
Fig.		Drawing Reference	List Price
R	Two-Arm and Low Speed, 75 deg., Home Signal; the height of a three-arm bridge signal, all blades two-position, for seven or eight-track signal bridge	86-C-5988	176 00
S	as above, top and middle blades three-position, and bottom blade two-position.....	88-C-5988	175 00
T	as above, top blade three-position, middle and bottom blades two-position.....	87-C-5988	176 00
U	as above, top and bottom blades two-position, and middle blade three-position.....	87-C-5988	176 00
V	Two-Arm and Low Speed, 75 deg., Home Signal; the height of a two-arm bridge signal, all blades two-position, for seven or eight-track signal bridge	77-C-5988	164 00
W	as above, top and middle blades three-position, and bottom blade two-position.....	79-C-5988	163 00
X	as above, top blade three-position, middle and bottom blades two-position.....	78-C-5988	164 00
Y	as above, top and bottom blades two-position, and middle blade three-position.....	78-C-5988	164 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bearings, Plate 01641; Pipe Sockets and Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



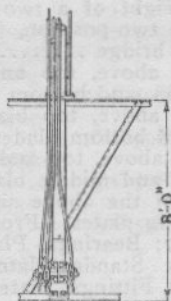
4 TRACK SIGNAL BRIDGE.

- A - ALL BLADES ABSOLUTE.
- B - ALL BLADES PERMISSIVE.
- C - TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
- D - BOTTOM BLADE PERMISSIVE, OTHERS ABSOLUTE.
- E - MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.



5 AND 6 TRACK SIGNAL BRIDGE.

- F - ALL BLADES ABSOLUTE.
- G - ALL BLADES PERMISSIVE.
- H - TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
- J - BOTTOM BLADE PERMISSIVE, OTHERS ABSOLUTE.
- K - MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.



7 AND 8 TRACK SIGNAL BRIDGE.

- L - ALL BLADES ABSOLUTE.
- M - ALL BLADES PERMISSIVE.
- N - TOP BLADE PERMISSIVE, OTHERS ABSOLUTE.
- O - BOTTOM BLADE PERMISSIVE, OTHERS ABSOLUTE.
- P - MIDDLE BLADE PERMISSIVE, OTHERS ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS.

THREE ARM MECHANICAL BRIDGE SIGNALS

THREE ARM MECHANICAL BRIDGE SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders, hook bolts, and all other fittings shown on the opposite plate.

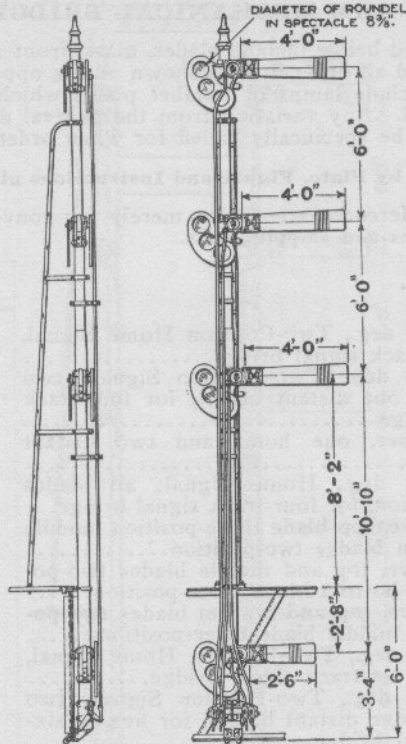
They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

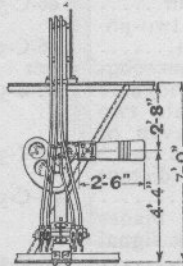
Fig.		Drawing Reference	List Price
A	Three-Arm, 75 deg., Two-Position Home Signal, for four-track signal bridge.....	89-C-5988	173 00
Aa	Three-Arm, 75 deg., Two-Position Signal; two home and one distant blades, for four-track signal bridge	92-C-5988	172 00
Ab	as above, one home and two distant blades	93-C-5988	171 00
B	Three-Arm, 75 deg., Home Signal; all blades three-position, for four-track signal bridge...	90-C-5988	172 00
C	as above, top blade three-position, middle and bottom blades two-position.....	91-C-5988	173 00
D	as above, top and middle blades two-position, and bottom blade three-position.....	91-C-5988	173 00
E	as above, top and bottom blades two-position, and middle blade three-position.....	91-C-5988	173 00
F	Three-Arm, 75 deg., Two-Position Home Signal, for five or six-track signal bridge.....	94-C-5988	176 00
Fa	Three-Arm, 75 deg., Two-Position Signal; two home and one distant blades, for five or six-track signal bridge.....	97-C-5988	175 00
Fb	as above, one home and two distant blades	98-C-5988	174 00
G	Three-Arm, 75 deg., Home Signal; all blades three-position, for five or six-track signal bridge...	95-C-5988	175 00
H	as above, top blade three-position, middle and bottom blades two-position.....	96-C-5988	176 00
J	as above, top and middle blades two-position, and bottom blade three-position.....	96-C-5988	176 00
K	as above, top and bottom blades two-position, and middle blade three-position.....	96-C-5988	176 00
L	Three-Arm, 75 deg., Two-Position Home Signal; for seven or eight-track signal bridge...	99-C-5988	179 00
La	Three-Arm, 75 deg., Two-Position Signal; two home and one distant blades, for seven or eight-track signal bridge.....	102-C-5988	178 00
Lb	as above, one home and two distant blades	103-C-5988	177 00
M	Three-Arm, 75 deg., Home Signal, all blades three-position, for seven or eight-track signal bridge	100-C-5988	178 00
N	as above, top blade three-position, and middle and bottom blades two-position.....	101-C-5988	179 00
O	as above, top and middle blades two-position, and bottom blade three-position.....	101-C-5988	179 00
P	as above, top and bottom blades two-position, and middle blade three-position.....	101-C-5988	179 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bearings, Plate 01641; Pipe Sockets and Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



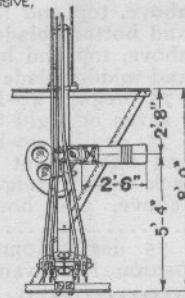
4 TRACK SIGNAL BRIDGE.

- A-ALL BLADES ABSOLUTE.
- B-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
- C-FIRST UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.
- D-SECOND UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.
- E-THIRD UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.



AND 6 TRACK SIGNAL BRIDGE.

- F-ALL BLADES ABSOLUTE.
- G-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
- H-FIRST UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.
- J-SECOND UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.
- K-THIRD UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.



7 AND 8 TRACK SIGNAL BRIDGE.

- L-ALL BLADES ABSOLUTE.
- M-UPPER BLADES PERMISSIVE, BOTTOM BLADE ABSOLUTE.
- N-FIRST UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.
- O-SECOND UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.
- P-THIRD UPPER BLADE PERMISSIVE, OTHERS ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS.

THREE ARM AND LOW SPEED MECHANICAL
BRIDGE SIGNALS

**THREE ARM AND LOW SPEED MECHANICAL
BRIDGE SIGNALS**

The signals listed below include blades, glass, front and back spectacles, ladders, hook bolts, and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variation from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

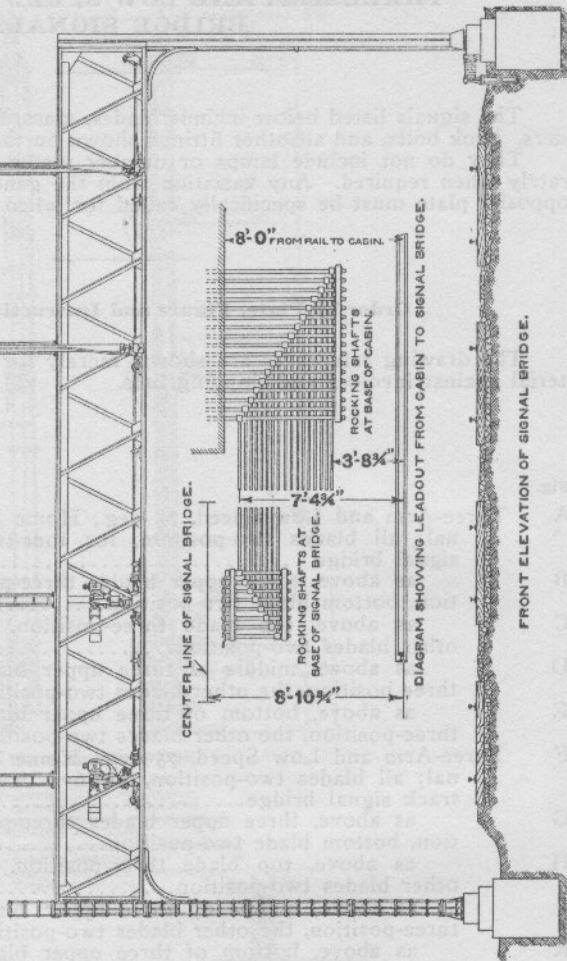
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Three-Arm and Low Speed, 75 deg., Home Signal; all blades two-position, for four-track signal bridge	104-C-5988	208 00
B	as above, three upper blades three-position, bottom blade two-position.....	105-C-5988	207 00
C	as above, top blade three-position, the other blades two-position.....	106-C-5988	208 00
D	as above, middle of three upper blades three position, the other blades two-position.	107-C-5988	208 00
E	as above, bottom of three upper blades three-position, the other blades two-position.	108-C-5988	208 00
F	Three-Arm and Low Speed, 75 deg., Home Signal; all blades two-position, for five or six-track signal bridge.....	109-C-5988	211 00
G	as above, three upper blades three-position, bottom blade two-position.....	110-C-5988	210 00
H	as above, top blade three-position, the other blades two-position.....	111-C-5988	211 00
J	as above, middle of three upper blades three-position, the other blades two-position.	112-C-5988	211 00
K	as above, bottom of three upper blades three position, the other blades two-position.	113-C-5988	211 00
L	Three-Arm and Low Speed, 75 deg., Home Signal; all blades two-position, for seven or eight-track signal bridge.....	114-C-5988	214 00
M	as above, three upper blades three-position, bottom blade two-position.....	115-C-5988	213 00
N	as above, top blade three-position, the other blades two-position.....	116-C-5988	214 00
O	as above, middle of three upper blades three-position, the other blades two-position.	117-C-5988	214 00
P	as above, bottom of three upper blades three-position, the other blades two-position.	118-C-5988	214 00

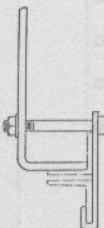
Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bearings, Plate 01641; Pipe Sockets and Crank Stands, Plate 01643; Cranks, Plate 01645; Post Fittings, Plate 01647.



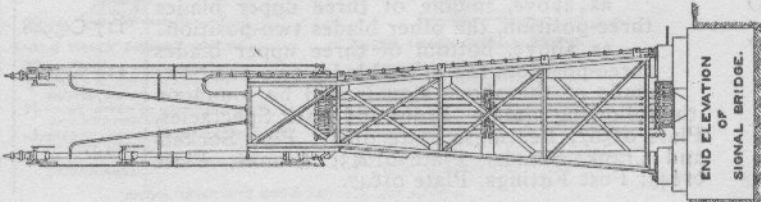
PLAN VIEW OF BOTTOM CHORD OF SIGNAL BRIDGE.



FRONT ELEVATION OF SIGNAL BRIDGE.



METHOD OF FASTENING IRON PLATES TO BRIDGE, FOR FOUNDATIONS OF CRANK STANDS AND PIPE CARRIERS.



END ELEVATION OF SIGNAL BRIDGE.

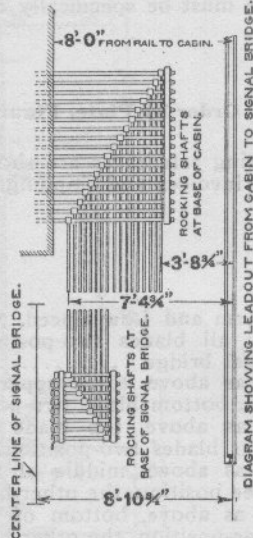


DIAGRAM SHOWING LEADOUT FROM CABIN TO SIGNAL BRIDGE.

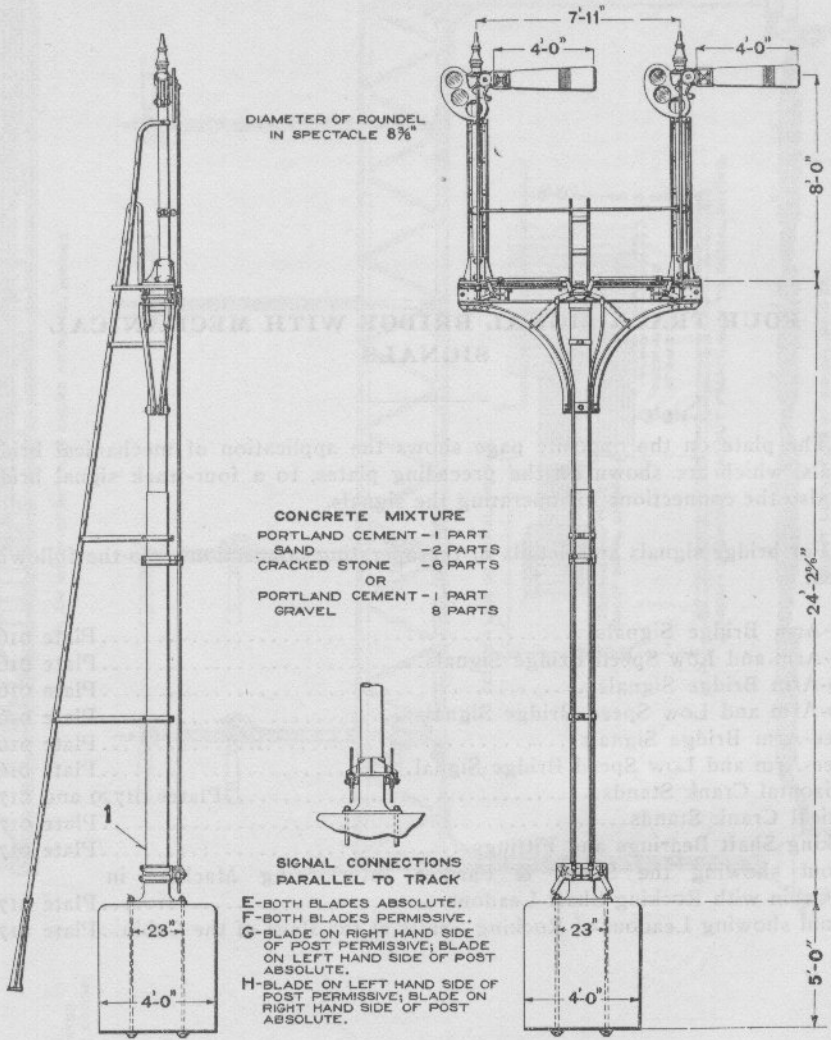
FOUR TRACK SIGNAL BRIDGE WITH MECHANICAL SIGNALS

FOUR TRACK SIGNAL BRIDGE WITH MECHANICAL SIGNALS

The plate on the opposite page shows the application of mechanical bridge signals, which are shown on the preceding plates, to a four-track signal bridge and also the connections for operating the signals.

For bridge signals and details of the operating connections, see the following plates:

- One-Arm Bridge Signals.....Plate 01611
- One-Arm and Low Speed Bridge Signals.....Plate 01613
- Two-Arm Bridge Signals.....Plate 01615
- Two-Arm and Low Speed Bridge Signals.....Plate 01617
- Three-Arm Bridge Signals.....Plate 01619
- Three-Arm and Low Speed Bridge Signal.....Plate 01621
- Horizontal Crank Stands.....Plates 01729 and 01731
- Vertical Crank Stands.....Plate 01733
- Rocking Shaft Bearings and Fittings.....Plate 01751
- Layout showing the Saxby & Farmer Interlocking Machine in
 Cabin with Rocking Shaft Leadout.....Plate 01755
- Layout showing Leadout of Rocking Shafts at the Base of the Cabin..Plate 01757



DIAMETER OF ROUNDEL
IN SPECTACLE 8 3/8"

CONCRETE MIXTURE
 PORTLAND CEMENT - 1 PART
 SAND - 2 PARTS
 CRACKED STONE - 6 PARTS
 OR
 PORTLAND CEMENT - 1 PART
 GRAVEL - 8 PARTS

**SIGNAL CONNECTIONS
PARALLEL TO TRACK**

- E - BOTH BLADES ABSOLUTE.
- F - BOTH BLADES PERMISSIVE.
- G - BLADE ON RIGHT HAND SIDE OF POST PERMISSIVE; BLADE ON LEFT HAND SIDE OF POST ABSOLUTE.
- H - BLADE ON LEFT HAND SIDE OF POST PERMISSIVE; BLADE ON RIGHT HAND SIDE OF POST ABSOLUTE.

**SIGNAL CONNECTIONS
AT RIGHT ANGLES TO TRACK**

- A - BOTH BLADES ABSOLUTE.
- B - BOTH BLADES PERMISSIVE.
- C - BLADE ON RIGHT HAND SIDE OF POST PERMISSIVE; BLADE ON LEFT HAND SIDE OF POST ABSOLUTE.
- D - BLADE ON LEFT HAND SIDE OF POST PERMISSIVE; BLADE ON RIGHT HAND SIDE OF POST ABSOLUTE.

SIGNAL COMPLETE DOES NOT INCLUDE LAMPS OR FOUNDATION.

TWO ARM MECHANICAL BRACKET SIGNALS

TWO ARM MECHANICAL BRACKET SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

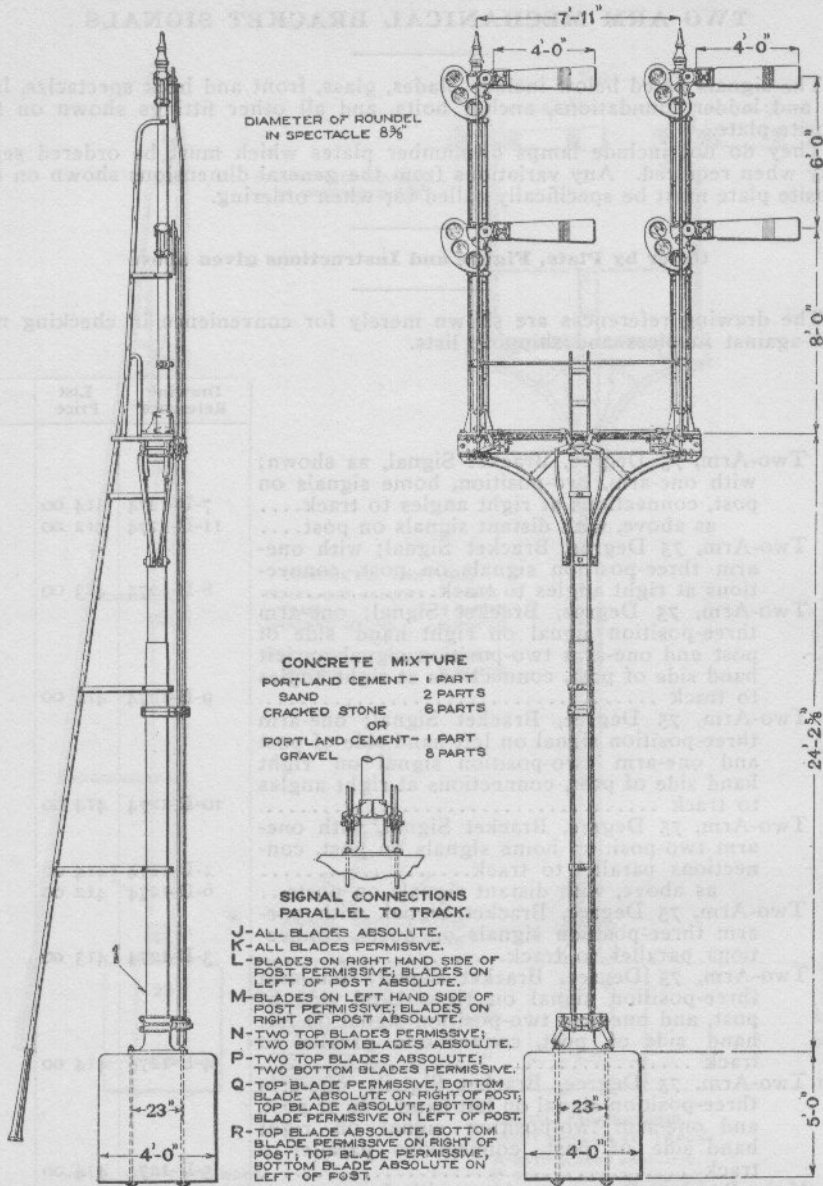
They do not include lamps or number plates which must be ordered separately when required. Any variations from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Two-Arm, 75 Degree, Bracket Signal, as shown; with one-arm, two-position, home signals on post, connections at right angles to track....	7-D-1274	414 00
Aa	as above, with distant signals on post....	11-D-1274	412 00
B	Two-Arm, 75 Degree, Bracket Signal; with one-arm three-position signals on post, connections at right angles to track.....	8-D-1274	413 00
C	Two-Arm, 75 Degree, Bracket Signal; one-arm three-position signal on right hand side of post and one-arm two-position signal on left hand side of post, connections at right angles to track	9-D-1274	414 00
D	Two-Arm, 75 Degree, Bracket Signal; one-arm three-position signal on left hand side of post and one-arm two-position signal on right hand side of post, connections at right angles to track	10-D-1274	414 00
E	Two-Arm, 75 Degree, Bracket Signal, with one-arm two-position home signals on post, connections parallel to track.....	1-D-1274	414 00
Ea	as above, with distant signals on posts...	6-D-1274	412 00
F	Two-Arm, 75 Degree, Bracket Signal, with one-arm three-position signals on posts, connections parallel to track.....	3-D-1274	413 00
G	Two-Arm, 75 Degree, Bracket Signal; one-arm three-position signal on right hand side of post, and one-arm two-position signal on left hand side of post, connections parallel to track	4-D-1274	414 00
H	Two-Arm, 75 Degree, Bracket Signal; one-arm three-position signal on left hand side of post, and one-arm two-position signal on right hand side of post, connections parallel to track	5-D-1274	414 00
I	Main Bracket Post, complete, with base, cross-tree, platform, channel irons, hand rails, ladder and ladder foundation, and anchor bolts. (No upper posts).....	5-B-9877	298 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bearings, Plate 01641; Post Fittings, Plates 01647 and 01649; Bases and Crank Stands, Plate 01649.



FOUR ARM MECHANICAL BRACKET SIGNALS

FOUR ARM MECHANICAL BRACKET SIGNALS

The signals listed below include blades, glass, front and back spectacles, ladders and ladder foundations, anchor bolts, and all other fittings shown on the opposite plate.

They do not include lamps or number plates which must be ordered separately when required. Any variations from the general dimensions shown on the opposite plate must be specifically called for when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Four-Arm, 75 deg., Bracket Signal, as shown; with two-arm, two-position, home signals on post, connections at right angles to track..	1-D-1179	520 00
Aa	as above, with distant signals on post....	9-D-1179	516 00
B	Four-Arm, 75 deg., Bracket Signal; two-arm, three-position home signals on post, connections at right angles to track.....	2-D-1179	518 00
C	Four-Arm, 75 deg., Bracket Signal; two-arm three-position home signal on right hand side of post and two-arm two-position home signal on left hand side of post, connections at right angles to track.....	3-D-1197	519 00
D	Four-Arm, 75 deg., Bracket Signal; two-arm three-position home signal on left hand side of post and two-arm two-position home signal on right hand side of post, connections at right angles to track.....	4-D-1179	519 00
E	Four-Arm, 75 deg., Bracket Signal; two top blades three-position and two bottom blades two-position, connections at right angles to track	5-D-1179	519 00
F	Four-Arm, 75 deg., Bracket Signal; two top blades three-position and two bottom blades two-position, connections at right angles to track	6-D-1179	519 00

FOUR ARM MECHANICAL BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
G	Four-Arm, 75 deg., Bracket Signal; on right hand side of post, top blade three-position, bottom blade two-position, and on left hand side of post, top blade two-position, bottom blade three-position, connections at right angles to track.....	7-D-1179	519 00
H	Four-Arm, 75 deg., Bracket Signal; on right hand side of post, top blade two-position, bottom blade three-position, and on left hand side of post, top blade three-position, bottom blade two-position, connections at right angles to track.....	8-D-1179	519 00
J	Four-Arm, 75 deg., Bracket Signal; with two-arm, two-position, home signals on post, connections parallel to track.....	10-D-1179	520 00
Ja	as above, with distant signals on post..	18-D-1179	516 00
K	Four-Arm, 75 deg., Bracket Signal; two-arm, three-position home signals on post, connections parallel to track.....	11-D-1179	518 00
L	Four-Arm, 75 deg., Bracket Signal; two-arm three-position home signal on right hand side of post and two-arm two-position home signal on left hand side of post, connections parallel to track.....	12-D-1179	519 00
M	Four-Arm, 75 deg., Bracket Signal; two-arm three-position home signal on left hand side of post and two-arm two-position home signal on right hand side of post, connections parallel to track.....	13-D-1179	519 00

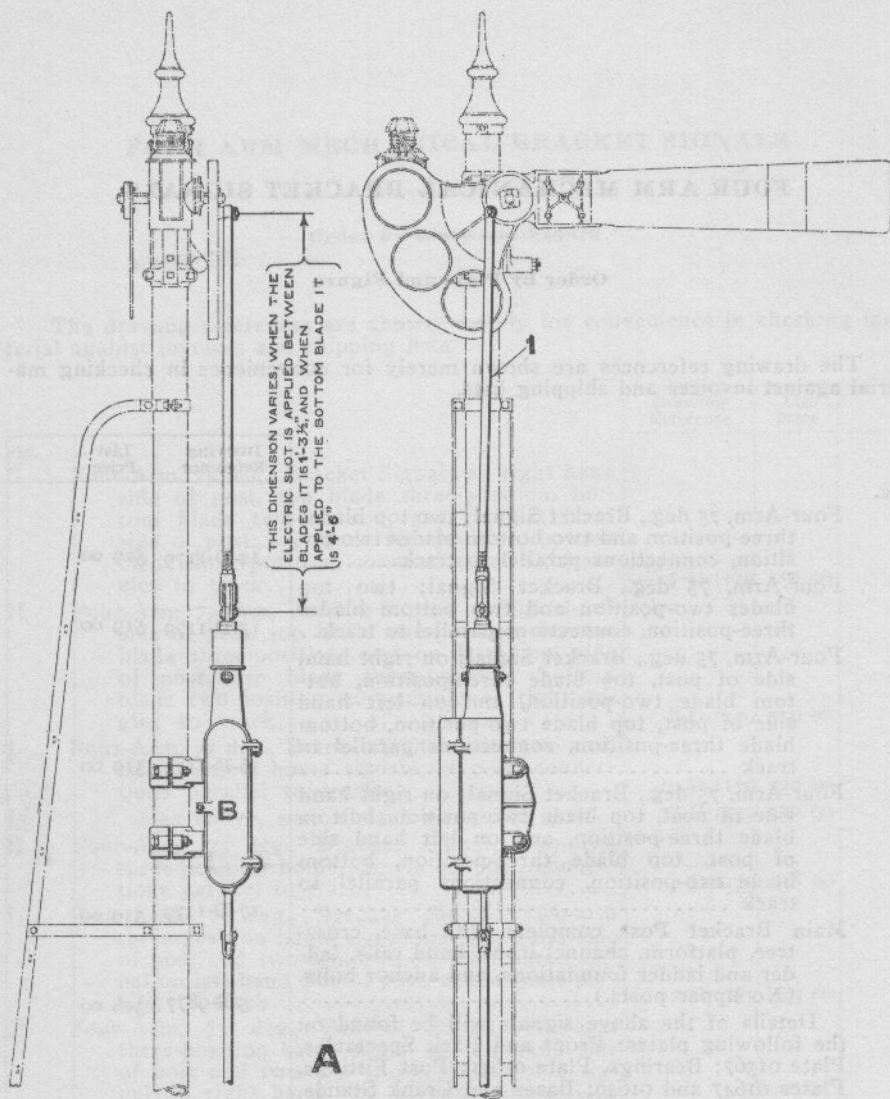
FOUR ARM MECHANICAL BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
N	Four-Arm, 75 deg., Bracket Signal; two top blades three-position and two bottom blades two-position, connections parallel to track.....	14-D-1179	519 00
P	Four-Arm, 75 deg., Bracket Signal; two top blades two-position and two bottom blades three-position, connections parallel to track..	15-D-1179	519 00
Q	Four-Arm, 75 deg., Bracket Signal; on right hand side of post, top blade three-position, bottom blade two-position, and on left hand side of post, top blade two-position, bottom blade three-position, connections parallel to track	16-D-1179	519 00
R	Four-Arm, 75 deg., Bracket Signal; on right hand side of post, top blade two-position, bottom blade three-position, and on left hand side of post, top blade three-position, bottom blade two-position, connections parallel to track	17-D-1179	519 00
I	Main Bracket Post, complete, with base, cross-tree, platform, channel irons, hand rails, ladder and ladder foundations, and anchor bolts. (No upper posts.).....	5-B-9877	318 00

Details of the above signals will be found on the following plates: Front and Back Spectacles, Plate 01567; Bearings, Plate 01641; Post Fittings, Plates 01647 and 01649; Bases and Crank Stands, Plate 01649.



PARTS THAT ARE SHOWN IN DOT AND DASH LINES ARE ADJACENT PARTS OF THE SIGNAL AND ARE NOT INCLUDED WITH THE MODEL NO. 3 ELECTRIC SLOT COMPLETE.

APPLICATION OF MODEL NO. 3 ELECTRIC SLOT TO MECHANICAL SIGNALS

**APPLICATION OF MODEL NO. 3 ELECTRIC SLOT
TO MECHANICAL SIGNALS**

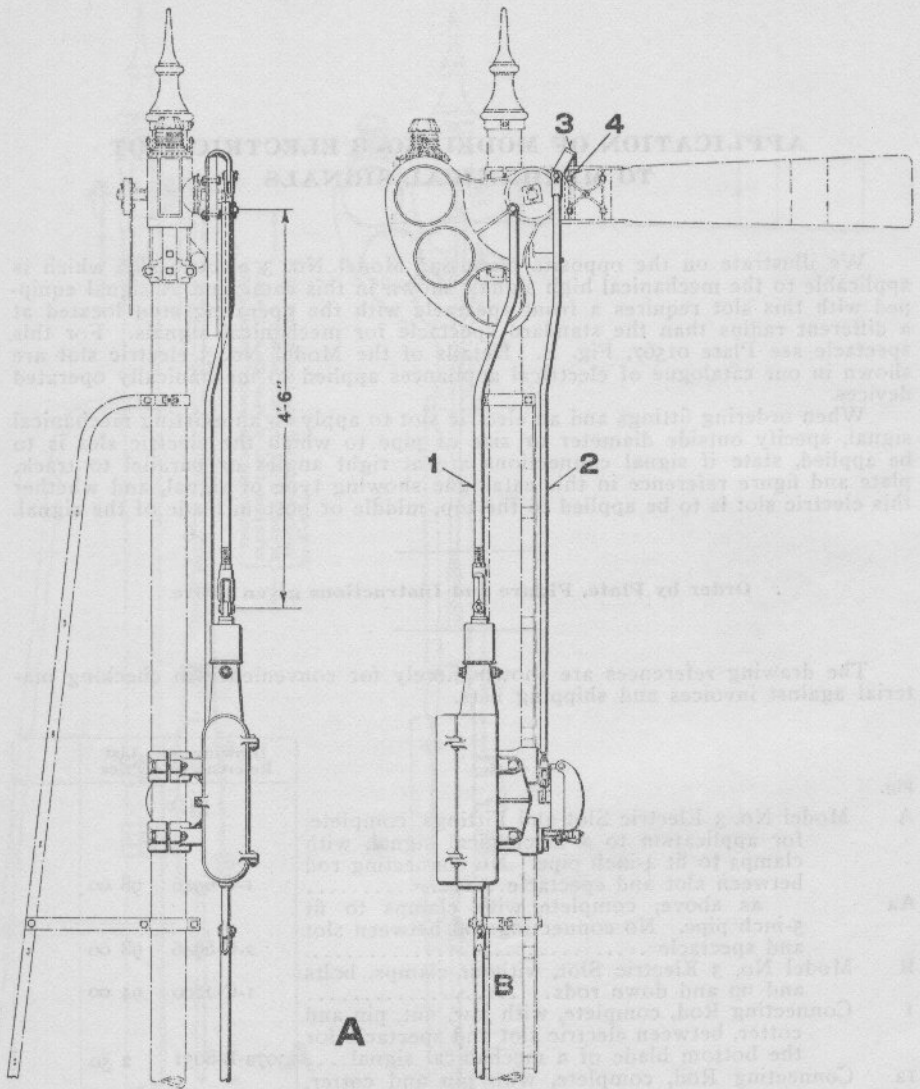
We illustrate on the opposite plate our Model No. 3 electric slot which is applicable to the mechanical high signals shown in this catalogue. A signal equipped with this slot requires a front spectacle with the operating stud located at a different radius than the standard spectacle for mechanical signals. For this spectacle see Plate 01567, Fig. B. Details of the Model No. 3 electric slot are shown in our catalogue of electrical appliances applied to mechanically operated devices.

When ordering fittings and an electric slot to apply to an existing mechanical signal, specify outside diameter or size of pipe to which the electric slot is to be applied, state if signal connections are at right angles or parallel to track, plate and figure reference in this catalogue showing type of signal, and whether this electric slot is to be applied to the top, middle or bottom blade of the signal.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Model No. 3 Electric Slot and Fittings, complete, for application to a mechanical signal, with clamps to fit 4-inch pipe. No connecting rod between slot and spectacle.....	1-C-6946	98 00
Aa	as above, complete, with clamps to fit 5-inch pipe. No connecting rod between slot and spectacle	2-C-6946	98 00
B	Model No. 3 Electric Slot, without clamps, bolts and up and down rods.....	1-C-2200	94 00
I	Connecting Rod, complete, with jaw, nut, pin and cotter, between electric slot and spectacle for the bottom blade of a mechanical signal....	307a-B-805I	2 50
1a	Connecting Rod, complete, with pin and cotter, between electric slot and spectacle for the top or middle blade of a two or three-arm mechanical signal	308a-B-805I	2 50



PARTS THAT ARE SHOWN IN DOT AND DASH LINES ARE ADJACENT PARTS OF THE SIGNAL AND ARE NOT INCLUDED WITH THE MODEL No. 3 ELECTRIC SLOT AND DUPLEX ROTARY CIRCUIT CONTROLLER.

APPLICATION OF MODEL NO. 3 ELECTRIC SLOT AND DUPLEX ROTARY CIRCUIT CONTROLLER TO MECHANICAL SIGNALS

**APPLICATION OF MODEL No. 3 ELECTRIC SLOT AND DUPLEX
ROTARY CIRCUIT CONTROLLER TO
MECHANICAL SIGNALS**

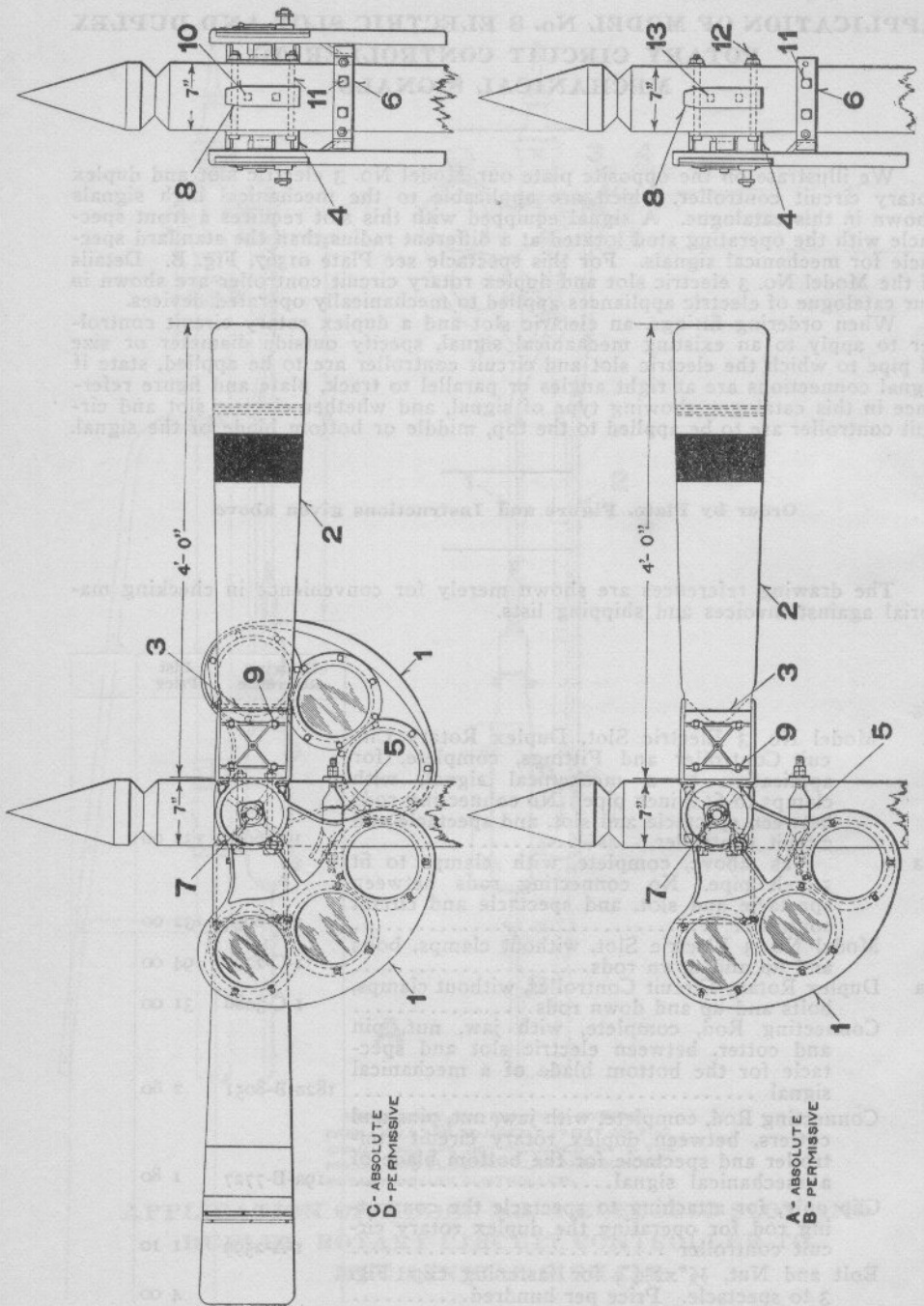
We illustrate on the opposite plate our Model No. 3 electric slot and duplex rotary circuit controller, which are applicable to the mechanical high signals shown in this catalogue. A signal equipped with this slot requires a front spectacle with the operating stud located at a different radius than the standard spectacle for mechanical signals. For this spectacle see Plate 01567, Fig. B. Details of the Model No. 3 electric slot and duplex rotary circuit controller are shown in our catalogue of electric appliances applied to mechanically operated devices.

When ordering fittings, an electric slot and a duplex rotary circuit controller to apply to an existing mechanical signal, specify outside diameter or size of pipe to which the electric slot and circuit controller are to be applied, state if signal connections are at right angles or parallel to track, plate and figure reference in this catalogue showing type of signal, and whether electric slot and circuit controller are to be applied to the top, middle or bottom blade of the signal.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Model No. 3 Electric Slot, Duplex Rotary Circuit Controller and Fittings, complete, for application to a mechanical signal, with clamps to fit 4-inch pipe. No connecting rods between spectacle and slot, and spectacle and circuit controller	1-C-6954	132 00
Aa	as above, complete, with clamps to fit 5-inch pipe. No connecting rods between spectacle and slot, and spectacle and circuit controller	2-C-6954	132 00
B	Model No. 3 Electric Slot, without clamps, bolts and up and down rods.....	1-C-2200	94 00
Ba	Duplex Rotary Circuit Controller, without clamps, bolts and up and down rods.....	1-C-3086	31 00
1	Connecting Rod, complete, with jaw, nut, pin and cotter, between electric slot and spectacle for the bottom blade of a mechanical signal	182a-B-8051	2 60
2	Connecting Rod, complete, with jaw, nut, pins and cotters, between duplex rotary circuit controller and spectacle for the bottom blade of a mechanical signal.....	19a-B-7727	1 80
3	Clip only, for attaching to spectacle the connecting rod for operating the duplex rotary circuit controller	1-A-2599	1 10
4	Bolt and Nut, $\frac{3}{8}$ "x $2\frac{1}{4}$ ", for fastening clip Fig. 3 to spectacle. Price per hundred.....		4 00



C - ABSOLUTE
D - PERMISSIVE

A - ABSOLUTE
B - PERMISSIVE

THREE LIGHT 75 DEGREE SPECTACLES WITH BEARINGS, STOPS AND LAMP BRACKETS FOR APPLYING TO A WOODEN POST

**THREE LIGHT 75 DEGREE SPECTACLES WITH BEARINGS,
STOPS AND LAMP BRACKETS FOR APPLYING TO A
WOODEN POST**

The signals listed below include blades, glass, spectacles, bearings, stops, lamp brackets and bolts.

They do not include lamps, number plates or up and down rods, which must be ordered separately when required.

The spectacles listed below are designed to be applied to 7-inch posts which are not included in this list.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	One-Arm, 75 deg., Two-Position Home Signal, complete, as shown, without post, including spectacle, blade with plate and bolts, semaphore bearing with stud, washer, cotter and bolts, semaphore stop with straps, bolts, and nuts, and lamp bracket with lag screws (1-1, 1-2a, 1-4, 4-12, 1-5a, 1-8a, Plate 01633).....	3a-C-4076	20 00
Aa	Distant Signal, complete, as above (1-1, 1-2c, 1-4, 4-12, 1-5a, 1-8a, Plate 01633).....	3b-C-4076	19 00
B	One-Arm, 75 deg., Three-Position Signal, complete, as above (1-1, 1-2a, 1-4, 4-12, 1-5a, 1-8a, Plate 01633)	3c-C-4076	20 00
C	Two-Arm, 75 deg., Two-Position Home Signal, complete, as shown, without post, including spectacles, blades with plates and bolts, semaphore bearings with studs, washers, cotters and bolts, semaphore stops with straps, bolts and nuts, and lamp brackets with bolts and nuts (2-1, 2-2a, 2-4, 4-11, 1-5b, 1-8b, Plate 01633)	1a-C-4076	38 00

**THREE LIGHT 75 DEGREE SPECTACLES WITH BEARINGS,
STOPS AND LAMP BRACKETS FOR APPLYING
TO A WOODEN POST**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

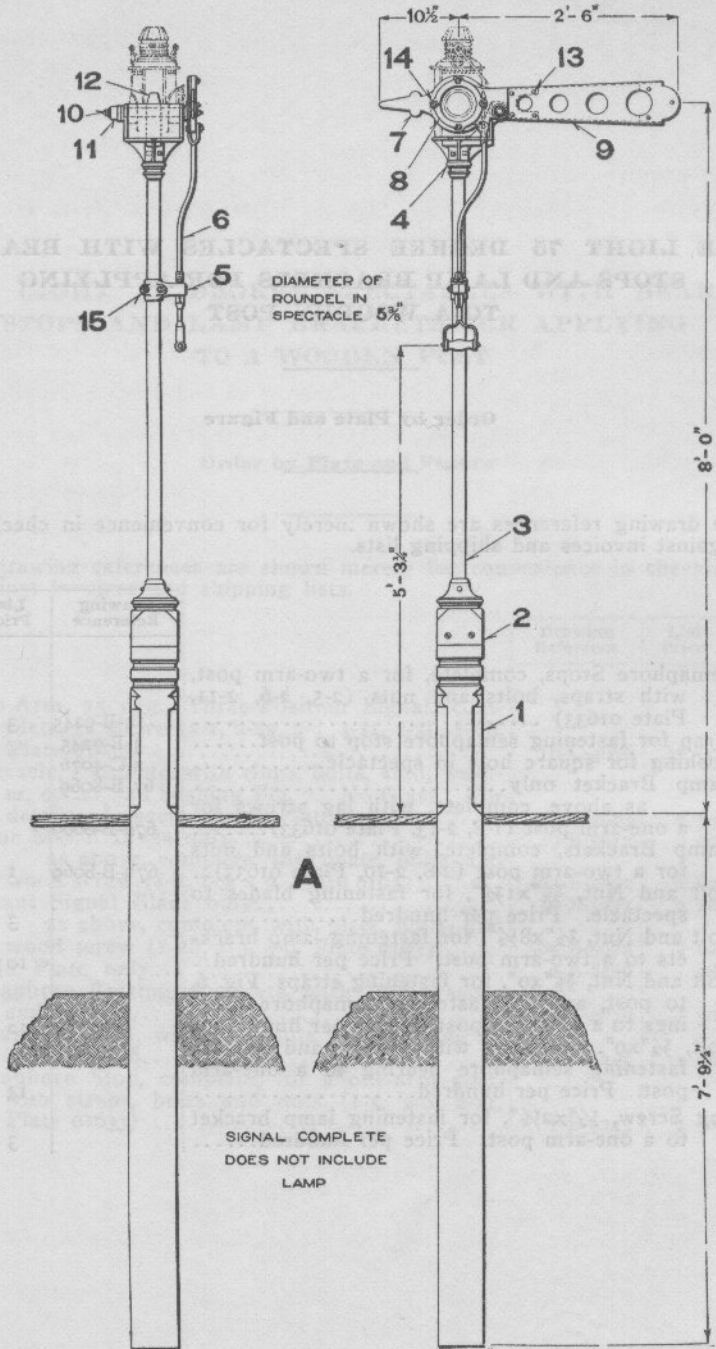
Fig.	Description	Drawing Reference	List Price
D	Two-Arm, 75 deg., Three-Position Signal, complete, as above (2-1, 2-2a, 2-4, 4-11, 1-5b, 1-8b, Plate 01633)	1b-C-4076	37 00
1	Spectacle, complete, with rings, bolts, stud, washer, cotter and bushing Fig. 7. No Glass. For details of spectacle see Plate 01567.....	1b-C-3964	7 50
2	Home Signal Blade only.....	49-B-5672	2 20
2a	as above, complete, with plate, bolts, and wood screw (1-2, 1-3, 4-9, Plate 01633).....	49a-B-5672	2 62
2b	Distant Signal Blade only.....	50-B-5672	2 20
2c	as above, complete, with plate, bolts, and wood screw (1-2b, 1-3, 4-9, Plate 01633).....	50a-B-5672	2 62
3	Blade Plate only.....	2-B-8466	28
4	Semaphore Bearing, complete, with stud, washer and cotter	5a-C-4076	1 50
5	Semaphore Stop, with four nuts for fastening to strap Fig. 6.....	2a-B-9245	1 36
5a	Semaphore Stop, complete, for a one-arm post, with straps, bolts and nuts (1-5, 2-6, 2-11, Plate 01633)	1-B-9245	2 20

**THREE LIGHT 75 DEGREE SPECTACLES WITH BEARINGS,
STOPS AND LAMP BRACKETS FOR APPLYING
TO A WOODEN POST**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
5b	Semaphore Stops, complete, for a two-arm post, with straps, bolts and nuts (2-5, 2-6, 2-11, Plate 01633)	1a-B-9245	3 56
6	Strap for fastening semaphore stop to post.....	3-B-9245	30
7	Bushing for square hole in spectacle.....	2-C-4076	32
8	Lamp Bracket only.....	67-B-8069	72
8a	as above, complete, with lag screws for a one-arm post (1-8, 2-13, Plate 01633).....	67a-B-8069	78
8b	Lamp Brackets, complete, with bolts and nuts for a two-arm post (2-8, 2-10, Plate 01633)...	67b-B-8069	1 64
9	Bolt and Nut, 3/8"x1 3/4", for fastening blades to spectacle. Price per hundred.....		3 00
10	Bolt and Nut, 1/2"x8 1/2", for fastening lamp brackets to a two-arm post. Price per hundred..		10 00
11	Bolt and Nut, 5/8"x9", for fastening straps Fig. 6, to post, and for fastening semaphore bearings to a two-arm post. Price per hundred..		12 00
12	Bolt, 5/8"x9", complete, with washer and nut for fastening semaphore bearing to a one-arm post. Price per hundred.....		14 00
13	Lag Screw, 1/2"x2 1/2", for fastening lamp bracket to a one-arm post. Price per hundred.....		3 00



ONE ARM MECHANICAL FLAG STATION SIGNAL

ONE ARM MECHANICAL FLAG STATION SIGNAL

The signal listed below includes blade, glass, spectacle and all other fittings shown on the opposite plate.

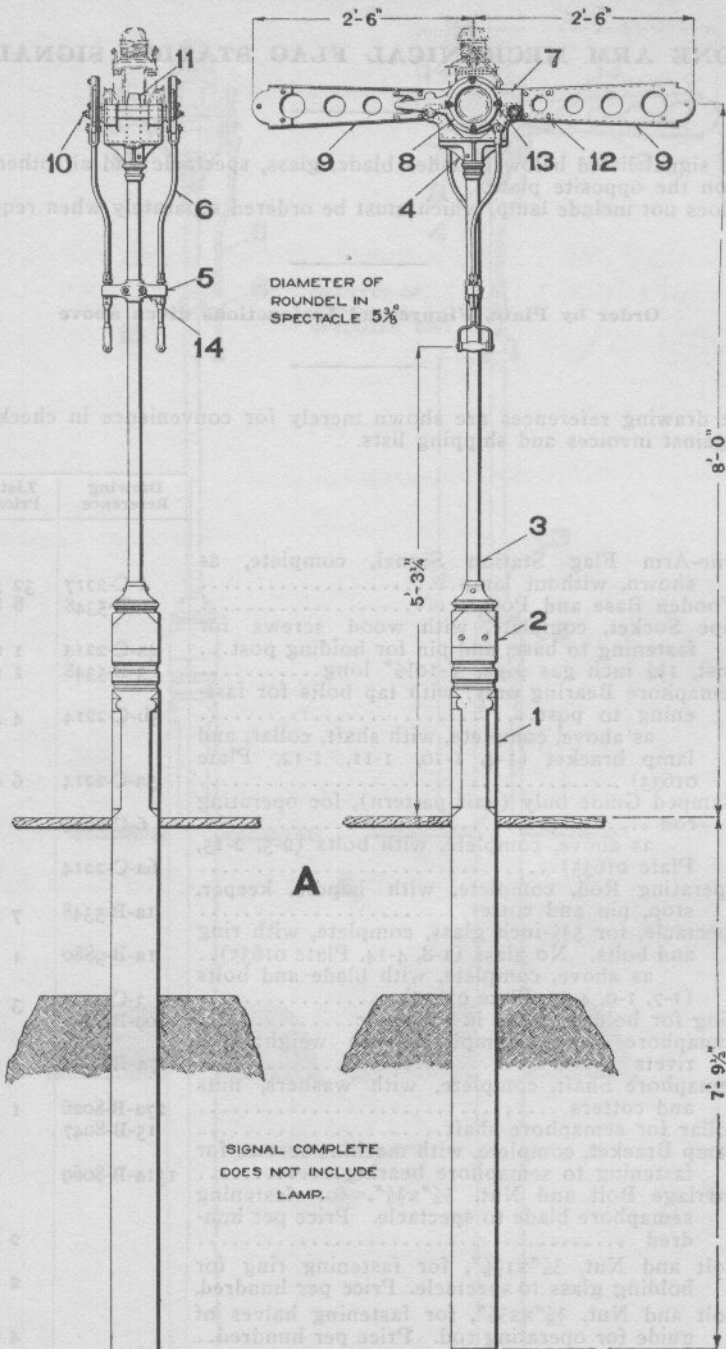
It does not include lamp, which must be ordered separately when required.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	One-Arm Flag Station Signal, complete, as shown, without lamp.....	1-C-2217	32 50
1	Wooden Base and Post.....	2-B-5348	8 80
2	Pipe Socket, complete, with wood screws for fastening to base, and pin for holding post...	4a-C-2214	1 60
3	Post, 1/4 inch gas pipe, 5'-10 1/2" long.....	3-B-5348	1 24
4	Semaphore Bearing only, with tap bolts for fastening to post.....	5b-C-2214	4 40
4a	as above, complete, with shaft, collar, and lamp bracket (1-4, 1-10, 1-11, 1-12, Plate 01635).....	5a-C-2214	6 00
5	Clamped Guide only (half pattern), for operating rod.....	6-C-2214	24
5a	as above, complete, with bolts (2-5, 2-15, Plate 01635).....	6a-C-2214	58
6	Operating Rod, complete, with handle, keeper, stop, pin and cotter.....	1a-B-5348	7 40
7	Spectacle, for 5/8-inch glass, complete, with ring and bolts. No glass (1-8, 4-14, Plate 01635)..	1a-B-9880	1 70
7a	as above, complete, with blade and bolts (1-7, 1-9, 4-13, Plate 01635).....	3-C-2214	3 70
8	Ring for holding glass in spectacle.....	109-B-7632	14
9	Semaphore Blade, complete, with weight and rivets.....	107a-B-5672	1 80
10	Semaphore Shaft, complete, with washers, nuts and coters.....	27a-B-8026	1 20
11	Collar for semaphore shaft.....	15-B-8047	08
12	Lamp Bracket, complete, with machine screws for fastening to semaphore bearing.....	131a-B-8069	66
13	Carriage Bolt and Nut, 1/4"x3/4", for fastening semaphore blade to spectacle. Price per hundred.....		2 00
14	Bolt and Nut, 1/4"x1 3/8", for fastening ring for holding glass to spectacle. Price per hundred.		2 00
15	Bolt and Nut, 3/8"x2 1/2", for fastening halves of guide for operating rod. Price per hundred..		4 00

TWO ARM MECHANICAL FLAG STATION SIGNAL



TWO ARM MECHANICAL FLAG STATION SIGNAL

TWO ARM MECHANICAL FLAG STATION SIGNAL

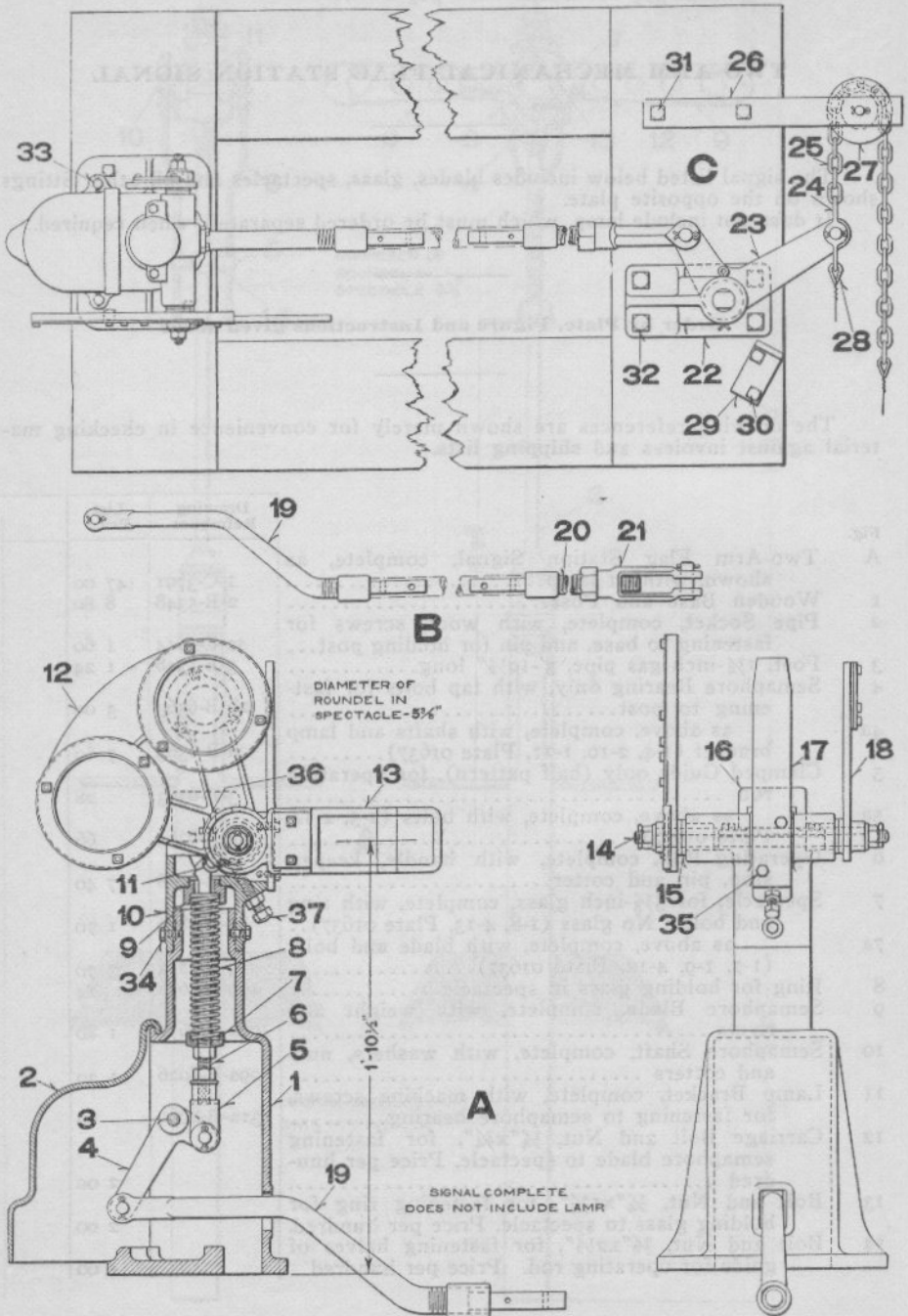
The signal listed below includes blades, glass, spectacles and all other fittings shown on the opposite plate.

It does not include lamp, which must be ordered separately when required.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Two-Arm Flag Station Signal, complete, as shown, without lamp.....	1-C-3791	47 00
1	Wooden Base and Post.....	2-B-5348	8 80
2	Pipe Socket, complete, with wood screws for fastening to base, and pin for holding post...	4a-C-2214	1 60
3	Post, 1¼-inch gas pipe, 5'-10½" long.....	3-B-5348	1 24
4	Semaphore Bearing only, with tap bolts for fastening to post.....	2b-B-6363	5 00
4a	as above, complete, with shafts and lamp bracket (1-4, 2-10, 1-11, Plate 01637).....	2a-B-6363	7 60
5	Clamped Guide only (half pattern), for operating rod	3-B-6363	28
5a	as above, complete, with bolts (2-5, 2-14, Plate 01637)	3a-B-6363	66
6	Operating Rod, complete, with handle, keeper, stop, pin and cotter.....	1a-B-5348	7 40
7	Spectacle, for 5⅜-inch glass, complete, with ring and bolts. No glass (1-8, 4-13, Plate 01637)..	1a-B-9880	1 70
7a	as above, complete, with blade and bolts (1-7, 1-9, 4-12, Plate 01637).....	3-C-2214	3 70
8	Ring for holding glass in spectacle.....	109-B-7632	14
9	Semaphore Blade, complete, with weight and rivets	107a-B-5672	1 80
10	Semaphore Shaft, complete, with washers, nuts and cotters	29a-B-8026	1 20
11	Lamp Bracket, complete, with machine screws, for fastening to semaphore bearing.....	131a-B-8069	66
12	Carriage Bolt and Nut, ¼"x¾", for fastening semaphore blade to spectacle. Price per hundred		2 00
13	Bolt and Nut, ¼"x1⅜", for fastening ring for holding glass to spectacle. Price per hundred.		2 00
14	Bolt and Nut, ⅜"x2½", for fastening halves of guide for operating rod. Price per hundred..		4 00



ONE ARM MECHANICAL DWARF SIGNAL

ONE ARM MECHANICAL DWARF SIGNAL

The signal listed below includes blade, glass, front and back spectacles, wire connections and all other fittings shown on the opposite plate.

It does not include lamp, number plate or pipe for wire connections, which must be ordered separately when required.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	One-Arm, 60 deg., Mechanical Dwarf Signal, complete, with wire connections (1-B, 1-C, Plate 01639)		
B	Connection between signal and crank stand, complete, with solid and screw jaws, without pipe (1-19, 1-20, 1-21, Plate 01639).....	1-C-4806	52 00
C	Wire Connections, complete, as shown, with crank stand, crank, wheel stand, chain wheel, chain, shackle, wire eyes, stop and lag screws (1-22, 1-23, 1-26, 1-27, 1-25, 1-24, 2-28, 1-29, 2-30, 2-31, 4-32, Plate 01639).....	1a-C-4806	3 80
1	Combined Post and Base only.....	1b-C-4806	7 00
1a	as above, complete, with pin, sleeves, pipe plugs and studs (1-1, 1-3, 2-3a, 2-3b, 2-33, Plate 01639)	1-C-4841	9 40
2	Cover for Base.....	1a-C-4841	9 90
3	Pin for crank in base.....	3-C-2588	1 80
3a	Sleeve for pin Fig. 3.....	23-B-8057	06
3b	Pipe Plug for the holes in base for pin Fig. 3....	7-B-8131	16
4	Crank for base.....		04
5	Jaw for up and down rod, complete, with pin and cotter	49-B-8117	1 50
6	Up and Down Rod, complete, with two 5/8-inch lock nuts	3a-B-7742	68
7	Bottom Spring Socket for up and down rod....	1-B-8051	44
		13-B-8084	08

ONE ARM MECHANICAL DWARF SIGNAL

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

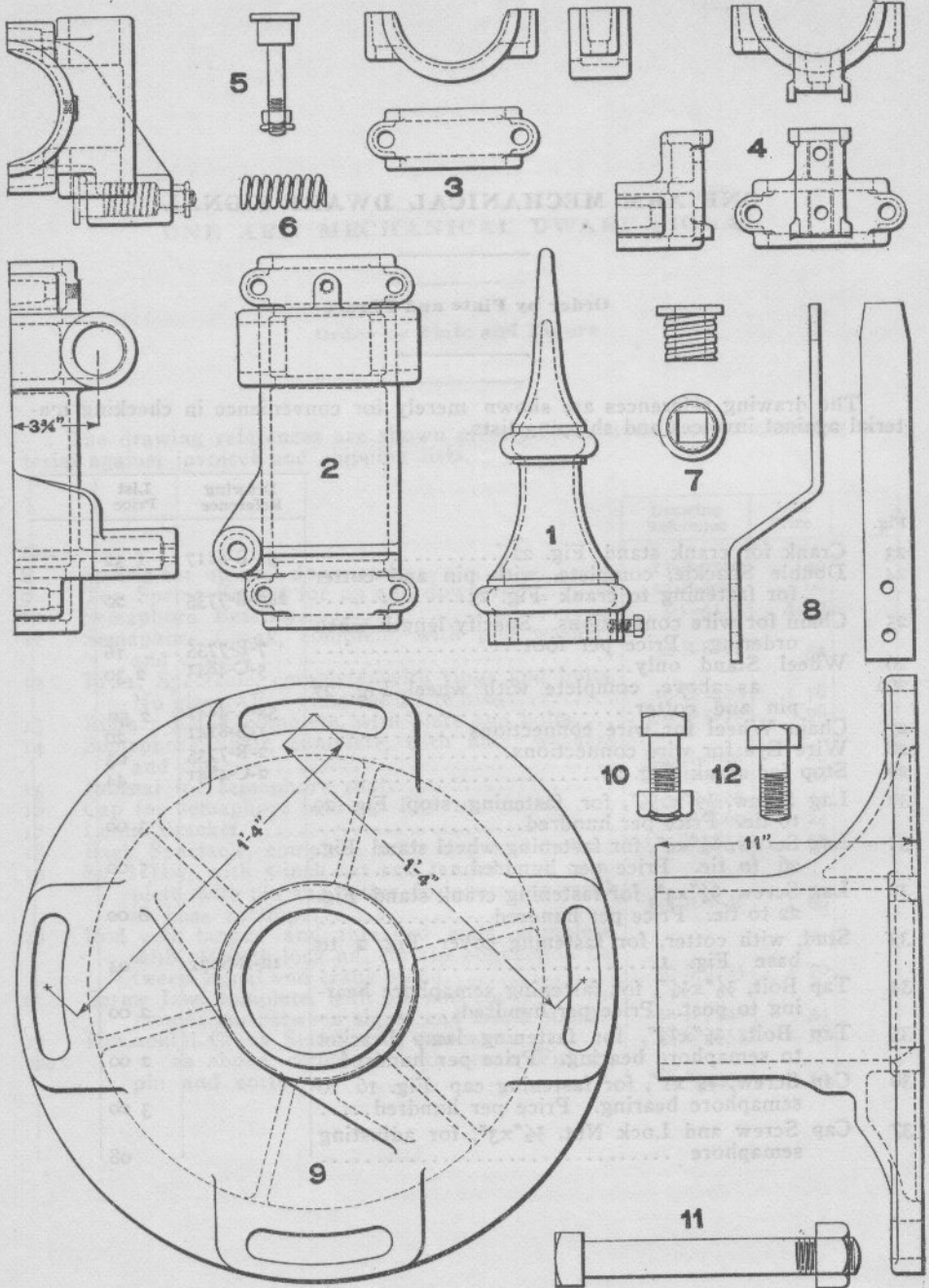
Fig.	Description	Drawing Reference	List Price
8	Spring for up and down rod.....	13-B-7770	40
9	Top Spring Socket for up and down rod.....	12-B-8084	06
10	Semaphore Bearing.....	3-C-4117	4 70
11	Semaphore Crank, complete, with pin, washers and cotters	3a-B-8102	54
12	Front Spectacle, complete, with rings and bolts. No glass. For glass see Plate 01651.....	1a-C-1489	1 76
13	Rubber Blade, complete, with plate and bolts....	47a-B-5672	76
14	Semaphore Shaft, complete, with nuts, washers and cotters	38a-B-8026	80
15	Journal for semaphore shaft.....	5-B-8093	66
16	Cap for semaphore bearing Fig. 10.....	5-C-2588	44
17	Lamp Bracket	1-B-8069	24
18	Back Spectacle, complete, with ring and bolts..	11a-B-7654	52
19	Solid Jaw, with 5-inch set and tanged end, complete, with pin and cotter, for operating crank in base casting.....	49a-B-7725	1 60
20	Rod with tanged and threaded ends, complete, with 1 1/4-inch lock nut for the connection between signal and crank stand.....	50-B-7725	1 70
21	Screw Jaw, complete, with pin and cotter for the connection between signal and crank stand..	4a-B-7742	54
22	Horizontal Crank Stand only, one-way.....	18-C-4953	1 76
22a	as above, complete, with crank Fig. 23, pin and cotter.....	18b-C-4953	3 54

ONE ARM MECHANICAL DWARF SIGNAL

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
23	Crank for crank stand Fig. 22.....	51-B-8117	1 32
24	Double Shackle, complete, with pin and cotter for fastening to crank Fig. 23.....	24a-B-7735	20
25	Chain for wire connections. Specify length when ordering. Price per foot.....	7-B-7735	16
26	Wheel Stand only.....	5-C-4841	2 30
26a	as above, complete with wheel Fig. 27 pin and cotter.....	5a-C-4841	2 50
27	Chain Wheel for wire connections.....	1-B-8141	20
28	Wire Eye for wire connections.....	2-B-7735	03
29	Stop for crank Fig. 23.....	2-C-4841	44
30	Lag Screw, 1/2"x2 1/2", for fastening stop Fig. 29 to tie. Price per hundred.....		3 00
31	Lag Screw, 3/8"x4", for fastening wheel stand Fig. 26 to tie. Price per hundred.....		5 00
32	Lag Screw, 3/4"x4", for fastening crank stand Fig. 22 to tie. Price per hundred.....		8 00
33	Stud, with cotter, for fastening cover Fig. 2 to base Fig. 1.....	1a-B-8071	04
34	Tap Bolt, 3/8"x3/4", for fastening semaphore bearing to post. Price per hundred.....		2 00
35	Tap Bolt, 3/8"x7/8", for fastening lamp bracket to semaphore bearing. Price per hundred..		2 00
36	Cap Screw, 3/8"x1", for fastening cap Fig. 16 to semaphore bearing. Price per hundred.....		3 00
37	Cap Screw and Lock Nut, 1/2"x3", for adjusting semaphore		08



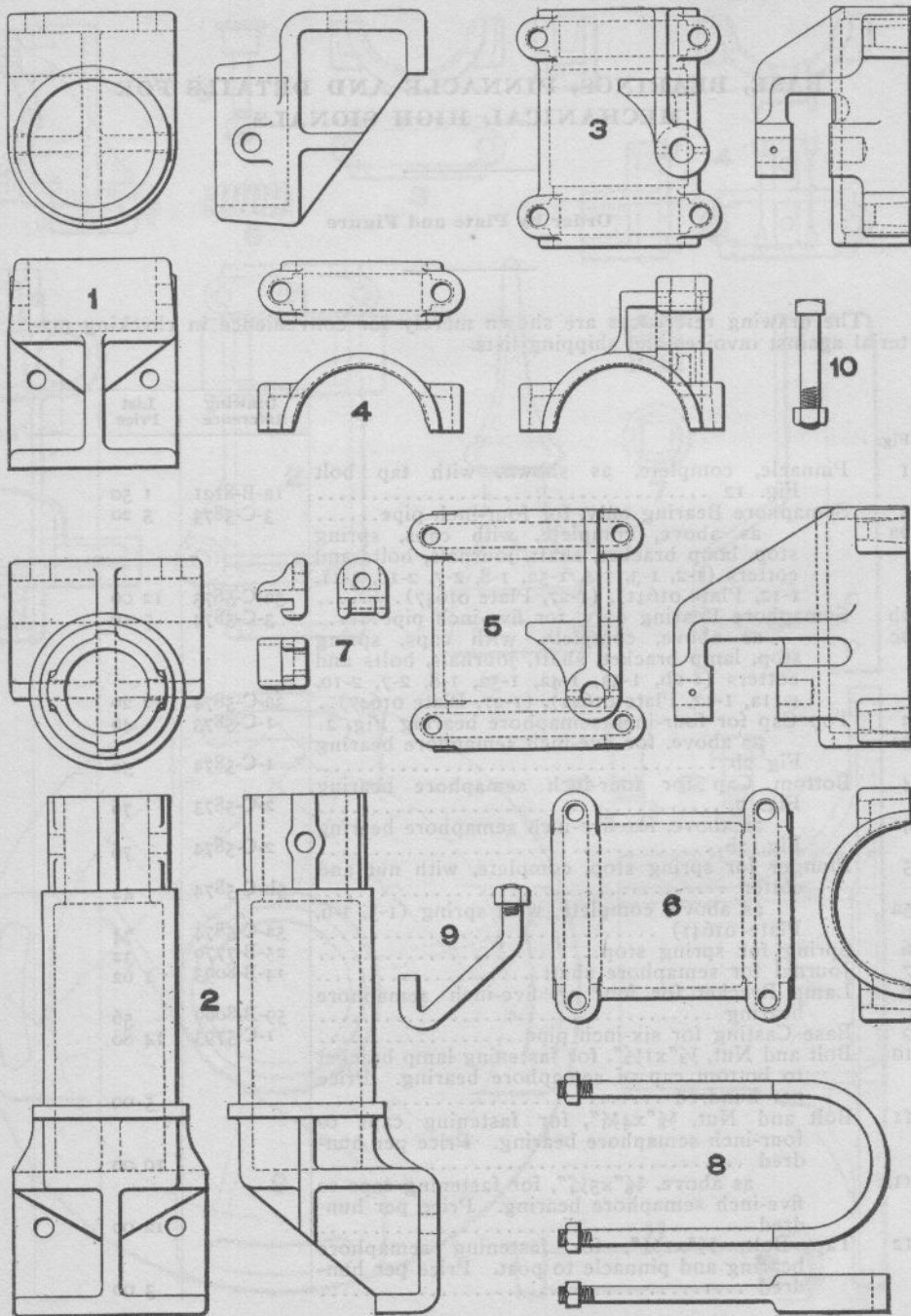
BASE, BEARINGS, PINNACLE AND DETAILS FOR MECHANICAL HIGH SIGNALS

**BASE, BEARINGS, PINNACLE AND DETAILS FOR
MECHANICAL HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
1	Pinnacle, complete, as shown, with tap bolt Fig. 12	1a-B-8121	1 50
2	Semaphore Bearing only, for four-inch pipe.....	3-C-5873	5 20
2a	as above, complete, with caps, spring stop, lamp bracket, shaft, journals, bolts and cotters (1-2, 1-3, 1-4, 1-5a, 1-8, 2-7, 2-10, 4-11, 1-12, Plate 01641), (1-27, Plate 01647).....	3a-C-5873	12 00
2b	Semaphore Bearing only, for five-inch pipe.....	3-C-5874	5 40
2c	as above, complete, with caps, spring stop, lamp bracket, shaft, journals, bolts and cotters (1-2b, 1-3a, 1-4a, 1-5a, 1-8, 2-7, 2-10, 4-11a, 1-12, Plate 01641), (1-27, Plate 01647)..	3a-C-5874	12 20
3	Top Cap for four-inch semaphore bearing Fig. 2.	1-C-5873	46
3a	as above, for five-inch semaphore bearing Fig 2b	1-C-5874	50
4	Bottom Cap for four-inch semaphore bearing Fig. 2	2-C-5873	76
4a	as above, for five-inch semaphore bearing Fig. 2b	2-C-5874	76
5	Plunger for spring stop, complete, with nut and cotter	5b-C-5874	42
5a	as above, complete, with spring (1-5, 1-6, Plate 01641)	5a-C-5874	74
6	Spring for spring stop.....	25-B-7770	32
7	Journal for semaphore shaft.....	14-B-8093	1 62
8	Lamp Bracket for four or five-inch semaphore bearing	59-B-8069	56
9	Base Casting for six-inch pipe.....	1-C-5793	14 80
10	Bolt and Nut, $\frac{1}{2}$ "x $1\frac{1}{2}$ ", for fastening lamp bracket to bottom cap of semaphore bearing. Price per hundred		5 00
11	Bolt and Nut, $\frac{5}{8}$ "x $4\frac{3}{4}$ ", for fastening caps to four-inch semaphore bearing. Price per hundred		10 00
11a	as above, $\frac{5}{8}$ "x $5\frac{1}{4}$ ", for fastening caps to five-inch semaphore bearing. Price per hundred		12 00
12	Tap Bolt, $\frac{1}{2}$ "x $1\frac{1}{4}$ ", for fastening semaphore bearing and pinnacle to post. Price per hundred		3 00



PIPE SOCKETS, CRANK STANDS AND DETAILS FOR MECHANICAL HIGH SIGNALS

**PIPE SOCKETS, CRANK STANDS AND DETAILS FOR
MECHANICAL HIGH SIGNALS**

Crank stands are listed below as right and left hand, which is determined by their position when looking at the front of the signal.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
1	Pipe Socket, as shown, for bridge signal on a four-track signal bridge.....	1-B-9104	3 20
2	Pipe Socket, as shown, for bridge signal on a five or six track signal bridge.....	8-B-9104	6 20
2a	as above, for bridge signal on a seven or eight-track signal bridge.....	7-B-9104	9 20
3	Crank Stand only, One-Way Left Hand, as shown, for a one-arm bridge signal.....	1-C-589I	2 10
3a	as above, complete, with caps, bolts, pin and cotter (1-3, 2-4, 4-10, Plate 01643), (1-26, Plate 01647)	6-C-589I	3 60
3b	Crank Stand only, Two-Way Left Hand, for a two-arm bridge signal.....	2-C-589I	2 20
3c	as above, complete, with caps, bolts, separator, pin and cotter (1-3b, 2-4, 4-10, Plate 01643), (1-25, 1-26a, Plate 01647).....	7-C-589I	3 80
3d	Crank Stand only, One-Way Right Hand, for a one-arm and low speed bridge signal.....	3-C-589I	2 10
3e	as above, complete, with one-way left hand crank stand, bolts, pins and cotters (1-3d, 1-3, 4-10, Plate 01643), (2-26, Plate 01647)	8-C-589I	4 90
3f	as above, for two-arm and low speed or three-arm bridge signal, complete, with two-way left hand crank stand, bolts, separator, pins and cotters (1-3d, 1-3b, 4-10, Plate 01643), (1-25, 1-26, 1-26a, Plate 01647).....	9-C-589I	5 20

**PIPE SOCKETS, CRANK STANDS AND DETAILS FOR
MECHANICAL HIGH SIGNALS**

Order by Plate and Figure

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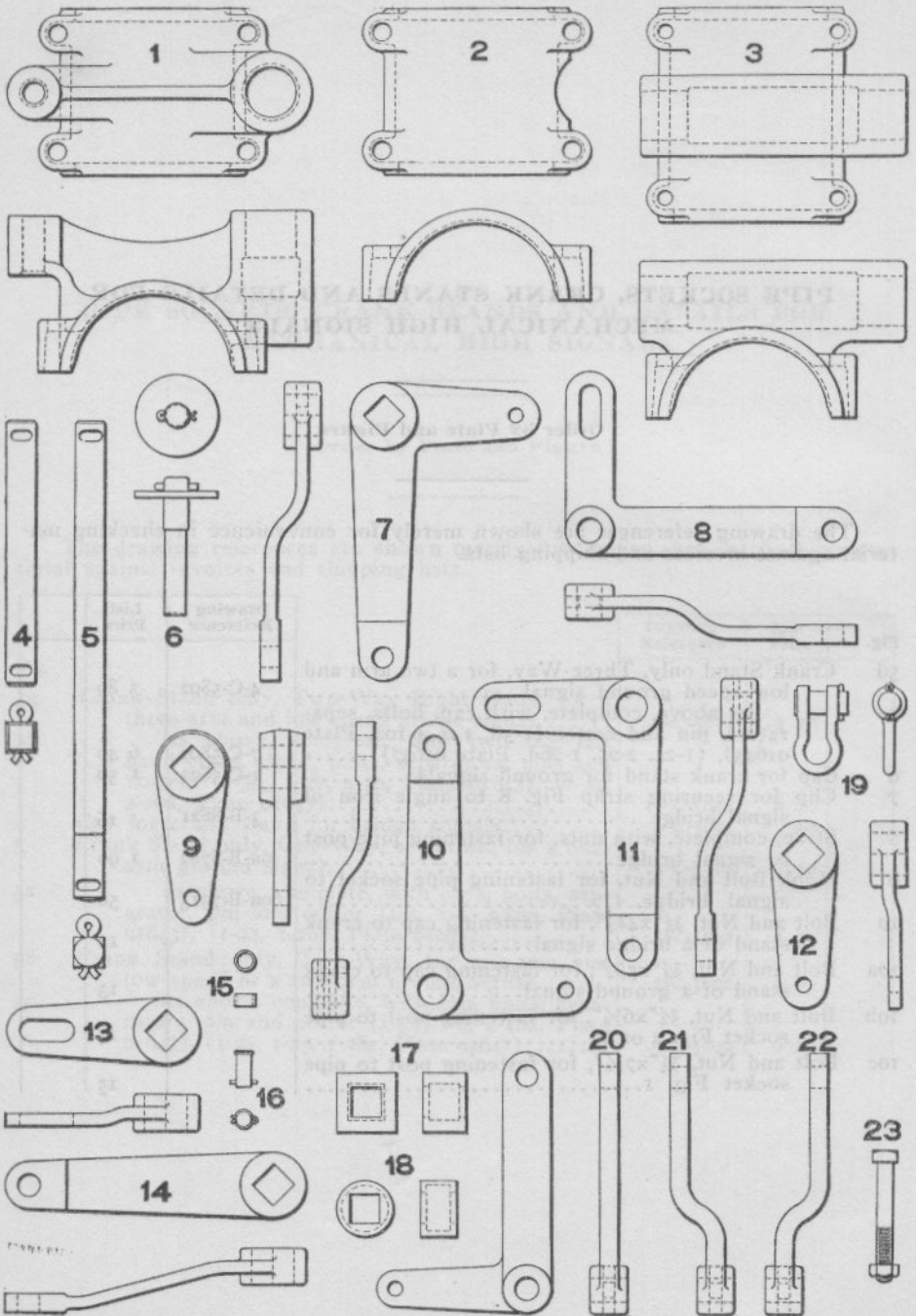
Fig.		Drawing Reference	List Price
3g	Crank Stand only, Two-Way Right Hand, for a three-arm and low speed bridge signal.....	5-C-5891	2 20
3h	as above, complete, with two-way left hand crank stand, bolts, separators, pins and cotters (1-3g, 1-3b, 4-10, Plate 01643), (2-25, 2-26a, Plate 01647).....	10-C-5891	5 40
4	Cap for crank stand for bridge signals.....	4-C-5891	40
5	Crank Stand only, One-Way, as shown, for a one-arm ground signal.....	2-C-5802	3 30
5a	as above, complete, with caps, bolts, separator, pin and cotter (1-5, 1-6, 4-10a, Plate 01643), (1-24, 1-26b, Plate 01647).....	5-C-5802	5 90
5b	Crank Stand only, Two-Way, for one-arm and low speed or a two-arm ground signal.....	3-C-5802	3 60
5c	as above, complete, with cap, bolts, separators, pin and cotter (1-5b, 1-6, 4-10a, Plate 01643), (1-24, 1-25, 1-26c, Plate 01647).....	6-C-5802	6 20

PIPE SOCKETS, CRANK STANDS AND DETAILS FOR MECHANICAL HIGH SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
5d	Crank Stand only, Three-Way, for a two-arm and low speed ground signal.....	4-C-5802	3 80
5e	as above, complete, with cap, bolts, separators, pin and cotter (1-5d, 1-6, 4-10a, Plate 01643), (1-24, 2-25, 1-26d, Plate 01647).....	7-C-5802 1-C-5802	6 40 1 50
6	Cap for crank stand for ground signals.....	3-B-8821	16
7	Clip for securing strap Fig. 8 to angle iron of signal bridge	9a-B-8782	1 90
8	Strap, complete, with nuts, for fastening pipe post to signal bridge.....	69a-B-7913	56
9	Hook Bolt and Nut, for fastening pipe socket to signal bridge.....		12
10	Bolt and Nut, $\frac{3}{4}$ "x $4\frac{3}{4}$ ", for fastening cap to crank stand of a bridge signal.....		13
10a	Bolt and Nut, $\frac{3}{4}$ "x $5\frac{1}{2}$ ", for fastening cap to crank stand of a ground signal.....		14
10b	Bolt and Nut, $\frac{3}{4}$ "x $6\frac{1}{2}$ ", for fastening post to pipe socket Fig. 2 or 2a.....		15
10c	Bolt and Nut, $\frac{3}{4}$ "x $7\frac{1}{2}$ ", for fastening post to pipe socket Fig. 1.....		



CRANK STANDS, CRANKS AND DETAILS FOR MECHANICAL HIGH SIGNALS

**CRANK STANDS, CRANKS AND DETAILS FOR
MECHANICAL HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
1	Crank Stand only, for one-arm wire connected distant signal	1-C-6106	3 40
1a	as above, for one-arm wire connected distant signal with connections parallel to tracks, complete, with cap, stud, shaft, journals, bolts and cotters (1-1, 1-2, 1-6, 1-4, 4-23, Plate 01645), (2-7, Plate 01641).....	1a-C-6106	9 20
1b	as above, for one-arm wire connected distant signal with connections at right angles to tracks, complete, with cap, stud, shaft, journals, collar, bolts and cotters (1-1, 1-2, 1-6, 1-4, 1-17, 4-23, Plate 01645), (2-7, Plate 01641)	1b-C-6106	9 40
2	Cap for crank stand Fig. 1.....	2-C-6106	90
3	Crank Stand only, for two-arm wire connected distant signal	3-C-6106	3 70
3a	as above, for two-arm wire connected distant signal with connections at right angles to tracks, complete, with shafts, journals, separators, bolts and cotters (2-3, 2-5, 2-18, 4-23a, Plate 01645), (4-7, Plate 01641).....	3a-C-6106	17 20

CRANK STANDS, CRANKS AND DETAILS FOR MECHANICAL HIGH SIGNALS

Order by Plate and Figure

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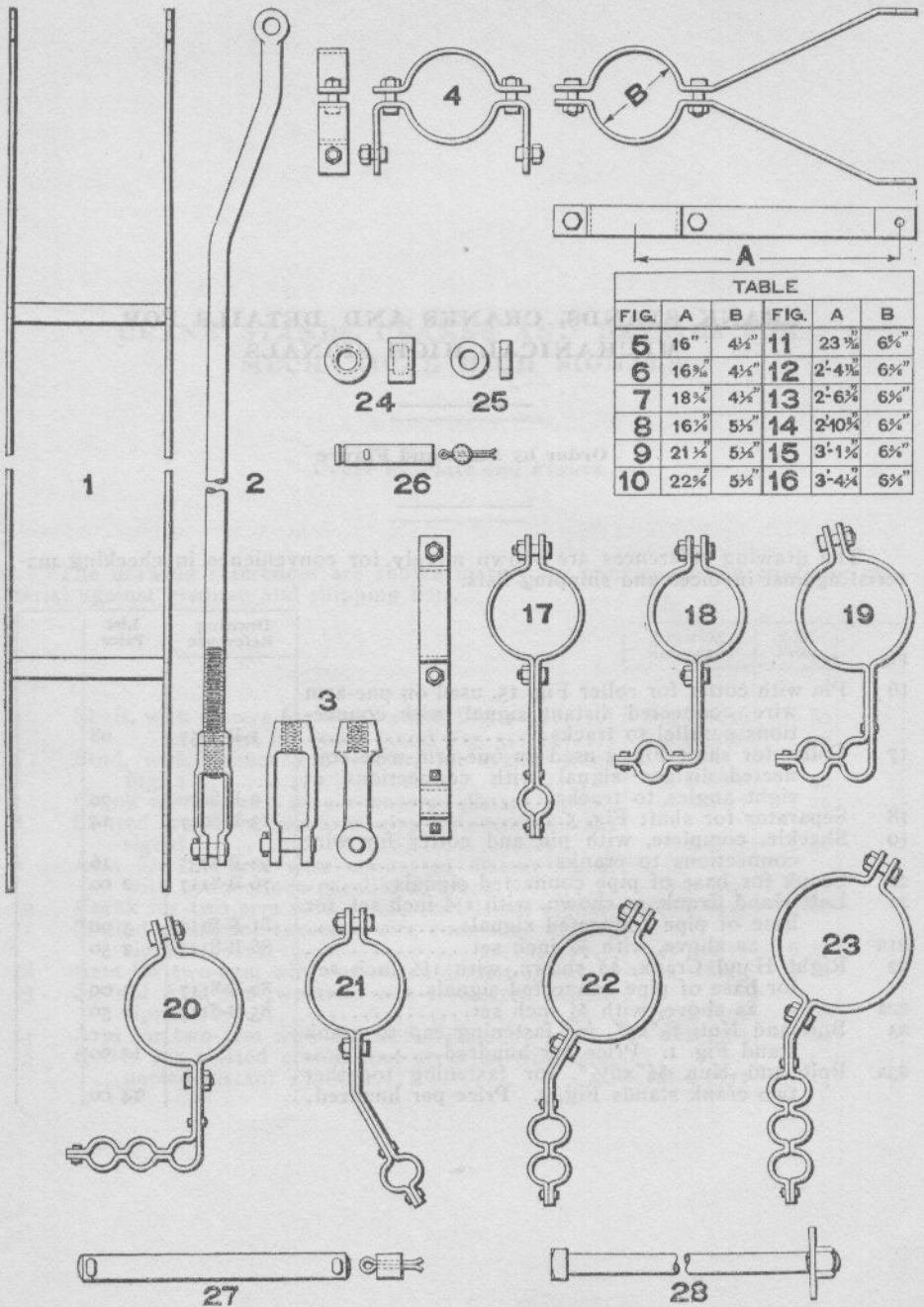
Fig.		Drawing Reference	List Price
4	Shaft, with cotters for crank stand Fig. 1.....	87a-B-8026	80
5	as above, for crank stand Fig. 3.....	112a-B-8026	1 20
6	Stud, with washer and cotter, for crank stand Fig. 1	49a-B-8090	40
7	Crank for one-arm wire connected distant signal.	90-B-8117	2 26
8	Slotted crank for one-arm wire connected distant signal	89-B-8117	2 32
9	Arm for one-arm wire connected distant signal with connections parallel to track.....	17-B-8103	1 52
10	Crank for two-arm wire connected distant signal.	148-B-8117	6 00
11	Slotted crank for two-arm wire connected distant signal	149-B-8117	6 50
12	Arm for two-arm wire connected distant signal...	24-B-8103	4 80
13	Slotted Arm for two-arm wire connected distant signal	25-B-8103	5 00
14	Arm for two-arm wire connected distant signal...	26-B-8103	5 00
15	Roller for slotted cranks and arms of wire connected distant signals.....	48-B-8072	14

**CRANK STANDS, CRANKS AND DETAILS FOR
MECHANICAL HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
16	Pin with cotter for roller Fig. 15, used on one-arm wire connected distant signal with connections parallel to tracks.....	1-B-8057	08
17	Collar for shaft Fig. 4 used on one-arm wire connected distant signal with connections at right angles to tracks.....	9-B-8470	20
18	Separator for shaft Fig. 5.....	23-B-8047	14
19	Shackle, complete, with pin and cotter for wire connections to cranks.....	9a-B-7735	16
20	Crank for base of pipe connected signals.....	76-B-8117	2 00
21	Left Hand Crank, as shown, with 1½ inch set, for base of pipe connected signals.....	81-B-8117	3 00
21a	as above, with ¾ inch set.....	86-B-8117	2 50
22	Right Hand Crank, as shown, with 1½ inch set, for base of pipe connected signals.....	82-B-8117	3 00
22a	as above, with ¾ inch set.....	85-B-8117	2 50
23	Bolt and Nut, 5/8" x 5", for fastening cap to crank stand Fig. 1. Price per hundred.....		12 00
23a	Bolt and Nut, 5/8" x 6¼", for fastening together two crank stands Fig. 3. Price per hundred.....		14 00



LADDER, LADDER STAYS, GUIDES FOR UP AND DOWN RODS AND DETAILS FOR MECHANICAL HIGH SIGNALS

**LADDER, LADDER STAYS, GUIDES FOR UP AND DOWN RODS
AND DETAILS FOR MECHANICAL HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
1	Ladder. Specify length when ordering. Price per foot	7-B-8365	32
1a	Ladder Foundation, complete, with bolts. See Fig. 2, Plate 01565.....	21a-B-8848	5 60
2	Up and Down Rod, complete, as shown with screw jaw, lock nut, pin and cotter for one-arm bridge signal on four-track bridge.....	69a-B-8051	4 20
2a	as above, for six-track bridge.....	72a-B-8051	5 20
2aa	as above, for eight-track bridge.....	75a-B-8051	5 40
2b	as above, for one-arm bridge signal the height of a two-arm signal on four-track bridge	70a-B-8051	6 50
2bb	as above, for six-track bridge.....	73a-B-8051	6 70
2c	as above, for eight-track bridge.....	76a-B-8051	6 90
2cc	as above, for one-arm bridge signal the height of a three-arm signal on four-track bridge	71a-B-8051	7 60
2d	as above, for six-track bridge.....	74a-B-8051	7 80
2dd	as above, for eight-track bridge.....	77a-B-8051	8 00
2e	as above, for bottom arm of one-arm and low speed bridge signal on four-track bridge	50a-B-8051	2 30
2ee	as above, for six-track bridge.....	144a-B-8051	2 30
2f	as above, for eight-track bridge.....	145a-B-8051	2 30
2ff	as above, for top arm of two-arm bridge signal on four-track bridge.....	192a-B-8051	6 50
2g	as above, for six-track bridge.....	193a-B-8051	6 70
2gg	as above, for eight-track bridge.....	194a-B-8051	6 90
2h	as above, for top arm of two-arm bridge signal the height of a three-arm signal on four-track bridge.....	195a-B-8051	7 60

**LADDER, LADDER STAYS, GUIDES FOR UP AND DOWN RODS
AND DETAILS FOR MECHANICAL HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
2hh	Up and Down Rod, complete, with screw jaw, lock nut, pin and cotter, for top arm of two-arm bridge signal the height of a three-arm signal on six-track bridge.....	196a-B-8051	7 80
2k	as above, for eight-track bridge.....	197a-B-8051	8 00
2kk	as above, for top arm of three-arm bridge signal on four-track bridge.....	207a-B-8051	7 60
2m	as above, for six-track bridge.....	208a-B-8051	7 80
2mm	as above, for eight-track bridge.....	209a-B-8051	8 00
2n	as above, for middle arm of three-arm bridge signal on four-track bridge.....	204a-B-8051	6 50
2nn	as above for six-track bridge.....	205a-B-8051	6 70
2p	as above, for eight-track bridge.....	206a-B-8051	6 90
2pp	as above, for bottom arm of three-arm bridge signal on four-track bridge.....	201a-B-8051	5 00
2q	as above for six-track bridge.....	202a-B-8051	5 20
2qq	as above, for eight-track bridge.....	203a-B-8051	5 40
2r	as above, for third arm of three-arm and low speed bridge signal on four-track bridge.....	296a-B-8051	5 00
2rr	as above, for six-track bridge.....	297a-B-8051	5 20
2s	as above, for eight-track bridge.....	298a-B-8051	5 40
2ss	as above, for one-arm ground signal, with connections parallel to tracks.....	80a-B-8051	9 10
2t	as above, for connections at right angles to tracks.....	48a-B-8051	8 40
2tt	as above, for top arm of one-arm and low speed ground signal with connections parallel to tracks.....	84a-B-8051	9 10
2u	as above, for connections at right angles to tracks.....	51a-B-8051	8 40
2uu	as above, for bottom arm of one-arm and low speed ground signal with connections parallel to tracks.....	85a-B-8051	6 60

**LADDER, LADDER STAYS, GUIDES FOR UP AND DOWN RODS
AND DETAILS FOR MECHANICAL HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
2V	Up and Down Rod, complete, with screw jaw, lock nut, pin and cotter, for bottom arm of one-arm and low speed ground signal with connections at right angles to tracks.....	54a-B-8051	6 40
2Vv	as above, for top arm of two-arm ground signal with connections parallel to tracks...	87a-B-8051	10 20
2W	as above, for connections at right angles to tracks	49a-B-8051	10 00
2Ww	as above, for bottom arm of two-arm ground signal with connections parallel to tracks	88a-B-8051	9 10
2X	as above, for top arm of two-arm and low speed ground signal with connections parallel to tracks.....	86a-B-8051	10 20
2Xx	as above, for connections at right angles to tracks	58a-B-8051	10 00
2Y	as above, for one-arm wire connected distant signal with connections parallel to tracks	101a-B-8051	9 10
2Yy	Up and Down Rod, complete, with lock nut and screw jaw Fig. 3, for one-arm wire connected distant signal with connections at right angles to tracks	102b-B-8051	8 90
2Z	as above, for top arm of two-arm wire connected distant signal.....	260a-B-8051	11 20
2Zz	as above, for bottom arm of two-arm wire connected distant signal.....	261a-B-8051	10 20
3	Jaw, complete, with pin and cotter for up and down rod of wire connected distant signal..	3a-B-8025	1 40
4	Top Clamp for ladder.....	7-B-7501	52
5	Top Ladder Stay for three-arm bridge signal....	1-B-7501	74

**LADDER, LADDER STAYS, GUIDES FOR UP AND DOWN ROD
AND DETAILS FOR MECHANICAL HIGH SIGNALS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

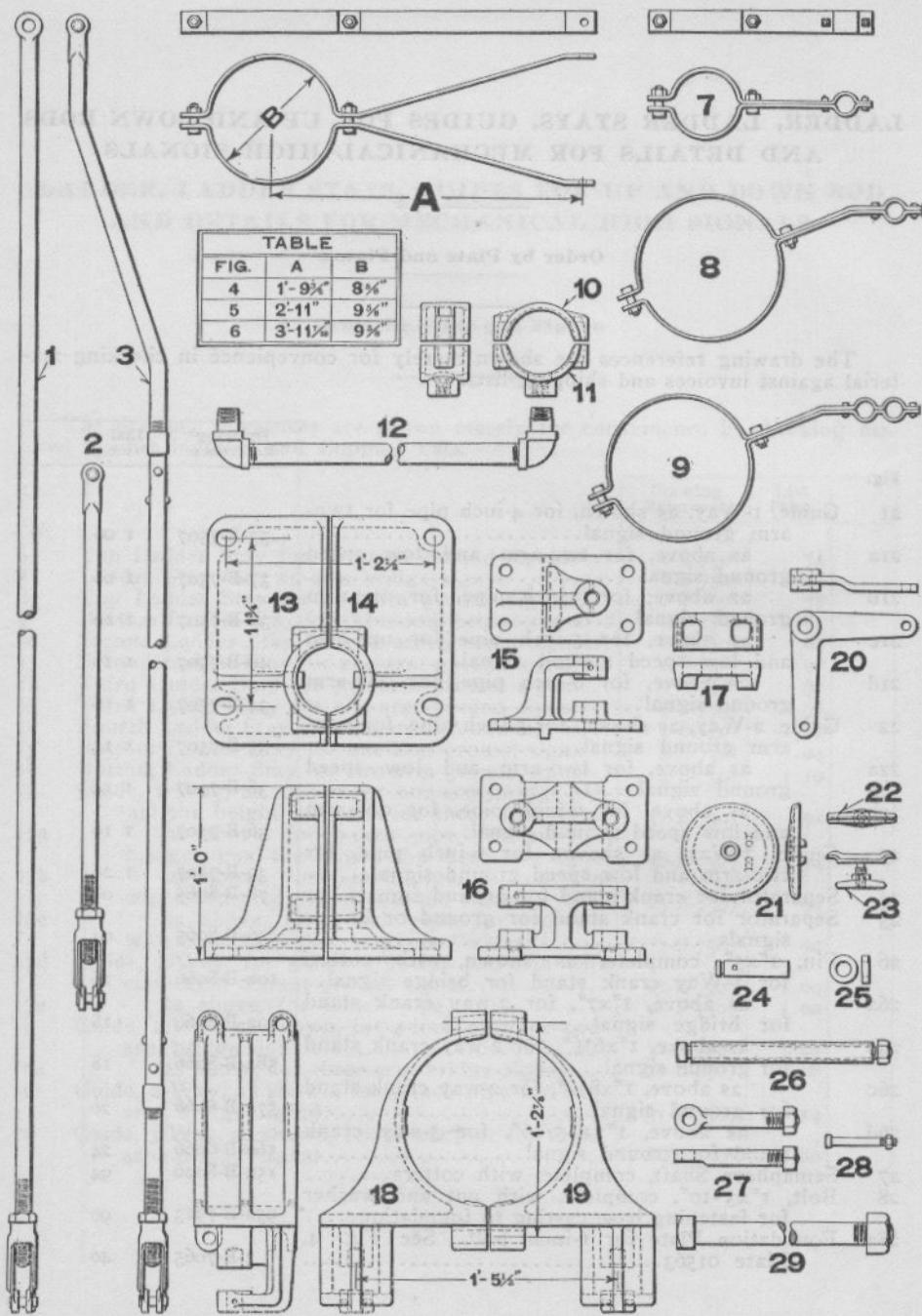
Fig.		Drawing Reference	List Price
6	Top Ladder Stay for two-arm ground signal....	1-B-7501	74
7	Ladder Stay for two-arm bridge signal.....	1-B-7501	78
8	Top Ladder Stay for one-arm ground signal....	2-B-7501	78
9	Bottom Ladder Stay for three-arm bridge signal..	2-B-7501	84
10	Second Ladder Stay for two-arm ground signal..	2-B-7501	84
11	Second Ladder Stay for one-arm ground signal...	4-B-7501	90
12	Third Ladder Stay for two-arm ground signal...	4-B-7501	96
13	Third Ladder Stay for one-arm ground signal...	4-B-7501	98
14	Fourth Ladder Stay for two-arm ground signal...	4-B-7501	1 02
15	Bottom Ladder Stay for one-arm ground signal..	4-B-7501	1 04
16	Bottom Ladder Stay for two-arm ground signal..	4-B-7501	1 10
17	Guide, 1-Way, as shown for one-arm bridge signal the height of a two or three-arm signal	51-B-7507	92
17a	as above, for 5-inch pipe, for one-arm bridge signal the height of a three-arm signal	52-B-7507	94
17b	as above, for 6-inch pipe, for one-arm wire connected distant ground signal.....	63-B-7507	96
17c	as above, for 4-inch pipe, for two-arm wire connected distant ground signal.....	1-B-7507	94
17d	Guide, 2-Way, for 5-inch pipe for two-arm wire connected distant ground signal.....	91-B-7507	1 00
17e	as above, for 6-inch pipe.....	92-B-7507	1 02
18	Guide, 1-Way, as shown, for 4-inch pipe for two-arm bridge signal.....	30-B-7507	1 02
18a	as above, for three-arm bridge signal....	79-B-7507	1 08
19	Guide, 2-Way, as shown, for 5-inch pipe for two-arm bridge signal.....	31-B-7507	1 14
20	Guide, 3-Way, as shown, for 5-inch pipe for three-arm bridge signal.....	80-B-7507	1 20

LADDER, LADDER STAYS, GUIDES FOR UP AND DOWN RODS
AND DETAILS FOR MECHANICAL HIGH SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
21	Guide, 1-Way, as shown, for 4-inch pipe for two-arm ground signal.....	33-B-7507	1 06
21a	as above, for two-arm and low speed ground signal	37-B-7507	1 06
21b	as above, for 5-inch pipe, for one-arm ground signal	32-B-7507	1 10
21c	as above, for 5-inch pipe for one-arm and low speed ground signal.....	40-B-7507	1 10
21d	as above, for 6-inch pipe, for one-arm ground signal.....	34-B-7507	1 16
22	Guide, 2-Way, as shown, for 5-inch pipe, for two-arm ground signal.....	35-B-7507	1 14
22a	as above, for two-arm and low speed ground signal.....	38-B-7507	1 14
22b	as above, for 6-inch pipe, for one-arm and low speed ground signal.....	36-B-7507	1 16
23	Guide, 3-Way, as shown, for 6-inch pipe, for two-arm and low speed ground signal.....	39-B-7507	1 20
24	Separator for crank stand for ground signals....	78-B-8065	08
25	Separator for crank stand for ground or bridge signals	46-B-8065	04
26	Pin, 1"x5", complete, as shown, with cotter, for 1-Way crank stand for bridge signal..	10a-B-8066	16
26a	as above, 1"x7", for 2-way crank stand for bridge signal.....	19a-B-8066	18
26b	as above, 1"x6 $\frac{1}{4}$ ", for 2-way crank stand for ground signal.....	58a-B-8066	18
26c	as above, 1"x8 $\frac{1}{4}$ ", for 2-way crank stand for ground signal.....	57a-B-8066	20
26d	as above, 1"x10 $\frac{5}{16}$ ", for 3-way crank stand for ground signal.....	56a-B-8066	24
27	Semaphore Shaft, complete, with cotters.....	15a-B-8026	94
28	Bolt, 1"x3'-10", complete, with nut and washer for fastening base casting to foundation.....	95a-B-7913	90
28a	Foundation Plate for 1-inch bolt. See Fig. 4, Plate 01563.....	3-B-7065	40



DETAILS FOR MECHANICAL BRACKET SIGNALS

DETAILS FOR MECHANICAL BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawng Reference	List Price
1	Up and Down Rod, complete, with screw jaw, lock nut, pin and cotter for the bottom arm of the left hand upper post on a four-arm bracket signal	127a-B-8051	2 20
1a	as above, for the bottom arm of the right hand post on a four-arm bracket signal....	128a-B-8051	2 30
1b	as above, for the top arm of the left hand upper post on a four-arm bracket signal....	130a-B-8051	4 20
1c	as above, for the top arm of the right hand upper post on a four-arm bracket signal.	131a-B-8051	4 40
2	Connecting Rod, complete, with screw jaw, lock nut, pins and cotters, for connecting crank stands on cross-tree of bracket signal.....	115a-B-8051	2 00
3	Up and Down Rod, complete, with screw jaw, lock nut, pins and cotters, for main post of a bracket signal, with connections at right angles to tracks.....	25a-B-8128	4 80
3a	as above, for main post of a two-arm bracket signal, with connections parallel to tracks	275a-B-8051	4 80
3b	as above, for main post of a four-arm bracket signal, with connections parallel to tracks, for operating bottom arms of upper posts	275a-B-8051	4 80
3c	as above, for main posts of a four-arm bracket signal, with connections parallel to tracks, for operating top arms of upper posts.	268a-B-8051	4 80
4	Top Ladder Stay for main bracket post.....	6-B-7501	90
5	Middle Ladder Stay for main bracket post.....	17-B-7501	1 12
6	Bottom Ladder Stay for main bracket post.....	17-B-7501	1 30
7	Guide, One-Way, for up and down rod for upper posts on four-arm bracket signal.....	1-B-7507	94
8	Guide, One-Way, for up and down rod for main post of two-arm bracket signal with connections at right angles to tracks, used on 9-inch pipe.....	71-B-7507	1 14
8a	as above, for two-arm bracket signal with connections parallel to tracks, used on 8-inch pipe.....	108-B-7507	1 14
8b	as above, for two-arm bracket signal with connections parallel to tracks, used on 9-inch pipe.....	107-B-7507	1 16
9	Guide, Two-Way, for up and down rods for main post of four-arm bracket signal with connections at right angles to tracks, used on 9-inch pipe.....	70-B-7507	1 20
9a	as above, for four-arm bracket signal with connections parallel to tracks, used on 9-inch pipe.....	102-B-7507	1 20
9b	as above, for four-arm bracket signal with connections parallel to tracks, used on 8-inch pipe.....	103-B-7507	1 18
10	Back Clamp only, for hand rail.....	1-B-5493	30
11	Front Clamp only, for hand rail.....	3-B-5493	1 00
11a	Clamp for hand rail, complete, with bolts and nuts (1-11, 1-10, 2-28, Plate 01649).....	9-B-8705	1 46
12	Hand Rail, complete, with ells and nipples.....	8-B-9279	4 30
12a	Hand Rail, complete, with ells, nipples and clamps (1-12, 2-11a, Plate 01649).....	8a-B-9279	7 30
13	Left Hand Half of Pipe Socket only, for upper post on a bracket signal.....	1-C-3348	4 30

DETAILS FOR MECHANICAL BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

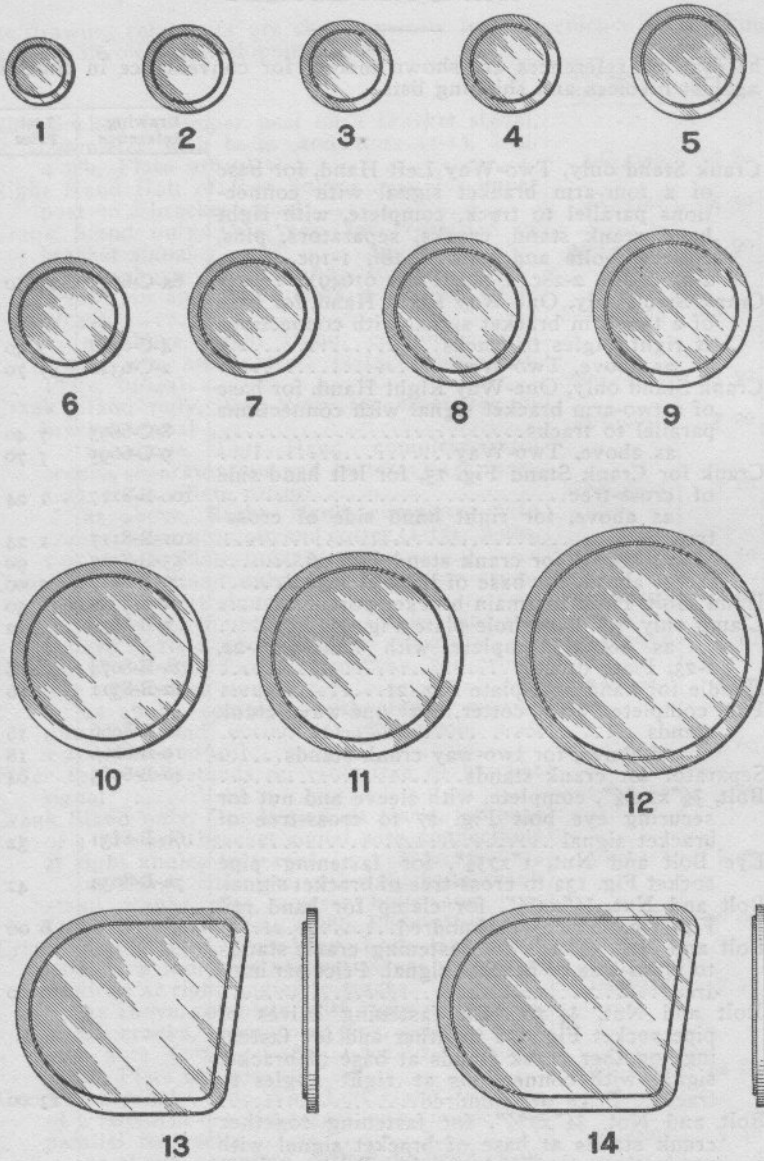
Fig.		Drawing Reference	List Price
13a	Pipe Socket, for upper post on a bracket signal, complete, with bolts and nuts (1-13, 1-14, 4-28b, Plate 01649).....	3-C-3348	8 80
14	Right Hand Half of Pipe Socket only, for upper post on a bracket signal.....	2-C-3348	4 30
15	Crank Stand only, One-Way, for cross-tree of bracket signal	56-C-4953	1 90
15a	as above, Left Hand, complete, with crank, pin and cotter (1-15, 1-20, 1-24, Plate 01649)	56a-C-4953	3 50
15b	as above, Right Hand, complete, with crank, pin and cotter, (1-15, 1-20a, 1-24, Plate 01649).....	56b-C-4953	3 50
15c	Crank Stand only, Two-Way, for cross-tree of bracket signal	57-C-4953	2 20
15d	as above, Left Hand, complete, with cranks, separator, pin and cotter (1-15c, 2-20, 1-25, 1-24a, Plate 01649).....	57a-C-4953	5 10
15e	as above, Right Hand, complete, with cranks, separator, pin and cotter (1-15c, 2-20a, 1-25, 1-24a, Plate 01647).....	57b-C-4953	5 10
16	Double Crank Stand only, One-Way, for cross-tree of bracket signal.....	3I-C-4953	2 60
16a	as above, complete, with cranks, pins and cotters (1-16, 2-20b, 2-24, Plate 01649).....	31a-C-4953	5 10
16b	Double Crank Stand only, two-Way, for cross-tree of bracket signal.....	32-C-4953	3 20
16c	as above, complete, with cranks, separators, pins and cotters (1-16b, 4-20b, 2-25, 2-24a, Plate 01649).....	32-a-C-4953	7 60
17	Filler for crank stands on cross-tree of bracket signal	1-A-2151	30
18	Crank Stand only, One-Way Left Hand, for base of a two-arm bracket signal with connections at right angles to tracks.....	3-C-6312	7 40
18a	as above, complete, with right hand crank stand, cranks, pins, cotters, bolts and nuts (1-18, 1-19, 2-20c, 2-24, 4-28b, Plate 01649)....	3a-C-6312	20 00
18b	Crank Stand only, Two-Way Left Hand, for base of a four-arm bracket signal with connections at right angles to tracks.....	1-C-6312	7 70
18c	as above, complete, with right hand crank stand, cranks, separators, pins, cotters, bolts and nuts (1-18b, 1-19a, 4-20c, 2-25, 2-24a, 4-28b, Plate 01649).....	1a-C-6312	24 80
18d	Crank Stand only, One-Way Left Hand, for base of a two-arm bracket signal with connections parallel to tracks.....	5-C-6695	7 40
18e	as above, complete, with right hand crank stand, cranks, pins, cotters, bolts and nuts (1-18d, 1-19b, 2-20c, 2-24, 2-28c, 2-28d, Plate 01649)	5a-C-6695	20 00
18f	Crank Stand only, Two-Way Left Hand, for base of a four-arm bracket signal with connections parallel to tracks.....	6-C-6695	7 70

DETAILS FOR MECHANICAL BRACKET SIGNALS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
18g	Crank Stand only, Two-Way Left Hand, for base of a four-arm bracket signal with connections parallel to track, complete, with right hand crank stand, cranks, separators, pins, cotters, bolts and nuts (1-18f, 1-19c, 4-20c, 2-25, 2-24a, 2-28c, 2-28d, Plate 01649).....	6a-C-6695	24 80
19	Crank Stand only, One-Way Right Hand, for base of a two-arm bracket signal with connections at right angles to tracks.....	4-C-6312	7 40
19a	as above, Two-Way.....	2-C-6312	7 70
19b	Crank Stand only, One-Way Right Hand, for base of a two-arm bracket signal with connections parallel to tracks.....	8-C-6695	7 40
19c	as above, Two-Way.....	9-C-6695	7 70
20	Crank for Crank Stand Fig. 15, for left hand side of cross-tree.....	100-B-8117	1 24
20a	as above, for right hand side of cross-tree.....	101-B-8117	1 24
20b	as above, for crank stand Fig. 16.....	55-B-8117	90
20c	as above, for base of bracket signal.....	76-B-8117	2 00
21	Hand Hole Plate for main bracket post.....	1-C-5931	30
22	Clamp only, for hand hole plate Fig. 21.....	3-B-8074	12
22a	as above, complete, with handle (1-22, 1-23, Plate 01649).....	3a-B-8074	28
23	Handle for hand hole plate Fig. 21.....	22-B-8311	16
24	Pin, complete, with cotter, for one-way crank stands.....	10-B-8066	16
24a	as above, for two-way crank stands.....	19-B-8066	18
25	Separator for crank stands.....	46-B-8065	04
26	Bolt, $\frac{7}{8}$ "x14 $\frac{1}{4}$ ", complete, with sleeve and nut for securing eye bolt Fig. 27 to cross-tree of bracket signal.....	16b-B-8131	32
27	Eye Bolt and Nut, 1"x7 $\frac{1}{2}$ ", for fastening pipe socket Fig. 13a to cross-tree of bracket signal.....	7a-B-8034	42
28	Bolt and Nut, $\frac{1}{2}$ "x4 $\frac{1}{2}$ ", for clamp for hand rail Fig. 11a. Price per hundred.....		6 00
28a	Bolt and Nut, $\frac{3}{4}$ "x4", for fastening crank stands to cross-tree of bracket signal. Price per hundred.....		10 00
28b	Bolt and Nut, $\frac{3}{4}$ "x6", for fastening halves of pipe socket Fig. 13a together and for fastening together crank stands at base of bracket signal with connections at right angles to tracks. Price per hundred.....		13 00
28c	Bolt and Nut, $\frac{3}{4}$ "x7 $\frac{3}{4}$ ", for fastening together crank stands at base of bracket signal with connections parallel to tracks. Price per hundred.....		15 00
28d	as above, $\frac{3}{4}$ "x11". Price per hundred....		20 00
29	Bolt and Nut, 1 $\frac{1}{2}$ "x5'-4 $\frac{1}{4}$ ", for fastening base of bracket signal to foundation.....		3 00
29a	Foundation Plate for 1 $\frac{1}{2}$ inch bolt. See Fig. 3, Plate 01541.....	1-B-7065	52



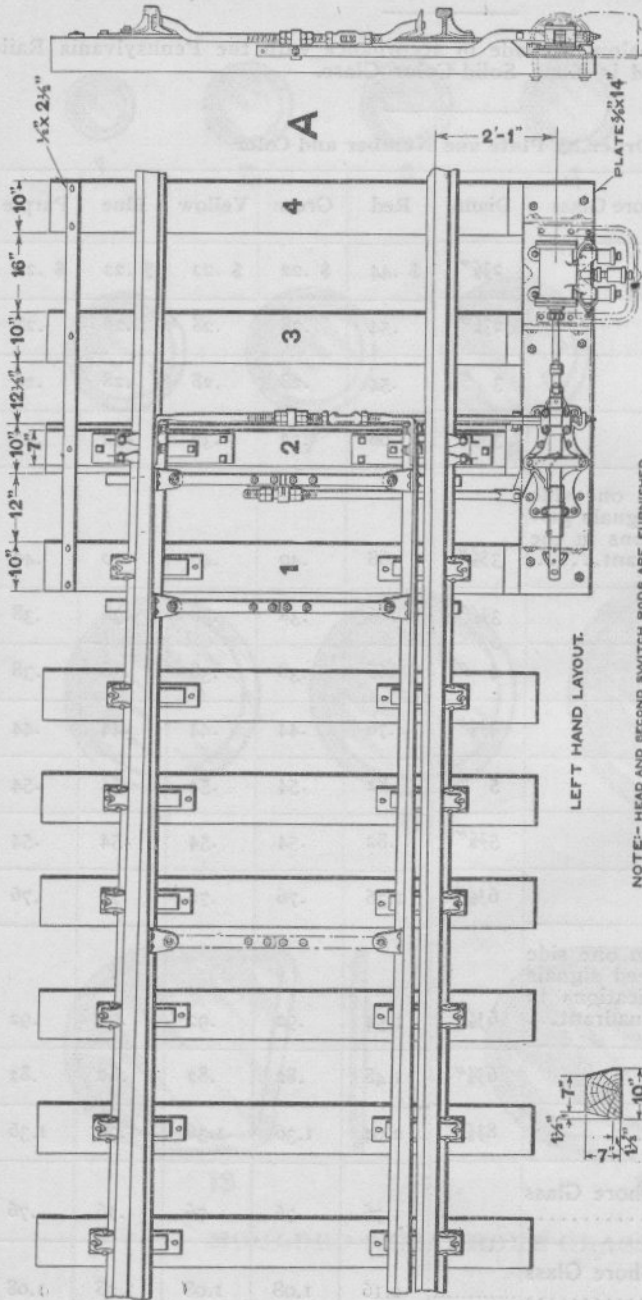
MOULDED SEMAPHORE GLASS

MOULDED SEMAPHORE GLASS

The glass listed below is made in accordance with the Pennsylvania Railroad specifications, and is Kopp Solid-Color Glass.

Order by Plate and Number and Color

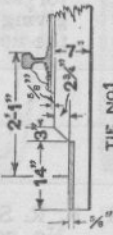
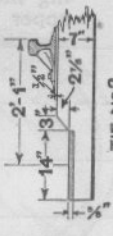
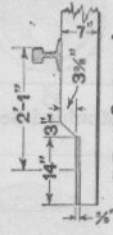
No.	Moulded Semaphore Glass	Diam.	Red	Green	Yellow	Blue	Purple
1		2 $\frac{3}{8}$ "	\$.44	\$.22	\$.22	\$.22	\$.22
2		2 $\frac{7}{8}$ "	.54	.28	.28	.28	.28
3		3 "	.54	.28	.28	.28	.28
4		3 $\frac{1}{2}$ "	.66	.32	.32	.32	.32
4a	Glass etched on one side for dwarf signals giving indications in the upper quadrant.....	3 $\frac{1}{2}$ "	.68	.40	.40	.40	.40
5		3 $\frac{3}{4}$ "	.66	.38	.38	.38	.38
6		4 "	.66	.38	.38	.38	.38
7		4 $\frac{3}{8}$ "	.76	.44	.44	.44	.44
8		5 "	.82	.54	.54	.54	.54
9		5 $\frac{3}{8}$ "	.82	.54	.54	.54	.54
10		6 $\frac{1}{2}$ "	1.36	.76	.76	.76	.76
10a	Glass etched on one side for low speed signals giving indications in the upper quadrant...	6 $\frac{1}{2}$ "	1.54	.92	.92	.92	.92
11		6 $\frac{7}{8}$ "	1.48	.82	.82	.82	.82
12		8 $\frac{3}{8}$ "	2.04	1.36	1.36	1.36	1.36
13	P. R. R. Semaphore Glass No. 3045.....	1.76	.76	.76	.76	.76
14	P. R. R. Semaphore Glass No. 3047.....	2.16	1.08	1.08	1.08	1.08



LEFT HAND LAYOUT.

NOTE:- HEAD AND SECOND SWITCH RODS ARE FURNISHED WITH THIS LAYOUT COMPLETE AND SHOWN IN DOT AND DASH LINES MUST BE ORDERED SEPARATELY WHEN REQUIRED.

SECTION OF HEAD
TIE DIMENSIONED.



ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUT WITHOUT DETECTOR BARS FOR AN INSULATED SINGLE SWITCH WITH CYLINDER AHEAD OF POINTS

ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUT WITHOUT DETECTOR BARS FOR AN INSULATED SINGLE SWITCH WITH CYLINDER AHEAD OF POINTS

Head and second switch rods are furnished with this layout complete; back rod shown on opposite plate in dot and dash lines must be ordered separately when required. For back rod see Plate 01707.

Magnets are wound to 120 ohms resistance unless otherwise specified.

When ordering specify weight of rail and whether right or left hand layout is desired. The layout shown on opposite plate is left hand.

Order by Plate, Figure and Instructions given above

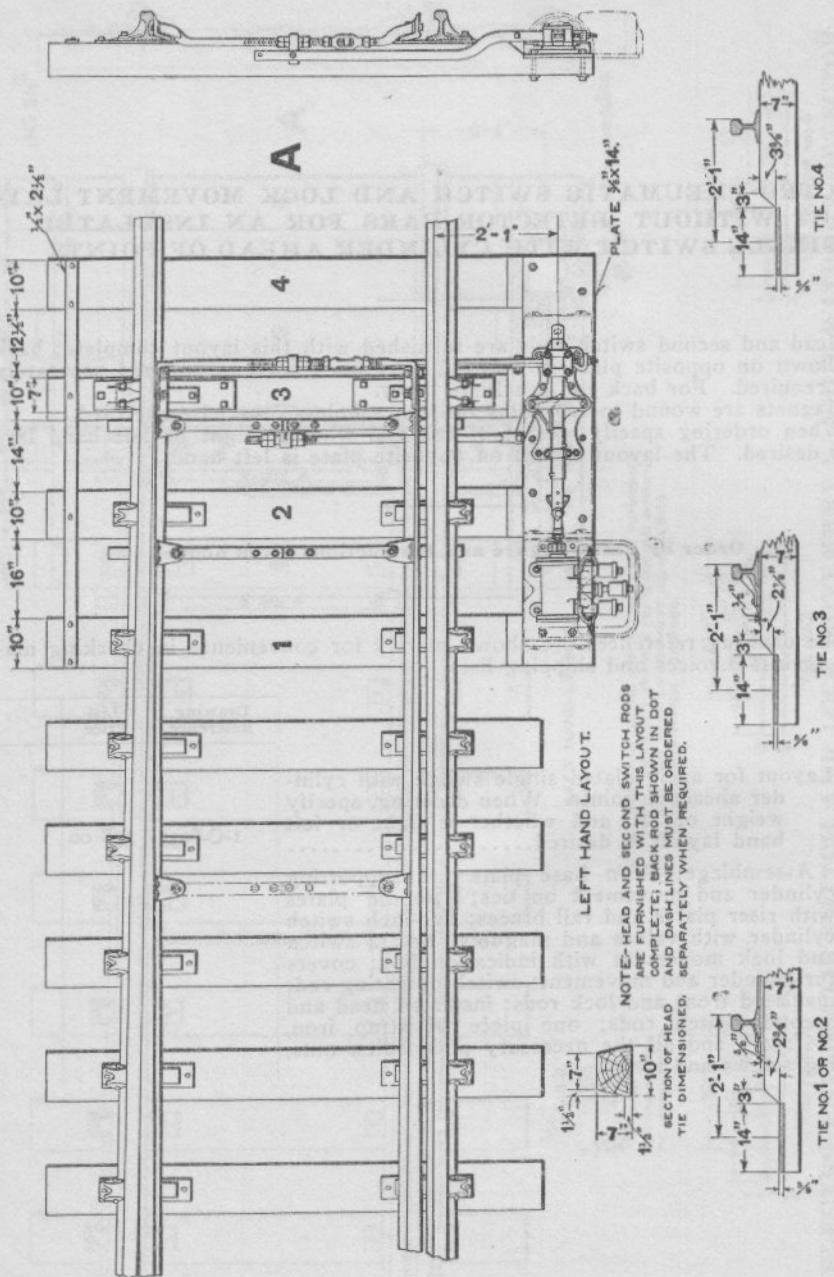
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- A Layout for an insulated single switch with cylinder ahead of points. When ordering, specify weight of rail and whether a right or left hand layout is desired.....

Assemblage:—Iron base plate for supporting cylinder and movement on ties; two tie plates with riser plates and rail braces; five-inch switch cylinder with valves and magnets; No. 14 switch and lock movement with indication box; covers for cylinder and movement; switch operating rod; insulated front and lock rods; insulated head and second switch rods; one piece of strap iron, 2½" x ½"; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price
1-C-6933	358 00



ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUT WITHOUT DETECTOR BARS FOR AN INSULATED SINGLE SWITCH WITH CYLINDER BACK OF POINTS

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT
LAYOUT WITHOUT DETECTOR BARS FOR AN
INSULATED SINGLE SWITCH WITH
CYLINDER BACK OF POINTS**

Head and second switch rods are furnished with this layout complete; back rod shown on opposite plate in dot and dash lines must be ordered separately when required. For back rod see Plate 01707.

Magnets are wound to 120 ohms resistance unless otherwise specified.

When ordering specify weight of rail and whether right or left hand layout is desired. The layout shown on opposite plate is left hand.

Order by Plate, Figure and Instructions given above

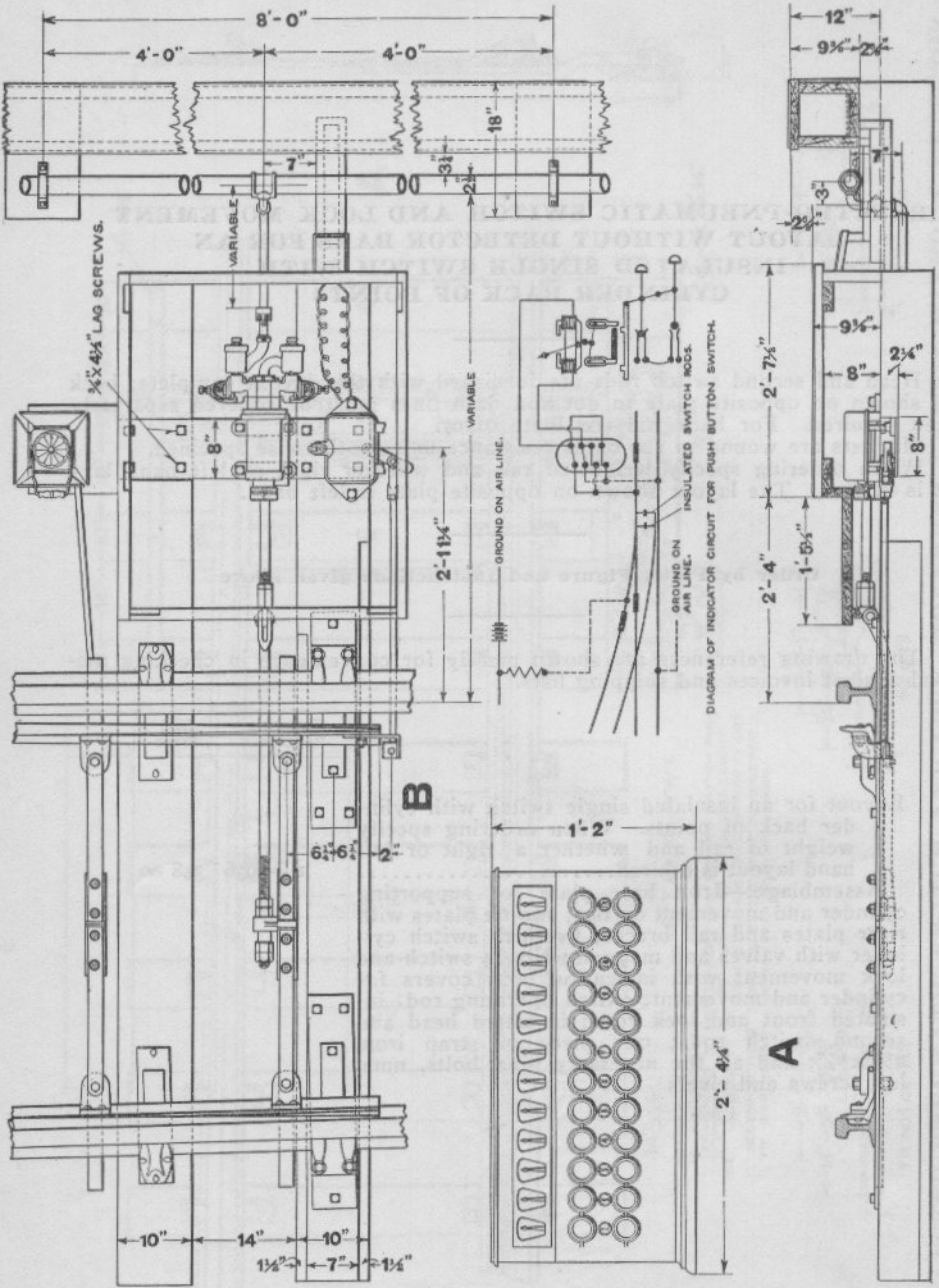
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Drawing Reference	List Price	
1-C-6936	358 00	

Fig.

A Layout for an insulated single switch with cylinder back of points. When ordering specify weight of rail and whether a right or left hand layout is desired.....

Assemblage:—Iron base plate for supporting cylinder and movement on ties; two tie plates with riser plates and rail braces; five-inch switch cylinder with valves and magnets; No. 14 switch and lock movement with indication box; covers for cylinder and movement; switch operating rod; insulated front and lock rods; insulated head and second switch rods; one piece of strap iron, 2½" x ½"; and all the necessary pins, bolts, nuts, lag screws and rivets.



ELECTRO-PNEUMATIC PUSH BUTTON MACHINE AND DIRECT ACTING ELECTRO-PNEUMATIC SWITCH MOVEMENT LAYOUT FOR A SINGLE SWITCH WITHOUT DETECTOR BARS
(For Classification Yards)

**ELECTRO-PNEUMATIC PUSH BUTTON MACHINE AND
DIRECT ACTING ELECTRO-PNEUMATIC SWITCH
MOVEMENT LAYOUT FOR A SINGLE SWITCH
WITHOUT DETECTOR BARS**

(For Classification Yards)

The push button machine is furnished in twelve-way sections with iron cases, although if desired a two, four or six-way can be furnished in a wooden case. Orders for repair parts of the mechanism of the push button machine should always be accompanied by samples of the parts required.

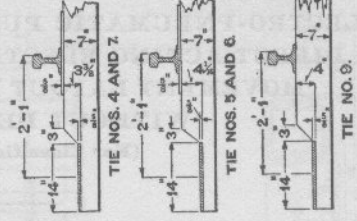
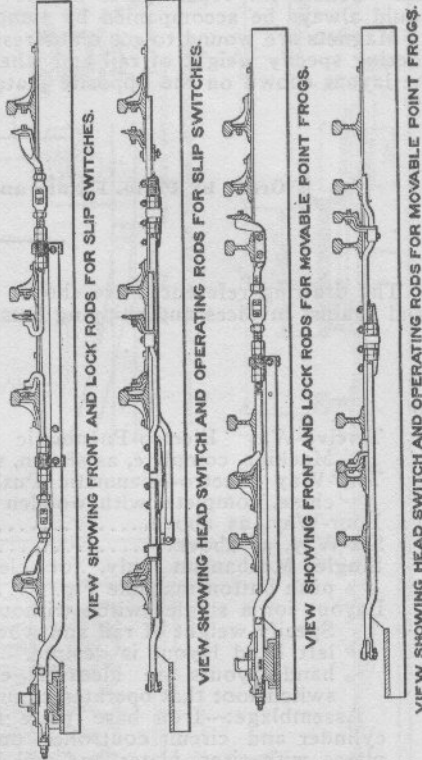
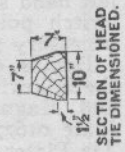
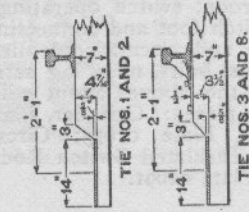
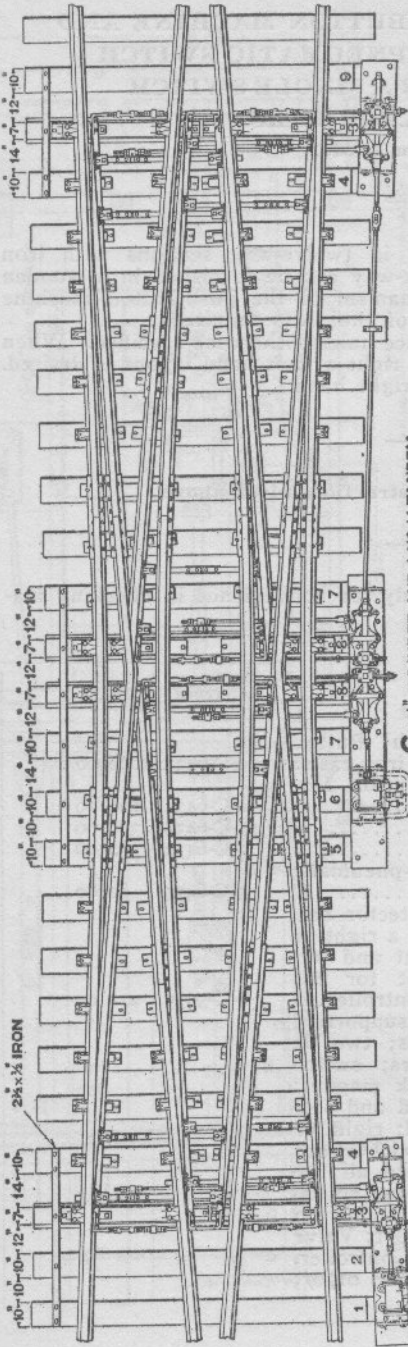
Magnets are wound to 400 ohms resistance unless otherwise specified. When ordering specify weight of rail and whether right or left hand layout is desired. The layout shown on the opposite plate is right hand.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Twelve-Way Electro-Pneumatic Push Button Machine, complete, as shown, with iron case..	1-C-6434	1006 00
Aa	Two-Way Electro-Pneumatic Push Button Machine, complete, with wooden case.....	4-C-6434	196 00
Ab	Four-Way, as above.....	3-C-6434	374 00
Ac	Six-Way, as above.....	2-C-6434	552 00
Ad	Single Mechanism only, for electro-pneumatic push button machine Fig. A.....	5-C-6434	80 00
B	Layout for a single switch without detector bar. Specify weight of rail and whether a right or left hand layout is desired. Right and left hand layouts are identical except for the switch foot that operates circuit controller... Assemblage:—Iron base plate for supporting cylinder and circuit controller on ties; two tie plates with riser plates and rail braces; switch cylinder and switch valve without lock magnet; rotary circuit controller; insulated head and second switch rods; switch operating rod; right or left hand switch foot and connecting rod between switch point and circuit controller; and all the necessary pins, bolts, nuts, lag screws and rivets. Details of the above layout will be found on the following plates: Cylinder, Plate 01671; Valve and Magnets, Plate 01673; Circuit Controller, Plate 01677; Insulated Switch Rods, Plate 01707; Tie Plates, Plate 01691.	1-C-5075	214 00

A



ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUTS FOR ONE END OF AN INSULATED DOUBLE SLIP CROSSING, AND FOR INSULATED MOVABLE POINT FROGS AND THE OTHER END OF THE DOUBLE SLIP CROSSING

ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUTS FOR ONE END OF AN INSULATED DOUBLE SLIP CROSSING, AND FOR INSULATED MOVABLE POINT FROGS AND THE OTHER END OF THE DOUBLE SLIP CROSSING

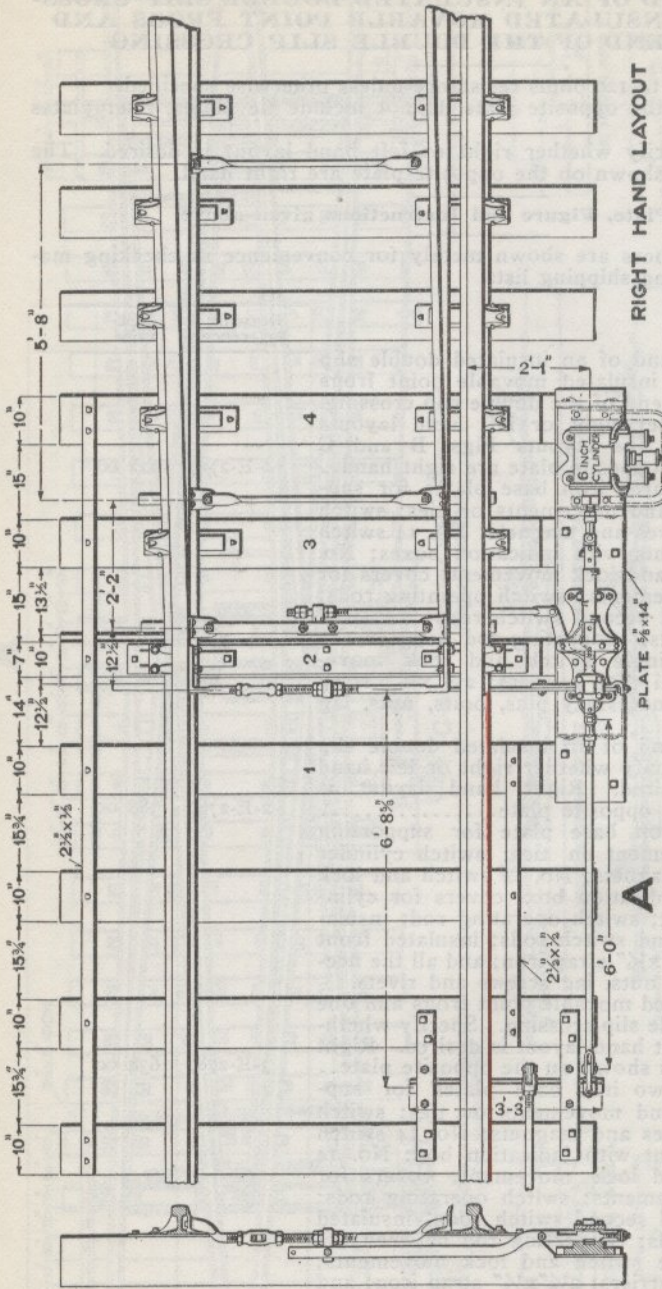
Magnets are wound to 120 ohms resistance unless otherwise specified.
 Layouts shown on the opposite plate do not include tie plates, riser plates or rail braces.

When ordering specify whether right or left hand layout is desired. The layouts Figs. B and C shown on the opposite plate are right hand.

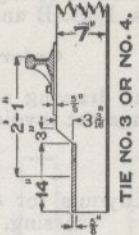
Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

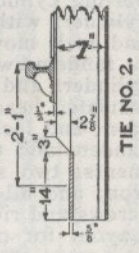
Fig.	Drawing Reference	List Price
A	1-E-2787	1022 00
<p>Layouts for one end of an insulated double slip crossing, and insulated movable point frogs and the other end of the double slip crossing. Specify whether right or left hand layouts are desired. The layouts Figs. B and C shown on the opposite plate are right hand..</p> <p>Assemblage:—Three iron base plates for supporting cylinders and movements on ties; switch cylinders with valves and magnets; No. 14 switch and lock movements with indication boxes; No. 14 tandem switch and lock movement; covers for cylinders and movements; switch operating rods; insulated head and second switch rods; insulated front and lock rods; connecting rod between the tandem and the single switch and lock movements; two special pipe carriers; 2½" x ½" strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets.</p>		
B	2-E-2787	388 00
<p>Layout for one end of an insulated double slip crossing. Specify whether right or left hand layout is desired. Right hand layout is shown on the opposite plate.....</p> <p>Assemblage:—Iron base plate for supporting cylinder and movement on ties; switch cylinder with valves and magnets; No. 14 switch and lock movement with indication box; covers for cylinder and movement; switch operating rod; insulated head and second switch rods; insulated front and lock rods; 2½" x ½" strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets.</p>		
C	3-E-2787	634 00
<p>Layout for insulated movable point frogs and one end of a double slip crossing. Specify whether right or left hand layout is desired. Right hand layout is shown on the opposite plate..</p> <p>Assemblage:—Two iron base plates for supporting cylinder and movements on ties; switch cylinder with valves and magnets; No. 14 switch and lock movement with indication box; No. 14 tandem switch and lock movement; covers for cylinder and movements; switch operating rods; insulated head and second switch rods; insulated front and lock rods; connecting rod between the tandem and single switch and lock movements; two special pipe carriers; 2½" x ½" strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets.</p>		



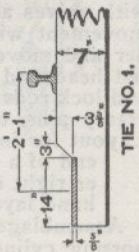
NO. 14 S. & L. MOVEMENT, 6" CYLINDER WITH DETECTOR BAR AHEAD OF POINTS, WITH 15 MOTION PLATE RAIL CLIPS.



TIE NO. 3 OR NO. 4.



TIE NO. 2.



TIE NO. 1.



SECTION OF HEAD TIE DIMENSIONED.

ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUT FOR A NON-INSULATED SINGLE SWITCH WITH ONE DETECTOR BAR AHEAD OF POINTS

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT
LAYOUT FOR A NON-INSULATED SINGLE SWITCH
WITH ONE DETECTOR BAR AHEAD
OF POINTS**

Head switch rod is furnished with this layout, complete.
Magnets are wound to 120 ohms resistance unless otherwise specified.
When ordering, specify weight of rail and whether right or left hand layout is desired. The layout shown on the opposite plate is right hand.

Order by Plate, Figure and Instructions given above

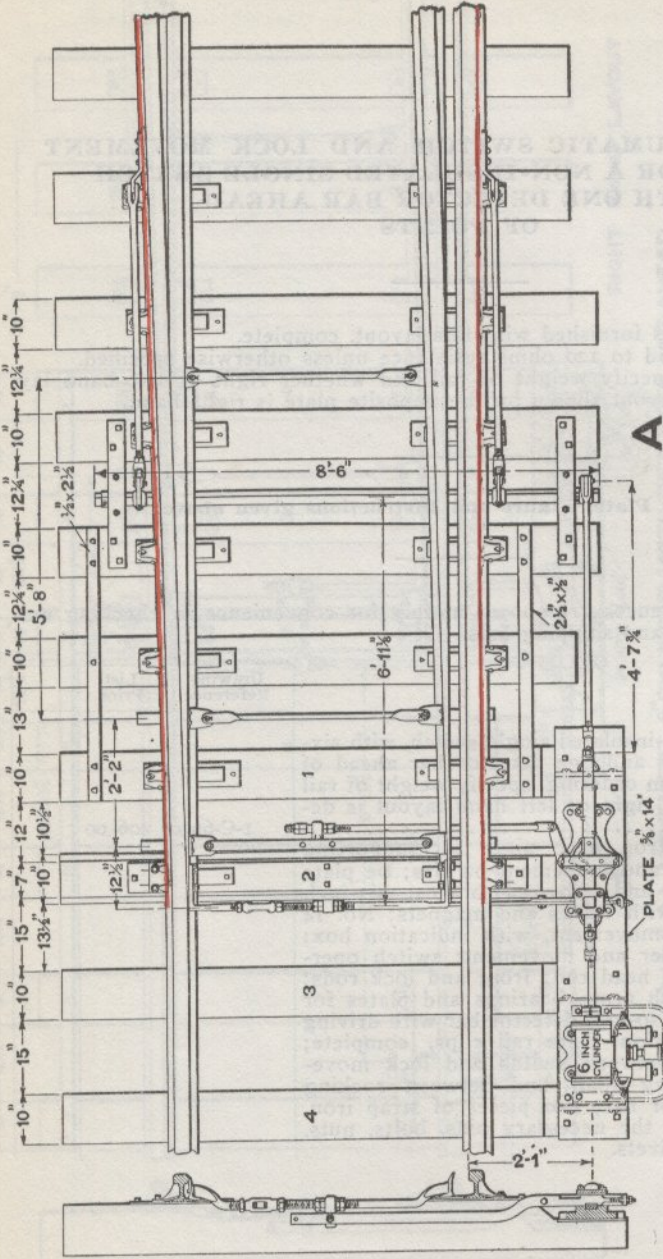
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

A Layout for a non-insulated single switch, with six-inch cylinder and one detector bar ahead of points. When ordering, specify weight of rail and whether right or left hand layout is desired

Assemblage:—Iron base plate for supporting six-inch cylinder and movement on ties; tie plate with riser plates and two rail braces; six-inch switch cylinder with valves and magnets; No. 14 switch and lock movement, with indication box; covers for cylinder and movement; switch operating rod; switch head rod; front and lock rods; rocking shaft with arms, bearings and plates for fastening to ties; 50-foot detector bar with driving piece and 15 motion plate rail clips, complete; connecting rod between switch and lock movement and rocking shaft, and between rocking shaft and detector bar; two pieces of strap iron, 2½" x 1½"; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price
I-C-6930	406 00

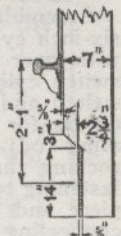


RIGHT HAND LAYOUT

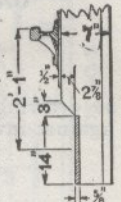
NO. 14 S. & L. MOVEMENT, 6" CYLINDER WITH DETECTOR BARS BACK OF POINTS, WITH 15 MOTION PLATE RAIL CLIPS TO A BAR.



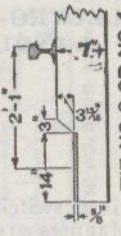
SECTION OF HEAD TIE DIMENSIONED



TIE NO. 1.



TIE NO. 2.



TIE NO. 3 OR NO. 4.

ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUT FOR A NON-INSULATED SINGLE SWITCH WITH TWO DETECTOR BARS BACK OF POINTS

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT
LAYOUT FOR A NON-INSULATED SINGLE SWITCH
WITH TWO DETECTOR BARS BACK OF POINTS**

Head switch rod is furnished with layout, complete.
Magnets are wound to 120 ohms resistance unless otherwise specified.
When ordering specify weight of rail and whether right or left hand lay-
out is desired. The layout shown on the opposite plate is right hand.

Order by Plate, Figure and Instructions given above

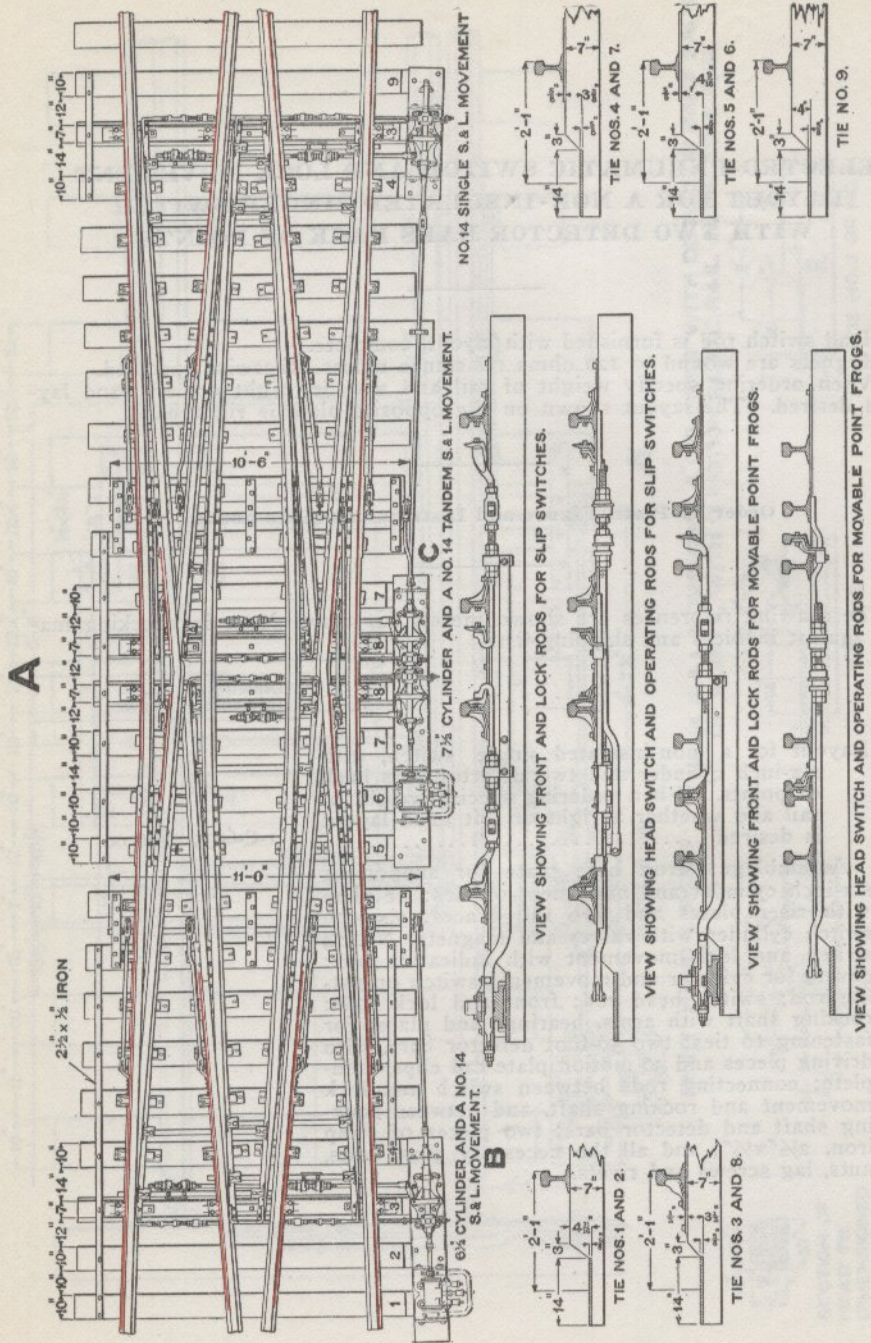
The drawing references are shown merely for convenience in checking ma-
terial against invoices and shipping lists.

Fig.

- A Layout for a non-insulated single switch, with six-inch cylinder and two detector bars back of points. When ordering specify weight of rail and whether a right or left hand layout is desired

Assemblage:—Iron base plate for supporting six-inch cylinder and movement on ties; tie plate with riser plates and two rail braces; six-inch switch cylinder with valves and magnets; No. 14 switch and lock movement with indication box; covers for cylinder and movement; switch operating rod; switch head rod; front and lock rods; rocking shaft with arms, bearings and plates for fastening to ties; two 50-foot detector bars, with driving pieces and 30 motion plate rail clips, complete; connecting rods between switch and lock movement and rocking shaft, and between rocking shaft and detector bars; two pieces of strap iron, 2½" x ½"; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price
1-C-6935	466 00



ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUTS FOR ONE END OF A NON-INSULATED DOUBLE SLIP CROSSING, AND FOR NON-INSULATED MOVABLE POINT FROGS AND THE OTHER END OF THE DOUBLE SLIP CROSSING

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT
LAYOUTS FOR ONE END OF A NON-INSULATED
DOUBLE SLIP CROSSING, AND FOR NON-IN-
SULATED MOVABLE POINT FROGS
AND THE OTHER END OF THE
DOUBLE SLIP CROSSING**

Magnets are wound to 120 ohms resistance unless otherwise specified. Layouts shown on the opposite plate do not include tie plates, riser plates, rail braces or switch rods.

When ordering specify weight of rail and whether right or left hand layout is desired. The layouts Figs. B and C, shown on the opposite plate are right hand.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

A Layouts for one end of a non-insulated double slip crossing, and non-insulated movable point frogs and the other end of the double slip crossing. Specify weight of rail and whether right or left hand layouts are desired. The layouts Figs. B and C shown on the opposite plate are right hand.

Assemblage:—Three iron base plates for supporting cylinders and movements on ties; switch cylinders with valves and magnets; No. 14 switch and lock movements with indication boxes; No. 14 tandem switch and lock movement; covers for cylinders and movements; switch operating rods; front and lock rods; rocking shaft with arms, bearings and plates for fastening to ties; four 50-foot detector bars and eight short lengths with driving pieces, and 136 motion plate rail clips, complete; connecting rods between switch and lock movements and rocking shafts, and between rocking shafts and detector bars; two special pipe carriers; 2½"x½" strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price
1-E-2788	1360 00

ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT LAYOUTS FOR ONE END OF A NON-INSULATED DOUBLE SLIP CROSSING, AND FOR NON-INSULATED MOVABLE POINT FROGS AND THE OTHER END OF THE DOUBLE SLIP CROSSING

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- B Layout for one end of a non-insulated double slip crossing. Specify weight of rail and whether right or left hand layout is desired. Right hand layout is shown on page 224.....

Assemblage:—Iron base plate for supporting cylinder and movement on ties; switch cylinder with valves and magnets; No. 14 switch and lock movement with indication box; covers for cylinder and movement; switch operating rod; front and lock rods; rocking shaft with arms, bearings, and plates for fastening to ties; two 50-foot detector bars and two short lengths, with driving pieces and 50 motion plate rail clips, complete; connecting rods between switch and lock movement and rocking shaft, and between rocking shaft and detector bars; 2½"x½" strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price
2-E-2788	536 00

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENT
LAYOUTS FOR ONE END OF A NON-INSULATED
DOUBLE SLIP CROSSING, AND FOR NON-IN-
SULATED MOVABLE POINT FROGS
AND THE OTHER END OF THE
DOUBLE SLIP CROSSING**

Order by Plate and Figure

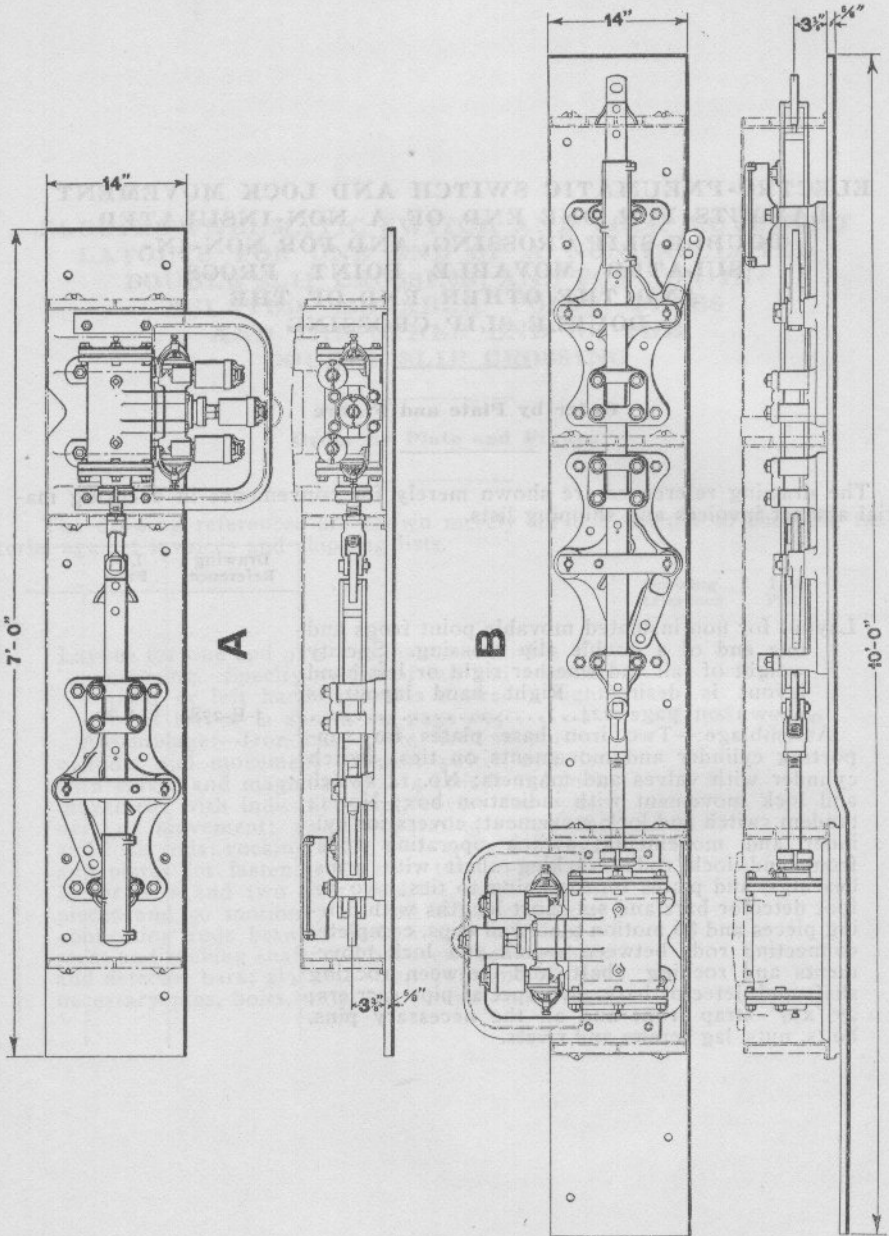
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

C Layout for non-insulated movable point frogs and one end of a double slip crossing. Specify weight of rail and whether right or left hand layout is desired. Right hand layout is shown on page 224.....

Assemblage:—Two iron base plates for supporting cylinder and movements on ties; switch cylinder with valves and magnets; No. 14 switch and lock movement with indication box; No. 14 tandem switch and lock movement; covers for cylinder and movements; switch operating rods; front and lock rods; rocking shaft with arms, bearings, and plates for fastening to ties; two 50-foot detector bars and six short lengths with driving pieces and 86 motion plate rail clips, complete; connecting rods between switch and lock movements and rocking shaft, and between rocking shaft and detector bars; two special pipe carriers; 1/2"x1/2" strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price
3-E-2788	824 00



ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENTS WITH CYLINDERS

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENTS
WITH CYLINDERS**

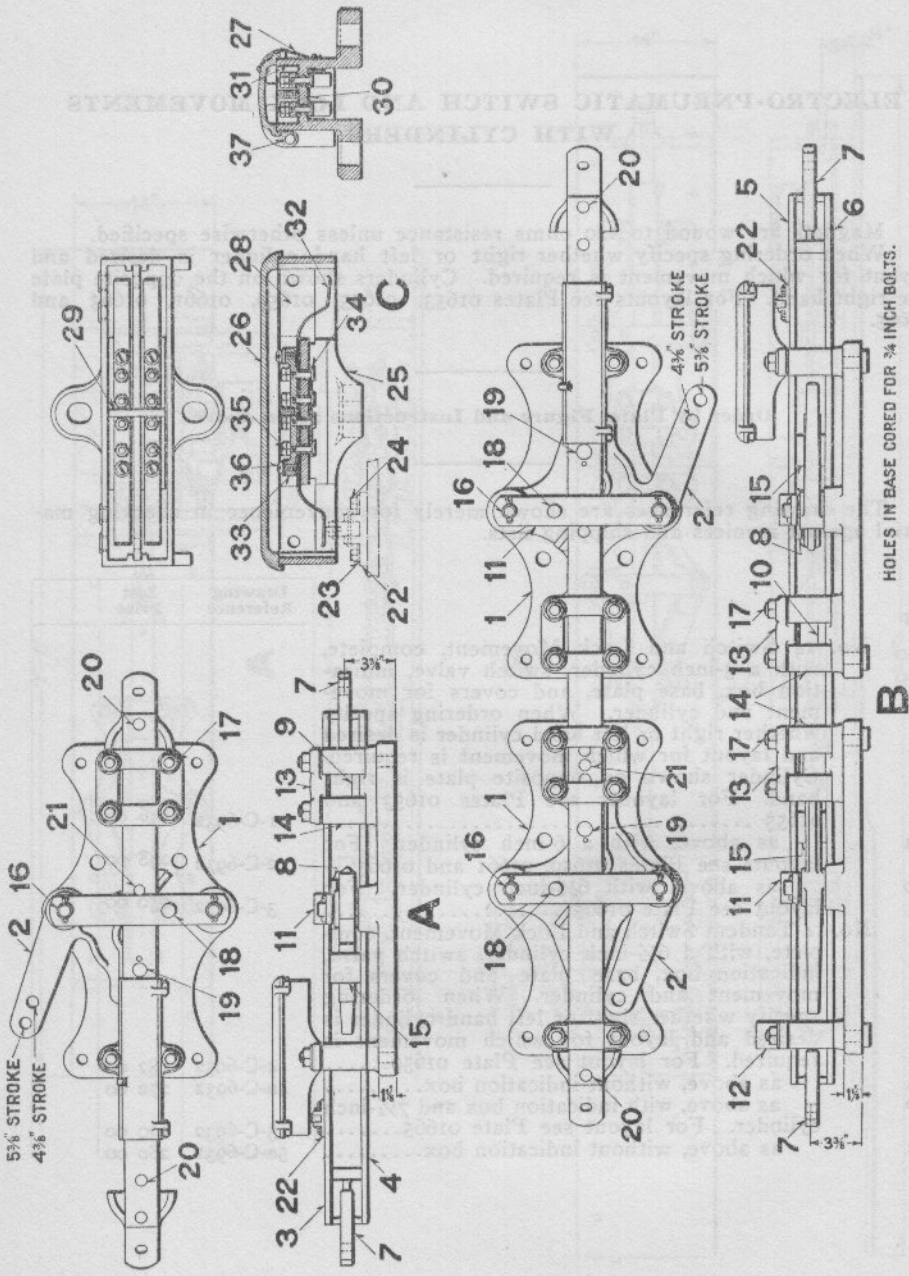
Magnets are wound to 120 ohms resistance unless otherwise specified.

When ordering specify whether right or left hand cylinder is desired and layout for which movement is required. Cylinders shown on the opposite plate are right hand. For layouts see Plates 01653, 01655, 01659, 01661, 01663 and 01665.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	No. 14 Switch and Lock Movement, complete, with a 5-inch cylinder, switch valve, indication box, base plate, and covers for movement and cylinder. When ordering specify whether right or left hand cylinder is desired and layout for which movement is required. Cylinder shown on opposite plate is right hand. For layouts see Plates 01653 and 01655	1-C-6932	246 00
Aa	as above, with a 6-inch cylinder. For layouts see Plates 01659, 01661 and 01663...	2-C-6932	248 00
Ab	as above, with 6½-inch cylinder. For layout see Plate 01665.....	3-C-6932	250 00
B	No. 14 Tandem Switch and Lock Movement, complete, with a 6½-inch cylinder, switch valve, indication box, base plate and covers for movement and cylinder. When ordering specify whether right or left hand cylinder is desired and layout for which movement is required. For layout see Plate 01659.....	4-C-6932	282 00
Ba	as above, without indication box.....	4a-C-6932	272 00
Bb	as above, with indication box and 7½-inch cylinder. For layout see Plate 01665.....	5-C-6932	290 00
Bc	as above, without indication box.....	5a-C-6932	280 00



ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENTS AND INDICATION BOX

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENTS
AND INDICATION BOX**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	No. 14 Switch and Lock Movement, complete, as shown, with indication box.....	21a-C-6282	32 00
B	No. 14 Tandem Switch and Lock Movement, complete, as shown, with indication box.....	23-C-6282	48 00
Ba	as above, without indication box.....	23a-C-6282	38 00
C	Indication Box (Circuit Controller), complete, as shown	1-B-7472	10 00
1	Base only, for No. 14 switch and lock movement..	4-C-6256	5 40
1a	as above, complete, for single movement and half of tandem movement that takes the indication box, including cap, yoke, rollers, studs, nuts and cotters (1-1, 1-11, 1-13, 7-14, 6-17, 1-18, 2-16, Plate 01669).....	4a-C-6256	12 70
1b	as above, complete, for tandem movement without indication box, including caps, yoke, rollers, studs, nuts and cotters (1-1, 1-11, 1-12, 1-13, 7-14, 6-17, 1-18, 2-16, Plate 01669).....	4b-C-6256	13 20
2	Switch Crank.....	17-B-8085	2 90
3	Upper Slide Bar only, for single movement.....	16-B-9246	1 20
3a	Slide Bar for single movement, complete, with lugs, roller, locking dogs, contact block, nut locks, cap screws, stud and rivets (1-3, 1-4, 2-7, 1-15, 1-8, 1-9, 1-22, 2-23, 2-24, 1-19, 4-20, 6-21, Plate 01669).....	14-C-6140	6 00
4	Lower Slide Bar only, for single movement.....	17-B-9246	1 30
5	Upper Slide Bar only, for tandem movements....	26-B-9246	2 22
5a	Slide Bar, for tandem movement having indication box, complete, with lugs, rollers, locking dogs, contact block, nut locks, cap screws, studs and rivets (1-5, 1-6, 2-7, 2-15, 2-8, 1-10, 1-22, 2-23, 2-24, 2-19, 4-20, 9-21, Plate 01669)..	20-C-6140	10 70

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENTS
AND INDICATION BOX**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

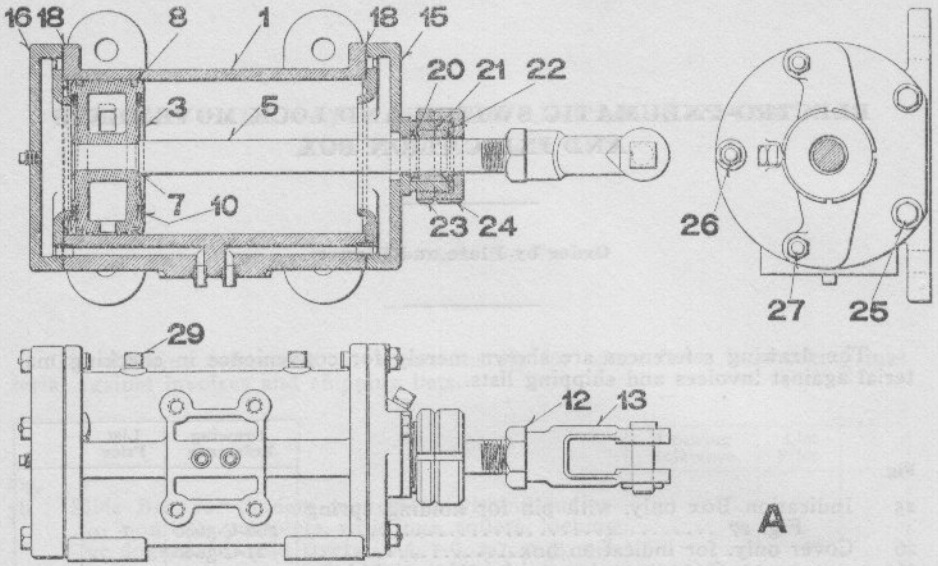
Fig.		Drawing Reference	List Price
5b	Slide Bar, for tandem movement without indication box, complete, with lugs, rollers, locking dogs, studs and rivets (1-5, 1-6, 2-7, 2-15, 2-8, 1-10, 2-19, 4-20, 9-21, Plate 01669).....	20a-C-6140	9 70
6	Lower Slide Bar only, for tandem movements....	27-B-9246	2 22
7	Lug for slide bars.....	4-B-8401	60
8	Locking Dog for upper slide bars Figs. 3 and 5....	1-C-6261	28
9	Locking Dog for lower slide bar Fig. 4.....	2-C-6261	22
10	Locking Dog for lower slide bar Fig. 6.....	14-C-6261	24
11	Cap for switch crank and intermediate guide roller	2-C-6229	1 10
12	Cap for guide rollers.....	1-C-6229	48
13	Yoke for lock rod guide rollers.....	4-C-6229	44
14	Guide Roller	12-B-8065	36
15	Operating Roller for slide bar.....	11-B-8065	36
16	Stud, 1 $\frac{1}{4}$ "x5 $\frac{1}{4}$ ", with cotter, for switch crank....	1a-B-8091	36
17	Stud, 1"x6", with $\frac{5}{8}$ inch hex. nut, for guide roller	3a-B-8090	30
18	Stud, 1"x4 $\frac{1}{8}$ ", for intermediate guide roller.....	2-B-8090	16
19	Stud, 1"x2 $\frac{15}{16}$ ", for operating roller of slide bar.	1-B-8090	16
20	Rivet, $\frac{1}{2}$ "x3", for fastening lug Fig. 7 to slide bar Price per hundred.....		3 00
21	Rivet, $\frac{1}{2}$ "x1", for fastening locking dogs to slide bars. Price per hundred.....		1 00
22	Contact Block, for slide bar, complete, with insulating block, contact plate, tap bolts and rivets	23-C-3680	90
23	Nut Lock for contact block.....	21-B-8486	02
24	Tap Bolt, $\frac{1}{4}$ "x $\frac{5}{8}$ ", for fastening contact block to slide bar. Price per hundred.....		2 00

**ELECTRO-PNEUMATIC SWITCH AND LOCK MOVEMENTS
AND INDICATION BOX**

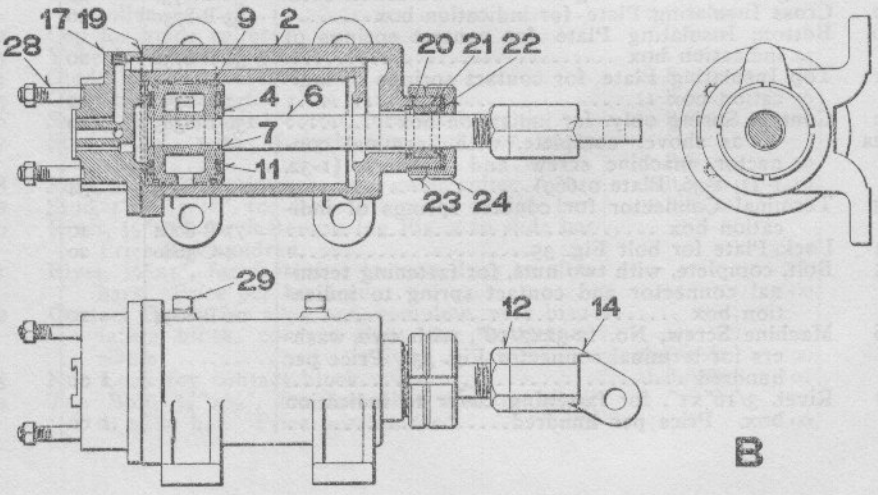
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
25	Indication Box only, with pin for holding spring Fig. 27	20a-C-3680	1 10
26	Cover only, for indication box.....	21-C-3680	72
26a	as above, complete, with spring and rivets for fastening to indication box (I-26, I-27, 2-37, Plate 01669).....	21a-C-3680	1 00
27	Spring for fastening cover to indication box, complete, with two rivets for fastening to cover	7a-B-8735	24
28	Longitudinal Insulating Plate for indication box.	38-B-8750	22
29	Cross Insulating Plate for indication box.....	183-B-8750	16
30	Bottom Insulating Plate for contact springs of indication box	36-B-8750	20
31	Top Insulating Plate for contact springs of indi- cation box	33-B-8750	22
32	Contact Spring only, for indication box.....	156-B-8385	20
32a	as above, complete, with terminal con- nector, machine screw and washers (I-32, I-33, I-36, Plate 01669).....	156a-B-8385	34
33	Terminal Connector for contact springs of indi- cation box	72-B-8064	10
34	Lock Plate for bolt Fig. 35.....	4-C-3680	20
35	Bolt, complete, with two nuts, for fastening termi- nal connector and contact spring to indica- tion box	2a-B-8094	10
36	Machine Screw, No. 12-32x7/16", with two wash- ers for terminal connector Fig. 33. Price per hundred		2 00
37	Rivet, 3/16"x1", for fastening cover to indication box. Price per hundred.....		1 00



A



B

ELECTRO-PNEUMATIC SWITCH CYLINDERS

ELECTRO-PNEUMATIC SWITCH CYLINDERS

Switch Valves for cylinders listed below are shown on Plate 01673.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	5-inch Switch Cylinder, complete, as shown, with heads, stuffing box, gaskets, bolts, nuts, piston complete, and oil plugs (1-1, 1-15a, 1-16, 2-18, 4-25, 2-26, 4-27, 1-3a, 4-29, Plate 01671).	1-C-5065	39 00
Aa	6-inch Switch Cylinder, complete, as above, (1-1a, 1-15c, 1-16a, 2-18a, 4-25, 2-26, 4-27, 1-3c, 4-29, Plate 01671).....	3-C-5065	41 00
Ab	6½-inch Switch Cylinder, complete, as above, (1-1b, 1-15e, 1-16b, 2-18b, 4-25, 2-26, 4-27, 1-3e, 4-29, Plate 01671).....	5-C-5065	43 00
Ac	7½-inch Switch Cylinder, complete, as above, (1-1c, 1-15g, 1-16c, 2-18c, 4-25, 6-26, 1-3g, 4-29, Plate 01671).....	7-C-5065	51 00
B	4"x5" Direct Acting Switch Cylinder, complete, as shown, with head, gasket, stuffing box, piston complete, studs and oil plugs (1-2, 1-17, 1-19, 1-20, 1-21, 1-22, 1-23, 1-24, 1-4a, 4-28, 4-29, Plate 01671).....	10-C-5065	39 00
I	5-inch Cylinder only.....	2-C-5065	12 80
1a	6-inch Cylinder only.....	4-C-5065	13 20
1b	6½-inch Cylinder only.....	6-C-5065	14 30
1c	7½-inch Cylinder only.....	8-C-5065	16 00
2	4-inch Direct Acting Cylinder only.....	11-C-5065	11 34
3	Piston only, for 5-inch cylinder.....	5-B-8328	6 90
3a	as above, complete, with piston rings, gaskets, lead washer, piston rod, screw jaw, lock nut, pin and cotter (1-3, 2-8, 2-10, 1-7, 1-5, 1-13, 1-12, Plate 01671).....	1-B-9885	13 20
3b	Piston only, for 6-inch cylinder.....	2-B-8328	6 90

ELECTRO-PNEUMATIC SWITCH CYLINDERS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

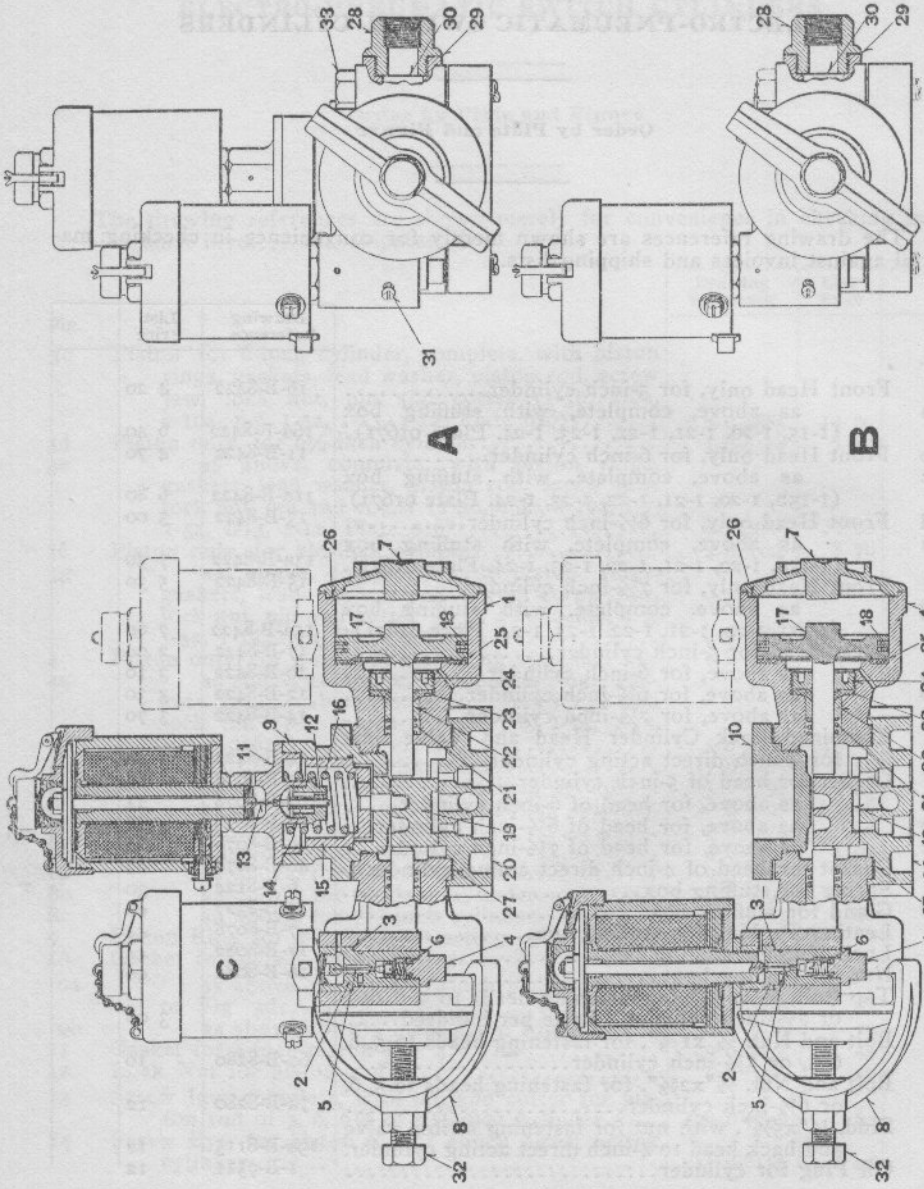
Fig.	Description	Drawing Reference	List Price
3c	Piston for 6-inch cylinder, complete, with piston rings, gaskets, lead washer, piston rod, screw jaw, lock nut, pin and cotter (1-3b, 2-8a, 2-10a, 1-7, 1-5a, 1-13, 1-12, Plate 01671).....	2-B-9885	13 20
3d	Piston only, for 6½-inch cylinder.....	3-B-8328	7 60
3e	as above, complete, with piston rings, gaskets, lead washer, piston rod, screw jaw, lock nut, pin and cotter (1-3d, 2-8b, 2-10a, 1-7, 1-5a, 1-13, 1-12, Plate 01671).....	3-B-9885	16 00
3f	Piston only, for 7½-inch cylinder.....	4-B-8328	8 70
3g	as above, complete, with piston rings, gaskets, lead washer, piston rod, screw jaw, lock nut, pin and cotter (1-3f, 2-8c, 2-10b, 1-7, 1-5a, 1-13, 1-12, Plate 01671).....	4-B-9885	18 30
4	Piston only, for 4-inch direct acting cylinder.....	6-B-8328	5 00
4a	as above, complete, with piston rings, gaskets, lead washer, piston rod, screw eye and lock nut (1-4, 2-9, 2-11, 1-7, 1-6, 1-14, 1-12, Plate 01671).....	5-B-9885	13 20
5	Piston Rod for 5-inch cylinder.....	17-B-8195	1 50
5a	as above, for 6, 6½ or 7½-inch cylinder..	5-B-8195	1 50
6	as above, for 4-inch direct acting cylinder.	20-B-8195	1 46
7	Lead Washer for piston rod.....	4-B-8274	02
8	Piston Ring for 5-inch cylinder.....	4-B-8197	1 00
8a	as above, for 6-inch cylinder.....	9-B-8197	1 30
8b	as above, for 6½-inch cylinder.....	8-B-8197	1 40
8c	as above, for 7½-inch cylinder.....	10-B-8197	1 60
9	Piston Ring for 4-inch direct acting cylinder....	3-B-8197	1 00
10	Gasket for 5-inch piston Fig. 3.....	50-B-8078	46
10a	as above, for 6 or 6½-inch piston Fig. 3b or Fig. 3d.....	106-B-8078	62
10b	as above, for 7½ inch piston Fig. 3f.....	130-B-8078	70
11	Gasket for 4-inch piston Fig. 4.....	49-B-8078	44
12	Lock Nut for piston rod.....	8-B-8205	20
13	Screw Jaw, complete, with pin and cotter for piston rod of 5, 6, 6½ or 7½-inch cylinder....	49a-B-7742	82
14	Screw Eye for piston rod of 4-inch direct acting cylinder.....	13-B-8150	1 00

ELECTRO-PNEUMATIC SWITCH CYLINDERS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
15	Front Head only, for 5-inch cylinder.....	16-B-8422	4 20
15a	as above, complete, with stuffing box (1-15, 1-20, 1-21, 1-22, 1-23, 1-24, Plate 01671).	16a-B-8422	6 40
15b	Front Head only, for 6-inch cylinder.....	11-B-8422	4 70
15c	as above, complete, with stuffing box (1-15b, 1-20, 1-21, 1-22, 1-23, 1-24, Plate 01671).	11a-B-8422	6 80
15d	Front Head only, for 6½-inch cylinder.....	13-B-8422	5 00
15e	as above, complete, with stuffing box (1-15d, 1-20, 1-21, 1-22, 1-23, 1-24, Plate 01671).	13a-B-8422	7 30
15f	Front Head only, for 7½-inch cylinder.....	15-B-8422	5 30
15g	as above, complete, with stuffing box (1-15f, 1-20, 1-21, 1-22, 1-23, 1-24, Plate 01671).	15a-B-8422	7 60
16	Back Head for 5-inch cylinder.....	17-B-8422	2 90
16a	as above, for 6-inch cylinder.....	10-B-8422	3 10
16b	as above, for 6½-inch cylinder.....	12-B-8422	3 30
16c	as above, for 7½-inch cylinder.....	14-B-8422	3 70
17	Combined Back Cylinder Head and Valve Seat for 4-inch direct acting cylinder.....	24-B-8422	13 20
18	Gasket for head of 5-inch cylinder.....	183-B-8078	22
18a	as above, for head of 6-inch cylinder.....	107-B-8078	24
18b	as above, for head of 6½-inch cylinder...	108-B-8078	26
18c	as above, for head of 7½-inch cylinder...	109-B-8078	30
19	Gasket for head of 4-inch direct acting cylinder..	48-B-8078	22
20	Spring for stuffing box.....	6-B-8124	30
21	Gland for stuffing box.....	2-B-8327	08
22	Leather Packing for stuffing box.....	7-B-8078	44
23	Lock Nut for stuffing box.....	17-B-8082	44
24	Nut for stuffing box.....	16-B-8082	90
25	Tap Bolt, ½"x1½", for fastening heads to 5, 6, 6½, or 7½-inch cylinder. Price per hundred.....		3 00
26	Bolt and Nut, ½"x1¾", for fastening heads to 5, 6, 6½, or 7½-inch cylinder.....	6a-B-8280	10
27	Bolt and Nut, ½"x2⅝", for fastening heads to 5, 6, or 6½-inch cylinder.....	7a-B-8280	12
28	Stud, ½"x5½", with nut for fastening switch valve and back head to 4-inch direct acting cylinder.	19a-B-8115	12
29	Oil Plug for cylinder.....	1-B-9511	12



ELECTRO-PNEUMATIC SWITCH VALVES

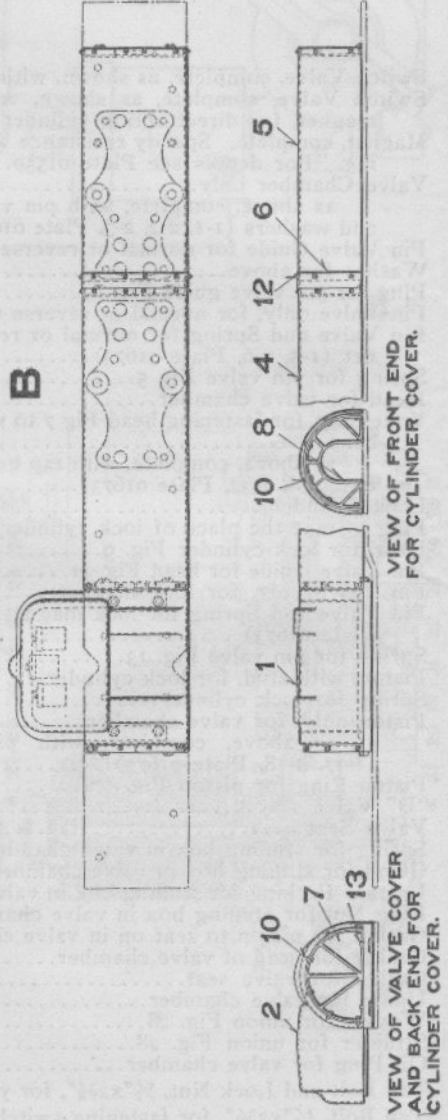
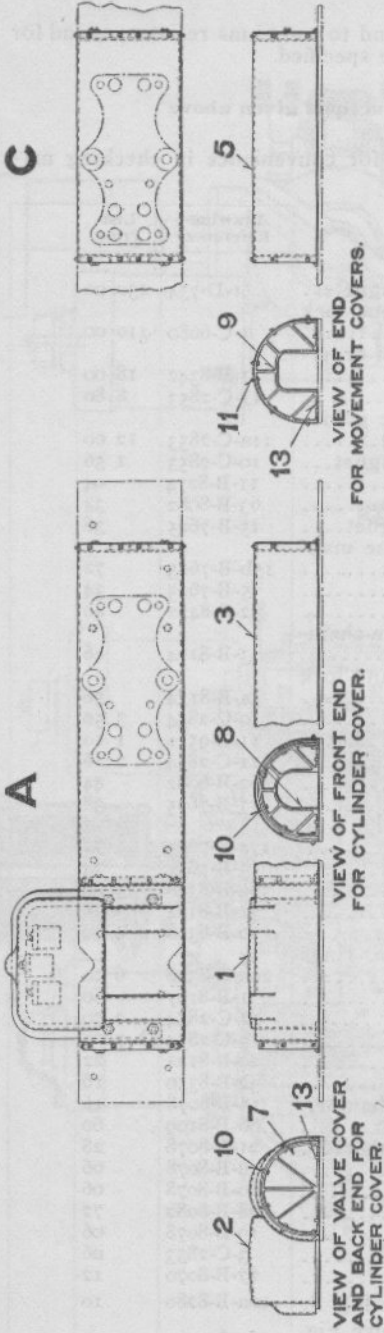
ELECTRO-PNEUMATIC SWITCH VALVES

Magnets for switch valve Fig. A are wound to 120 ohms resistance, and for Fig. B, to 400 ohms resistance unless otherwise specified.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Switch Valve, complete, as shown, with magnets..	1-D-734	130 00
B	Switch Valve, complete, as shown, without lock magnet, for direct acting cylinder.....	1-C-6680	110 00
C	Magnet, complete. Specify resistance when ordering. For details see Plate 01559.....	1-B-8342	18 00
1	Valve Chamber only.....	11-C-2853	8 80
1a	as above, complete, with pin valve guides and washers (1-1, 2-2, 2-3, Plate 01673).....	11a-C-2853	12 00
2	Pin Valve Guide for normal or reverse magnet...	10-C-2853	1 56
3	Washer for above.....	11-B-8274	04
4	Plug for pin valve guide Fig. 2.....	63-B-8082	34
5	Pin Valve only, for normal or reverse magnet....	15-B-7625	38
5a	Pin Valve and Spring for normal or reverse magnet (1-5, 1-6, Plate 01673).....	15b-B-7625	72
6	Spring for pin valve Fig 5.....	5-B-7625	34
7	Head for valve chamber.....	32-B-8422	40
8	Yoke only, for fastening head Fig 7 to valve chamber	3-B-8174	46
8a	as above, complete, with tap bolt and lock nut (1-8, 1-32, Plate 01673).....	3a-B-8174	56
9	Lock Cylinder	10-C-2854	3 50
10	Plug to take the place of lock cylinder.....	11-B-9511	1 10
11	Head for lock cylinder Fig. 9.....	11-C-2854	2 16
12	Pin Valve Guide for head Fig. 11.....	62-B-8082	44
13	Pin Valve only, for lock magnet.....	17-B-7625	38
13a	Pin Valve and Spring for lock magnet (1-13, 1-14, Plate 01673)	17a-B-7625	72
14	Spring for pin valve Fig. 13.....	3-B-7625	34
15	Piston, with stud, for lock cylinder.....	30a-B-8328	3 20
16	Spring for lock cylinder.....	31-B-8124	36
17	Piston only, for valve chamber.....	20-B-8328	4 60
17a	as above, complete, with piston rings (1-17, 2-18, Plate 01673).....	20a-B-8328	6 20
18	Piston Ring for piston Fig. 17.....	1-B-8197	80
19	"D" Valve	12-C-2854	2 70
20	Valve Seat	9-C-2854	7 00
21	Spring for stuffing box in valve chamber.....	20-B-8124	22
22	Gland for stuffing box in valve chamber.....	32-B-8350	16
23	Leather Packing for stuffing box in valve chamber.	18-B-8078	16
24	Ring Nut for stuffing box in valve chamber.....	86-B-8109	60
25	Gasket for piston to seat on in valve chamber....	21-B-8078	28
26	Gasket for head of valve chamber.....	20-B-8078	06
27	Gasket for valve seat.....	60-B-8078	06
28	Union for valve chamber.....	28-B-8082	72
29	Washer for union Fig. 28.....	19-B-8078	06
30	Strainer for union Fig. 28.....	3-C-2853	06
31	Oil Plug for valve chamber.....	17-B-8070	12
32	Tap Bolt and Lock Nut, 1/2"x2 3/8", for yoke Fig. 8.	10a-B-8280	10
33	Tap Bolt, 1/2"x3 5/8", for fastening switch valve Fig. A to cylinder.....	9-B-8280	06



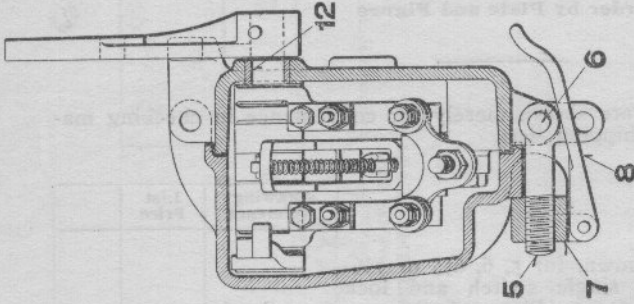
COVERS FOR ELECTRO-PNEUMATIC SWITCH CYLINDERS AND SWITCH AND LOCK MOVEMENTS

COVERS FOR ELECTRO-PNEUMATIC SWITCH CYLINDERS
AND SWITCH AND LOCK MOVEMENTS

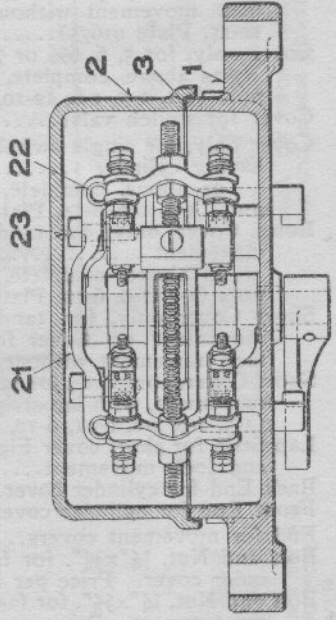
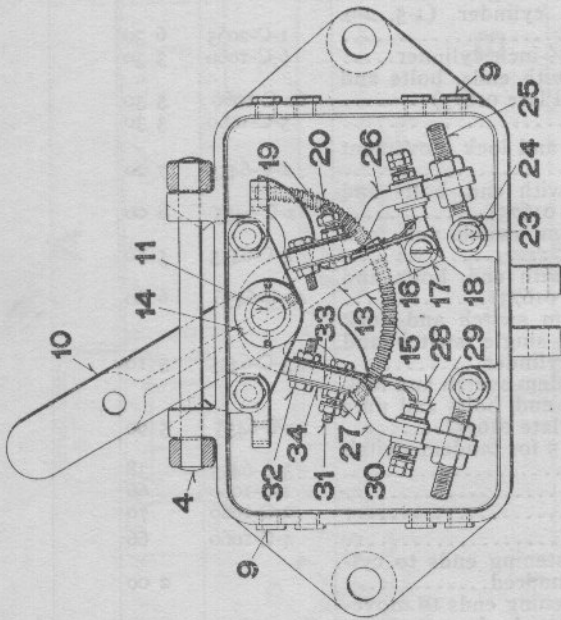
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Covers, complete, as shown, for 5, 6, 6½ or 7½-inch cylinder and single switch and lock movement (1-1a, 1-2, 1-3a, Plate 01675).....	3-C-2065	15 00
B	Covers, complete, as shown, for 6½ or 7½-inch cylinder and tandem switch and lock movement (1-1a, 1-2, 1-4a, 1-5a, Plate 01675).....	4-C-2065	21 00
C	Cover, complete, as shown, for single switch and lock movement without cylinder (1-5, 2-9, 12-11, Plate 01675).....	1-C-2065	6 30
1	Cover only, for 5, 6, 6½ or 7½-inch cylinder.....	6-C-1060	3 30
1a	as above, complete, with ends, bolts and nuts (1-1, 1-7, 1-8, 12-10, Plate 01675).....	6a-C-1060	5 30
2	Cover for switch valve.....	5-C-1060	3 30
3	Cover only, for single switch and lock movement having cylinder	1-C-6455	7 20
3a	as above, complete, with end, bolts and nuts (1-3, 1-9, 6-11, Plate 01675).....	1a-C-6455	8 00
4	Long Cover only, for tandem switch and lock movement	4-C-6455	5 80
4a	as above, complete, with end, bolts and nuts (1-4, 1-9, 6-11, Plate 01675).....	4a-C-6456	6 60
5	Short Cover only, for tandem switch and lock movement or Cover for single switch and lock movement without cylinder.....	3-C-6455	5 10
5a	Short Cover, complete, for tandem switch and lock movement, with lap strip, end, bolts and nuts (1-5, 1-9, 1-6, 6-11, 6-12, Plate 01675).....	3a-C-6455	5 90
6	Lap Strip for short cover Fig. 5 for tandem switch and lock movement.....	5-C-6455	38
7	Back End for cylinder cover.....	1-C-1060	66
8	Front End for cylinder cover.....	2-C-1060	70
9	End for movement covers.....	4-C-1060	66
10	Bolt and Nut, ¼"x¾", for fastening ends to cylinder cover. Price per hundred.....		2 00
11	Bolt and Nut, ¼"x⅝", for fastening ends to movement covers. Price per hundred.....		2 00
12	Bolt and Nut, ¼"x½", for fastening lap strip Fig. 6 to short cover Fig. 5, for tandem switch and lock movement		2 00
13	Dowel Pin, for holding cover in place on iron base plate. Price per hundred.....		6 00



A



ROTARY SWITCH CIRCUIT CONTROLLER FOR DIRECT ACTING ELECTRO-PNEUMATIC SWITCH MOVEMENTS

**ROTARY SWITCH CIRCUIT CONTROLLER FOR
DIRECT ACTING ELECTRO-PNEUMATIC
SWITCH MOVEMENTS**

For application see Plate 01657.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Rotary Switch Circuit Controller, complete, as shown	1-C-5083	41 00
1	Case	1-C-5095	3 90
2	Cover	1-C-5709	1 90
3	Gasket for cover.....	120-B-8078	20
4	Hinge Pin, 1/2"x7 1/4", for fastening cover to case..	72-B-8058	08
5	Eye bolt, for fastening cover to case.....	10-B-8034	10
6	Pin, 1/2"x2-3/16", for fastening eye bolt Fig. 5 to case	13-B-8058	04
7	Nut for eye bolt Fig. 5.....	9-B-8082	20
7a	as above, complete, with hasp and rivet (1-7, 1-8, Plate 01677).....	9a-B-8082	56
8	Hasp, complete, with rivet for fastening to nut Fig. 7	1a-B-8299	34
9	Bushing for wire openings in case.....	69-B-8100	04
10	Arm for operating shaft, complete, with pin for fastening to shaft.....	21a-B-8192	60
11	Shaft	5-C-5095	42
12	Bushing for shaft.....	33-B-8350	18
13	Operating Arm only.....	2-C-5095	82
13a	as above, complete, with set screw for fastening to shaft (1-13, 1-14, Plate 01677)...	2a-C-5095	86

**ROTARY SWITCH CIRCUIT CONTROLLER FOR
DIRECT ACTING ELECTRO-PNEUMATIC
SWITCH MOVEMENTS**

For application see Plate 01657.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
14	Set Screw for fastening operating arm to shaft...	8-C-5095	04
15	Operating Yoke only.....	3-C-5709	2 00
15a	as above, complete, with operating block, insulating bushings and screws (1-15, 1-16, 2-17, 3-18, Plate 01677).....	3a-C-5709	2 96
16	Operating Block for contact springs.....	4-C-5095	60
17	Insulating Bushing for operating block Fig. 16...	83-B-8100	04
18	Special Screw, No. 10-32x5/16", for fastening insulating bushings to operating block and operating block to operating yoke. Price per hundred	89-B-8098	4 00
19	Spring Support, for operating yoke, complete, with two 1/16"x3/4" cotters.....	6a-C-5095	36
20	Spring for operating yoke.....	77-B-7770	16
21	Top Bearing for shaft.....	3-C-5095	1 30
22	Insulating Bushing for wire openings in top bearing Fig. 21.....	45-B-8100	04
23	Tap Bolt, 5/8"x1 1/8", for fastening top bearing Fig. 21 and eye bolt Fig. 25 to case. Price per hundred		3 00
24	Plate Washer, 5/8 inch, for eye bolt Fig. 25. Price per hundred		2 00
25	Eye Bolt, complete, with four 3/8 inch lock nuts for adjusting contact brackets.....	17-B-8150	34

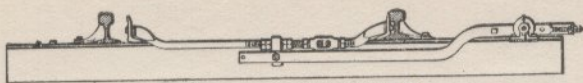
**ROTARY SWITCH CIRCUIT CONTROLLER FOR
DIRECT ACTING ELECTRO-PNEUMATIC
SWITCH MOVEMENTS**

For application see Plate 01657.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

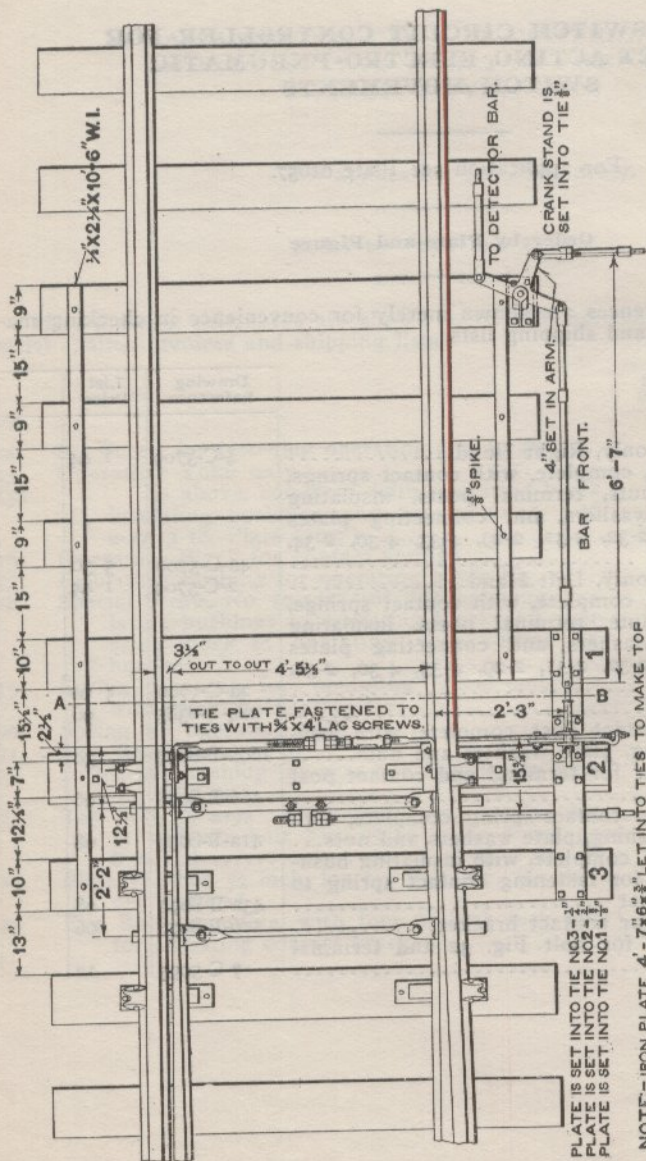
Fig.		Drawing Reference	List Price
26	Contact Bracket only, Right Hand.....	4-C-5709	1 44
26a	as above, complete, with contact springs, bolts and nuts, terminal posts, insulating plates and washers, and connecting plates (1-26, 2-28, 2-32, 2-31, 2-29, 4-33, 4-30, 2-34, Plate 01677)	4a-C-5709	5 50
27	Contact Bracket only, Left Hand.....	2-C-5709	1 44
27a	as above, complete, with contact springs, bolts and nuts, terminal posts, insulating plates and washers, and connecting plates (1-27, 2-28, 2-32, 2-31, 2-29, 4-33, 4-30, 2-34, Plate 01677)	2a-C-5709	5 50
28	Contact Spring	284-B-8385	96
29	Terminal and Contact Post, complete, with insulating bushing, plate washers and nuts.....	160a-B-8094	30
30	Insulating Washer for terminal and contact post Fig. 29	166-B-8078	06
31	Terminal Post, for contact spring, complete, with insulating bushing, plate washers and nuts...	41a-B-8094	08
32	Bolt, No. 10-32x1", complete, with insulating bushing and nut for fastening contact spring to contact bracket	43a-B-8094	08
33	Insulating Plate for contact bracket.....	116-B-8078	06
34	Connecting Plate for bolt Fig. 32 and terminal post Fig. 31.....	7-C-5095	12



SECTION THROUGH A-B



SECTION OF HEAD TIE DIMENSIONED.



NOTE—DETECTOR BAR OPERATING ROD ABOUT 7'-0" LONG. DETECTOR BAR—2 3/4 X 60'-0" LONG (IN 3 PIECES WITH LAP SPLICES) 14 TO 15 DETECTOR BAR RAIL CLIPS TO A BAR.

SIZE OF RAIL TO BE SPECIFIED WHEN ORDERING. THIS LAYOUT SET DOES NOT INCLUDE DETECTOR BAR RAIL CLIPS.

NOTE—IRON PLATE 4'-7 X 6 1/2" LET INTO TIES TO MAKE TOP OF PLATE FLUSH WITH TOP OF HEAD TIE. 2'-3 X 2" LOCK CASTING BOLTED TO PLATE WITH 2-3/8 X 2" BOLTS, AND 2-3/8 X 4-1/2" LAG SCREWS INTO TIES. 3/4" LAG SCREWS TO SECURE PLATE TO THE OTHER TIES.

NOTE—2-3/8 X 3" REINFORCEMENT STRIP ON OUTSIDE OF SWITCH POINT TO BE CUT OFF 2 7/8" FROM THE POINT. CENTRE OF FIRST TWO RIVETS IN POINT. BASE OF RAIL 1 1/4" FOR 100LB RAIL, 1 1/2" FOR 85 LB RAIL.

A MECHANICAL LAYOUT FOR A NON-INSULATED SINGLE SWITCH WITH PLUNGER LOCK AND ONE DETECTOR BAR AHEAD OF POINTS

**MECHANICAL LAYOUT FOR A NON-INSULATED
SINGLE SWITCH WITH PLUNGER LOCK
AND ONE DETECTOR BAR AHEAD
OF POINTS**

This layout, complete, includes head switch rod. It does not include second and back switch rods or detector bar rail clips.
When ordering specify weight of rail.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- A Mechanical Layout for a non-insulated single switch with plunger lock and one detector bar ahead of points. No detector bar rail clips. When ordering, specify weight of rail.....
Assemblage:—Iron base plate for supporting plunger lock on ties; tie plate with riser plates and two rail braces; plunger lock; switch operating rod; head switch rod; front and lock rods; crank stand with three-arm crank; three solid jaws and one screw jaw with pins and cotters; 50-foot detector bar with driving piece; two pieces of strap iron, $2\frac{1}{2}'' \times \frac{1}{2}''$; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price
1-C-6945	96 00

NOTE--DETECTOR BAR OPERATING ROD ABOUT 7'-0" LONG--
DETECTOR BAR-2 1/2" X 1/4" X 50'-0" LONG (IN 3 PIECES
WITH LAP SPLICES) 14 TO 16 DETECTOR BAR RAIL
CLIPS TO A BAR.

NOTE--IRON PLATE 4'-7" 8 1/2" LET INTO TIES
TO MAKE TOP OF PLATE FLUSH WITH
TOP OF HEAD TIE.
LOCK CASTING BOLTED TO PLATE
WITH 2-3/4" X 2" BOLTS & 2-3/4" X 4 1/2"
SCREWS INTO TIES. 3/4" X 3/4" LAG SCREWS
TO SECURE PLATE TO OTHER TIES.

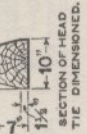
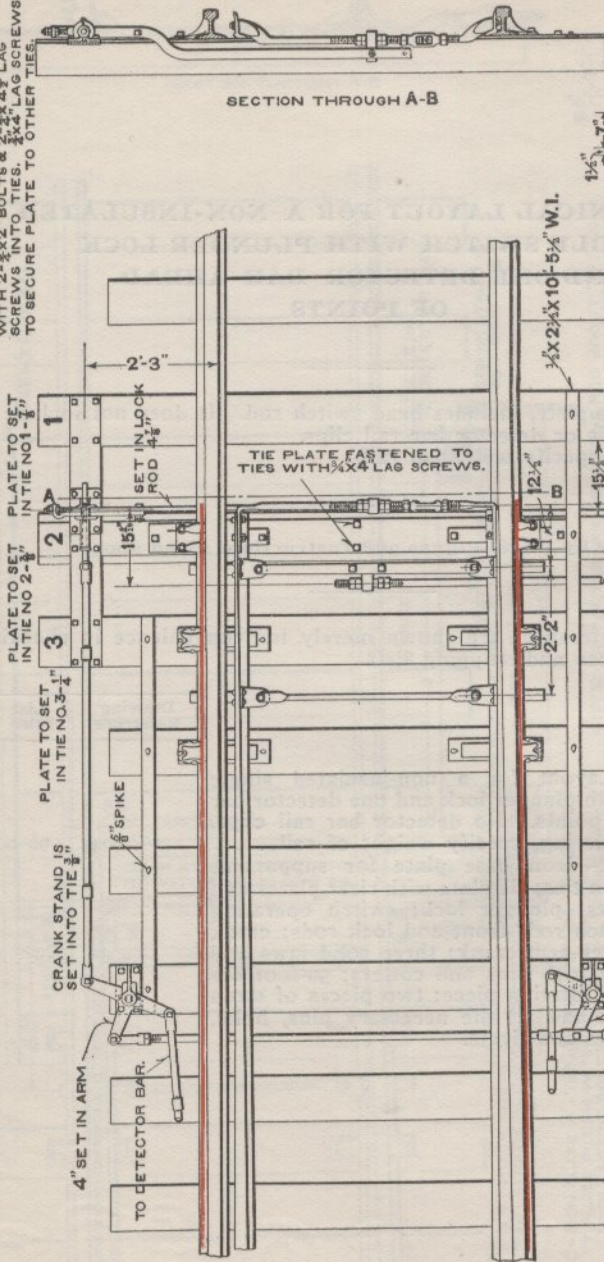


PLATE TO SET IN TIE NO 1-1 1/2"

PLATE TO SET IN TIE NO 2-1 1/2"

PLATE TO SET IN TIE NO 3-1 1/2"

CRANK STAND IS SET INTO TIE 3/8"

4" SET IN ARM TO DETECTOR BAR.

CRANK STAND IS SET INTO TIE 3/8"

TIE PLATE FASTENED TO TIES WITH 3/4" X 4" LAG SCREWS.

3/4" X 2 1/2" X 10'-5 1/2" W.I.

RIGHT HAND LAYOUT.

SIZE OF RAIL TO BE SPECIFIED IN ORDERING. THIS LAYOUT COMPLETE DOES NOT INCLUDE DETECTOR BAR CLIPS.

NOTE--2 1/2" X 3/8" REINFORCEMENT STRIP ON OUTSIDE OF SWITCH POINT TO BE CUT OFF 2 7/8" FROM THE POINT, CENTER OF THE FIRST TWO RIVETS IN POINT RAIL, FROM BASE OF RAIL--1 1/8" FOR TOOL RAIL, 1 1/2" FOR 85 LB. RAIL.

A

RIGHT HAND MECHANICAL LAYOUT FOR A NON-INSULATED SINGLE SWITCH WITH PLUNGER LOCK AND TWO DETECTOR BARS BACK OF POINTS

RIGHT-HAND MECHANICAL LAYOUT FOR A NON-INSULATED SINGLE SWITCH WITH PLUNGER LOCK AND TWO DETECTOR BARS BACK OF POINTS

This layout, complete, includes head switch rod. It does not include second and back switch rods or detector bar rail clips.

This layout is identical with the left hand layout shown on Plate 01683, except that the two arm cranks which operate detector bars have set in opposite arms.

When ordering, specify weight of rail.

Order by Plate, Figure and Instructions given above

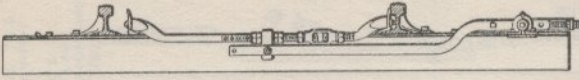
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

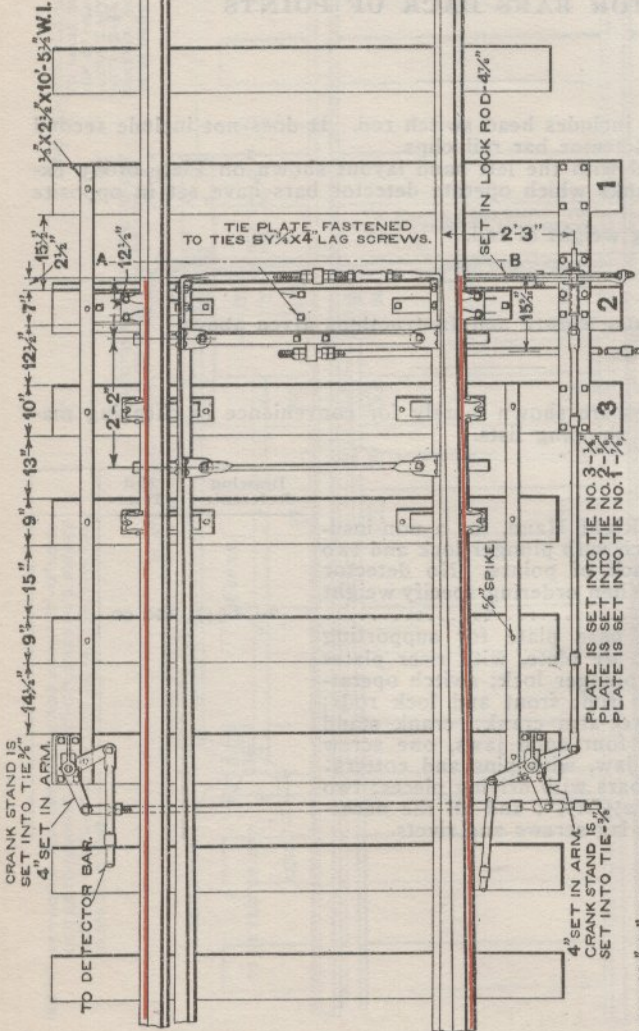
A Mechanical Layout, Right Hand, for a non-insulated single switch with plunger lock and two detector bars back of points. No detector bar rail clips. When ordering specify weight of rail.....

Assemblage:—Iron base plate for supporting plunger lock on ties; tie plate, with riser plates and two rail braces; plunger lock; switch operating rod; head switch rod; front and lock rods; crank stand with three-arm crank; crank stand with two-arm crank; four solid jaws, one screw jaw and one double jaw, with pins and cotters; two 50-foot detector bars with driving pieces; two pieces of strap iron, 2½"x½"; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price	
2-C-6947	120 00	



SECTION THROUGH A-B



CRANK STAND IS SET INTO TIE $\frac{1}{4}$ " $\frac{1}{4}$ " SET IN ARM.

TO DETECTOR BAR.

TIE PLATE, FASTENED TO TIES BY $\frac{1}{4}$ " X 4" LAG SCREWS.

SET IN LOCK ROD- $4\frac{1}{2}$ "

$4\frac{1}{2}$ " SET IN ARM - CRANK STAND IS SET INTO TIE- $\frac{1}{4}$ "

PLATE IS SET INTO TIE NO. 3 $\frac{1}{4}$ " - $\frac{1}{4}$ " PLATE IS SET INTO TIE NO. 1 $\frac{1}{4}$ "

NOTE- $2\frac{3}{4}$ " X $\frac{3}{8}$ " REINFORCEMENT STRIP, ON OUT SIDE OF SWITCH POINT, TO BE CUT OFF 27" FROM THE POINT. CENTER OF FIRST TWO RIVETS IN POINT RAIL, FROM BASE OF RAIL IS $1\frac{1}{8}$ " FOR 100 LB. RAIL AND $1\frac{1}{4}$ " FOR 85 LB. RAIL.

NOTE-DETECTOR BAR OPERATING ROD ABOUT 7'-0" LONG-DETECTOR BAR IS $2\frac{1}{2}$ " X $\frac{3}{8}$ " X 50'-0" LONG (IN 3 PIECES WITH LAP SPLICES) 14 TO 15 DETECTOR BAR RAIL CLIPS TO A BAR.

NOTE-IRON PLATE $4\frac{1}{2}$ " X $6\frac{3}{4}$ " LET INTO TIES TO MAKE TOP OF PLATE FLUSH WITH TOP OF HEAD TIE. LOCK CASTING BOLTED TO PLATE WITH $2\frac{1}{2}$ " X 2" BOLTS AND $2\frac{3}{4}$ " X $\frac{3}{4}$ " LAG SCREWS INTO TIE. $\frac{3}{4}$ " X 4" LAG SCREWS TO SECURE PLATE TO OTHER TIES.

LEFT HAND LAYOUT
SIZE OF RAIL TO BE SPECIFIED WHEN ORDERING
THIS LAYOUT COMPLETE DOES NOT INCLUDE
DETECTOR BAR RAIL CLIPS.

A



SECTION OF HEAD THE DIMENSIONS.

LEFT HAND MECHANICAL LAYOUT FOR A NON-INSULATED SINGLE SWITCH WITH PLUNGER LOCK AND TWO DETECTOR BARS BACK OF POINTS

LEFT-HAND MECHANICAL LAYOUT FOR A NON-INSULATED SINGLE SWITCH WITH PLUNGER LOCK AND TWO DETECTOR BARS BACK OF POINTS

This layout, complete, includes head switch rod. It does not include second and back switch rods or detector bar rail clips.

This layout is identical with the right hand layout shown on Plate 01681, except that the two arm cranks which operate detector bars have set in opposite arms.

When ordering, specify weight of rail.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

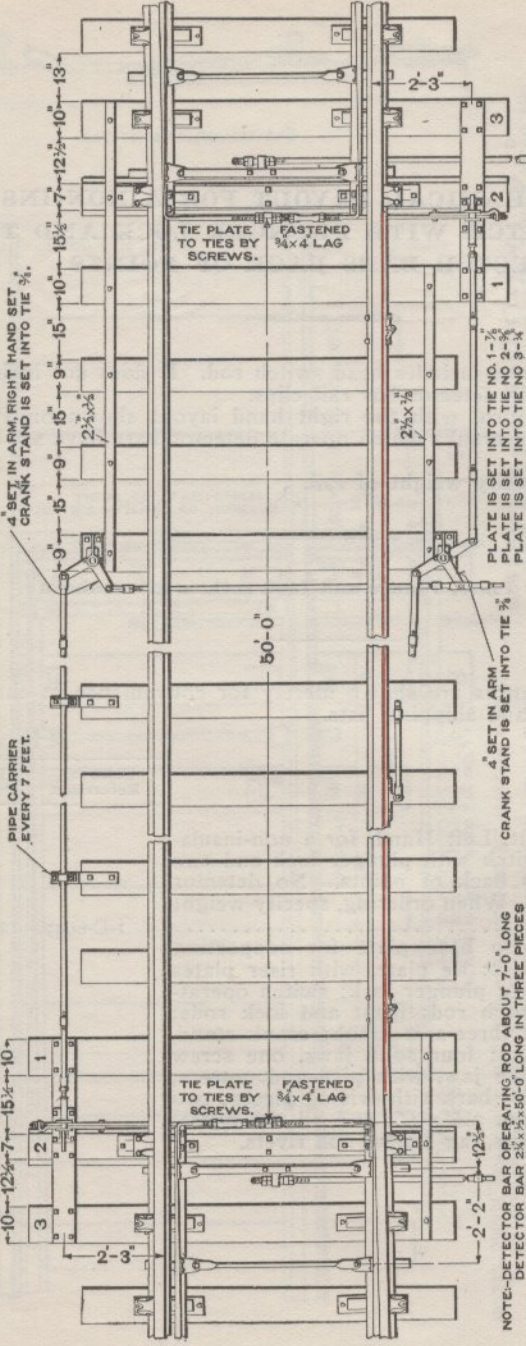
- A Mechanical Layout, Left Hand, for a non-insulated single switch with plunger lock and two detector bars back of points. No detector bar rail clips. When ordering, specify weight of rail.....

Assemblage:—Iron base plate for supporting plunger lock on ties; tie plate, with riser plates and two rail braces; plunger lock; switch operating rod; head switch rod; front and lock rods; crank stand, with three-arm crank; crank stand, with two-arm crank; four solid jaws, one screw jaw and one double jaw, with pins and cotters; two 50-foot detector bars with driving pieces; two pieces of strap iron, 2½" x ½"; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price	
1-C-6947	120 00	

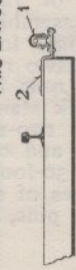
NOTE: IRON PLATE $4\text{'}-7\text{'}\times 6\text{'}\frac{1}{2}$ " FOR SUPPORTING PLUNGER LOCK; SET INTO TIES TO MAKE TOP OF PLATE FLUSH WITH TOP OF HEAD OF PLUNGER LOCK. IRON PLATE $2\text{'}\frac{1}{2}\text{'}\times 6\text{'}\frac{1}{2}$ " FOR SUPPORTING PLUNGER LOCK; SET INTO TIES TO MAKE TOP OF PLATE FLUSH WITH TOP OF HEAD OF PLUNGER LOCK. IRON PLATE $2\text{'}\frac{1}{2}\text{'}\times 6\text{'}\frac{1}{2}$ " FOR SUPPORTING PLUNGER LOCK; SET INTO TIES TO MAKE TOP OF PLATE FLUSH WITH TOP OF HEAD OF PLUNGER LOCK. IRON PLATE $2\text{'}\frac{1}{2}\text{'}\times 6\text{'}\frac{1}{2}$ " FOR SUPPORTING PLUNGER LOCK; SET INTO TIES TO MAKE TOP OF PLATE FLUSH WITH TOP OF HEAD OF PLUNGER LOCK.

PLATE IS SET INTO TIE NO. 1 - $\frac{3}{4}$ "
PLATE IS SET INTO TIE NO. 2 - $\frac{3}{4}$ "
PLATE IS SET INTO TIE NO. 3 - $\frac{3}{4}$ "

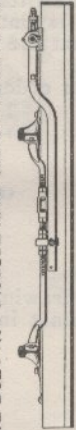


NOTE: DETECTOR BAR OPERATING ROD ABOUT 7'-0" LONG
DETECTOR BAR $2\frac{1}{2}\text{'}\times 5\text{'}\times 50\text{'}$ LONG IN THREE PIECES
WITH LAP SPLICES - 14 TO 15 DETECTOR BAR RAIL
CLIPS TO A BAR.

NOTE: IRON PLATE $4\text{'}-7\text{'}\times 6\text{'}\frac{1}{2}$ " LET INTO TIES TO MAKE TOP OF PLATE FLUSH WITH TOP OF HEAD TIE.



VIEW SHOWING PIPE CARRIER ON ENDS OF TIE.



VIEW SHOWING HEAD SWITCH TIE AND FRONT AND LOCK RODS.

SIZE OF RAIL TO BE SPECIFIED WHEN ORDERING
THIS LAYOUT COMPLETE DOES NOT INCLUDE RAIL CLIPS FOR DETECTOR BAR.



PLATE IS SET INTO TIE NO. 1 - $\frac{3}{4}$ "
PLATE IS SET INTO TIE NO. 2 - $\frac{3}{4}$ "
PLATE IS SET INTO TIE NO. 3 - $\frac{3}{4}$ "

TIE PLATE FASTENED TO TIES BY $\frac{3}{4}\text{'}\times 4\text{'}$ LAG SCREWS.

4" SET IN ASM. RIGHT HAND SET CRANK STAND IS SET INTO TIE $\frac{3}{4}$ "

4" SET IN ASM. CRANK STAND IS SET INTO TIE $\frac{3}{4}$ "

SECTION OF HEAD TIE DIMENSIONED.

MECHANICAL LAYOUT FOR TWO PLUNGER LOCKS AND ONE DETECTOR BAR OPERATED BY ONE LEVER; LOCKING TWO NON-INSULATED SWITCHES

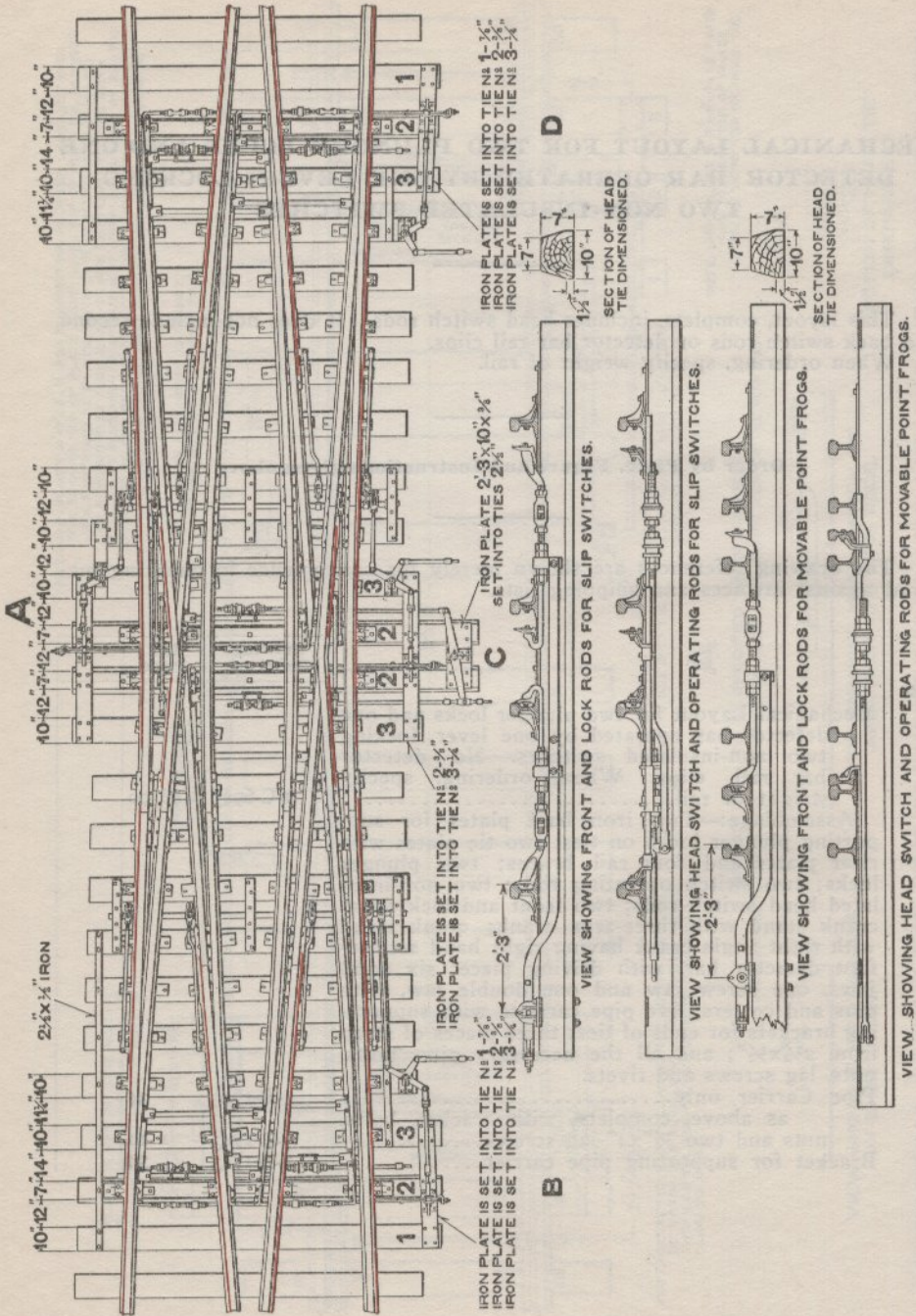
**MECHANICAL LAYOUT FOR TWO PLUNGER LOCKS AND ONE
DETECTOR BAR OPERATED BY ONE LEVER; LOCKING
TWO NON-INSULATED SWITCHES**

This layout, complete, includes head switch rods. It does not include second and back switch rods or detector bar rail clips.
When ordering, specify weight of rail.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Mechanical Layout for two plunger locks and one detector bar operated by one lever, locking two non-insulated switches. No detector bar rail clips. When ordering, specify weight of rail.....	1-C-6943	186 00
	Assemblage:—Two iron base plates for supporting plunger locks on ties; two tie plates with riser plates and four rail braces; two plunger locks; two switch operating rods; two non-insulated head switch rods; two front and lock rods; crank stand with three-arm crank; crank stand with right angle crank having right hand set; 50-foot detector bar, with driving piece; six solid jaws, one screw jaw and one double jaw, with pins and cotters; five pipe carriers with supporting brackets for ends of ties; three pieces of strap iron, 2½x½"; and all the necessary pins, bolts, nuts, lag screws and rivets.		
1	Pipe Carrier only.....	1-B-1743	34
1a	as above, complete, with bracket, bolts, nuts and two ¾"x4" lag screws.....	7-B-1743	1 10
2	Bracket for supporting pipe carrier.....	8-B-1743	34



MECHANICAL LAYOUTS FOR ONE END OF A NON-INSULATED DOUBLE SLIP CROSSING,
FOR NON-INSULATED MOVABLE POINT FROGS, AND FOR THE OTHER
END OF THE DOUBLE SLIP CROSSING

MECHANICAL LAYOUTS FOR ONE END OF A NON-INSULATED DOUBLE SLIP CROSSING, FOR NON-INSULATED MOVABLE POINT FROGS, AND FOR THE OTHER END OF THE DOUBLE SLIP CROSSING

Layouts shown on the opposite plate do not include tie plates, riser plates, rail braces, switch rods or detector bar rail clips.

When ordering Fig. D, specify whether a right or left hand layout is desired. The difference between right and left hand layouts is the set in the arm of the right angle crank.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Layouts for one end of a non-insulated double slip crossing, for non-insulated movable point frogs, and for the other of the double slip crossing. No detector bar rail clips. When ordering, specify whether in Fig D right or left hand layout is desired. The layout Fig. D shown on the opposite plate is left hand. Assemblage:—Four iron base plates for supporting plunger locks on ties; four plunger locks; switch operating rods; front and lock rods; two crank stands with three-arm cranks; one crank stand with two-arm crank; two straight arm compensators with plates for fastening to ties; two rocking shafts with arms, bearings and plates for fastening to ties; four 50-foot detector bars and eight short lengths with driving pieces; connecting rods between plunger locks and crank stands, between crank stands and rocking shafts, and between rocking shafts and detector bars; 2½" x ½" strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets	1-E-2303	484 00
B	Layout for one end of a non-insulated double slip crossing having four detector bars. No detector bar rail clips..... Assemblage:—Iron base plate for supporting plunger lock on ties; plunger lock; switch operating rods; front and lock rods; crank stand with three-arm crank; rocking shaft with arms, bearings and plates for fastening to ties; two 50-foot detector bars and two short lengths with driving pieces; connecting rods between plunger lock and crank stand, between crank stand and rocking shaft, and between rocking shaft and detector bars; 2½" x ½" strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets.	2-E-2303	172 00

**MECHANICAL LAYOUTS FOR ONE END OF A NON-INSULATED
DOUBLE SLIP CROSSING, FOR NON-INSULATED
MOVABLE POINT FROGS, AND FOR THE
OTHER END OF THE DOUBLE
SLIP CROSSING**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- C Layout for non-insulated movable point frogs having eight detector bars. No detector bar rail clips.....
Assemblages:—Two iron base plates for supporting plunger locks on ties; two plunger locks; switch operating rods; front and lock rods; crank stand with three-arm crank; two straight arm compensators with plates for fastening to ties; rocking shaft with arms, bearings and plates for fastening to ties; two 50-foot detector bars and six short lengths with driving pieces; connecting rods between plunger locks and crank stands, between crank stands and rocking shaft, and between rocking shaft and detector bars; $2\frac{1}{2}$ "x $\frac{1}{2}$ " strap iron; and all the necessary pins, bolts, nuts, lag screws and rivets.

Drawing Reference	List Price
3-E-2303	246 00

**MECHANICAL LAYOUTS FOR ONE END OF A NON-INSULATED
DOUBLE SLIP CROSSING, FOR NON-INSULATED
MOVABLE POINT FROGS AND FOR THE
OTHER END OF THE DOUBLE
SLIP CROSSING**

Order by Plate and Figure

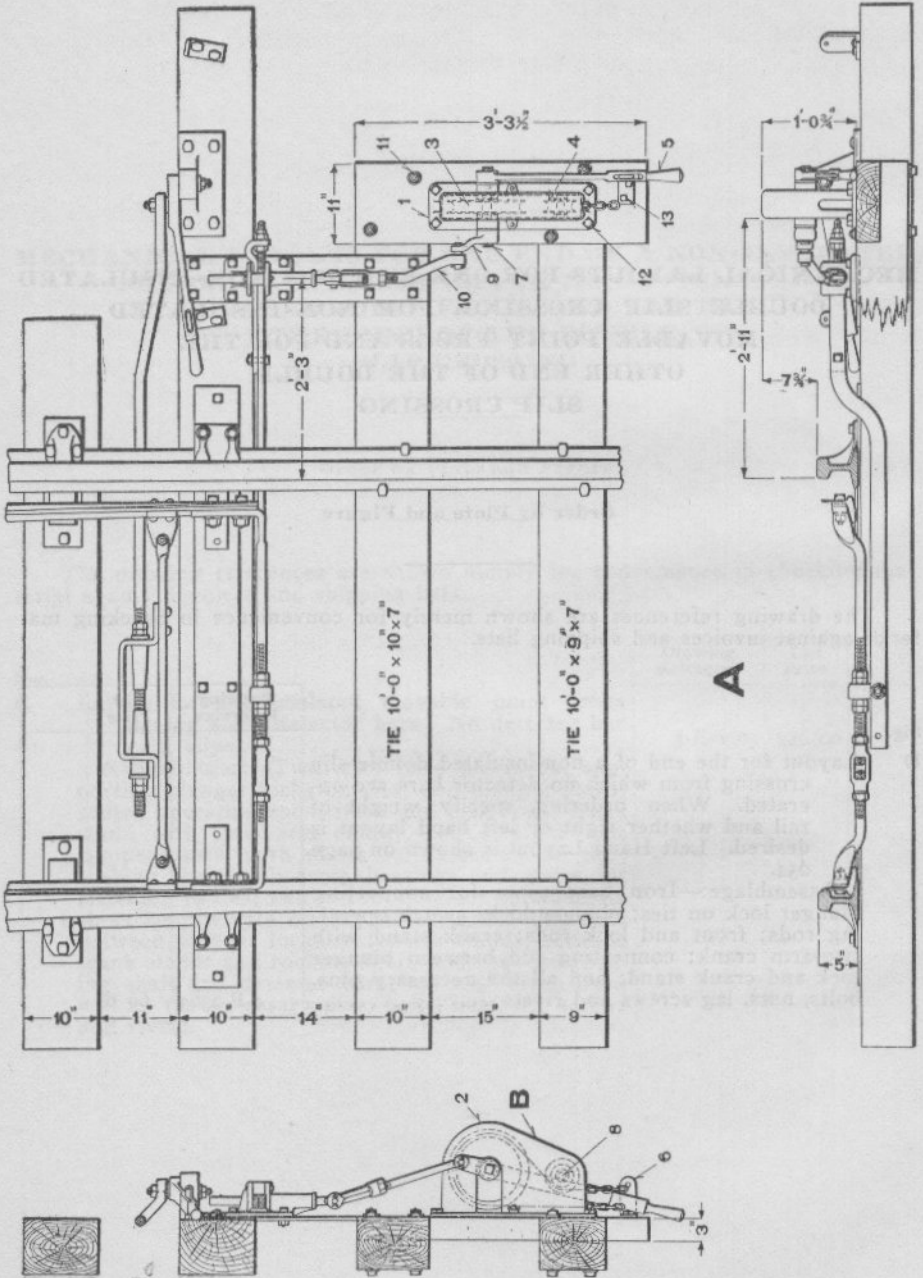
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

D Layout for the end of a non-insulated double slip crossing from which no detector bars are operated. When ordering, specify weight of rail and whether right or left hand layout is desired. Left Hand Layout is shown on page 254.

Assemblage:—Iron base plate for supporting plunger lock on ties; plunger lock; switch operating rods; front and lock rods; crank stand with two-arm crank; connecting rod between plunger lock and crank stand; and all the necessary pins, bolts, nuts, lag screws and rivets.....

Drawing Reference	List Price
4-E-2303	66 00



LAYOUT FOR A FACING POINT SWITCH CONTROLLING A DISTANT SIGNAL

LAYOUT FOR A FACING POINT SWITCH CONTROLLING
A DISTANT SIGNAL

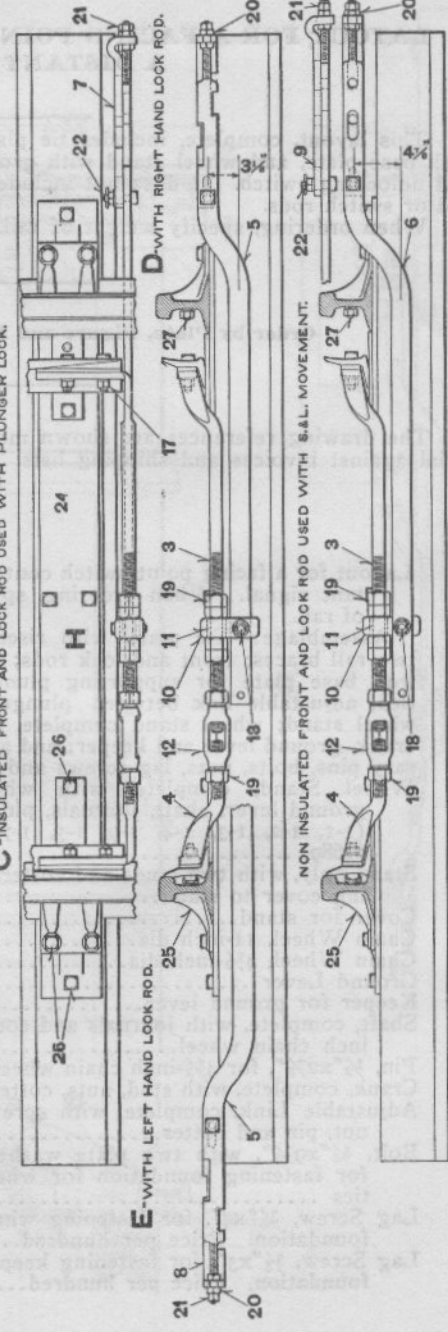
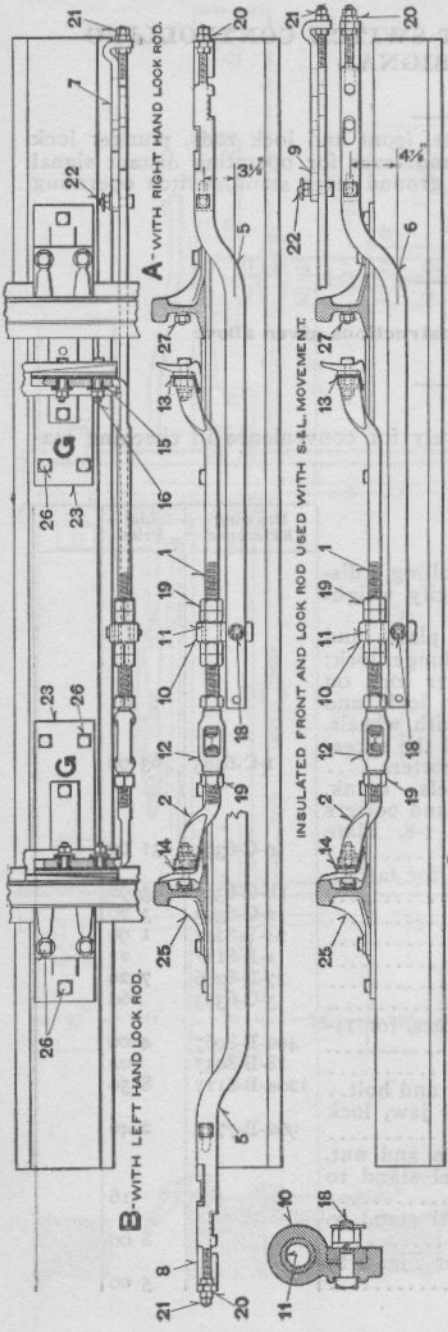
This layout, complete, includes tie plate, front and lock rods, plunger lock with base plate, and wheel stand with ground lever for operating distant signal and unlocking switch. It does not include ground lever stand, switch operating rod or switch rods.

When ordering, specify weight of rail.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Layout for a facing point switch controlling a distant signal. When ordering, specify weight of rail. Assemblage:—Tie plate, with riser plates and two rail braces; front and lock rods; plunger lock; iron base plate for supporting plunger lock on ties; adjustable link between plunger lock and wheel stand; wheel stand complete, with wheels, crank, ground lever and keeper; and all the necessary pins, bolts, nuts, lag screws and cotters.....	I-C-6285	63 00
B	Wheel Stand, complete, with wheels, crank, ground lever, shaft, journals, pin and cotters (I-1, I-2, I-3, I-4, I-9, I-5, I-7, I-8, Plate 01689)	1a-C-6393	31 00
1	Stand only, with two studs and cotters for fastening cover to stand.....	1b-C-6393	3 90
2	Cover for stand.....	2-C-6393	3 20
3	Chain Wheel, 11-inch dia.....	24-B-8141	1 90
4	Chain Wheel, 4½-inch dia.....	1-B-8141	22
5	Ground Lever	17-B-8266	7 20
6	Keeper for ground lever.....	3-C-6393	60
7	Shaft, complete, with journals and cotters, for 11-inch chain wheel.....	40a-B-8067	4 00
8	Pin, ½"x2⅞", for 4½-inch chain wheel.....	18-B-8057	04
9	Crank, complete, with stud, nuts, cotter and bolt..	120a-B-8117	8 50
10	Adjustable Link, complete, with screw jaw, lock nut, pin and cotter.....	96a-B-7725	2 40
11	Bolt, ¾"x9¾", with two plate washers and nut, for fastening foundation for wheel stand to ties		16
12	Lag Screw, ¾"x4", for fastening wheel stand to foundation. Price per hundred.....		8 00
13	Lag Screw, 5/8"x3", for fastening keeper Fig. 6 to foundation. Price per hundred.....		5 00



F - NON INSULATED FRONT AND LOCK ROD USED WITH PLUNGER LOCK.

FRONT AND LOCK RODS, AND TIE PLATES FOR INSULATED AND NON-INSULATED SINGLE SWITCHES

FRONT AND LOCK RODS, AND TIE PLATES FOR INSULATED AND NON-INSULATED SINGLE SWITCHES

Front Rods listed below are for 85 lb. and 100 lb. P. R. R. rail.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Insulated Front and Lock Rods, Right Hand, complete, as shown, for single switch having No. 14 switch and lock movement (1-1a, 1-5a, Plate 01691)	33a-B-7955	18 20
B	Insulated Front and Lock Rods, Left Hand, complete, as shown, for single switch having No. 14 switch and lock movement (1-1a, 1-5b, Plate 01691)	33b-B-7955	18 20
C	Insulated Front and Lock Rods, Right or Left Hand, complete, as shown, for single switch having plunger lock (1-1a, 1-6a, Plate 01691)	33c-B-7955	17 20
D	Non-Insulated Front and Lock Rods, Right Hand, complete, as shown, for single switch having No. 14 switch and lock movement (1-3a, 1-5a, Plate 01691)	3a-B-9161	16 00
E	Non-Insulated Front and Lock Rods, Left Hand, complete, as shown, for single switch having No. 14 switch and lock movement (1-3a, 1-5b, Plate 01691)	3b-B-9161	16 00
F	Non-Insulated Front and Lock Rods, Right or Left Hand, complete, as shown, for single switch having plunger lock (1-3a, 1-6a, Plate 01691)	3c-B-9161	15 00
G	Tie Plate, complete, for 100 lb. P. R. R. rail, for an insulated single switch, including riser plates, rail braces, lag screws, bolts and nuts (2-23, 2-25, 12-26, 2-27, Plate 01691)	9b-B-8317	13 40
Ga	as above, for 85 lb. P. R. R. rail (2-23a, 2-25a, 12-26, 2-27a, Plate 01691)	10b-B-8317	13 40
H	Tie Plate, complete, for 100 lb. P. R. R. rail, for a non-insulated single switch, including riser plates, rail braces, lag screws, bolts and nuts (1-24, 2-25, 10-26, 2-27, Plate 01691)	8b-B-8317	13 72
Ha	as above, for 85 lb. P. R. R. rail (1-24a, 2-25a, 10-26, 2-27a, Plate 01691)	7b-B-8317	13 72
r	Front Rod Foot, Right Hand, for insulated front rods, shown in Figs A, B and C	30-B-8182	2 90

FRONT AND LOCK RODS, AND TIE PLATES FOR INSULATED AND NON-INSULATED SINGLE SWITCHES

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

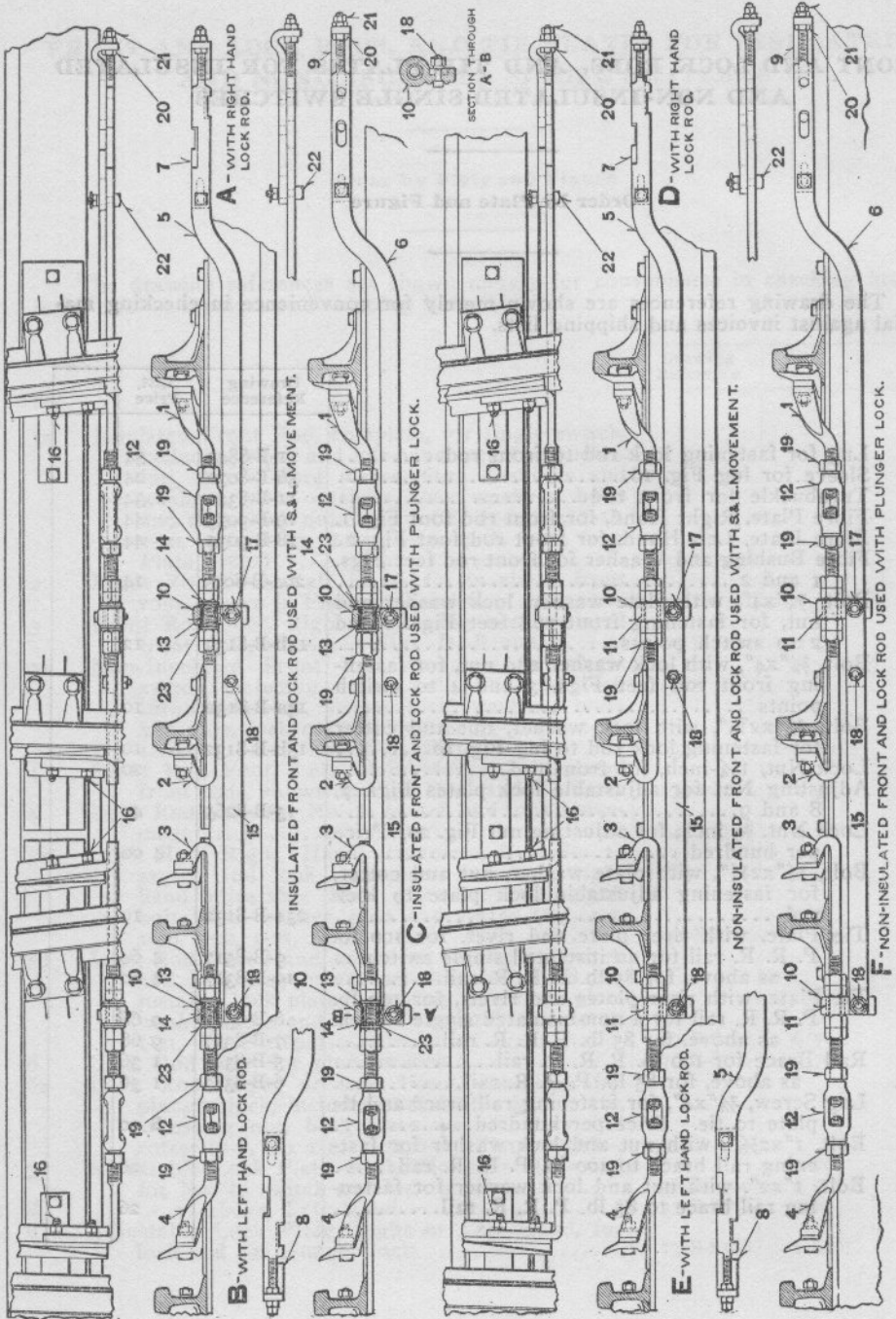
Fig.	Description	Drawing Reference	List Price
1a	Insulated Front Rod, complete, for single switch, including right and left hand feet, turnbuckle, lug, sleeve, fibre plates, fibre bushings and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotter (1-1, 1-2, 1-12, 1-10, 1-11, 1-13, 1-14, 4-15, 4-16, 1-18, 6-19, Plate 01691)	33-B-7955	11 44
2	Front Rod Foot, Left Hand, for insulated front rods, shown in Figs. A, B and C.....	60-B-8181	2 30
3	Front Rod Foot, Right Hand, for non-insulated front rods, shown in Figs. D, E and F.....	37-B-8132	2 90
3a	Non-Insulated Front Rod, complete, for single switch, including right and left hand feet, turnbuckle, lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-3, 1-4, 1-12, 1-10, 1-11, 4-17, 1-18, 6-19, Plate 01691).....	3-B-9161	9 20
4	Front Rod Foot, Left Hand, for non-insulated front rods, shown in Figs D, E and F.....	83-B-8181	2 30
5	Lock Rod only, for No. 14 switch and lock movement	54-B-8166	4 20
5a	Lock Rod, Right Hand, complete, for No. 14 switch and lock movement, including right hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-5, 1-7, 1-20, 1-22, 1-21, Plate 01691).....	54a-B-8166	6 76
5b	Lock Rod, Left Hand, complete, for No. 14 switch and lock movement, including left hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-5, 1-8, 1-20, 1-22, 1-21, Plate 01691).....	57-B-8166	6 76
6	Lock Rod only, for plunger lock.....	74-B-8166	3 70
6a	Lock Rod, Right or Left Hand, complete, for plunger lock, including adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-6, 1-9, 1-20, 1-22, 1-21, Plate 01691) ..	74a-B-8166	
7	Adjustable Lock Plate, Right Hand, for lock rod for No. 14 switch and lock movement.....	36-B-8166	5 76
8	as above, Left Hand.....	35-B-8166	2 06
9	Adjustable Lock Plate, Right or Left Hand, for lock rod for plunger lock.....	73-B-8166	1 62

FRONT AND LOCK RODS, AND TIE PLATES FOR INSULATED AND NON-INSULATED SINGLE SWITCHES

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
10	Lug for fastening lock rod to front rod.....	1-B-8842	54
11	Sleeve for lug Fig. 10.....	56-B-8072	24
12	Turnbuckle for front rod.....	11-B-8321	1 34
13	Fibre Plate, Right Hand, for front rod foot Fig. 1.	19-B-9035	44
14	Fibre Plate, Left Hand, for front rod foot Fig. 2.	18-B-9035	44
15	Fibre Bushing and Washer for front rod feet Figs. 1 and 2.....	20a-B-8095	14
16	Bolt, 3/4"x4", with plate washer, lock washer and nut, for fastening front rod feet Figs. 1 and 2 to switch points.....	14b-B-8132	12
17	Bolt, 3/4"x4", with lock washer and nut, for fastening front rod feet Figs. 3 and 4 to switch points.....	14a-B-8132	10
18	Bolt, 3/4"x2 7/8", with lock washer, nut and cotter for fastening lock rod to lug Fig. 10.....	15b-B-8132	10
19	Lock Nut, 1 1/4-inch, for front rod.....		20
20	Adjusting Nut for adjustable lock plates Figs. 7, 8 and 9.....	15-B-8265	40
21	Lock Nut, 3/4 inch, for adjusting nut Fig. 20. Price per hundred.....		4 00
22	Bolt, 3/4"x2 3/4", with plate washer, nut and cotter, for fastening adjustable lock plate to lock rod.....	23a-B-8132	10
23	Tie Plate, with riser plate and rivet, for 100 lb. P. R. R. rail for an insulated single switch...	9-B-8317	4 60
23a	as above, for 85 lb. P. R. R. rail.....	10-B-8317	4 60
24	Tie Plate, with riser plates and rivets, for 100 lb. P. R. R. rail for a non-insulated single switch.	8-B-8317	9 68
24a	as above, for 85 lb. P. R. R. rail.....	7-B-8317	9 68
25	Rail Brace for 100 lb. P. R. R. rail.....	5-B-8343	1 36
25a	as above, for 85 lb. P. R. R. rail.....	6-B-8343	1 36
26	Lag Screw, 3/4"x4", for fastening rail brace and tie plate to tie. Price per hundred.....		8 00
27	Bolt, 1"x2 1/8", with nut and lock washer for fastening rail brace to 100 lb. P. R. R. rail.....		26
27a	Bolt, 1"x2", with nut and lock washer for fastening rail brace to 85 lb. P. R. R. rail.....		26



FRONT AND LOCK RODS FOR INSULATED AND NON-INSULATED SLIP SWITCHES

**FRONT AND LOCK RODS FOR INSULATED AND
NON-INSULATED SLIP SWITCHES**

Front Rods listed below are for 85 lb. and 100 lb. P. R. R. rail.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Insulated Front and Lock Rods, Right Hand, complete, as shown, for slip switches having No. 14 switch and lock movements (1-1a, 1-3a, 1-5a, 1-15, 1-18, Plate 01693).....	35-B-7955	38 10
B	Insulated Front and Lock Rods, Left Hand, complete, as shown, for slip switches having No. 14 switch and lock movements (1-1a, 1-3a, 1-5b, 1-15, 1-18, Plate 01693).....	35a-B-7955	38 10
C	Insulated Front and Lock Rods, Right or Left Hand, complete, as shown, for slip switches having plunger locks (1-1a, 1-3a, 1-6a, 1-15, 1-18, Plate 01693).....	35b-B-7955	37 10
D	Non-Insulated Front and Lock Rods, Right Hand, complete, as shown, for slip switches having No. 14 switch and lock movements (1-1b, 1-3b, 1-5a, 1-15, 1-18, Plate 01693).....	4-B-9161	36 10
E	Non-Insulated Front and Lock Rods, Left Hand, complete, as shown, for slip switches having No. 14 switch and lock movements (1-1b, 1-3b, 1-5b, 1-15, 1-18, Plate 01693).....	4a-B-9161	36 10
F	Non-Insulated Front and Lock Rods, Right or Left Hand, complete, as shown, for slip switches having plunger locks (1-1b, 1-3b, 1-6a, 1-15, 1-18, Plate 01693).....	4b-B-9161	35 10
I	Front Rod Foot, Right Hand, for right hand front rods	85-B-8181	3 00
1a	Insulated Front Rod, complete, Right Hand, for slip switches, including right and left hand feet, turnbuckle, lug, sleeve, fibre sleeve and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotter (1-1, 1-2, 1-12, 1-10, 1-14, 1-13, 2-23, 4-16, 1-17 or 1-18, 6-19, Plate 01693)	35c-B-7955	14 76
1b	Non-Insulated Front Rod, complete, Right Hand, for slip switches, including right and left hand feet, turnbuckle, lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-1, 1-2, 1-12, 1-10, 1-11, 4-16, 1-17 or 1-18, 6-19, Plate 01693)	4c-B-9161	13 76

**FRONT AND LOCK RODS FOR INSULATED AND
NON-INSULATED SLIP SWITCHES**

Order by Plate and Figure.

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

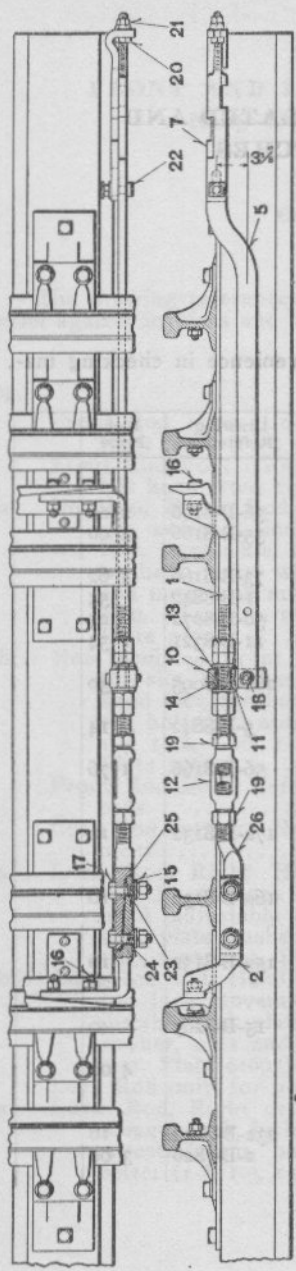
Fig.		Drawing Reference	List Price
2	Front Rod Foot (Goose Neck), Left Hand, for right hand front rods.....	33-B-8182	7 20
3	Front Rod Foot (Goose Neck), Right Hand, for left hand front rods.....	32-B-8182	7 20
3a	Insulated Front Rod, complete, Left Hand, for slip switches, including right and left hand feet, turnbuckle, lug, sleeve, fibre sleeve and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotter (1-3, 1-4, 1-12, 1-10, 1-14, 1-13, 2-23, 4-16, 1-17 or 1-18, 6-19, Plate 01693)	35d-B-7955	14 76
3b	Non-Insulated Front Rod, complete, Left Hand, for slip switches, including right and left hand feet, turnbuckle, lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-3, 1-4, 1-12, 1-10, 1-11, 4-16, 1-17 or 1-18, 6-19, Plate 01693)	4d-B-9161	13 76
4	Front Rod Foot, Left Hand, for left hand front rods	86-B-8181	3 00
5	Lock Rod only, for No. 14 switch and lock movement	54-B-8166	4 20
5a	Lock Rod, Right Hand, complete, for No. 14 switch and lock movement, including right hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-5, 1-7, 1-20, 1-22, 1-21, Plate 01693).....	54a-B-8166	6 76
5b	Lock Rod, Left Hand, complete, for No. 14 switch and lock movement, including left hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-5, 1-8, 1-20, 1-22, 1-21, Plate 01693).....	57-B-8166	6 76
6	Lock Rod only, for plunger lock.....	74-B-8166	3 70
6a	Lock Rod, Right or Left Hand, complete, for plunger lock, including adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-6, 1-9, 1-20, 1-22, 1-21, Plate 01693)...	74a-B-8166	5 76

**FRONT AND LOCK RODS FOR INSULATED AND
NON-INSULATED SLIP SWITCHES**

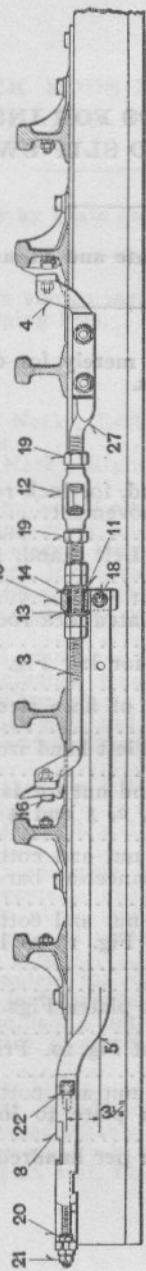
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

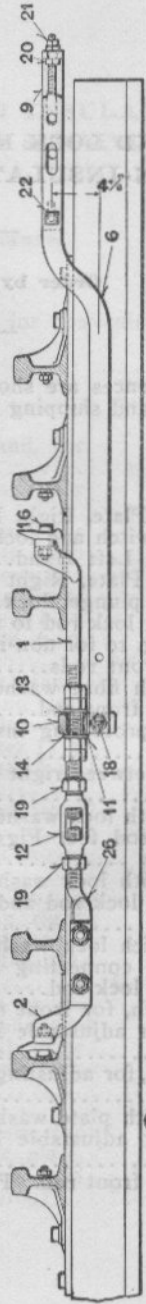
Fig.		Drawing Reference	List Price
7	Adjustable Lock Plate, Right Hand, for lock rod, for No. 14 switch and lock movement.....	36-B-8166	2 06
8	as above, Left Hand.....	35-B-8166	2 06
9	Adjustable Lock Plate, Right or Left Hand, for lock rod, for plunger lock.....	73-B-8166	1 62
10	Lug for fastening lock rod to front rod.....	1-B-8842	54
11	Sleeve for lug Fig. 10 for non-insulated lock rods.	56-B-8072	24
12	Turnbuckle for front rods.....	11-B-8321	1 34
13	Fibre Sleeve, with fibre washers for lug Fig. 10 for insulated front rod.....	26a-B-8095	30
14	Steel Sleeve for protecting inside of fibre sleeve Fig. 13	5-B-8842	14
15	Connecting Bar between right and left hand front rods	56-B-8166	1 76
16	Bolt, $\frac{3}{4}$ "x $3\frac{1}{2}$ ", with lock washer and nut for fastening front rod feet Figs. 1, 2, 3 and 4 to switch points	17a-B-8132	10
17	Bolt, $\frac{3}{4}$ "x $3\frac{5}{8}$ ", with lock washer, nut and cotter, for fastening lock rod and connecting bar to lug Fig. 10.....	16a-B-8132	10
18	Bolt, $\frac{3}{4}$ "x $2\frac{7}{8}$ ", with lock washer, nut and cotter, for fastening connecting bar Fig. 15 to lug Fig. 10 or to lock rod.....	15a-B-8132	10
19	Lock Nut, $1\frac{1}{4}$ -inch, for front rods.....		20
20	Adjusting Nut for adjustable lock plates Figs. 7, 8 and 9.....	15-B-8265	40
21	Lock Nut, $\frac{3}{4}$ -inch, for adjusting nut Fig. 20. Price per hundred		4 00
22	Bolt, $\frac{3}{4}$ "x $2\frac{3}{4}$ ", with plate washer, nut and cotter, for fastening adjustable lock plate to lock rod	23a-B-8132	10
23	Plate Washer for front rod. Price per hundred..	2-B-7826	3 00



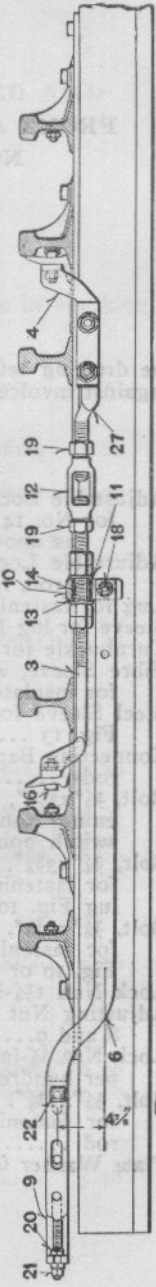
A - RIGHT HAND INSULATED FRONT AND LOCK RODS FOR FROG POINTS WITH N:14 S&L MOVEMENT.



B - LEFT HAND INSULATED FRONT AND LOCK RODS FOR FROG POINTS WITH N:14 S&L MOVEMENT.



C - RIGHT HAND INSULATED FRONT AND LOCK RODS FOR FROG POINTS WITH PLUNGER LOCK.



D - LEFT HAND INSULATED FRONT AND LOCK RODS FOR FROG POINTS WITH PLUNGER LOCK.

INSULATED FRONT AND LOCK RODS FOR MOVABLE POINT FROGS

INSULATED FRONT AND LOCK RODS FOR MOVABLE POINT FROGS

Front Rods listed below are for 85-lb. and 100-lb. P. R. R. rail.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Insulated Front and Lock Rods, Right Hand, complete, as shown, for movable point frogs having No. 14 switch and lock movements (1-1a, 1-5a, Plate 01695).....	23a-B-7955	42 00
B	Insulated Front and Lock Rods, Left Hand, complete, as shown, for movable point frogs having No. 14 switch and lock movements (1-3a, 1-5b, Plate 01695).....	28a-B-7955	42 00
C	Insulated Front and Lock Rods, Right Hand, complete, as shown, for movable point frogs having plunger locks (1-1a, 1-6a, Plate 01695).	23b-B-7955	41 00
D	Insulated Front and Lock Rods, Left Hand, complete, as shown, for movable point frogs having plunger locks (1-3a, 1-6a, Plate 01695)...	28b-B-7955	41 00
1	Front Rod Foot, Non-Insulated End, Right Hand.	35-B-8182	10 90
1a	Insulated Front Rod, complete, having left hand insulated foot, for movable point frogs, including right and left hand feet, turnbuckle, lug, sleeve, fibre sleeve and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotters (1-1, 1-2a, 1-12, 1-10, 1-14, 1-13, 2-11, 4-16, 1-18, 6-19, Plate 01695).....	23-B-7955	35 20
2	Front Rod Foot only, Insulated End, Left Hand.	69-B-8181	13 00
2a	as above, complete, with threaded end, fibre plate, fibre bushings and washers, plate washers, and bolts with lock washers and nuts (1-2, 1-26, 1-25, 1-23, 1-24, 2-15, 2-17, Plate 01695).....	69a-B-8181	17 30
3	Front Rod Foot, Non-Insulated End, Left Hand.	34-B-8182	10 90
3a	Insulated Front Rod, complete, having right hand insulated foot, for movable point frogs, including right and left hand feet, turnbuckle, lug, sleeve, fibre sleeve and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotter (1-3, 1-4a, 1-12, 1-10, 1-14, 1-13, 2-11, 4-16, 1-18, 6-19, Plate 01695).....	28-B-7955	35 20

INSULATED FRONT AND LOCK RODS FOR MOVABLE POINT FROGS.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

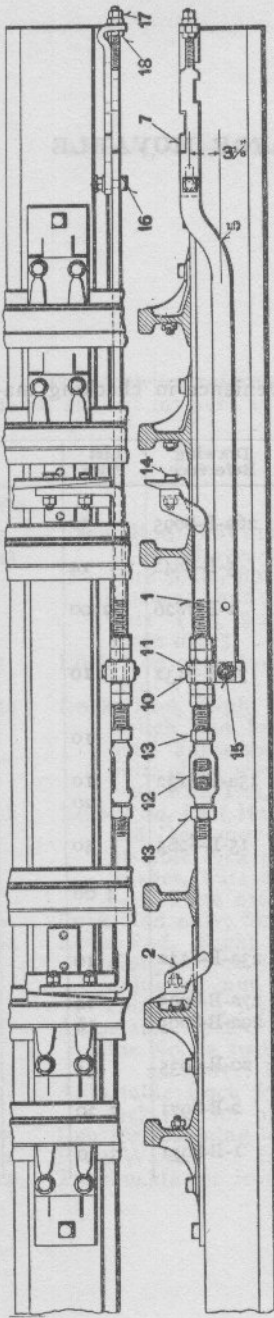
Fig.		Drawing Reference	List Price
4	Front Rod Foot only, Insulated End, Right Hand.	70-B-8181	13 00
4a	as above, complete, with threaded end, fibre plate, fibre bushings and washers, plate washers, and bolts with lock washers and nuts (1-4, 1-27, 1-25, 1-23, 1-24, 2-15, 2-17, Plate 01695)	70a-B-8181	17 30
5	Lock Rod only, for No. 14 switch and lock movement	54-B-8166	4 20
5a	Lock Rod, Right Hand, complete, for No. 14 switch and lock movement, including right hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-5, 1-7, 1-20, 1-22, 1-21, Plate 01695).....	54a-B-8166	6 76
5b	Lock Rod, Left Hand, complete, for No. 14 switch and lock movement, including left hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-5, 1-8, 1-20, 1-22, 1-21, Plate 01695).....	57-B-8166	6 76
6	Lock Rod only, for plunger lock.....	74-B-8166	3 70
6a	Lock Rod, Right or Left Hand, complete, for plunger lock, including adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-6, 1-9, 1-20, 1-22, 1-21, Plate 01695) ..	74a-B-8166	5 76
7	Adjustable Lock Plate, Right Hand, for lock rod for No. 14 switch and lock movement.....	36-B-8166	2 06
8	as above, Left Hand.....	35-B-8166	2 06
9	Adjustable Lock Plate, Right or Left Hand, for lock rod for plunger lock.....	73-B-8166	1 62
10	Lug for fastening lock rod to front rod.....	1-B-8842	54
11	Plate Washer for front rod. Price per hundred..	2-B-7826	3 00
12	Turnbuckle for front rods.....	11-B-8321	1 34

**INSULATED FRONT AND LOCK RODS FOR MOVABLE
POINT FROGS**

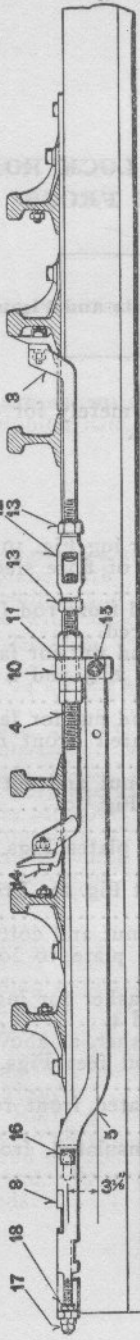
Order by Plate and Figure

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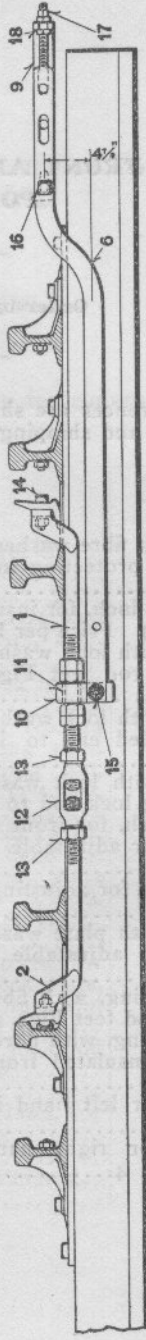
Fig.		Drawing Reference	List Price
13	Fibre Sleeve with fibre washers for lug Fig. 10...	26a-B-8095	30
14	Steel Sleeve for protecting inside of fibre sleeve Fig. 13	5-B-8842	14
15	Plate Washer, 3/4-inch, for insulated front rod feet Figs. 2 and 4. Price per hundred.....	2-B-7826	2 00
16	Bolt, 3/4"x3 1/2", with lock washer and nut for fast- ening front rod feet Figs. 1, 2, 3 and 4 to switch points	17a-B-8132	10
17	Bolt, 3/4"x3 1/4", with lock washer and nut for fast- ening threaded end to insulated front rod foot		10
18	Bolt, 3/4"x2 7/8", with lock washer, nut and cotter for fastening lock rod to lug Fig. 10.....	15a-B-8132	10
19	Lock Nut, 1 1/4-inch, for front rods.....		20
20	Adjusting Nut for adjustable lock plates Figs. 7, 8 and 9.....	15-B-8265	40
21	Lock Nut, 3/4-inch, for adjusting nut Fig. 20. Price per hundred		4 00
22	Bolt, 3/4"x2 3/4", with plate washer, nut and cotter, for fastening adjustable lock plate to lock rod	23a-B-8132	10
23	Short Fibre Bushing, with fibre washer for insu- lated front rod feet Figs. 2 and 4.....	27a-B-8095	14
24	Long Fibre Bushing, with fibre washer, as above.	29a-B-8095	16
25	Fibre Plate for insulated front rod feet Figs. 2 and 4	20-B-9035	44
26	Threaded End for left hand insulated front rod foot Fig. 2.....	2-B-8971	3 30
27	Threaded End for right hand insulated front rod foot Fig. 4.....	1-B-8971	3 30



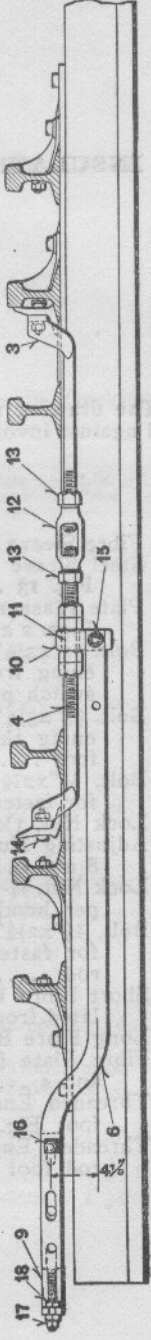
A - RIGHT HAND NON-INSULATED FRONT AND LOCK RODS FOR FROG POINTS WITH NO. 14 S.&L. MOVEMENT.



B - LEFT HAND NON-INSULATED FRONT AND LOCK RODS FOR FROG POINTS WITH NO. 14 S.&L. MOVEMENT.



C - RIGHT HAND NON-INSULATED FRONT AND LOCK RODS FOR FROG POINTS WITH PLUNGER LOCK.



D - LEFT HAND NON-INSULATED FRONT AND LOCK RODS FOR FROG POINTS WITH PLUNGER LOCK.

NON-INSULATED FRONT AND LOCK RODS FOR MOVABLE POINT FROGS

NON-INSULATED FRONT AND LOCK RODS FOR MOVABLE POINT FROGS

Front Rods listed below are for 85-lb. and 100-lb. P. R. R. rail.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Non-Insulated Front and Lock Rods, Right Hand, complete, as shown, for movable point frogs having No. 14 switch and lock movements (1-1a, 1-5a, Plate 01697).....	1b-B-9161	34 00
B	Non-Insulated Front and Lock Rods, Left Hand, complete, as shown, for movable point frogs having No. 14 switch and lock movements (1-3a, 1-5b, Plate 01697).....	2b-B-9161	34 00
C	Non-Insulated Front and Lock Rods, Right Hand, complete, as shown, for movable point frogs having plunger locks (1-1a, 1-6a, Plate 01697).	1a-B-9161	33 00
D	Non-Insulated Front and Lock Rods, Left Hand, complete, as shown, for movable point frogs having plunger locks (1-3a, 1-6a, Plate 01697).	2a-B-9161	33 00
I	Front Rod Foot, Right Hand, for right hand front rod	35-B-8182	10 90
1a	Front Rod, complete, Right Hand, for movable point frogs, including right and left hand feet, turnbuckle, lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-1, 1-2, 1-12, 1-10, 1-11, 4-14, 1-15, 6-13, Plate 01697).....	2-B-9161	27 20

NON-INSULATED FRONT AND LOCK RODS FOR MOVABLE POINT FROGS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

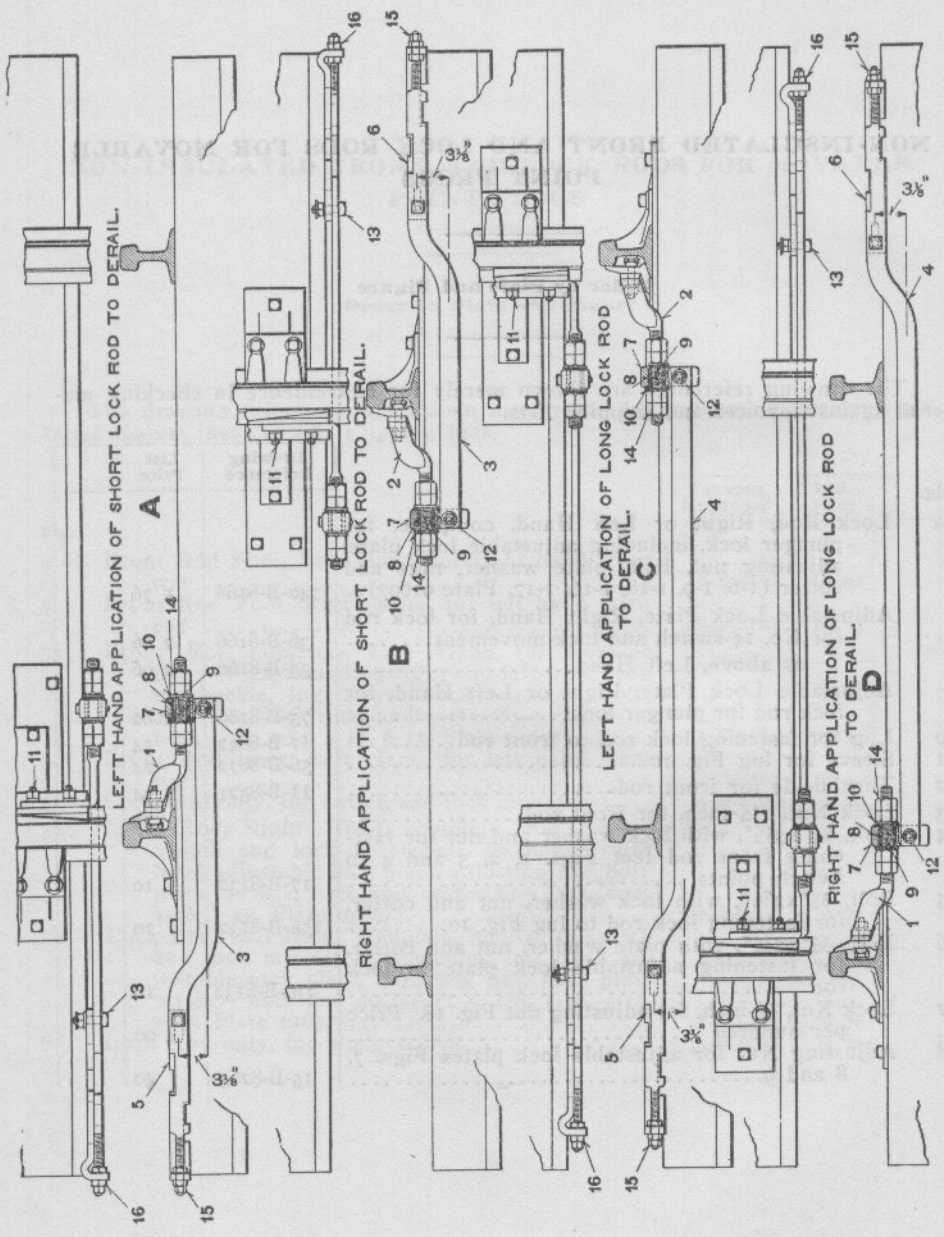
Fig.		Drawing Reference	List Price
2	Front Rod Foot, Left Hand, for right hand front rod	38-B-8182	10 64
3	Front Rod Foot, Right hand, for left hand front rod	39-B-8182	10 64
3a	Front Rod, complete, Left Hand, for movable point frogs, including right and left hand feet, turnbuckle, lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-3, 1-4, 1-12, 1-10, 1-11, 4-14, 1-15, 6-13, Plate 01697).....	1-B-9161	27 20
4	Front Rod Foot, Left Hand, for left hand front rod	34-B-8182	10 90
5	Lock Rod only, for switch and lock movement....	54-B-8166	4 20
5a	Lock Rod, Right Hand, complete, for No. 14 switch and lock movement, including right hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-5, 1-7, 1-18, 1-16, 1-17, Plate 01697).....	54a-B-8166	6 76
5b	Lock Rod, Left Hand, complete, for No. 14 switch and lock movement, including left hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-5, 1-8, 1-18, 1-16, 1-17, Plate 01697).....	57-B-8166	6 76
6	Lock Rod only, for plunger lock.....	74-B-8166	3 70

NON-INSULATED FRONT AND LOCK RODS FOR MOVABLE POINT FROGS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
6a	Lock Rod, Right or Left Hand, complete, for plunger lock, including adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (I-6, I-9, I-18, I-16, I-17, Plate 01697) ..	74a-B-8166	5 76
7	Adjustable Lock Plate, Right Hand, for lock rod for No. 14 switch and lock movement.....	36-B-8166	2 06
8	as above, Left Hand.....	35-B-8166	2 06
9	Adjustable Lock Plate, Right or Left Hand, for lock rod for plunger lock.....	73-B-8166	1 62
10	Lug for fastening lock rod to front rod.....	1-B-8842	54
11	Sleeve for lug Fig. 10.....	56-B-8072	24
12	Turnbuckle for front rod.....	11-B-8321	1 34
13	Lock Nut, 1¼-inch, for front rod.....		20
14	Bolt, ¾"x3½", with lock washer and nut for fastening front rod feet Figs. 1, 2, 3 and 4 to switch points	17-B-8132	10
15	Bolt, ¾"x2⅞", with lock washer, nut and cotter, for fastening lock rod to lug Fig. 10.....	15a-B-8132	10
16	Bolt, ¾"x2¾", with plate washer, nut and cotter, for fastening adjustable lock plate to lock rod	23a-B-8132	10
17	Lock Nut, ¾-inch, for adjusting nut Fig. 18. Price per hundred		4 00
18	Adjusting Nut for adjustable lock plates Figs. 7, 8 and 9.....	15-B-8265	40



INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE POINT DERAIL WITH NO. 14 SWITCH AND LOCK MOVEMENT

**INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE
POINT DERAIL WITH NO. 14 SWITCH
AND LOCK MOVEMENT**

Switch Feet listed below are for 85-lb. and 100-lb. P. R. R. rail.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Insulated Short Lock Rod and Switch Foot, Left Hand, complete, as shown, for single point derail having No. 14 switch and lock movement (1-3a, 1-1a, Plate 01699).....	73-B-7955	11 50
B	Insulated Short Lock Rod and Switch Foot, Right Hand, complete, as above (1-3b, 1-2a, Plate 01699)	74-B-7955	11 50
C	Insulated Long Lock Rod and Switch Foot, Left Hand, complete, as above (1-4a, 1-2a, Plate 01699)	75-B-7955	12 40
D	Insulated Long Lock Rod and Switch Foot, Right Hand, complete, as above (1-4b, 1-1a, Plate 01699)	76-B-7955	12 40
1	Switch Foot only, Left Hand.....	79-B-8181	3 00
1a	as above, complete, with lug, sleeve, fibre sleeve and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotter (1-1, 1-7, 1-9, 1-8, 2-10, 2-11, 1-12, 4-14, Plate 01699).	79a-B-8181	5 20

**INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE
POINT DERAIL WITH NO. 14 SWITCH
AND LOCK MOVEMENT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

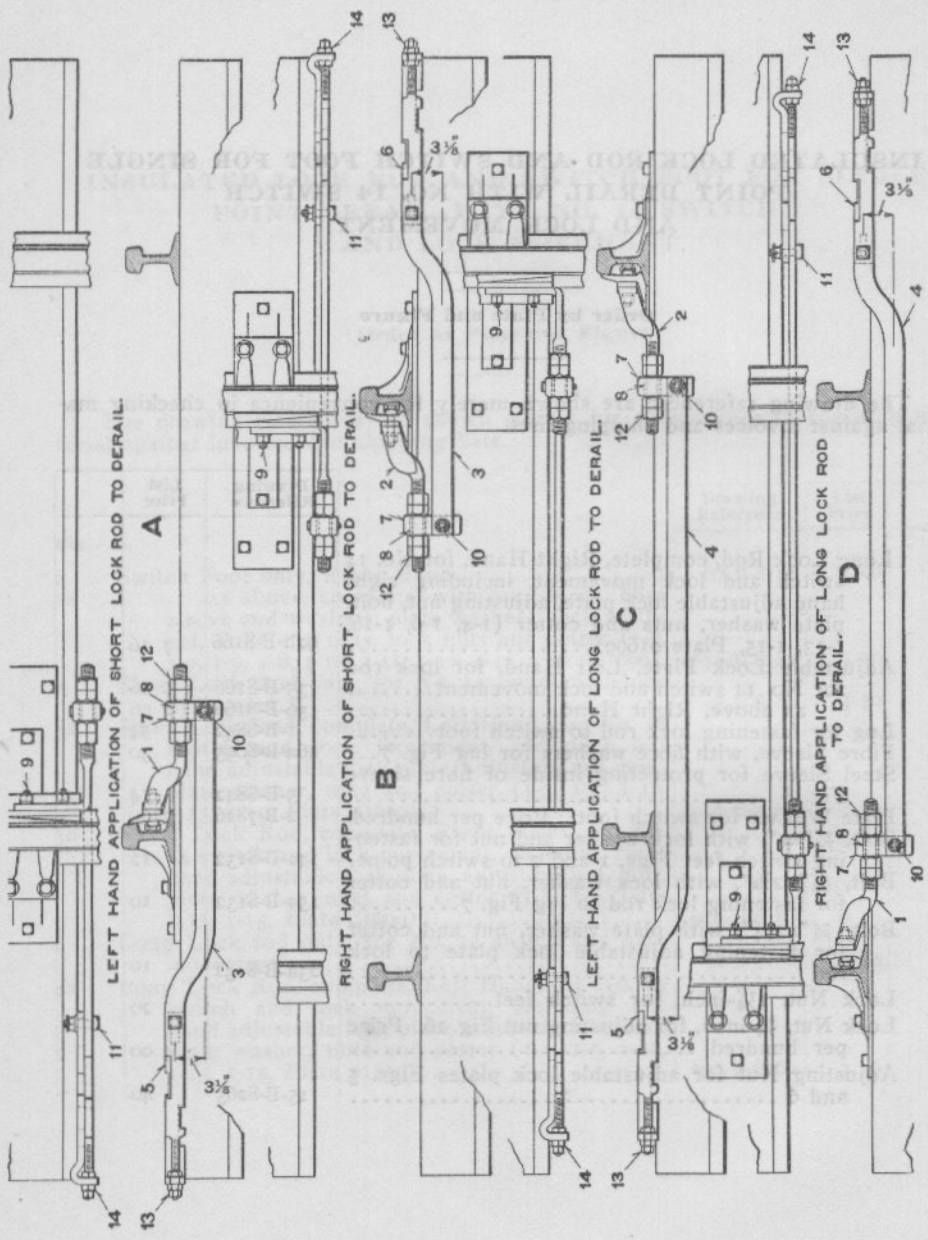
Fig.	Description	Drawing Reference	List Price
2	Switch Foot only, Right Hand.....	87-B-8181	3 00
2a	as above, complete, with lug, sleeve, fibre sleeve and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotter (1-2, 1-7, 1-9, 1-8, 2-10, 2-11, 1-12, 4-14, Plate 01699).	87a-B-8181	5 20
3	Short Lock Rod only, for No. 14 switch and lock movement	93-B-8166	3 70
3a	Short Lock Rod, complete, Left Hand, for No. 14 switch and lock movement, including left hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-3, 1-5, 1-16, 1-13, 1-15, Plate 01699).....	93a-B-8166	6 26
3b	Short Lock Rod, complete, Right Hand, for No. 14 switch and lock movement, including right hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-3, 1-6, 1-16, 1-13, 1-15, Plate 01699).....	93b-B-8166	6 26
4	Long Lock rod only, for No. 14 switch and lock movement	92-B-8166	4 60
4a	Long Lock Rod, complete, Left Hand, for No. 14 switch and lock movement, including left hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-4, 1-5, 1-16, 1-13, 1-15, Plate 01699).....	92a-B-8166	7 16

**INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE
POINT DERAIL WITH NO. 14 SWITCH
AND LOCK MOVEMENT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
4b	Long Lock Rod, complete, Right Hand, for No. 14 switch and lock movement, including right hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-4, 1-6, 1-16, 1-13, 1-15, Plate 01699).....	92b-B-8166	7 16
5	Adjustable Lock Plate, Left Hand, for lock rod for No. 14 switch and lock movement.....	35-B-8166	2 06
6	as above, Right Hand.....	36-B-8166	2 06
7	Lug for fastening lock rod to switch foot.....	1-B-8842	54
8	Fibre Sleeve, with fibre washers for lug Fig. 7...	26a-B-8095	30
9	Steel Sleeve for protecting inside of fibre sleeve Fig. 8	5-B-8842	14
10	Plate Washer for switch foot. Price per hundred.	2-B-7826	3 00
11	Bolt, 3/4"x4", with lock washer and nut for fastening switch feet Figs. 1 and 2 to switch point.	14a-B-8132	12
12	Bolt, 3/4"x2 7/8", with lock washer, nut and cotter for fastening lock rod to lug Fig. 7.....	15a-B-8132	10
13	Bolt, 3/4"x2 3/4", with plate washer, nut and cotter for fastening adjustable lock plate to lock rod	23a-B-8132	10
14	Lock Nut, 1 1/4-inch, for switch feet.....		20
15	Lock Nut, 3/4-inch, for adjusting nut Fig. 16. Price per hundred		4 00
16	Adjusting Nut for adjustable lock plates Figs. 5 and 6	15-B-8265	40



NON-INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE POINT DERAIL WITH NO. 14 SWITCH AND LOCK MOVEMENT

**NON-INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE
POINT DERAIL WITH NO. 14 SWITCH
AND LOCK MOVEMENT**

Switch Feet listed below are for 85-lb. and 100-lb. P. R. R. rail.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Non-Insulated Short Lock Rod and Switch Foot, Left Hand, complete, as shown, for single point derail having No. 14 switch and lock movement (1-3a, 1-1a, Plate 01701).....	15-B-9161	11 20
B	Non-Insulated Short Lock Rod and Switch Foot, Right Hand, complete, as above (1-3b, 1-2a, Plate 01701)	18-B-9161	11 20
C	Non-Insulated Long Lock Rod and Switch Foot, Left Hand, complete, as above (1-4a, 1-2a, Plate 01701)	16-B-9161	12 10
D	Non-Insulated Long Lock Rod and Switch Foot, Right Hand, complete, as above (1-4b, 1-1a, Plate 01701)	17-B-9161	12 10
1	Switch Foot only, Left Hand.....	79-B-8181	3 00
1a	as above, complete, with lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-1, 1-7, 1-8, 2-9, 1-10, 4-12, Plate 01701).....	79b-B-8181	4 90
2	Switch Foot only, Right Hand.....	87-B-8181	3 00
2a	as above, complete, with lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-2, 1-7, 1-8, 2-9, 1-10, 4-12, Plate 01701) ..	87b-B-8181	4 90
3	Short Lock Rod only, for No. 14 switch and lock movement	93-B-8166	3 70
3a	Short Lock Rod, complete, Left Hand, for No. 14 switch and lock movement, including left hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-3, 1-5, 1-14, 1-11, 1-13, Plate 01701).....	93a-B-8166	6 26

**NON-INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE
POINT DERAIL WITH NO. 14 SWITCH
AND LOCK MOVEMENT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

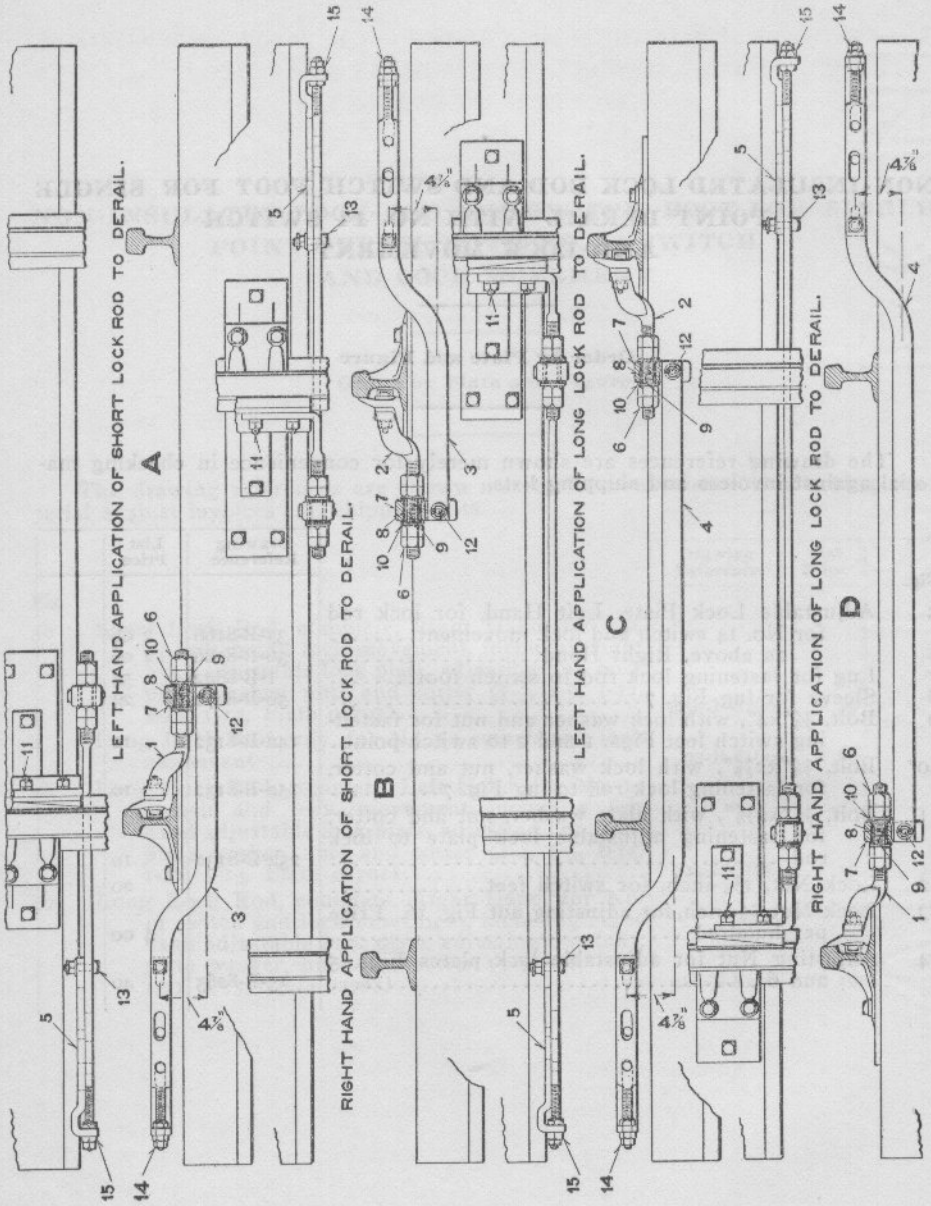
Fig.	Description	Drawing Reference	List Price
3b	Short Lock Rod, complete, Right Hand, for No. 14 switch and lock movement, including right hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-3, 1-6, 1-14, 1-11, 1-13, Plate 01701).....	93b-B-8166	6 26
4	Long Lock Rod only, for No. 14 switch and lock movement	92-B-8166	4 60
4a	Long Lock Rod, complete, Left Hand, for No. 14 switch and lock movement, including left hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-4, 1-5, 1-14, 1-11, 1-13, Plate 01701).....	92a-B-8166	7 16
4b	Long Lock Rod, complete, Right Hand, for No. 14 switch and lock movement, including right hand adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-4, 1-6, 1-14, 1-11, 1-13, Plate 01701).....	92b-B-8166	7 16

**NON-INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE
POINT DERAIL WITH NO. 14 SWITCH
AND LOCK MOVEMENT**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
5	Adjustable Lock Plate, Left Hand, for lock rod for No. 14 switch and lock movement.....	35-B-8166	2 06
6	as above, Right Hand.....	36-B-8166	2 06
7	Lug for fastening lock rod to switch foot.....	1-B-8842	54
8	Sleeve for lug Fig. 7.....	56-B-8072	24
9	Bolt, $\frac{3}{4}$ "x4", with lock washer and nut for fastening switch feet Figs. 1 and 2 to switch point..	14a-B-8132	12
10	Bolt, $\frac{3}{4}$ "x2 $\frac{7}{8}$ ", with lock washer, nut and cotter, for fastening lock rod to lug Fig. 7.....	15a-B-8132	10
11	Bolt, $\frac{3}{4}$ "x2 $\frac{3}{4}$ ", with plate washer, nut and cotter, for fastening adjustable lock plate to lock rod	23a-B-8132	10
12	Lock Nut, $1\frac{1}{4}$ -inch, for switch feet.....		20
13	Lock Nut, $\frac{3}{4}$ -inch, for adjusting nut Fig. 16. Price per hundred		4 00
14	Adjusting Nut for adjustable lock plates Figs. 5 and 6	15-B-8265	40



INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE POINT DERAIL WITH PLUNGER LOCK

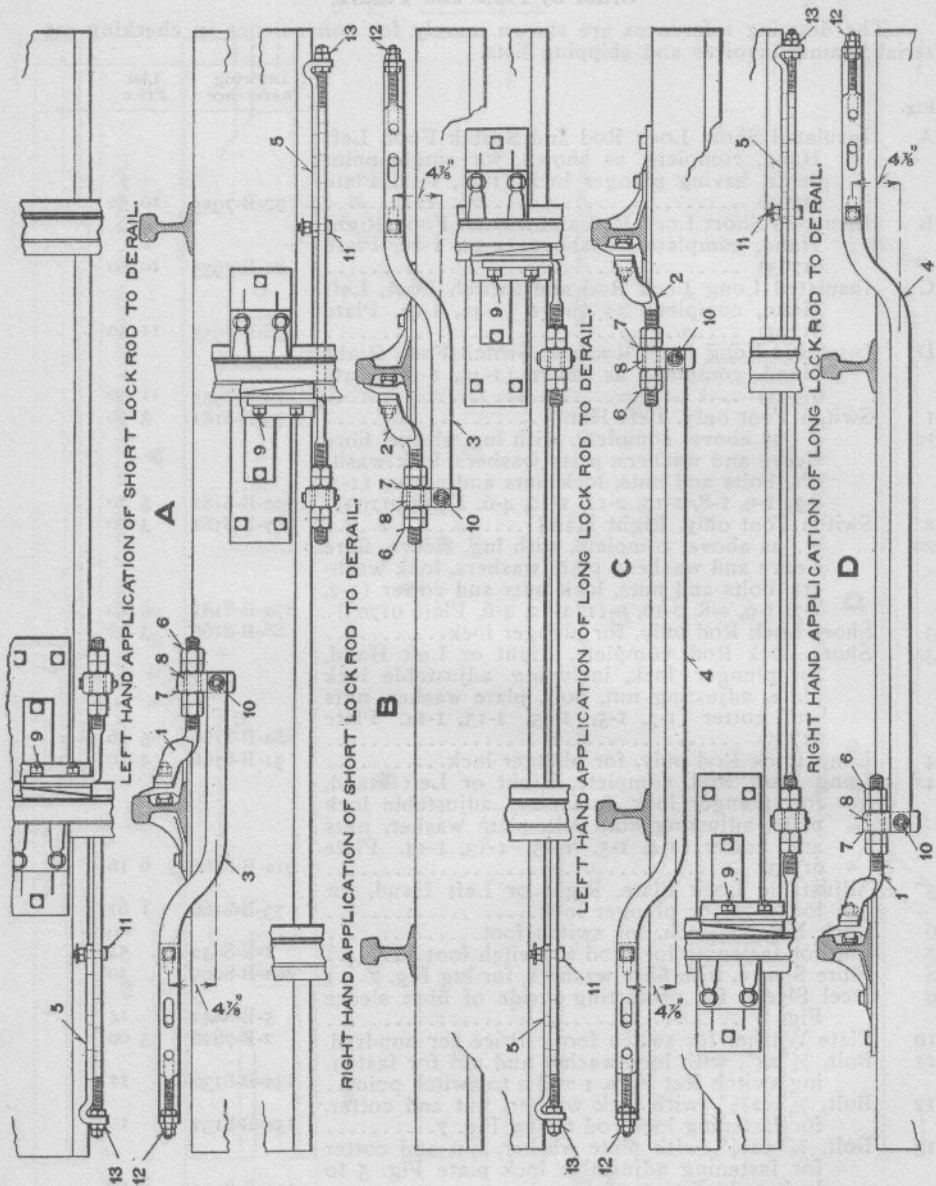
INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE POINT DERAIL WITH PLUNGER LOCK

Switch Feet listed below are for 85-lb. and 100-lb. P. R. R. rail.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Insulated Short Lock Rod and Switch Foot, Left Hand, complete, as shown, for single point derail having plunger lock (1-3a, 1-1a, Plate 01703)	77-B-7955	10 50
B	Insulated Short Lock Rod and Switch Foot, Right Hand, complete, as above (1-3a, 1-2a, Plate 01703)	80-B-7955	10 50
C	Insulated Long Lock Rod and Switch Foot, Left Hand, complete, as above (1-4a, 1-2a, Plate 01703)	78-B-7955	11 40
D	Insulated Long Lock Rod and Switch Foot, Right Hand, complete, as above (1-4a, 1-1a, Plate 01703)	79-B-7955	11 40
1	Switch Foot only, Left Hand.....	79-B-8181	3 00
1a	as above, complete, with lug, sleeve, fibre sleeve and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotter (1-1, 1-7, 1-9, 1-8, 2-10, 2-11, 1-12, 4-6, Plate 01703)..	79a-B-8181	5 20
2	Switch Foot only, Right Hand.....	87-B-8181	3 00
2a	as above, complete, with lug, sleeve, fibre sleeve and washers, plate washers, lock washers, bolts and nuts, lock nuts and cotter (1-2, 1-7, 1-9, 1-8, 2-10, 2-11, 1-12, 4-6, Plate 01703)..	87a-B-8181	5 20
3	Short Lock Rod only, for plunger lock.....	88-B-8166	3 20
3a	Short Lock Rod, complete, Right or Left Hand, for plunger lock, including adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-3, 1-5, 1-15, 1-13, 1-14, Plate 01703)	88a-B-8166	5 26
4	Long Lock Rod only, for plunger lock.....	91-B-8166	4 10
4a	Long Lock Rod, complete, Right or Left Hand, for plunger lock, including adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-4, 1-5, 1-15, 1-13, 1-14, Plate 01703)	91a-B-8166	6 16
5	Adjustable Lock Plate, Right or Left Hand, for lock rod for plunger lock.....	73-B-8166	1 62
6	Lock Nut, 1¼-inch, for switch foot.....		20
7	Lug for fastening lock rod to switch foot.....	1-B-8842	54
8	Fibre Sleeve, with fibre washers, for lug Fig. 7....	26a-B-8095	30
9	Steel Sleeve for protecting inside of fibre sleeve Fig. 8	5-B-8842	14
10	Plate Washer for switch foot. Price per hundred.	2-B-7826	3 00
11	Bolt, ¾"x4", with lock washer and nut for fastening switch feet Figs. 1 and 2 to switch point..	14a-B-8132	12
12	Bolt, ¾"x27/8", with lock washer, nut and cotter, for fastening lock rod to lug Fig. 7.....	15a-B-8132	10
13	Bolt, ¾"x2¾", with plate washer, nut and cotter for fastening adjustable lock plate Fig. 5 to lock rods Fig. 3 or Fig. 4.....	23a-B-8132	10
14	Lock Nut, ¾-inch, for adjusting nut Fig. 15. Price per hundred.....		4 00
15	Adjusting Nut for adjustable lock plate Fig. 5....	15-B-8265	40



LEFT HAND APPLICATION OF SHORT LOCK ROD TO DERAIL.

RIGHT HAND APPLICATION OF SHORT LOCK ROD TO DERAIL.

LEFT HAND APPLICATION OF LONG LOCK ROD TO DERAIL.

RIGHT HAND APPLICATION OF LONG LOCK ROD TO DERAIL.

NON-INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE POINT DERAIL WITH PLUNGER LOCK

NON-INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLE POINT DERAIL WITH PLUNGER LOCK

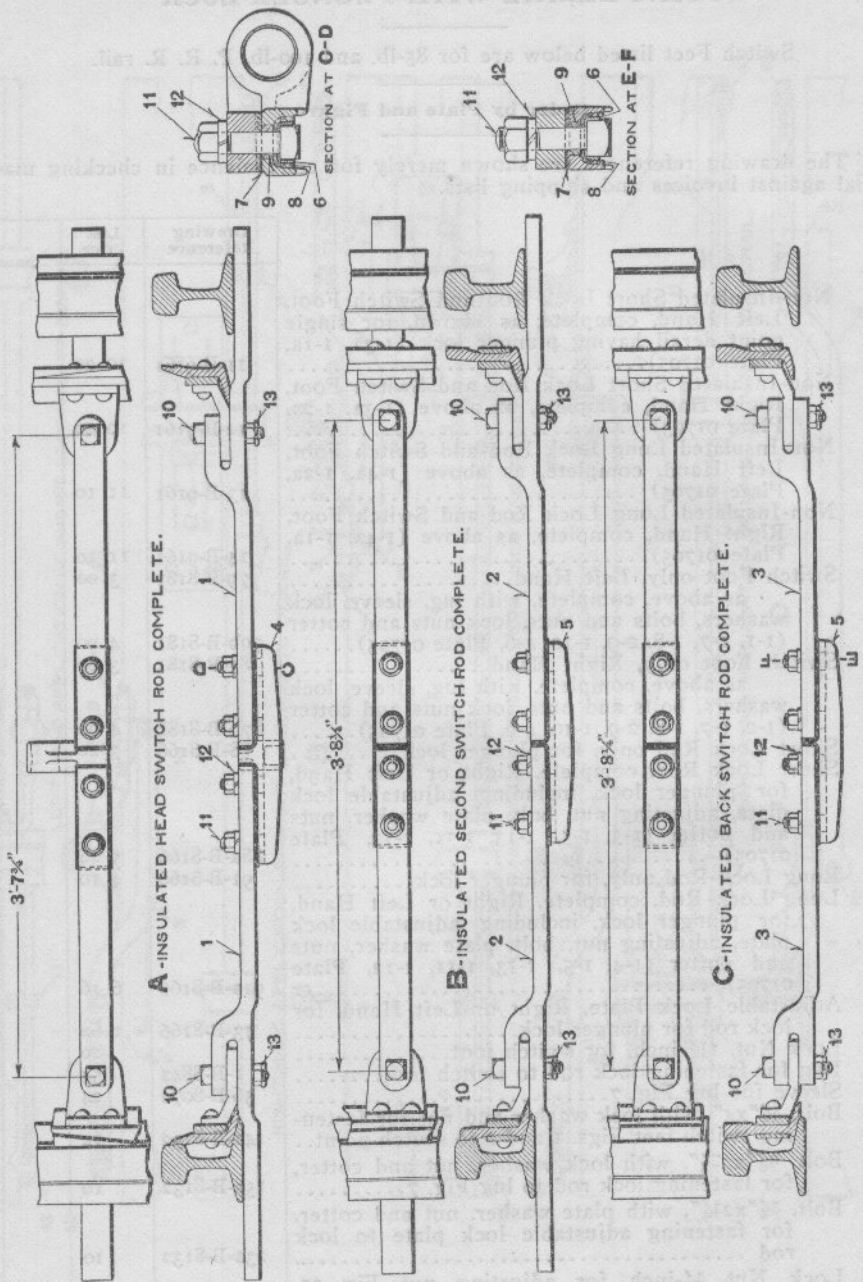
Switch Feet listed below are for 85-lb. and 100-lb. P. R. R. rail.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Non-Insulated Short Lock Rod and Switch Foot, Left Hand, complete, as shown, for single point derail having plunger lock (1-3a, 1-1a, Plate 01705).....	11-B-9161	10 20
B	Non-Insulated Short Lock Rod and Switch Foot, Right Hand, complete, as above (1-3a, 1-2a, Plate 01705)	12-B-9161	10 20
C	Non-Insulated Long Lock Rod and Switch Foot, Left Hand, complete, as above (1-4a, 1-2a, Plate 01705)	13-B-9161	11 10
D	Non-Insulated Long Lock Rod and Switch Foot, Right Hand, complete, as above (1-4a, 1-1a, Plate 01705)	14-B-9161	11 10
1	Switch Foot only, Left Hand.....	79-B-8181	3 00
1a	as above, complete, with lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-1, 1-7, 1-8, 2-9, 1-10, 4-6, Plate 01705).....	79b-B-8181	4 90
2	Switch Foot only, Right Hand.....	87-B-8181	3 00
2a	as above, complete, with lug, sleeve, lock washers, bolts and nuts, lock nuts and cotter (1-2, 1-7, 1-8, 2-9, 1-10, 4-6, Plate 01705).....	87b-B-8181	4 90
3	Short Lock Rod only, for plunger lock.....	88-B-8166	3 20
3a	Short Lock Rod, complete, Right or Left Hand, for plunger lock, including adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-3, 1-5, 1-13, 1-11, 1-12, Plate 01705)	88a-B-8166	5 26
4	Long Lock Rod only, for plunger lock.....	91-B-8166	4 10
4a	Long Lock Rod, complete, Right or Left Hand, for plunger lock, including adjustable lock plate, adjusting nut, bolt, plate washer, nuts and cotter (1-4, 1-5, 1-13, 1-11, 1-12, Plate 01705)	91a-B-8166	6 16
5	Adjustable Lock Plate, Right or Left Hand, for lock rod for plunger lock.....	73-B-8166	1 62
6	Lock Nut, 1¼-inch, for switch foot.....		20
7	Lug for fastening lock rod to switch foot.....	1-B-8842	54
8	Sleeve for lug Fig. 7.....	56-B-8072	24
9	Bolt, ¾"x4", with lock washer and nut for fastening switch feet Figs. 1 and 2 to switch point..	14a-B-8132	12
10	Bolt, ¾"x2⅞", with lock washer, nut and cotter, for fastening lock rod to lug Fig. 7.....	15a-B-8132	10
11	Bolt, ¾"x2¾", with plate washer, nut and cotter, for fastening adjustable lock plate to lock rod	23a-B-8132	10
12	Lock Nut, ¾-inch, for adjusting nut Fig. 13. Price per hundred.....		4 00
13	Adjusting Nut for adjustable lock plate Fig. 5....	15-B-8265	40

NON-INSULATED LOCK ROD AND SWITCH FOOT FOR SINGLES
POINT DERAIL WITH PLENUM LOCK



INSULATED SWITCH RODS FOR REINFORCED POINT SWITCHES WITH LUGS

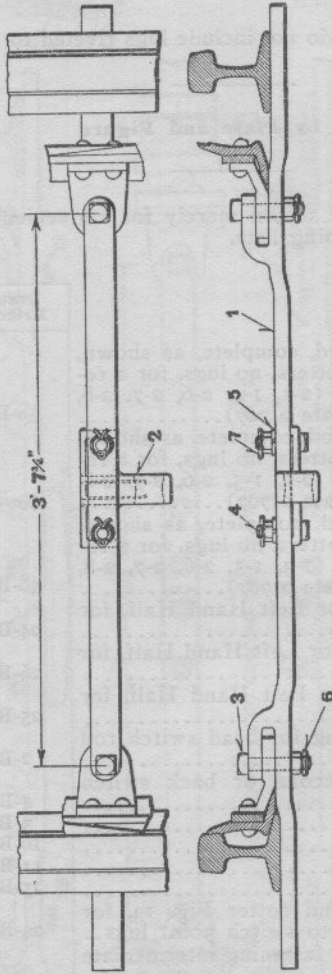
**INSULATED SWITCH RODS FOR REINFORCED
POINT SWITCHES**

Switch Rods listed below do not include lugs riveted to switch points.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Insulated Head Switch Rod, complete, as shown, with bolts, nuts and cotters, no lugs, for a reinforced point switch (2-1, 1-4, 2-6, 2-7, 2-8, 4-9, 4-11, 4-12, 2-10, Plate 01707).....	38-B-7955	12 30
B	Insulated Second Switch Rod, complete, as shown, with bolts, nuts and cotters, no lugs, for a reinforced point switch (2-2, 1-5, 2-6, 2-7, 2-8, 4-9, 4-11, 4-12, 2-10, Plate 01707).....	39-B-7955	11 50
C	Insulated Back Switch Rod, complete, as shown, with bolts, nuts and cotters, no lugs, for a reinforced point switch (2-3, 1-5, 2-6, 2-7, 2-8, 4-9, 4-11, 4-12, 2-10, Plate 01707).....	40-B-7955	10 50
1	Head Switch Rod, Right or Left Hand Half, for Fig. A	24-B-8973	3 50
2	Second Switch Rod, Right or Left Hand Half, for Fig. B	26-B-8973	3 50
3	Back Switch Rod, Right or Left Hand Half, for Fig. C	25-B-8973	2 60
4	Intermediate Block and Lug for head switch rod Fig. A.....	2-B-8842	1 10
5	Intermediate Block for second or back switch rods Figs. B and C.....	4-B-8842	44
6	Bolt Plate	3-B-8842	04
7	Fibre Plate	10-B-9035	12
8	Fibre Channel	11-B-9035	10
9	Fibre Bushing	25-B-8095	06
10	Bolt, $\frac{7}{8}$ "x $4\frac{1}{4}$ ", with nut and cotter Fig. 13, for fastening switch rods to switch point lugs..	2a-B-8832	26
11	Bolt and Nut, $\frac{3}{4}$ "x $2\frac{3}{4}$ ", for fastening intermediate blocks to switch rods.....		10
12	Lock Washer, $\frac{3}{4}$ -inch, for bolt Fig. 11. Price per hundred	6-B-7826	2 00
13	Split Cotter, $\frac{3}{16}$ "x $1\frac{1}{2}$ ", for bolt Fig. 10. Price per hundred		1 00



NON-INSULATED HEAD ROD COMPLETE.

A

NON-INSULATED HEAD SWITCH ROD FOR REINFORCED
POINT SWITCHES

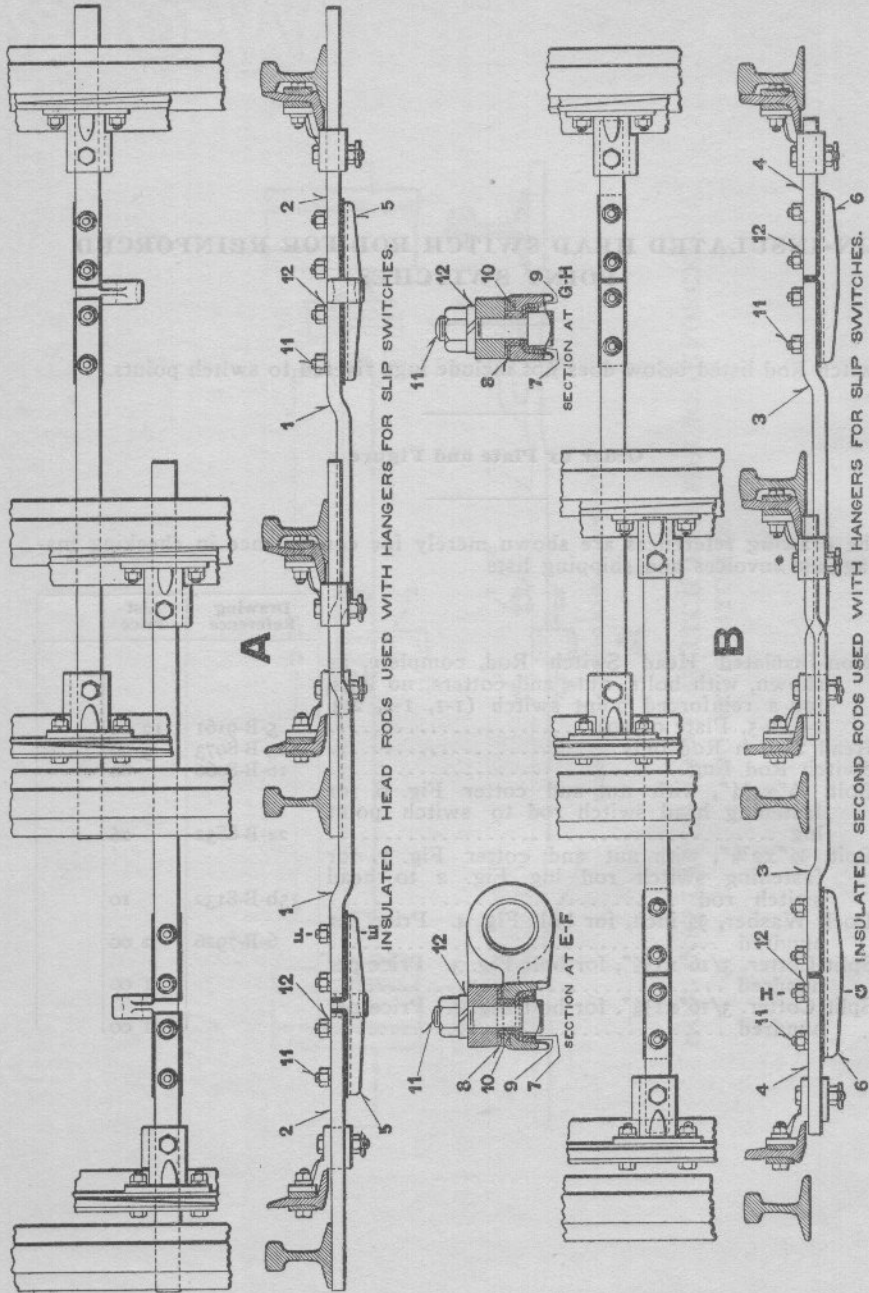
NON-INSULATED HEAD SWITCH ROD FOR REINFORCED POINT SWITCHES

Switch Rod listed below does not include lugs riveted to switch points.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Non-Insulated Head Switch Rod, complete, as shown, with bolts, nuts and cotters, no lugs, for a reinforced point switch (1-1, 1-2, 2-3, 2-4, 2-5, Plate 01709).....	5-B-9161	12 00
1	Head Switch Rod only.....	23-B-8973	9 00
2	Switch Rod Lug.....	16-B-8060	80
3	Bolt, $\frac{7}{8}$ "x $4\frac{1}{4}$ ", with nut and cotter Fig. 6, for fastening head switch rod to switch point lug.....	2a-B-8832	26
4	Bolt, $\frac{3}{4}$ "x $2\frac{7}{8}$ ", with nut and cotter Fig. 7, for fastening switch rod lug Fig. 2 to head switch rod.....	15b-B-8132	10
5	Lock Washer, $\frac{3}{4}$ -inch, for bolt Fig. 4. Price per hundred.....	6-B-7926	2 00
6	Split Cotter, $\frac{3}{16}$ "x $1\frac{1}{2}$ ", for bolt Fig. 3. Price per hundred.....		1 00
7	Split Cotter, $\frac{3}{16}$ "x $1\frac{1}{8}$ ", for bolt Fig. 4. Price per hundred.....		1 00



A

B

INSULATED HEAD RODS USED WITH HANGERS FOR SLIP SWITCHES.

INSULATED SECOND RODS USED WITH HANGERS FOR SLIP SWITCHES.

SECTION AT E-F

SECTION AT G-H

INSULATED SWITCH RODS FOR SLIP SWITCHES

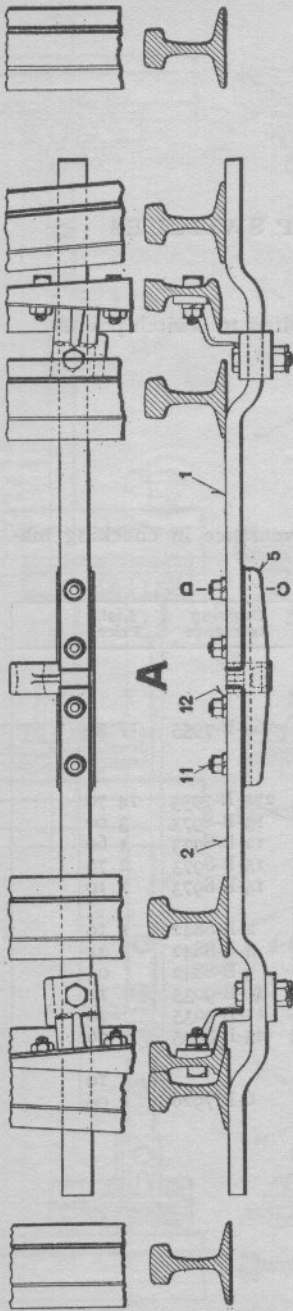
INSULATED SWITCH RODS FOR SLIP SWITCHES

Switch Rods listed below do not include hangers bolted to switch points.

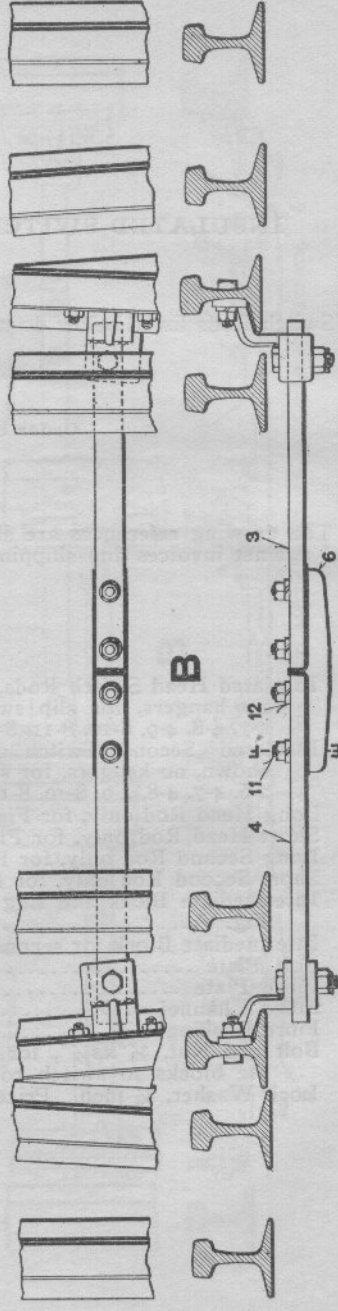
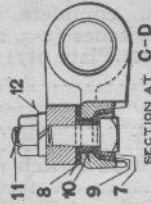
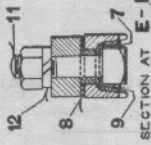
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Insulated Head Switch Rods, complete, as shown, no hangers, for slip switches (2-1, 2-2, 2-5, 4-7, 4-8, 4-9, 8-10, 8-11, 8-12, Plate 01711).....	26a-B-7955	17 30
B	Insulated Second Switch Rods, complete, as shown, no hangers, for slip switches (2-3, 2-4, 2-6, 4-7, 4-8, 4-9, 8-10, 8-11, 8-12, Plate 01711).	27a-B-7955	14 70
1	Long Head Rod only, for Fig. A.....	13-B-8973	3 00
2	Short Head Rod only, for Fig. A.....	12-B-8973	1 60
3	Long Second Rod only, for Fig. B.....	15-B-8973	2 70
4	Short Second Rod only, for Fig. B.....	14-B-8973	1 10
5	Intermediate Block and Lug for head switch rod Fig. A.....	2-B-8842	1 10
6	Intermediate Block for second switch rod Fig. B..	4-B-8842	44
7	Bolt Plate	3-B-8842	04
8	Fibre Plate	10-B-9035	12
9	Fibre Channel	11-B-9035	10
10	Fibre Bushing	25-B-8095	06
11	Bolt and Nut, 3/4"x2 3/4", for fastening intermediate blocks to switch rods.....		10
12	Lock Washer, 3/4-inch. Price per hundred.....	6-B-7926	2 00



INSULATED HEAD ROD COMPLETE USED WITH HANGERS FOR MOVABLE POINT FROGS.



INSULATED SECOND ROD COMPLETE USED WITH HANGERS FOR MOVABLE POINT FROGS.

INSULATED SWITCH RODS FOR MOVABLE POINT FROGS

INSULATED SWITCH RODS FOR MOVABLE POINT FROGS

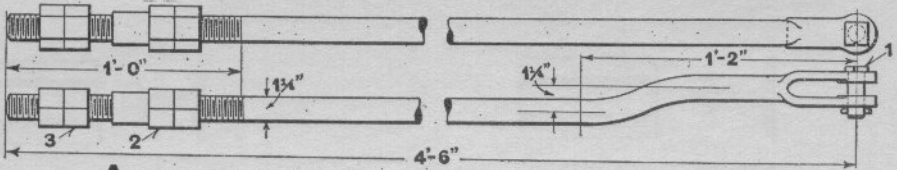
Switch Rods listed below do not include hangers bolted to switch points.

Details of switch rods, Figs. 1, 2, 3 and 4, are listed right and left hand, the difference between these being, that left hand are furnished drilled for hangers, and right hand are undrilled.

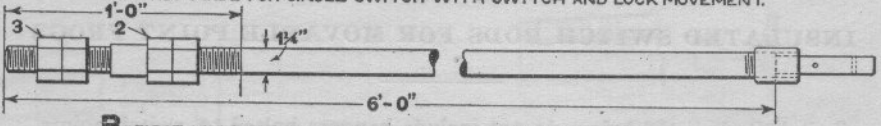
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

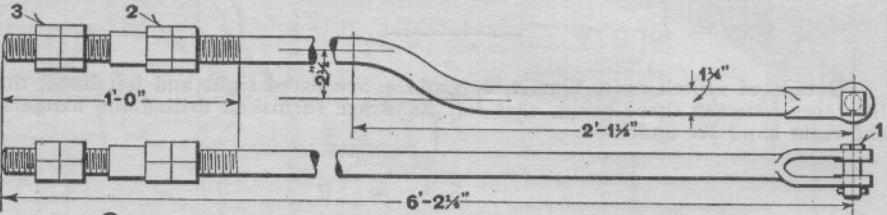
Fig.	Description	Drawing Reference	List Price
A	Insulated Head Switch Rod, complete, as shown, no hangers, for movable point frogs (1-1, 1-2, 1-5, 2-7, 2-8, 2-9, 4-10, 4-11, 4-12, Plate 01713).	24-B-7955	9 30
B	Insulated Second Switch Rod complete, as shown, no hangers, for movable point frogs (1-3, 1-4, 1-6, 2-7, 2-8, 2-9, 4-10, 4-11, 4-12, Plate 01713).	25-B-7955	6 60
1	Head Switch Rod, Right Hand, for Fig. A.....	9-B-8973	2 50
2	Head Switch Rod, Left Hand, for Fig. A.....	8-B-8973	2 50
3	Second Switch Rod, Right Hand, for Fig. B.....	11-B-8973	1 40
4	Second Switch Rod, Left Hand, for Fig. B.....	10-B-8973	1 40
5	Intermediate Block and Lug for head switch rod Fig. A.....	2-B-8842	1 10
6	Intermediate Block for second switch rod Fig. B.	4-B-8842	44
7	Bolt Plate	3-B-8842	04
8	Fibre Plate	10-B-9035	12
9	Fibre Channel	11-B-9035	10
10	Fibre Bushing	25-B-8095	06
11	Bolt and Nut, $\frac{3}{4}$ "x $2\frac{3}{4}$ ", for fastening intermediate blocks to switch rod.....		10
12	Lock Washer, $\frac{3}{4}$ -inch, for bolt Fig 11. Price per hundred	6-B-7926	2 00



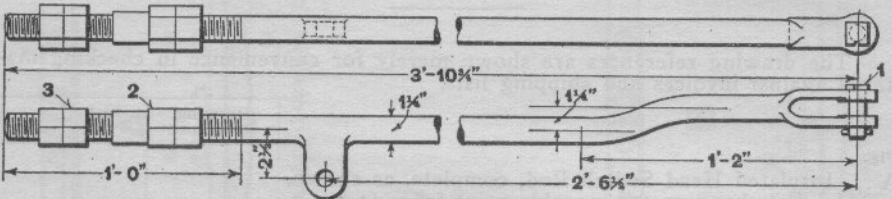
A-FIRST MADE FOR SINGLE SWITCH WITH SWITCH AND LOCK MOVEMENT.



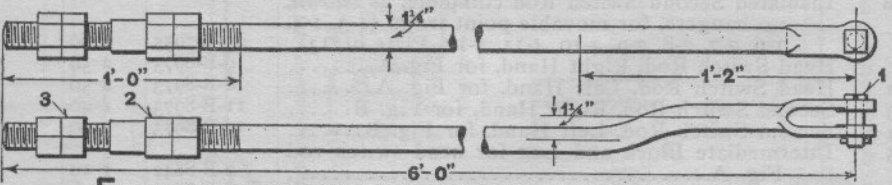
B-FIRST MADE FOR SINGLE SWITCH WITH PLUNGER LOCK.



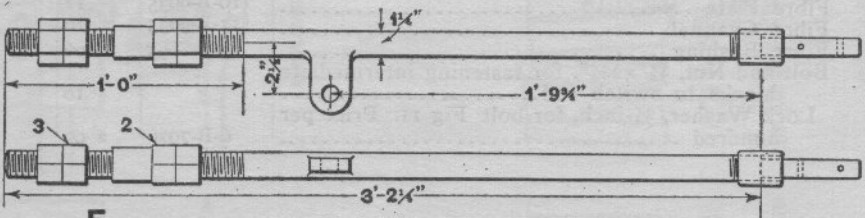
C-FIRST MADE FOR CONNECTING ROD BETWEEN HEAD RODS OF SLIP SWITCHES.



D-FIRST MADE FOR SLIP SWITCH WITH SWITCH AND LOCK MOVEMENT.



E-FIRST MADE FOR MOVABLE POINT FROGS WITH SWITCH AND LOCK MOVEMENT.



F-FIRST MADE FOR SLIP SWITCH WITH PLUNGER LOCK.

OPERATING RODS FOR SINGLE SWITCHES, DOUBLE SLIP SWITCHES, AND MOVABLE POINT FROGS
(Present P. R. R. Standard)

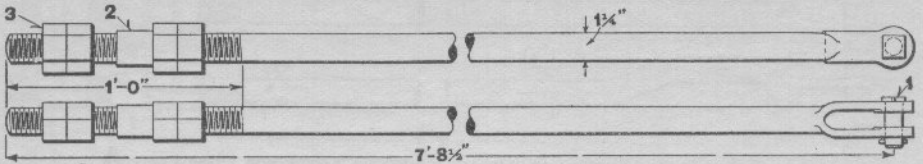
OPERATING RODS FOR SINGLE SWITCHES, DOUBLE SLIP SWITCHES AND MOVABLE POINT FROGS

(Present P. R. R. Standard)

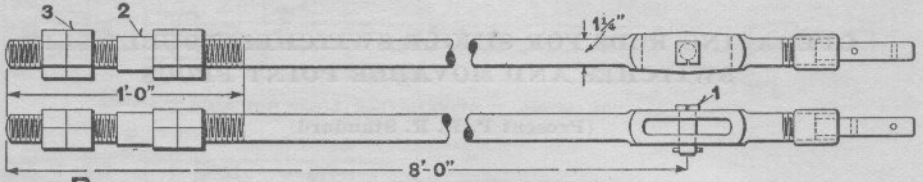
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

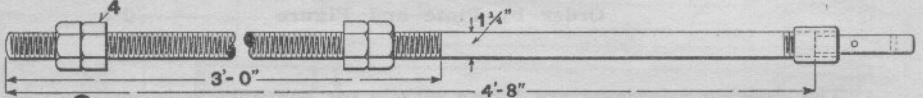
Fig.		Drawing Reference	List Price
A	Operating Rod, complete, as shown, for single switch with No. 14 switch and lock movement. Present P. R. R. Standard.....	42a-B-8240	3 50
B	Operating Rod, complete, as shown, for single switch with plunger lock, tanged for 1-inch extra heavy pipe. Present P. R. R. Standard.	43a-B-8240	3 10
C	Connecting Rod, complete, as shown, between head rods of slip switches. Present P. R. R. Standard	28a-B-8240	3 70
D	Operating Rod, complete, as shown for slip switch with No. 14 switch and lock movement. Present P. R. R. Standard.....	29a-B-8240	5 10
E	Operating Rod, complete, as shown, for movable point frogs with No. 14 switch and lock movement. Present P. R. R. Standard.....	30a-B-8240	3 70
F	Operating Rod, complete, as shown, for slip switch with plunger lock, tanged for 1 inch extra heavy pipe. Present P. R. R. Standard.	44a-B-8240	4 40
1	Pin, $\frac{1}{8}$ "x2 $\frac{3}{8}$ ", with cotter, for operating rods.....	2a-B-8089	09
2	Sleeve Nut for operating rods.....	51-B-8082	36
3	Lock Nut, 1 $\frac{1}{4}$ -inch, without chamfer, for operating rods		10



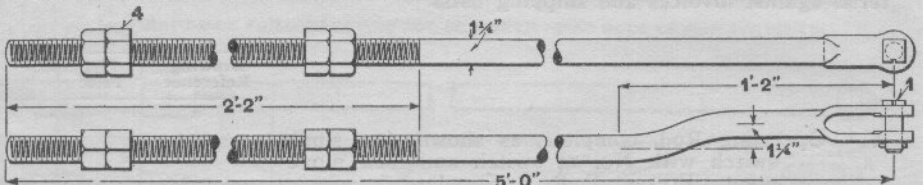
A-FIRST MADE FOR MOVABLE POINT FROGS WITH PLUNGER LOCK.



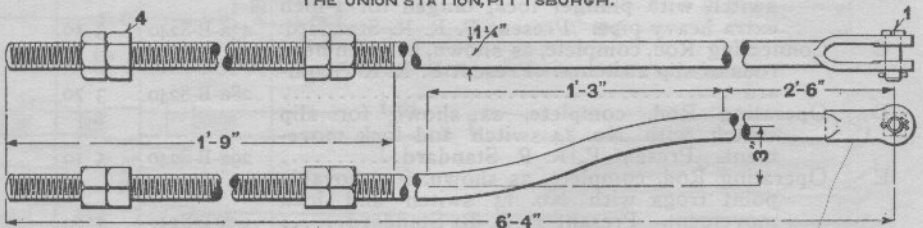
B-FIRST MADE FOR MOVABLE POINT FROGS WITH PLUNGER LOCK.



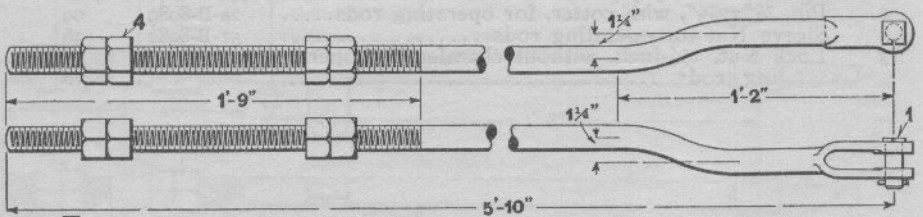
C-FIRST MADE FOR SWITCH ROD WITH CAGE FOR SINGLE SWITCH WITH PLUNGER LOCK.



D-FIRST MADE FOR SINGLE SWITCH WITH SWITCH AND LOCK MOVEMENT, USED AT THE UNION STATION, PITTSBURGH.



E-FIRST MADE FOR CONNECTING ROD BETWEEN HEAD RODS OF SLIP SWITCHES, USED AT THE UNION STATION, PITTSBURGH.



F- LEFT HAND ROD, FIRST MADE FOR MOVABLE POINT FROGS WITH SWITCH AND LOCK MOVEMENT, USED AT THE UNION STATION, PITTSBURGH.

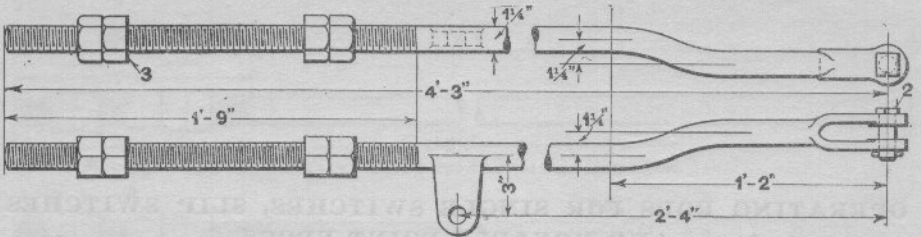
OPERATING RODS FOR SINGLE SWITCHES, SLIP SWITCHES AND MOVABLE POINT FROGS

**OPERATING RODS FOR SINGLE SWITCHES, SLIP SWITCHES
AND MOVABLE POINT FROGS**

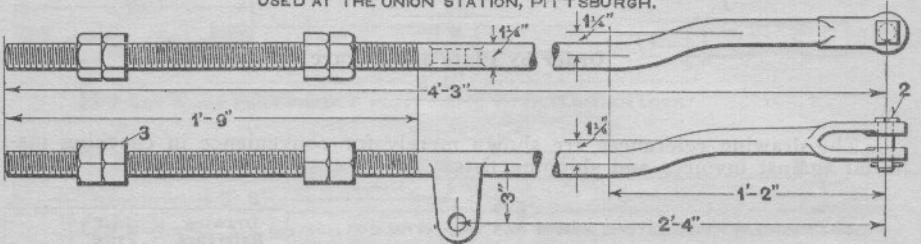
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

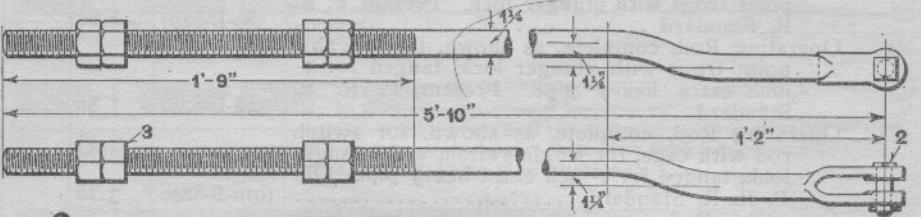
Fig.		Drawing Reference	List Price
A	Operating Rod, complete, as shown, for movable point frogs with plunger lock. Present P. R. R. Standard	58a-B-8240	4 60
B	Operating Rod, complete, as shown, for movable point frogs with plunger lock, tanged for 1-inch extra heavy pipe. Present P. R. R. Standard	57a-B-8240	5 80
C	Operating Rod, complete, as shown, for switch rod with cage, for single switch, with plunger lock, tanged for 1-inch extra heavy pipe. Old P. R. R. Standard.....	101a-B-8240	3 10
D	Operating Rod, complete, as shown, for single switch with No. 14 switch and lock movement, used at the Union Station, Pittsburg..	19a-B-8240	4 10
E	Connecting Rod, complete, as shown, between head rods of slip switches, used at the Union Station, Pittsburg	17a-B-8240	4 40
F	Operating Rod, Left Hand, complete, as shown, for movable point frogs, with No. 14 switch and lock movement, used at the Union Station, Pittsburg. For Right Hand Rod, see Plate 01719, Fig. C.....	12a-B-8240	4 20
1	Pin, $\frac{7}{8}$ "x2 $\frac{3}{8}$ ", with cotter for operating rods.....	2a-B-8089	09
2	Sleeve Nut for operating rods Figs A and B.....	51-B-8082	36
3	Lock Nut, 1 $\frac{1}{4}$ -inch, without chamfer for operating rods Figs. A and B.....		10
4	Lock Nut, 1 $\frac{1}{4}$ -inch, with chamfer, for operating rods Figs. C, D, E and F.....		20



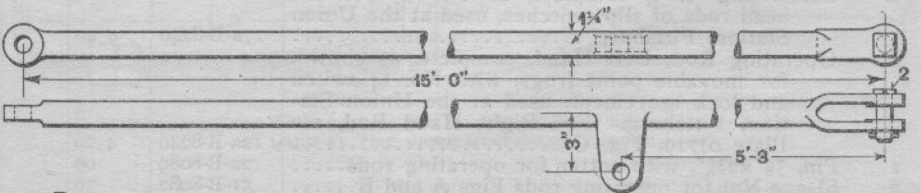
A-RIGHT HAND ROD, FIRST MADE FOR SLIP SWITCH WITH SWITCH AND LOCK MOVEMENT, USED AT THE UNION STATION, PITTSBURGH.



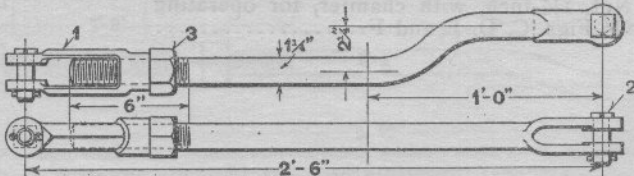
B-LEFT HAND ROD, FIRST MADE FOR SLIP SWITCH WITH SWITCH AND LOCK MOVEMENT, USED AT THE UNION STATION, PITTSBURGH.



C-RIGHT HAND ROD, FIRST MADE FOR MOVABLE POINT FROGS WITH SWITCH AND LOCK MOVEMENT, USED AT THE UNION STATION, PITTSBURGH.



D-SPECIAL CONNECTION BETWEEN SLIP SWITCH AND CYLINDER WHEN LOCATED ON FROG MOVEMENT PLANK, USED AT THE UNION STATION, PITTSBURGH.



E-FIRST MADE FOR PIPE CONNECTION BETWEEN SIDING SWITCH AND DERAIL.

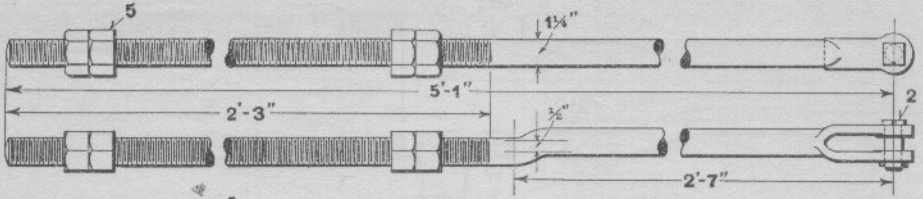
OPERATING RODS FOR SLIP SWITCHES, MOVABLE POINT FROGS AND DERAILS

OPERATING RODS FOR SLIP SWITCHES, MOVABLE POINT
FROGS AND DERAILS

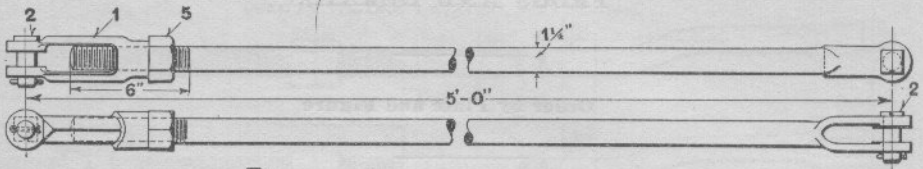
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

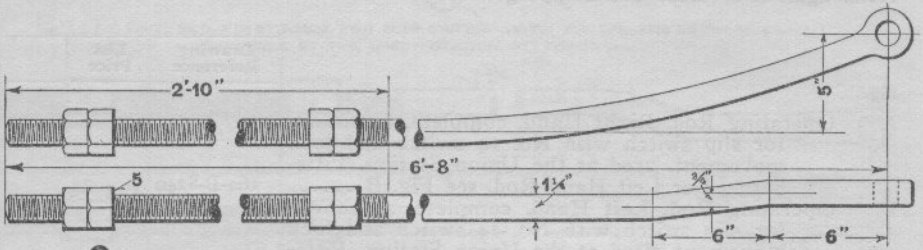
Fig.		Drawing Reference	List Price
A	Operating Rod, Right Hand, complete, as shown, for slip switch with No. 14 switch and lock movement, used at the Union Station, Pittsburgh. For Left Hand Rod, see Fig. B.....	16a-B-8240	5 80
B	Operating Rod, Left Hand, complete, as shown, for slip switch with No. 14 switch and lock movement, used at the Union Station, Pittsburgh. For Right Hand Rod, see Fig. A.....	15a-B-8240	5 80
C	Operating Rod, Right Hand, complete, as shown, for movable point frogs, with No. 14 switch and lock movement, used at the Union Station, Pittsburgh. For Left Hand Rod, see Plate 01717, Fig. F.....	11a-B-8240	4 20
D	Special Connecting Rod, complete, as shown, between slip switch and cylinder, when cylinder is located on frog movement plank, used at the Union Station, Pittsburgh.....	26a-B-8240	9 30
E	Connecting Rod, complete, as shown, between siding switch and pipe connections to derail. Present P. R. R. Standard.....	51-B-8240	2 40
1	Screw Jaw, 1¼-inch, complete, with pin and cotter Fig. 2, for connecting rod Fig. E.....	4a-B-7742	52
2	Pin, 7/8"x2¾", with cotter.....	2a-B-8089	09
3	Lock Nut, 1¼-inch.....		20



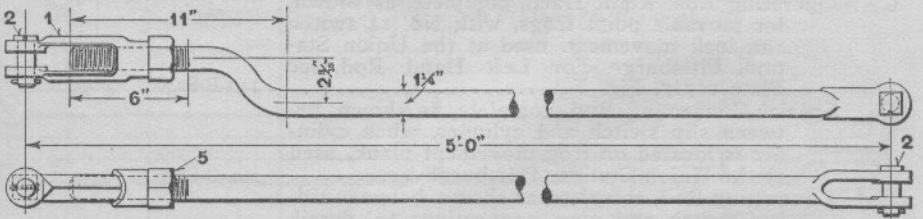
A FIRST MADE FOR SINGLE POINT DERAIL.



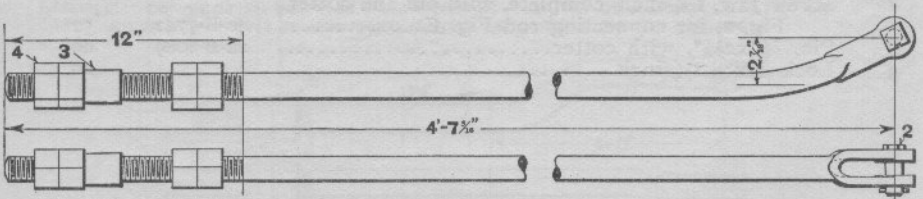
B FIRST MADE FOR HAYES DERAIL.



C FIRST MADE FOR SINGLE SWITCH WITH GROUND LEVER STAND.



D FIRST MADE FOR A HAYES DERAIL WITH A SWITCH AND LOCK MOVEMENT.



E FIRST MADE FOR A SINGLE SWITCH WITH A DIRECT ACTING ELECTRO-PNEUMATIC 4x5 CYLINDER.

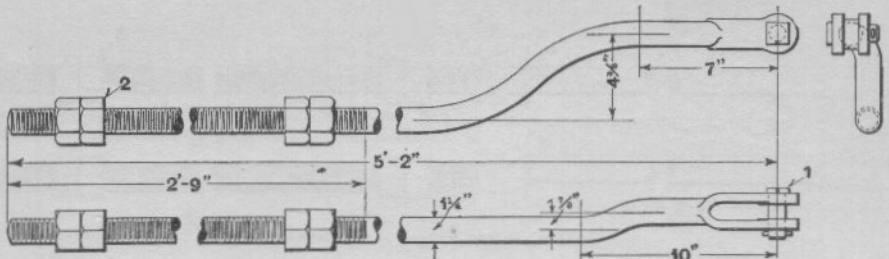
OPERATING RODS FOR SINGLE SWITCHES AND DERAILS

OPERATING RODS FOR SINGLE SWITCHES AND DERAILS

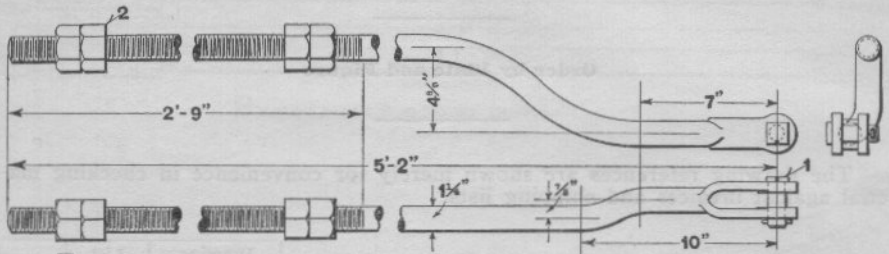
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

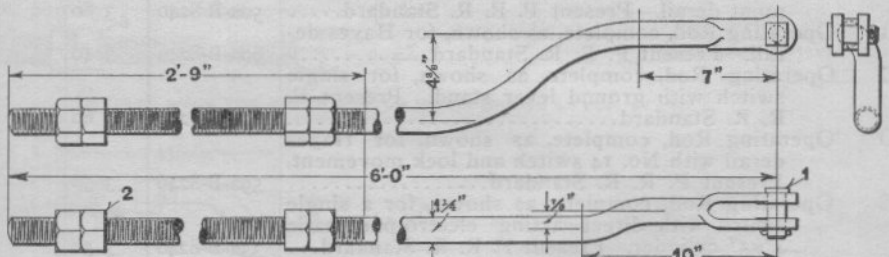
Fig.	Description	Drawing Reference	List Price
A	Operating Rod, complete, as shown, for single point derail. Present P. R. R. Standard.....	50a-B-8240	3 80
B	Operating Rod, complete, as shown, for Hayes derail. Present P. R. R. Standard.....	60a-B-8240	3 40
C	Operating Rod, complete, as shown, for single switch with ground lever stand. Present P. R. R. Standard.....	62a-B-8240	3 60
D	Operating Rod, complete, as shown, for Hayes derail with No. 14 switch and lock movement. Present P. R. R. Standard.....	59a-B-8240	3 50
E	Operating Rod, complete, as shown, for a single switch with direct acting electro-pneumatic 4"x5" cylinder. Present P. R. R. Standard...	33a-B-8240	3 50
1	Screw Jaw, complete, with pin and cotter Fig. 2 for operating rods Figs. B and D.....	4a-B-7742	52
2	Pin, 7/8"x2 3/8", with cotter.....	2a-B-8089	09
3	Sleeve Nut for operating rod Fig. E.....	51-B-8082	36
4	Lock Nut, 1 1/4-inch, without chamfer, for operating rod Fig. E.....		10
5	Lock Nut, 1 1/4-inch, with chamfer, for operating rods Figs. A, B, C and D.....		20



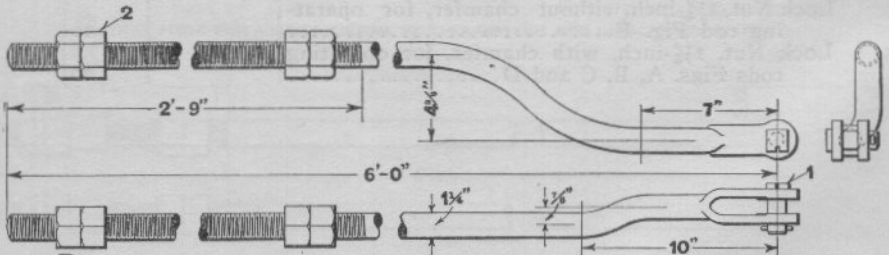
A - RIGHT HAND ROD, FIRST MADE FOR SINGLE SWITCH WITH N^o11 SWITCH AND LOCK MOVEMENT.



B - LEFT HAND ROD, FIRST MADE FOR SINGLE SWITCH WITH N^o11 SWITCH AND LOCK MOVEMENT.



C - RIGHT HAND ROD, FIRST MADE FOR SINGLE SWITCH WITH N^o11 SWITCH AND LOCK MOVEMENT.



D - LEFT HAND ROD, FIRST MADE FOR SINGLE SWITCH WITH N^o11 SWITCH AND LOCK MOVEMENT.

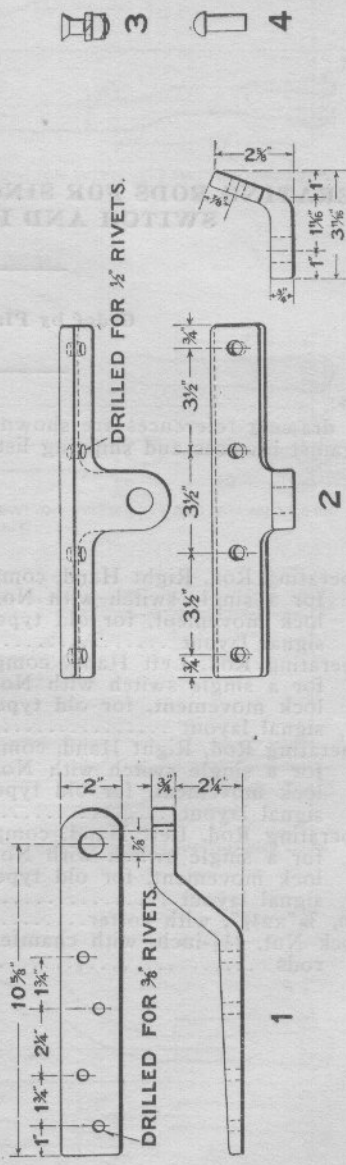
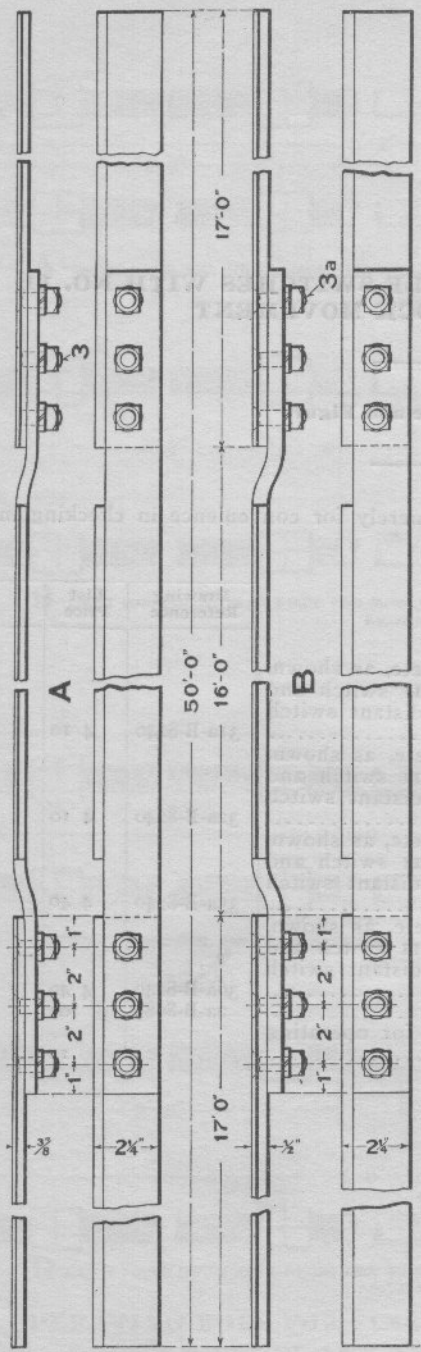
OPERATING RODS FOR SINGLE SWITCHES WITH NO. 11 SWITCH AND LOCK MOVEMENT

OPERATING RODS FOR SINGLE SWITCHES WITH NO. 11 SWITCH AND LOCK MOVEMENT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Operating Rod, Right Hand, complete, as shown, for a single switch with No. 11 switch and lock movement, for old type distant switch signal layout	31a-B-8240	4 10
B	Operating Rod, Left Hand, complete, as shown, for a single switch with No. 11 switch and lock movement, for old type distant switch signal layout	32a-B-8240	4 10
C	Operating Rod, Right Hand, complete, as shown, for a single switch with No. 11 switch and lock movement, for old type distant switch signal layout	35a-B-8240	4 40
D	Operating Rod, Left Hand, complete, as shown, for a single switch with No. 11 switch and lock movement, for old type distant switch signal layout	36a-B-8240	4 40
1	Pin, $\frac{7}{8}$ "x2 $\frac{3}{8}$ ", with cotter.....	2a-B-8089	09
2	Lock Nut, 1 $\frac{1}{4}$ -inch, with chamfer, for operating rods		20



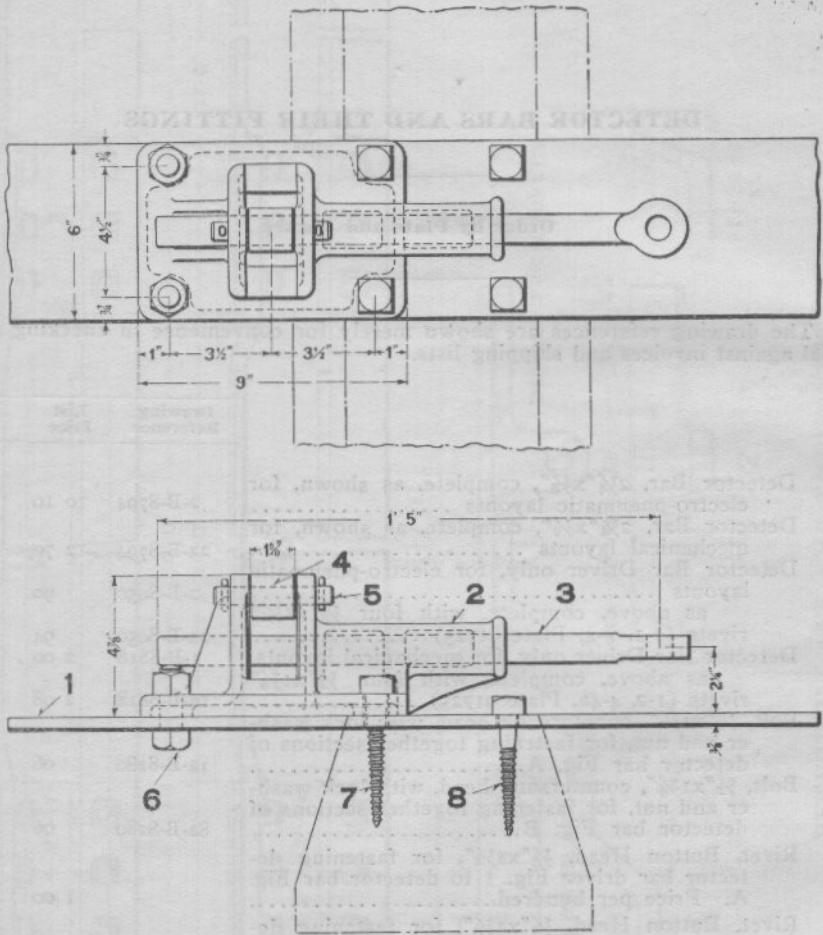
DETECTOR BARS AND THEIR FITTINGS

DETECTOR BARS AND THEIR FITTINGS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

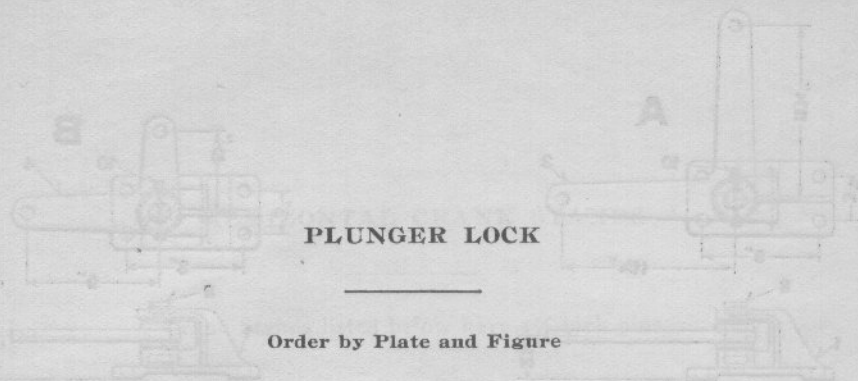
Fig.	Description	Drawing Reference	List Price
A	Detector Bar, $2\frac{1}{4} \times 3\frac{3}{8}$ ", complete, as shown, for electro-pneumatic layouts	2-B-8794	10 10
B	Detector Bar, $2\frac{1}{4} \times 1\frac{1}{2}$ ", complete, as shown, for mechanical layouts	2a-B-8794	12 70
1	Detector Bar Driver only, for electro-pneumatic layouts	2-B-8050	90
1a	as above, complete, with four $\frac{3}{8} \times 1\frac{1}{2}$ " rivets (1-1, 4-4, Plate 01725).....	2a-B-8050	94
2	Detector Bar Driver only, for mechanical layouts. as above, complete, with four $\frac{1}{2} \times 1\frac{3}{8}$ " rivets (1-2, 4-4a, Plate 01725).....	1-B-8818	2 00
2a	as above, complete, with four $\frac{1}{2} \times 1\frac{3}{8}$ " rivets (1-2, 4-4a, Plate 01725).....	1a-B-8818	2 08
3	Bolt, $\frac{1}{2} \times 1\frac{1}{2}$ ", countersunk head, with lock washer and nut, for fastening together sections of detector bar Fig. A.....	1a-B-8280	06
3a	Bolt, $\frac{1}{2} \times 1\frac{3}{4}$ ", countersunk head, with lock washer and nut, for fastening together sections of detector bar Fig. B.....	8a-B-8280	06
4	Rivet, Button Head, $\frac{3}{8} \times 1\frac{1}{2}$ ", for fastening detector bar driver Fig. 1 to detector bar Fig. A. Price per hundred.....		1 00
4a	Rivet, Button Head, $\frac{1}{2} \times 1\frac{3}{8}$ ", for fastening detector bar driver Fig. 2 to detector bar Fig. B. Price per hundred.....		2 00



A

FOR ADJUSTABLE LOCK ROD

PLUNGER LOCK

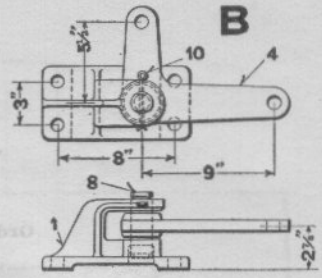
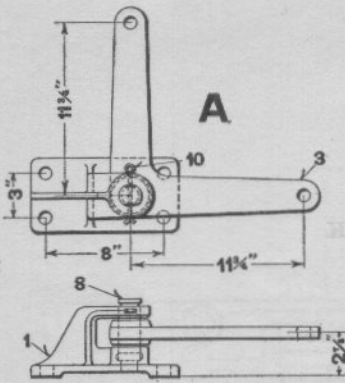


PLUNGER LOCK

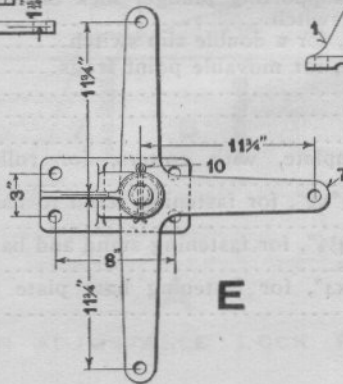
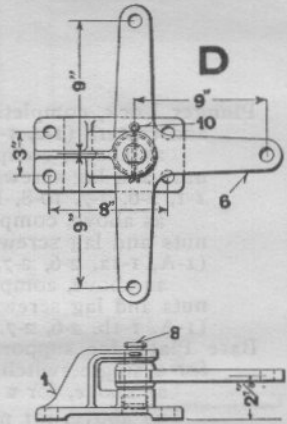
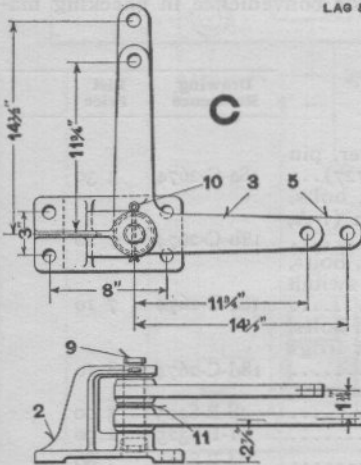
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Plunger Lock, complete, with plunger, roller, pin and cotters (1-2, 1-3, 1-4, 1-5, Plate 01727)...	18a-C-2674	3 30
Aa	as above, complete, with base plate, bolts, nuts and lag screws, for a single switch (1-A, 1-1, 2-6, 2-7, 10-8, Plate 01727).....	18b-C-2674	7 20
Ab	as above, complete, with base plate, bolts, nuts and lag screws, for a double slip switch (1-A, 1-1a, 2-6, 2-7, 10-8, Plate 01727).....	18c-C-2674	7 10
Ac	as above, complete, with base plate, bolts, nuts and lag screws, for movable point frogs (1-A, 1-1b, 2-6, 2-7, 12-8, Plate 01727).....	18d-C-2674	8 10
1	Base Plate, for supporting plunger lock on ties, for a single switch.....	48-B-8325	3 00
1a	as above, for a double slip switch.....	51-B-8325	2 90
1b	as above, for movable point frogs.....	52-B-8325	3 80
2	Stand only	18-C-2674	2 34
3	Plunger	1-B-8226	66
4	Roller	69-B-8072	18
5	Pin, 5/8"x4", complete, with cotters, for roller Fig. 4	33a-B-8057	10
6	Bolt and Nut, 3/4"x2", for fastening stand to base plate		10
7	Lag Screw, 3/4"x4 1/2", for fastening stand and base plate to ties.....		08
8	Lag Screw, 3/4"x4", for fastening base plate to ties		08



Holes in stands
for 3/4 inch bolts or
lag screws.



HORIZONTAL CRANK STANDS

HORIZONTAL CRANK STANDS

Crank Stands listed below have 1½-inch pins.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	One-Way Horizontal Crank, Right Angle, 11¾"x-11¾", complete, as shown (1-1, 1-3, 1-8, 1-10, Plate 01729)	18b-C-4953	3 60
Aa	as above, with solid jaws, pins and cotters	18c-C-4953	6 00
Ab	as above, with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	18d-C-4953	6 50
Ac	One-Way Horizontal Crank, Right Angle, 9"x9", complete (1-1, 1-3a, 1-8, 1-10, Plate 01729)...	18e-C-4953	3 40
Ad	as above, with solid jaws, pins and cotters	18f-C-4953	5 80
Ae	as above, with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	18g-C-4953	6 30
B	One-Way Horizontal Crank, Right Angle, 9"x-5½", complete, as shown, for mechanical dwarf signal layout, (1-1, 1-4, 1-8, 1-10, Plate 01729)	18h-C-4953	3 50
Ba	as above, with four ¾"x6" bolts, washers and nuts	18i-C-4953	4 00
C	Two-Way Horizontal Crank, Right Angles, 11¾"x11¾", 14½"x14½", complete, as shown, (1-2, 1-3, 1-5, 1-9, 1-11, 1-10, Plate 01729).....	19b-C-4953	7 00
Ca	as above, with solid jaws, pins and cotters.	19c-C-4953	11 80
Cb	as above, with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	19d-C-4953	12 30

HORIZONTAL CRANK STANDS

Order by Plate and Figure

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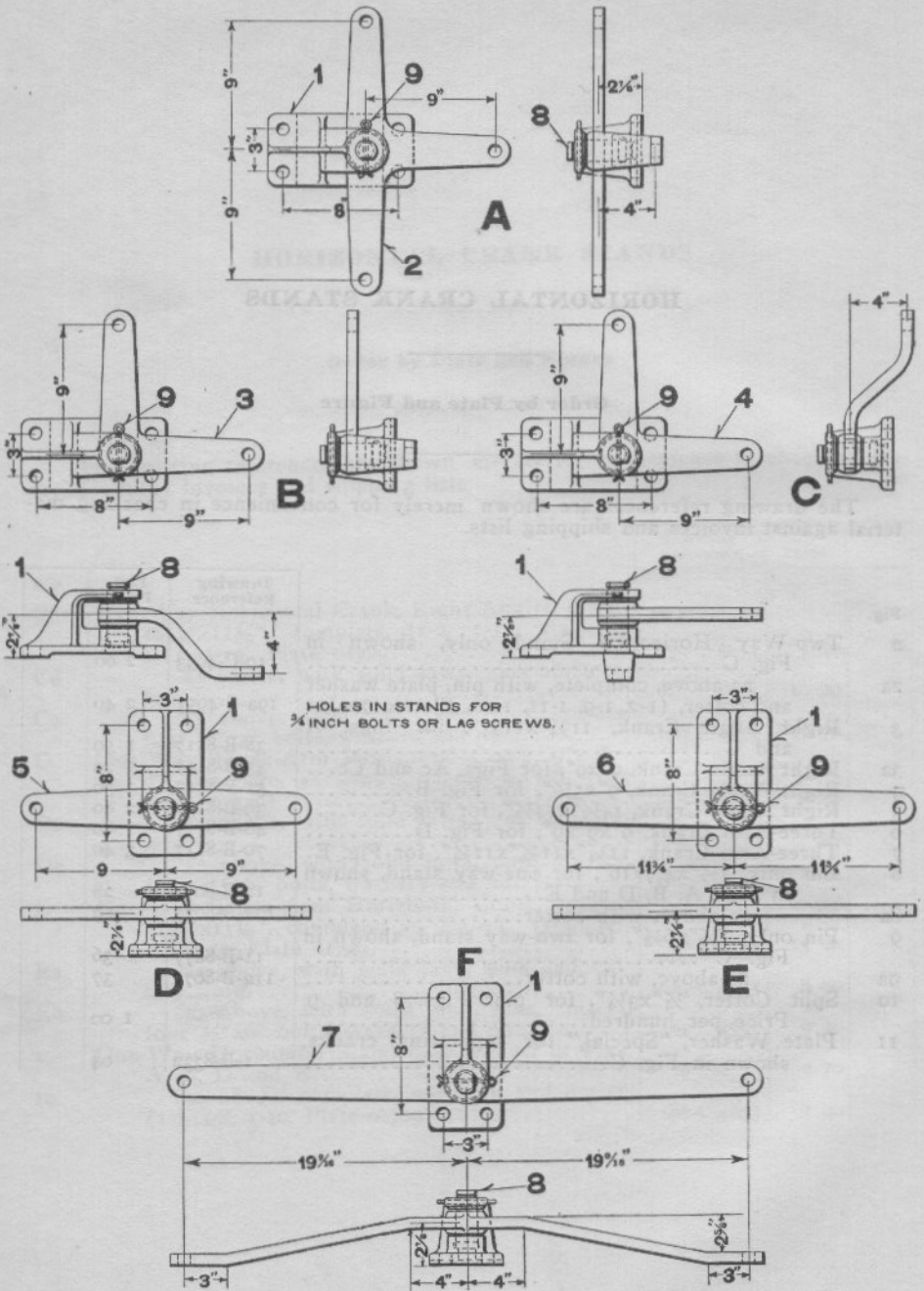
Fig.	Description	Drawing Reference	List Price
Cc	Two-Way Horizontal Crank, Right Angles, 9"x9", 11 $\frac{3}{4}$ "x11 $\frac{3}{4}$ ", complete, (1-2, 1-3a, 1-3, 1-9, 1-11, 1-10, Plate 01729).....	19e-C-4953	5 40
Cd	as above, with solid jaws, pins and cotters	19f-C-4953	10 20
Ce	as above, with solid jaws, pins, cotters, four $\frac{3}{4}$ "x6" bolts, washers and nuts.....	19g-C-4953	10 70
D	One-Way Three-Arm Horizontal Crank, 9"x9"x-9", complete, as shown, (1-1, 1-6, 1-8, 1-10, Plate 01729)	18k-C-4953	4 00
Da	as above, with solid jaws, pins and cotters	18m-C-4953	7 60
Db	as above, with solid jaws, pins, cotters, four $\frac{3}{4}$ "x6" bolts, washers and nuts.....	18n-C-4953	8 10
E	One-Way Three-Arm Horizontal Crank, 11 $\frac{3}{4}$ "x-11 $\frac{3}{4}$ "x11 $\frac{3}{4}$ ", complete, as shown, (1-1, 1-7, 1-8, 1-10, Plate 01729).....	18p-C-4953	5 20
Ea	as above, with solid jaws, pins and cotters	18q-C-4953	8 80
Eb	as above, with solid jaws, pins, cotters, four $\frac{3}{4}$ "x6" bolts, washers and nuts.....	18r-C-4953	9 30
I	One-Way Horizontal Stand only, shown in Figs. A, B, D and E.....	18-C-4953	1 70
1a	as above, complete, with pin and cotter, (1-1, 1-8, 1-10, Plate 01729).....	18a-C-4953	2 00

HORIZONTAL CRANK STANDS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
2	Two-Way Horizontal Stand only, shown in Fig. C	19-C-4953	2 00
2a	as above, complete, with pin, plate washer and cotter, (1-2, 1-9, 1-11, 1-10, Plate 01729)..	19a-C-4953	2 40
3	Right Angle Crank, 11 $\frac{3}{4}$ "x11 $\frac{3}{4}$ ", for Figs. A and C	38-B-8117	1 50
3a	Right Angle Crank, 9"x9", for Figs. Ac and Cc...	45-B-8117	1 20
4	Right Angle Crank, 9"x5 $\frac{1}{2}$ ", for Fig. B.....	51-B-8117	1 30
5	Right Angle Crank, 14 $\frac{1}{2}$ "x14 $\frac{1}{2}$ ", for Fig. C.....	39-B-8117	2 80
6	Three-Arm Crank, 9"x9"x9", for Fig. D.....	48-B-8117	1 80
7	Three-Arm Crank, 11 $\frac{3}{4}$ "x11 $\frac{3}{4}$ "x11 $\frac{3}{4}$ ", for Fig. E.	70-B-8117	3 40
8	Pin only, 1 $\frac{1}{2}$ "x4 7/16", for one-way stand, shown in Figs. A, B, D and E.....	12-B-8077	28
8a	as above, with cotter.....	12a-B-8077	29
9	Pin only, 1 $\frac{1}{2}$ "x6 $\frac{3}{8}$ ", for two-way stand, shown in Fig. C	11-B-8077	36
9a	as above, with cotter.....	11a-B-8077	37
10	Split Cotter, 1/4"x3 $\frac{1}{4}$ ", for pins Figs. 8 and 9. Price per hundred.....		1 00
11	Plate Washer, "Special," for separating cranks, shown in Fig. C.....	1-B-8332	04



HORIZONTAL CRANK STANDS AND STRAIGHT ARM COMPENSATORS

HORIZONTAL CRANK STANDS AND STRAIGHT ARM COMPENSATORS

Crank Stands listed below have 1½-inch pins.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	One-Way Three-Arm Horizontal Crank, with set in middle arm, 9"x9"x9", complete, as shown, (1-1, 1-2, 1-8, 1-9, Plate 01731).....	18s-C-4953	4 70
Aa	as above, with solid jaws, pins and cotters	18t-C-4653	8 30
Ab	as above, with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	18u-C-4953	8 80
B	One-Way Horizontal Crank, Right Angle, with left hand set, 9"x9", complete, as shown, (1-1, 1-3, 1-8, 1-9, Plate 01731.).....	18v-C-4953	4 10
Ba	as above, with solid jaws, pins and cotters	18w-C-4953	6 50
Bb	as above, with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	18x-C-4953	7 00
C	One-Way Horizontal Crank, Right Angle, with right hand set, 9"x9", complete, as shown, (1-1, 1-4, 1-8, 1-9, Plate 01731.).....	18y-C-4953	4 10

**HORIZONTAL CRANK STANDS AND STRAIGHT
ARM COMPENSATORS**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

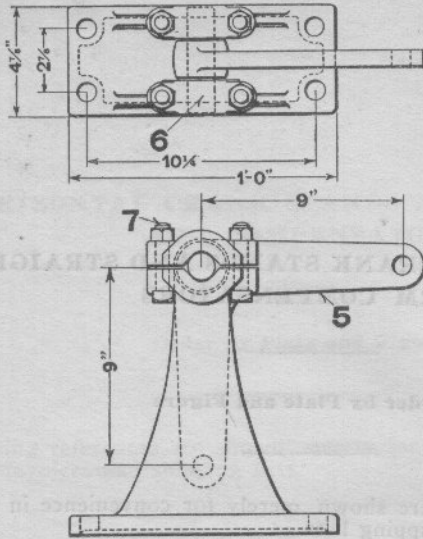
Fig.		Drawing Reference	List Price
Ca	One-Way Horizontal Crank, Right Angle, with right hand set, 9"x9", complete, with solid jaws, pins and cotters.....	18z-C-4953	6 50
Cb	as above, with solid jaws, pins, cotters, four 3/4"x6" bolts, washers and nuts.....	18aa-C-4953	7 00
D	One-Way Straight-Arm Horizontal Compensator, 9"x9", complete, as shown, (1-1, 1-5, 1-8, 1-9, Plate 01731.).....	18bb-C-4953	3 40
Da	as above, with solid jaws, pins and cotters	18cc-C-4953	5 80
Db	as above, with solid jaws, pins, cotters, four 3/4"x6" bolts, washers and nuts.....	18dd-C-4953	6 30
E	One-Way Straight-Arm Horizontal Compensator, 11 3/4"x11 3/4", complete, as shown, (1-1, 1-6, 1-8, 1-9, Plate 01731.).....	18ee-C-4953	3 70
Ea	as above, with solid jaws, pins and cotters	18ff-C-4953	6 10
Eb	as above, with solid jaws, pins, cotters, four 3/4"x6" bolts, washers and nuts.....	18gg-C-4953	6 60
F	One-Way Straight-Arm Horizontal Compensator, 19 9/16"x19 9/16", complete as shown, used for operating movable point frogs in a mechanical layout, (1-1, 1-7, 1-8, 1-9, Plate 01731)	18hh-C-4953	7 30

**HORIZONTAL CRANK STANDS AND STRAIGHT
ARM COMPENSATORS**

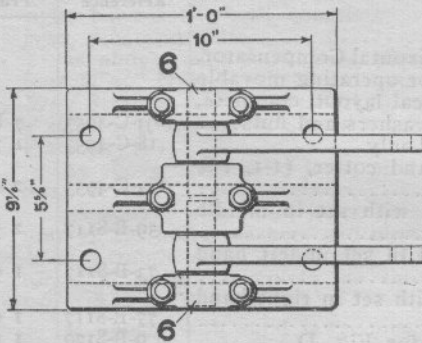
Order by Plate and Figure

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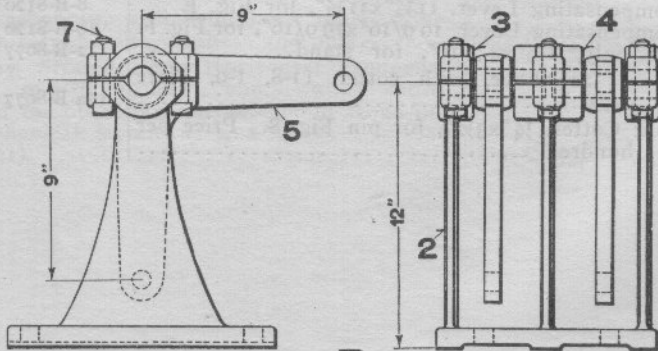
Fig.	Description	Drawing Reference	List Price
Fa	One-Way Straight-Arm Horizontal Compensator, 19 9/16" x 19 9/16", used for operating movable point frogs in a mechanical layout, complete, with four 3/4" x 6" bolts, washers and nuts....	18jj-C-4953	7 80
1	One-Way Horizontal Stand only.....	18-C-4953	1 70
1a	as above, with pin and cotter, (1-1, 1-8, 1-9, Plate 01731).....	18a-C-4953	2 10
2	Three-Arm Crank, 9" x 9" x 9", with set in middle arm for Fig. A.....	59-B-8117	2 50
3	Right Angle Crank, 9" x 9", with set in left hand arm for Fig. B.....	73-B-8117	1 90
4	Right Angle Crank, 9" x 9", with set in right hand arm for Fig. C.....	77-B-8117	1 90
5	Compensating Lever, 9" x 9", for Fig. D.....	9-B-8120	1 20
6	Compensating Lever, 11 3/4" x 11 3/4", for Fig. E....	8-B-8120	1 50
7	Compensating Lever, 19 9/16" x 19 9/16", for Fig. F.	19-B-8120	5 10
8	Pin only, 1 1/2" x 4 7/16", for stand.....	12-B-8077	28
8a	as above, with cotter, (1-8, 1-9, Plate 01731.)	12a-B-8077	29
9	Split Cotter, 1/4" x 3 1/4", for pin Fig. 8. Price per hundred		1 00



A



HOLE IN BASE
FOR 3/4" BOLT
OR LAG SCREW.



B

VERTICAL CRANK STANDS

VERTICAL CRANK STANDS

Crank Stands listed below have 1½-inch pins.

Order by Plate and Figure

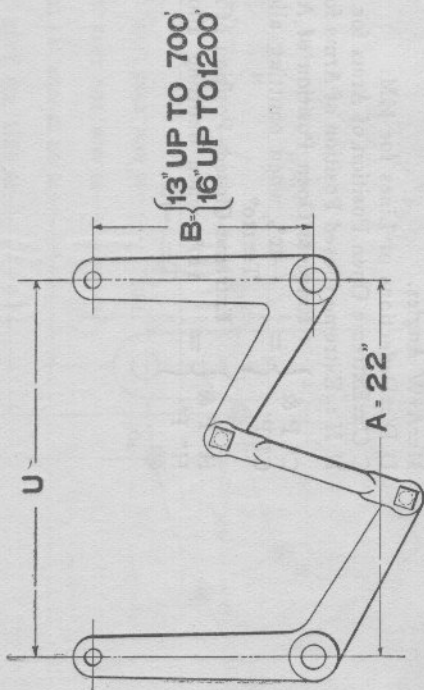
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	One-Way Vertical Crank, 9"x9", stand 12 inches high, with separable caps, complete, as shown, (1-1, 2-3, 1-6, 1-5, 4-7, Plate 01733)...	20a-C-5836	4 50
Aa	as above, with solid jaws, pins and cotters	"	6 90
Ab	as above with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	"	7 40
B	Two-Way Vertical Crank, 9"x9", stand 12 inches high, with separable caps, complete, as shown (1-2, 2-3, 1-4, 2-6, 2-5, 6-7, Plate 01733)	21a-C-5836	8 50
Ba	as above, with solid jaws, pins and cotters	"	13 30
Bb	as above, with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	"	13 80
1	One-Way Vertical Stand only, 12 inches high, for Fig. A	20-C-5836	2 40
1a	as above, complete, with separable caps, pin, bolts and nuts, (1-1, 2-3, 1-6, 4-7, Plate 01733)	"	3 30
2	Two-Way Vertical Stand only, 12 inches high, for Fig. B	21-C-5836	4 40
2a	as above, complete, with separable caps, pins, bolts and nuts, (1-2, 2-3, 1-4, 2-6, 6-7, Plate 01733)	"	6 00
3	End Cap for stands shown in Figs. A and B.....	23-C-5836	16
4	Intermediate Cap for stand shown in Fig. B.....	22-C-5836	32
5	Right Angle Crank, 9"x9", for stands shown in Figs. A and B	45-B-8117	1 20
6	Pin, 1½"x4¾", for stands shown in Figs. A and B	5-B-8077	20
7	Bolt and Nut, ⅝"x3", for fastening separable caps to stands		10

LAZY JACK COMPENSATOR DIAGRAM

Meanings of Symbols Used on the Opposite Plate

- T=Temperature Fahr.
- P' P'=Bearing Pins.
- A=Temperature Angle.
- W=Stroke Angle.
- M=A+W Angles.
- D D'=Deflections of Lines for 1/2M.
- C C'=Extreme Open Position of Arms for Max. Length of Lines when T=-10°.
- H H'=Extreme Closed Position of Arms for Max. Length of Lines when T=110°.
- C" P & } Extreme Open Position of Arms for 1200' Length of Lines when T=
C" P' } -10°, when omitting allowance for temperature in setting when
T=110°.
- H" P & } Extreme Closed Position of Arms for 1200' Length of Lines when T=
H" P' } 110°, when omitting allowance for temperature in setting when
T=-10°.



VALUES OF "U" ARE BASED ON .08 OF AN INCH AS COEFFICIENT OF EXPANSION FOR AN INCREASE OF 10° FAHR. FOR EACH 100 FT. OF LINE AND THE NEAREST $\frac{1}{16}$ INCH IS GIVEN.

LENGTH OF LINES COMPENSATED IN FEET

TEMP ^o	100	200	300	400	500	600	700	800	900	1000	1100	1200
110°	21 $\frac{1}{2}$ "	21"	20 $\frac{1}{2}$ "	20"	19 $\frac{1}{2}$ "	19"	18 $\frac{1}{2}$ "	18"	17 $\frac{1}{2}$ "	17"	16 $\frac{1}{2}$ "	16"
90°	21 $\frac{1}{16}$ "	21 $\frac{3}{8}$ "	21"	20 $\frac{1}{16}$ "	20 $\frac{3}{8}$ "	20"	19 $\frac{1}{16}$ "	19 $\frac{3}{8}$ "	19"	18 $\frac{1}{16}$ "	18 $\frac{1}{2}$ "	18 $\frac{1}{4}$ "
70°	21 $\frac{3}{16}$ "	21 $\frac{1}{8}$ "	21 $\frac{1}{16}$ "	21 $\frac{3}{8}$ "	21 $\frac{1}{4}$ "	21"	20 $\frac{7}{16}$ "	20 $\frac{1}{2}$ "	20 $\frac{1}{2}$ "	20 $\frac{3}{8}$ "	20 $\frac{1}{4}$ "	20 $\frac{3}{8}$ "
50°	MEAN TEMPERATURE U = A = 22"											
30°	22 $\frac{3}{16}$ "	22 $\frac{5}{16}$ "	22 $\frac{1}{2}$ "	22 $\frac{3}{8}$ "	22 $\frac{9}{16}$ "	23"	23 $\frac{3}{16}$ "	23 $\frac{5}{16}$ "	23 $\frac{1}{2}$ "	23 $\frac{3}{8}$ "	23 $\frac{3}{8}$ "	23 $\frac{5}{16}$ "
10°	22 $\frac{3}{16}$ "	22 $\frac{5}{16}$ "	23"	23 $\frac{3}{16}$ "	23 $\frac{5}{16}$ "	23 $\frac{3}{8}$ "	24 $\frac{1}{16}$ "	24 $\frac{3}{16}$ "	24 $\frac{7}{16}$ "	25 $\frac{3}{16}$ "	25 $\frac{1}{2}$ "	25 $\frac{7}{16}$ "
0°	22 $\frac{7}{16}$ "	22 $\frac{9}{16}$ "	23 $\frac{1}{8}$ "	23 $\frac{1}{4}$ "	23 $\frac{5}{16}$ "	24 $\frac{1}{16}$ "	24 $\frac{3}{16}$ "	24 $\frac{7}{16}$ "	25 $\frac{1}{8}$ "	25 $\frac{1}{4}$ "	26 $\frac{1}{8}$ "	26 $\frac{3}{16}$ "
-10°	22 $\frac{1}{2}$ "	23"	23 $\frac{1}{2}$ "	24"	24 $\frac{1}{2}$ "	25"	25 $\frac{1}{2}$ "	26"	26 $\frac{1}{2}$ "	27"	27 $\frac{1}{2}$ "	28"

SINCE THE MEAN TEMPERATURE VARIES IT MUST BE TAKEN FOR THE LATITUDE WHERE THE WORK IS DONE

VALUES OF SPACING "U" FOR GIVEN TEMPERATURES AND LENGTHS OF LINES TO BE COMPENSATED

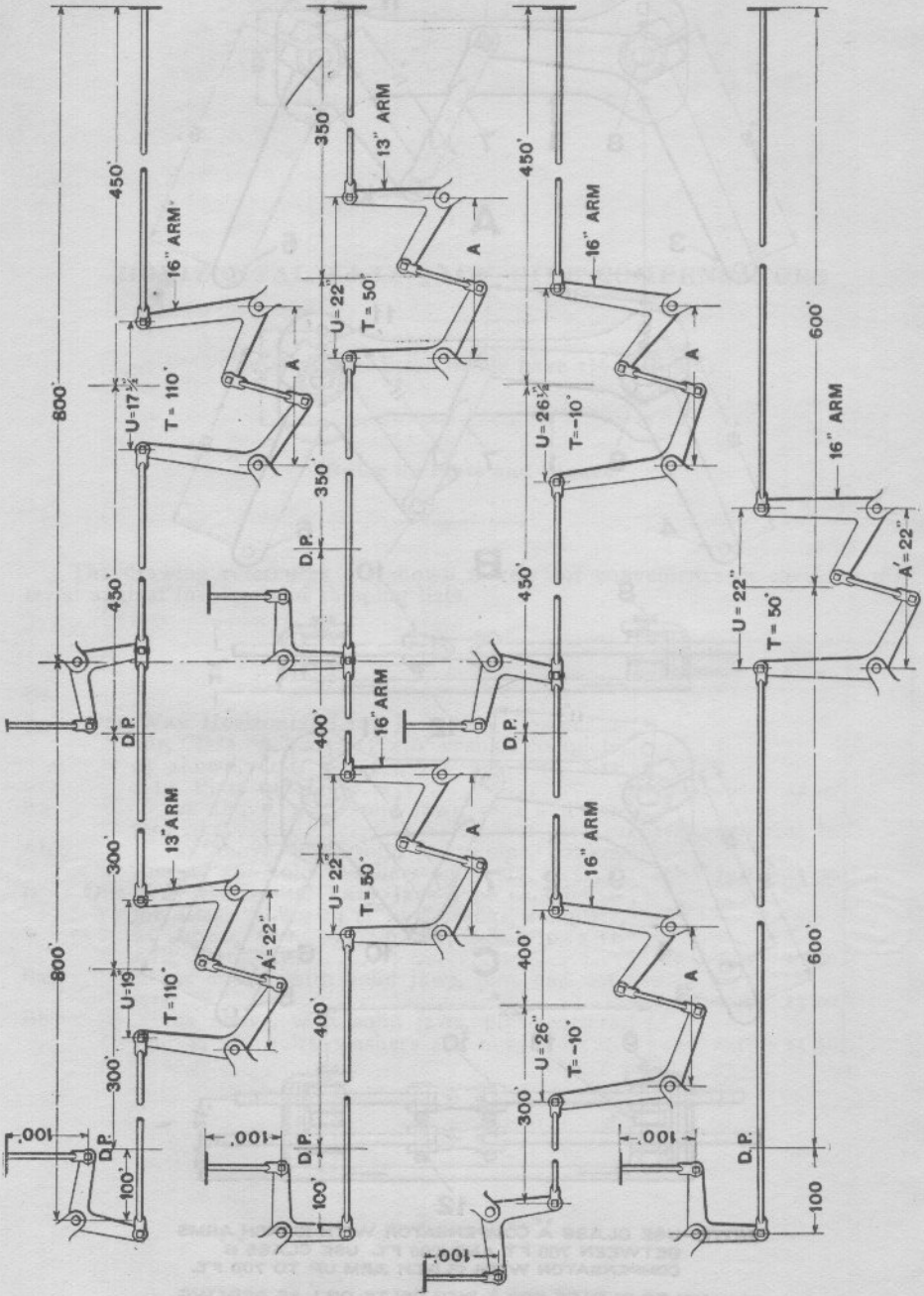
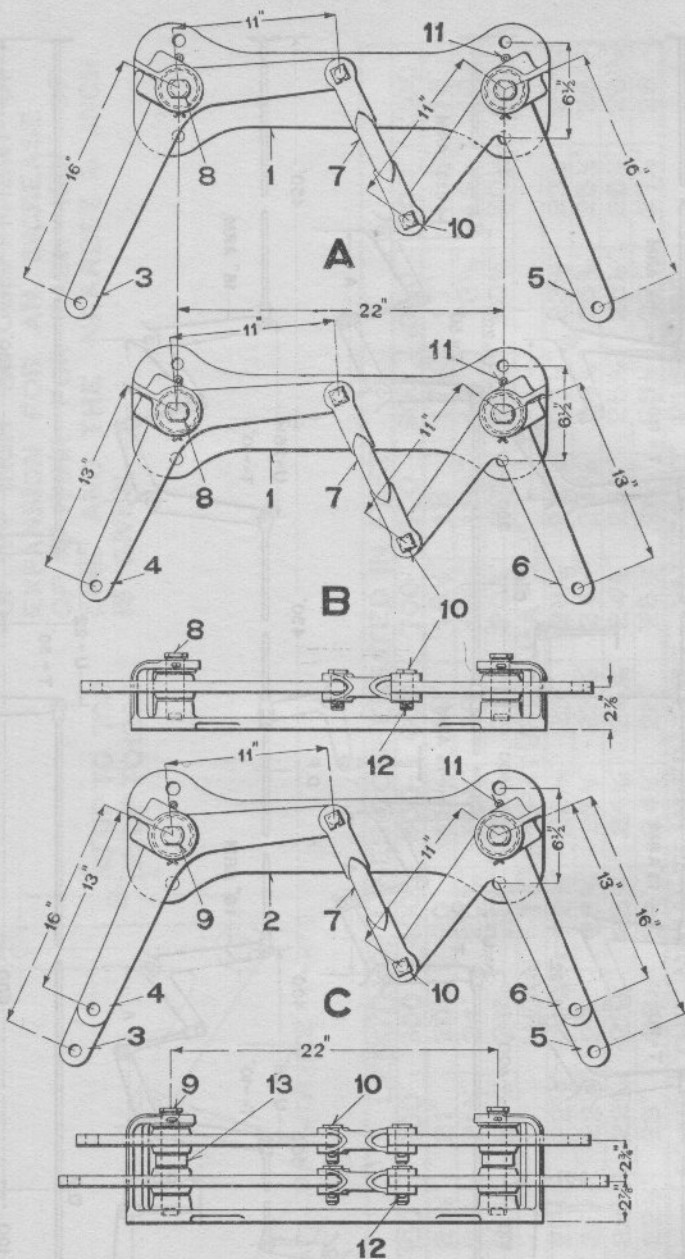


DIAGRAM OF LOCATION OF COMPENSATORS AND EFFECT OF TEMPERATURE



NOTE:--USE CLASS "A" COMPENSATOR WITH 16 INCH ARMS BETWEEN 700 FT. AND 1200 FT. USE CLASS "B" COMPENSATOR WITH 13 INCH ARM UP TO 700 FT.
 HOLES IN BASE FOR 3/8 INCH BOLTS OR LAG SCREWS.

HORIZONTAL LAZY JACK PIPE COMPENSATORS

HORIZONTAL LAZY JACK PIPE COMPENSATORS

Compensators listed below have 1½-inch pins.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	One-Way Horizontal Lazy Jack Pipe Compensator, Class "A," with 11"x16" cranks, complete, as shown, (1-1, 1-3, 1-5, 1-7, 2-8, 2-10, 2-11, 2-12, Plate 01741).....	18-C-294I	12 40
Aa	as above, with solid jaws, pins and cotters	18a-C-294I	14 80
Ab	as above, with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	18b-C-294I	15 30
B	One-Way Horizontal Lazy Jack Pipe Compensator, Class "B," with 11"x13" cranks, complete, as shown, (1-1, 1-4, 1-6, 1-7, 2-8, 2-10, 2-11, 2-12, Plate 01741).....	19-C-294I	10 60
Ba	as above, with solid jaws, pins and cotters	19a-C-294I	13 00
Bb	as above, with solid jaws, pins, cotters, four ¾"x6" bolts, washers and nuts.....	19b-C-294I	13 50

HORIZONTAL LAZY JACK PIPE COMPENSATORS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

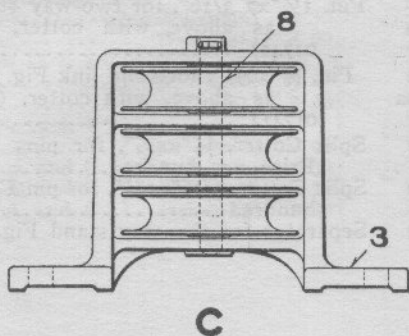
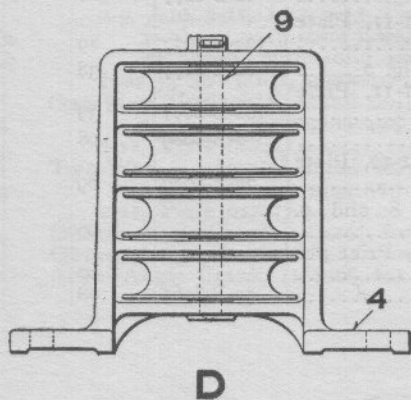
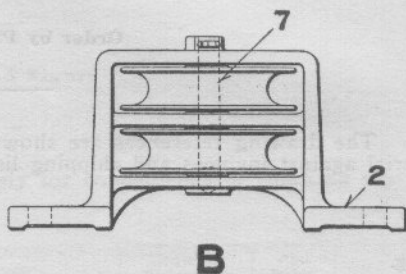
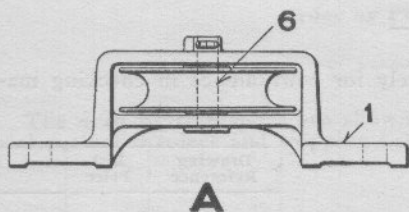
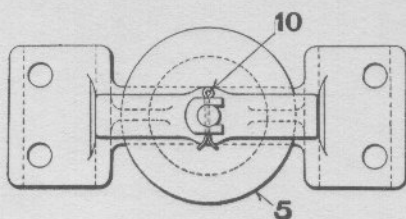
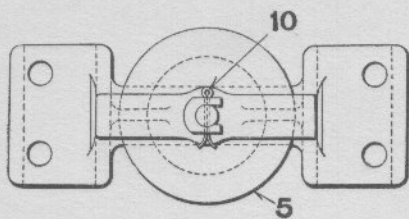
Fig.		Drawing Reference	List Price
C	Two-Way Horizontal Lazy Jack Pipe Compensator, with 11"x13" and 11"x16" cranks, complete, as shown, (1-2, 1-3, 1-4, 1-5, 1-6, 2-7, 2-9, 4-10, 2-11, 4-12, 2-13, Plate 01741).....	21-C-2941	18 00
Ca	as above, with solid jaws, pins and cotters,	21a-C-2941	22 80
Cb	as above, with solid jaws, pins, cotters, four 3/4"x6" bolts, washers and nuts.....	21b-C-2941	23 30
1	One-Way Horizontal Stand only.....	17-C-2941	4 80
1a	as above, with pins and cotters, (1-1, 2-8, 2-11, Plate 01741).....	17a-C-2941	5 40
2	Two-Way Horizontal Stand only.....	20-C-2941	5 20
2a	as above, with pins and cotters, (1-2, 2-9, 2-11, Plate 01741).....	20a-C-2941	6 00
3	Obtuse Angle Crank, 11"x16", for Figs. A and C..	42-B-8117	2 50
4	Obtuse Angle Crank, 11"x13", for Figs. B and C..	40-B-8117	1 70
5	Acute Angle Crank, 11"x16", for Figs. A and C..	43-B-8117	2 50

HORIZONTAL LAZY JACK PIPE COMPENSATORS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
6	Acute Angle Crank, 11"x13", for Figs. B and C..	41-B-8117	1 70
7	Solid Link, 11-inch centers, for Figs. A, B, and C.	20-B-7725	1 90
7a	as above, with pins and cotters, (1-7, 2-10, 2-12, Plate 01741).....	20a-B-7725	2 08
8	Pin, 1½"x4 7/16", for one-way stand Fig. 1.....	12-B-8077	28
8a	as above, with cotter, (1-8, 1-11, Plate 01741)	12a-B-8077	29
9	Pin, 1½"x7 3/16", for two-way stand Fig. 2.....	10-B-8077	38
9a	as above, with cotter, (1-9, 1-11, Plate 01741)	10a-B-8077	39
10	Pin, 7/8"x2 3/8", for solid link Fig. 7.....	2-B-8089	08
10a	as above, with cotter, (1-10, 1-12, Plate 01741)	2a-B-8089	09
11	Split Cotter, ¼"x4½", for pins Figs. 8 and 9. Price per hundred.....		1 00
12	Split Cotter, 3/16"x1½", for pin Fig. 10. Price per hundred		1 00
13	Separator for two-way stand Fig. 2.....	59-B-8065	08



HOLES IN BASE FOR 3/8 INCH BOLTS OR LAG SCREWS.

HORIZONTAL WHEEL STANDS

HORIZONTAL WHEEL STANDS

Wheel Stands listed below have 3/4-inch pins.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	One-Way 6-inch Horizontal Chain Wheel, complete, as shown, (1-1, 1-5, 1-6, 1-10, Plate 01743)	10a-C-6378	1 60
Aa	as above, with four 3/4"x6" bolts, washers and nuts.....	10b-C-6378	2 10
Ab	One-Way 8-inch Horizontal Chain Wheel, complete, (1-1b, 1-5a, 1-6, 1-10, Plate 01743).....	18a-C-6378	1 70
Ac	as above, with four 3/4"x6" bolts, washers and nuts.....	18b-C-6378	2 20
Ad	One-Way 10-inch Horizontal Chain Wheel, complete, (1-1d, 1-5b, 1-6, 1-10, Plate 01743).....	2a-C-6378	2 10
Ae	as above, with four 3/4"x6" bolts, washers and nuts.....	2b-C-6378	2 60
B	Two-Way 6-inch Horizontal Chain Wheel, complete, as shown, (1-2, 2-5, 1-7, 1-10, Plate 01743)	12a-C-6378	2 20
Ba	as above, with four 3/4"x6" bolts, washers and nuts.....	12b-C-6378	2 70
Bb	Two-Way 8-inch Horizontal Chain Wheel, complete, (1-2b, 2-5a, 1-7, 1-10, Plate 01743)....	20a-C-6378	2 30
Bc	as above, with four 3/4"x6" bolts, washers and nuts.....	20b-C-6378	2 80
Bd	Two-Way 10-inch Horizontal Chain Wheel, complete, (1-2d, 2-5b, 1-7, 1-10, Plate 01743)....	4a-C-6378	3 20
Be	as above, with four 3/4"x6" bolts, washers and nuts.....	4b-C-6378	3 70

HORIZONTAL WHEEL STANDS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

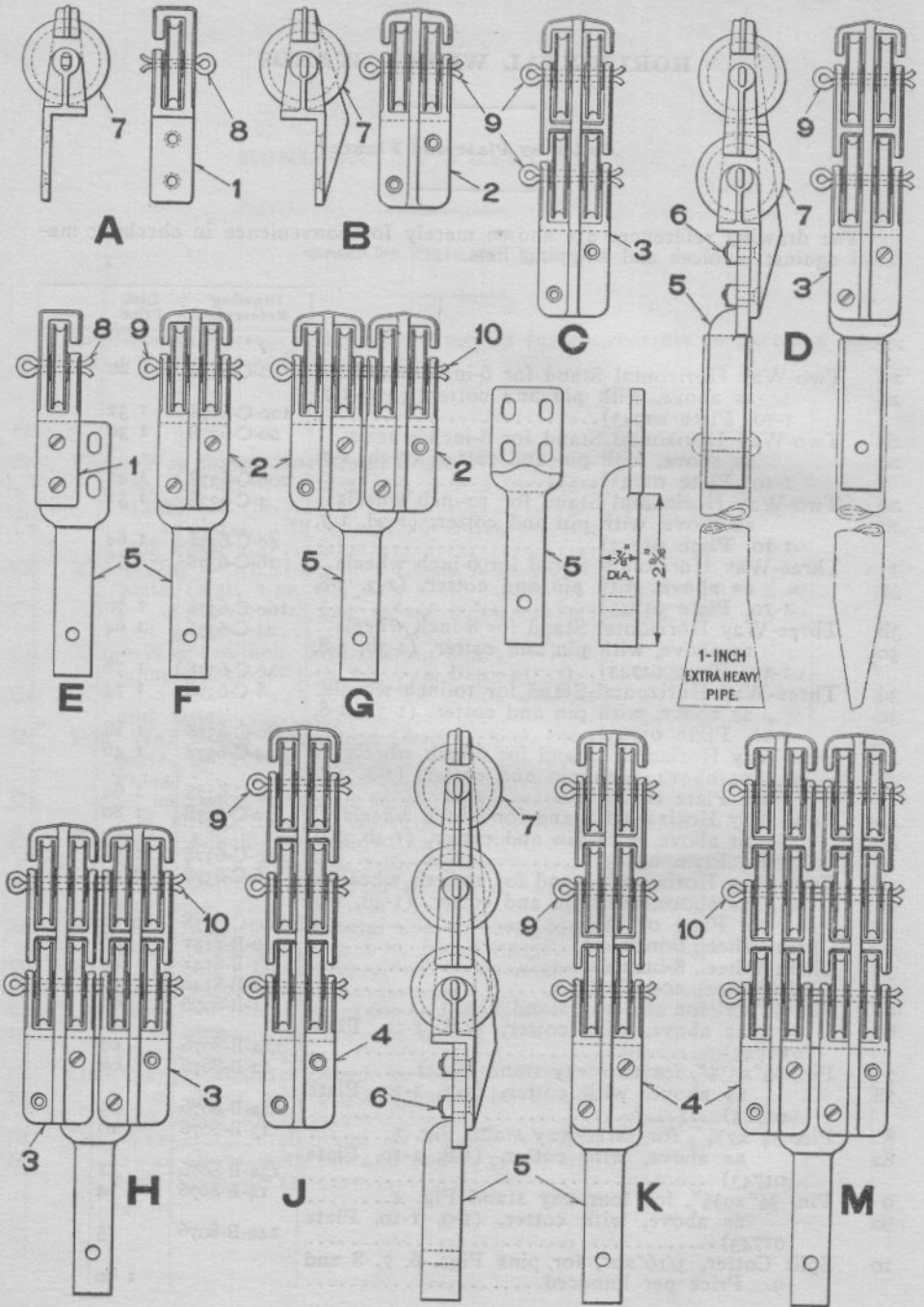
Fig.	Description	Drawing Reference	List Price
C	Three-Way 6-inch Horizontal Chain Wheel, complete, as shown, (1-3, 3-5, 1-8, 1-10, Plate 01743)	16a-C-6378	3 00
Ca	as above, with four 3/4"x6" bolts, washers and nuts.....	16b-C-6378	3 50
Cb	Three-Way 8-inch Horizontal Chain Wheel, complete, (1-3b, 3-5a, 1-8, 1-10, Plate 01743).....	24a-C-6378	3 10
Cc	as above, with four 3/4"x6" bolts, washers and nuts.....	24b-C-6378	3 60
Cd	Three-Way 10-inch Horizontal Chain Wheel, complete, (1-3d, 3-5b, 1-8, 1-10, Plate 01743) ..	8a-C-6378	4 20
Ce	as above, with four 3/4"x6" bolts, washers and nuts.....	8b-C-6378	4 70
D	Four-Way 6-inch Horizontal Chain Wheel, complete, as shown, (1-4, 4-5, 1-9, 1-10, Plate 01743)	14a-C-6378	3 40
Da	as above, with four 3/4"x6" bolts, washers and nuts.....	14b-C-6378	3 90
Db	Four-Way 8-inch Horizontal Chain Wheel, complete, (1-4b, 4-5a, 1-9, 1-10, Plate 01743) ...	22a-C-6378	3 80
Dc	as above, with four 3/4"x6" bolts, washers and nuts.....	22b-C-6378	4 30
Dd	Four-Way 10-inch Horizontal Chain Wheel, complete, (1-4d, 4-5b, 1-9, 1-10, Plate 01743)....	6a-C-6378	5 40
De	as above, with four 3/4"x6" bolts, washers and nuts.....	6b-C-6378	5 90
1	One-Way Horizontal Stand for 6-inch wheel.....	10-C-6378	1 00
1a	as above, with pin and cotter, (1-1, 1-6, 1-10, Plate 01743).....	10c-C-6378	1 10
1b	One-Way Horizontal Stand for 8-inch Wheel..	18-C-6378	1 18
1c	as above, with pin and cotter, (1-1b, 1-6, 1-10, Plate 01743).....	18c-C-6378	1 28
1d	One-Way Horizontal Stand for 10-inch wheel..	2-C-6378	1 20
1e	as above, with pin and cotter, (1-1d, 1-6, 1-10, Plate 01743).....	2c-C-6378	1 30

HORIZONTAL WHEEL STANDS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
2	Two-Way Horizontal Stand for 6-inch wheels...	12-C-6378	1 20
2a	as above, with pin and cotter, (1-2, 1-7, 1-10, Plate 01743).....	12c-C-6378	1 32
2b	Two-Way Horizontal Stand for 8-inch wheels...	20-C-6378	1 30
2c	as above, with pin and cotter, (1-2b, 1-7, 1-10, Plate 01743).....	20c-C-6378	1 42
2d	Two-Way Horizontal Stand for 10-inch wheels..	4-C-6378	1 52
2e	as above, with pin and cotter, (1-2d, 1-7, 1-10, Plate 01743).....	4c-C-6378	1 64
3	Three-Way Horizontal Stand for 6-inch wheels...	16-C-6378	1 56
3a	as above, with pin and cotter, (1-3, 1-8, 1-10, Plate 01743).....	16c-C-6378	1 70
3b	Three-Way Horizontal Stand for 8-inch wheels..	24-C-6378	1 64
3c	as above, with pin and cotter, (1-3b, 1-8, 1-10, Plate 01743).....	24c-C-6378	1 78
3d	Three-Way Horizontal Stand for 10-inch wheels.	8-C-6378	1 74
3e	as above, with pin and cotter, (1-3d, 1-8, 1-10, Plate 01743).....	8c-C-6378	1 88
4	Four-Way Horizontal Stand for 6-inch wheels...	14-C-6378	1 46
4a	as above, with pin and cotter, (1-4, 1-9, 1-10, Plate 01743).....	14c-C-6378	1 64
4b	Four-Way Horizontal Stand for 8-inch wheels...	22-C-6378	1 80
4c	as above, with pin and cotter, (1-4b, 1-9, 1-10, Plate 01743).....	22c-C-6378	1 98
4d	Four-Way Horizontal Stand for 10-inch wheels..	6-C-6378	2 14
4e	as above, with pin and cotter, (1-4d, 1-9, 1-10, Plate 01743).....	6c-C-6378	2 32
5	Chain Wheel, 6-inch dia.....	6-B-814I	40
5a	Chain Wheel, 8-inch dia.....	27-B-814I	40
5b	Chain Wheel, 10-inch dia.....	28-B-814I	76
6	Pin, 3/4"x3" for one-way stand Fig. 1.....	11-B-8076	06
6a	as above, with cotter, (1-6, 1-10, Plate 01743).....	11a-B-8076	07
7	Pin, 3/4"x5 1/8", for two-way stand Fig. 2.....	12-B-8076	08
7a	as above, with cotter, (1-7, 1-10, Plate 01743).....	12a-B-8076	09
8	Pin, 3/4"x7 1/4", for three-way stand Fig. 3.....	13-B-8076	10
8a	as above, with cotter, (1-8, 1-10, Plate 01743).....	13a-B-8076	11
9	Pin, 3/4"x9 3/8", for four-way stand Fig. 4.....	14-B-8076	14
9a	as above, with cotter, (1-9, 1-10, Plate 01743).....	14a-B-8076	15
10	Split Cotter, 3/16"x2", for pins Figs. 6, 7, 8 and 9. Price per hundred.....		1 00



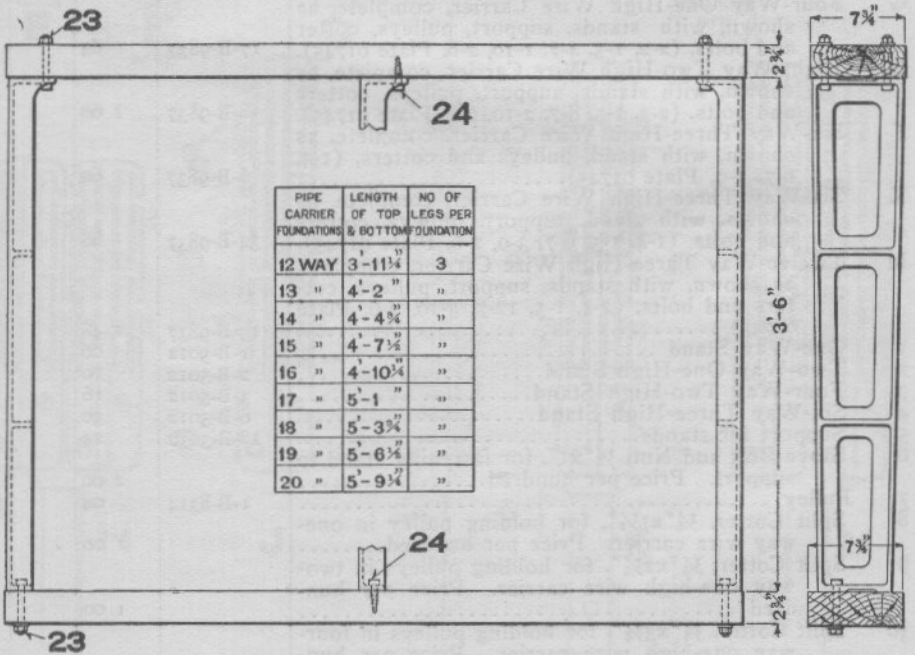
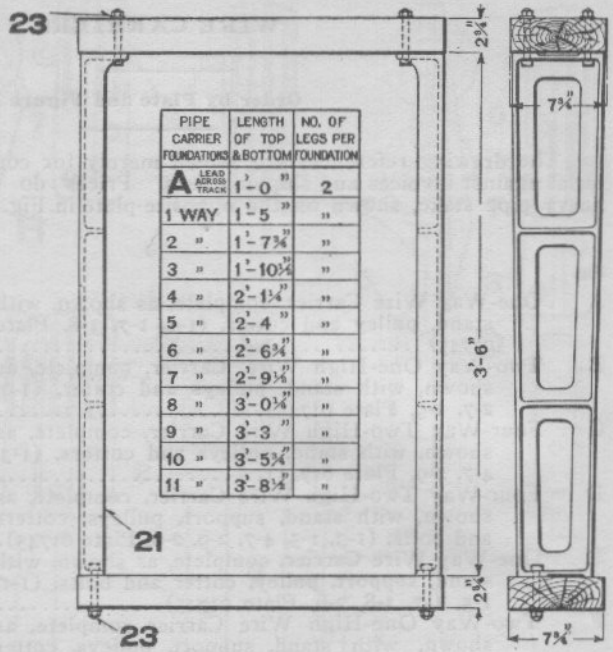
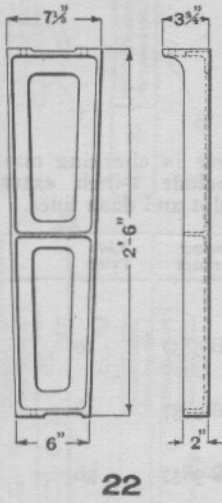
WIRE CARRIERS

WIRE CARRIERS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists. Prices do not include 1-inch extra heavy pipe stake, shown on the opposite plate in Fig. D by dot and dash lines.

Fig.		Drawing Reference	List Price
A	One-Way Wire Carrier, complete, as shown, with stand, pulley and cotter, (1-1, 1-7, 1-8, Plate 01745)	4-B-9837	10
B	Two-Way One-High Wire Carrier, complete, as shown, with stand, pulleys and cotter, (1-2, 2-7, 1-9, Plate 01745).....	3-B-9837	18
C	Four-Way Two-High Wire Carrier, complete, as shown, with stand, pulleys and cotters, (1-3, 4-7, 2-9, Plate 01745).....	1-B-9837	36
D	Four-Way Two-High Wire Carrier, complete, as shown, with stand, support, pulleys, cotters and bolts, (1-3, 1-5, 4-7, 2-9, 2-6, Plate 01745)..	31-B-9837	64
E	One-Way Wire Carrier, complete, as shown, with stand, support, pulley, cotter and bolts, (1-1, 1-5, 1-7, 1-8, 2-6, Plate 01745).....	29-B-9837	38
F	Two-Way One-High Wire Carrier complete, as shown, with stand, support, pulleys, cotter and bolts, (1-2, 1-5, 2-7, 1-9, 2-6, Plate 01745)..	30-B-9837	46
G	Four-Way One-High Wire Carrier, complete, as shown, with stands, support, pulleys, cotter and bolts, (2-2, 1-5, 4-7, 1-10, 2-6, Plate 01745).	17-B-9837	64
H	Eight-Way Two-High Wire Carrier, complete, as shown, with stands, support, pulleys, cotters and bolts, (2-3, 1-5, 8-7, 2-10, 2-6, Plate 01745).	18-B-9837	1 00
J	Six-Way Three-High Wire Carrier, complete, as shown, with stand, pulleys and cotters, (1-4, 6-7, 3-9, Plate 01745).....	6-B-9837	60
K	Six-Way Three-High Wire Carrier, complete, as shown, with stand, support, pulleys, cotters and bolts, (1-4, 1-5, 6-7, 3-9, 2-6, Plate 01745).	32-B-9837	88
M	Twelve-Way Three-High Wire Carrier, complete, as shown, with stands, support, pulleys, cotters and bolts, (2-4, 1-5, 12-7, 3-10, 2-6, Plate 01745)	19-B-9837	1 48
1	One-Way Stand	1-B-5012	06
2	Two-Way One-High Stand.....	2-B-5012	10
3	Four-Way Two-High Stand.....	3-B-5012	16
4	Six-Way Three-High Stand.....	6-B-5012	30
5	Support for stands.....	18-B-5012	24
6	Stove Bolt and Nut, 1/4"x1", for fastening stand to support. Price per hundred.....		2 00
7	Pulley	1-B-8314	04
8	Split Cotter, 1/4"x1 1/2", for holding pulley in one-way wire carrier. Price per hundred.....		1 00
9	Split Cotter, 1/4"x2 1/4", for holding pulleys in two-way one-high wire carrier. Price per hundred		1 00
10	Split Cotter, 1/4"x3 3/4", for holding pulleys in four-way one-high wire carrier. Price per hundred		1 00



PIPE CARRIER FOUNDATIONS

PIPE CARRIER FOUNDATIONS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Pipe Carrier Foundation for lead across track, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	374-B-6776	Prices on application.
Aa	as above, with legs 2'-6" long.....	374-B-6776	
Ab	Oak Top for foundation for lead across track....	397-C-2371	
Ac	Oak Bottom, as above.....	427-C-2371	
I	One-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	375-B-6776	
1a	as above, with legs 2'-6" long.....	375-B-6776	
1b	Oak Top for one-way foundation.....	398-C-2371	
1c	Oak Bottom, as above.....	428-C-2371	
2	Two-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	376-B-6776	
2a	as above, with legs 2'-6" long.....	376-B-6776	
2b	Oak Top for two-way foundation.....	399-C-2371	
2c	Oak Bottom, as above.....	429-C-2371	
3	Three-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	377-B-6776	
3a	as above, with legs 2'-6" long.....	377-B-6776	
3b	Oak Top for three-way foundation.....	400-C-2371	
3c	Oak Bottom, as above.....	430-C-2371	

PIPE CARRIER FOUNDATIONS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
4	Four-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	378-B-6776	Prices on application
4a	as above, with legs 2'-6" long.....	378-B-6776	
4b	Oak Top for four-way foundation.....	401-C-2371	
4c	Oak Bottom, as above.....	431-C-2371	
5	Five-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	379-B-6776	
5a	as above, with legs 2'-6" long.....	379-B-6776	
5b	Oak Top for five-way foundation.....	402-C-2371	
5c	Oak Bottom, as above.....	432-C-2371	
6	Six-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	380-B-6776	
6a	as above, with legs 2'-6" long.....	380-B-6776	
6b	Oak Top for six-way foundation.....	403-C-2371	
6c	Oak Bottom, as above.....	433-C-2371	
7	Seven-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	381-B-6776	
7a	as above, with legs 2'-6" long.....	381-B-6776	
7b	Oak Top for seven-way foundation.....	404-C-2371	
7c	Oak Bottom, as above.....	434-C-2371	
8	Eight-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	382-B-6776	
8a	as above, with legs 2'-6" long.....	382-B-6776	

PIPE CARRIER FOUNDATIONS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
8b	Oak Top for eight-way foundation.....	405-C-2371	Prices on application
8c	Oak Bottom, as above.....	435-C-2371	
9	Nine-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	383-B-6776	
9a	as above, with legs 2'-6" long.....	383-B-6776	
9b	Oak Top for nine-way foundation.....	406-C-2371	
9c	Oak Bottom, as above.....	436-C-2371	
10	Ten-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	384-B-6776	
10a	as above, with legs 2'-6" long.....	384-B-6776	
10b	Oak Top for ten-way foundation.....	407-C-2371	
10c	Oak Bottom, as above.....	437-C-2371	
11	Eleven-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, bolts, plate washers and nuts.....	385-B-6776	
11a	as above, with legs 2'-6" long.....	385-B-6776	
11b	Oak Top for eleven-way foundation.....	408-C-2371	
11c	Oak Bottom, as above.....	438-C-2371	
12	Twelve-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	386-B-6776	
12a	as above, with legs 2'-6" long.....	386-B-6776	
12b	Oak Top for twelve-way foundation.....	409-C-2371	
12c	Oak Bottom, as above.....	439-C-2371	
13	Thirteen-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	387-B-6776	
13a	as above, with legs 2'-6" long.....	387-B-6776	

PIPE CARRIER FOUNDATIONS
PIPE CARRIER FOUNDATIONS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

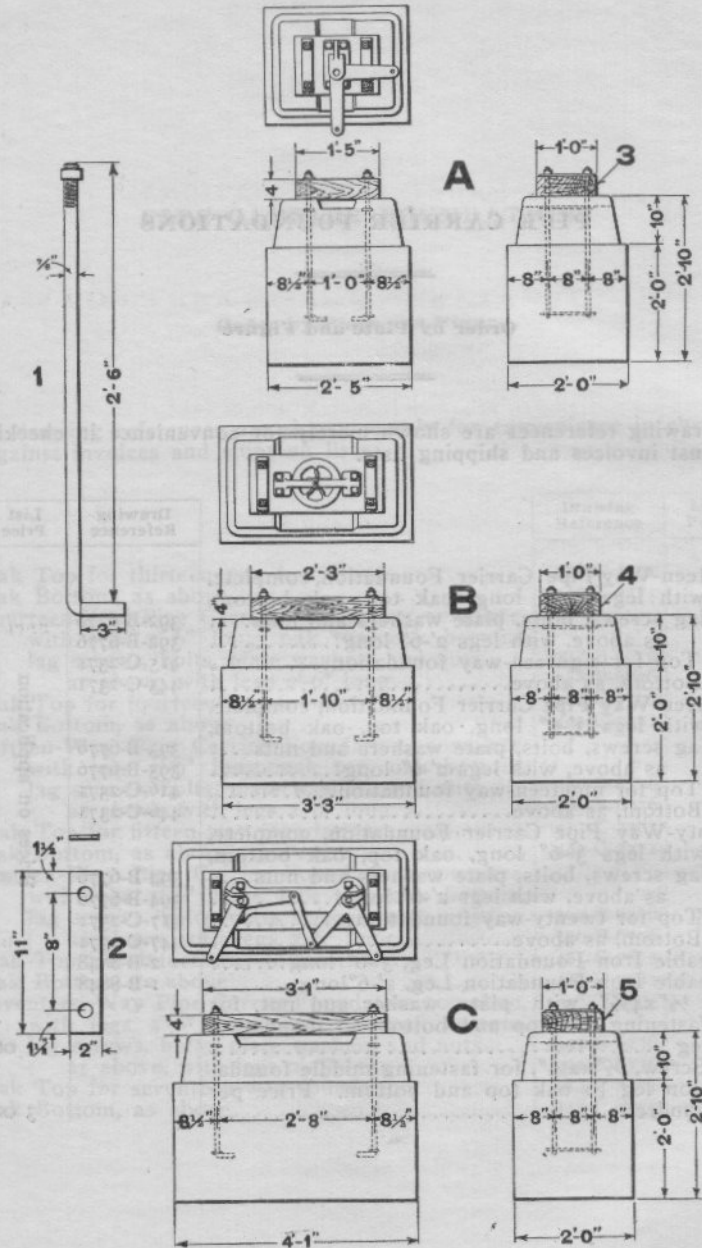
Fig.	Description	Drawing Reference	List Price
13b	Oak Top for thirteen-way foundation.....	410-C-237I	Prices on application
13c	Oak Bottom, as above.....	440-C-237I	
14	Fourteen-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	388-B-6776	
14a	as above, with legs 2'-6" long.....	388-B-6776	
14b	Oak Top for fourteen-way foundation.....	411-C-237I	
14c	Oak Bottom, as above.....	441-C-237I	
15	Fifteen-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	389-B-6776	
15a	as above, with legs 2'-6" long.....	389-B-6776	
15b	Oak Top for fifteen-way foundation.....	412-C-237I	
15c	Oak Bottom, as above.....	442-C-237I	
16	Sixteen-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	390-B-6776	
16a	as above, with legs 2'-6" long.....	390-B-6776	
16b	Oak Top for sixteen-way foundation.....	413-C-237I	
16c	Oak Bottom, as above.....	443-C-237I	
17	Seventeen-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	391-B-6776	
17a	as above, with legs 2'-6" long.....	391-B-6776	
17b	Oak Top for seventeen-way foundation.....	414-C-237I	
17c	Oak Bottom, as above.....	444-C-237I	

PIPE CARRIER FOUNDATIONS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price	
18	Eighteen-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	392-B-6776	Prices on application	
18a	as above, with legs 2'-6" long.....	392-B-6776		
18b	Oak Top for eighteen-way foundation.....	415-C-2371		
18c	Oak Bottom, as above.....	445-C-2371		
19	Nineteen-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	393-B-6776		
19a	as above, with legs 2'-6" long.....	393-B-6776		
19b	Oak Top for nineteen-way foundation.....	416-C-2371		
19c	Oak Bottom, as above.....	446-C-2371		
20	Twenty-Way Pipe Carrier Foundation, complete, with legs 3'-6" long, oak top, oak bottom, lag screws, bolts, plate washers and nuts....	394-B-6776		
20a	as above, with legs 2'-6" long.....	394-B-6776		
20b	Oak Top for twenty-way foundation.....	417-C-2371		
20c	Oak Bottom, as above.....	447-C-2371		
21	Malleable Iron Foundation Leg, 3'-6" long.....	2-B-8848		
22	Malleable Iron Foundation Leg, 2'-6" long.....	1-B-8848		
23	Bolt, 1/2" x 4 1/2", with plate washer and nut, for fastening oak top and bottom to foundation leg			06
24	Lag Screw, 1/2" x 2 1/2", for fastening middle foundation leg to oak top and bottom. Price per hundred			3 00



FOUNDATIONS FOR CRANKS, WHEELS AND COMPENSATORS

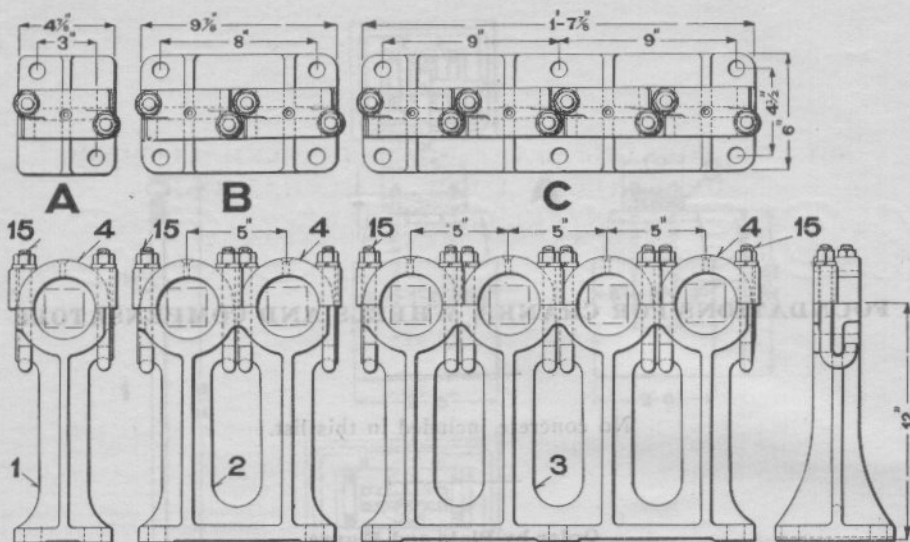
FOUNDATIONS FOR CRANKS, WHEELS AND COMPENSATORS

No concrete included in this list.

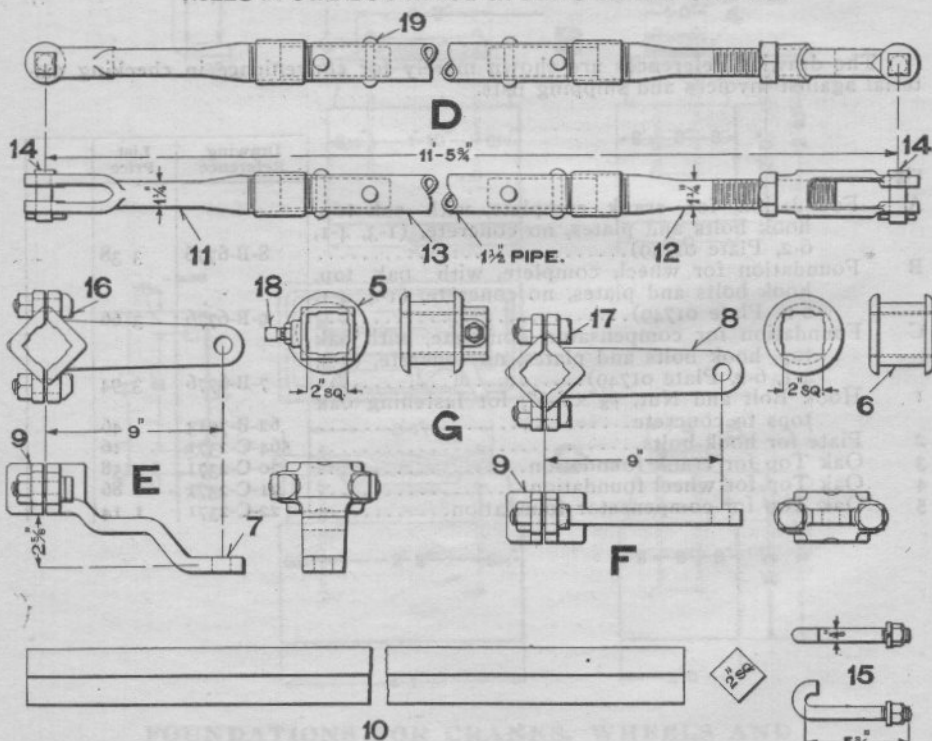
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Foundation for crank, complete, with oak top, hook bolts and plates, no concrete, (1-3, 4-1, 6-2, Plate 01749).....	8-B-6776	3 38
B	Foundation for wheel, complete, with oak top, hook bolts and plates, no concrete, (1-4, 4-1, 6-2, Plate 01749).....	9-B-6776	3 66
C	Foundation for compensator, complete, with oak top, hook bolts and plates, no concrete, (1-5, 4-1, 6-2, Plate 01749).....	7-B-6776	3 94
1	Hook Bolt and Nut, $\frac{7}{8}$ "x2'-6", for fastening oak tops to concrete.....	62-B-7913	46
2	Plate for hook bolts.....	564-C-2371	16
3	Oak Top for crank foundation.....	20-C-2371	58
4	Oak Top for wheel foundation.....	21-C-2371	86
5	Oak Top for compensator foundation.....	22-C-2371	1 14



HOLES IN STANDS FOR 3/4 INCH BOLTS OR LAG SCREWS.



SQUARE ROCKING SHAFT BEARINGS AND FITTINGS FOR LEADOUT FROM A MECHANICAL INTERLOCKING CABIN

**SQUARE ROCKING SHAFT BEARINGS AND FITTINGS
FOR LEADOUT FROM A MECHANICAL
INTERLOCKING CABIN**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	One-Way Square Rocking Shaft Bearing, 12 inches high, complete, with end journal Fig. 6, stand, cap, hook bolts, lock washers and nuts, (1-6, 1-1, 1-4, 2-15, Plate 01751).....	29-C-4075	3 40
Aa	as above, with two 3/4"x6" bolts, plate washers and nuts.....	29a-C-4075	3 66
Ab	One-Way Square Rocking Shaft Bearing, 12 inches high, complete, with intermediate journal Fig. G, stand, cap, hook bolts, lock washers and nuts, (1-G, 1-1, 1-4, 2-15, Plate 01751).	28-C-4075	3 60
Ac	as above, with two 3/4"x6" bolts, plate washers and nuts.....	28a-C-4075	3 86
B	Two-Way Square Rocking Shaft Bearing, 12 inches high, complete, with end journals Fig. 6, stand, caps, hook bolts, lock washers and nuts, (2-6, 1-2, 2-4, 4-15, Plate 01751).....	2-C-4075	7 10
Ba	as above, with four 3/4"x6" bolts, plate washers and nuts.....	2a-C-4075	7 60
Bb	Two-Way Square Rocking Shaft Bearing, 12 inches high, complete, with intermediate journals Fig. G, stand, caps, hook bolts, lock washers and nuts, (2-G, 1-2, 2-4, 4-15, Plate 01751).....	1-C-4075	7 50
Bc	as above, with four 3/4"x6" bolts, plate washers and nuts.....	1a-C-4075	8 00
C	Four-Way Square Rocking Shaft Bearing, 12 inches high, complete, with end journals Fig. 6, stand, caps, hook bolts, lock washers and nuts, (4-6, 1-3, 4-4, 8-15, Plate 01751).....	37-C-4075	14 10
Ca	as above, with six 3/4"x6" bolts, plate washers and nuts.....	37a-C-4075	14 88

**SQUARE ROCKING SHAFT BEARINGS AND FITTINGS
FOR LEADOUT FROM A MECHANICAL
INTERLOCKING CABIN**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
Cb	Four-Way Square Rocking Shaft Bearing, 12 inches high, complete, with intermediate journals Fig. G, stand, caps, hook bolts, lock washers and nuts, (4-G, 1-3, 4-4, 8-15, Plate 01751)	36-C-4075	14 90
Cc	as above, with six $\frac{3}{4}$ "x6" bolts, plate washers and nuts.....	36a-C-4075	15 68
D	Up and Down Rod, for connecting lever of interlocking machine to rocking shaft, complete, as shown, with jaws, pins, and cotters, (1-11, 1-12, 1-13, 2-14, 4-19, Plate 01751).....	3-C-4195	9 00
E	Bent Arm, for rocking shaft, complete, as shown, with caps, bolts and nuts, (1-7, 1-9, 2-16, Plate 01751)	10-B-8107	2 40
F	Straight Arm, for rocking shaft, complete, as shown, with cap, bolts and nuts, (1-8, 1-9, 2-17, Plate 01751)	9-B-8107	2 08
G	Intermediate Journal, for rocking shaft, complete, as shown, with set screw and lock nut, (1-5, 1-18, Plate 01751).....	9a-B-8093	1 36
1	One-Way Stand, 12 inches high.....	7-C-4075	1 60
2	Two-Way Stand, 12 inches high.....	4-C-4075	3 40
3	Four-Way Stand, 12 inches high.....	6-C-4075	6 90
4	Cap for stands Figs. 1, 2 and 3.....	3-C-4075	30
5	Intermediate Journal only.....	9-B-8093	1 30
6	End Journal	8-B-8093	1 16
7	Bent Arm only.....	4-B-9815	1 70
8	Straight Arm only.....	1-B-9815	1 30
9	Cap for Arms Figs. 7 and 8.....	2-B-9815	50

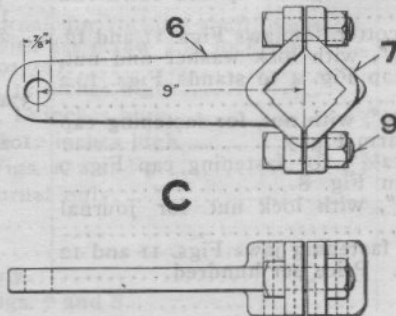
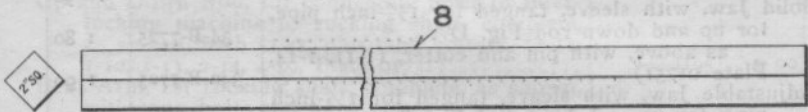
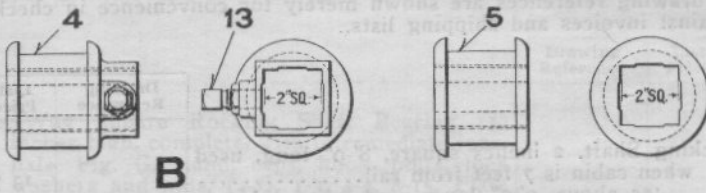
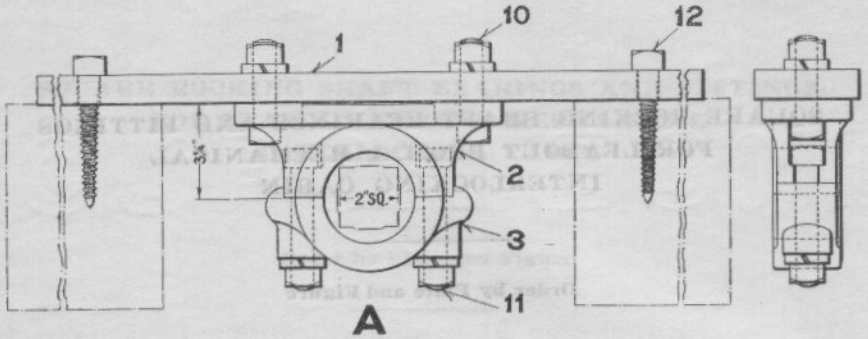
**SQUARE ROCKING SHAFT BEARINGS AND FITTINGS
FOR LEADOUT FROM A MECHANICAL
INTERLOCKING CABIN**

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
10	Rocking Shaft, 2 inches square, 8'-9" long, used when cabin is 7 feet from rail.....		13 70
10a	as above, 9'-9" long, used when cabin is 8 feet from rail.....		15 30
10b	as above, 10'-9" long, used when cabin is 9 feet from rail.....		16 90
11	Solid Jaw, with sleeve, tanged for 1½-inch pipe, for up and down rod Fig. D.....	34-B-7725	1 80
11a	as above, with pin and cotter, (I-11, I-14, Plate 01751)	34a-B-7725	1 90
12	Adjustable Jaw, with sleeve, tanged for 1½-inch pipe, for up and down rod Fig. D.....	35-B-7725	2 20
12a	as above, with pin and cotter, (I-12, I-14, Plate 01751)	35a-B-7725	2 30
13	Pipe, 1½ inch, 9'-2½" long, for up and down rod Fig. D	1-C-4195	3 50
14	Pin, 7/8"x23/8", with cotter, for jaws Figs. 11 and 12.	2-B-8089	09
15	Hook Bolt, 5/8"x53/8", with lock washer and nut, for fastening cap Fig. 4 to stands Figs. 1, 2 and 3	37a-B-7913	12
16	Special Bolt, 3/4"x23/8", with nut, for fastening cap Fig. 9 to bent arm Fig. 7.....	10a-B-8132	12
17	Bolt and Nut, 3/4"x2¼", for fastening cap Fig. 9 to straight arm Fig. 8.....		12
18	Set Screw, 5/8"x1½", with lock nut for journal Fig. G		06
19	Rivet, 3/8"x2¼", for fastening jaws Figs. 11 and 12 to pipe Fig. 13. Price per hundred.....		1 00

SQUARE ROCKING SHAFT BEARINGS AND FITTINGS FOR OPERATING DETECTOR BARS



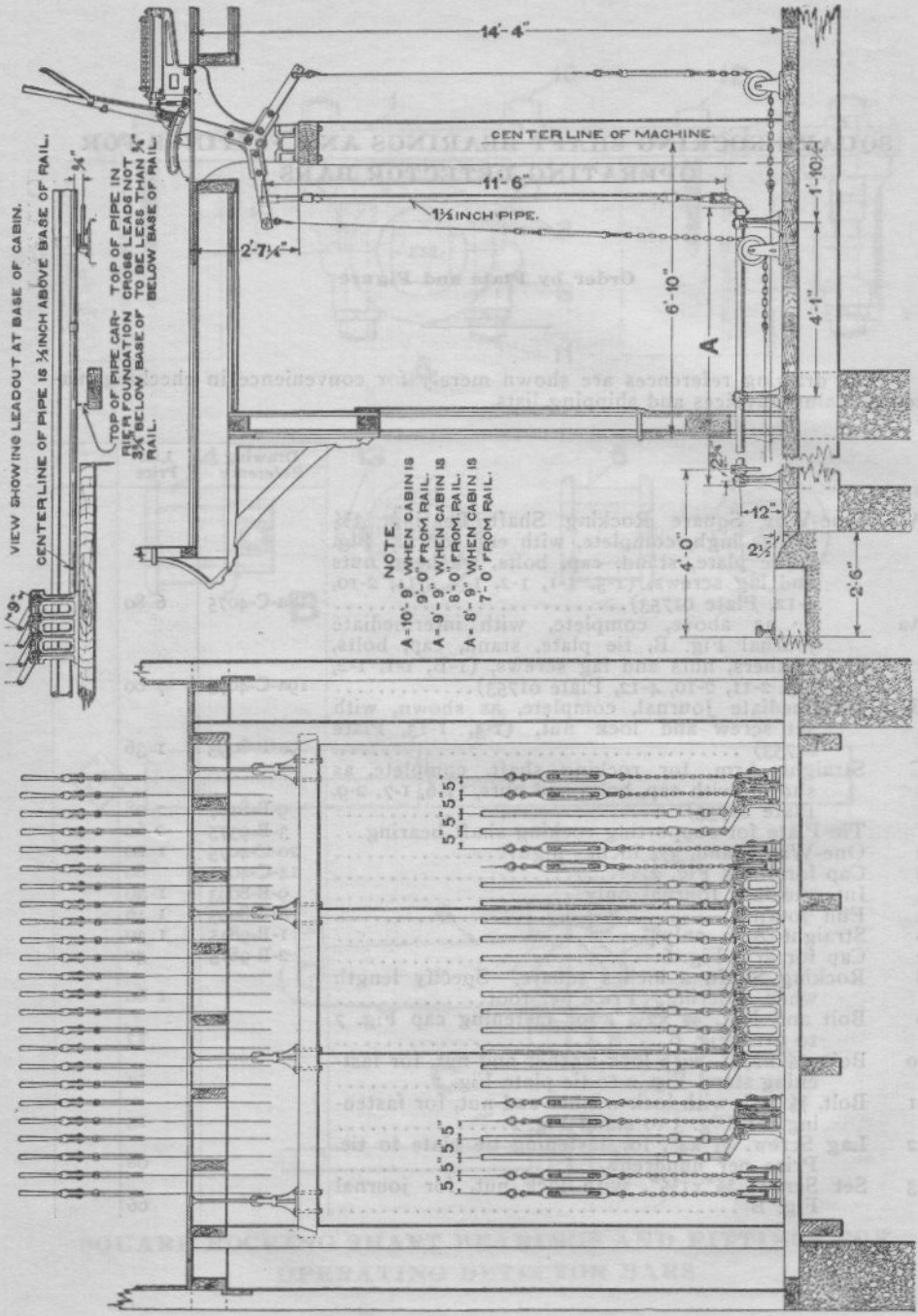
SQUARE ROCKING SHAFT BEARINGS AND FITTINGS FOR OPERATING DETECTOR BARS

SQUARE ROCKING SHAFT BEARINGS AND FITTINGS FOR OPERATING DETECTOR BARS

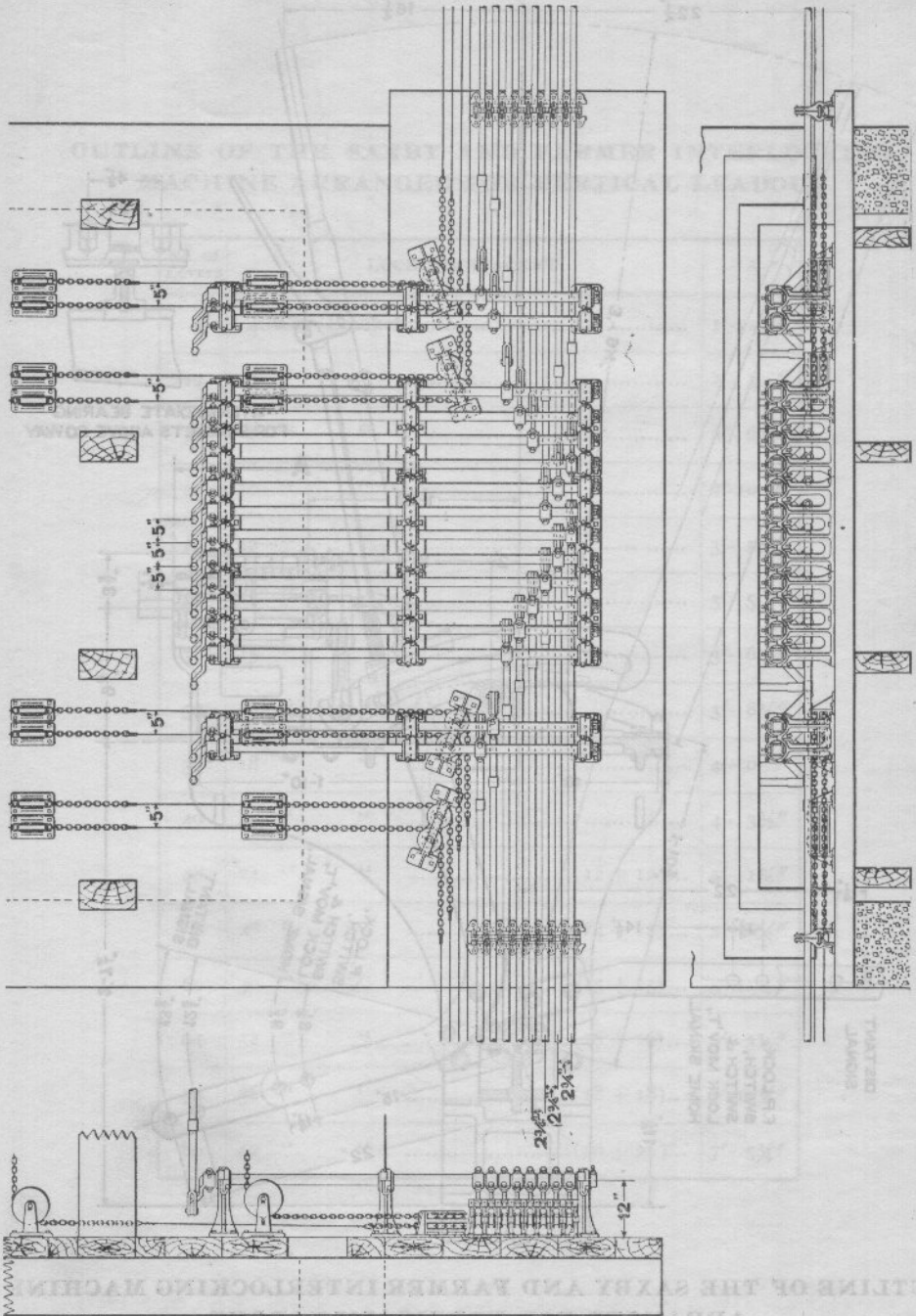
Order by Plate and Figure

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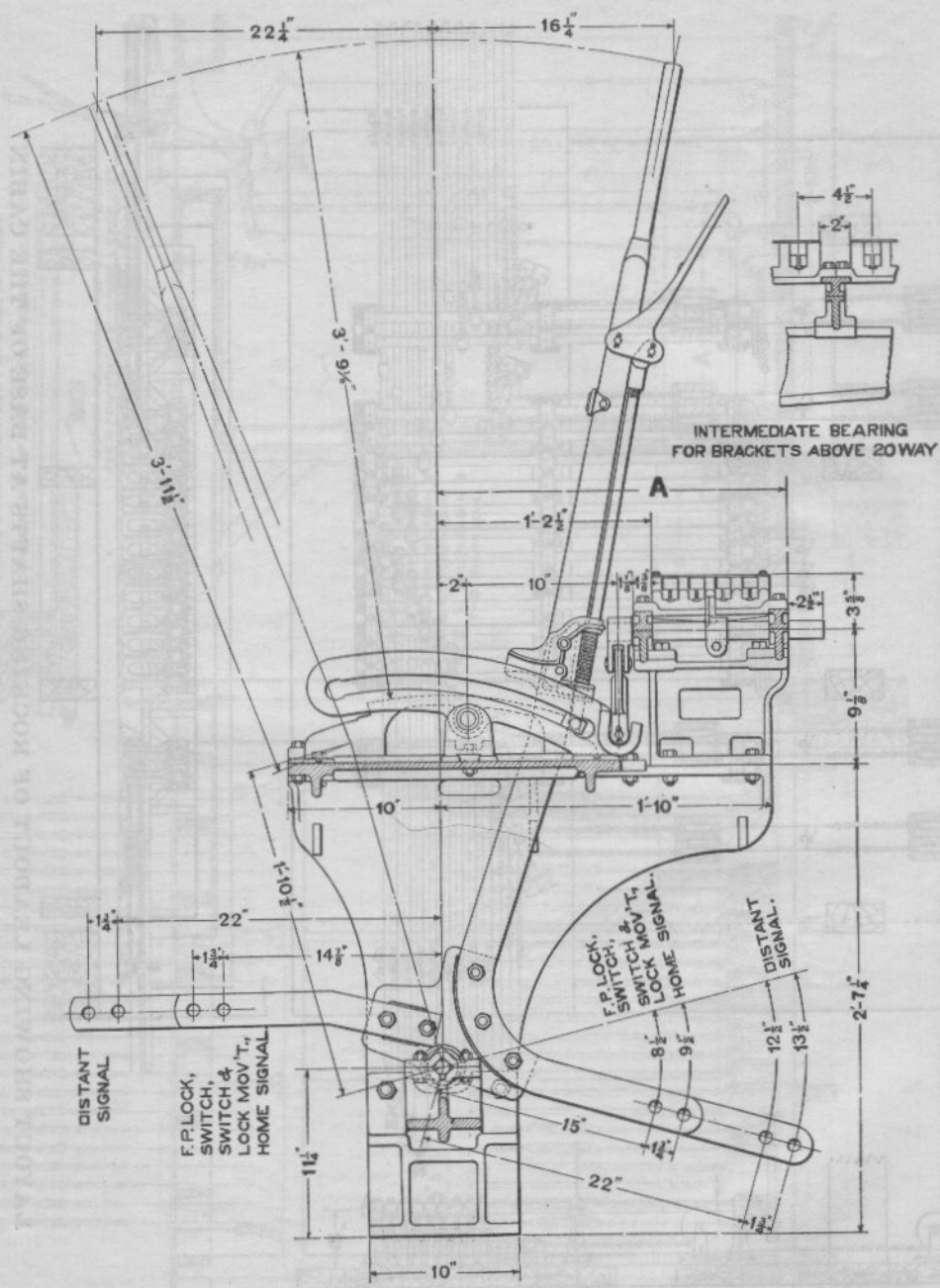
Fig.	Description	Drawing Reference	List Price
A	One-Way Square Rocking Shaft Bearing, 3¼ inches high, complete, with end journal Fig. 5, tie plate, stand, cap, bolts, washers, nuts and lag screws, (1-5, 1-1, 1-2, 1-3, 2-11, 2-10, 4-12, Plate 01753).....	18a-C-4075	6 80
Aa	as above, complete, with intermediate journal Fig. B, tie plate, stand, cap, bolts, washers, nuts and lag screws, (1-B, 1-1, 1-2, 1-3, 2-11, 2-10, 4-12, Plate 01753).....	19a-C-4075	7 00
B	Intermediate Journal, complete, as shown, with set screw and lock nut, (1-4, 1-13, Plate 01753)	9a-B-8093	1 36
C	Straight Arm, for rocking shaft, complete, as shown, with cap, bolts and nuts, (1-6, 1-7, 2-9, Plate 01753)	9-B-8107	2 08
1	Tie Plate for supporting rocking shaft bearing...	3-B-9375	2 60
2	One-Way Stand, 3¼ inches high.....	20-C-4075	1 20
3	Cap for stand Fig. 2.....	14-C-4075	80
4	Intermediate Journal only.....	9-B-8093	1 30
5	End Journal	8-B-8093	1 16
6	Straight Arm only.....	1-B-9815	1 30
7	Cap for arm Fig. 6.....	2-B-9815	50
8	Rocking Shaft, 2 inches square. Specify length when ordering. Price per foot.....		1 60
9	Bolt and Nut, ¾"x2¼", for fastening cap Fig. 7 to arm Fig. 6.....		12
10	Bolt, ¾"x2¾", with lock washer and nut, for fastening stand Fig. 2 to tie plate Fig. 1.....		12
11	Bolt, ¾"x4", with lock washer and nut, for fastening cap Fig. 3 to stand Fig. 2.....		14
12	Lag Screw, ¾"x4", for fastening tie plate to tie. Price per hundred.....		08
13	Set Screw, ⅝"x1½", with lock nut, for journal Fig. B		06



LAYOUT SHOWING SAXBY AND FARMER INTERLOCKING MACHINE IN CABIN WITH ROCKING SHAFT LEADOUT



LAYOUT SHOWING LEADOUT OF ROCKING SHAFTS AT BASE OF THE CABIN

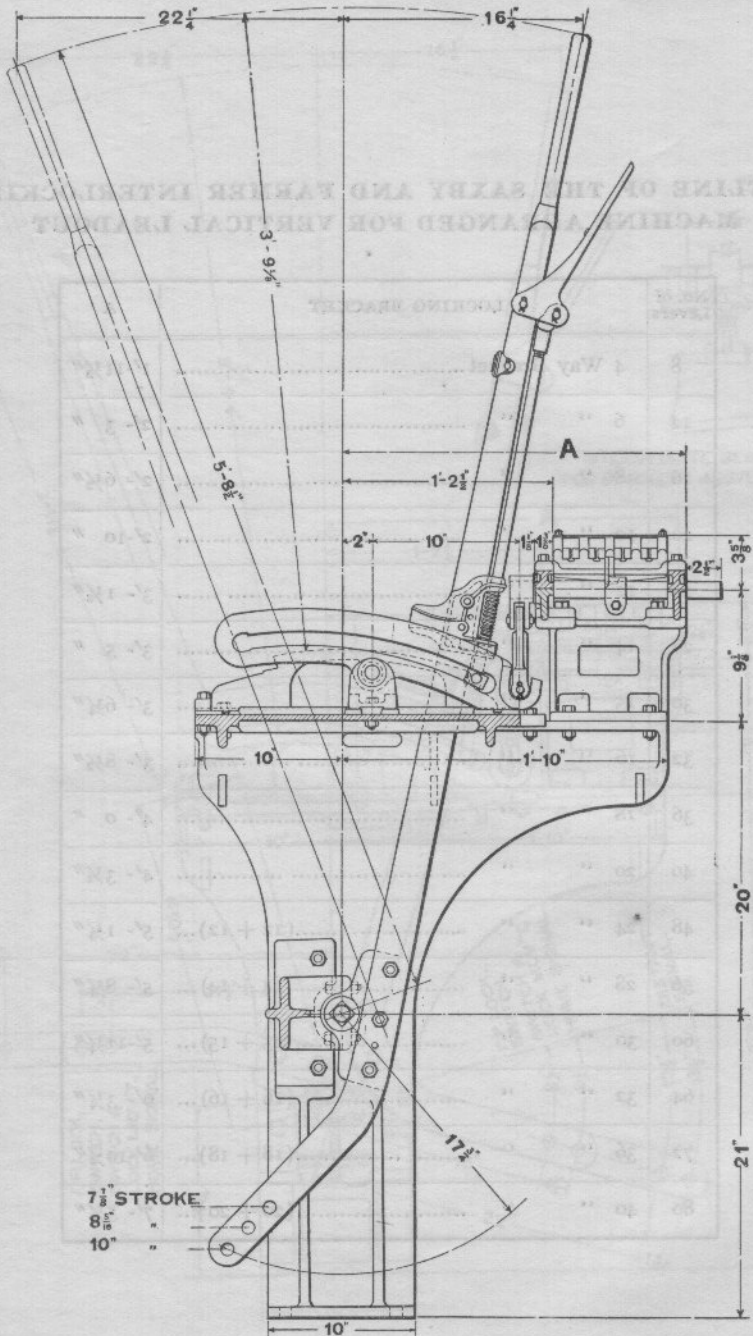


OUTLINE OF THE SAXBY AND FARMER INTERLOCKING MACHINE ARRANGED FOR VERTICAL LEADOUT

OUTLINE OF THE SAXBY AND FARMER INTERLOCKING MACHINE ARRANGED FOR VERTICAL LEADOUT

No. of Levers	LOCKING BRACKET	A
8	4 Way Bracket.....	1'-11½"
12	6 " "	2'- 3 "
16	8 " "	2'- 6½"
20	10 " "	2'-10 "
24	12 " "	3'- 1½"
28	14 " "	3'- 5 "
30	15 " "	3'- 6¾"
32	16 " "	3'- 8½"
36	18 " "	4'- 0 "
40	20 " "	4'- 3½"
48	24 " "(12 + 12)...	5'- 1¼"
56	28 " "(14 + 14)...	5'- 8¼"
60	30 " "(15 + 15)...	5'-11¾"
64	32 " "(16 + 16)...	6'- 3¼"
72	36 " "(18 + 18)...	6'-10¼"
80	40 " "(20 + 20)...	7'- 5¼"

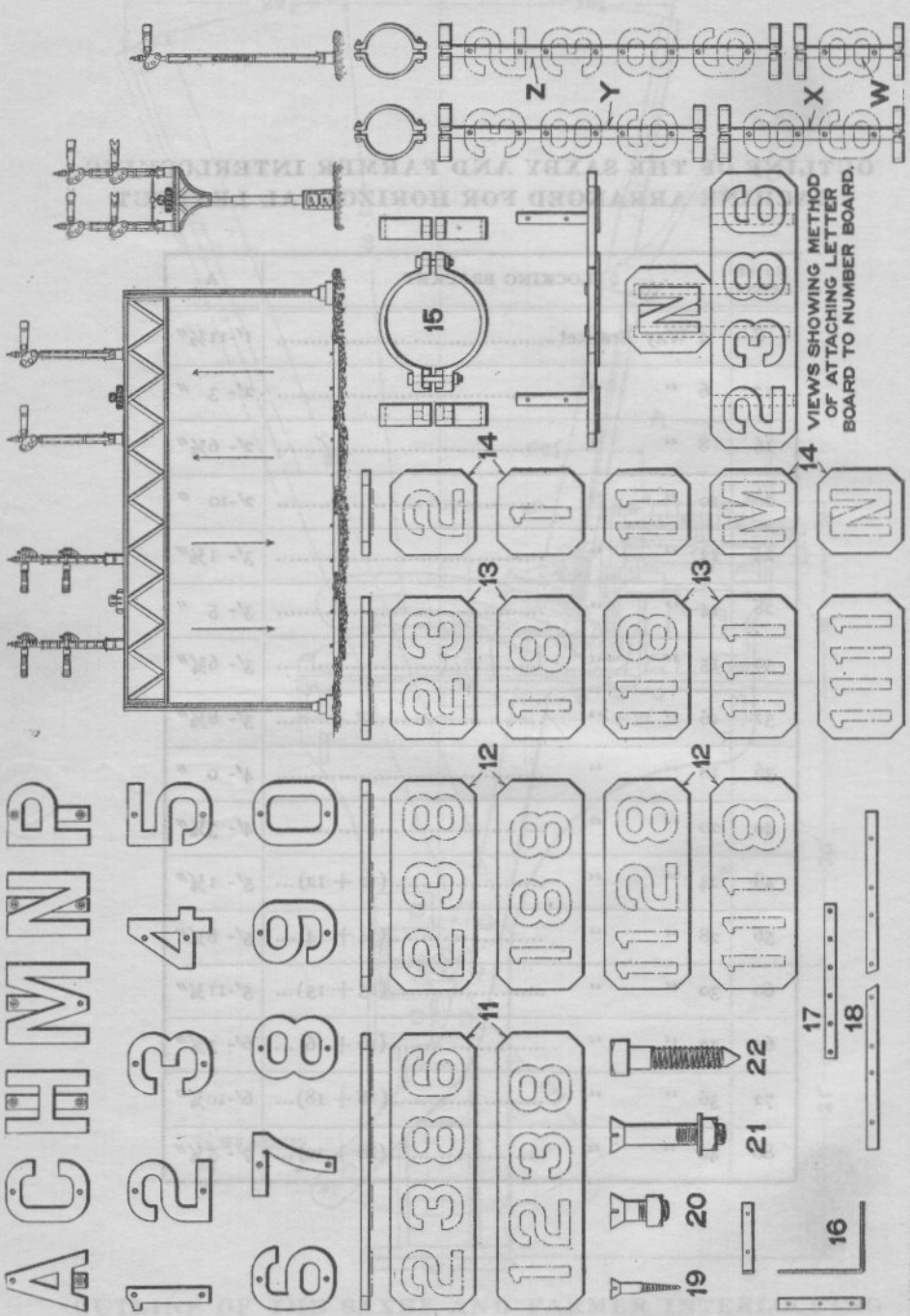
OUTLINE OF THE SAXBY AND FARMER INTERLOCKING MACHINE ARRANGED FOR HORIZONTAL LEADOUT



OUTLINE OF THE SAXBY AND FARMER INTERLOCKING MACHINE ARRANGED FOR HORIZONTAL LEADOUT

OUTLINE OF THE SAXBY AND FARMER INTERLOCKING MACHINE ARRANGED FOR HORIZONTAL LEADOUT

No. of Levers	LOCKING BRACKET	A
8	4 Way Bracket	1'-11½"
12	6 " "	2'- 3 "
16	8 " "	2'- 6½"
20	10 " "	2'-10 "
24	12 " "	3'- 1½"
28	14 " "	3'- 5 "
30	15 " "	3'- 6¾"
32	16 " "	3'- 8½"
36	18 " "	4'- 0 "
40	20 " "	4'- 3½"
48	24 " "(12 + 12)...	5'- 1¼"
56	28 " "(14 + 14)....	5'- 8¼"
60	30 " "(15 + 15)...	5'-11¾"
64	32 " "(16 + 16) ...	6'- 3¼"
72	36 " "(18 + 18)...	6'-10¼"
80	40 " "(20 + 20) ...	7'- 5¼"



LETTERS AND NUMBERS FOR GROUND, BRIDGE OR BRACKET SIGNALS AND SIGNAL BRIDGES

LETTERS AND NUMBERS FOR GROUND, BRIDGE OR BRACKET SIGNALS AND SIGNAL BRIDGES

Number and letter boards shown on the opposite plate are made of white oak, 1 1/8 inches thick, surfaced, painted black and given one coat of varnish on both sides. The faces of the numbers and letters are painted white, the edges black. The numbers and letters are bolted to the boards with 3/8"x2" bolts, having countersunk heads. The iron knees for fastening boards to bridges are fastened to the backs of the boards, after the numbers and letters have been bolted to the boards, to avoid the knees fouling the number or letter bolts.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Letter "A"	31-B-9513	16
C	Letter "C"	32-B-9513	20
H	Letter "H"	33-B-9513	24
M	Letter "M"	34-B-9513	36
N	Letter "N"	35-B-9513	24
P	Letter "P"	36-B-9513	22
1	Number "1"	19-B-9513	08
2	Number "2"	20-B-9513	22
3	Number "3"	21-B-9513	22
4	Number "4"	22-B-9513	16
5	Number "5"	23-B-9513	22
6	Number "6"	24-B-9513	24
7	Number "7"	25-B-9513	22
8	Number "8"	26-B-9513	24
9	Number "9"	27-B-9513	24
10	Number "0"	28-B-9513	28
11	Number Board for four numbers	2-B-9884	I 60
12	Number Board for three numbers	4-B-9884	I 24
13	Number Board for two numbers	8-B-9884	96
14	Number or Letter Board for one number or letter	13-B-9884	66
15	Clamp, for 6-inch pipe, complete, with bolts and nuts, for fastening numbers to a ground signal	21-B-8708	68
15a	as above, for 7-inch pipe	21-B-8725	70
16	Knee for fastening number board to the platform of a bridge or bracket signal	2-B-9389	50

LETTERS AND NUMBERS FOR GROUND, BRIDGE OR BRACKET SIGNALS AND SIGNAL BRIDGES

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
17	Strap for fastening letter board to number board.	8-B-9389	50
18	Bar, 1'-2 $\frac{3}{4}$ " long, for fastening one number to a ground signal	6-B-9389	24
18a	as above, 2'-1 $\frac{1}{2}$ " long, for fastening two numbers to a ground signal.	5-B-9389	44
18b	as above, 3'-0 $\frac{1}{4}$ " long, for fastening three numbers to a ground signal.	4-B-9389	58
18c	as above, 3'-11" long, for fastening four numbers to a ground signal.	3-B-9389	86
18d	as above, 4'-9 $\frac{3}{4}$ " long, for fastening five numbers to a ground signal.	7-B-9389	1 10
19	Wood Screw, No. 12x1 $\frac{1}{4}$ ", for fastening knee Fig. 16 to number board, and for fastening strap Fig. 17 to letter and number boards. Price per hundred		1 00
20	Stove Bolt and Nut, $\frac{3}{8}$ "x1", for fastening numbers or letters to bar Fig. 18. Price per hundred.		5 00
21	Stove Bolt, $\frac{3}{8}$ "x2", with plate washer and nut for fastening numbers and letters to number and letter boards		6 00
22	Lag Screw, $\frac{3}{8}$ "x2", for fastening knee Fig. 16 to platform of bridge or bracket signals. Price per hundred		3 00

LETTERS AND NUMBERS FOR GROUND, BRIDGE OR BRACKET SIGNALS AND SIGNAL BRIDGES

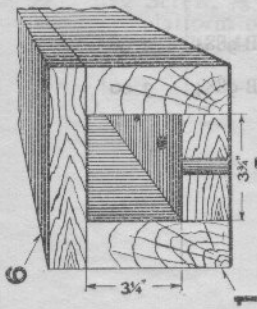
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

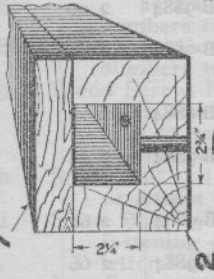
Fig.

- W Bar, for fastening one number to a ground signal, complete, with stove bolts and clamps for 6-inch pipe, (1-18, 2-20, 2-15, Plate 01763)....
- Wa as above, with clamps for 7-inch pipe, (1-18, 2-20, 2-15a, Plate 01763).....
- X Bar, for fastening two numbers to a ground signal, complete, with stove bolts and clamps for 6-inch pipe, (1-18a, 4-20, 2-15, Plate 01763)...
- Xa as above, with clamps for 7-inch pipe, (1-18a, 4-20, 2-15a, Plate 01763).....
- Y Bar, for fastening three numbers to a ground signal, complete, with stove bolts and clamps for 6-inch pipe, (1-18b, 6-20, 2-15, Plate 01763)...
- Ya as above, with clamps for 7-inch pipe, (1-18b, 6-20, 2-15a, Plate 01763).....
- Z Bar, for fastening four numbers to a ground signal, complete, with stove bolts and clamps for 6-inch pipe, (1-18c, 8-20, 2-15, Plate 01763)...
- Za as above, with clamps for 7-inch pipe, (1-18c, 8-20, 2-15a, Plate 01763).....
- Zb Bar, for fastening five numbers to a ground signal, complete, with stove bolts and clamps for 6-inch pipe, (1-18d, 10-20, 2-15, Plate 01763)...
- Zc as above, with clamps for 7-inch pipe, (1-18d, 10-20, 2-15a, Plate 01763).....

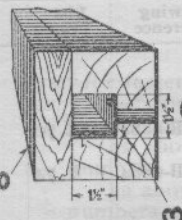
Drawing Reference	List Price
24-B-9884	1 70
25-B-9884	1 74
22-B-9884	2 00
23-B-9884	2 04
18-B-9884	2 24
19-B-9884	2 28
20-B-9884	2 62
21-B-9884	2 66
26-B-9884	2 96
27-B-9884	3 00



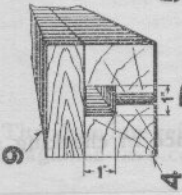
A
CAPACITY
70 #12 B & S WIRES OR 8 CABLES.



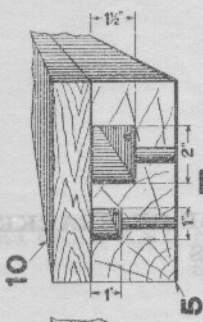
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CAPACITY
40 #12 B & S WIRES OR 5 CABLES.



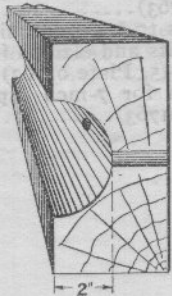
C
CAPACITY
12 #12 B & S WIRES OR 1 CABLE.



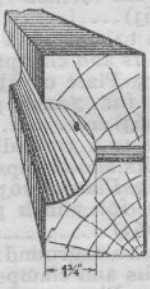
D
CAPACITY
5 #12 B & S WIRES OR 1 CABLE.



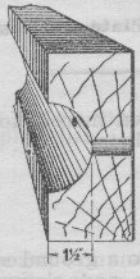
E
CAPACITY
20 #12 B & S WIRES OR 3 CABLES.



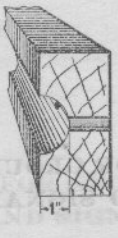
11
FOR 3 INCH PIPE.



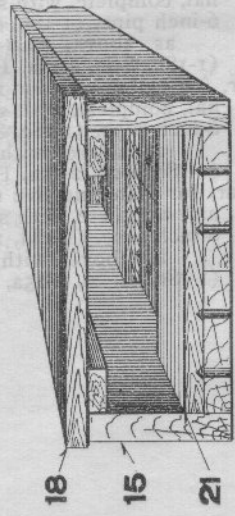
12
FOR 2 1/2 INCH PIPE.



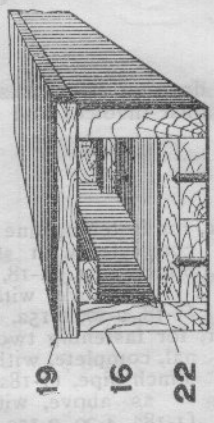
13
FOR 2 INCH PIPE.



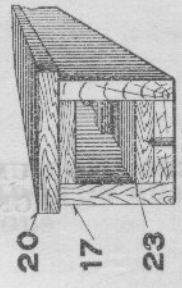
14
FOR 1 INCH PIPE.



F
CAPACITY. 90 CABLES.



G
CAPACITY. 35 CABLES.



H
CAPACITY 15 CABLES OR 100 #12 B & S WIRES.

LUMBER TO BE SUPPLIED IN LENGTHS OF 16 FT. SURFACED ON ONE SIDE AND EDGES. JOINTS OF WHICH ARE NOT TO BE OPPOSITE AND ARE TO REST ON FOUNDATIONS. THE CENTRES OF WHICH ARE 8 FEET APART.

TRUNKING AND CONDUIT

TRUNKING AND CONDUIT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Grooved Wire Trunking (Pine), with opening 3¼"x3¾", complete, as shown.....	23-B-3568	Prices on application
B	Grooved Wire Trunking (Chestnut), with opening 2¼"x2¾", complete, as shown.....	24-B-3568	
C	Grooved Wire Trunking (Chestnut), with opening 1½"x1½", complete, as shown.....	25-B-3568	
D	Grooved Wire Trunking (Chestnut), with opening 1"x1", complete, as shown.....	26-B-3568	
E	Grooved Wire Trunking (Chestnut), with openings 1"x1" and 1½"x2", complete, as shown.	27-B-3568	
F	Cable Conduit (Pine), with capacity for ninety cables, complete, as shown.....	34-B-3568	
G	Cable Conduit (Pine), with capacity for thirty-five cables, complete, as shown.....	35-B-3568	
H	Cable Conduit (Pine), with capacity for fifteen cables, complete, as shown.....	28-B-3568	
I	Trunking (Pine), only, for Fig. A.....	23A-B-3568	

TRUNKING AND CONDUIT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
2	Trunking (Chestnut), only, for Fig. B.....	24a-B-3568	Prices on application
3	as above, for Fig. C.....	25a-B-3568	
4	as above, for Fig. D.....	26a-B-3568	
5	as above, for Fig. E.....	27a-B-3568	
6	Capping (Pine), only, for Fig. A.....	23b-B-3568	
7	Capping (Chestnut), only, for Fig. B.....	24b-B-3568	
8	as above, for Fig. C.....	25b-B-3568	
9	as above, for Fig. D.....	26b-B-3568	
10	as above, for Fig. E.....	27b-B-3568	
11	Trunking (Chestnut), as shown, with groove 2-inch radius, for 3-inch pipe.....	29-B-3568	
12	Trunking (Chestnut), as shown, with groove 1¾-inch radius, for 2½-inch pipe.....	30-B-3568	



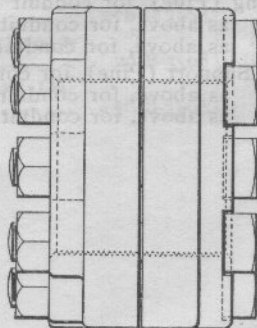
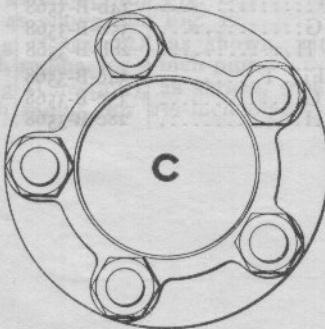
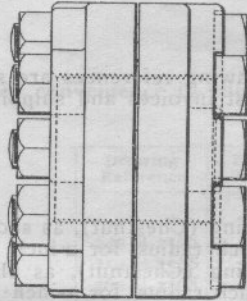
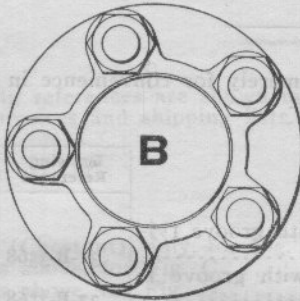
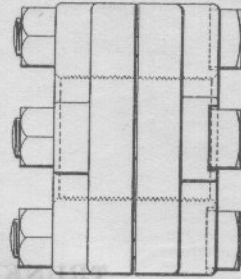
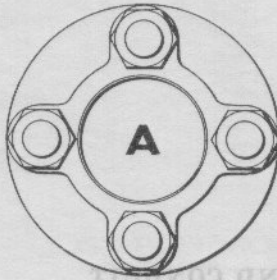
TRUNKING AND CONDUIT

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
13	Trunking (Chestnut), as shown, with groove 1/2-inch radius, for 2-inch pipe.....	31-B-3568	Prices on application
14	Trunking (Chestnut), as shown, with groove 1-inch radius, for 1-inch pipe.....	32-B-3568	
15	Boxing (Pine), only, without cable supports and capping for conduit Fig. F.....	34a-B-3568	
16	as above, for conduit Fig. G.....	35a-B-3568	
17	as above, for conduit Fig. H.....	28a-B-3568	
18	Capping (Pine), for conduit Fig. F.....	34b-B-3568	
19	as above, for conduit Fig. G.....	35b-B-3568	
20	as above, for conduit Fig. H.....	28b-B-3568	
21	Cable Support (Pine), for conduit Fig. F.....	34c-B-3568	
22	as above, for conduit Fig. G.....	35c-B-3568	
23	as above, for conduit Fig. H.....	28c-B-3568	

FRANGE UNIONS



FLANGE UNIONS



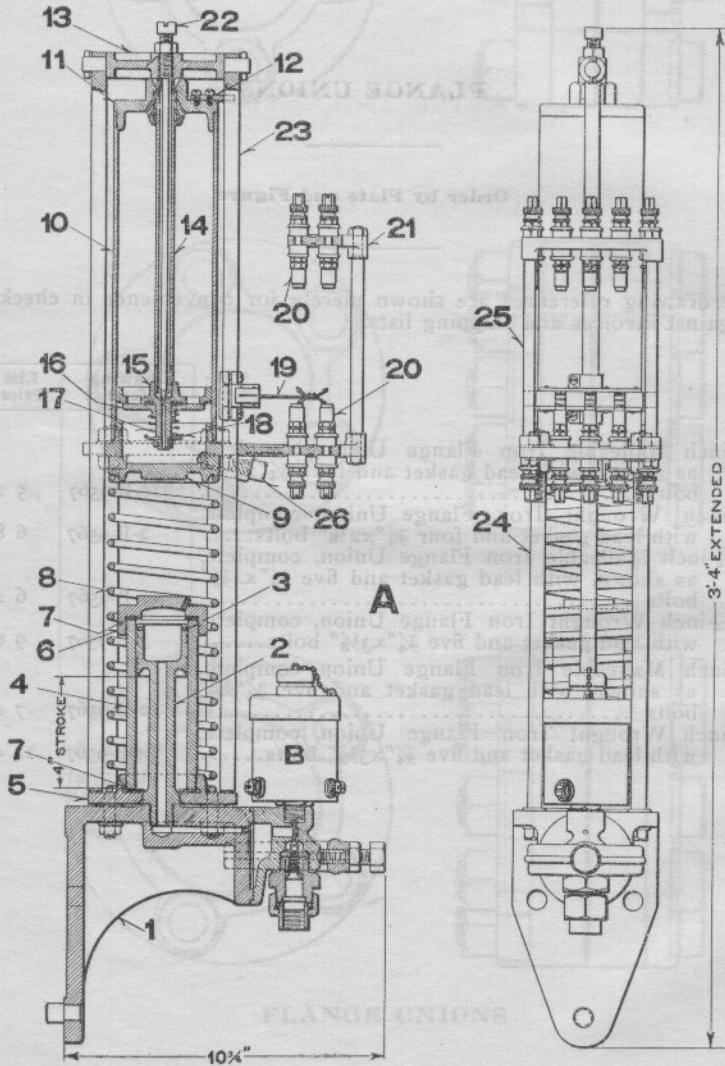
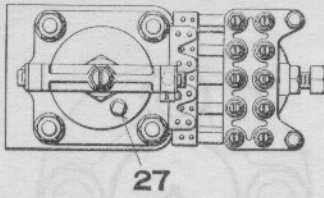
ELECTRO-PNEUMATIC SLOW TIME RELEASE

FLANGE UNIONS

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	2-inch Malleable Iron Flange Union, complete, as shown, with lead gasket and four 3/4"x4 1/2" bolts	10-B-9567	5 20
Aa	2-inch Wrought Iron Flange Union, complete, with lead gasket and four 3/4"x2 7/8" bolts.....	2-B-9567	6 80
B	2 1/2-inch Malleable Iron Flange Union, complete, as shown, with lead gasket and five 3/4"x4 3/4" bolts	11-B-9567	6 20
Ba	2 1/2-inch Wrought Iron Flange Union, complete, with lead gasket and five 3/4"x3 3/8" bolts.....	3-B-9567	9 00
C	3-inch Malleable Iron Flange Union, complete, as shown, with lead gasket and five 3/4"x5" bolts	12-B-9567	7 40
Ca	3-inch Wrought Iron Flange Union, complete, with lead gasket and five 3/4"x3 3/8" bolts.....	4-B-9567	11 00



ELECTRO-PNEUMATIC SLOW TIME RELEASE

ELECTRO-PNEUMATIC SLOW TIME RELEASE

Magnets are usually wound to 16, 120 and 400 ohms resistance. Specify resistance when ordering.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Electro-Pneumatic Slow Time Release, having five top and bottom independent contacts, complete, as shown, with valve and magnet. Specify resistance of magnet.....	1-C-6475	114 00
Aa	as above, without valve and magnet.....	2-C-6475	84 00
B	Valve and Magnet, complete. Specify resistance of magnet. For details see Plate 01559.....	1-A-2583	30 00
1	Base with stud.....	1a-C-6552	4 90
2	Piston only.....	38-B-8328	4 40
2a	as above, with piston ring, (1-2, 1-3, Plate 01769).....	38a-B-8328	5 00
3	Piston Ring.....	15-B-8197	60
4	Cylinder only.....	4-C-6552	5 20
4a	as above, complete, with heads and gaskets, (1-4, 1-5, 1-6, 2-7, Plate 01769).....	4a-C-6552	8 20
5	Bottom Head for cylinder.....	2-C-6552	1 80
6	Top Head for cylinder, complete, with oil plug....	11-C-6552	90
7	Gasket for cylinder heads.....	119-B-8078	20
8	Spring for cylinder.....	124-B-7770	1 00
9	Bottom Dash Pot Head only.....	5-B-9791	3 00
9a	as above, with oil plug, (1-9, 1-26, Plate 01769).....	5a-B-9791	3 10



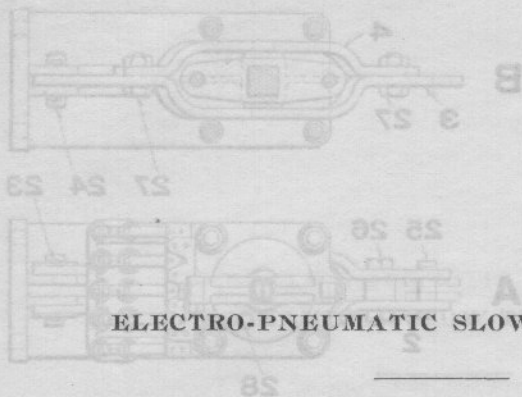
ELECTRO-PNEUMATIC SLOW TIME RELEASE

ELECTRO-PNEUMATIC SLOW TIME RELEASE

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
10	Cylinder only, for dash pot.....	9-B-8161	12 40
10a	as above, with top and bottom heads, piston complete, yoke and adjusting pin, (I-10, I-11a, I-9a, I-15a, I-13, I-22, Plate 01769)	9a-B-8161	27 10
11	Top Dash Pot Head only.....	6-C-6552	3 40
11a	as above, complete, with guide, machine screws and oil plug, (I-11, I-12, I-27, Plate 01769)	6a-C-6552	4 00
12	Guide, for top dash pot head, with two machine screws for fastening to head.....	3a-C-6552	40
13	Yoke, with washers and cotters, for piston rod of dash pot	5a-C-6552	1 20
14	Piston rod for dash pot.....	10-B-8161	1 70
15	Piston only, with nut, for dash pot.....	39a-B-8328	2 80
15a	as above, complete, with piston rod, valve, spring and cup washer, (I-15, I-14, I-16, I-17, I-18, Plate 01769).....	7-B-9878	5 70



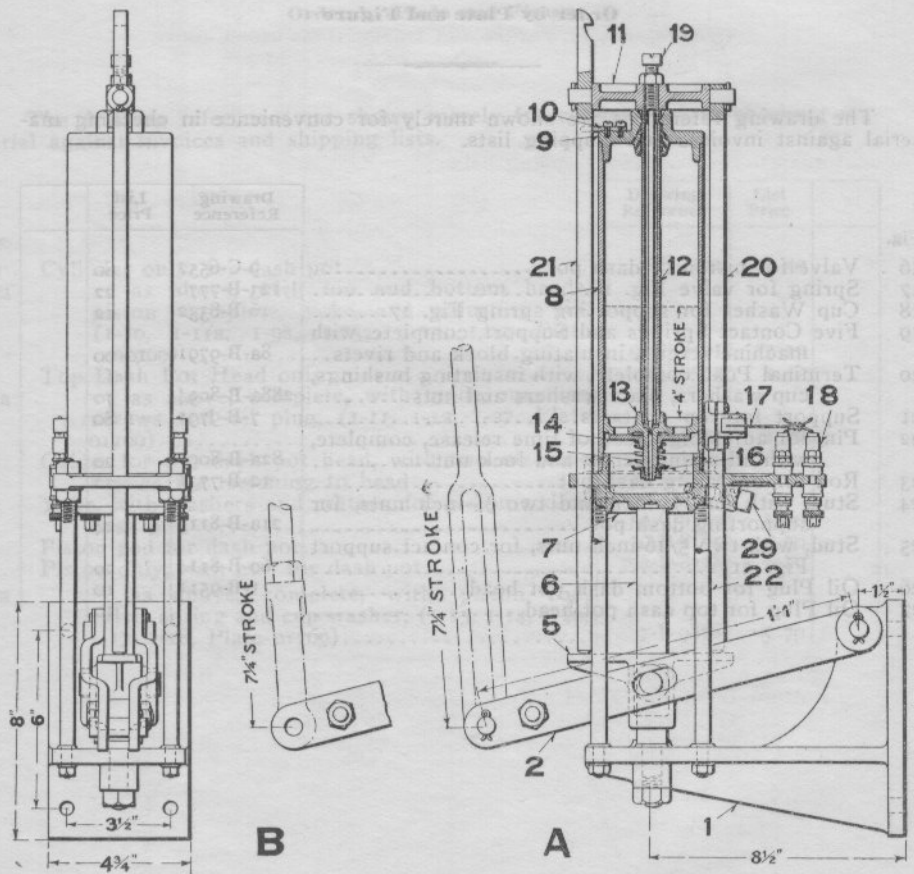
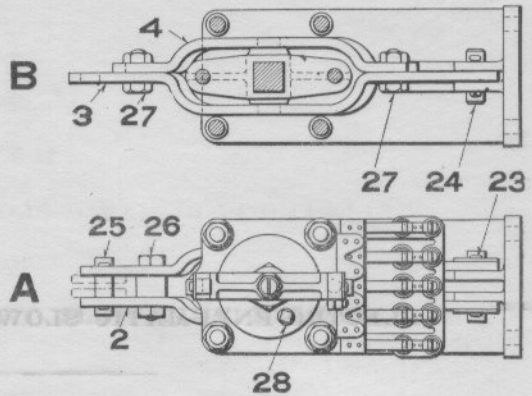
ELECTRO-PNEUMATIC SLOW TIME RELEASE

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

- Fig.
- 16 Valve for piston of dash pot.....
 - 17 Spring for valve Fig. 16.....
 - 18 Cup Washer for supporting spring Fig. 17.....
 - 19 Five Contact Springs and Support, complete, with machine screws, insulating block and rivets..
 - 20 Terminal Post, complete, with insulating bushings, cup washers, plate washers and nuts.....
 - 21 Support for top contacts.....
 - 22 Pin, for adjusting speed of time release, complete, with adjusting screw and lock nut.....
 - 23 Rod for operating dash pot.....
 - 24 Stud, with one 3/8-inch and two 1/2-inch nuts, for supporting dash pot.....
 - 25 Stud, with two 5/16-inch nuts, for contact support Fig. 21
 - 26 Oil Plug for bottom dash pot head.....
 - 27 Oil Plug for top dash pot head.....

Drawing Reference	List Price
9-C-6552	80
123-B-7770	22
16-B-8332	12
8a-B-9791	10 00
288a-B-8094	70
7-B-9791	1 80
82a-B-8097	20
12-B-7731	22
21a-B-8115	24
60-B-8114	20
1-B-9511	10
	10



MECHANICAL SLOW TIME RELEASE

MECHANICAL SLOW TIME RELEASE

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Mechanical Slow Time Release, having five independent contacts, complete, as shown, operated by either of two adjacent levers of a mechanical interlocking machine.....	3-C-6599	65 00
B	as above, operated by one lever of a mechanical interlocking machine.....	1-C-6599	64 00
1	Base	1-C-6600	2 10
2	Lever for Fig. A.....	9-C-6600	1 60
3	Lever for Fig. B.....	3-C-6600	1 70
4	Lever Bracket for Fig. B.....	4-C-6600	1 40
5	Slide for operating dash pot.....	2-C-6600	90
6	Guide, for slide Fig. 5, with 5/8-inch nut for fastening to base.....	5a-C-6600	1 90
7	Bottom Dash Pot Head only.....	6-B-9791	2 90
7a	as above, with oil plug, (1-7, 1-29, Plate 01771)	6a-B-9791	3 00
8	Cylinder only, for dash pot.....	9-B-8161	12 40

MECHANICAL SLOW TIME RELEASE

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

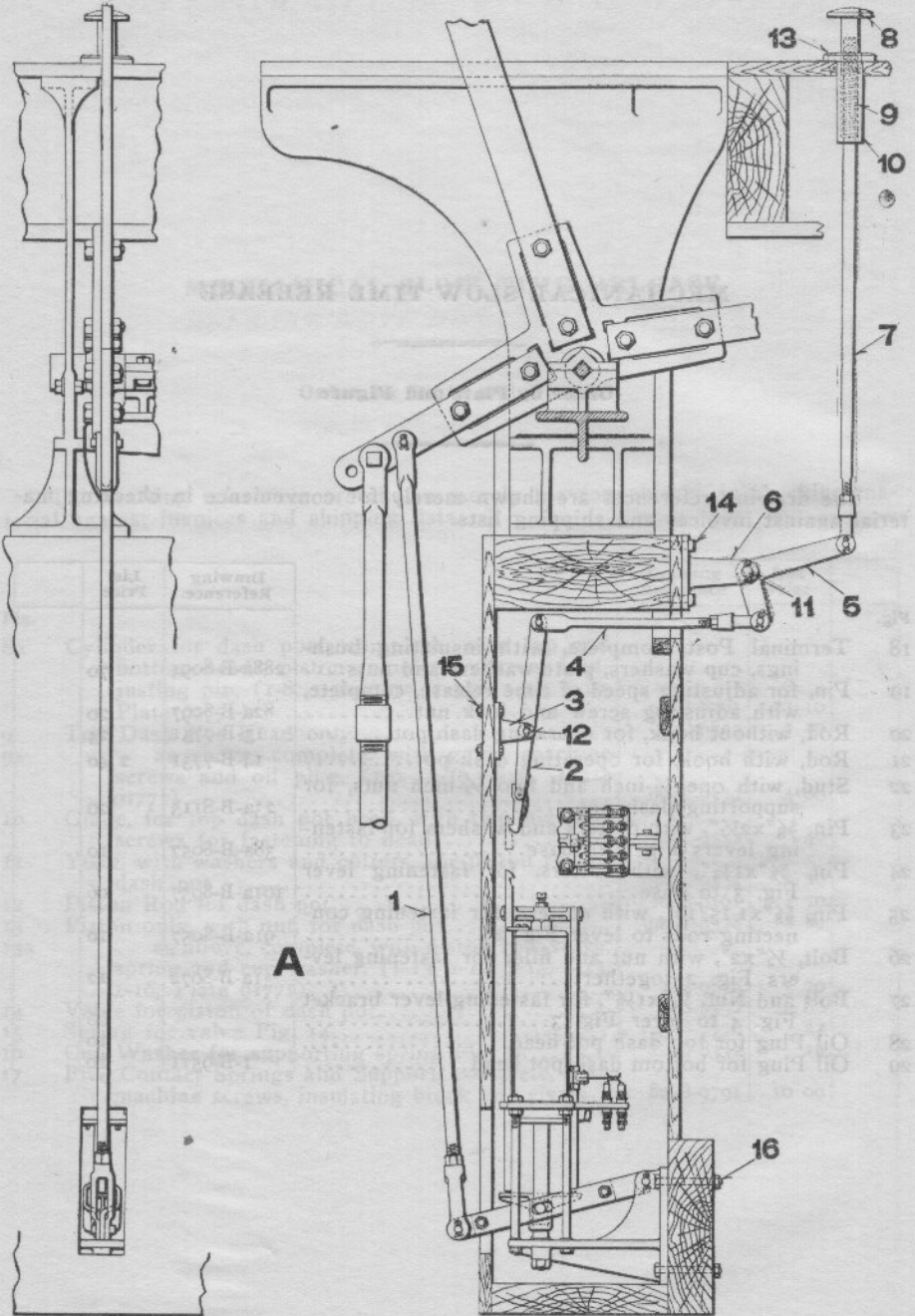
Fig.		Drawing Reference	List Price
8a	Cylinder for dash post, complete, with top and bottom heads, piston complete, yoke and adjusting pin, (1-8, 1-9a, 1-7a, 1-13a, 1-11, 1-19, Plate 01771)	9a-B-8161	27 10
9	Top Dash Pot Head only	6-C-6552	3 40
9a	as above, complete, with guide, machine screws and oil plug, (1-9, 1-10, 1-28, Plate 01771)	6a-C-6552	4 00
10	Guide, for top dash pot head, with two machine screws for fastening to head.....	3a-C-6552	40
11	Yoke, with washers and cotters, for piston rod of dash pot	5a-C-6552	1 20
12	Piston Rod for dash pot.....	10-B-8161	1 70
13	Piston only, with nut, for dash pot.....	39a-B-8328	2 80
13a	as above, complete, with piston rod, valve, spring and cup washer, (1-13, 1-12, 1-14, 1-15, 1-16, Plate 01771).....	7-B-9878	5 70
14	Valve for piston of dash pot.....	9-C-6552	80
15	Spring for valve Fig. 14.....	123-B-7770	22
16	Cup Washer for supporting spring Fig. 15.....	10-B-8332	12
17	Five Contact Springs and Support, complete, with machine screws, insulating block and rivets..	8a-B-9791	10 00

MECHANICAL SLOW TIME RELEASE

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
18	Terminal Post, complete, with insulating bushings, cup washers, plate washers and nuts....	288a-B-8094	70
19	Pin, for adjusting speed of time release, complete, with adjusting screw and lock nut.....	82a-B-8097	20
20	Rod, without hook, for operating dash pot.....	13-B-773I	24
21	Rod, with hook, for operating dash pot.....	14-B-773I	2 40
22	Stud, with one 3/8-inch and two 1/2-inch nuts, for supporting dash pot.....	23a-B-8115	20
23	Pin, 5/8" x 2 1/2", with cotters and washers for fastening levers Fig. 2 to base.....	38a-B-8057	10
24	Pin, 5/8" x 1 3/4", with cotters, for fastening lever Fig. 3 to base.....	101a-B-8057	06
25	Pin, 5/8" x 1 15/16", with cotters, for fastening connecting rods to lever Fig. 2.....	91a-B-8057	10
26	Bolt, 1/2" x 2", with nut and filler for fastening levers Fig. 2 together.....	1a-B-8072	12
27	Bolt and Nut, 1/2" x 1 1/8", for fastening lever bracket Fig. 4 to lever Fig. 3.....		06
28	Oil Plug for top dash pot head.....		10
29	Oil Plug for bottom dash pot head.....	1-B-9511	10



MECHANICAL SLOW TIME RELEASE WITH LATCH
(Operated by One Lever)

MECHANICAL SLOW TIME RELEASE WITH LATCH

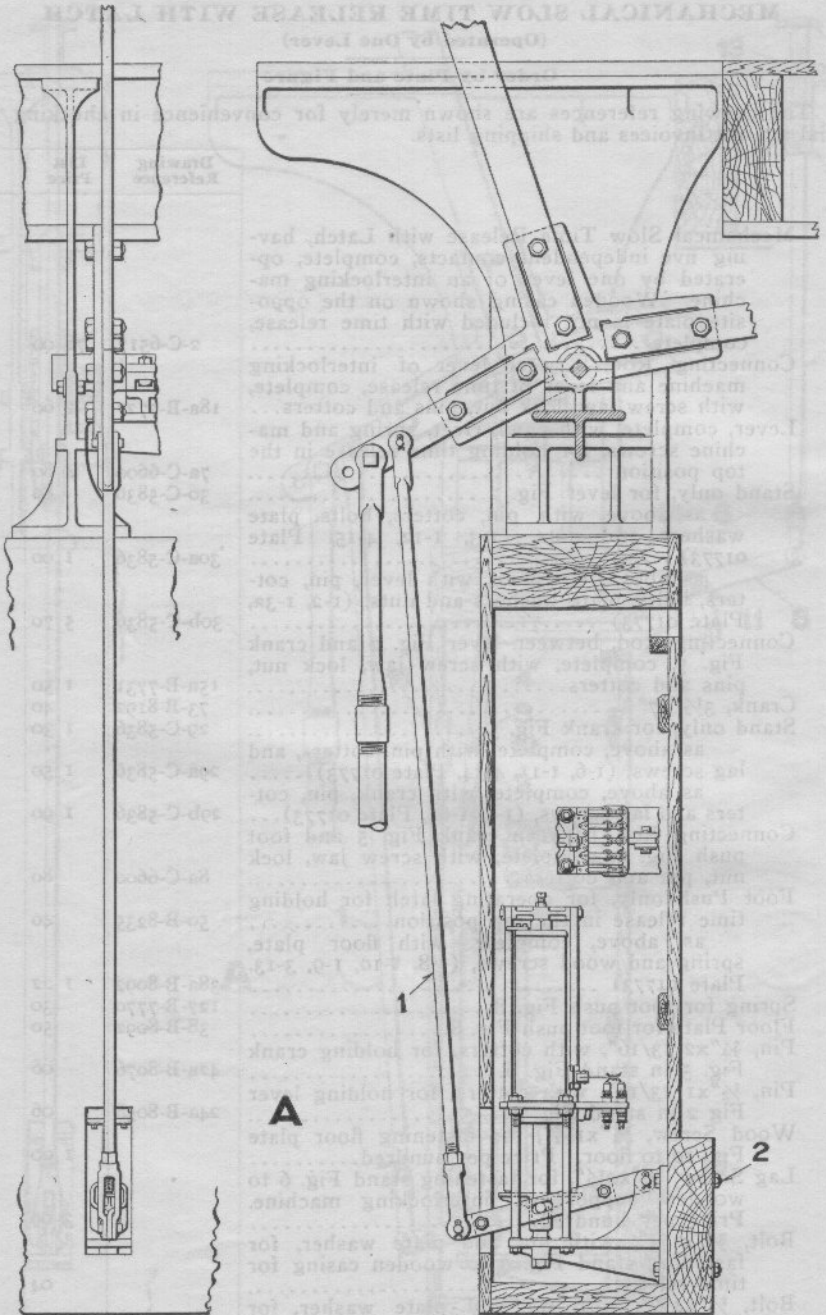
(Operated by One Lever)

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Mechanical Slow Time Release with Latch, having five independent contacts, complete, operated by one lever of an interlocking machine. Wooden casing shown on the opposite plate is not included with time release, complete	2-C-6517	76 00
1	Connecting Rod, between lever of interlocking machine and lever of time release, complete, with screw jaw, lock nut, pins and cotters...	18a-B-7727	2 60
2	Lever, complete, with pawl, rivet, spring and machine screws, for holding time release in the top position	7a-C-6600	4 80
3	Stand only, for lever Fig. 2.....	30-C-5836	80
3a	as above, with pin, cotters, bolts, plate washers and nuts, (1-3, 1-12, 4-15, Plate 01773)	30a-C-5836	1 00
3b	as above, complete, with lever, pin, cotters, bolts, plate washers and nuts, (1-2, 1-3a, Plate 01773)	30b-C-5836	5 70
4	Connecting Rod, between lever Fig. 2 and crank Fig. 5, complete, with screw jaw, lock nut, pins and cotters.....	15a-B-7731	1 50
5	Crank, 3½"x7"	73-B-8192	40
6	Stand only, for crank Fig. 5.....	29-C-5836	1 30
6a	as above, complete, with pin, cotters, and lag screws, (1-6, 1-11, 4-14, Plate 01773).....	29a-C-5836	1 50
6b	as above, complete, with crank, pin, cotters and lag screws, (1-5, 1-6a, Plate 01773)...	29b-C-5836	1 90
7	Connecting Rod, between crank Fig. 5 and foot push Fig. 8, complete, with screw jaw, lock nut, pin and cotters.....	8a-C-6600	80
8	Foot Push only, for operating latch for holding time release in the top position.....	50-B-8235	40
8a	as above, complete, with floor plate, spring and wood screws, (1-8, 1-10, 1-9, 3-13, Plate 01773)	38a-B-8092	1 22
9	Spring for foot push Fig. 8.....	127-B-7770	30
10	Floor Plate for foot push Fig. 8.....	38-B-8092	50
11	Pin, ¾"x2 13/16", with cotters, for holding crank Fig. 5 in stand Fig. 6.....	42a-B-8076	06
12	Pin, ½"x1 13/16", with cotters, for holding lever Fig. 2 in stand Fig. 3.....	24a-B-8058	06
13	Wood Screw, ¼"x1½", for fastening floor plate Fig. 10 to floor. Price per hundred.....		1 00
14	Lag Screw, ½"x2½", for fastening stand Fig. 6 to wooden support of interlocking machine. Price per hundred.....		3 00
15	Bolt, ⅜"x1⅝", with nut and plate washer, for fastening stand Fig. 3 to wooden casing for time release		04
16	Bolt, ½"x4½", with nut and plate washer, for fastening base of time release to wooden casing		08

For detail parts of time release see Plate 01771.



MECHANICAL SLOW TIME RELEASE WITHOUT LATCH
 (Operated by One Lever)

MECHANICAL SLOW TIME RELEASE WITHOUT LATCH

(Operated by One Lever)

Order by Plate and Figure

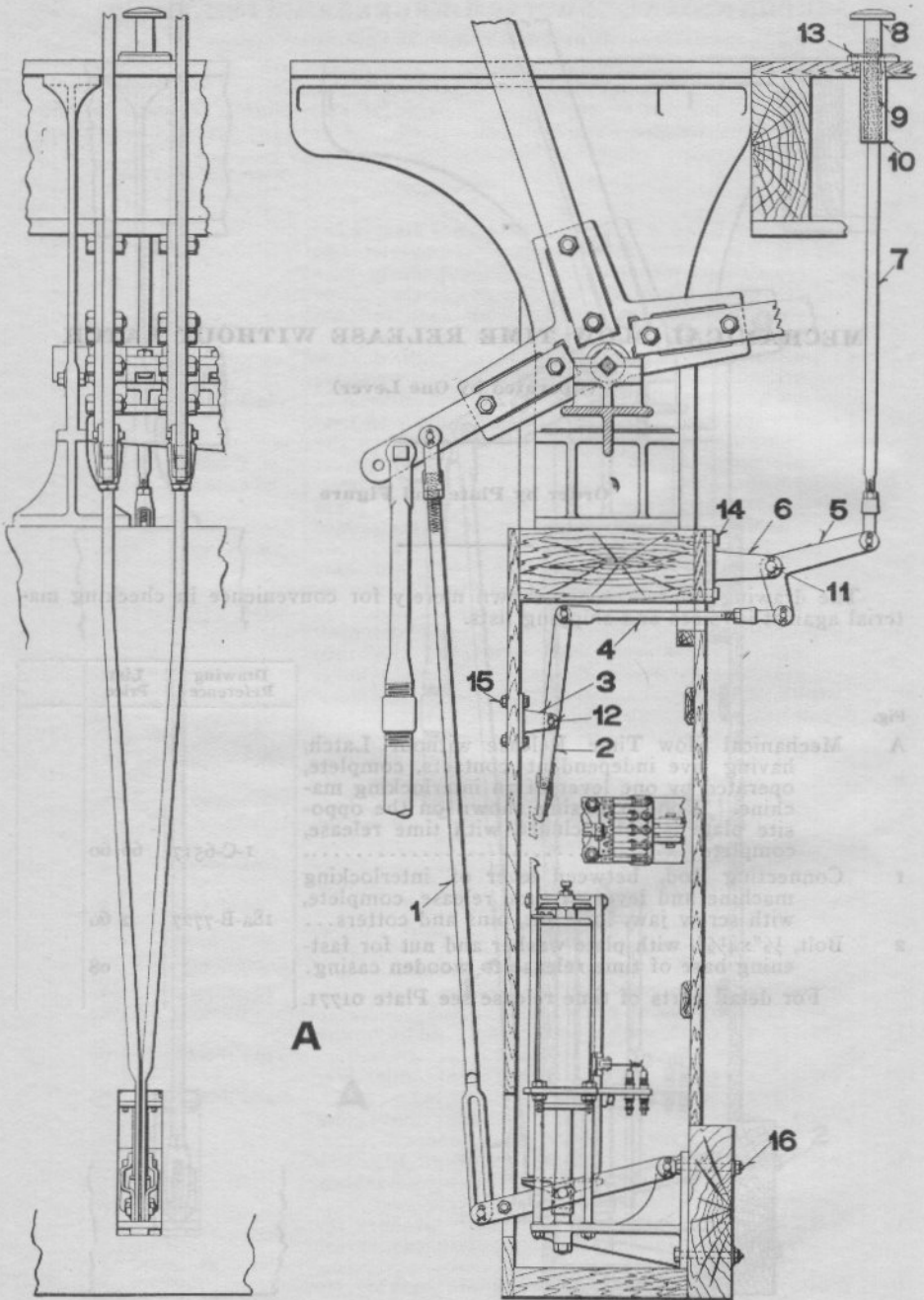
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.

- A Mechanical Slow Time Release without Latch, having five independent contacts, complete, operated by one lever of an interlocking machine. Wooden Casing shown on the opposite plate is not included with time release, complete
- 1 Connecting Rod, between lever of interlocking machine and lever of time release, complete, with screw jaw, lock nut, pins and cotters...
- 2 Bolt, 1/2" x 4 1/2", with plate washer and nut for fastening base of time release to wooden casing.

For detail parts of time release see Plate 01771.

Drawing Reference	List Price
1-C-6517	66 60
18a-B-7727	2 60
	08



MECHANICAL SLOW TIME RELEASE WITH LATCH
 (Operated by Either of Two Adjacent Levers)

MECHANICAL SLOW TIME RELEASE WITH LATCH

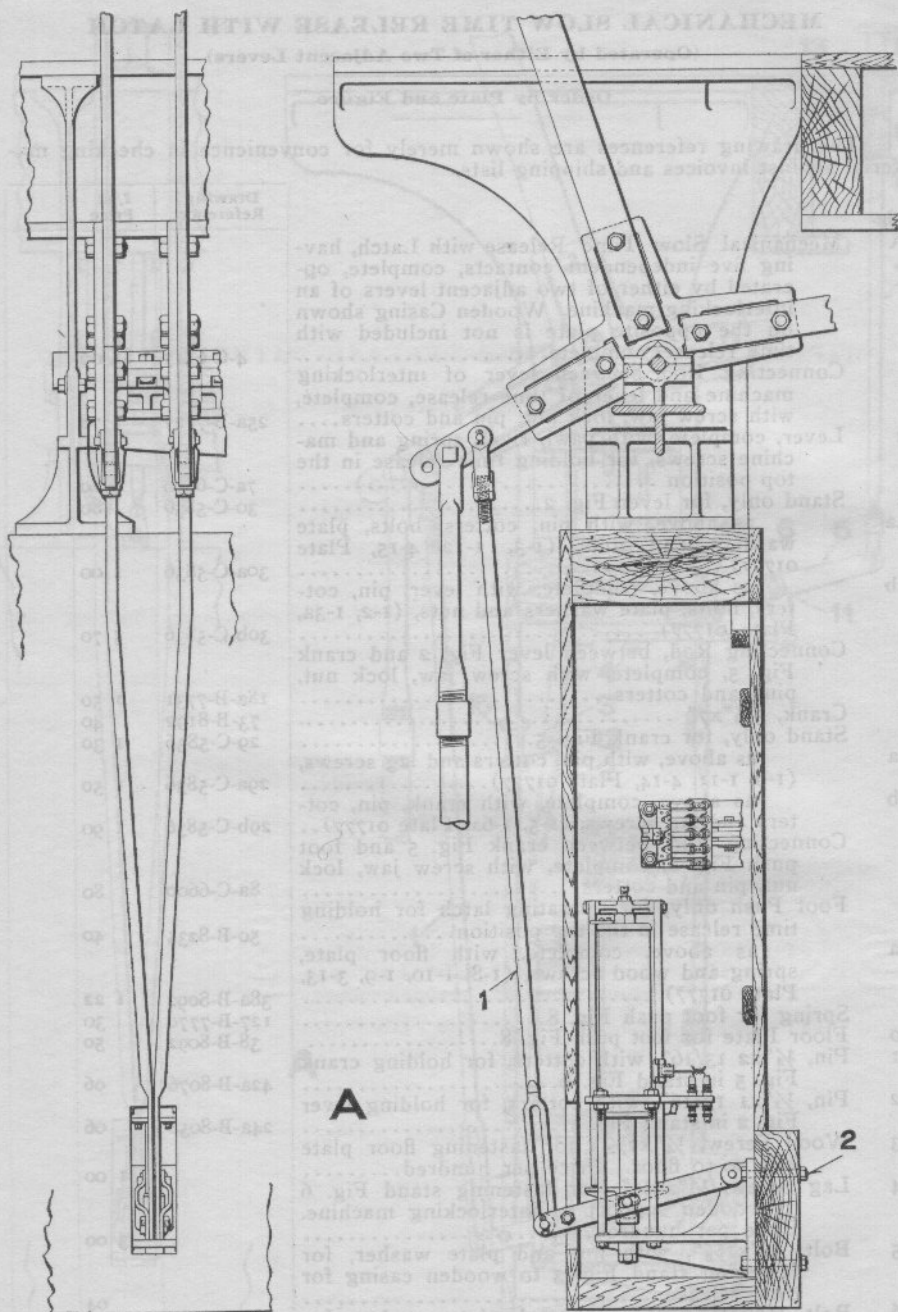
(Operated by Either of Two Adjacent Levers)

Order by Plate and Figure

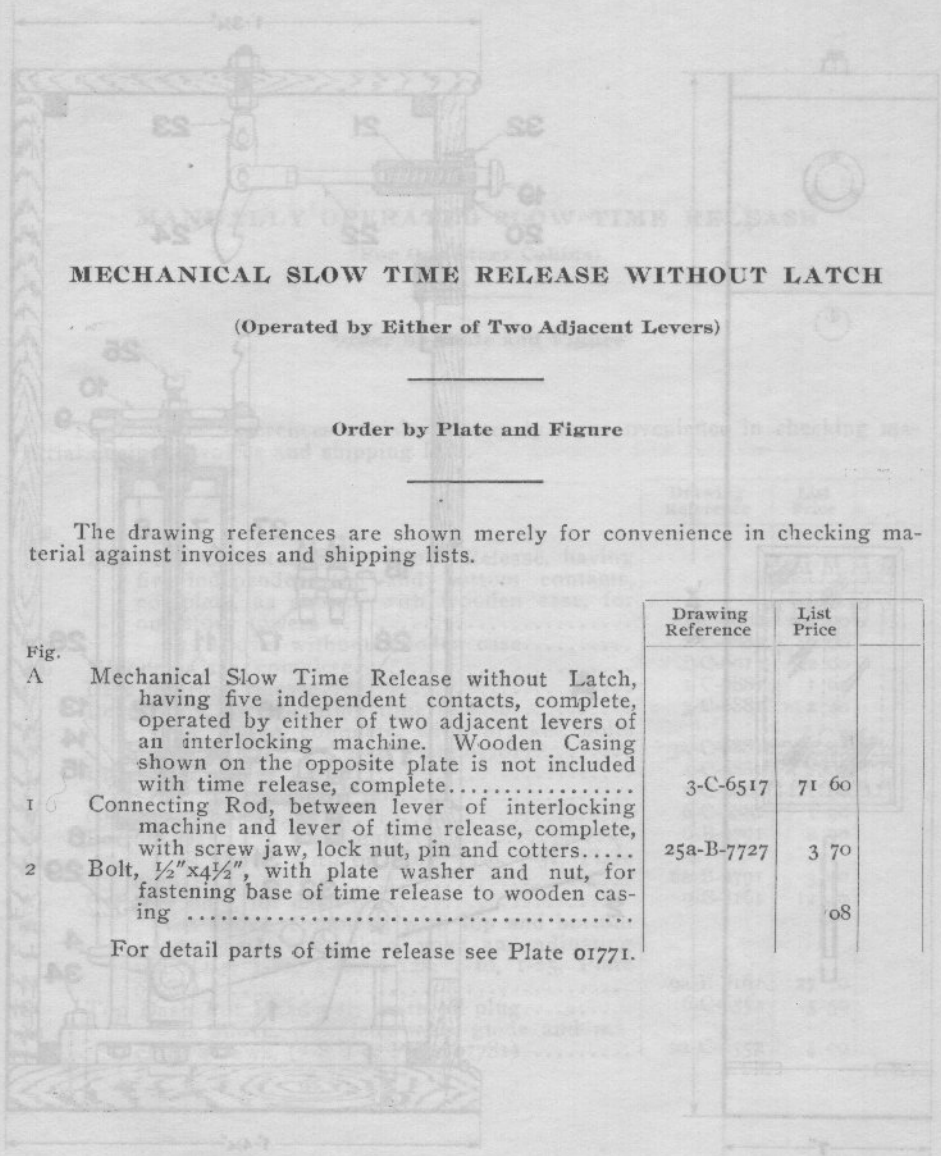
The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Mechanical Slow Time Release with Latch, having five independent contacts, complete, operated by either of two adjacent levers of an interlocking machine. Wooden Casing shown on the opposite plate is not included with time release, complete.....	4-C-6517	81 00
1	Connecting Rod, between lever of interlocking machine and lever of time release, complete, with screw jaw, lock nut, pin and cotters....	25a-B-7727	3 70
2	Lever, complete, with pawl, rivet, spring and machine screws, for holding time release in the top position	7a-C-6600	4 80
3	Stand only, for lever Fig. 2.....	30-C-5836	80
3a	as above, with pin, cotters, bolts, plate washers and nuts, (1-3, 1-12, 4-15, Plate 01777)	30a-C-5836	1 00
3b	as above, complete, with lever, pin, cotters, bolts, plate washers and nuts, (1-2, 1-3a, Plate 01777)	30b-C-5836	5 70
4	Connecting Rod, between lever Fig. 2 and crank Fig. 5, complete, with screw jaw, lock nut, pins and cotters.....	18a-B-7731	1 50
5	Crank, 3½"x7"	73-B-8192	40
6	Stand only, for crank Fig. 5.....	29-C-5836	1 30
6a	as above, with pin, cotters and lag screws, (1-6, 1-11, 4-14, Plate 01777).....	29a-C-5836	1 50
6b	as above, complete, with crank, pin, cotters and lag screws, (1-5, 1-6a, Plate 01777) ..	29b-C-5836	1 90
7	Connecting Rod, between crank Fig. 5 and foot push Fig. 8, complete, with screw jaw, lock nut, pin and cotters.....	8a-C-6600	80
8	Foot Push only, for operating latch for holding time release in the top position.....	50-B-8235	40
8a	as above, complete, with floor plate, spring and wood screws, (1-8, 1-10, 1-9, 3-13, Plate 01777)	38a-B-8092	1 22
9	Spring for foot push Fig. 8.....	127-B-7770	30
10	Floor Plate for foot push Fig. 8.....	38-B-8092	50
11	Pin, ¾"x2 13/16", with cotters, for holding crank Fig. 5 in stand Fig. 6.....	42a-B-8076	06
12	Pin, ½"x1 13/16", with cotters, for holding lever Fig. 2 in stand Fig. 3.....	24a-B-8058	06
13	Wood Screw, ¼"x1½", for fastening floor plate Fig. 10 to floor. Price per hundred.....		1 00
14	Lag Screw, ½"x2½", for fastening stand Fig. 6 to wooden support of interlocking machine. Price per hundred.....		3 00
15	Bolt, ¾"x1½", with nut and plate washer, for fastening stand Fig. 3 to wooden casing for time release		04
16	Bolt, ½"x4½", with nut and plate washer, for fastening base of time release to wooden casing		08

For detail parts of time release see Plate 01771.



MECHANICAL SLOW TIME RELEASE WITHOUT LATCH
 (Operated by Either of Two Adjacent Levers)



MECHANICAL SLOW TIME RELEASE WITHOUT LATCH

(Operated by Either of Two Adjacent Levers)

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

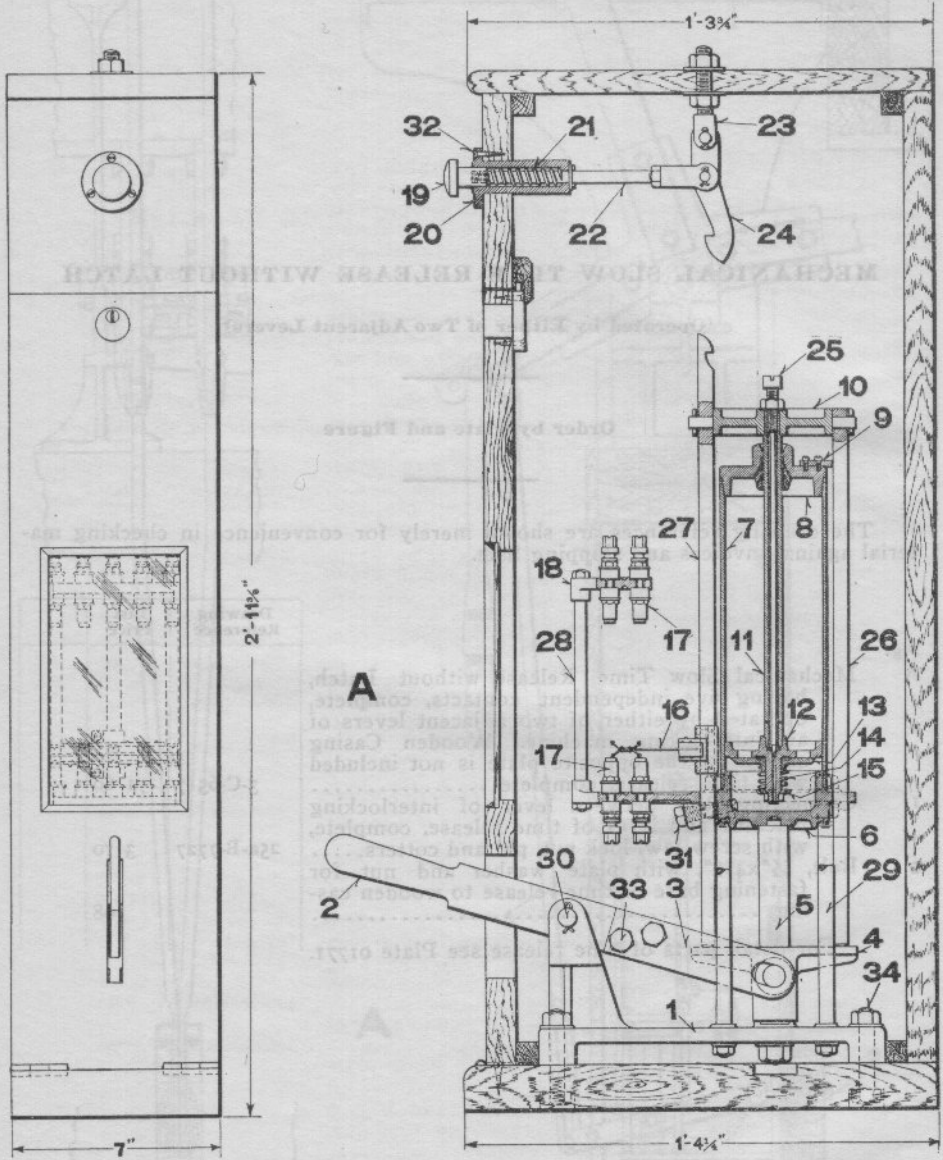
Fig.

- A Mechanical Slow Time Release without Latch, having five independent contacts, complete, operated by either of two adjacent levers of an interlocking machine. Wooden Casing shown on the opposite plate is not included with time release, complete.....
- 1 Connecting Rod, between lever of interlocking machine and lever of time release, complete, with screw jaw, lock nut, pin and cotters.....
- 2 Bolt, 1/2"x4 1/2", with plate washer and nut, for fastening base of time release to wooden casing

For detail parts of time release see Plate 01771.

Drawing Reference	List Price
3-C-6517	71 60
25a-B-7727	3 70
	08

MANUALLY OPERATED SLOW TIME RELEASE
(For One Story Carline)



MANUALLY OPERATED SLOW TIME RELEASE
 (For One Story Cabins)

MANUALLY OPERATED SLOW TIME RELEASE

(For One Story Cabins)

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
A	Manually Operated Slow Time Release, having five independent top and bottom contacts, complete, as shown, with wooden case, for one-story towers	1-C-6882	104 00
Aa	as above, without wooden case.....	2-C-6882	82 00
Ab	Wooden Case, complete.....	1-C-6911	22 00
1	Base for time release.....	1-C-6881	1 60
2	Lever only, for operating time release.....	3-C-6881	2 40
2a	as above, complete, with bracket, bolts and nuts, (1-2, 1-3, 2-33, Plate 01781).....	3a-C-6881	3 50
3	Bracket for lever Fig. 2.....	4-C-6881	1 00
4	Slide for operating dash pot.....	2-C-6600	90
5	Guide for slide Fig. 4.....	6-C-6881	1 90
6	Bottom Dash Pot Head only.....	6-B-9791	2 90
6a	as above, with oil plug, (1-6, 1-31, Plate 01781)	6a-B-9791	3 00
7	Cylinder only, for dash pot.....	9-B-8161	12 40
7a	as above, complete, with top and bottom heads, piston complete, yoke and adjusting pin, (1-7, 1-8a, 1-6a, 1-12a, 1-10, 1-25, Plate 01781)	9a-B-8161	27 10
8	Top Dash Pot Head only, with oil plug.....	6-C-6552	3 50
8a	as above, complete, with guide and machine screws, (1-8, 1-9, Plate 01781).....	6a-C-6552	4 00

MANUALLY OPERATED SLOW TIME RELEASE

(For One Story Cabins)

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
9	Guide, for top dash pot head, with two machine screws for fastening to head.....	3a-C-6552	40
10	Yoke, with washers and cotters, for piston rod of dash pot	5a-C-6552	1 20
11	Piston Rod for dash pot.....	10-B-8161	1 70
12	Piston only, with nut, for dash pot.....	39a-B-8328	2 80
12a	as above, complete, with piston rod, valve, spring and cup washer, (1-12, 1-11, 1-13, 1-14, 1-15, Plate 01781).....	7-B-9878	5 70
13	Valve for piston of dash pot.....	9-C-6552	80
14	Spring for valve Fig. 13.....	123-B-7770	22
15	Cup Washer for supporting spring Fig. 14.....	16-B-8332	12
16	Five Contact Springs and Support, complete, with machine screws, insulating block and rivets..	8a-B-9791	10 00
17	Terminal Post, complete, with insulating bushings, cup washers, plate washers and nuts...	288a-B-8094	70
18	Support for top contacts.....	7-B-9791	1 80
19	Plunger only, for operating latch for holding time release in the top position.....	46-B-8235	82
19a	as above, complete, with spring socket, spring and wood screws, (1-19, 1-20, 1-21, 3-32, Plate 01781).....	46a-B-8235	2 70
20	Spring Socket for plunger Fig. 19.....	2-C-6881	1 60
21	Spring for plunger Fig. 19.....	136-B-7770	22

MANUALLY OPERATED SLOW TIME RELEASE

(For One Story Cabins)

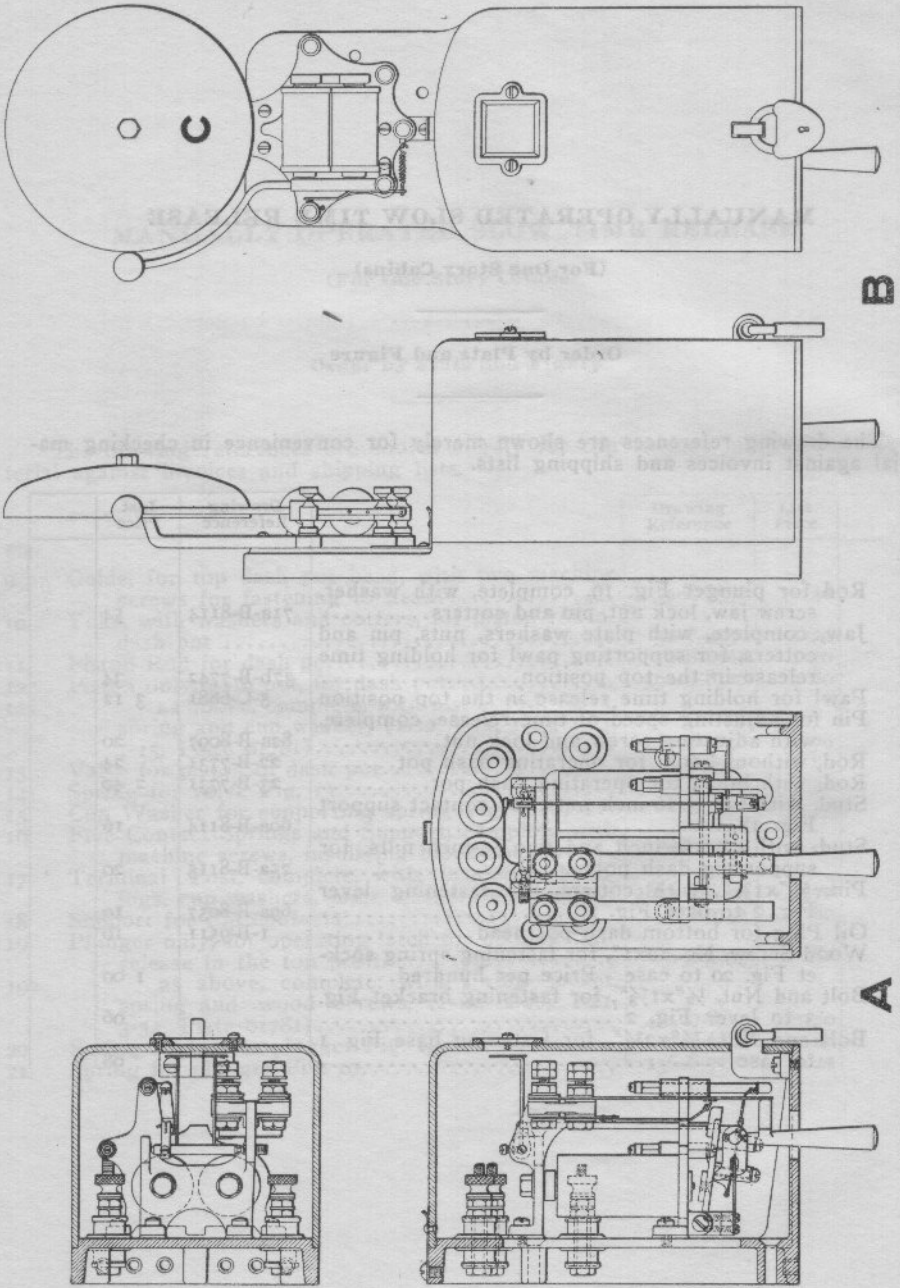
MANUALLY OPERATED SLOW TIME RELEASE

(For One Story Cabins)

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.	Description	Drawing Reference	List Price
22	Rod for plunger Fig. 19, complete, with washer, screw jaw, lock nut, pin and cotters.....	71a-B-8114	54
23	Jaw, complete, with plate washers, nuts, pin and cotters, for supporting pawl for holding time release in the top position.....	37b-B-7742	34
24	Pawl for holding time release in the top position	5-C-6881	3 12
25	Pin for adjusting speed of time release, complete, with adjusting screw and lock nut.....	82a-B-8097	20
26	Rod, without hook, for operating dash pot.....	22-B-7731	24
27	Rod, with hook, for operating dash pot.....	23-B-7731	2 40
28	Stud, with two 5/16-inch nuts, for contact support Fig. 18	60a-B-8114	16
29	Stud, with one 3/8-inch and two 1/2-inch nuts, for supporting dash pot.....	25a-B-8115	20
30	Pin, 5/8"x1 1/8", with cotters, for fastening lever Fig. 2 to base Fig. 1.....	69a-B-8057	10
31	Oil Plug for bottom dash pot head.....	1-B-9511	10
32	Wood Screw, No. 10x1", for fastening spring socket Fig. 20 to case. Price per hundred.....		1 00
33	Bolt and Nut, 1/2"x1 1/8", for fastening bracket Fig. 3 to lever Fig. 2.....		06
34	Bolt and Nut, 1/2"x2 3/4", for fastening base Fig. 1 to case		08



MAGNETIC INDICATORS AND CIRCUIT CONTROLLERS
(With and Without Bell)

MAGNETIC INDICATORS AND CIRCUIT CONTROLLERS
 (With and Without Bell)

When ordering specify resistance of magnets.

Orders for repair parts of the instruments shown on the opposite plate should always be accompanied by samples of the parts required.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Magnetic Indicator and Circuit Controller, complete, as shown, with two front and one back contacts. Specify resistance of magnets....	1-C-6597	54 00
B	as above, with bell attachment. Specify resistance of magnets.....	1-C-6974	64 00
C	Bell, complete, for Fig. B.....		8 00

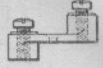
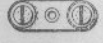
Bleng Parts



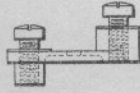
A



B



C



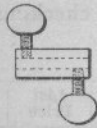
D



E



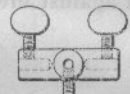
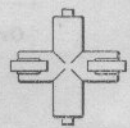
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F



G



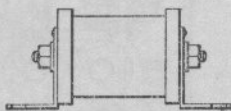
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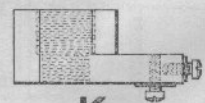
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3



J



K

TERMINALS, WIRE CONNECTORS AND RESISTANCE COIL

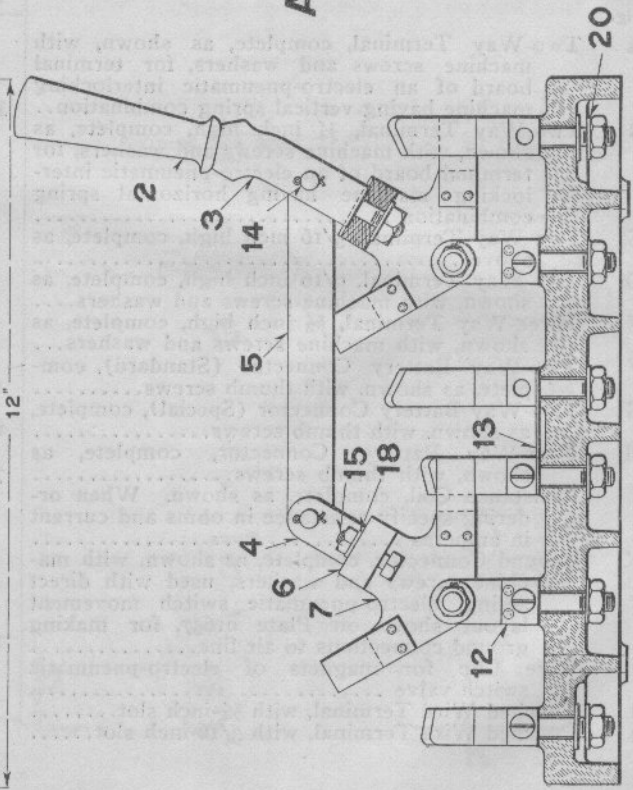
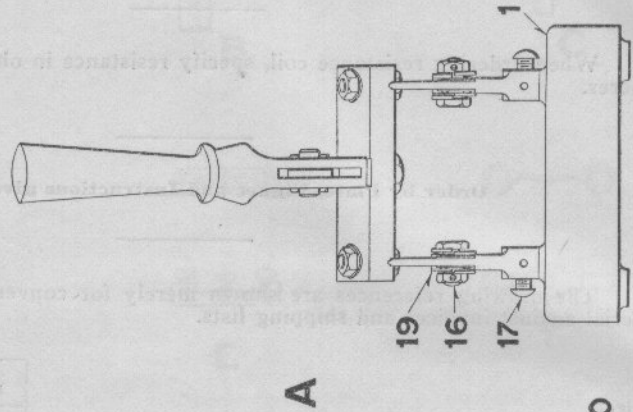
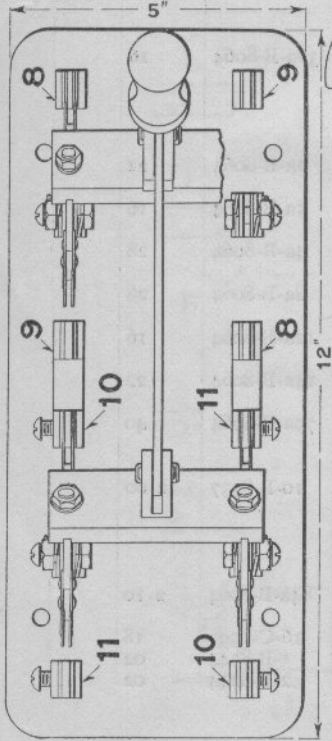
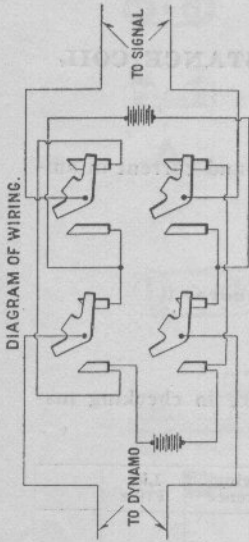
TERMINALS, WIRE CONNECTORS AND RESISTANCE COIL

When ordering resistance coil, specify resistance in ohms and current in amperes.

Order by Plate, Figure and Instructions given above

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Two-Way Terminal, complete, as shown, with machine screws and washers, for terminal board of an electro-pneumatic interlocking machine having vertical spring combination..	36a-B-8064	16
B	Two-Way Terminal, $\frac{3}{4}$ inch high, complete, as shown, with machine screws and washers, for terminal board of an electro-pneumatic interlocking machine having horizontal spring combination	2a-B-8064	22
C	Two-Way Terminal, $\frac{5}{16}$ inch high, complete, as above	5a-B-8064	16
D	Two-Way Terminal, $\frac{9}{16}$ inch high, complete, as shown, with machine screws and washers....	4a-B-8064	28
E	Three-Way Terminal, $\frac{3}{8}$ inch high, complete, as shown, with machine screws and washers...	8a-B-8064	28
F	Two-Way Battery Connector (Standard), complete, as shown, with thumb screws.....	12a-B-8064	16
G	Two-Way Battery Connector (Special), complete, as shown, with thumb screws.....	14a-B-8064	22
H	Four-Way Battery Connector, complete, as shown, with thumb screws.....	79a-B-8064	40
J	Resistance Coil, complete, as shown. When ordering specify resistance in ohms and current in amperes	10-B-8737	2 00
K	Ground Connector, complete, as shown, with machine screws and washers, used with direct acting electro-pneumatic switch movement layout shown on Plate 01657, for making ground connections to air line.....	84a-B-8064	2 10
I	Wire Clip for magnets of electro-pneumatic switch valve	16-C-1992	18
2	Punched Wire Terminal, with $\frac{1}{4}$ -inch slot.....	1-B-8244	02
3	Punched Wire Terminal, with $\frac{3}{16}$ -inch slot.....	2-B-8244	02



FOUR POLE DOUBLE THROW KNIFE CIRCUIT CONTROLLER

(Battery Charging Switch)

FOUR POLE DOUBLE THROW KNIFE CIRCUIT CONTROLLER

(Battery Charging Switch)

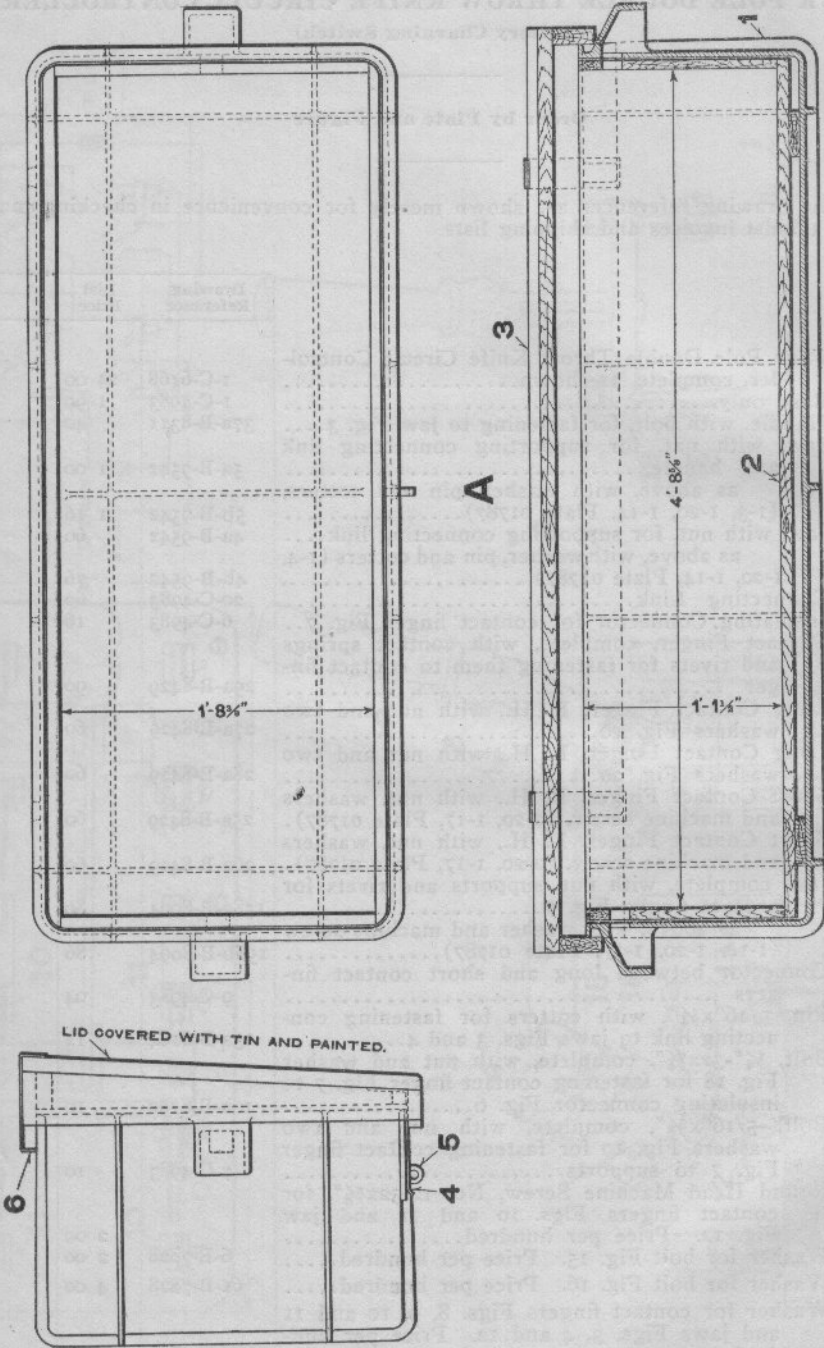
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Four Pole Double Throw Knife Circuit Controller, complete, as shown.....	1-C-6468	24 00
1	Base only.....	1-C-4983	1 90
2	Handle, with bolt, for fastening to jaw Fig. 3....	37a-B-8311	40
3	Jaw, with nut, for supporting connecting link and handle.....	5a-B-9542	1 00
3a	as above, with washer, pin and cotters, (1-3, 1-20, 1-14, Plate 01787).....	5b-B-9542	1 16
4	Jaw, with nut, for supporting connecting link....	4a-B-9542	60
4a	as above, with washer, pin and cotters (1-4, 1-20, 1-14, Plate 01787)	4b-B-9542	76
5	Connecting Link.....	20-C-4983	60
6	Insulating Connector for contact finger Fig. 7..	6-C-4983	16
7	Contact Finger, complete, with contact springs and rivets for fastening them to contact finger	29a-B-8429	90
8	Long Contact Finger, R. H., with nut and two washers Fig. 20.....	27a-B-8429	60
9	Long Contact Finger, L. H., with nut and two washers Fig. 20.....	28a-B-8429	60
10	Short Contact Finger, R. H., with nut, washers and machine screw, (2-20, 1-17, Plate 01787)..	25a-B-8429	60
11	Short Contact Finger, L. H., with nut, washers and machine screw, (2-20, 1-17, Plate 01787)..	26a-B-8429	60
12	Jaw, complete, with nut, supports and rivets for contact finger Fig. 7.....	158a-B-8094	80
12a	as above, with washer and machine screw (1-12, 1-20, 1-17, Plate 01787).....	158b-B-8094	86
13	Connector between long and short contact fingers	9-C-4983	04
14	Pin, 5/16"x3/4", with cotters for fastening connecting link to jaws Figs. 3 and 4.....	15a-B-8184	12
15	Bolt, 1/4"-32x7/8", complete, with nut and washer Fig. 18 for fastening contact finger Fig. 7 to insulating connector Fig. 6.....	10a-B-8190	10
16	Bolt, 5/16"x5/8", complete, with nut and two washers Fig. 19 for fastening contact finger Fig. 7 to supports.....	7-C-4983	10
17	Round Head Machine Screw, No. 12-32x3/8", for contact fingers Figs. 10 and 11 and jaw Fig. 12. Price per hundred.....		2 00
18	Washer for bolt Fig. 15. Price per hundred.....	6-B-7828	2 00
19	Washer for bolt Fig. 16. Price per hundred.....	61-B-7828	4 00
20	Washer for contact fingers Figs. 8, 9, 10 and 11 and jaws Figs. 3, 4 and 12. Price per hundred	24-B-7828	2 00

CAST IRON BATTERY BOX WITH WOODEN LID

CAPACITY-21 CELLS OF EDISON TYPE S.S. BATTERY.





CAST IRON BATTERY BOX WITH WOODEN LID

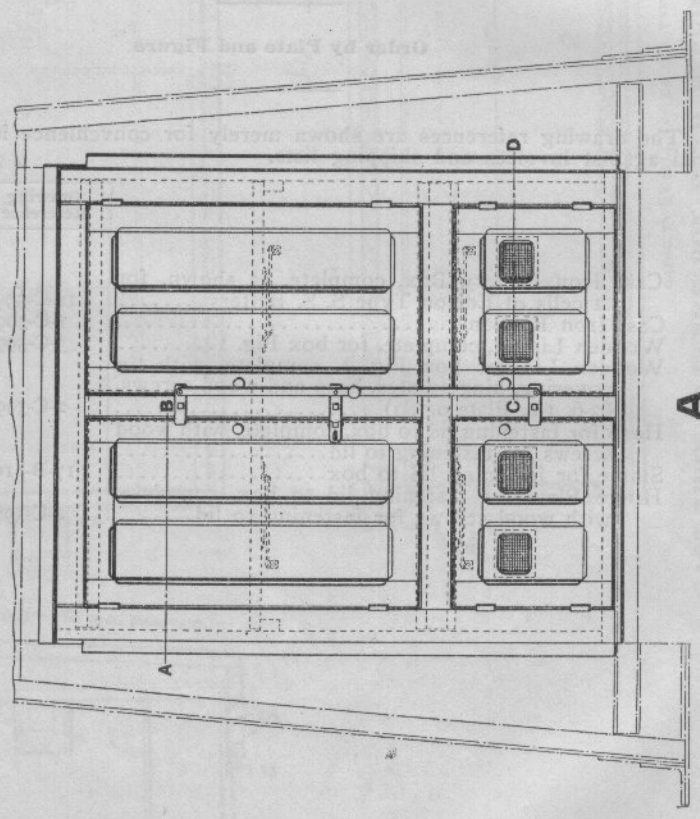
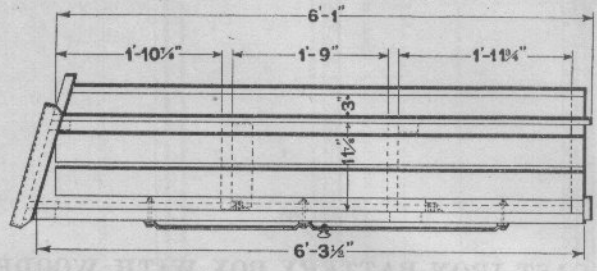
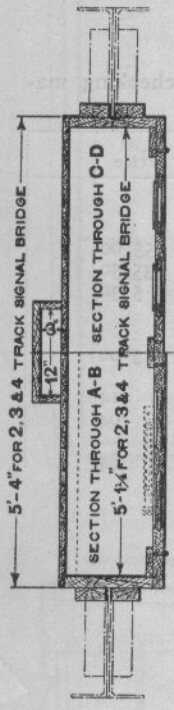
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
A	Cast Iron Battery Box, complete, as shown, for 21 cells of Edison Type S. S. Battery.....	1a-C-5994	55 00
1	Cast Iron Box only.....	1-C-5994	35 50
2	Wooden Lining, complete, for box Fig. 1.....	3-C-5994	5 30
3	Wooden Lid for box Fig. 1, complete, with tin covering, hinge plates, hasp and wood screws, (2-6, 1-4, Plate 01789).....	2-C-5994	13 00
4	Hasp for fastening lid to box, complete, with wood screws for fastening to lid.....		14 04
5	Staple for fastening lid to box.....	17-B-8191	04
6	Hinge Plate for fastening lid to box, complete, with wood screws for fastening to lid.....	4-C-5994	64

C 5744 2x25 R way

PLATE 01791



BATTERY AND RELAY COMPARTMENT FOR SIGNAL BRIDGES

BATTERY AND RELAY COMPARTMENT FOR SIGNAL BRIDGES

The battery and relay compartment listed below is made of pine and is given one priming coat of white lead before shipment.

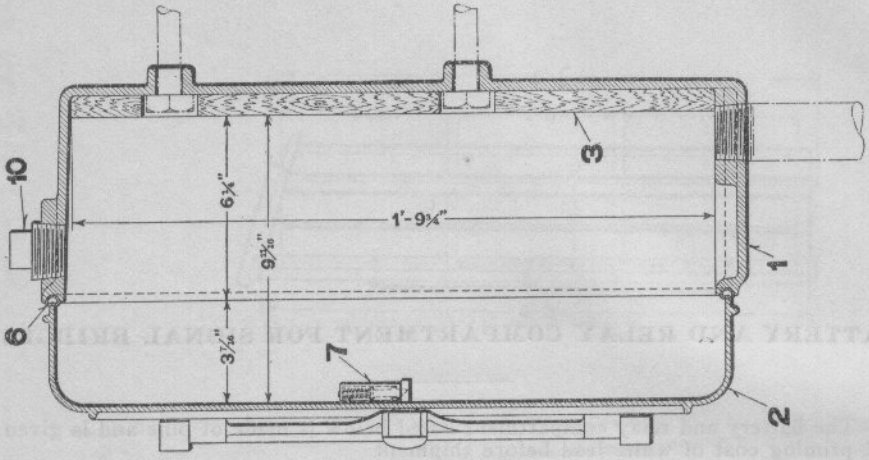
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

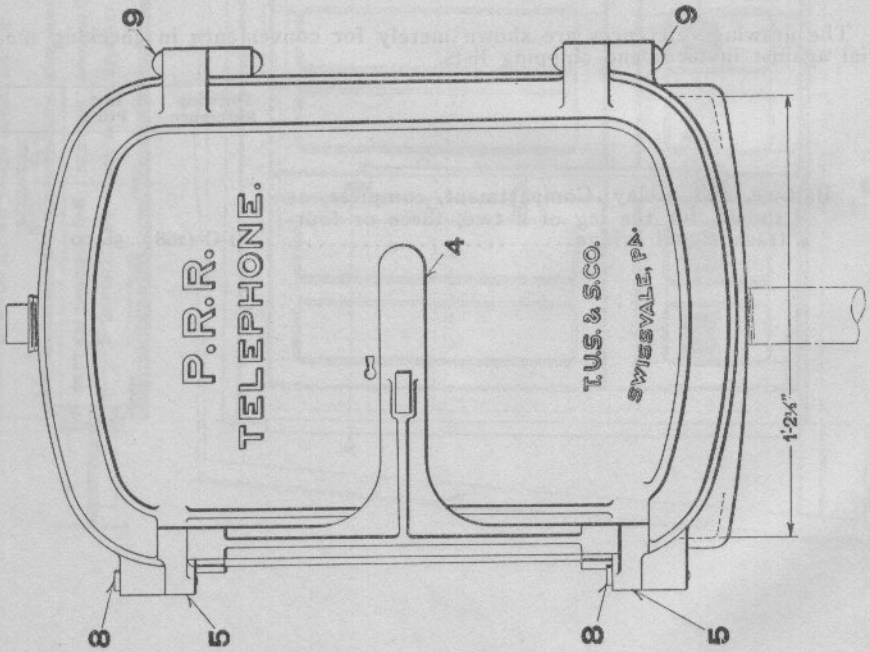
Fig.

A Battery and Relay Compartment, complete, as shown, for the leg of a two, three or four-track signal bridge.....

Drawing Reference	List Price
1-C-4268	58 00



A



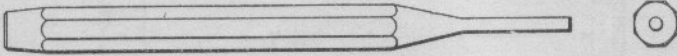
TELEPHONE BOX

TELEPHONE BOX

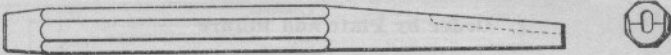
Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

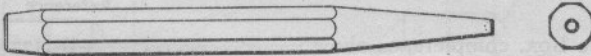
Fig.		Drawing Reference	List Price
A	Telephone Box, complete, as shown.....	3-D-1177	26 50
1	Box only	2-D-1177	10 60
2	Door only	1-D-1177	7 20
3	Wooden Lining for back of box.....	9-D-1177	50
4	Hasp for door, complete, with staple for lock....	6-D-1177	76
5	Link for hasp.....	4-D-1177	40
6	Rubber Gasket for door. Specify length when ordering. Price per foot.....		10
7	Lock, complete, with machine screws for fastening to door	8-D-1177	94
8	Hinge Pin, for fastening link Fig. 5 to box.....	56-B-8058	06
9	Hinge Pin, $\frac{3}{8}$ " x $3 \frac{5}{16}$ ", for fastening door to box.....		04
10	$1\frac{1}{2}$ -inch Pipe Plug for opening in top of box.....		06



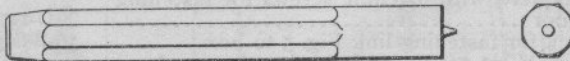
1
SIGNAL PIPE DRIFT



2
CHANNEL PIN SET



3
SIGNAL PIPE PUNCH



4
SWITCH ROD CENTRE PUNCH

INTERLOCKING TOOLS

INTERLOCKING TOOLS

The tools listed below are made of Jessop tool steel and are tempered so that they will not bend, but at the same time not hard enough to break. Points are tempered hard.

Order by Plate and Figure

The drawing references are shown merely for convenience in checking material against invoices and shipping lists.

Fig.		Drawing Reference	List Price
1	Signal Pipe Drift.....	1-B-9134	1 00
2	Channel Pin Set.....	3-B-9134	1 00
3	Signal Pipe Punch.....	2-B-9134	1 00
4	Switch Rod Center Punch.....	4-B-9134	2 10

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