



CATALOGUE OF
INTERLOCKING
and SIGNALING
DEVICES

1902

SECTION 4
MECHANICAL
INTERLOCKING
SIGNALS



The Union Switch & Signal Co.
Swissvale Pa.

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.

Frogs, Crossings, Switches and Hand Devices for controlling them.

Plans and Estimates on Application.

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

**New York
Central Bldg.**

**Chicago
Monadnock Bldg.**

**St. Louis
Union Depot**

Entered according to act of Congress in the year 1904

by

The Union Switch & Signal Company,
Swissvale, Pa.

at the office of the Librarian of Congress at Washington.

SECTION 4

Mechanical Interlocking Signals

Second Edition

1904

PREFACE

We have included in this section a number of types in the various classes of signals, any of which may be ordered in complete form from the first plate, No. 400, where they are diagrammatically illustrated.

Specimen types of signals from each class in general use have been illustrated and listed in detail, which will convey more descriptive information for ordering fittings, parts, etc.

Some plates have been devoted entirely to signal fittings; such as lamps, spectacle castings, glass roundels, lenses, etc., where a variety of choice seemed desirable.

We desire to call special attention to our designs of lattice and tubular iron construction for signal posts, believing that we have succeeded in placing before our patrons signals of staple design and symmetrical appearance.

The Union Switch & Signal Co.

Swissvale, Pa., July, 1904.

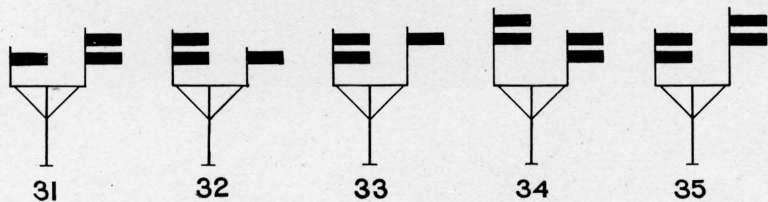
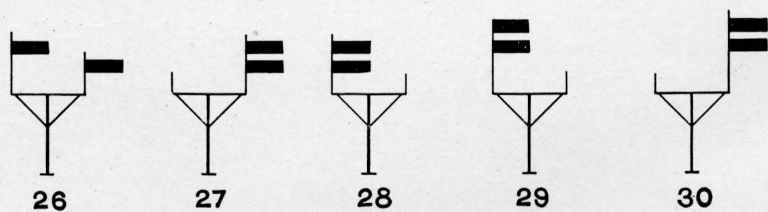
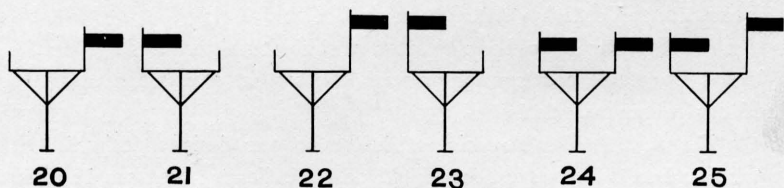
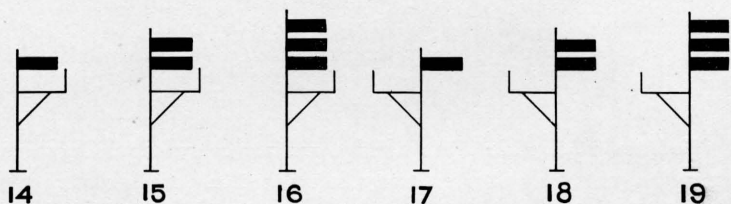


Diagram of Various Types of Signals

DIAGRAM OF VARIOUS TYPES OF SIGNALS

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, shackles, wire and wire eyes Plate 201, Section 2.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
1	Low Pot Signal with targets, Model 3. See Plate 473	12 60
1a	Low Pot Signal with targets, Model 1. See Plate 471	15 50
1b	Compensating Pot Signal with targets, Model 1. See Plate 472.....	26 35
2	High Pot Signal with targets, Model 2. See Plate 471	23 65
3	One Arm Spring Attachment Dwarf Signal, Model 1. See Plate 455.....	23 30
3a	One Arm Dwarf Signal, Model 3. See Plate 457....	26 20
3b	One Arm Elevated R. R. Dwarf Signal, Model 5. See Plate 462.....	29 25
4	Two Arm Spring Attachment Dwarf Signal, Model 2. See Plate 456.....	42 65
4a	Two Arm Dwarf Signal, Model 4. See Plate 457.....	42 80
4b	Two Arm Elevated R. R. Dwarf Signal, Model 6. See Plate 462.....	43 60
5	Three Arm Dwarf Signal. For style see Plate 462.	59 40
6	One Arm, Pipe Connected, Pipe Post, Bridge Signal. See Plate 436.....	67 75
6a	One Arm, Wire Connected, Pipe Post, Bridge Signal. See Plate 436.....	67 25
6b	One Arm, Pipe Connected, Wood Post, Bridge Signal	50 70
6c	One Arm, Wire Connected, Wood Post, Bridge Signal	48 65
7	Two Arm, Pipe Connected, Pipe Post, Bridge Signal	113 05
7a	Two Arm, Wire Connected, Pipe Post, Bridge Signal	109 75
7b	Two Arm, Pipe Connected, Wood Post, Bridge Signal	85 75
7c	Two Arm, Wire Connected, Wood Post, Bridge Signal	81 50
8	Three Arm, Pipe Connected, Pipe Post, Bridge Signal	154 95
8a	Three Arm, Wire Connected, Pipe Post, Bridge Signal	152 85
8b	Three Arm, Pipe Connected, Wood Post, Bridge Signal.....	121 65
8c	Three Arm, Wire Connected, Wood Post, Bridge Signal.....	114 90
9	One Arm, Pipe Connected, Pipe Post, Standard Signal. See Plate 403.....	141 85
9a	One Arm, Wire Connected, Pipe Post, Standard Signal. See Plate 403.....	138 50
9b	One Arm, Pipe Connected, Wood Post, Standard Signal. See Plate 402.....	88 10
9c	One Arm, Wire Connected, Wood Post, Standard Signal. See Plate 402.....	84 00
10	Two Arm, Pipe Connected, Pipe Post, Standard Signal. See Plate 405.....	195 75

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
10a	Two Arm, Wire Connected, Pipe Post, Standard Signal. See Plate 405.....	188 20
10b	Two Arm, Pipe Connected, Wood Post, Standard Signal. See Plate 404.....	128 45
10c	Two Arm, Wire Connected, Wood Post, Standard Signal. See Plate 404.....	120 45
11	Three Arm, Pipe Connected, Pipe Post, Standard Signal. See Plate 407.....	265 80
11a	Three Arm, Wire Connected, Pipe Post, Standard Signal. See Plate 407.....	255 20
11b	Three Arm, Pipe Connected, Wood Post, Standard Signal. See Plate 406.....	173 00
11c	Three Arm, Wire Connected, Wood Post, Standard Signal. See Plate 406.....	160 75
12	One Arm, Pipe Connected, Pipe Post, Elevated R. R. Signal. See Plate 441.....	88 35
13	Two Arm, Pipe Connected, Pipe Post, Elevated R. R. Signal. See Plate 441.....	135 20
14	One Arm, Pipe Connected, Pipe Post, Cantilever Signal. For style see Plate 424.....	173 00
14a	One Arm, Wire Connected, Pipe Post, Cantilever Signal. For style see Plate 424.....	169 65
14b	One Arm, Pipe Connected, Wood Post, Cantilever Signal.....	109 10
14c	One Arm, Wire Connected, Wood Post, Cantilever Signal.....	105 00
15	Two Arm, Pipe Connected, Pipe Post, Cantilever Signal.....	226 90
15a	Two Arm, Wire Connected, Pipe Post, Cantilever Signal. See Plate 424.....	219 30
15b	Two Arm, Pipe Connected, Wood Post, Cantilever Signal. For style see Plate 424.....	149 50
15c	Two Arm, Wire Connected, Wood Post, Cantilever Signal.....	141 45
16	Three Arm, Pipe Connected, Pipe Post, Cantilever Signal. For style see Plate 424.....	296 85
16a	Three Arm, Wire Connected, Pipe Post, Cantilever Signal. For style see Plate 424.....	283 90
16b	Three Arm, Pipe Connected, Wood Post, Cantilever Signal.....	194 00
16c	Three Arm, Wire Connected, Wood Post, Cantilever Signal.....	181 70

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
17	One Arm, Pipe Connected, Pipe Post, Cantilever Signal.....	173 00
17a	One Arm, Wire Connected, Pipe Post, Cantilever Signal.....	169 65
17b	One Arm, Pipe Connected, Wood Post, Cantilever Signal.....	109 10
17c	One Arm, Wire Connected, Wood Post, Cantilever Signal.....	105 00
18	Two Arm, Pipe Connected, Pipe Post, Cantilever Signal.....	226 90
18a	Two Arm, Wire Connected, Pipe Post, Cantilever Signal.....	219 30
18b	Two Arm, Pipe Connected, Wood Post, Cantilever Signal.....	149 50
18c	Two Arm, Wire Connected, Wood Post, Cantilever Signal.....	141 45
19	Three Arm, Pipe Connected, Pipe Post, Cantilever Signal.....	296 85
19a	Three Arm, Wire Connected, Pipe Post, Cantilever Signal.....	283 90
19b	Three Arm, Pipe Connected, Wood Post, Cantilever Signal.....	194 00
19c	Three Arm, Wire Connected, Wood Post, Cantilever Signal.....	181 70
20	One Arm, Pipe Connected, Pipe Post, Bracket Signal	301 95
20a	One Arm, Wire Connected, Pipe Post, Bracket Signal	288 25
20b	One Arm, Pipe Connected, Wood Post, Bracket Signal.....	182 25
20c	One Arm, Wire Connected, Wood Post, Bracket Signal.....	171 70
20d	One Arm, Pipe Connected, Iron Lattice Post Bracket Signal.....	501 95
20e	One Arm, Wire Connected, Iron Lattice Post Bracket Signal.....	501 95
21	One Arm, Pipe Connected, Pipe Post Bracket Signal	301 95
21a	One Arm, Wire Connected, Pipe Post Bracket Signal	288 25
21b	One Arm, Pipe Connected, Wood Post Bracket Signal.....	182 25
21c	One Arm, Wire Connected, Wood Post Bracket Signal.....	171 70
21d	One Arm, Pipe Connected, Iron Lattice Post Bracket Signal.....	501 95

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
21e	One Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	501 95
22	One Arm, Pipe Connected, Pipe Post, Bracket Signal.....	326 35
22a	One Arm, Wire Connected, Pipe Post, Bracket Signal.....	312 70
22b	One Arm, Pipe Connected, Wood Post, Bracket Signal.....	192 05
22c	One Arm, Wire Connected, Wood Post, Bracket Signal.....	181 50
22d	One Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	517 30
22e	One Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	517 30
23	One Arm, Pipe Connected, Pipe Post, Bracket Signal.....	326 35
23a	One Arm, Wire Connected, Pipe Post, Bracket Signal.....	312 70
23b	One Arm, Pipe Connected, Wood Post, Bracket Signal.....	192 05
23c	One Arm, Wire Connected, Wood Post, Bracket Signal.....	181 50
23d	One Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	517 30
23e	One Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	517 30
24	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	353 60
24a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	330 00
24b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	220 95
24c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	200 90
24d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	554 40
24e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	554 40
25	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	377 95
25a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	354 40
25b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	232 80
25c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	220 90
25d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	569 70

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
25e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	569 70
26	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	377 95
26a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	354 40
26b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	232 80
26c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	220 90
26d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	569 70
26e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	569 70
27	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	369 20
27a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	344 75
27b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	228 95
27c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	206 95
27d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	558 90
27e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	558 90
28	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	369 20
28a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	344 75
28b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	228 95
28c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	206 95
28d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	558 90
28e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	558 90
29	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	381 20
29a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	356 95

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
29b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	238 50
29c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	216 55
29d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	588 10
29e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	588 10
30	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	381 20
30a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	356 95
30b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	238 50
30c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	216 55
30d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	588 10
30e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	588 10
31	Three Arm, Pipe Connected, Pipe Post, Bracket Signal. See Plate 414.....	420 70
31a	Three Arm, Wire Connected, Pipe Post, Bracket Signal. See Plate 413.....	387 80
31b	Three Arm, Pipe Connected, Wood Post, Bracket Signal. See Plate 412.....	268 10
31c	Three Arm, Wire Connected, Wood Post, Bracket Signal. See Plate 411.....	236 00
31d	Three Arm, Pipe Connected, Iron Lattice Post, Bracket Signal. See Plate 415.....	611 50
31e	Three Arm, Wire Connected, Iron Lattice Post, Bracket Signal. See Plate 415.....	611 50
32	Three Arm, Pipe Connected, Pipe Post, Bracket Signal.....	420 70
32a	Three Arm, Wire Connected, Pipe Post, Bracket Signal.....	387 80
32b	Three Arm, Pipe Connected, Wood Post, Bracket Signal.....	268 10
32c	Three Arm, Wire Connected, Wood Post, Bracket Signal.....	236 00
32d	Three Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	611 50

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
32e	Three Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	611 50
33	Three Arm, Pipe Connected, Pipe Post, Bracket Signal.....	431 65
33a	Three Arm, Wire Connected, Pipe Post, Bracket Signal.....	398 80
33b	Three Arm, Pipe Connected, Wood Post, Bracket Signal.....	277 95
33c	Three Arm, Wire Connected, Wood Post, Bracket Signal.....	245 85
33d	Three Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	626 85
33e	Three Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	626 85
34	Four Arm, Pipe Connected, Pipe Post, Bracket Signal.....	495 00
34a	Four Arm, Wire Connected, Pipe Post, Bracket Signal.....	444 70
34b	Four Arm, Pipe Connected, Wood Post, Bracket Signal.....	326 90
34c	Four Arm, Wire Connected, Wood Post, Bracket Signal.....	283 15
34d	Four Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	697 00
34e	Four Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	697 00
35	Four Arm, Pipe Connected, Pipe Post, Bracket Signal.....	495 00
35a	Four Arm, Wire Connected, Pipe Post, Bracket Signal.....	444 70
35b	Four Arm, Pipe Connected, Wood Post, Bracket Signal.....	326 90
35c	Four Arm, Wire Connected, Wood Post, Bracket Signal.....	283 15
35d	Four Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	697 00
35e	Four Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	697 00

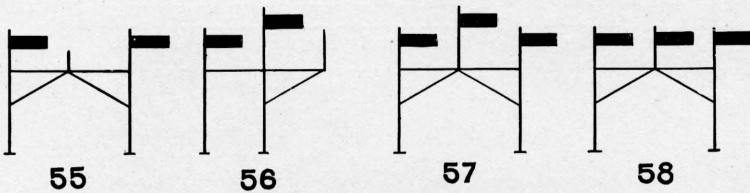
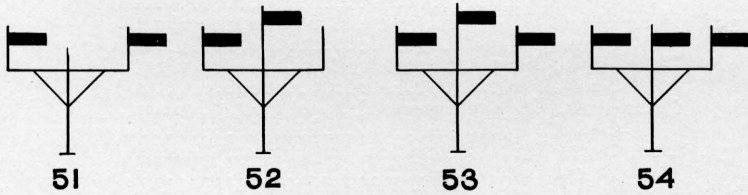
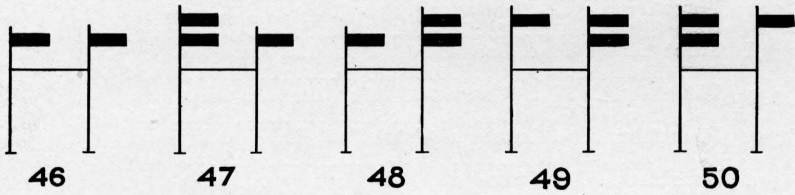
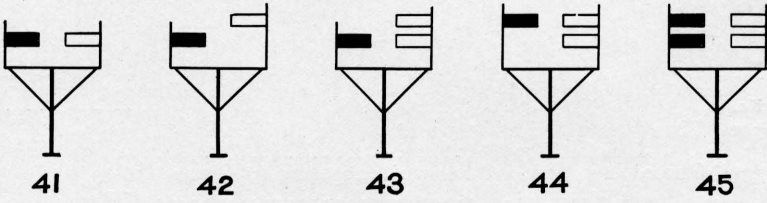
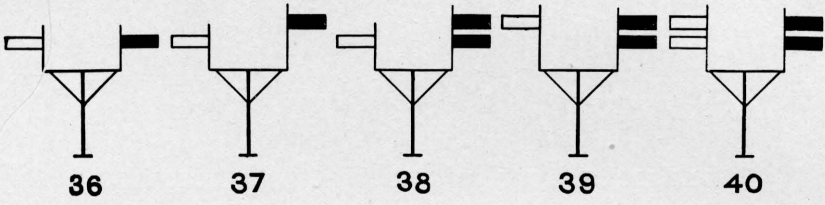


Diagram of Various Types of Signals

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
36	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	362 40
36a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	334 45
36b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	223 95
36c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	204 35
36d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	558 30
36e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	558 30
37	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	386 80
37a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	358 85
37b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	234 00
37c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	214 20
37d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	573 65
37e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	573 65
38	Three Arm, Pipe Connected, Pipe Post, Bracket Signal.....	429 60
38a	Three Arm, Wire Connected, Pipe Post, Bracket Signal.....	391 30
38b	Three Arm, Pipe Connected Wood Post, Bracket Signal.....	270 70
38c	Three Arm, Wire Connected, Wood Post, Bracket Signal.....	239 30
38d	Three Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	615 25
38e	Three Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	615 25
39	Three Arm, Pipe Connected, Pipe Post, Bracket Signal.....	440 55
39a	Three Arm, Wire Connected, Pipe Post, Bracket Signal.....	402 40
39b	Three Arm, Pipe Connected, Wood Post, Bracket Signal.....	280 45
39c	Three Arm, Wire Connected, Wood Post, Bracket Signal.....	249 15
39d	Three Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	630 65
39e	Three Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	630 65
40	Four Arm, Pipe Connected, Pipe Post, Bracket Signal.....	483 15
40a	Four Arm, Wire Connected, Pipe Post, Bracket Signal.....	434 40
40b	Four Arm, Pipe Connected, Wood Post, Bracket Signal.....	317 30

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
40c	Four Arm, Wire Connected, Wood Post, Bracket Signal.....	274 60
40d	Four Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	672 60
40e	Four Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	672 60
41	Two Arm, Pipe Connected, Pipe Post, Bracket Signal.....	372 70
41a	Two Arm, Wire Connected, Pipe Post, Bracket Signal.....	344 10
41b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	230 70
41c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	210 40
41d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	574 90
41e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	574 90
42	Two Arm, Pipe Connected, Pipe Post, Bracket Signal	398 20
42a	Two Arm, Wire Connected, Pipe Post, Bracket Signal	370 20
42b	Two Arm, Pipe Connected, Wood Post, Bracket Signal.....	240 50
42c	Two Arm, Wire Connected, Wood Post, Bracket Signal.....	220 30
42d	Two Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	588 20
42e	Two Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	588 20
43	Three Arm, Pipe Connected, Pipe Post, Bracket Signal.....	441 25
43a	Three Arm, Wire Connected, Pipe Post, Bracket Signal.....	402 70
43b	Three Arm, Pipe Connected, Wood Post, Bracket Signal.....	277 75
43c	Three Arm, Wire Connected, Wood Post, Bracket Signal.....	245 30
43d	Three Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	632 15
43e	Three Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	632 15
44	Three Arm, Pipe Connected, Pipe Post, Bracket Signal.....	452 25
44a	Three Arm, Wire Connected, Pipe Post, Bracket Signal.....	423 90
44b	Three Arm, Pipe Connected, Wood Post, Bracket Signal.....	287 55
44c	Three Arm, Wire Connected, Wood Post, Bracket Signal.....	255 25
44d	Three Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	647 50
44e	Three Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	647 50
45	Four Arm, Pipe Connected, Pipe Post, Bracket Signal.....	495 15

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
45a	Four Arm, Wire Connected, Pipe Post, Bracket Signal.....	445 80
45b	Four Arm, Pipe Connected, Wood Post, Bracket Signal.....	324 70
45c	Four Arm, Wire Connected, Wood Post, Bracket Signal.....	280 65
45d	Four Arm, Pipe Connected, Iron Lattice Post, Bracket Signal.....	689 20
45e	Four Arm, Wire Connected, Iron Lattice Post, Bracket Signal.....	689 20
46	2-One Arm, Pipe Connected, Pipe Post, Standard Signals, with attachments for tying together..	296 45
46a	2-One Arm, Wire Connected, Pipe Post, Standard Signals, with attachments for tying together..	289 85
46b	2-One Arm, Pipe Connected, Wood Post, Standard Signals, with attachments for tying together..	186 80
46c	2-One Arm, Wire Connected, Wood Post, Standard Signals, with attachments for tying together..	178 60
47	1-One Arm and 1-Two Arm, Pipe Connected, Pipe Post, Standard Signals, with attachment for tying together.....	350 35
47a	1-One Arm and 1-Two Arm, Wire Connected, Pipe Post, Standard Signals, with attachment for tying together.....	339 50
47b	1-One Arm and 1-Two Arm, Pipe Connected, Wood Post, Standard Signals, with attachment for tying together.....	227 15
47c	1-One Arm and 1-Two Arm, Wire Connected, Wood Post, Standard Signals, with attachment for tying together.....	215 05
48	1-One Arm and 1-Two Arm, Pipe Connected, Pipe Post, Standard Signals, with attachment for tying together.....	350 35
48a	1-One Arm and 1-Two Arm, Wire Connected, Pipe Post, Standard Signals, with attachment for tying together.....	339 50
48b	1-One Arm and 1-Two Arm, Pipe Connected, Wood Post, Standard Signals, with attachment for tying together.....	227 15
48c	1-One Arm and 1-Two Arm, Wire Connected, Wood Post, Standard Signals, with attachment for tying together.....	215 05
49	1-One Arm (38') and 1-Two Arm, Pipe Connected, Pipe Post, Standard Signals, with attachment for tying together.....	370 55
49a	1-One Arm (38') and 1-Two Arm, Wire Connected, Pipe Post, Standard Signals, with attachment for tying together.....	359 40
49b	1-One Arm (38') and 1-Two Arm, Pipe Connected, Wood Post, Standard Signals, with attachment for tying together.....	239 15
49c	1-One Arm (38') and 1-Two Arm, Wire Connected, Wood Post, Standard Signals, with attachment for tying together.....	226 85

DIAGRAM OF VARIOUS TYPES OF SIGNALS

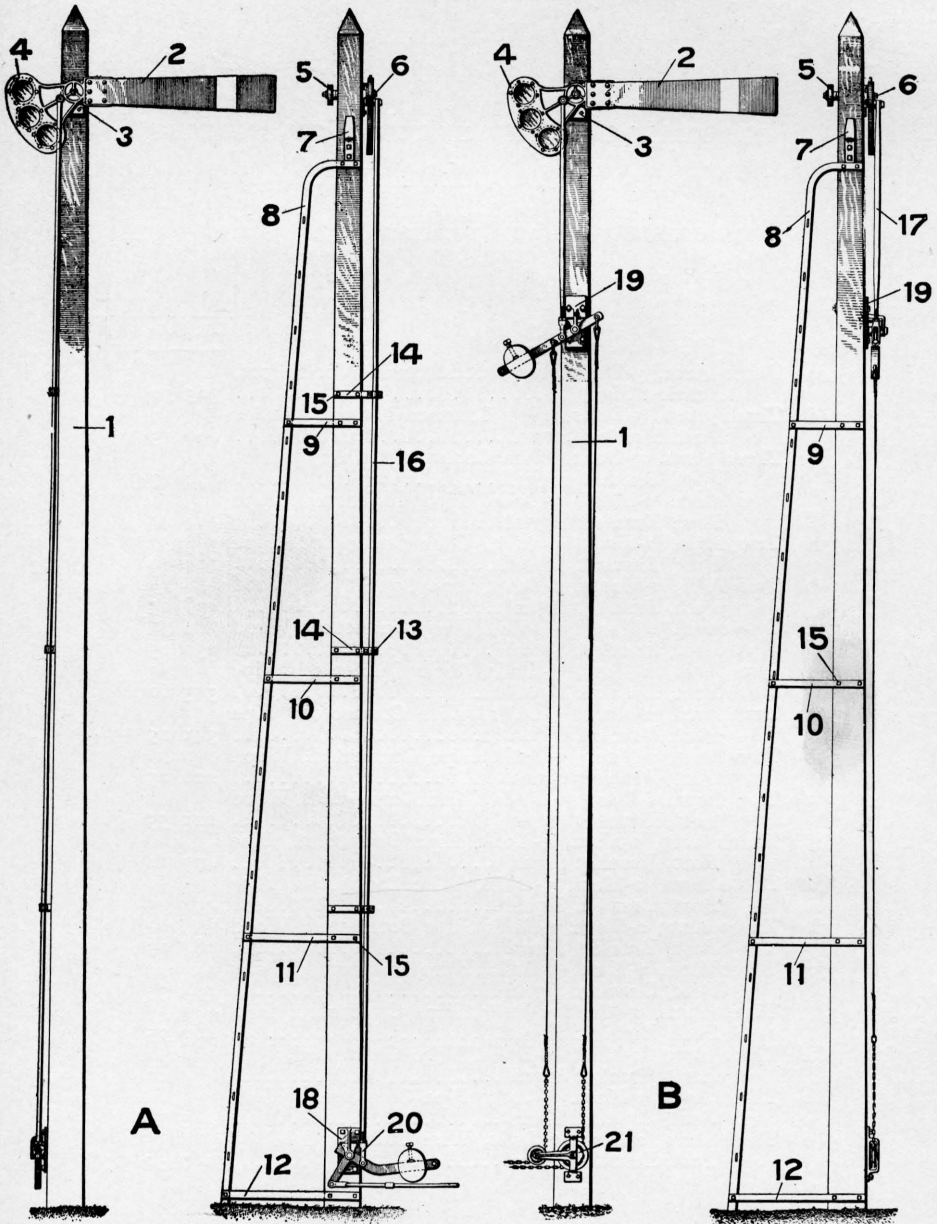
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
50	1-One Arm (38') and 1-Two Arm, Pipe Connected, Pipe Post, Standard Signals, with attachment for tying together.....	37 ^o 55
50a	1-One Arm (38') and 1-Two Arm, Wire Connected, Pipe Post, Standard Signals, with attachment for tying together.....	359 40
50b	1-One Arm (38') and 1-Two Arm, Pipe Connected, Wood Post, Standard Signals, with attachment for tying together.....	239 15
50c	1-One Arm (38') and 1-Two Arm, Wire Connected, Wood Post, Standard Signals, with attachment for tying together.....	226 85
51	Two Arm, 3-Dolls, Pipe Connected, Pipe Post, Bracket Signal.....	414 85
51a	Two Arm, 3-Dolls, Wire Connected, Pipe Post, Bracket Signal.....	390 60
51b	Two Arm, 3-Dolls, Pipe Connected, Wood Post, Bracket Signal.....	299 05
51c	Two Arm, 3-Dolls, Wire Connected, Wood Post, Bracket Signal.....	279 05
51d	Two Arm, 3-Dolls, Pipe Connected, Iron Lattice Post, Bracket Signal.....	644 40
51e	Two Arm, 3-Dolls, Wire Connected, Iron Lattice Post, Bracket Signal.....	644 40
52	Two Arm, 3-Dolls, Pipe Connected, Pipe Post, Bracket Signal.....	416 35
52a	Two Arm, 3-Dolls, Wire Connected, Pipe Post, Bracket Signal.....	401 90
52b	Two Arm, 3-Dolls, Pipe Connected, Wood Post, Bracket Signal.....	288 80
52c	Two Arm, 3-Dolls, Wire Connected, Wood Post, Bracket Signal.....	284 75
52d	Two Arm, 3-Dolls, Pipe Connected, Iron Lattice Post, Bracket Signal.....	650 50
52e	Two Arm, 3-Dolls, Wire Connected, Iron Lattice Post, Bracket Signal.....	650 50
53	Three Arm, 3-Dolls, Pipe Connected, Pipe Post, Bracket Signal.....	468 25
53a	Three Arm, 3-Dolls, Wire Connected, Pipe Post, Bracket Signal.....	443 65
53b	Three Arm, 3-Dolls, Pipe Connected, Wood Post, Bracket Signal.....	335 80
53c	Three Arm, 3-Dolls, Wire Connected, Wood Post, Bracket Signal.....	315 15
53d	Three Arm, 3-Dolls, Pipe Connected, Iron Lattice Post, Bracket Signal.....	701 55
53e	Three Arm, 3-Dolls, Wire Connected, Iron Lattice Post, Bracket Signal.....	701 55
54	Three Arm, 3-Dolls, Pipe Connected, Pipe Post, Bracket Signal.....	459 25
54a	Three Arm, 3-Dolls, Wire Connected, Pipe Post, Bracket Signal.....	432 70
54b	Three Arm, 3-Dolls, Pipe Connected, Wood Post, Bracket Signal.....	329 05

DIAGRAM OF VARIOUS TYPES OF SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
54c	Three Arm, 3-Dolls, Wire Connected, Wood Post, Bracket Signal.....	305 30
54d	Three Arm, 3-Dolls, Pipe Connected, Iron Lattice Post, Bracket Signal.....	696 15
54e	Three Arm, 3-Dolls, Wire Connected, Iron Lattice Post, Bracket Signal.....	696 15
55	Two Arm, 2-Mast, 3-Dolls, Pipe Connected, Pipe Post, Bracket Signal.....	414 40
55a	Two Arm, 2-Mast, 3-Dolls, Wire Connected, Pipe Post, Bracket Signal.....	407 80
55b	Two Arm, 2-Masts, 3-Dolls, Pipe Connected, Wood Post, Bracket Signal.....	238 25
55c	Two Arm, 2 Mast 3-Dolls, Wire Connected, Wood Post, Bracket Signal..	230 05
56	Two Arm, 2-Mast, 3-Dolls, Pipe Connected, Pipe Post, Bracket Signal.....	345 60
56a	Two Arm, 2-Mast, 3-Dolls, Wire Connected, Pipe Post, Bracket Signal.....	341 15
56b	Two Arm, 2-Mast, 3-Dolls, Pipe Connected, Wood Post, Bracket Signal.....	226 25
56c	Two Arm, 2-Mast, 3-Dolls, Wire Connected, Wood Post, Bracket Signal.....	211 55
57	Three Arm, 2-Mast, 3-Dolls, Pipe Connected, Pipe Post, Bracket Signal.....	477 10
57a	Three Arm, 2-Mast, 3-Dolls, Wire Connected, Pipe Post, Bracket Signal.....	464 95
57b	Three Arm, 2-Mast, 3-Dolls, Pipe Connected, Wood Post, Bracket Signal.....	284 05
57c	Three Arm, 2-Mast, 3-Dolls, Wire Connected, Wood Post, Bracket Signal.....	274 35
58	Three Arm, 2-Mast, 3-Dolls, Pipe Connected, Pipe Post, Bracket Signal.....	462 75
58a	Three Arm, 2-Mast, 3-Dolls, Wire Connected, Pipe Post, Bracket Signal.....	454 00
58b	Three Arm, 2-Mast, 3-Dolls, Pipe Connected, Wood Post, Bracket Signal.....	283 75
58c	Three Arm, 2-Mast, 3-Dolls, Wire Connected, Wood Post, Bracket Signal.....	267 50



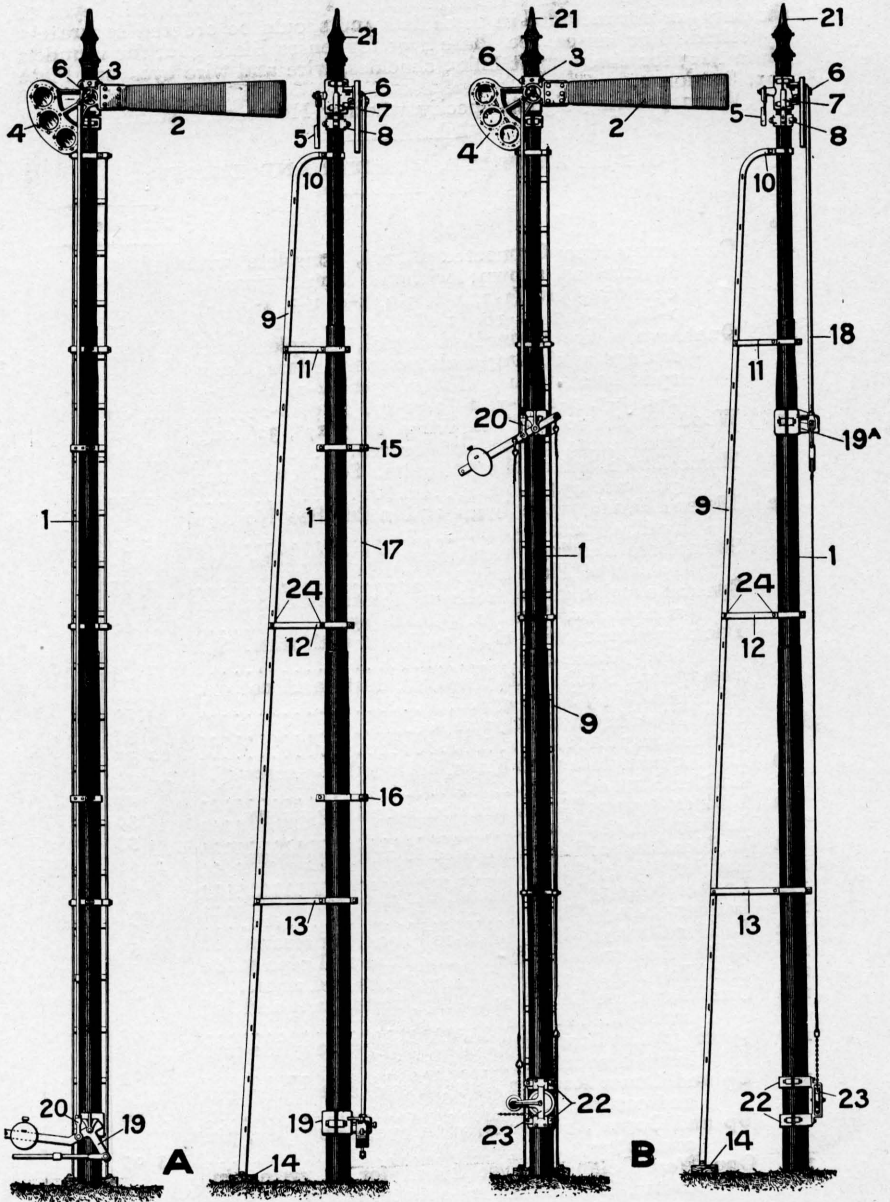
ONE ARM SIGNAL
(Wood Post)

**ONE ARM SIGNAL
(Wood Post)**

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, shackles, wire and wire eyes see Plate 201, Section 2.
When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	One Arm, Pipe Connected Signal, complete with fittings as shown; without lamp, glass or operating jaw (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8a, 3-14a, 1-16, 1-18).....	88 10
B	One Arm, Wire Connected Signal, complete with fittings as shown; without lamp, glass, chain, split links, wire and wire eyes (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8a, 1-17, 1-19, 1-21)....	84 00
1	Wood Post, 10"x10" tapering to 7"x7", 32' long, with cross pieces and braces.....	41 40
2	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
2a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
3	Semaphore Bearing, with bolts and nuts. See Nos. 15 and 16 Plate 454.....	1 95
4	Spectacle, with rings, bolts with nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
5	Back Spectacle, with ring and bolts with nuts. See No. 5 Plate 453.....	1 35
6	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
7	Lamp Bracket with lag screws.....	57
8	Ladder only.....	12 55
8a	Ladder complete with stays, bolts and lag screws..	16 45
9	Ladder Stay 21" long.....	27
9a	Ladder Stay 21" long, with bolts and lag screws....	39
10	Ladder Stay 27" long.....	33
10a	Ladder Stay 27" long, with bolts and lag screws....	45
11	Ladder Stay 33" long.....	39
11a	Ladder Stay 33" long, with bolts and lag screws...	51
12	Ladder Stay 39" long.....	45
12a	Ladder Stay 39" long, with bolts and lag screws....	57
13	1/2"x1" Bolt with nut for ladder stays and pipe guide	05
14	One Way Pipe Guide, with cap, bolts and nuts.....	35
14a	One Way Pipe Guide, with cap, bolts, nuts and lag screws.....	42
15	1/2"x2 1/2" Lag Screw for ladder stay, pipe guide and lamp bracket.....	03
16	Up and Down Rod for A, with eye, screw jaw, pin and cotter.....	4 90
17	Up and Down Rod for B, with eye, screw jaw, pin and cotter.....	3 05
18	One Way Balance Lever Stand for A, with pin, cotter, balance lever, counterweight and lag screws. See Plate 477.....	9 40
19	One Way Balance Lever Stand for B, with pin, cotter, balance lever, counterweight and lag screws. See Plate 477.....	5 75
20	1" Screw Jaw, with pin and cotter. See Plate 200..	51
21	One Way Signal Wheel, with lag screws. See No. 42 Plate 222.....	2 64



ONE ARM SIGNAL
(Iron Post)

**ONE ARM SIGNAL
(Iron Post)**

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, shackles, wire and wire eyes see Plate 201, Section 2.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	One Arm, Pipe Connected Signal, complete with fittings and ladder foundation as shown; without lamp, glass, or operating jaw (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7a, 1-9a, 1-14, 1-15, 1-16, 1-17, 1-19, 1-21).....	141 85
B	One Arm, Wire Connected Signal, complete with fittings and ladder foundation as shown; without lamp, glass, wire, chain, split links, wire eyes or shackles (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-9a, 1-14, 1-21, 2-22, 1-23, 1-19a)....	138 50
1	Iron Pipe Post, with base casting and set screws (1-1a, and 1-1b).....	78 45
1a	Base Casting, with set screws.....	3 55
1b	Iron Pipe Post, 32' long, sections of 4", 5" and 6" pipe.....	74 90
2	Home Blade with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
2a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
3	Semaphore Bearing, with set screws, bolts and nuts. See Nos. 1, 2, 3 and 4 Plate 454.....	3 74

**ONE ARM SIGNAL
(Iron Post)**

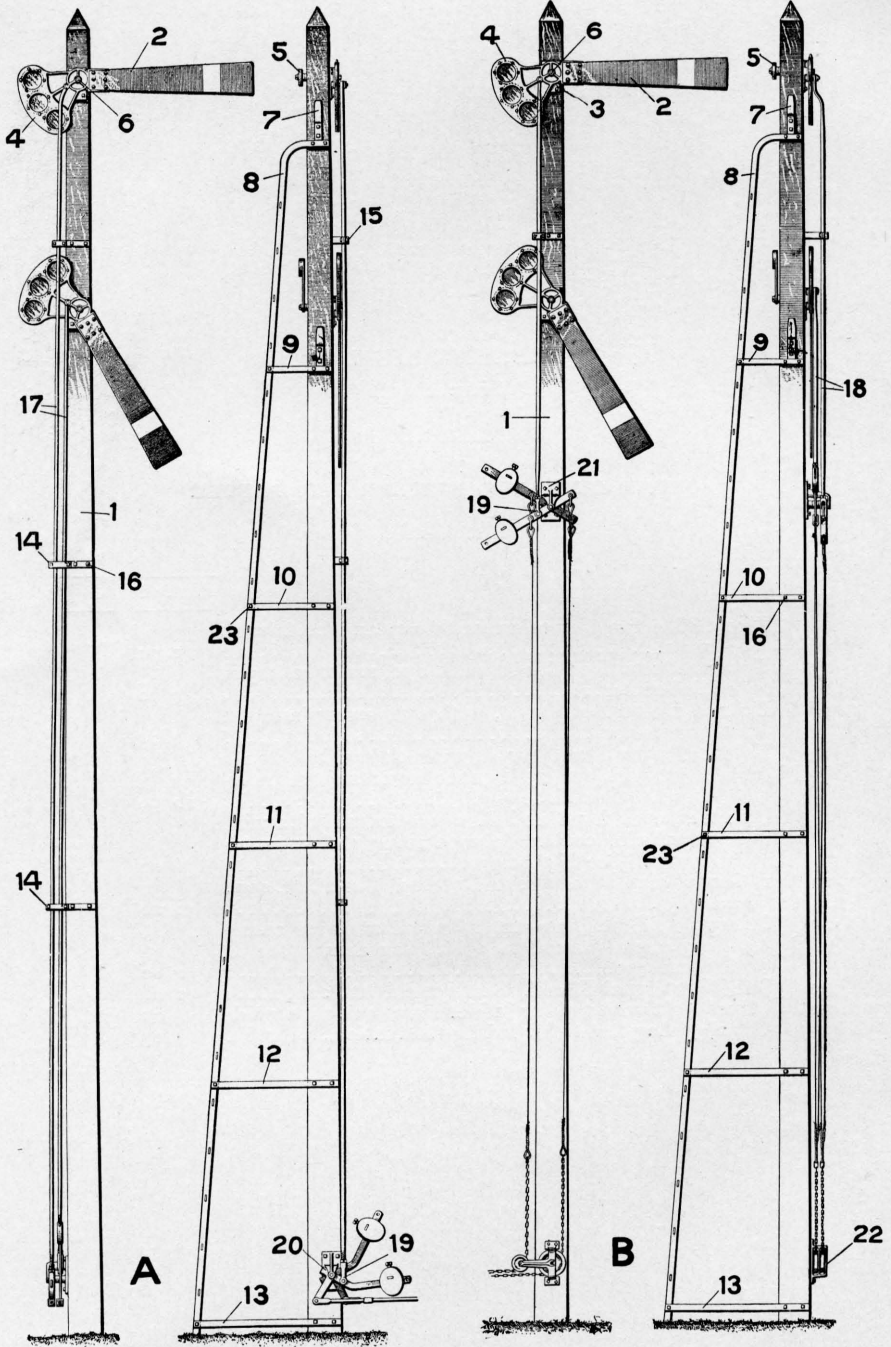
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
4	Spectacle, with rings, bolts with nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
5	Back Spectacle, with ring and bolts with nuts. See No. 5 Plate 453.....	1 35
6	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
7	Lamp Bracket.....	63
7a	Lamp Bracket, with clamps and bolts with nuts....	1 65
8	Clamp, with bolts and nuts for Lamp Bracket.....	1 02
9	Ladder, 24' 7" long.....	11 00
9a	Ladder, 24' 7" long, with stays and bolts with nuts	17 05
10	Top Ladder Stay Clamp for 4" section with bolts and nuts.....	85
11	Ladder Stay for 5" section, 14" centers, with bolts and nuts.....	1 68
12	Ladder Stay for 5" section, 18" centres, with bolts and nuts.....	1 74
13	Ladder Stay for 6" section, 22" centres, with bolts and nuts.....	1 83
14	Ladder Foundation.....	1 29
15	Pipe Guide for 5" section, with cap and bolts with nuts.....	1 68

**ONE ARM SIGNAL
(Iron Post)**

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
16	Pipe Guide for 6" section, with cap and bolts with nuts.....	1 71
17	Up and Down Rod for A, with eye, screw jaw, pin and cotter.....	4 90
18	Up and Down Rod for B, with eye, screw jaw, pin and cotter.....	3 05
19	Balance Lever Stand for A, with clamp, bolts with nuts, pin, cotter, balance lever and counterweight. See Plate 477.....	10 50
19a	Balance Lever for Stand B, with clamp, bolts with nuts, pin, cotter, balance lever and counterweight. See Plate 477.....	6 90
20	1" Screw Jaw, with pin, and cotter. See Plate 200.	51
21	Pinnacle.....	1 20
22	Clamp for 6" section with bolts and nuts for securing signal wheel to post. For details see H Plate 477.....	2 00
23	One Way Signal Wheel. See No. 4 Plate 222.....	2 28
24	1/2"x1" Bolt with nut for ladder stays and pipe guide	05
25	1/2"x2 1/2" Lag Screw for ladder foundation.....	03



TWO ARM SIGNAL (Wood Post)

TWO ARM SIGNAL
(Wood Post)

Lamps, glass roundels, lenses, chain, split links, wire, wire eye or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, wire eyes and shackles see Plate 201, Section 2.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Two Arm, Pipe Connected Signal, complete with fittings as shown; without lamps, glass or operating jaws (1-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 1-8a, 2-14a, 1-15a, 1-17, 1-17a, 1-20)...	128 45
B	Two Arm, Wire Connected Signal, complete with fittings as shown; without lamps, glass, wire, split links, wire eyes, shackles and chain (1-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 1-8a, 1-15a, 1-18, 1-18a, 1-21, 1-22).....	120 45
1	Wood Post 10"x10" tapering to 7"x7", 38' long, with cross pieces and braces.....	48 90
2	Home Blade with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
2a	Distant Blade with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
3	Semaphore Bearing with bolts and nuts. See Nos. 15 and 16 Plate 454.....	1 95
4	Spectacle, with rings, bolts with nuts, stud, washer and cotters. See No. 5 Plate 451.....	8 00
5	Back Spectacle, with ring and bolts with nuts. See No. 5 Plate 453.....	1 35
6	Semaphore Shaft, with washers, nuts and cotters. For details see No. 5 Plate 454.....	2 10

**TWO ARM SIGNAL
(Wood Post)**

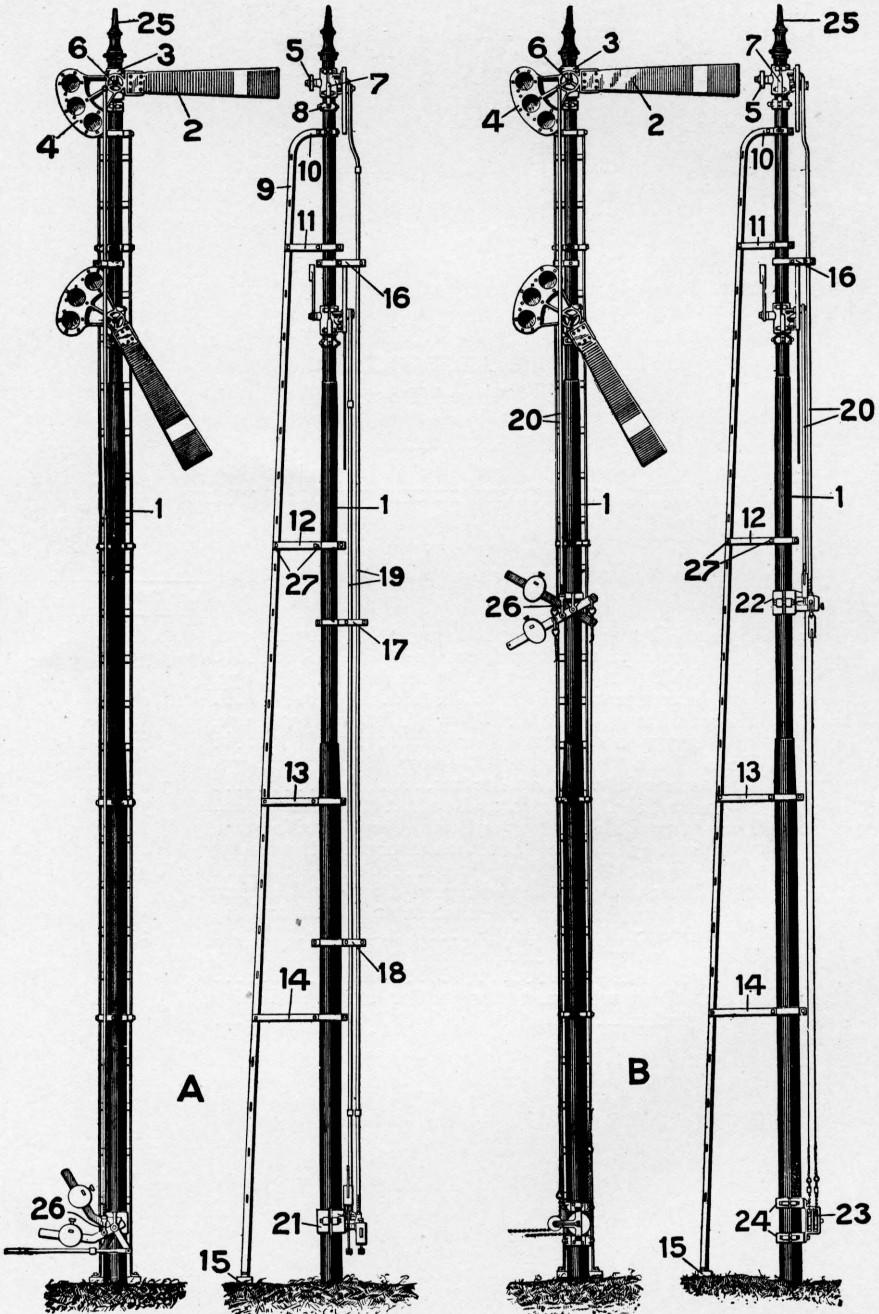
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
7	Lamp Bracket with lag screws.....	57
8	Ladder 33' long.....	14 85
8a	Ladder 33' long, with stays, bolts with nuts and lag screws.....	20 10
9	Ladder Stay 21" long.....	27
9a	Ladder Stay 21" long, bolt with nut and lag screws.....	39
10	Ladder Stay 27" long.....	33
10a	Ladder Stay 27" long, bolt with nut and lag screws.....	45
11	Ladder Stay 33" long.....	39
11a	Ladder Stay 33" long, bolt with nut and lag screws.....	51
12	Ladder Stay 39" long.....	45
12a	Ladder Stay 39" long, bolt with nut and lag screws.....	57
13	Ladder Stay 43" long.....	51
13a	Ladder Stay 43" long, bolt with nut and lag screws.....	63
14	Two Way Pipe Guide, with cap and bolts with nuts.....	42
14a	Two Way Pipe Guide, with cap, bolts with nuts and lag screws.....	48
15	One Way Pipe Guide, with cap and bolt with nut..	35
15a	One Way Pipe Guide, with cap, bolts with nuts and lag screws.....	42
16	1/2" x 2 1/2" Lag Screw, for ladder, stays, pipe guides and lamp brackets.....	03

**TWO ARM SIGNAL
(Wood Post)**

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
17	Up and Down Rod for A, upper blade, with eye, screw jaw, pin and cotter.....	5 55
17a	Up and Down Rod for A, lower blade, with eye, screw jaw, pin and cotter.....	4 90
18	Up and Down Rod for B, upper blade, with eye, screw jaw, pin and cotter.....	3 70
18a	Up and Down Rod for B, lower blade, with eye, screw jaw, pin and cotter.....	3 05
19	1" Screw Jaw, with pin and cotter. See Plate 200.	51
20	Two Way Balance Lever Stand for A, with pins, cotters, balance levers, counterweights and lag screws. See Plate 477.....	16 45
21	Two Way Balance Lever Stand for B, with pins, cotters, balance levers, counterweights and lag screws. See Plate 477.....	9 25
22	Two Way Signal Wheel, with lag screws. See No. 5a Plate 222.....	4 35
23	1/2"x1" Bolt with nut for ladder stays and pipe guides.....	05



TWO ARM SIGNAL
(Iron Post)

**TWO ARM SIGNAL
(Iron Post)**

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, wire, wire eyes or shackles see Plate 201, Section 2.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Two Arm, Pipe Connected Signal, complete with fittings and ladder foundation as shown; without lamps, glass or operating jaws (1-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7a, 1-9a, 1-15, 1-16, 1-17, 1-18, 1-19, 1-19a, 1-21, 1-25).....	195 75
B	Two Arm, Wire Connected Signal, complete with fittings and ladder foundation as shown; without lamps, glass, wire, chain, wire eyes, split links or shackles (1-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7a, 1-9a, 1-15, 1-16, 1-20, 1-20a, 1-22, 1-23, 2-24, 1-25).....	188 20
1	Iron Pipe Post, with base casting and set screws (1-1a and 1-1b).....	92 10
1a	Base Casting with set screws.....	3 55
1b	Iron Pipe Post, 39' long, sections of 4", 5" and 6" pipe.....	88 55
2	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
2a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
3	Semaphore Bearing, with set screws, bolts and nuts. See Nos. 1, 2, 3 and 4 Plate 454.....	3 74

TWO ARM SIGNAL
(Iron Post)

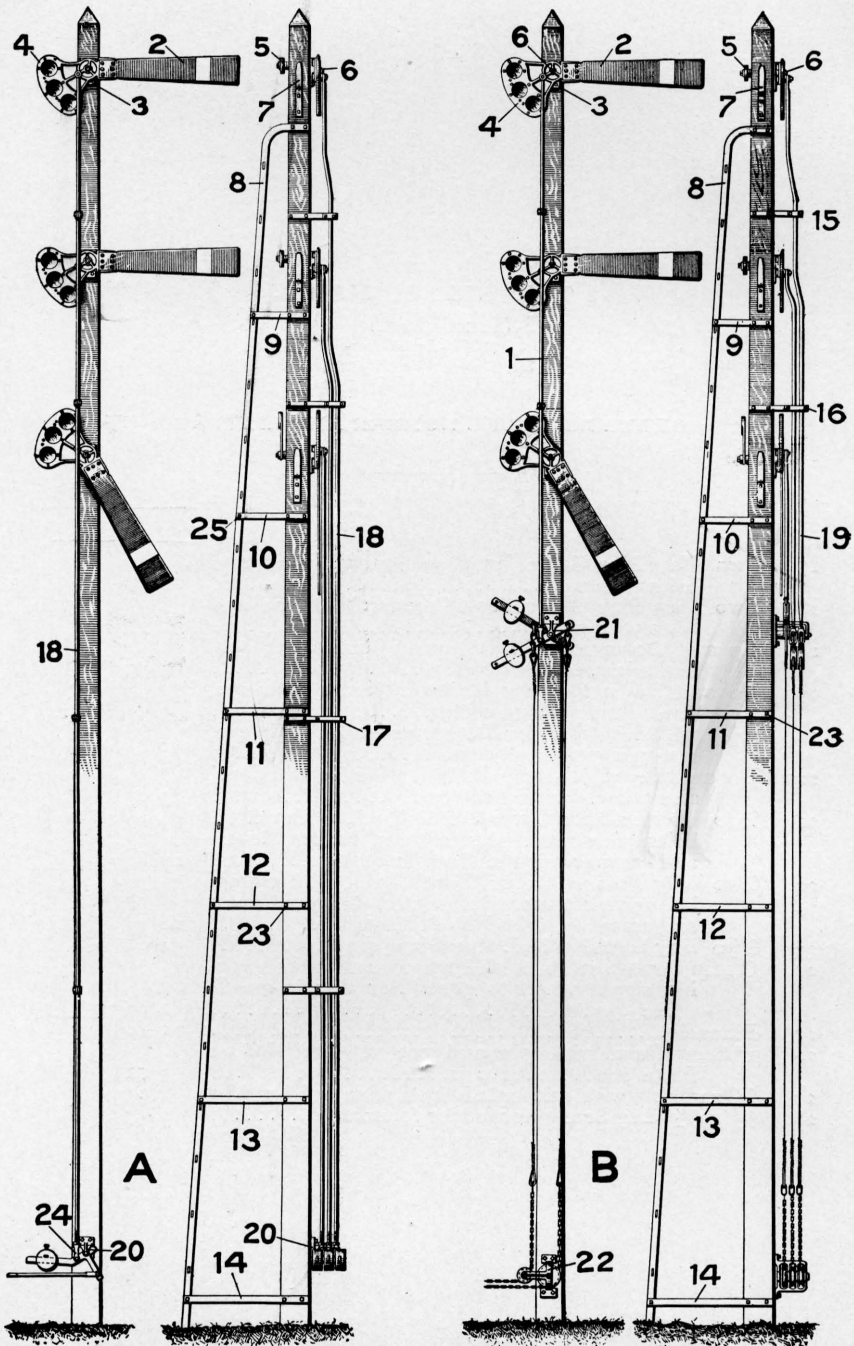
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
4	Spectacle, with rings, bolts with nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
5	Back Spectacle, with ring and bolts with nuts. See No. 5 Plate 453.....	1 35
6	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
7	Lamp Bracket.....	63
7a	Lamp Bracket with clamp and bolts with nuts....	1 65
8	Clamp, with bolts and nuts for Lamp Bracket....	1 02
9	Ladder 31' 7" long.....	14 16
9a	Ladder 31' 7" long, with stays and bolts with nuts..	22 00
10	Top Ladder Stay Clamp, for 4" section with bolts and nuts.....	85
11	Ladder Stay for 4" section, 14" centers, with bolts and nuts.....	1 65
12	Ladder Stay for 5" section, 18" centres, with bolts and nuts.....	1 74
13	Ladder Stay for 6" section, 22" centres, with bolts and nuts.....	1 80
14	Ladder Stay for 6" section, 26" centres, with bolts and nuts.....	1 89
15	Ladder Foundation.....	1 29
16	One Way Pipe Guide for 4" section, with cap and bolts with nuts.....	1 62

TWO ARM SIGNAL
(Iron Post)

ORDER BY PLATE. NUMBER AND LETTER

No.		List Price
17	Two Way Pipe Guide for 5" section, with cap and bolts with nuts.....	1 74
18	Two Way Pipe Guide, for 6" section with cap and bolts with nuts.....	1 77
19	Up and Down Rod for A, upper blade, with eye, screw jaw, pin and cotter.....	5 55
19a	Up and Down Rod for A, lower blade, with eye, screw jaw, pin and cotter.....	4 90
20	Up and Down Rod for B, upper blade, with eye, screw jaw, pin and cotter.....	3 70
20a	Up and Down Rod for B, lower blade, with eye, screw jaw, pin and cotter.....	3 05
21	Two Way Balance Lever Stand for A, with clamp, bolts with nuts, pins, cotters, balance levers and counterweights. See Plate 477.....	17 80
22	Two Way Balance Lever Stand for B, with clamp, bolts with nuts, pin, cotter, balance levers and counterweights. See Plate 477.....	10 10
23	Two Way Signal Wheel. See Plate 222.....	4 02
24	Clamp for 6" section with bolts and nuts for securing signal wheel to post. For details see H Plate 477.....	2 00
25	Pinnacle.....	1 20
26	1" Screw Jaw, with pin and cotter. See No. 40 Plate 200.....	51
27	1/2"x1" Bolt with nut for ladder stays and pipe guides.....	05
28	1/2"x2 1/2" Lag Screw for ladder foundation.....	03



THREE ARM SIGNAL (Wood Post)

**THREE ARM SIGNAL
(Wood Post)**

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, wire, wire eyes or shackles see Plate 201, Section 2.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Three Arm, Pipe Connected Signal, complete with fittings as shown; without lamps, glass, or operating jaws (1-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 1-8a, 1-15a, 1-16a, 2-17a, 1-18, 1-18a, 1-18b, 1-20).....	173 00
B	Three Arm, Wire Connected Signal, complete with fittings as shown; without lamps, glass, wire, chain, split links, wire eyes or shackles (1-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 1-8a, 1-15a, 1-16a, 1-19, 1-19a, 1-19b, 1-21, 1-22).....	160 75
1	Wood Post, 10"x10" tapering to 7"x7", 42' long, with cross pieces and braces.....	60 80
2	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
2a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
3	Semaphore Bearing, with bolts and nuts. See Nos. 15 and 16 Plate 454.....	1 95
4	Spectacle with rings, bolts with nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
5	Back Spectacle, with ring and bolts with nuts. See No. 5 Plate 453.....	1 35
6	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
7	Lamp Bracket, with lag screws.....	57
8	Ladder, 37' long.....	16 80

**THREE ARM SIGNAL
(Wood Post)**

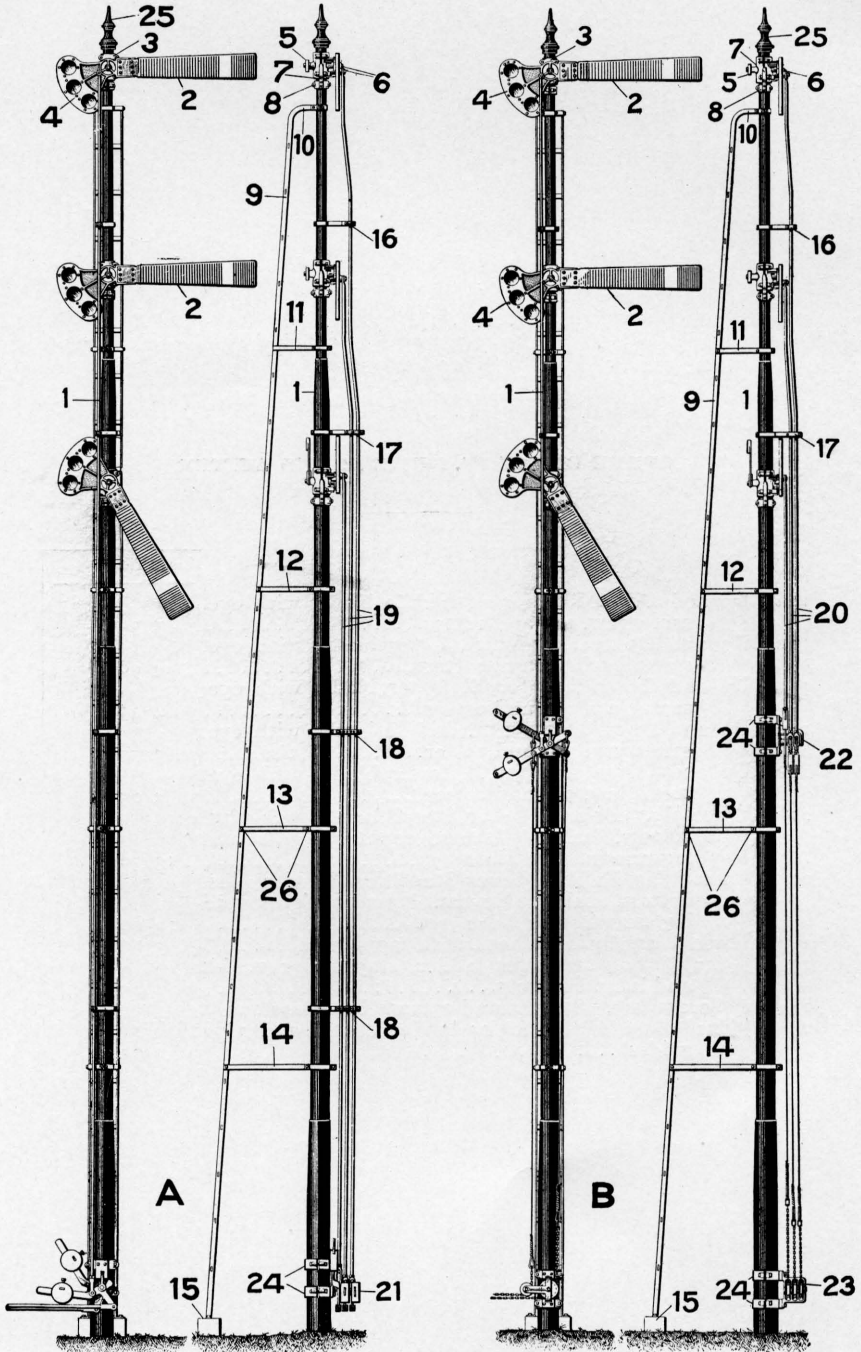
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
8a	Ladder, 37' long, with stays, bolts, nuts and lag screws	23 20
9	Ladder Stay 21" long.....	27
9a	Ladder Stay 21" long, with bolt, nut and lag screws	39
10	Ladder Stay 27" long.....	33
10a	Ladder Stay 27" long, with bolt, nut and lag screws	45
11	Ladder Stay 33" long.....	39
11a	Ladder Stay 33" long, with bolt, nut and lag screws	51
12	Ladder Stay 39" long.....	45
12a	Ladder Stay 39" long, with bolt, nut and lag screws	57
13	Ladder Stay 45" long.....	51
13a	Ladder Stay 45" long, with bolt, nut and lag screws	63
14	Ladder Stay 51" long.....	57
14a	Ladder Stay 51" long, with bolt, nut and lag screws	69
15	One Way Pipe Guide, with cap, bolts and nuts.....	35
15a	One Way Pipe Guide, with cap, bolts, nuts and lag screws.....	42
16	Two Way Pipe Guide, with cap, bolts and nuts.....	42
16a	Two Way Pipe Guide, with cap, bolts, nuts and lag screws.....	48
17	Three Way Pipe Guide, with cap, bolts and nuts.....	48
17a	Three Way Pipe Guide, with cap, bolts, nuts and lag screws.....	54
18	Up and Down Rod for A, upper blade, with eye, screw jaw, pin and cotter.....	6 25

THREE ARM SIGNAL
(Wood Post)

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
18a	Up and Down Rod for A, middle blade, with eye, screw jaw, pin and cotter.....	5 55
18b	Up and Down Rod for A, lower blade, with eye, screw jaw, pin and cotter.....	4 90
19	Up and Down Rod for B, upper blade, with eye, screw jaw, pin and cotter.....	4 35
19a	Up and Down Rod for B, middle blade, with eye, screw jaw, pin and cotter.....	3 70
19b	Up and Down Rod for B, lower blade, with eye, screw jaw, pin and cotter.....	3 05
20	Three Way Balance Lever Stand for A, with pins, cotters, balance levers, counterweights and lag screws. See Plate 477.....	23 50
21	Three Way Balance Lever Stand for B, with pins, cotters, balance levers, counterweights and lag screws. See Plate 477.....	12 90
22	Three Way Signal Wheel, with lag screws.....	5 86
23	½"x2½" Lag screw for ladder, stays, pipe guides and lamp brackets.....	03
24	1" Screw Jaw, with pin and cotter. See Plate 200..	51
25	½"x1" Bolt with nut for ladder stays, and pipe guides.....	05



THREE ARM SIGNAL (Iron Post)

THREE ARM SIGNAL
(Iron Post)

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, wire, wire eyes or shackles see Plate 201, Section 2.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Three Arm, Pipe Connected Signal, complete with fittings and ladder foundation as shown; without lamps, glass or operating jaws (1-1, 3-2, 2-3, 1-3a, 3-4, 3-5, 3-6, 3-7a, 1-9a, 1-15, 1-16, 1-17, 2-18, 1-19, 1-19a, 1-19b, 1-21, 2-24a, 1-25)...	265 80
B	Three Arm, Wire Connected Signal, complete with fittings and ladder foundation as shown; without lamps, glass, chain, split links, wire, wire eyes or shackles (1-1, 3-2, 2-3, 1-3a, 3-4, 3-5, 3-6, 3-7a, 1-9a, 1-15, 1-16, 1-17, 1-20, 1-20a, 1-20b, 1-22, 1-23, 2-24, 2-24a, 1-25).....	255 20
1	Iron Post, with base casting and set screws (1-1a, 1-1b)	118 75
1a	Base Casting, with set screws.....	3 65
1b	Iron Pipe Post 46' long, sections of 4", 5", 6" and 7" pipe.....	115 10
2	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
2a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
3	Semaphore Bearing for 4" section, with bolts and nuts. See Nos. 1, 2, 3 and 4 Plate 454.....	3 74
3a	Semaphore Bearing for 5" section, with bolts and nuts. See Plate 454.....	3 74
4	Spectacle, with rings, bolts with nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
5	Back Spectacle, with ring, bolts and nuts. See No. 5 Plate 453.....	1 35

THREE ARM SIGNAL
(Iron Post)

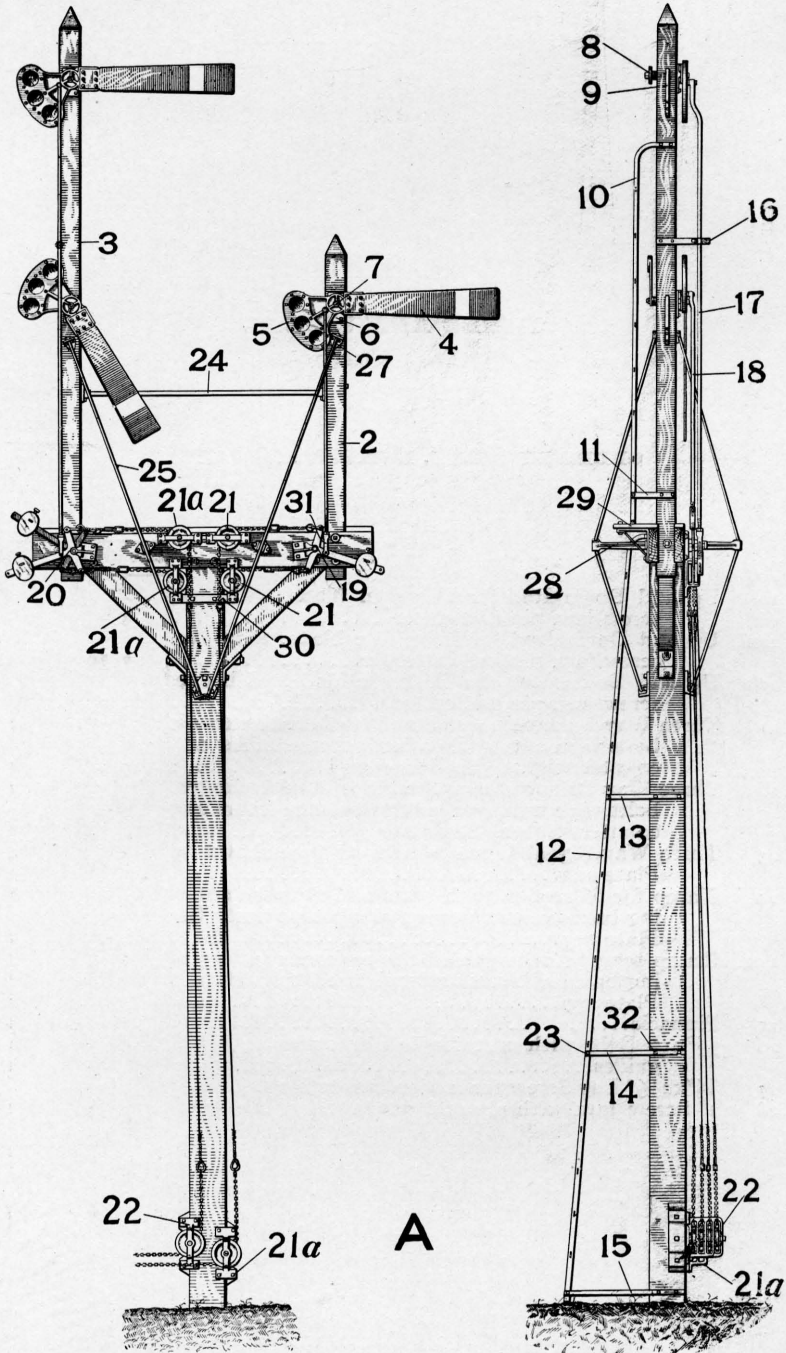
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
6	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
7	Lamp Bracket.....	63
7a	Lamp Bracket, with clamp and bolts with nuts.....	1 65
8	Clamp, with bolts and nuts for lamp bracket.....	1 02
9	Ladder, 37' 8" long.....	16 65
9a	Ladder, 37' 8" long, with stays and bolts with nuts.....	25 10
10	Top Ladder Stay Clamp for 4" section, with bolts and nuts.....	85
11	Ladder Stay for 4" section, 18" centres, with bolts and nuts.....	1 70
12	Ladder Stay for 5" section, 24" centres, with bolts and nuts.....	1 86
13	Ladder Stay for 6" section, 30" centres, with bolts and nuts.....	1 95
14	Ladder Stay for 6" section, 36" centres, with bolts and nuts.....	2 07
15	Ladder Foundation.....	1 29
16	One Way Pipe Guide for 4" section, with cap and bolts with nuts.....	1 62
17	Two Way Pipe Guide for 5" section, with cap and bolts with nuts.....	1 74
18	Three Way Pipe Guide for 6" section, with cap and bolts with nuts.....	1 86
19	Up and Down Rod for A, upper blade, with eye, screw jaw, pin and cotter.....	6 25
19a	Up and Down Rod for A, middle blade, with eye, screw jaw, pin and cotter.....	5 55
19b	Up and Down Rod for A, lower blade, with eye, screw jaw, pin and cotter.....	4 90

**THREE ARM SIGNAL
(Iron Post)**

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
20	Up and Down Rod for B, upper blade, with eye, screw jaw, pin and cotter.....	4 35
20a	Up and Down Rod for B, middle blade, with eye, screw jaw, pin and cotter.....	3 70
20b	Up and Down Rod for B, lower blade, with eye, screw jaw, pin and cotter.....	3 05
21	Three Way Balance Lever Stand for A, with clamps, bolts with nuts, pin, cotter, balance levers and counterweights. See Plate 477.....	27 95
22	Three Way Balance Lever Stand for B, with clamps, bolts with nuts, pin, cotter, balance levers and counterweights. See Plate 477.....	16 30
23	Three Way Signal Wheel, similar to type shown on Plate 222.....	5 50
24	Clamp for 6" section with bolts and nuts for securing balance levers or signal wheel to post. See Plate 477.....	2 00
24a	Clamp for 7" section with bolts and nuts for securing balance levers or signal wheel to post. See Plate 477.....	2 25
25	Pinnacle.....	1 20
26	1/2"x1" Bolt with nut for ladder stays and pipe guides.....	05
27	1/2"x2 1/2" Lag Screw for ladder foundation.....	03
28	1" Screw Jaw, with pin and cotter. See Plate 200.	51



THREE ARM BRACKET SIGNAL
(Wire Connected) Wood Construction

THREE ARM BRACKET SIGNAL
(Wire Connected)
Wood Construction

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, wire, wire eyes or shackles see Plate 201, Section 2. Various arrangements of blades are shown on Plate 400. When ordering signals specify whether Home or Distant. This signal is shipped with main bracket post 29' 0" long top of platform to base. Lower blade on Doll Post 6' 6" from top of platform to centre of blade. When more than one blade occurs they are spaced 6' 6" from centre to centre. If other dimensions are desired, furnish sketch and specify when ordering.

ORDER BY PLATE, NUMBER AND LETTER

No.	Description	List Price
A	Three Arm, Wire Connected Bracket Signal, complete with fittings, cross pieces and braces as shown; without lamps, glass, chain, split links, wire, wire eyes or shackles (1-1a, 1-2a, 1-3a, 1-19, 1-20, 2-21, 3-21a, 1-22, 1-24, 1-25a, 1-29, 1-30)	236 00
1	Bracket Post, 12"x12", 29' long, with cross trees, knees, cross pieces and braces	81 25
1a	Bracket Post as per No. 1, with ladder, stays, bolts with nuts and lag screws	94 50
2	One Arm Doll Post, 7"x7", 10' 0" long	8 85
2a	One Arm Doll Post, as per No. 2 complete with fittings as shown; (1-2, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-18)	28 40
2b	One Arm Doll Post, 7"x7", 16' 6" long	11 70
2c	One Arm Doll Post, as per No. 2b, complete with fittings as shown; (1-2b, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-17, 1-16, 1-10a)	38 35
3	Two Arm Doll Post, 7"x7", 16' 6" long	11 70
3a	Two Arm Doll Post, as per No. 3, complete with fittings as shown; (1-3, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 1-18, 1-17, 1-16, 1-10a)	57 86
3b	Two Arm Doll Post, 7"x7", 23' 0" long	16 05
3c	Two Arm Doll Post, as per No. 3b, complete with fittings as shown; (1-3b, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 1-17, 1-17a, 1-16, 1-16a, 1-10c)	67 59
4	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454	2 50
4a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454	2 50

THREE ARM BRACKET SIGNAL
(Wire Connected)
Wood Construction

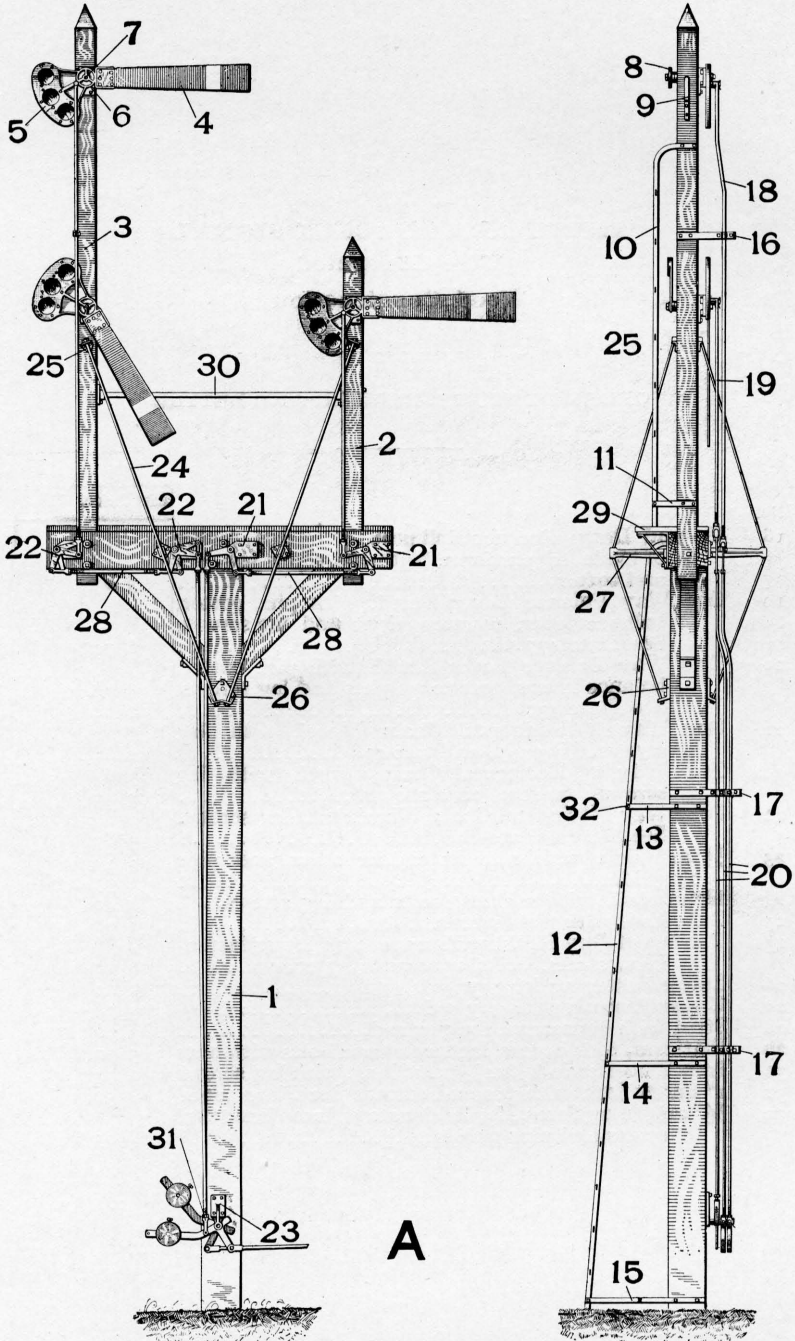
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
5	Spectacle Casting, with rings, bolts, nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
6	Semaphore Bearing, with bolts and nuts. See Plate 454.....	1 95
7	Semaphore Shaft, with nuts, washers and cotters. See No. 5 Plate 454.....	2 10
8	Back Spectacle, with ring, bolts and nuts See Plate 453.....	1 35
9	Lamp Bracket, with lag screws. See Plate 454...	57
10	Ladder for doll post, 11' 6" long.....	5 40
10a	Ladder, as per No. 10, with stay, bolts, nuts and lag screws.....	6 05
10b	Ladder for doll post, 18' long.....	8 30
10c	Ladder, as per No. 10b, with stays, bolts, nuts and lag screws.....	9 65
11	Ladder Stay, 16" long.....	21
11a	Ladder Stay, 16" long, with bolt, nut and lag screws.....	33
12	Ladder for main post, 23' long.....	10 65
12a	Ladder as per No. 12, with stays, bolts, nuts and lag screws.....	13 35
13	Ladder Stay, 21" long.....	27
13a	Ladder Stay, 21" long, with bolt, nut and lag screws.....	39
14	Ladder Stay, 27" long.....	33
14a	Ladder Stay, 27" long, with bolt, nut and lag screws.....	45
15	Ladder Stay, 33" long.....	39
15a	Ladder Stay, 33" long, with bolt, nut and lag screws.....	51
16	One Way Pipe Guide, with cap, bolts, nuts and lag screws.....	42
16a	Two Way Pipe Guide, with cap, bolts, nuts and lag screws.....	48
17	Up and Down Rod for doll post, 13' from centre of blade to platform, with eye, screw jaw, pin and cotter.....	3 70
17a	Up and Down Rod for doll post, 19' 6" long from centre of blade to platform, with eye, screw jaw, pin and cotter.....	4 35

THREE ARM BRACKET SIGNAL
(Wire Connected)
Wood Construction

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
18	Up and Down Rod for doll post, 6' 6" from centre of blade to platform, with eye, screw jaw, pin and cotter.....	3 05
19	One Way Balance Lever Stand, with pin, cotter, balance lever, counterweight and lag screws. See Plate 477.....	6 70
20	Two Way Balance Lever Stand, with pin, cotter, balance levers, counterweights and lag screws. See Plate 477.....	11 10
21	One Way 8" Horizontal Chain Wheel, with lag screws. See No. 1a Plate 218.....	1 68
21a	Two Way 8" Horizontal Chain Wheel, with lag screws. See No. 2a Plate 218.....	2 49
22	Four Way Horizontal Chain Wheel, with lag screws. See No. 4a Plate 218.....	3 87
23	1/2"x1" Bolt with nut for ladder stays and pipe guides.....	05
24	Hand Rail, with sockets, bolts and lag screws....	4 40
25	Guy Rod, with two nuts.....	1 90
25a	One set of Guy Rods, with upper and lower fastenings, struts, bolts, nuts and lag screws.....	16 10
26	Lower Fastening for guy rod..	1 10
27	Upper Fastening for guy rod.....	36
28	Strut with lag screws, for guy rod.....	96
29	Platform, with braces, lag screws and bolts with nuts	5 70
30	Iron Wheel Strip 3/4"x2 1/2"x22" long, with lag screws	1 44
31	1" Screw Jaw, with pin and cotter. See Plate 200..	51
32	1/2"x2 1/2" Lag Screw, for ladder stays, lamp brackets, struts and pipe guides.....	03



THREE ARM BRACKET SIGNAL (Pipe Connected)
Wood Construction

A

THREE ARM BRACKET SIGNAL
(Pipe Connected)
Wood Construction

Lamps, glass roundels, or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481. Various arrangements of blades are shown on Plate 400. When ordering signals specify whether Home or Distant. This signal is shipped with main bracket post 29' 0" long, top of platform to base. Lower blade on doll post 6' 6" from top of platform to centre of blade. When more than one blade occurs they are spaced 6' 6" from centre to centre. If other dimensions are desired, furnish sketch and specify when ordering.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Three Arm, Pipe Connected Bracket Signal, complete with fittings, cross pieces and braces as shown; without lamps, glass or operating jaws (1-1a, 1-2a, 1-3a, 2-17, 3-20, 2-21, 2-22, 1-23, 1-24a, 3-28, 1-29, 1-30)	268 10
1	Bracket Post, 12"x12", 29' long, with cross trees, knees, cross pieces and braces	81 25
1a	Bracket Post, as per No. 1, with ladder, stays, bolts with nuts and lag screws	94 50
2	One Arm Doll Post, 7"x7", 10' 0" long	8 85
2a	One Arm Doll Post, as per No. 2, complete with fittings as shown (1-2, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-19)	28 40
2b	One Arm Doll Post, 7"x7", 16' 6" long	11 70
2c	One Arm Doll Post, as per No. 2b, complete with fittings (1-2b, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-16, 1-18, 1-10a)	38 35
3	Two Arm Doll Post, 7"x7", 16' 6" long	11 70
3a	Two Arm Doll Post, as per No. 3, complete with fittings as shown (1-3, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 1-18, 1-19, 1-16, 1-10a)	57 86
3b	Two Arm Doll Post, 7"x7", 23' 0" long	16 05
3c	Two Arm Doll Post, as per No. 3b, complete with fittings (1-3b, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 1-18, 1-18a, 1-16, 1-16a, 1-10c)	67 59
4	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.	2 50
4a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.	2 50
5	Spectacle, with rings, bolts with nuts, stud, washer and cotter. See No. 5 Plate 451.	8 00
6	Semaphore Bearing, with bolts and nuts. See Nos 15 and 16 Plate 454.	1 95
7	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.	2 10

THREE ARM BRACKET SIGNAL
(Pipe Connected)
Wood Construction

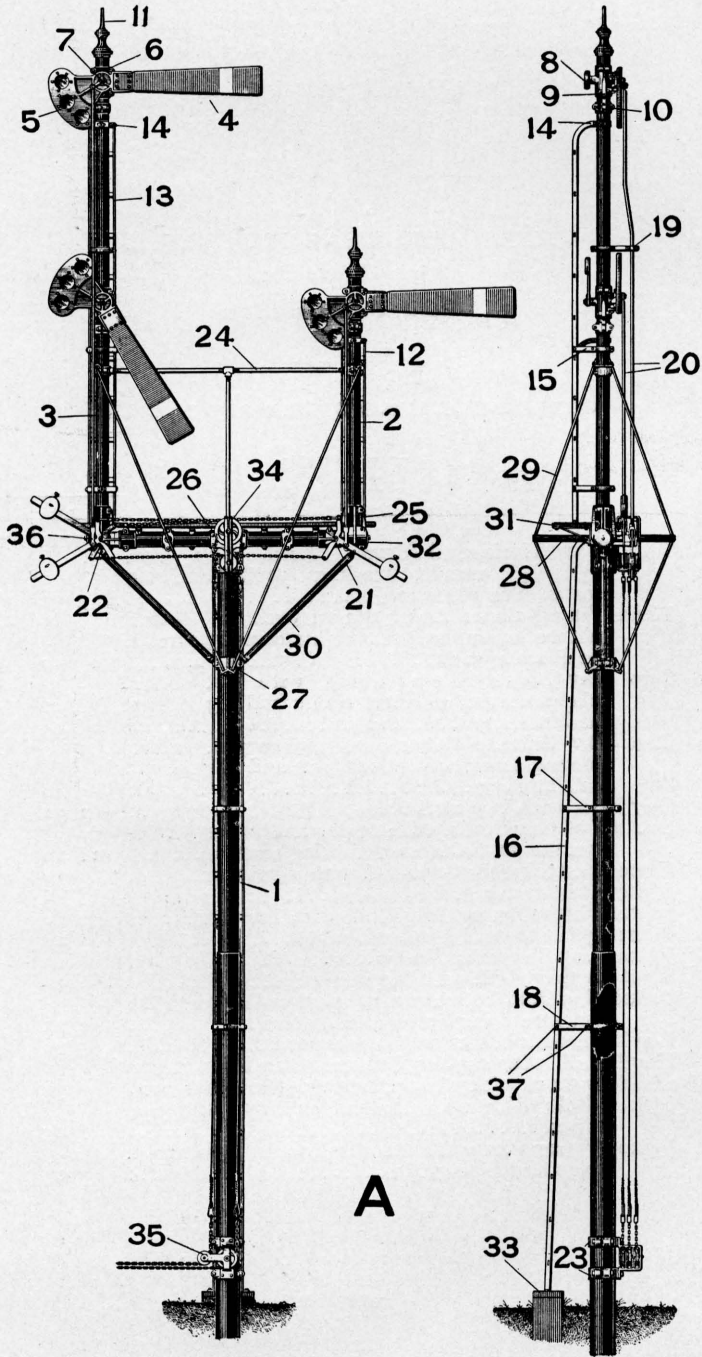
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
8	Back Spectacle, with ring and bolts with nuts. See No. 5 Plate 453.....	1 35
9	Lamp Bracket, with lag screws.....	57
10	Ladder for doll post, 11' 6" long.....	5 40
10a	Ladder, as per No. 10, with stays, bolts, nuts and lag screws.....	6 05
10b	Ladder for doll post, 18' 0" long.....	8 30
10c	Ladder, as per No. 10b, with stays, bolts, nuts and lag screws.....	9 65
11	Ladder Stay, 16" long.....	21
11a	Ladder Stay, 16" long, with bolt, nut and lag screws.....	33
12	Ladder for main post, 23' long.....	10 05
12a	Ladder, as per No. 12, with stays, bolts, nuts and lag screws.....	13 35
13	Ladder Stay, 21" long.....	27
13a	Ladder Stay, 21" long, with bolt, nut and lag screws.....	39
14	Ladder Stay, 27" long.....	33
14a	Ladder Stay, 27" long, with bolt, nut and lag screws.....	45
15	Ladder Stay, 33" long.....	39
15a	Ladder Stay, 33" long, with bolt, nut and lag screws.....	51
16	One Way Pipe Guide, with cap, bolts, nuts and lag screws.....	42
16a	Two Way Pipe Guide, with cap, bolts, nuts and lag screws.....	48
17	Three Way Pipe Guide, with cap, bolts, nuts and lag screws.....	54
18	Up and Down Rod for doll post, 13' centre of blade to platform, with eye, screw jaw, pin and cotter.....	3 70
18a	Up and Down Rod for doll post, 19' 6" centre of blade to platform, with eye, screw jaw, pin and cotter.....	4 35
19	Up and Down Rod for doll post, 6' 6" centre of blade to platform, with eye, screw jaw, pin and cotter.....	3 05
20	Up and Down Rod for main post, with eye, screw jaw, pin and cotter.....	4 80
21	One Way Horizontal Crank Stand, with stud, 7 ³ / ₄ "x7 ³ / ₄ " crank, washer, cotter and lag screws. See Plate 478.....	2 55

THREE ARM BRACKET SIGNAL
(Pipe Connected)
Wood Construction

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
22	Two Way Horizontal Crank Stand, with stud, $7\frac{3}{4}$ "x $7\frac{3}{4}$ " cranks, washer, cotter and lag screws. See Plate 478.....	3 95
23	Three Way Balance Lever Stand, with pin, cotter, balance levers, counterweights and lag screws. See Plate 477.....	23 50
23a	Two Way Balance Lever Stand, with pin, cotter, balance levers, counterweights and lag screws. See Plate 477.....	16 45
23b	One Way Balance Lever Stand, with pin, cotter, balance lever, counterweight and lag screw. See Plate 477.....	9 40
24	Guy Rod, with two nuts.....	1 90
24a	One set of Guy Rods, with upper and lower fastenings, struts, bolts, nuts and lag screws.....	16 10
25	Upper Fastening for Guy Rod, with lag screws.....	36
25a	$\frac{5}{8}$ "x9" Bolt with nut for No. 25.....	15
26	Lower Fastening for Guy Rod, with lag screws....	1 10
26a	$\frac{5}{8}$ "x $1\frac{1}{2}$ " Bolt with nut for No. 26.....	21
26b	$\frac{3}{4}$ "x4" Lag Screw for No. 26.....	09
27	Strut for Guy Rod, with lag screws.....	96
28	Connecting Rod between cranks on cross tree, with jaw, screw jaw, pins and cotters.....	2 55
29	Platform, with braces and lag screws.....	5 70
30	Hand Rail, with sockets, bolts, nuts and lag screws	4 40
31	1" Screw Jaw, with pin and cotter. See Plate 200.	51
32	$\frac{1}{2}$ "x1" Bolt with nuts for ladder stays and pipe guides.....	05
33	$\frac{1}{2}$ "x2 $\frac{1}{2}$ " Lag Screw for ladder stays, lamp bracket, struts and pipe guides.....	03



THREE ARM BRACKET SIGNAL (Wire Connected)
Pipe Construction

THREE ARM BRACKET SIGNAL
(Wire Connected)
Pipe Construction

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, wire, wire eyes or shackles see Plate 201, Section 2. Various arrangements of blades are shown on Plate 400. When ordering signals specify whether Home or Distant. This signal is shipped with main bracket post 28' 4" long, top of cross tree to base. Lower blade on doll post 8' 0" centres, cross tree to blade. When more than one blade occurs they are spaced 6' 6" from centre to centre. If other dimensions are desired furnish sketch and specify when ordering.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Three Arm, Wire Connected Bracket Signal, complete with fittings and ladder foundation as shown; without lamps, glass, chain, split links, wire, wire eyes or shackles (1-1c, 1-2b, 1-3b, 1-16a, 1-21, 1-22, 2-23, 1-24, 2-28b, 4-29, 1-31, 1-33, 1-34, 1-35).....	387 80
1	Iron Pipe Post, with base casting and set screws (1-1a and 1-1c)	104 70
1a	Base Casting, with set screws.....	3 70
1b	Main Iron Post, as per No. 1, with cross tree, centre bearing clamp, doll sockets, clamps, knees bolts and nuts (1-1, 2-25, 1-26, 1-27, 2-30, 2-32)	168 25
1c	Main Iron Post, 28' 4" long, sections of 7" and 8" pipe.....	101 00
2	Iron Doll Post, 4" section, for one arm, 8' centres, cross tree to blade.....	9 10
2a	Iron Doll Post, 4" section, for one arm, 14' 6" centres, cross tree to blade.....	14 65
2b	Iron Doll Post as per No. 2, complete with fittings as shown (1-2, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9a, 1-11, 1-12a, 1-20).....	42 75
2c	Iron Doll Post, as per No. 2a, complete with fittings (1-2a, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9a, 1-11, 1-19, 1-13a, 1-20a).....	54 65
3	Iron Doll Post, 4" section, for two arms, 8' centres, cross tree to lower blade.....	15 10
3a	Iron Doll Post, 4" section, for two arms, 14' 6" centres, cross tree to lower blade.....	20 85
3b	Iron Doll Post, as per No. 3, complete with fittings as shown; (1-3, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9a, 1-11, 1-13a, 1-19, 1-20, 1-20a).....	79 85
3c	Iron Doll Post, as per No. 3a, complete with fittings (1-3a, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9a, 1-11, 1-13c, 1-19, 1-19a, 1-20a, 1-20b).....	92 40

THREE ARM BRACKET SIGNAL
(Wire Connected)
Pipe Construction

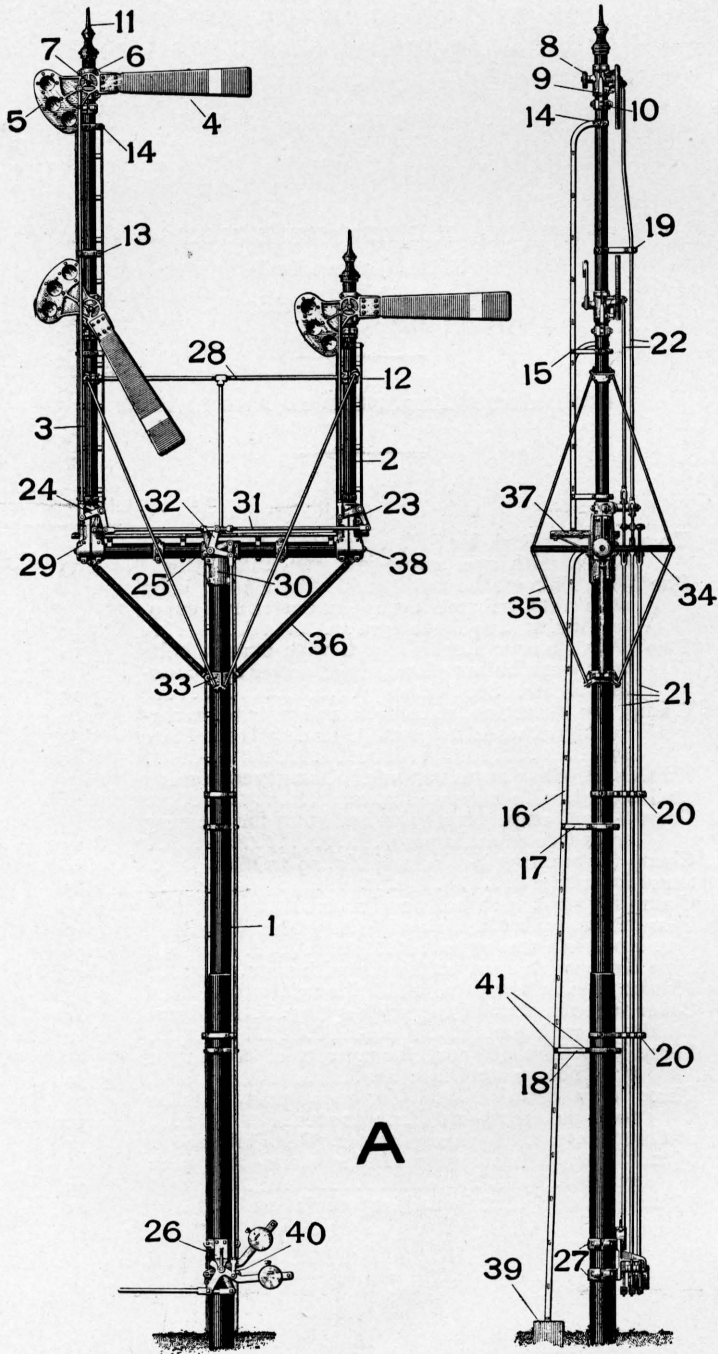
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
4	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
4a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
5	Spectacle, with rings, bolts, nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
6	Semaphore Bearing, with clamp, bolts and nuts. See Nos. 1, 2, 3 and 4 Plate 454.....	3 74
7	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
8	Back Spectacle, with ring and bolts with nuts. See No. 5 Plate 453.....	1 35
9	Lamp Bracket.....	03
9a	Lamp Bracket, with clamp and bolts with nuts.....	1 65
10	Lamp Bracket Clamp, with bolts and nuts.....	1 02
11	Pinnacle.....	1 20
12	Ladder for doll, 8' centres, cross tree to blade.....	3 35
12a	Ladder, as per No. 12, with top clamp, stays and bolts with nuts.....	5 85
13	Ladder for doll, 14' 6" centres, cross tree to blade.....	5 70
13a	Ladder, as per No. 13, with top clamp, stays and bolts with nuts.....	9 90
13b	Ladder for doll, 21' 0" centres, cross tree to blade.....	7 85
13c	Ladder, as per No. 13b, with top clamp, stays, and bolts with nuts.....	13 70
14	Ladder Stay Top Clamp, with bolts and nuts.....	85
15	Ladder Stay, for 4" section, 12 ³ / ₄ " centres, with bolts and nuts.....	1 68
16	Ladder 22' long, for No. 1.....	10 00
16a	Ladder, as per No. 16, with stays and bolts with nuts.....	14 30
17	Ladder Stay, for 7" section, 14 ¹ / ₂ " centres, with bolts and nuts.....	2 15
18	Ladder Stay, for 8" section, 19" centres, with bolts and nuts.....	2 25
19	One Way Pipe Guide, for 4" section, with cap, and bolts with nuts.....	1 62
19a	Two Way Pipe Guide, for 4" section, with cap, and bolts with nuts.....	1 71
20	Up and Down Rod, for doll, 8' centres, cross tree to blade, with eye, screw jaw, pin and cotter....	3 05
20a	Up and Down Rod, for doll, 14' 6" centres, cross tree to blade, with eye, screw jaw, pin and cotter....	3 70

THREE ARM BRACKET SIGNAL
(Wire Connected)
Pipe Construction

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
20b	Up and Down Rod, for doll, 21' centres, cross tree to blade, with eye, screw jaw, pin and cotter.	4 35
21	One Way Balance Lever Stand, with clamp, bolts with nuts, balance lever, pin, cotter and counterweight. See Plate 477.	8 40
22	Two Way Balance Lever Stand, with clamp, bolts with nuts, balance levers, pin, cotter and counterweights. See Plate 477.	13 15
23	Clamp, for 8" section, with bolts and nuts for securing signal wheel to post. For details see Plate 477.	2 30
24	Hand Rail, with clamps, sockets, bolts, nuts and screws	6 75
25	Doll Socket, with bolts and nuts.	6 75
26	Cross Tree Clamp, with bolts and nuts for securing cross tree to main post.	8 05
27	Clamp for securing No. 29 and No. 30 to main post.	3 00
28	Strut for guy rod.	1 85
28a	Clamp for strut with bolts and nuts	1 10
28b	Two Struts, with clamps and bolts with nuts.	4 20
29	Guy Rod with two nuts	1 90
30	Pipe Knee, with eyes, and bolts with nuts.	4 45
31	Platform, with brackets, and bolts with nuts.	19 85
32	Cover for ends of cross tree, with spring, bolt and nut	1 00
33	Ladder Foundation	1 20
34	Three Way Signal Wheel, for cross tree. Similar to type shown on Plate 222.	5 50
35	Three Way Signal Wheel, for main post. Similar to type shown on Plate 222.	4 30
36	1" Screw Jaw, with pin and cotter. See Plate 200.	51
37	1/2"x1" Bolt with nut for ladder stays and pipe guides.	05
38	1/2"x2 1/2" Lag Screw, for ladder foundation.	03



THREE ARM BRACKET SIGNAL (Pipe Connected)
Pipe Construction

THREE ARM BRACKET SIGNAL
(Pipe Connected)
Pipe Construction

Lamps, glass roundels, or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481. Various arrangements of blades are shown on Plate 400. When ordering signals specify whether Home or Distant. This signal is shipped with main bracket post 28' 4" long, top of cross tree to base. Lower blade on doll post 8' 0" centre of cross tree to blade. When more than one blade occurs they are spaced 6' 6" from centre to centre. If other dimensions are desired furnish sketch and specify when ordering.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Three Arm, Pipe Connected Bracket Signal, complete with fittings and ladder foundation as shown without lamps, glass or operating jaws (1-1b, 1-2b, 1-3b, 1-20, 1-20a, 3-21, 1-25, 1-26, 2-27, 1-28, 3-31, 4-34, 4-35, 1-37, 1-39).....	420 70
1	Iron Pipe Post with base casting and set screws (1-1a and 1-1c).....	104 70
1a	Base Casting with set screws.....	3 70
1b	Main Post as per No. 1, with cross tree, centre bearing clamp, doll sockets, clamps, knees and bolts with nuts (1-1, 1-33, 2-36, 1-30, 2-29, 2-38).....	168 25
1c	Main Iron Post, 28' 4" long, sections 7" and 8" pipe.....	101 00
2	Iron Doll Post, 4" section, for one arm, 8' centres, cross tree to blade.....	9 10
2a	Iron Doll Post, 4" section, for one arm, 14' 6" centres, cross tree to blade.....	14 65
2b	Iron Doll Post, as per No. 2, complete with fittings as shown (1-2, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9a, 1-11, 1-12a, 1-22, 1-23).....	46 50
2c	Iron Doll Post, as per No. 2a, complete with fittings (1-2a, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9a, 1-11, 1-13a, 1-19, 1-22a, 1-23).....	58 40
3	Iron Doll Post, 4" section, for 2-arms, 8' centres, cross tree to lower blade.....	15 10
3a	Iron Doll Post, 4" section, for 2-arms, 14' 6" centres, cross tree to lower blade.....	20 85
3b	Iron Doll Post, as per No. 3, complete with fittings as shown (1-3, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9a, 1-11, 1-13a, 1-19, 1-22, 1-22a, 1-24).....	84 90
3c	Iron Doll Post, as per No. 3a, complete with fittings (1-3a, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9a, 1-11, 1-13c, 1-19a, 1-22a, 1-22b, 1-24).....	97 45
4	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
4a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
5	Spectacle, with rings, bolts, nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
6	Semaphore Bearing, with clamp and bolts with nuts. See Nos. 1, 2, 3 and 4 Plate 454.....	3 74

THREE ARM BRACKET SIGNAL
(Pipe Connected)
Pipe Construction

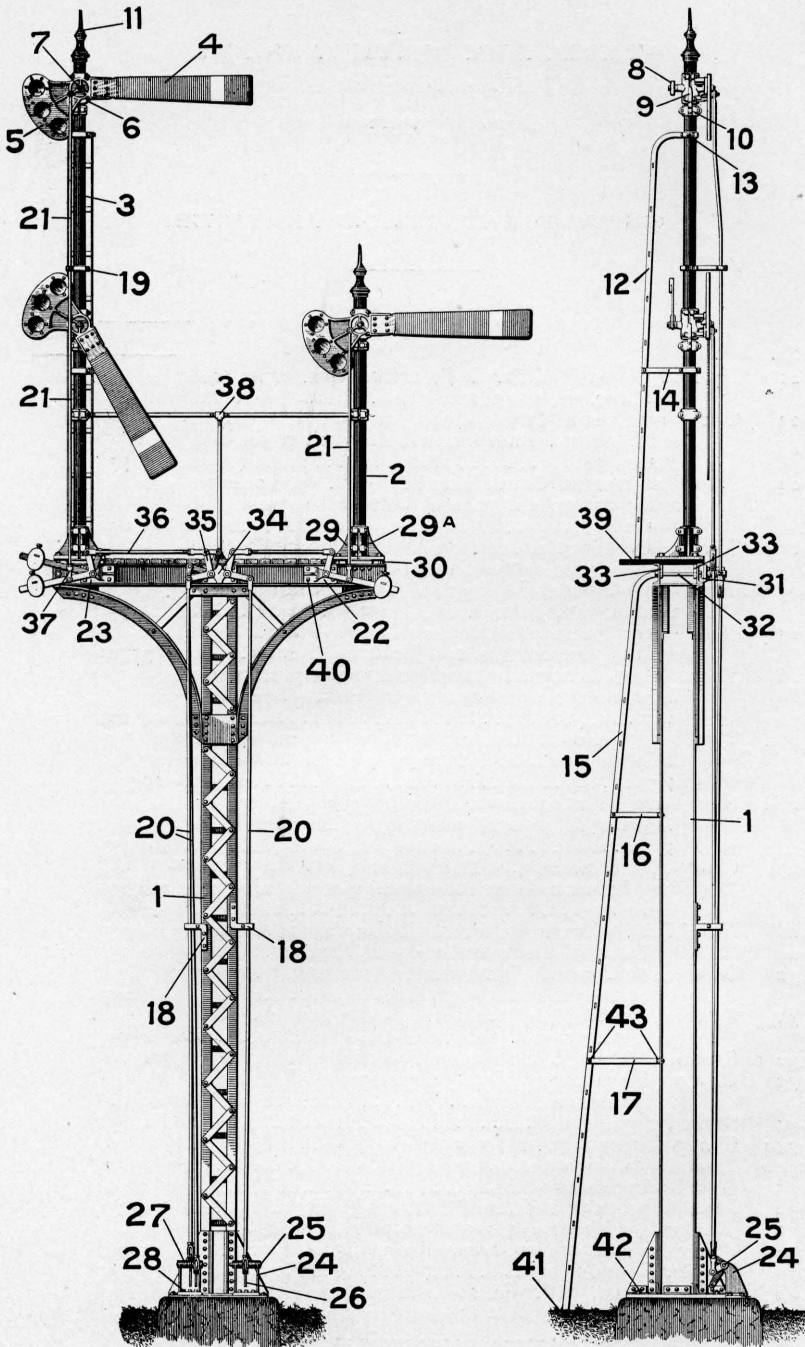
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
7	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
8	Back Spectacle, with ring, and bolts with nuts. See No. 5 Plate 453.....	1 35
9	Lamp Bracket.....	63
9a	Lamp Bracket, with clamp, and bolts with nuts.....	1 65
10	Lamp Bracket Clamp, with bolts and nuts.....	1 02
11	Pinnacle.....	1 20
12	Ladder for doll, 8' centres, cross tree to blade.....	3 35
12a	Ladder, as per No. 12, with top clamp, stays, and bolts with nuts.....	5 85
13	Ladder for doll, 14' 6" centres, cross tree to blade.....	5 70
13a	Ladder, as per No. 13, with top clamp, stays, and bolts with nuts.....	9 90
13b	Ladder for doll post, 21' 0" long, cross tree to blade.....	7 85
13c	Ladder, as per No. 13b, with top clamp, stays, and bolts with nuts.....	13 70
14	Ladder Stay Top Clamp, with bolts and nuts.....	85
15	Ladder Stay, for 4" section, 12 $\frac{3}{4}$ " centres, with bolts and nuts.....	1 68
16	Ladder, 22' long, for No. 1.....	10 00
16a	Ladder, as per No. 16, with stays and bolts with nuts	14 30
17	Ladder Stay, for 7" section, 14 $\frac{1}{2}$ " centres, with bolts and nuts.....	2 15
18	Ladder Stay, for 8" section, 19" centres, with bolts and nuts.....	2 25
19	One Way Pipe Guide, for 4" section, with cap, and bolts with nuts.....	1 62
19a	Two Way Pipe Guide, for 4" section, with cap, and bolts with nuts.....	1 71
20	Three Way Pipe Guide, for 7" section, with cap, and bolts with nuts.....	2 22
20a	Three Way Pipe Guide, for 8" section, with cap, and bolts with nuts.....	2 22
20b	Two Way Pipe Guide, for 7" section, with cap, and bolts with nuts.....	2 15
20c	Two Way Pipe Guide, for 8" section, with cap, and bolts with nuts.....	2 15
20d	One Way Pipe Guide, for 8" section, with cap, and bolts with nuts.....	2 10
20e	One Way Pipe Guide, for 7" section, with cap, and bolts with nuts.....	2 10
21	Up and Down Rod, for No. 1, with jaw, screw jaw, pin and cotter.....	4 45
22	Up and Down Rod, for doll, 8' centres, cross tree to blade, with eye, screw jaw, pin and cotter..	3 05
22a	Up and Down Rod for doll, 14' 6" centres, cross tree to blade, with eye, screw jaw, pin and cotter..	3 70

THREE ARM BRACKET SIGNAL
(Pipe Connected)
Pipe Construction

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
22b	Up and Down Rod for Doll, 21' centres, cross tree to blade, with eye, screw jaw, pin and cotter.	4 35
23	One Way Special Crank Stand for doll, with crank, stud, cotter, clamp, and bolts with nuts. See Plate 478.	3 75
24	Two Way Special Crank Stand for doll, with cranks, stud, cotter, clamp, and bolts with nuts. See Plate 478.	5 05
25	Three Way Special Horizontal Crank Stand, with cranks, pin, cotters, and bolts with nuts.	6 10
25a	Two Way Special Horizontal Crank Stand, with cranks, pin, cotters, and bolts with nuts.	4 75
25b	One Way Special Horizontal Crank Stand, with crank, pin, cotters, and bolts with nuts.	3 40
26	Three Way Balance Lever Stand, with pin, cotter balance levers and counterweights. See Plate 477.	24 20
26a	Two Way Balance Lever Stand, with pin, cotter, balance levers and counterweights. See Plate 477.	16 95
26b	One Way Balance Lever Stand, with pin, cotter, balance lever and counterweight. See Plate 477.	9 75
27	Clamp, for 8" section, with bolts and nuts for securing balance lever to post. For details see Plate 477.	2 30
28	Hand Rail, with clamp, sockets, bolts, nuts and screws	6 75
29	Doll Socket, with bolts and nuts.	6 75
30	Cross Tree Clamp, with bolts and nuts for securing cross tree to main post.	8 05
31	Connecting Rod between cross tree cranks, with jaw, screw jaw, pins and cotters.	2 55
32	Crank, 7 $\frac{3}{4}$ "x7 $\frac{3}{4}$ ", for Nos. 23, 24 and 25.	1 26
33	Clamps for securing Nos. 35 and 36 to main post, with bolts and nuts.	3 00
34	Strut for guy rod.	1 85
34a	Clamp for strut, with bolts and nuts.	1 10
34b	Two struts, with clamps and bolts.	4 20
35	Guy Rod with two nuts.	1 90
36	Pipe Knee, with eyes, and bolts with nuts.	4 45
37	Platform, with brackets, and bolts with nuts.	19 85
38	Cover for ends of cross tree, with spring, bolt, and nut	1 00
39	Ladder Foundation.	1 29
40	1" Screw Jaw, with pin and cotter. See Plate 200.	51
41	$\frac{1}{2}$ "x1" Bolt with nut for ladder stays and pipe guides.	05
42	$\frac{1}{2}$ "x2 $\frac{1}{2}$ " Lag Screw for ladder foundation.	03



THREE ARM BRACKET SIGNAL
(Pipe or Wire Connected) Lattice Construction

THREE ARM BRACKET SIGNAL
(Pipe or Wire Connected)
Lattice Construction

Lamps, glass roundels, or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481. When signal is to be wire connected, transfer from pipe to wire connection is made at base of post with special lug and vertical wheel. This arrangement is shown on Plate 416 and should be ordered separately. Various arrangements of blades are shown on Plate 400. When ordering signals specify whether Home or Distant. This signal is shipped with main bracket post 24' 0", top of cross tree to base. Lower blade on doll post 7' 0" from platform to centre of blade; when more than one blade occurs they are spaced 6' 6" from centre to centre. If other dimensions are desired furnish sketch and specify when ordering.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Three Arm, Pipe or Wire Connected Bracket Signal, complete with fittings, ladder foundation and anchor bolts as shown; without lamps, glass, or operating jaws (1-1b, 1-2b, 1-3b, 1-18, 1-18a, 3-20, 1-22, 1-23, 1-24, 1-24a, 6-31, 1-34, 3-36, 1-38, 1-39).....	611 50
1	Bracket Post, lattice construction.....	346 85
1a	Bracket Post, as per No. 1, with anchor bolts and nuts (1-1, 4-42).....	361 55
1b	Bracket Post as per No. 1a, with ladder, stays, and bolts with nuts (1-1a, 1-15a).....	374 70
2	Iron Pipe Doll Post, 4" section, for 1-arm, 7' centre of blade to platform.....	7 80
2a	Iron Pipe Doll Post, 4" section for 1-arm, 13' 6" centre of blade to platform.....	13 80
2b	Iron Pipe Doll Post, as per No. 2, complete with fittings as shown (1-2, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9a, 1-11, 1-21, 1-29b, 1-30, 1-30a, 2-32, 4-33)...	51 25
2c	Iron Pipe Doll Post, as per No. 2a, complete with fittings (1-2a, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9a, 1-11, 1-12a, 1-19, 1-21a, 1-29b, 1-30, 1-30a, 2-32, 4-33).....	67 40
3	Iron Pipe Doll Post, 4" section, for 2-arms, 7' centre of lower blade to platform.....	14 55
3a	Iron Pipe Doll Post, 4" section, for 2-arms, 13' 6" centre of lower blade to platform.....	20 40
3b	Iron Doll Post, as per No. 3, complete with fittings (1-3, 3-4, 2-5, 2-6, 2-7, 2-8, 2-9a, 1-11, 1-12a, 1-21, 1-21a, 1-29b, 1-30, 1-30a, 2-32, 4-33)...	92 85
3c	Iron Pipe Doll Post, as per No. 3a, complete with fittings (1-3a, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9a, 1-11, 1-12c, 1-19, 1-19a, 1-21a, 1-21b, 1-29b, 1-30, 1-30a, 2-32, 4-33).....	105 95
4	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50

THREE ARM BRACKET SIGNAL
(Pipe or Wire Connected)
Lattice Construction

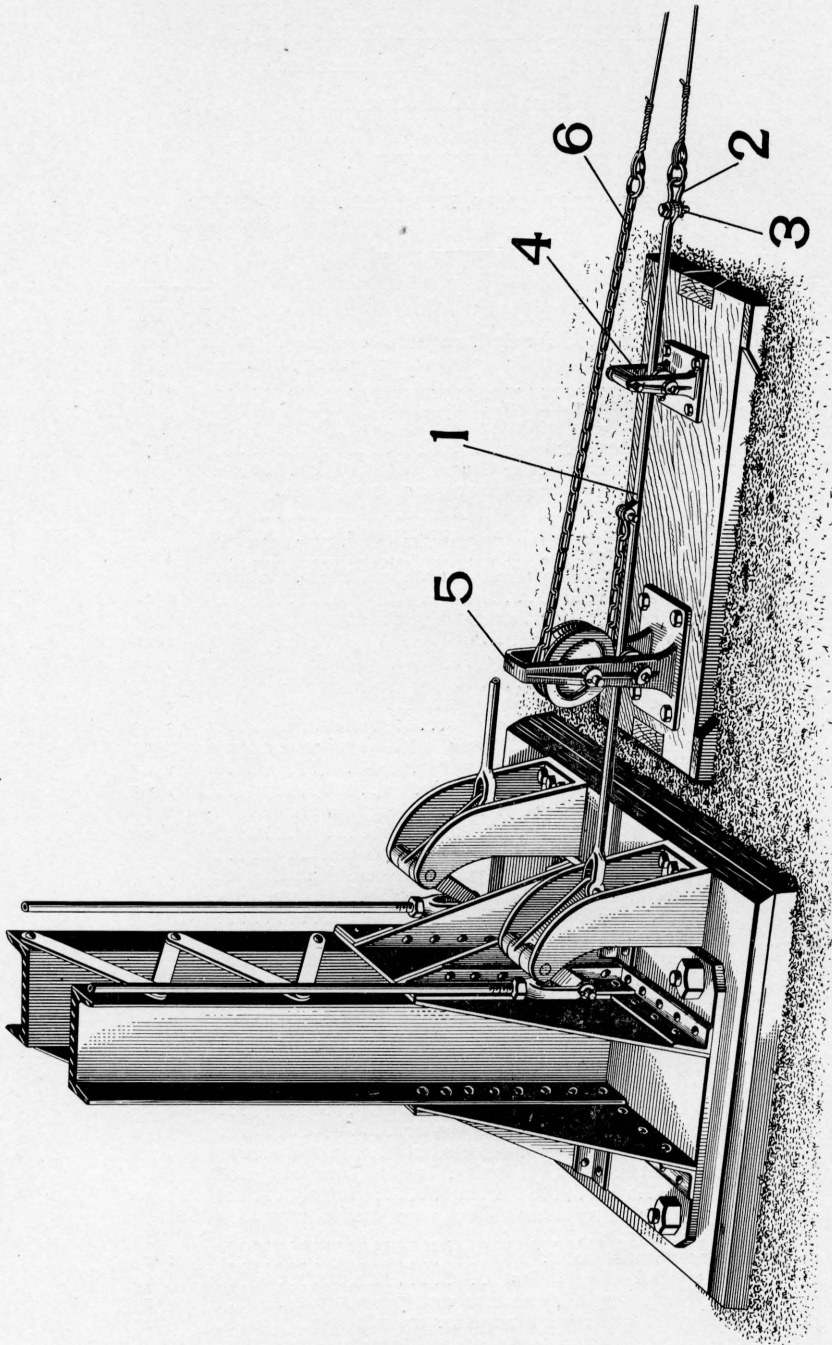
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
4a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
5	Spectacle, with rings, bolts, nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
6	Semaphore Bearing, with clamp, bolts and nuts. See Nos. 1, 2, 3 and 4 Plate 454.....	3 74
7	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
8	Back Spectacle, with ring, and bolts with nuts. See No. 5 Plate 453.....	1 35
9	Lamp Bracket.....	03
9a	Lamp Bracket, with clamp, and bolts with nuts....	1 65
10	Lamp Bracket Clamp, with bolts and nuts.....	1 02
11	Pinnacle.....	1 20
12	Ladder, for doll, 13' 6" centre of upper blade to platform.....	5 40
12a	Ladder, as per No., 12, with top clamp, stays, and bolts with nuts.....	7 85
12b	Ladder, for doll 20' 0", centre of upper blade to platform.....	7 85
12c	Ladder, as per No. 12b, with top clamp, stays, and bolts with nuts.....	12 05
13	Ladder Stay Top Clamp, with bolts and nuts....	85
14	Ladder Stay, for 4" section, 12 $\frac{3}{4}$ " centres, with bolts and nuts.....	1 68
15	Ladder, 24' long for No. 1.....	10 40
15a	Ladder, as per No. 15, with stays, and bolts with nuts	11 95
16	Ladder Stay for No. 1, 11" centres, post to ladder, with bolts and nuts.....	75
17	Ladder Stay for No. 1, 17" centres, post to ladder, with bolts and nuts.....	81
18	One Way Special Pipe Guide for No. 20, with cap, and bolts with nuts.....	2 16
18a	Two Way Special Pipe Guide for No. 20, with cap, and bolts with nuts.....	2 22
19	One Way Pipe Guide for No. 21a, with cap, and bolts with nuts.....	1 62
19a	Two Way Pipe Guide for No. 21b, with cap, and bolts with nuts.....	1 71
20	Up and Down Rod for No. 1, with jaw, screw jaw, pin and cotter.....	4 80
21	Up and Down Rod for doll, 7' from centre of blade to platform, with eye, screw jaw, pin and cotter.....	3 05
21a	Up and Down Rod for doll, 13' 6" from centre of blade to platform, with eye, screw jaw, pin and cotter.....	3 70

THREE ARM BRACKET SIGNAL
(Pipe or Wire Connected)
Lattice Construction

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
21b	Up and Down Rod for doll, 20' from centre of blade to platform, with eye, screw jaw, pin and cotter.....	4 35
22	One Way Balance Lever Stand, with balance lever, pin, cotter, counterweight and bolts with nuts. See Plate 477.....	9 70
23	Two Way Balance Lever Stand, with balance levers, pin, cotter, counterweights, and bolts with nuts. See Plate 477.....	16 95
24	One Way Special Vertical Crank, with pin, washer and cotter.....	4 65
24a	Two Way Special Vertical Crank, with pin, washer and cotter.....	6 00
25	Pin with cotters, for Special Crank Stand.....	30
26	Crank for Special Crank Stand.....	1 26
27	Special Washer for No. 25.....	09
28	3/4"x18" Anchor Bolt.....	33
29	R. H. Base Clamp for doll post.....	3 85
29a	L. H. Base Clamp for doll post.....	3 85
29b	R. H. and L. H. Base Clamps, with bolts and nuts.....	8 35
30	R. H. Filler Channel Iron for No. 29.....	1 65
30a	L. H. Filler Channel Iron for No. 29.....	1 65
31	Cast Iron Filler Block for Nos. 22, 23, or 34.....	18
32	Tie Bolt, with thimble.....	40
33	Eye Bolt for fastening No. 20b to No. 32.....	80
34	Three Way Special Horizontal Crank Stand, with cranks, pins, cotters, and bolts with nuts. For details see Plate 478.....	8 25
34a	Two Way Special Horizontal Crank Stand, with cranks, pin, cotter, and bolts with nuts. For details see Plate 478.....	6 25
34b	Four Way Special Horizontal Crank Stand, with cranks, pins, cotters, and bolts with nuts. For details see Plate 478.....	9 65
35	Crank, 7 3/4"x7 3/4", for No. 34.....	1 26
36	Connecting Rod from balance lever to crank, with jaw, screw jaw, pins and cotters.....	2 55
37	1" Screw Jaw, with pin and cotter.....	51
38	Hand Rail, with clamps, sockets, bolts, nuts and screws.....	6 30
39	Wood Platform, with bolts, nuts, washers and nails.....	10 50
40	Bolt for securing balance lever or crank stand to cross trees.....	12
41	Ladder Foundation.....	1 29
42	1 1/2"x5' 0" Anchor Bolts.....	3 60
43	1/2"x1" Bolt for ladder stays and pipe guides.....	05
44	1/2"x2 1/2" Lag Screws for ladder foundation.....	03



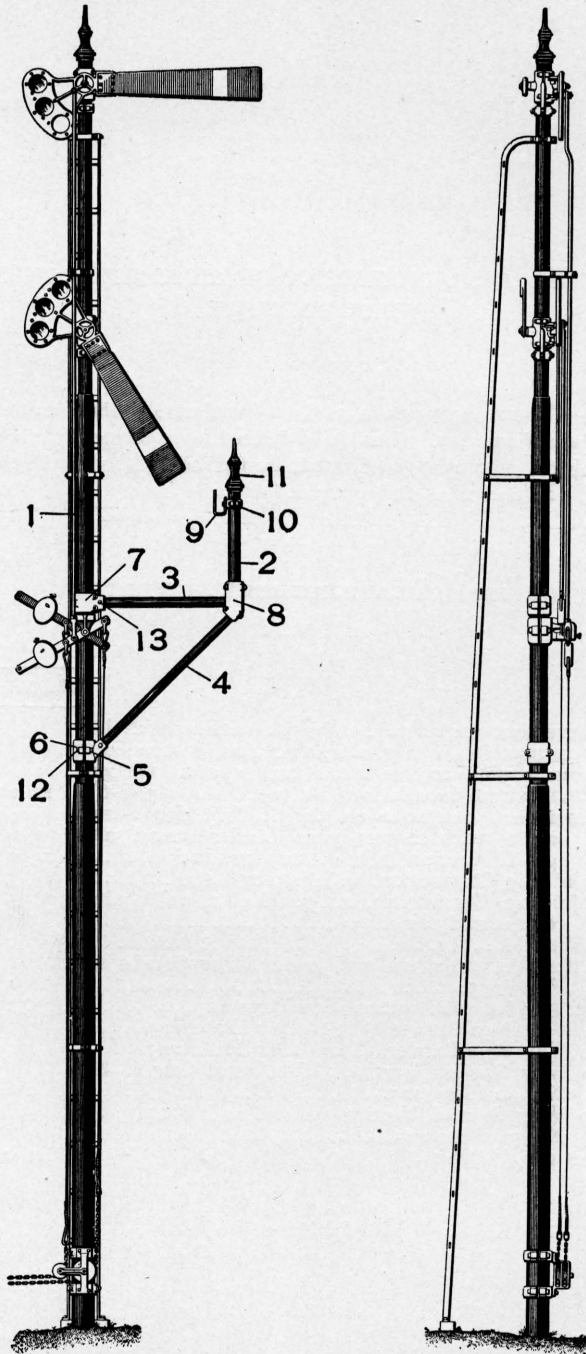
SPECIAL ARRANGEMENT OF TRANSFER FROM PIPE TO WIRE

**SPECIAL ARRANGEMENT OF TRANSFER FROM
PIPE TO WIRE**

Note—This arrangement is used on Bracket Signals of Lattice Construction, see Plate 415, when it is desired to operate signal by wire instead of pipe. Foundation of wood, iron or concrete may be used, see Plates 225, 228 and 229. Order separately if desired.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Arrangement complete as shown, with special lug connection, chain, shackles, pins, cotters, one way pipe carrier stand and special vertical wheel; no foundation (1-1, 2-2a, 1-4, 1-5, 1-6).	11 00
B	Arrangement complete as per A, but for 2-way crank, with 2-way pipe carrier stand and special vertical wheel; no foundation.....	19 23
1	Special Lug Connection, with jaw and eye.....	5 58
1a	Special Lug Connection, as per No. 1, with pins, cotters and shackles.....	5 97
2	$\frac{7}{8}$ " Shackle.....	06
2a	$\frac{7}{8}$ " Shackle, with pin and cotter. For details see Plate 215.....	17
3	$\frac{7}{8}$ "x $2\frac{3}{8}$ " Pin, with cotter. See Plate 215.....	12
4	One Way Pipe Carrier. See No. 8b Plate 215.....	66
4a	Two Way Pipe Carrier. See No. 8f Plate 215.....	1 02
5	One Way Special Vertical Wheel and Stand. See No. 3b Plate 215.....	2 88
5a	Two Way Special Vertical Wheel and Stand. See No. 3f Plate 215.....	3 81
6	5 feet of $\frac{1}{4}$ " Chain.....	1 05



TWO ARM CANTILEVER SIGNAL
(Iron Post)

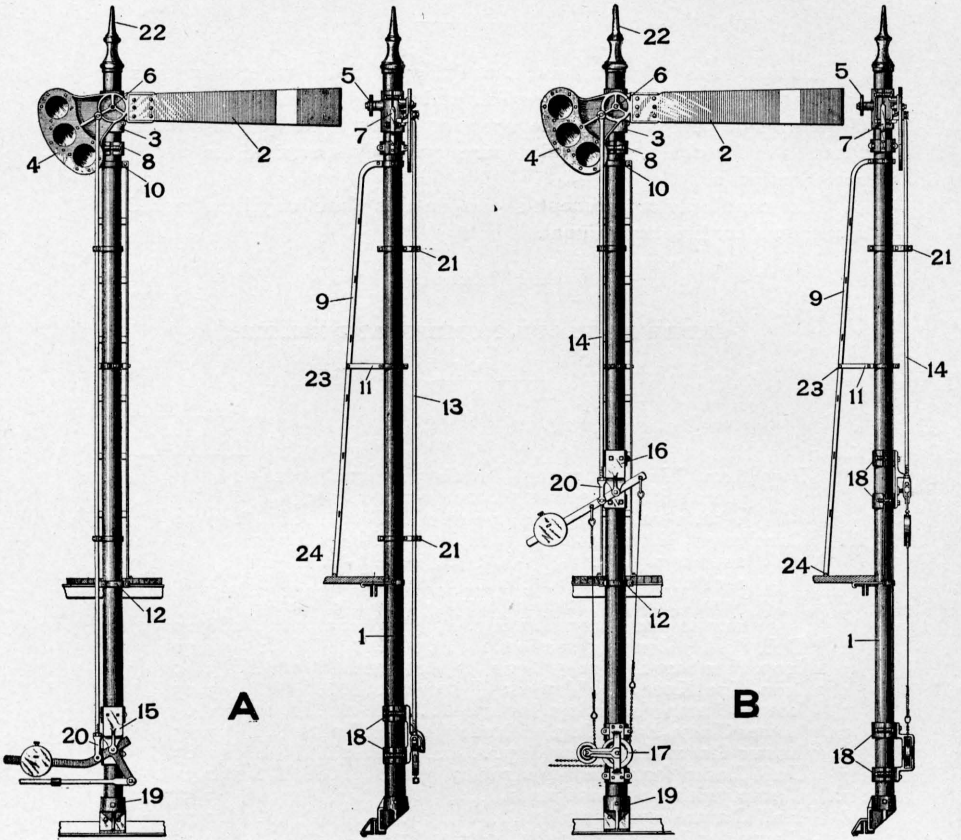
**TWO ARM CANTILEVER SIGNAL
(Iron Post)**

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, wire, wire eyes or shackles see Plate 201, Section 2.

The cantilever attachment shown on this plate may be attached to a one, two or three arm signal.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Two Arm, Wire Connected Cantilever Signal, complete with fittings as shown (1-1, 1-2, 1-3, 1-4, 1-5a, 1-7a, 1-8a, 1-9a, 1-11).....	219 30
A1	Cantilever Attachment, complete with fittings as shown (1-2, 1-3, 1-4, 1-5a, 1-7a, 1-8a, 1-9a, 1-11).....	31 10
1	Two Arm, Wire Connected Signal complete. Similar to one shown by Fig. B, Plate 405.....	188 20
2	Doll Post, 3' long, 4" section.....	4 70
3	Iron Pipe Strut, 3' 11 1/4" long, 3" section.....	3 10
4	Iron Pipe Knee, 5' 2" long, 2 1/2" section.....	3 05
5	Lower Clamp Fastening, for knee.....	1 65
5a	Lower Clamp Fastening, with cap, bolts and nuts.....	3 35
6	Lower Clamp Fastening Cap.....	1 05
7	Half Clamp for fastening strut to post.....	1 35
7a	Clamp, with bolts and nuts.....	3 55
8	Half Clamp for doll socket.....	1 70
8a	Clamp for doll socket, with bolts and nuts.....	4 25
9	Lamp Bracket.....	63
9a	Lamp Bracket, with clamp, bolts and nuts.....	1 65
10	Clamp, with bolts and nuts for lamp bracket.....	1 02
11	Pinnacle.....	1 20
12	3/4"x5 3/4" Bolt for Nos. 5a, 7a, 8a, 10.....	18
13	1/2"x6" Bolt for Nos. 5a and 7a.....	09



ONE ARM BRIDGE SIGNAL
(Iron Post)

ONE ARM BRIDGE SIGNAL
(Iron Post)

Lamps, glass roundels, lenses, chain, split links, wire, wire eyes, or shackles are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481; for chain, split links, wire, wire eyes or shackles see Plate 201, Section 2. Two and three arm bridge signals of this type, or of wood construction, may be ordered from Plate 400.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price	
A	One Arm, Pipe Connected Bridge Signal, complete with fittings as shown; without lamps, glass, or operating jaw (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7a, 1-9a, 1-12a, 1-13, 1-15, 2-18, 1-19, 2-21, 1-22).....	67	75
B	One Arm, Wire Connected Bridge Signal, complete with fittings as shown; without lamp, glass, chain, split links, wire, wire eyes, or shackles (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7a, 1-9a, 1-12a, 1-14, 1-16, 1-17, 2-18, 1-19, 1-21, 1-22).....	67	25
1	Iron Pipe Post, 4" section, 15' 4" long.....	15	30
2	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2	50
2a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2	50

**ONE ARM BRIDGE SIGNAL
(Iron Post)**

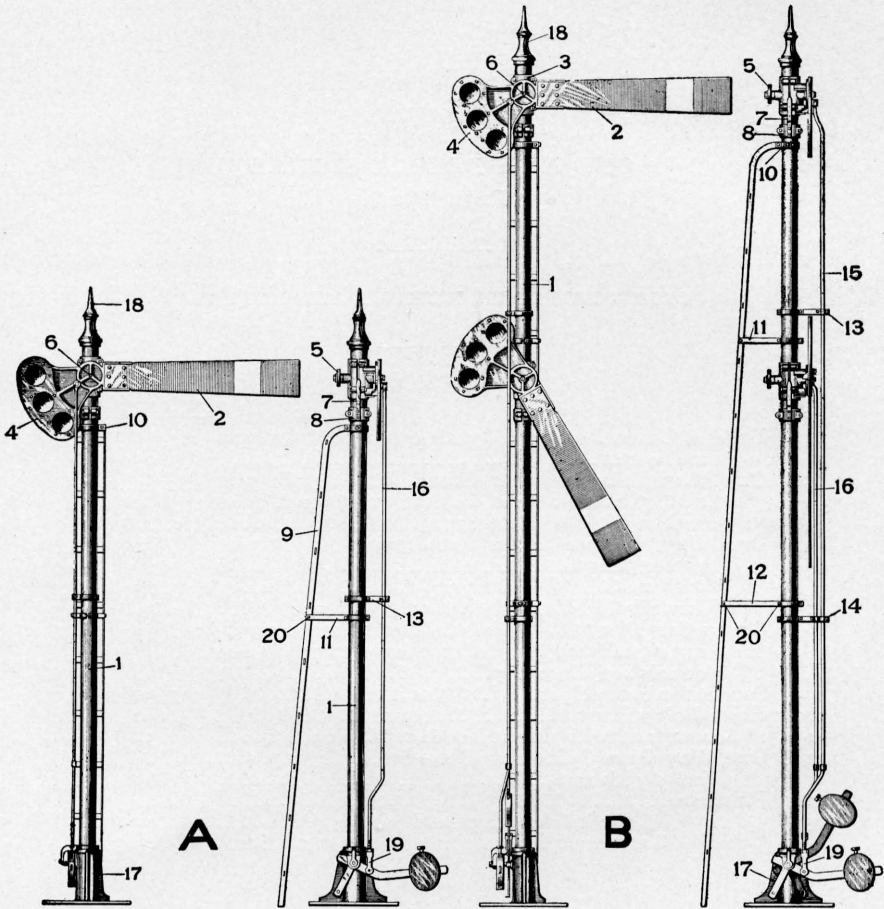
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
3	Semaphore Bearing, with bolts and nuts. See Nos. 1, 2, 3 and 4 Plate 454.....	3 74
4	Spectacle, with rings, bolts and nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
5*	Back Spectacle, with rings, and bolts with nuts. See No. 5 Plate 453.....	1 35
6	Semaphore Shaft, with nuts, washers and cotters. See No. 5 Plate 454.....	2 10
7	Lamp Bracket.....	63
7a	Lamp Bracket, with clamps, bolts and nuts.....	1 65
8	Lamp Bracket Clamp, with bolts and nuts.....	1 02
9	Ladder, 8' 6" long.....	4 05
9a	Ladder 8' 6" long, with stays, and bolts with nuts..	6 55
10	Ladder Stay Top Clamp, with bolts and nuts, for 4" section.....	85
11	Ladder Stay for 4" section, with bolts and nuts....	1 68
12	Clamp, for securing signal to bridge.....	50
12a	Clamp, with hook bolts.....	1 20
12b	Hook Bolts for No. 12.....	35
13	Up and Down Rod for A, with eye, screw jaw, pin and cotter.....	3 70

**ONE ARM BRIDGE SIGNAL
(Iron Post)**

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
14	Up and Down Rod for B, with eye, screw jaw, pin and cotter.....	3 05
15	One Way Balance Lever Stand for A, with pin, cotter, balance lever, counterweight and bolts with nuts. See Plate 477.....	9 40
16	One Way Balance Lever Stand for B, with pin, cotter, balance lever, counterweight and bolts with nuts. See Plate 477.....	5 75
17	One Way Signal Wheel. See No. 4 Plate 222.....	2 28
18	Clamp for 4" section with bolts and nuts for securing signal wheel or balance lever to post. For details see Plate 477.....	2 00
19	Socket for base of post, with bolts and nuts.....	3 60
19a	Hook Bolt with nut.....	60
20	1" Screw Jaw, with pin and cotter. See Plate 200..	51
21	One Way Pipe Guide for 4" section, with cap, and bolts with nuts.....	1 62
22	Pinnacle.....	1 20
23	1/8"x1" Bolt for ladder stays and pipe guide.....	05
24	1/2"x2 1/2" Lag Screw for fastening ladder to platform	03



ONE AND TWO ARM SIGNALS
 (Iron Post Pipe Connected)
 Designed for Elevated Railroads.

**ONE AND TWO ARM SIGNALS
(Iron Post)**

Pipe Connected, as Designed for Elevated Railroads

Lamps, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	One Arm, Pipe Connected Signal, complete with fittings as shown; without lamp, glass or operating jaw (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7a, 1-9a, 1-13, 1-16, 1-17b, 1-18).....	88 35
B	Two Arm, Pipe Connected Signal, complete with fittings as shown; no lamps, glass or operating jaws (1-1a, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7a, 1-9c, 1-13, 1-14, 1-15, 1-16, 1-17e, 1-18).....	135 20
1	Iron Pipe Post, 4" section for A, 11' 10 1/2" long....	12 45
1a	Iron Pipe Post, 4" section for B, 18' 4 1/2" long....	18 75
2	Home Blade, with bolts and nuts. See Nos. 29 and 34 Plate 454.....	2 50
2a	Distant Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
3	Semaphore Bearing, with bolts and nuts. See Nos. 1, 2, 3 and 4 Plate 454.....	3 74

ONE AND TWO ARM SIGNALS

(Iron Post)

Pipe Connected, as Designed for Elevated Railroads

ORDER BY PLATE, NUMBER AND LETTER

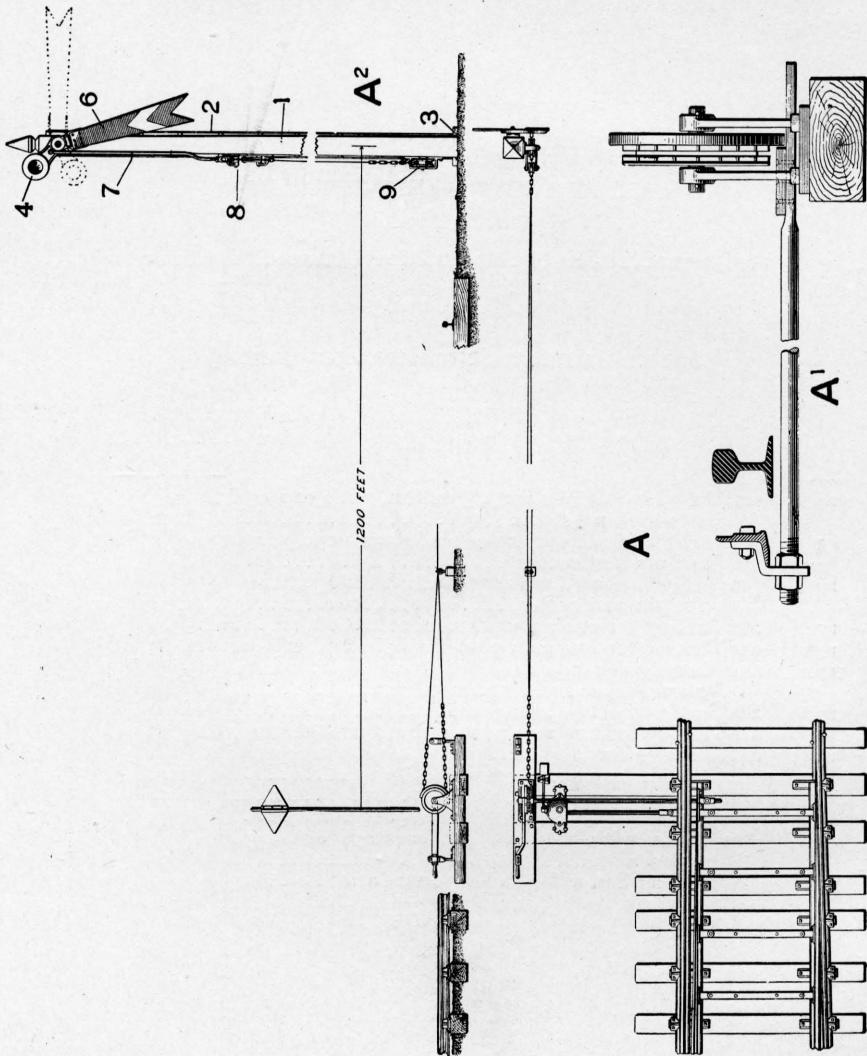
No.		List Price
4	Spectacle, with rings, bolts with nuts, stud, washer and cotter. See No. 5 Plate 451.....	8 00
5	Back Spectacle, with ring and bolts with nuts. See No. 5 Plate 453.....	1 35
6	Semaphore Shaft, with washers, nuts and cotters. See No. 5 Plate 454.....	2 10
7	Lamp Bracket.....	63
7a	Lamp Bracket, with clamps and bolts with nuts....	1 65
8	Lamp Bracket Clamp, with bolts and nuts.....	1 02
9	Ladder 10' 10" long, for A.....	5 25
9a	Ladder, 10' 10" long, with stays, bolts, nuts and lag screws.....	7 85
9b	Ladder 17' 4" long, for B.....	8 05
9c	Ladder, 17' 4" long, with stays, bolts, nuts and lag screws.....	12 45
10	Ladder Stay Top Clamp, for 4" section, with bolts and nuts.....	85
11	Ladder Stay, 13 $\frac{3}{4}$ " centres, for 4" section, with bolts and nuts.....	1 68
12	Ladder Stay, 18 $\frac{1}{4}$ " centres, for 4" section, with bolts and nuts.....	1 77
13	One Way Pipe Guide, for 4" section, with cap and bolts with nuts.....	1 62

**ONE AND TWO ARM SIGNALS
(Iron Post)**

Pipe Connected, as Designed for Elevated Railroads

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price	
14	Two Way Pipe Guide, for 4" section, with cap and bolts with nuts.....	1 71	
15	Up and Down Rod, for upper blade, with eye, screw jaw, pin and cotter.....	4 35	
16	Up and Down Rod, for lower blade, with eye, screw jaw, pin and cotter.....	3 70	
17	Base Casting for one arm post.....	18 40	
17a	Base Casting for one arm post with pin and cotter..	18 85	
17b	Base Casting for one arm post, with pin, cotter, balance lever and counterweight.....	26 05	
17c	Base Casting for two arm post.....	18 60	
17d	Base Casting for two arm post with pin and cotter..	19 15	
17e	Base Casting for two arm post, with pin cotter balance levers and counterweights.....	33 20	
18	Pinnacle.....	1 20	
19	1" Screw Jaw, with pin and cotter. See Plate 200..	51	
20	1/2"x1" Bolt with nut, for ladder stays and pipe guides.....	05	
21	1/2"x2 1/2" Lag Screw for ladder foundation.....	03	



DISTANT SWITCH SIGNAL APPARATUS

DISTANT SWITCH SIGNAL APPARATUS

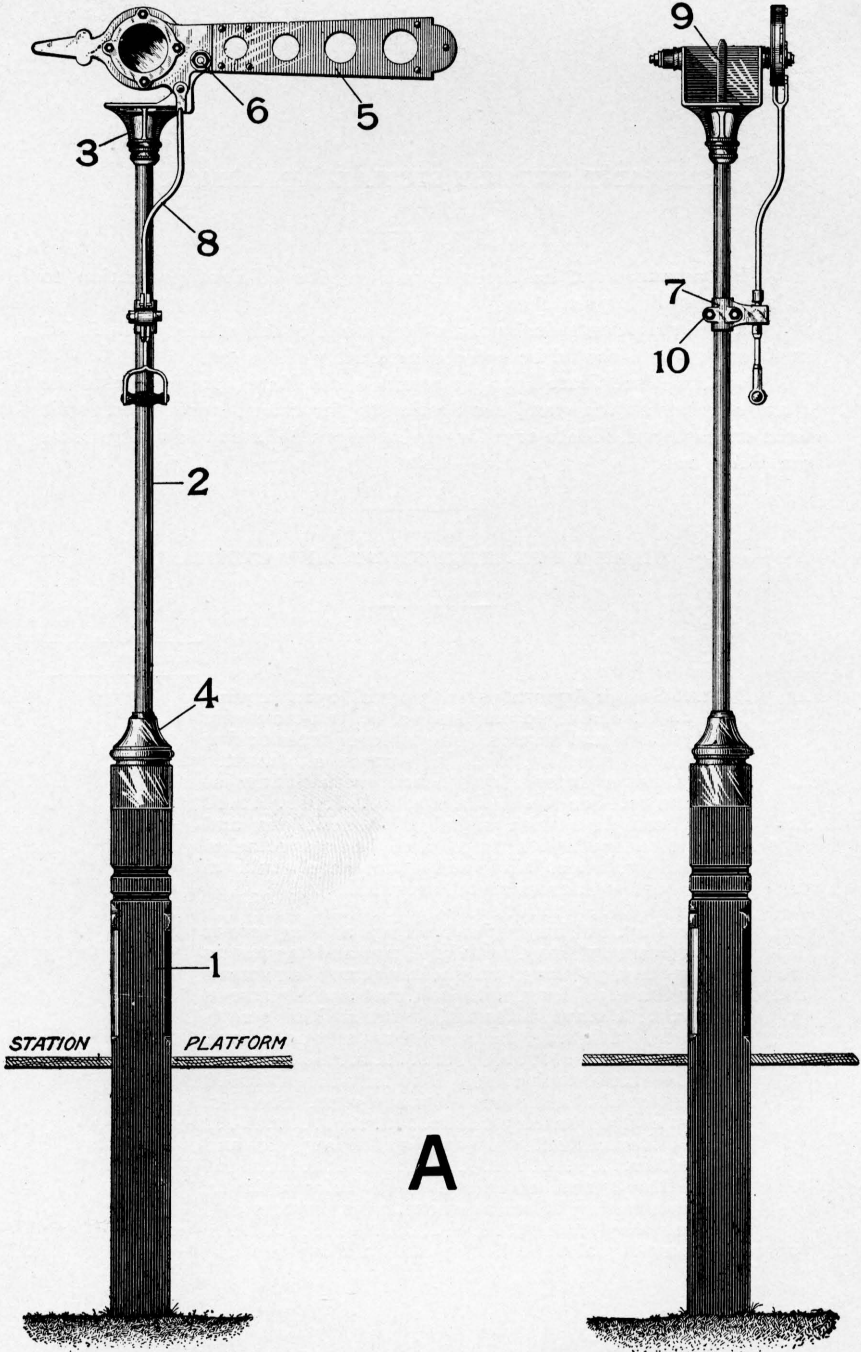
This arrangement has been found to give efficient protection to isolated or outlying switches.

Lamps, glass roundels, lenses, switch stand or target are not included in these lists and should be ordered separately if desired.

For lamps see Plate 479; for roundels see Plate 481; for lenses see Plate 482; for switch stand see Section 6; for chain, wire eyes, split links or shackles see Plate 213; for wire pulleys see Plate 216 and for stakes see Plate 229.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Distant Switch Apparatus, with signal, 2500 ft. wire, 12 ft. chain, 60 oak stakes, 60 two-way wire pulleys and screws, ground lever interlocking stand complete, with lag screws, as shown..	181 45
A1	Ground Lever Interlocking Stand, with fittings as shown. See No. A Plate 178.....	24 15
A2	Signal, complete with signal movement, up and down rod, with front and back spectacles, ladder, braces, blade and signal wheel as shown	90 75
1	Wood Post with cross and braces.....	51 40
2	Ladder.....	12 55
2a	Ladder Stay, 21" long, with bolt, nut and lag screws	27
2b	Ladder Stay, 27" long, with bolt, nut and lag screws	45
2c	Ladder Stay, 33" long, with bolt, nut and lag screws	51
2d	Ladder Stay, 39" long, with bolt, nut and lag screws	57
3	Ladder, with stays, bolts with nuts, and lag screws	16 45
4	Spectacle, with ring, bolts with nuts, washer and cotter.....	5 10
5	Back Spectacle, with ring and bolts with nuts.....	1 35
6	Distant Signal Blade, with bolts and nuts. See Nos. 30 and 34 Plate 454.....	2 50
7	Up and Down Rod, with eye, screw jaw, pin and cotter.....	3 05
8	Signal Movement, complete, with balance lever, counterweight, escapement, pins, cotters and lag screws.....	16 30
9	One Way Signal Wheel. See No. 4a Plate 222.....	2 64



A

FLAG STATION SIGNAL
Model No. 1

FLAG STATION SIGNAL

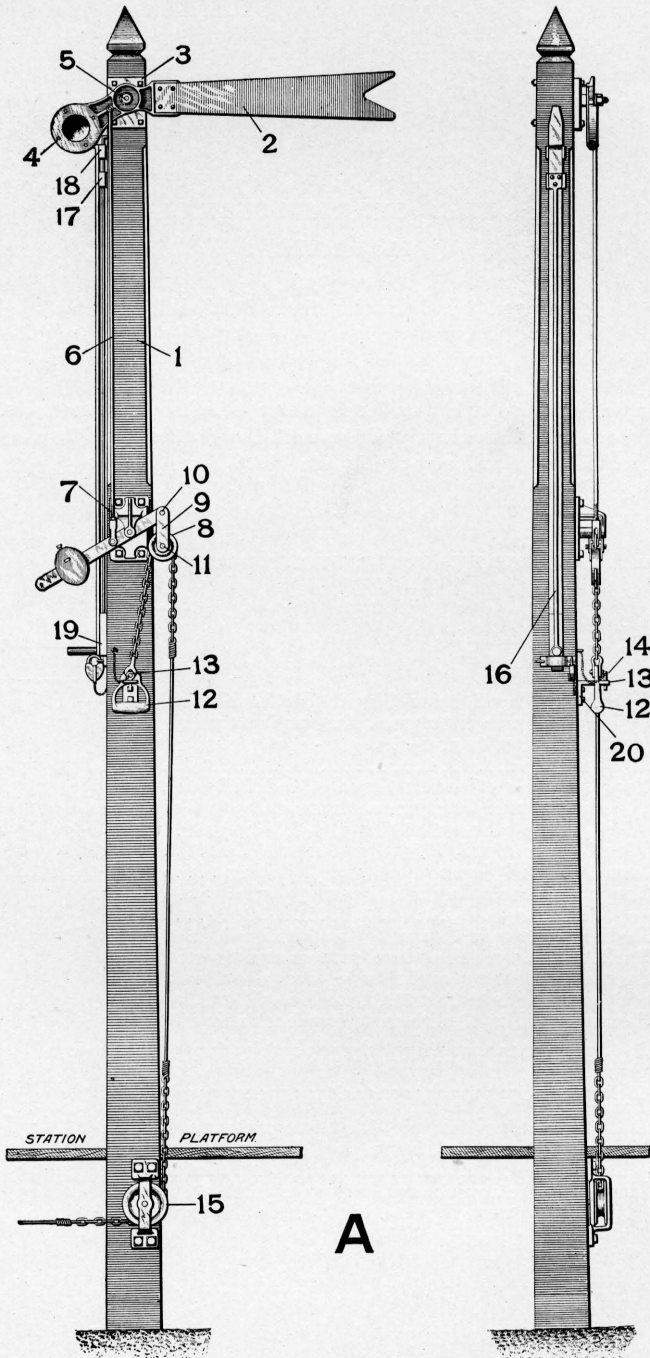
Model No. 1

(Arranged for Operation from Station Platform.)

Lamp, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses see Plate 482; for roundels see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	One Arm Flag Station Signal (Model No. 1), complete with fittings as shown; for traffic in one direction (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9).....	36 55
B	Two Arm Flag Station Signal (Model No. 1), complete with fittings; for traffic in both directions (1-1, 1-2, 1-3a, 1-4, 2-5, 2-6, 1-7a, 2-8, 1-9)...	52 85
1	Wood Base, 6"x6", 8' 5" long.....	9 90
2	Iron Post (1 1/4" gas pipe) 5' 10 1/2" long.....	1 40
3	Single Spectacle Cap and Bearing for A. See No. 17 Plate 454.....	3 85
3a	Double Spectacle Cap and Bearing for B.....	5 20
4	Socket Casting, with wood screws and dowel pin...	1 80
5	Spectacle Casting and Blade, complete with rings and bolts with nuts. See No. 5 Plate 452.....	4 15
6	Semaphore Shaft, with nuts, washers and cotter for A.....	1 35
6a	Semaphore Shaft, with nuts, washers and cotter for B.....	1 35
7	Single Locking Clamp, with bolts and nuts for A..	65
7a	Double Locking Clamp, with bolts and nuts for B..	75
8	Up and Down Rod, with jaw, pin, cotter, handle and stop.....	8 35
9	Lamp Bracket, with csk. hd. screws.....	75
10	3/8"x2 1/2" Bolts with nuts, for No. 7 or No. 7a.....	04



FLAG STATION SIGNAL
Model No. 2

FLAG STATION SIGNAL
Model No. 2

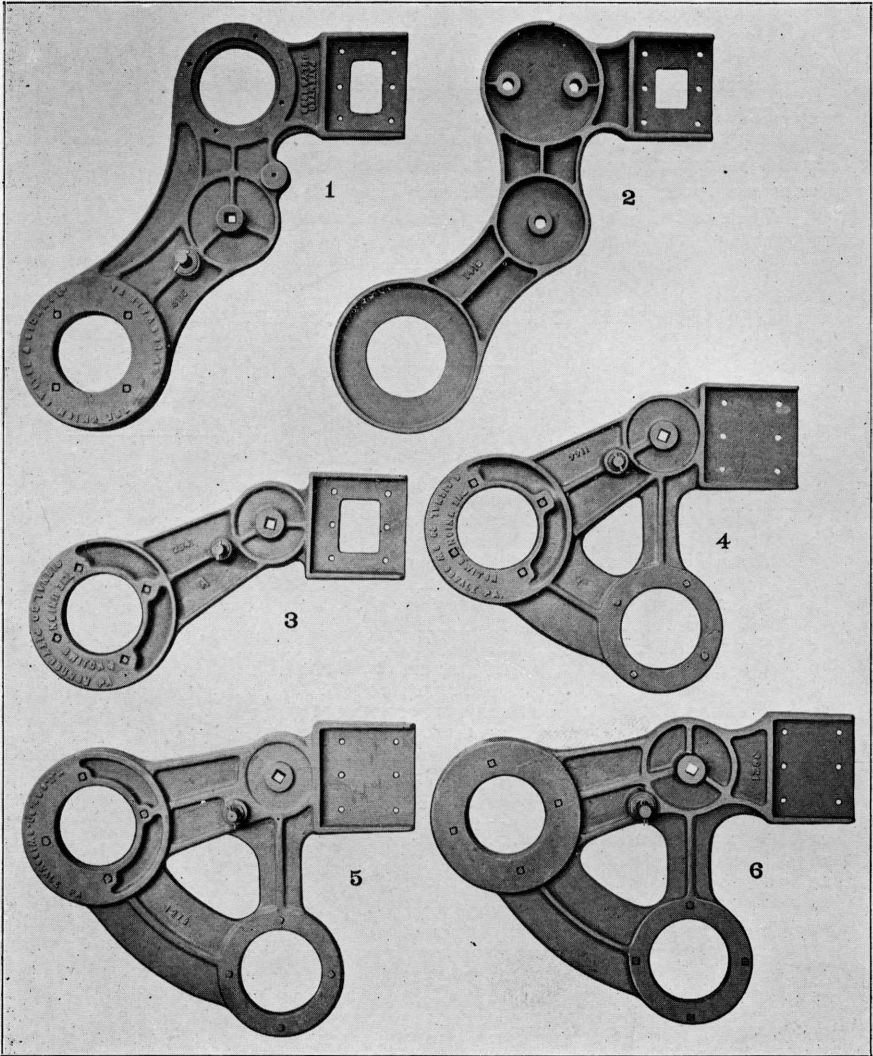
Constructed so as to be operated either from station platform or building.

Lamp, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses see Plate 482; for roundels see Plate 481.

When ordering signals specify whether Home or Distant.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Flag Station Signal, complete with fittings as shown; without lamp, glass, lock, chain, wire eyes, split links or shackles.....	42 40
1	Wood Post, 7"x7", 18' long.....	27 00
2	Special Blade, with bolts and nuts.....	2 35
3	Semaphore Bearing, with bolts, nuts and washers. See Plate 454.....	1 60
4	Spectacle, with stud and bolts with nuts. See Plate 452.....	2 05
5	Stud for No. 3.....	15
6	Up and Down Rod, with eye, screw jaw, pin and cotter.....	95
7	Balance Lever, with stand, pin, counterweight and lag screws. See Plate 477.....	5 45
8	4" Shackle Wheel. See No. 1 Plate 223.....	15
9	Shackle for No. 8.....	90
9a	Shackle, with 4" wheel and pin.....	1 25
10	1/2"x1 1/2" Pin for No. 9.....	09
11	1/2"x2 1/8" Pin for No. 9.....	09
12	Loop Handle.....	45
13	Loop Handle Lock Bracket.....	40
14	Loop Handle Lock Pin, with chain and staple.....	45
15	One Way 6" Horizontal Wheel, with lag screws. See No. 10b, Plate 218.....	1 56
16	Lamp Hoist Slide.....	1 85
17	Lamp Bracket Hoist and Down Rod.....	4 30
18	Lamp Bracket.....	55
19	Lamp Hoist Lock Strap.....	1 70
19a	Lamp Hoist, slide, rod, lamp bracket, lock strap and staple plate.....	9 55
20	Staple Plate, with wood screws, for lock strap.....	1 70
	Note—If signal is furnished with 8 feet of 1/4" chain, 4 wire eyes and 4 split links, add.....	1 92



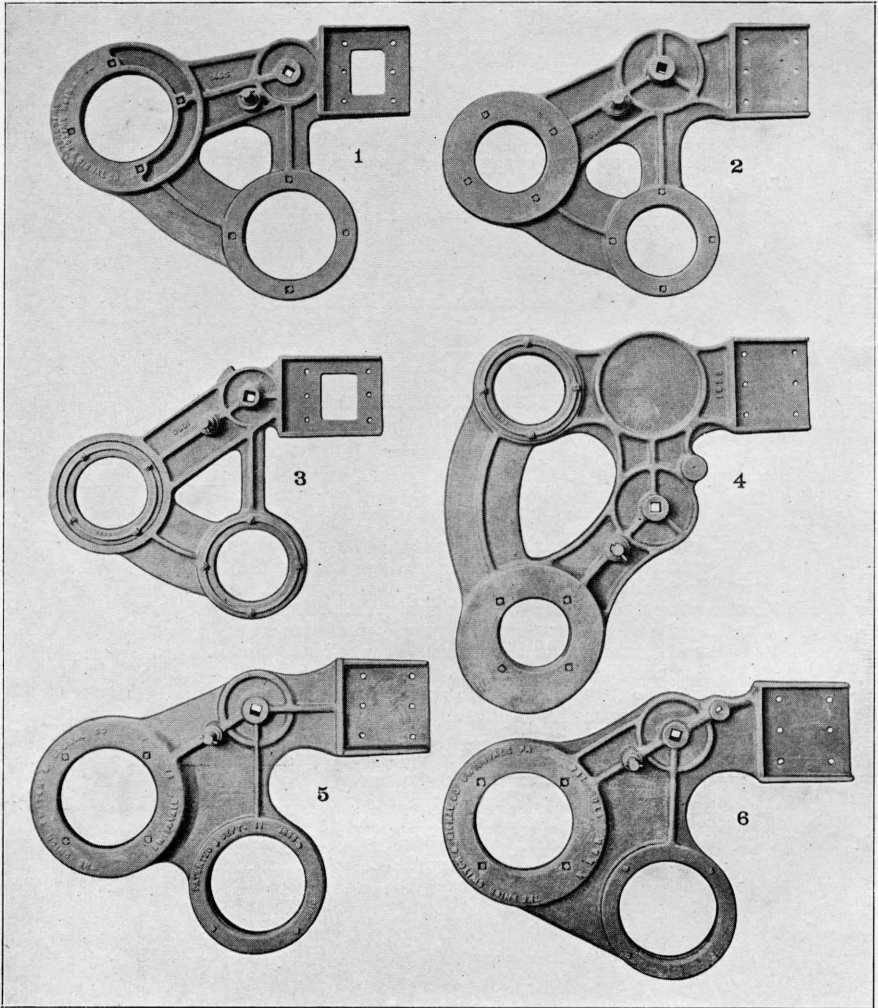
SPECTACLE CASTINGS

SPECTACLE CASTINGS

No glass included in this list.
 For glass roundels see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
1	One Light 90° Spectacle, with ring, bolts with nuts, stud, washer and cotter (takes 6½" glass). For backlight see Plate 453, No. 1 or 11.....	7 71
2	Casting for fixed blade of 90° signal.....	3 15
3	One Light 60° Spectacle, with ring, bolts with nuts, stud, washer and cotter (takes 6½" glass). For backlight see Plate 453, No. 1 or 11.....	5 10
4	Two Light 60° Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 6½" glass). For backlight see Plate 453, No. 1.....	6 75
5	Two Light 75° Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 6½" glass). For backlight see Plate 453, No. 1 or 8.....	7 15
6	Two Light 75° Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 6⅞" glass). For backlight see Plate 453, No. 1.....	7 15



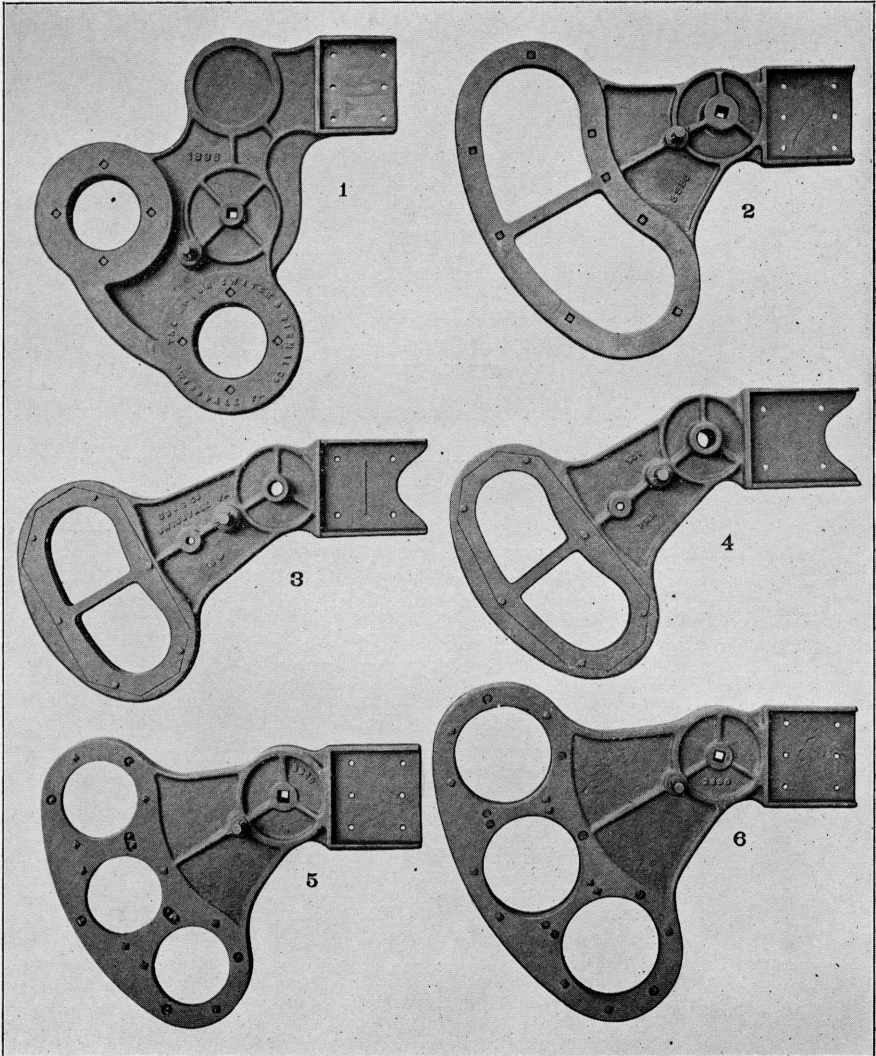
SPECTACLE CASTINGS

SPECTACLE CASTINGS

No glass included in this list.
 For glass roundels see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
1	Two Light 75° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 8 $\frac{3}{8}$ " glass). For backlight see Plate 453, No. 1.....	7 50
2	Two Light 60° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 6 $\frac{7}{8}$ " glass). For backlight see Plate 453, No. 3.....	6 75
3	Two Light 55° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 6 $\frac{3}{4}$ " glass). For backlight see Plate 453, No. 6.....	6 70
4	Two Light 90° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 6 $\frac{1}{2}$ " glass). For backlight see Plate 453, No. 1.....	10 80
5	Two Light 60° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 8 $\frac{3}{8}$ " glass). For backlight see Plate 453, No. 1.....	7 65
6	Two Light 60° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 8 $\frac{3}{8}$ " glass). For backlight see Plate 453, No. 10.....	8 35



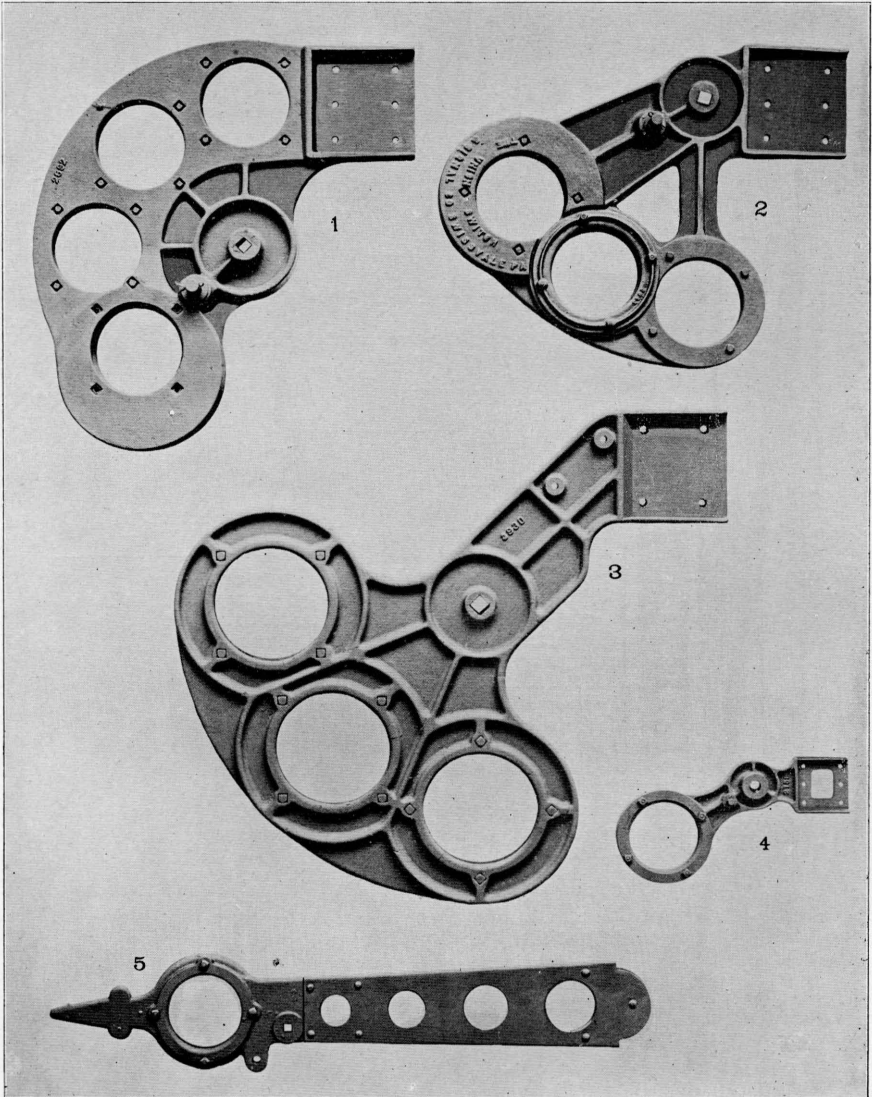
SPECTACLE CASTINGS

SPECTACLE CASTINGS

No glass included in this list.
 For glass roundels see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
1	Two Light 90° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 6½" glass). For backlight see Plate 453, No. 2.....	11 40
2	Two Light 60° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes special form of glass).....	9 60
3	Two Light 60° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes special form of glass). For backlight see Plate 453, No. 9...	8 55
4	Two Light 60° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes special form of glass). For backlight see Plate 453, No. 5...	9 00
5	Three Light 60° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 6½" glass). For backlight see Plate 453, No. 5.....	8 00
6	Three Light 60° Spectacle, with rings, stud, washer, bolts with nuts and cotter (takes 8¾" glass). For backlight see Plate 453, No. 7.....	7 50



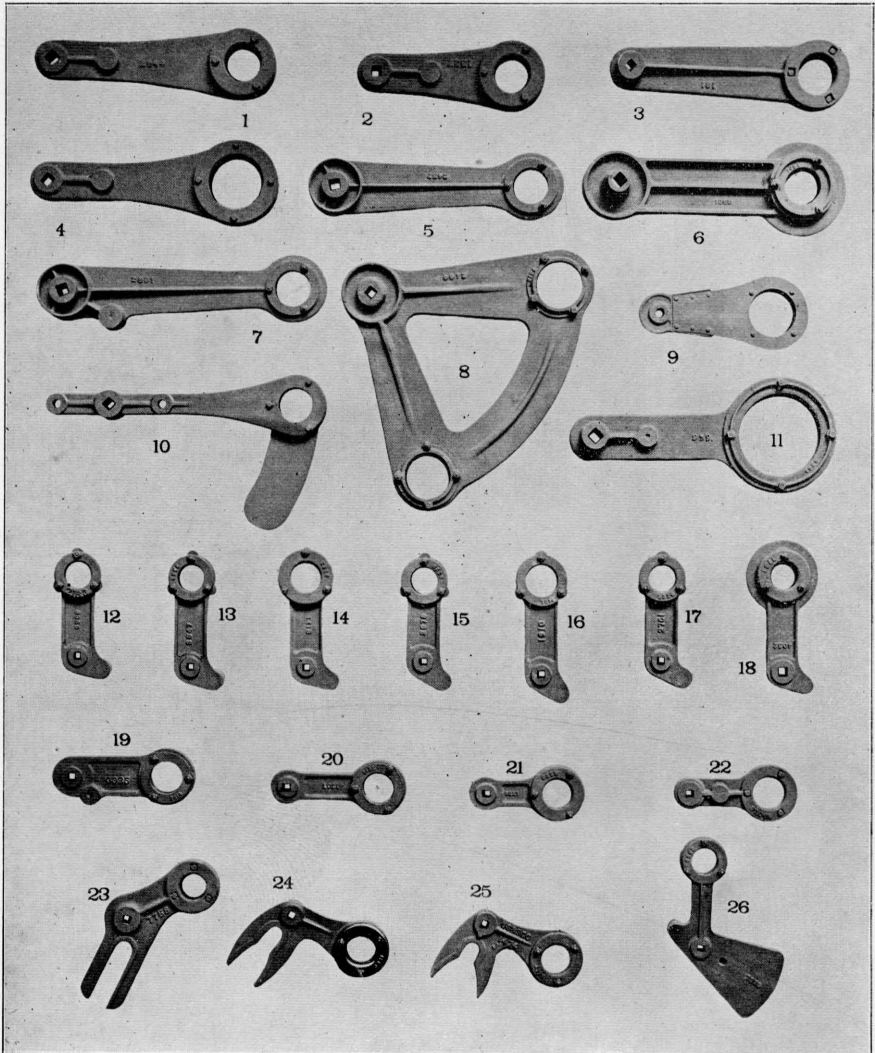
SPECTACLE CASTINGS

SPECTACLE CASTINGS

No glass included in this list.
 For glass roundels see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
1	Three Light 90° Spectacle, with rings, bolts with nuts, pin, washer and cotter (takes 6½" glass). For backlight see Plate 453, No. 2	9 45
2	Three Light 60° Spectacle, with rings, bolts with nuts, pin, washer and cotter (takes 6½" glass). For backlight see Plate 453, No. 1	6 75
2a	Three Light 75° Spectacle, with rings, pin, washer, bolts with nuts and cotter (takes 6½" glass). For backlight see Plate 453, No. 1	6 75
3	Three Light 90° Spectacle, with rings, bolts with nuts, pin, washer and cotter (takes 8⅜" glass). For backlight see Plate 453, No. 4	10 85
4	One Light 60° Spectacle, with ring, bolts with nuts, pin, washer and cotter (takes 4¼" glass)	2 05
5	One Light 60° Spectacle, with ring, blade and bolts with nuts (takes 5⅜" glass)	4 15



BACK SPECTACLES

BACK SPECTACLE FOR HIGH SIGNALS

No glass included in this list.
 For glass roundels see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price	
1	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 449, No. 1, 3, 4, 5 or 6; Plate 450, No. 1, 4 and 5, and Plate 452, No. 2.....	1	45
2	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 451, No. 1, and Plate 452, No. 1.....	1	45
3	Back Spectacle, with ring and bolts with nuts. For spectacle casting see Plate 450, No. 2.....	1	45
4	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 452, No. 3.....	1	45
5	Back Spectacle, with ring and bolts with nuts. For spectacle casting see Plate 451, No. 5.....	1	35
6	Back Spectacle, with ring and bolts with nuts. For spectacle casting see Plate 450, No. 3.....	1	60
7	Back Spectacle, with rings, bolts with nuts, stud, washer and cotter. For Spectacle casting see Plate 451, No. 6.....	1	80

BACK SPECTACLE FOR HIGH SIGNALS

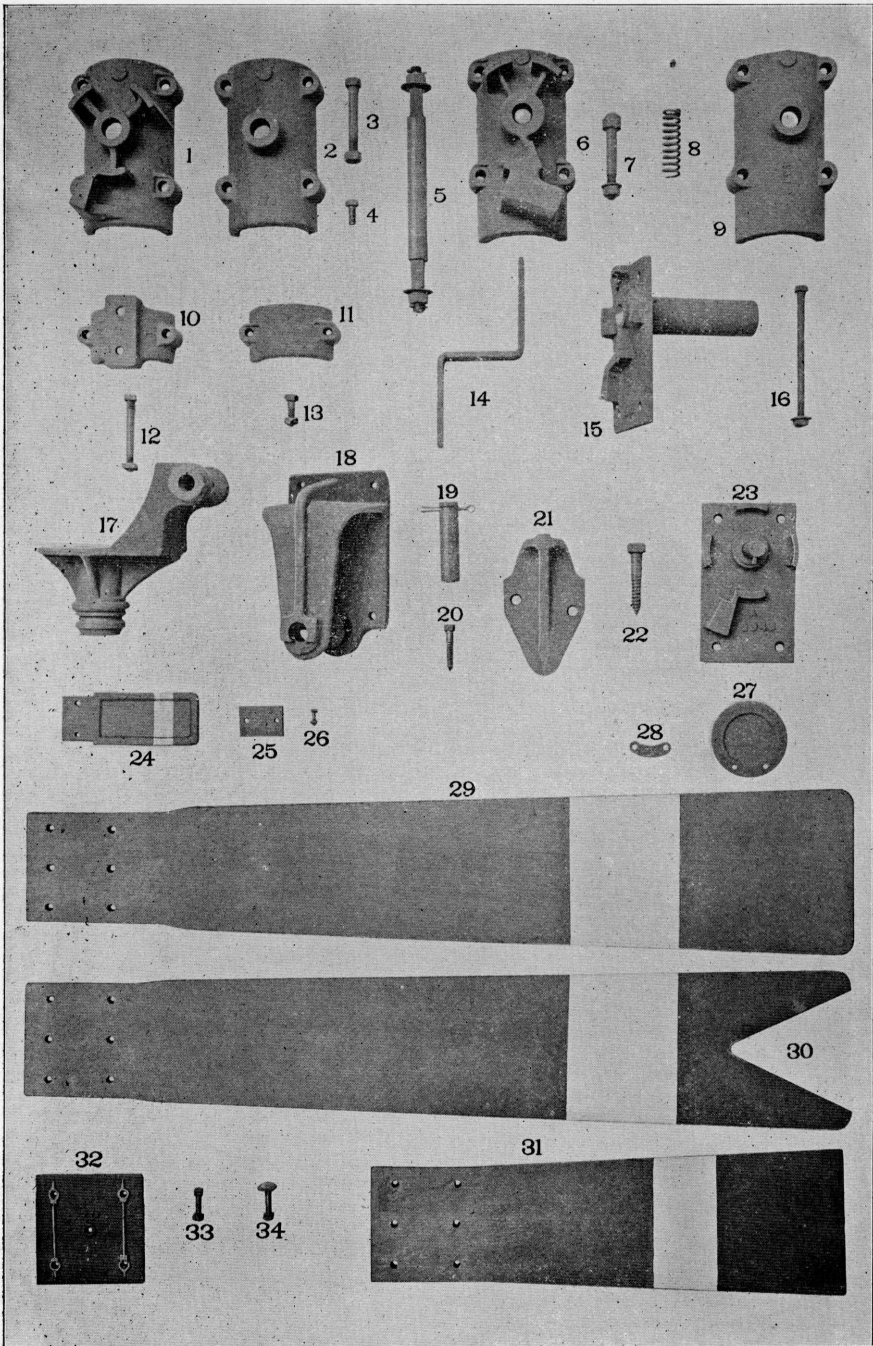
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
8	Back Spectacle, with rings, and bolts with nuts. For spectacle casting see Plate 449, No. 5. . . .	2 35
9	Back Spectacle, with ring and bolts with nuts. For spectacle casting see Plate 451, No. 3.	1 40
10	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 450, No. 6.	1 65
11	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 449, Nos. 1 and 3.	1 40
BACK SPECTACLE FOR DWARF SIGNALS.		
12	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, Nos. 2 and 12.	80
13	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, Nos. 1 and 7.	80
14	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, No. 8.	80
15	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, No. 3.	80
16	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, No. 18.	80

BACK SPECTACLE FOR HIGH SIGNALS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
17	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, No. 13.....	80
18	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, No. 11.....	80
19	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, No. 10.....	80
20	Back Spectacle, with ring and bolts with nuts. For spectacle casting see Plate 466, No. 17.....	1 05
21	Back Spectacle, with ring and bolts with nuts. For spectacle casting see Plate 466, Nos. 4, 9 and 14	85
22	Back Spectacle, with ring, bolts with nuts, stud, washer and cotter. For spectacle casting see Plate 466, No. 19.....	80
23	Back Spectacle, with ring and bolts with nuts. Escapement jaw. For spectacle casting see Plate 466, No. 15.....	1 25
24	Back Spectacle, with ring and bolts with nuts. Escapement jaw. For spectacle casting see Plate 466, No. 16.....	1 00
25	Back Spectacle, with ring and bolts with nuts. Escapement jaw. For spectacle casting see Plate 466, No. 5.....	90
26	Back Spectacle, with ring and bolts with nuts. For spectacle casting see Plate 466, No. 6.....	1 65



BEARINGS, BLADES, LAMP BRACKET AND SHAFT
(Details)

**BEARINGS, BLADES, LAMP BRACKET AND SHAFT
(Details)**

In ordering bearings always specify semaphore casting with which it is to be used.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
1	Front Clamp Bearing for Semaphore, using a shaft (4" section).....	1 90
1a	Front Clamp Bearing for Semaphore, using a shaft (5" section).....	1 90
1b	Front Clamp Bearing for Semaphore, using a stud (4" section).....	2 25
1c	Front Clamp Bearing for Semaphore, using a stud (5" section).....	2 25
2	Back Clamp for No. 1 (4" section).....	1 30
2a	Back Clamp for No. 1a (5" section).....	1 30
3	5/8"x4 1/2" Bolt and Nut.....	12
4	1/2"x1 1/4" Tap Bolt.....	03
5	Semaphore Shaft, with washers, nuts and cotters..	2 10
5a	Semaphore Stud, with washer and cotter.....	30
6	Front Clamp Bearing, as shown; for Semaphore, for spring stop (4" section).....	3 70
6a	Front Clamp Bearing, as shown; for Semaphore, for spring stop, with spring bolt and spring.....	5 05
6b	Front Clamp Bearing, as shown; for Semaphore, for spring stop, with spring bolt, spring, back clamp and bolts.....	6 50

BEARINGS, BLADES, LAMP BRACKET AND SHAFT
(Details)

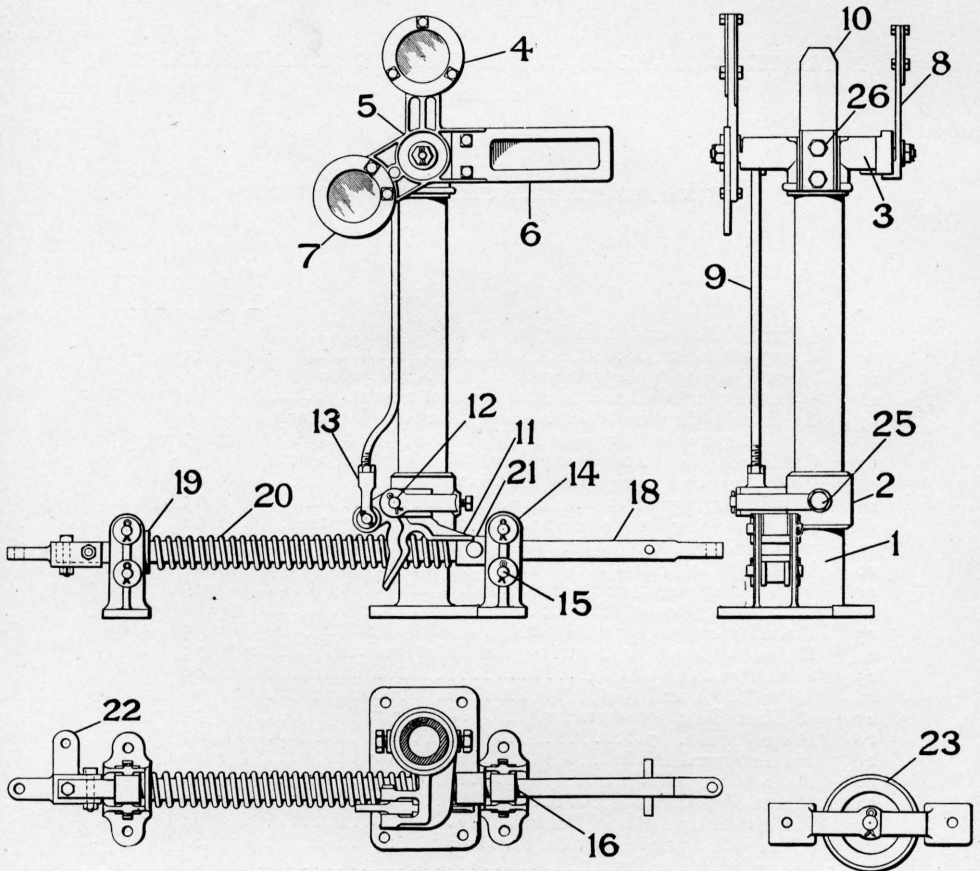
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
6c	Front Clamp Bearing, as shown; for Semaphore, for spring stop, (5" section).....	3 95
6d	Front Clamp Bearing, as shown; for Semaphore, for spring stop, with spring bolt and spring.....	5 30
6e	Front Clamp Bearing, as shown; for Semaphore, for spring stop, with spring bolt, spring, back clamp and bolts.....	6 90
6f	Same as 6a, arranged to use semaphore stud in bearing.....	5 40
6g	Same as 6b, arranged to use semaphore stud in bearing.....	6 85
6h	Same as 6c, arranged to use semaphore stud in bearing.....	4 30
6i	Same as 6d, arranged to use semaphore stud in bearing.....	5 65
6j	Same as 6e, arranged to use semaphore stud in bearing.....	7 25
7	Spring Bolt, with washer and nut.....	1 35
8	Spring for No. 7.....	36
9	Back Clamp for No. 6 (4" section).....	1 45
9a	Back Clamp for No. 6c (5" section).....	1 65
10	Lamp Bracket Clamp, (4" section).....	50
10a	Lamp Bracket Clamp (5" section).....	55
11	Back Clamp for No. 10 (4" section).....	30
11a	Back Clamp for No. 10a (5" section).....	35
12	1/2"x4 1/2" Bolt and Nut for Nos. 10-11-10a or 11a...	09

**BEARINGS, BLADES, LAMP BRACKET AND SHAFT
(Details)**

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
13	1/2"x1 1/2" Bolt and Nut for lamp bracket.....	06
14	Lamp Bracket	63
15	Horn Bearing for wood post.....	1 50
16	1/2"x8" Bolt, Washer and Nut for No. 15 or 23.....	13
17	Combined Cap and Semaphore Bearing for 1-arm flag station signal. See Plate 445.....	3 85
17a	Combined Cap and Semaphore Bearing for 2-arm flag station signal. See Plate 445.....	5 20
18	Hood Bearing for semaphore.....	2 65
18a	Hood Bearing for semaphore, with pin and cotter ..	2 90
19	1"x5" Pin and Cotter for No. 18.....	25
20	1/2"x2 1/2" Lag Screw.....	03
21	Stop for semaphore spectacle.....	45
22	3/4"x4" Lag Screw.....	09
23	Plate Bearing, with stud, washer and cotter.....	1 35
24	Rubber Blade for dwarf signal. Not painted.....	75
25	Steel Plate for No. 24.....	09
26	1/4"x1" Bolt and Nut.....	03
27	Rubber Disc for dwarf signal. Not painted.....	55
28	Plate for No. 27.....	03
29	Home Signal Blade.....	2 20
30	Distant Signal Blade.....	2 20
31	Route Signal Blade.....	2 00
32	Malleable Iron Blade Plate.....	45
33	3/8"x1 1/2" Square Head Bolt and Nut.....	04
34	3/8"x1 1/2" Blade Bolt.....	06



DWARF SIGNAL
Model No. 1

ONE ARM DWARF SIGNAL
(Spring Attachment)
Model 1

This dwarf signal as shown is arranged to operate with connections running at right angles to tracks.

It can also be furnished arranged for operation from connections running parallel with tracks.

Lamps, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses see Plate 482; for roundels see Plate 481. For dwarf signal foundations see Plates 225, 227, 228 and 229, Section 2.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	One Arm, Spring Attachment, Dwarf Signal, complete with fittings, lag screws, and 6" wheel as shown; 2' 4" from base to centre of blade; without lamp or glass (1-1a, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-18a, 1-23, 6-24, 1-27, 1-28)	23 30
A1	One Arm, Spring Attachment, Dwarf Signal, as per A, without wheel.....	22 00
A2	One Arm, Spring Attachment, Dwarf Signal, as per A, with 2-light 60° spectacle casting.....	23 85
B	One Arm, Spring Attachment, Dwarf Signal, with operating slide arranged for connections running parallel with tracks.....	23 30
B1	One Arm, Spring Attachment, Dwarf Signal, as per B, without wheel.....	22 00
B2	One Arm, Spring Attachment, Dwarf Signal, as per B, with 2-light 60° spectacle casting.....	23 85
1	Combination Base and Post	3 20
1a	Combination Base and Post with semaphore and crank bearings, pin, cotters and tap bolts....	7 45
2	Bearing for Crank.....	1 35
2a	Bearing for Crank, with tap bolts.....	1 41

ONE ARM DWARF SIGNAL
(Spring Attachment)
Model 1

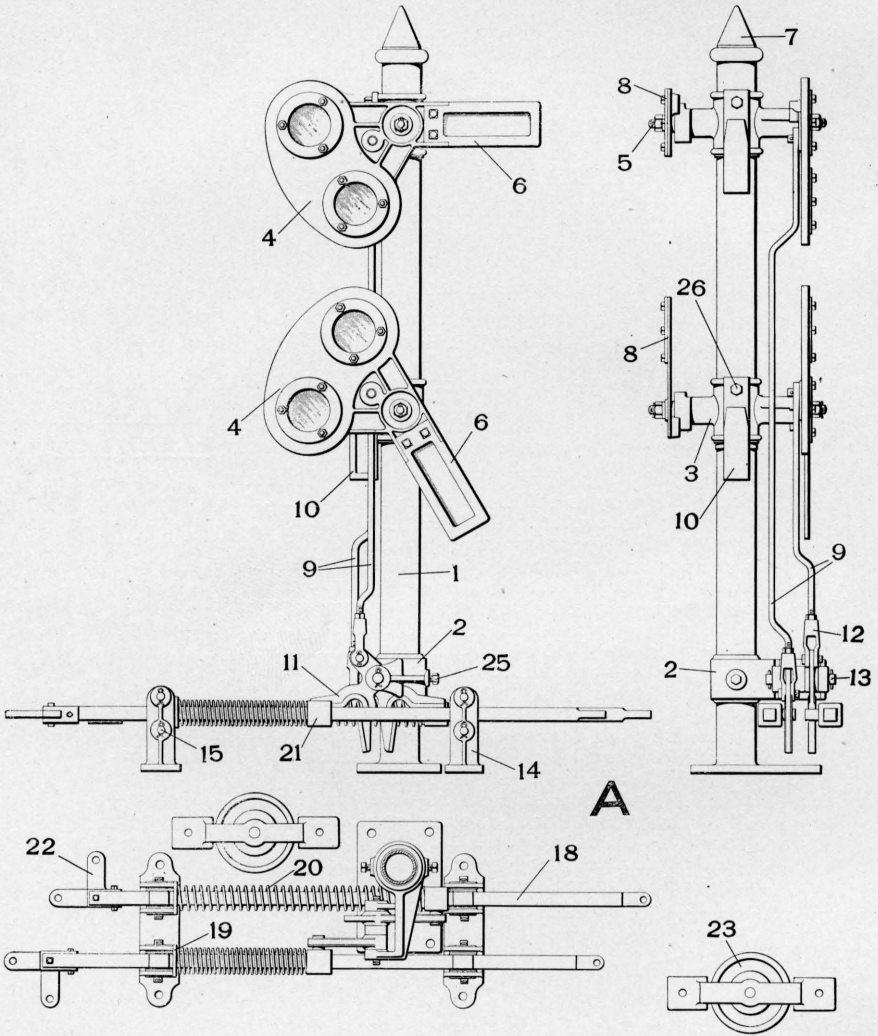
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
2b	Bearing for Crank, with tap bolts, pin and cotter..	I 50
3	Semaphore Bearing.....	I 45
3a	Semaphore Bearing, with tap bolts.....	I 51
3b	Semaphore Bearing, with tap bolts and lamp bracket	I 95
4	Spectacle, with ring, stud, bolts with nuts, washer and cotter.....	I 35
5	Semaphore Shaft, with nuts, washers and cotters..	I 35
5a	Semaphore Shaft.....	I 20
5b	Nut for No. 5a.....	04
5c	Washer for No. 5a.....	01
6	Rubber Blade, with clip plate and bolts with nuts. For details see Plate 454.....	90
7	Rubber Disc, with clip and bolts with nuts. For details see Plate 454.....	65
8	Back Spectacle, with ring and bolts with nuts. For details see Plate 453.....	80
9	Up and Down Rod, with eye, screw jaw, pin and cotter.....	90
10	Lamp Bracket.....	39
11	Escapement Crank.....	45
12	$\frac{5}{8}$ "x $3\frac{1}{4}$ " Centre Pin, for No. 11.....	06
13	$\frac{1}{2}$ " Screw Jaw, pin and cotter. For details see Plate 200.....	36
14	Special Guide Stand.....	55

ONE ARM DWARF SIGNAL
(Spring Attachment)
Model 1

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
14a	Special Guide Stand, with rollers, pins and cotters.	1 40
15	$\frac{5}{8}$ "x $3\frac{1}{2}$ " Pin, with cotters, for No. 14.....	06
16	Roller for No. 14.....	24
17	$\frac{1}{2}$ "x $2\frac{1}{2}$ " Lag Screw for No. 14.....	03
18	Operating Shaft, with eye.....	1 20
18a	Operating Shaft, with double lug, bolts with nuts, spring plate, spring, trunnion block, guides and lag screws.....	6 25
19	Spring Plate for No. 18.....	15
20	Spring for No. 18.....	70
21	Trunnion Block for No. 18.....	27
22	Double Lug for No. 18.....	20
22a	Double Lug with bolts and nuts for No. 18.....	28
22b	$\frac{3}{8}$ "x2" Bolt for No. 22.....	04
22c	$\frac{3}{8}$ "x $1\frac{3}{4}$ " Bolt for No. 22.....	04
23	6" Wheel and Stand. For details see Plate 219....	1 14
24	$\frac{3}{4}$ "x4" Lag Screw for Nos. 1 and 23.....	09
25	$\frac{1}{2}$ "x1" Tap Bolt for No. 2.....	03
26	$\frac{1}{2}$ "x $1\frac{1}{2}$ " Tap Bolt for Nos. 3 and 10.....	03
27	Tortion Spring for Semaphore Shaft.....	51
28	Tortion Spring Block.....	06



TWO ARM DWARF SIGNAL
(Spring Attachment)
Model 2

TWO ARM DWARF SIGNAL
(Spring Attachment)
Model 2

This dwarf signal as shown is arranged to operate with connections running at right angles to tracks.

It can also be furnished arranged for operation from connections running parallel with tracks.

Lamps, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481. For dwarf signal foundations see Plates 225, 227, 228 and 229, Section 2.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Two Arm, Spring Attachment, Dwarf Signal, complete with fittings, lag screws and 6" wheels as shown; 3' 11" from base to centre of upper blade; without lamp or glass (1-1a, 2-4, 2-5, 2-6, 1-7, 2-8, 1-9, 1-9a, 2-10, 2-11, 1-18a, 2-23, 8-24, 2-27, 2-28).....	42 65
A1	Two Arm, Spring Attachment, Dwarf Signal, as per A, without wheels.....	40 00
A2	Two Arm, Spring Attachment, Dwarf Signal, as per A, with 1-light spectacle.....	41 55
B	Two Arm, Spring Attachment, Dwarf Signal, with operating slide arranged for connections running parallel with track.....	42 65
B1	Two Arm, as per B, without wheel.....	40 00
B2	Two Arm, as per B, with 1-light spectacle.....	41 55
1	Combination Base and Post.....	3 20
1a	Combination Base and Post, with semaphore and crank bearings, pins, cotters and tap bolts..	12 00
2	Two Way Crank Bearing.....	1 55
2a	Two Way Crank Bearing, with tap bolts.....	1 61
2b	Two Way Crank Bearing, with tap bolts, pin and cotter.....	1 70

TWO ARM DWARF SIGNAL
(Spring Attachment)
Model 2

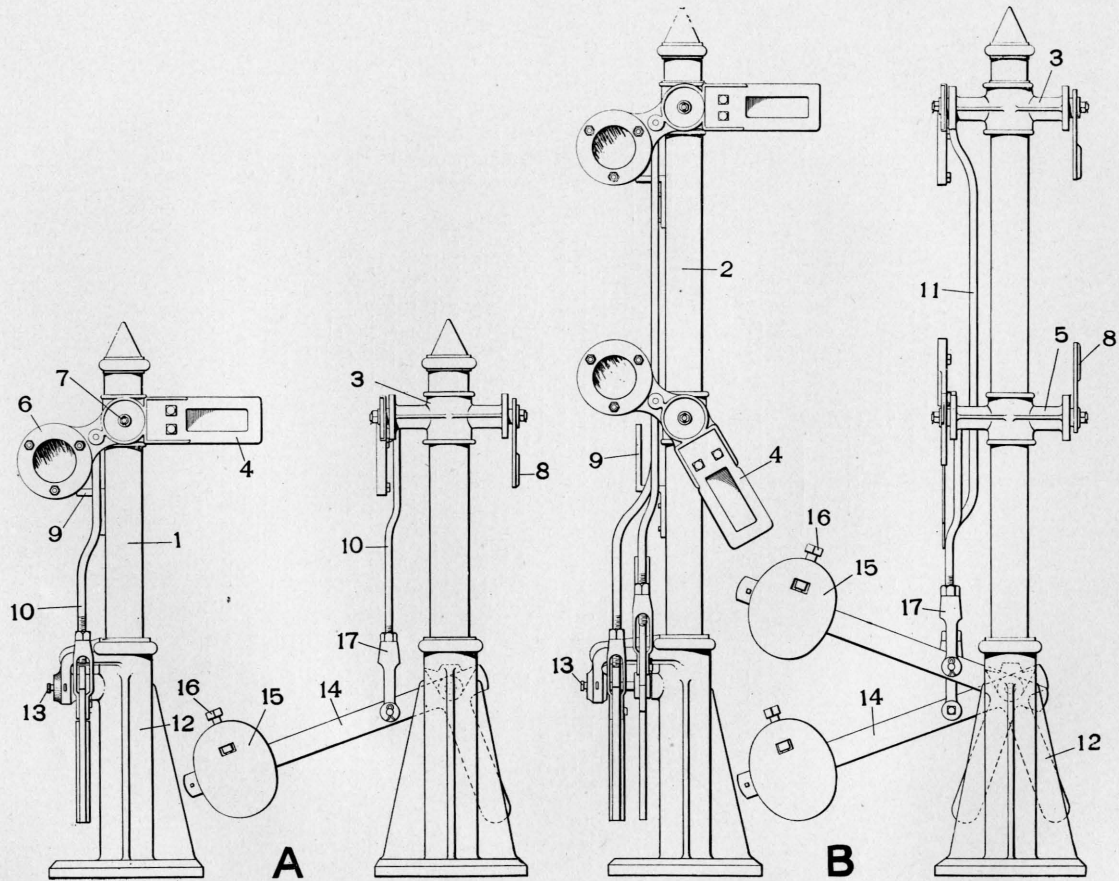
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
3	Lower Bearing.....	2 55
3a	Semaphore Bearing, with tap bolts.....	2 61
3b	Semaphore Bearing, with tap bolts and lamp bracket	3 05
4	Spectacle, with rings, stud, bolts with nuts, washer and cotter.....	1 90
5	Semaphore Shaft, with nuts, washers and cotters....	1 35
6	Rubber Blade, with clip plate and bolts. For details see Plate 454.....	90
7	Top Bearing and Pinnacle.....	1 90
8	Back Spectacle, with ring and bolts with nuts. For details see Plate 453.....	80
9	Up and Down Rod, with eye, screw jaw, pin and cotter for lower blade. For details see Plate 453.....	95
9a	Up and Down Rod, for upper blade, with eye, screw jaw, pin and cotter. For details see Plate 453.	1 10
10	Lamp Bracket.....	39
11	Escapement Crank.....	45
12	1/2" Screw Jaw, Pin and Cotter. For details see Plate 200.....	36
13	5/8"x5" Centre Pin for No. 11.....	08
14	Special 2-way Guide Stand.....	1 10
14a	Special 2-way Guide Stand, with rollers, pins and cotters.....	2 80

TWO ARM DWARF SIGNAL
(Spring Attachment)
Model 2

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
15	$\frac{5}{8}$ "x $3\frac{1}{2}$ " Pin, with cotters for No. 14.....	06
16	Rollers for No. 14.....	24
17	$\frac{1}{2}$ "x $2\frac{1}{2}$ " Lag Screw for No. 14.....	03
18	Operating Shaft with eye.....	1 20
18a	Two Operating Shafts, with lugs, bolts with nuts, spring plates, springs, trunnion blocks, guide stands and lag screws.....	12 35
19	Spring Plate for No. 18.....	15
20	Spring for No. 18.....	70
21	Trunnion Block for No. 18.....	27
22	Double Lug for No. 18.....	20
22a	Double Lug, with bolts.....	28
22b	$\frac{3}{8}$ "x2" Bolt for No. 22.....	04
22c	$\frac{3}{8}$ "x $1\frac{3}{4}$ " Bolt for No. 22.....	04
23	6" Wheel and Stand.....	1 14
24	$\frac{3}{8}$ "x4" Lag Screw for Nos. 1 and 23.....	09
25	$\frac{1}{2}$ "x1" Tap Bolt for No. 2.....	03
26	$\frac{1}{2}$ "x $1\frac{1}{2}$ " Tap Bolt for Nos. 3 and 10.....	03
27	Tortion Spring for semaphore shaft.....	51
28	Tortion Spring Block.....	06



ONE AND TWO ARM DWARF SIGNALS
Models 3 and 4

ONE AND TWO ARM DWARF SIGNALS
Models 3 and 4

Lamps, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481. For dwarf signal foundations see Plates 225, 227, 228 or 229.

ORDER BY PLATE, NUMBER AND LETTER

		List Price
No.		
A	One Arm Dwarf Signal, complete with fittings as shown; 3' 0" high; no lamps or glass (1-1a, 1-4, 1-6, 1-7, 1-8, 1-9a, 1-10, 1-14a).....	24 40
A1	As per A, with 1-way 6" vertical wheel. For details see Plate 223.....	25 65
A2	As per A, with 2-light spectacle. For details see Plate 466.....	26 20
B	Two Arm Dwarf Signal, complete with fittings as shown; 5' 0" high (1-2a, 2-4, 2-6, 2-8, 2-9a, 1-10, 1-11, 2-14a).....	40 40
B1	As per B, with 2-way 6" vertical wheel. For details see Plate 223.....	42 05
B2	As per B, with 2-light spectacles. For details see Plate 466.....	41 50
1	Iron Pipe Post for A.....	1 45
1a	Iron Pipe Post, as per No. 1, with base, pin, cotter. semaphore bearing and pinnacle.....	15 90

ONE AND TWO ARM DWARF SIGNALS
Models 3 and 4

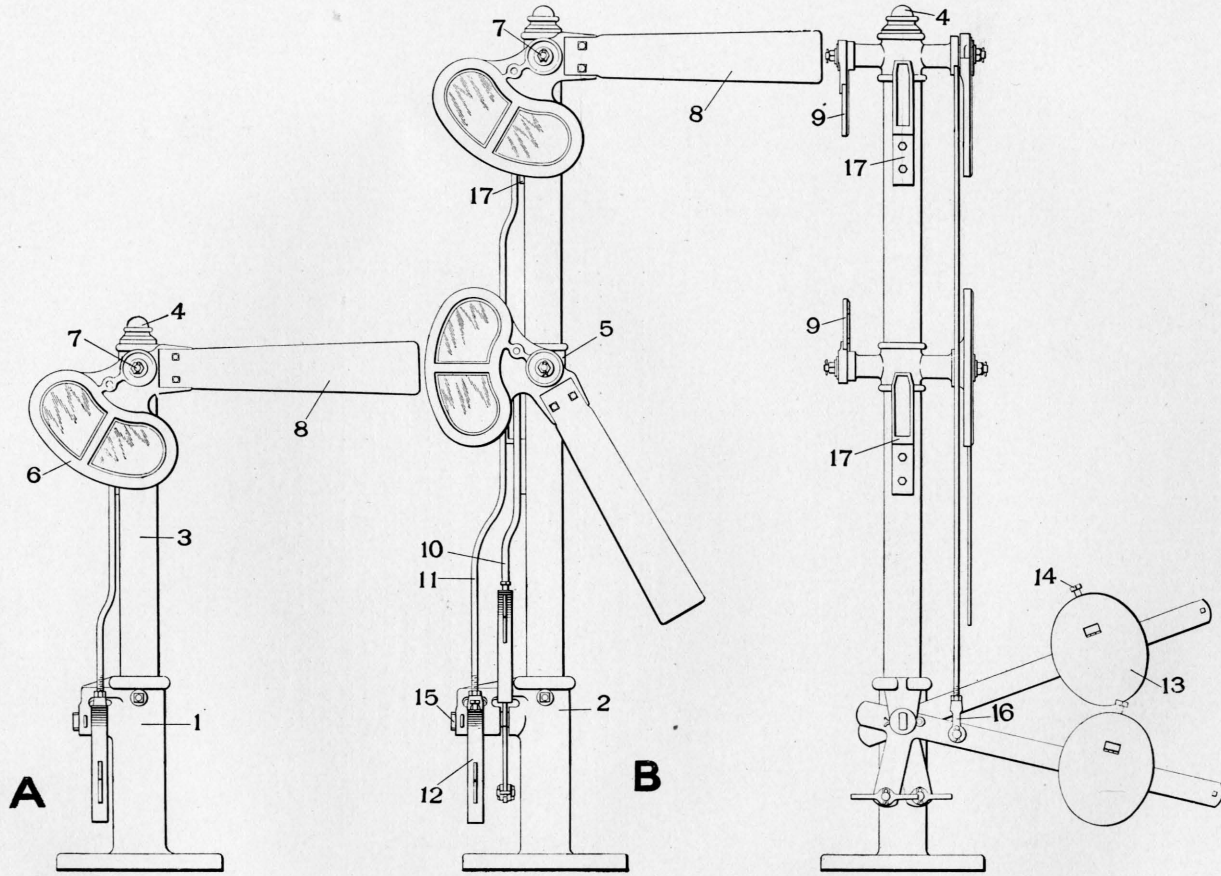
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
2	Iron Pipe Post for B.	2 65
2a	Iron Pipe Post, as per No. 2, with base, pin, cot- ter, semaphore bearings, and pinnacle.....	25 15
3	Semaphore Bearing and Pinnacle for A or B.....	1 60
4	Rubber Blade, with plate and bolts with nuts. For details see Plate 454.....	90
5	Semaphore Bearing for B.....	1 45
6	Spectacle, with rings, bolts with nuts, stud, washer and cotter. For details see Plate 466.....	1 35
7	Semaphore Shaft, with nuts, washers and cotters..	1 40
7a	Semaphore Shaft.....	1 30
7b	Nut for No. 7.....	.04
7c	Washer for No. 7.....	01
8	Back Spectacle, with ring and bolts with nuts. For details see Plate 453.....	85
9	Lamp Bracket.....	35
9a	Lamp Bracket, with tap bolts.....	40
9b	Tap Bolt. $\frac{1}{2}$ "x1", for No. 9.....	03

ONE AND TWO ARM DWARF SIGNALS
Models 3 and 4

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
10	Up and Down Rod (short) for A or B, with eye, screw jaw, pin and cotter.....	1 10
11	Up and Down Rod (long) for B, with eye, screw jaw, pin and cotter.....	1 25
12	Base Casting for A.....	5 85
12a	Base Casting, as per No. 12, with pin, cotter, balance levers and counterweights.....	11 40
12b	Base Casting for B.....	6 00
12c	Base Casting, as per No. 12b, with pin, cotter, balance levers and counterweights.....	17 05
13	Pin for No. 12.....	21
13a	Pin for No. 12b.....	26
14	L Balance Lever, with stop bolt.....	2 95
14a	L Balance Lever, with counterweight and bolts....	5 16
15	Counterweight (20-lb.) with bolt and nut.....	1 95
16	Bolt for counterweight.....	10
17	3/4" Screw Jaw, with pin and cotter. For details see Plate 200.....	43
18	3/4"x4" Lag Screw for Nos. 12 or 12a.....	09



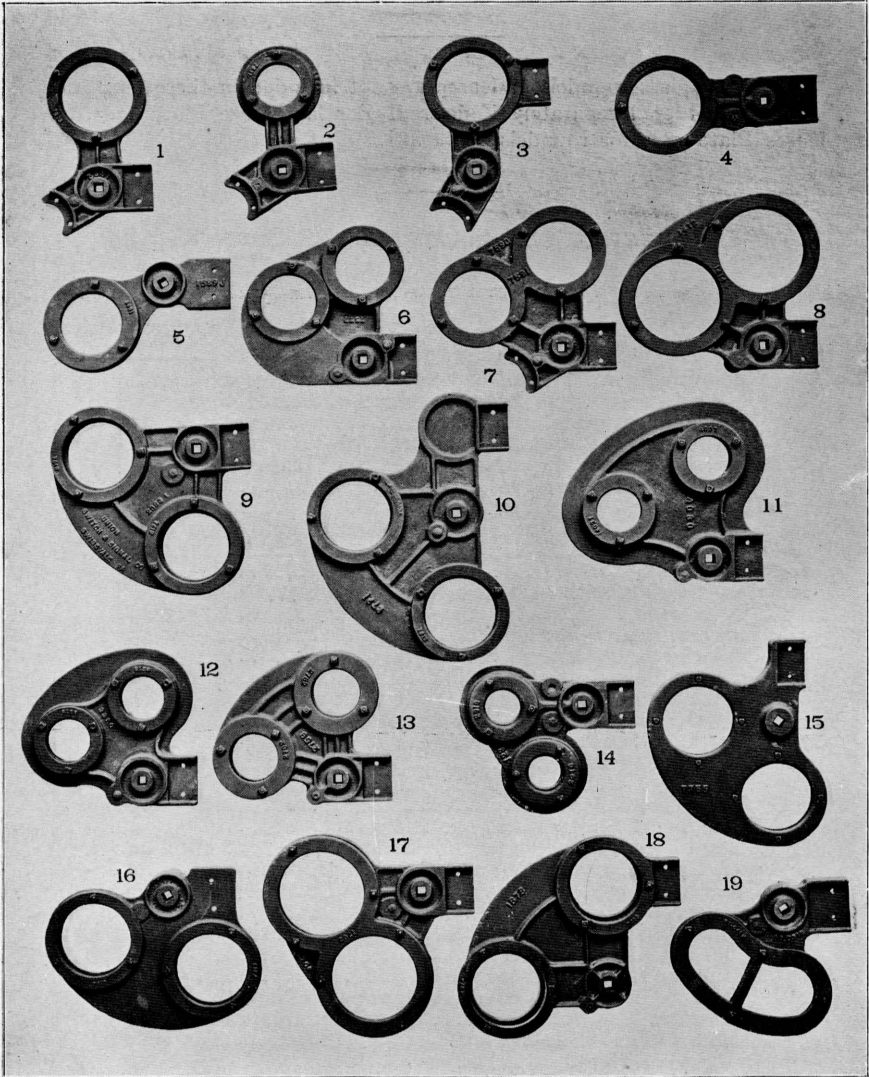
ONE AND TWO ARM DWARF SIGNALS
(Elevated Railroad Type) Models 5 and 6

ONE AND TWO ARM DWARF SIGNALS
(Elevated Railroad Type)
Models 5 and 6

Lamps, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	One Arm Dwarf Signal, complete with fittings as shown; 4' from base to centre of blade; no lamps or glass.....	27 45
B	Two Arm Dwarf Signal, complete with fittings as shown; 5' 7" from base to centre of blade; no lamps or glass.....	41 20
1	Base Casting for A.....	5 10
1a	Base Casting, with post, bearings, pinnacle and set screws.....	11 00
2	Base Casting for B.....	5 75
2a	Base Casting, with post, bearings, pinnacle and set screws.....	13 35
3	Post and Bearing for A.....	4 95
4	Pinnacle.....	35
5	Post and Bearings for B.....	6 70
6	Spectacle Casting, with ring, bolts with nuts, stud, washer and cotter. For details see Plate 466..	1 65
7	Semaphore Shaft, with nuts, washers and cotters..	1 40
7a	Semaphore Shaft.....	1 30
7b	Nut for No. 7a.....	04
7c	Washer for No. 7a.....	01
8	Home Signal Blade, with bolts and nuts.....	1 40
8a	Distant Signal Blade, with bolts and nuts.....	1 40
9	Back Spectacle, with ring and bolts with nuts.....	85
10	Up and Down Rod (short) for A and B, with eye, screw jaw, pin and cotter.....	1 30
11	Up and Down Rod (long) for B, with eye, screw jaw, pin and cotter.....	1 45
12	L Balance Lever, with stop bolt.....	3 30
12a	L Balance Lever, with counterweight and bolts with nuts.....	5 55
13	Counterweight, with bolt and nut.....	1 95
14	Bolt and Nut for counterweight.....	10
15	Pin with cotter for No. 1.....	21
15a	Pin with cotter for No. 2.....	26
16	3/4" Screw Jaw, with pin and cotter. For details see Plate 200.....	43
17	Lamp Bracket.....	35
17a	1/2"x1 1/2" Tap Bolt for No. 17.....	03



DWARF SIGNAL SPECTACLE CASTINGS

DWARF SIGNAL SPECTACLES

No glass included in this list.
 For glass roundels see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
1	Two Position 60° One Light Spectacle, with ring, bolts with nuts, stud, washer and cotter (takes 5 3/8" glass). For backlight see Plate 453, No. 13.....	1 30
2	Two Position 60° One Light Spectacle, with ring, bolts with nuts, stud, washer and cotter (takes 3 1/2" glass). For backlight see Plate 453, No. 12.....	1 35
3	Two Position 90° One Light Spectacle, with ring, bolts with nuts, stud, washer and cotter (takes 5 3/8" glass). For backlight see Plate 453, No. 15.....	1 30
4	Two Position 60° One Light Spectacle, with ring, bolts with nuts, stud, washer and cotter (takes 5 3/8" glass). For backlight see Plate 453, No. 21.....	1 35
5	Two Position 60° One Light Spectacle, with ring, bolts with nuts, stud, washer and cotter (takes 5" glass). For backlight see Plate 453, No. 25.	1 35
5a	Two Position 60° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 4" glass). For backlight see Plate 453, No. 25.	2 10
6	Two Position 52° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 4 1/4" glass). For backlight see plate 453, No. 26.....	2 00

DWARF SIGNAL SPECTACLES

No glass included in this list.
 For glass roundels see Plate No. 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
7	Two Position 60° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 5" glass). For backlight see Plate 453, No. 13.	1 95
8	Two Position 60° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 6½" glass). For backlight see Plate 453, No. 14.	2 05
9	Two Position 85° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 5⅝" glass). For backlight see Plate 453, No. 21.	1 90
10	Two Position 90° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 5⅝" glass). For backlight see Plate 453, No. 19.	2 00
11	Two Position 60° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 3½" glass). For backlight see Plate 453, No. 18.	1 95
12	Two Position 60° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 3½" glass). For backlight see Plate 453, No. 12.	1 70
13	Two Position 75° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 3" glass). For backlight see Plate 453, No. 17.	1 90

DWARF SIGNAL SPECTACLES

No glass included in this list.
 For glass roundels see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
14	Two Position 60° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 3" glass). For backlight see Plate 453, No. 21.	1 80
15	Two Position 90° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 5 3/8" glass). For backlight see Plate 453, No. 23.....	3 10
16	Two Position 90° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 5 3/8" glass). For backlight see Plate 453, No. 24.....	1 90
17	Two Position 60° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 6 3/4" glass). For backlight see Plate 453, No. 20.....	1 80
18	Two Position 90° Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter (takes 5 3/8" glass). For backlight see Plate 453, No. 16.....	2 00
19	Two Position 60° Continuous Two Light Spectacle, with rings, bolts with nuts, stud, washer and cotter. For backlight see Plate 453, No. 22...	1 65



1



2



3



4

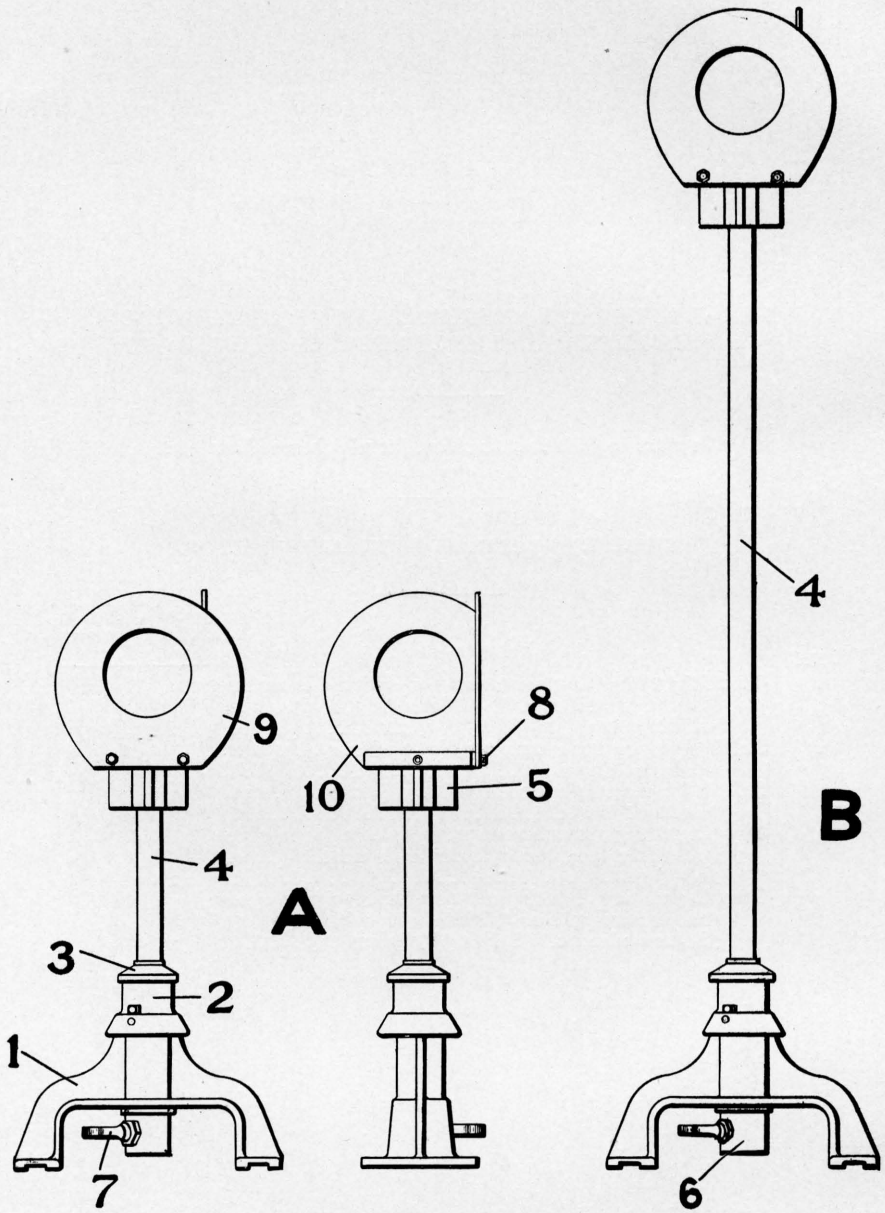
TWO-LIGHT ATTACHMENTS, AND SHIELD FOR SEMAPHORE
SPECTACLE CASTINGS

**TWO-LIGHT ATTACHMENTS, AND SHIELD FOR
SEMAPHORE SPECTACLE CASTINGS**

No glass included in this list, for which see Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price	
1	Two Light 45° Attachment for spectacle casting No. 1, Plate 449, with lens ring, bolts, nuts and rivets. (Takes 6½" glass).....	2	25
2	Shield for spectacle casting No. 1, Plate 449, with bolts and nuts.....	1	60
2a	Shield for spectacle casting No. 3, Plate 449, with bolts and nuts.....	1	60
3	Two Light 60° Attachment for spectacle casting No. 3, Plate 449, with bolts and nuts. (Takes 6½" glass).....	1	65
4	Two Light 60° Attachment for dwarf signal spectacle casting No. 1, Plate 466, with lens ring, bolts and nuts. (Takes 5¾" glass).....	1	60



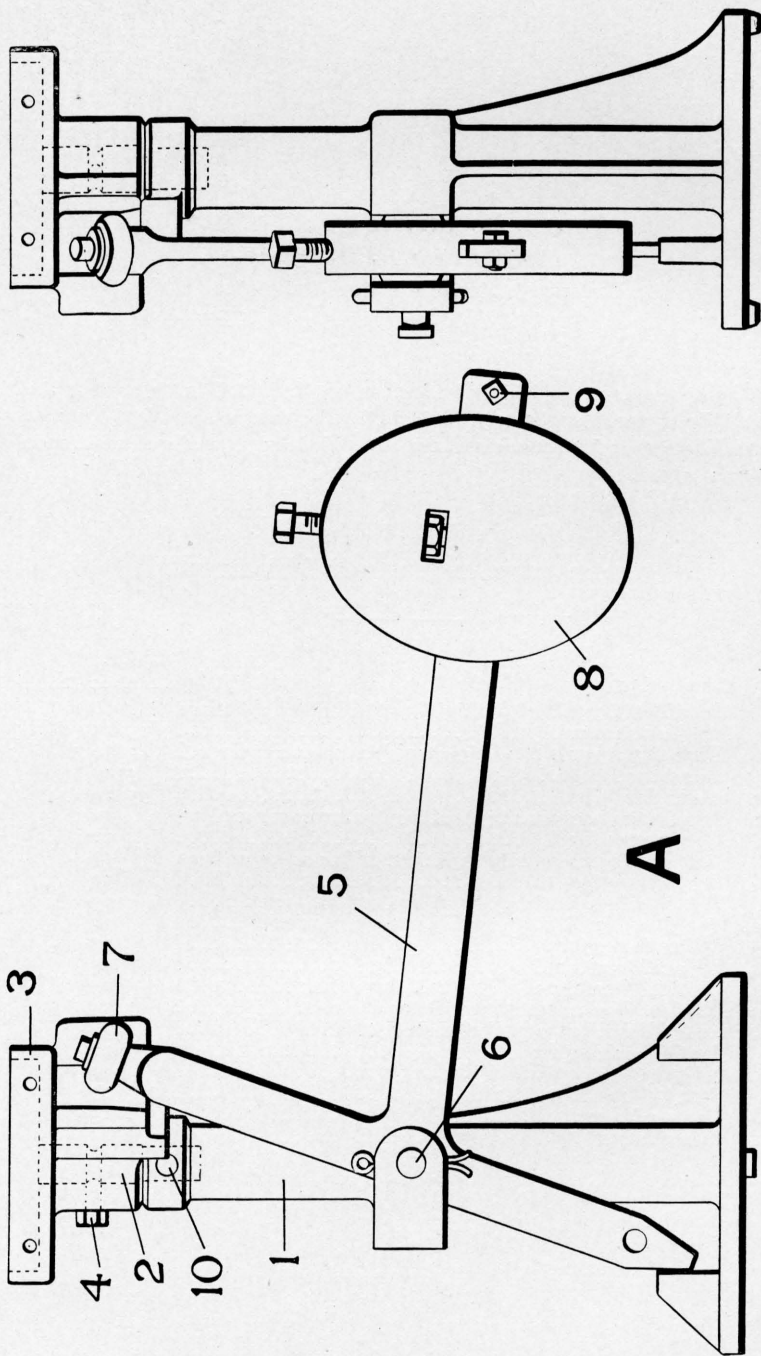
HIGH AND LOW POT SIGNALS
Models 1 and 2

HIGH AND LOW POT SIGNALS
(Manhattan R. R. Type)
Models 1 and 2

Lamps, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481. Model 1, low signal and Model 2, high signal.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Low Pot Signal, 2' 9" high, complete with fittings as shown	15 15
B	High Pot Signal, 6' 1" high, complete with fittings..	23 30
1	Stand for A.....	3 45
1a	Stand for B.....	5 16
1b	Stand with top bearing bushing, collar cover and set screw for A.....	4 50
1c	Stand with top bearing bushing, collar cover and set screw for B.....	6 50
2	Top Bearing Bushing, with set screws for A.....	75
2a	Top Bearing Bushing, with set screws for B.....	90
3	Collar Cover for A.....	15
3a	Collar Cover for B.....	45
4	Vertical Shaft, with eye bolt for A.....	3 25
4a	Vertical Shaft, with eye bolt and pipe for B.....	7 55
5	Lamp Base, with tap bolts and set screw.....	1 38
6	Crank Bushing for B	3 36
7	Adjustable Eye Bolt with lock nut	90
8	$\frac{3}{8}$ "x $\frac{3}{4}$ " Tap Bolt.....	93
9	Danger Target.....	1 15
10	Clear Target	1 15



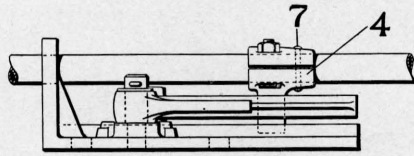
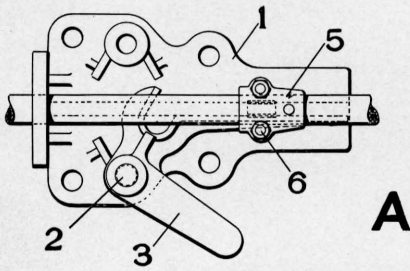
COMPENSATING POT SIGNAL
Model 1

COMPENSATING POT SIGNAL
Model 1

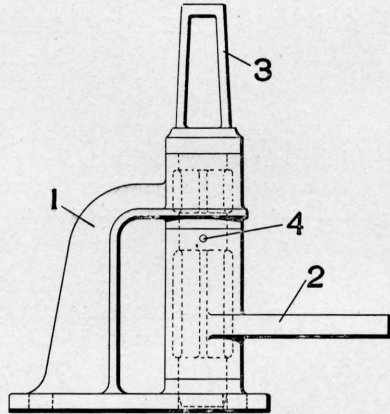
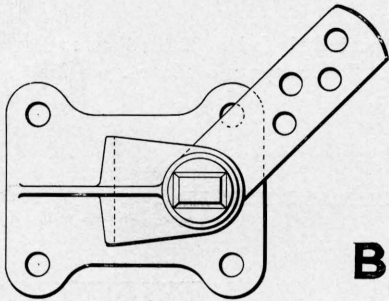
Lamps, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Compensating Pot Signal, 2' 9" high, complete with fittings as shown (1-1a, 1-3, 1-5a).....	26 00
1	Stand.....	5 40
1a	Stand, with stud, rivet, pin and cotter.....	6 40
2	1 1/4"x4 1/8" stud.....	50
3	Lamp Base, with set screws.....	3 00
4	3/8"x1 1/2" Set Screw.....	04
5	Balance Lever.....	7 98
5a	Balance Lever, with roller, cotter and stop bolt with nut.....	9 00
6	1"x4" Pin for balance lever.....	21
7	2"x1"x3/4" Roller.....	75
8	18-lb Counterweight.....	1 55
9	Stop Bolt with nut.....	02
10	3/8" Dowel Pin for No. 1.....	03
11	Danger Target (see No. 9 Plate 471).....	1 15
12	Clear Target (see No. 10 Plate 471).....	1 15
13	3/8"x3/4" Tap Bolt (see No. 8 Plate 471).....	03

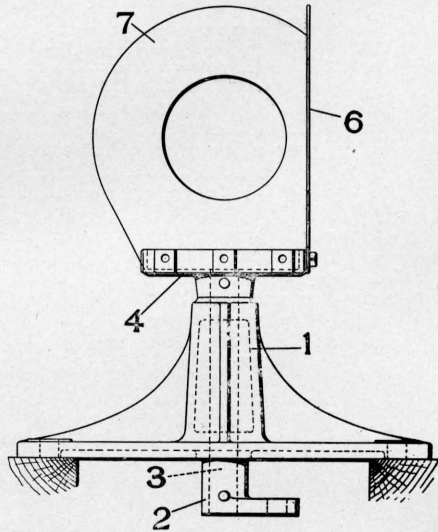
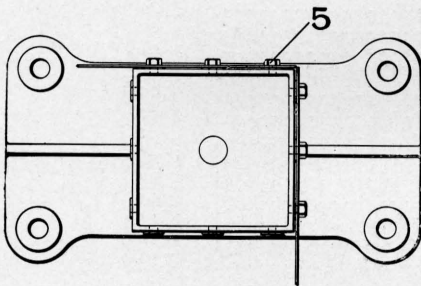


A



B

Model 4



C

Model 3

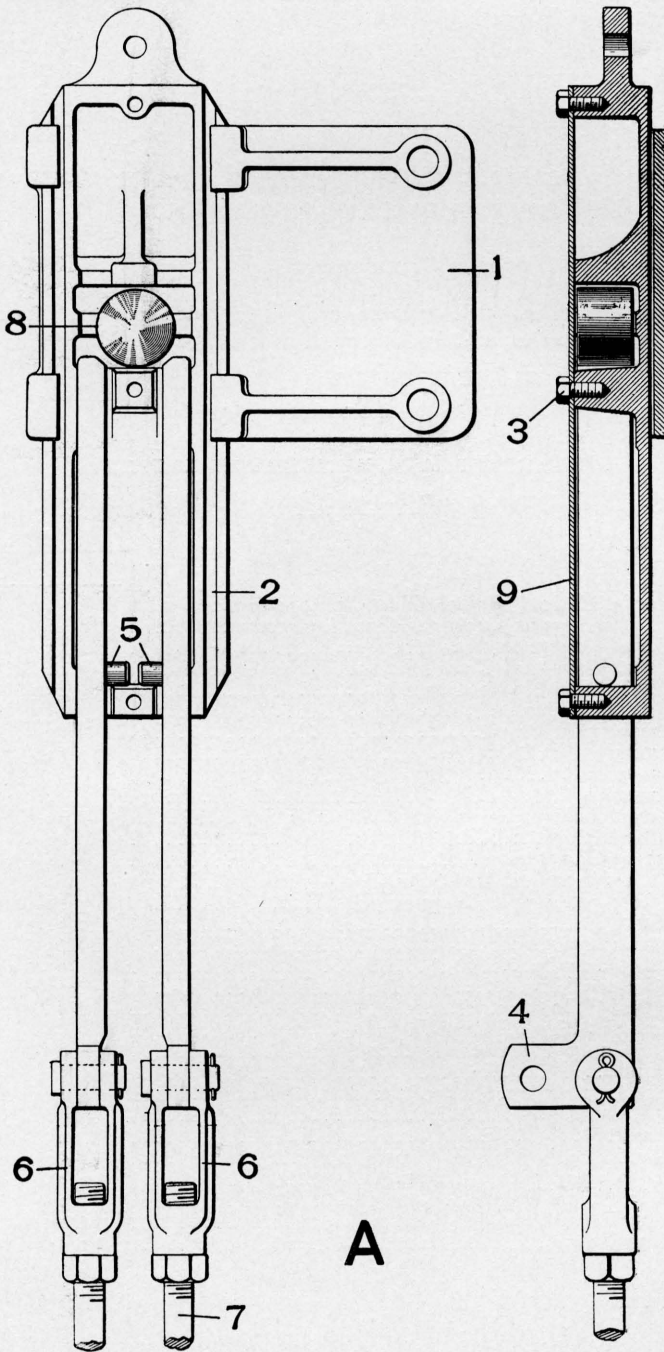
LOW POT SIGNALS, MODELS 3 AND 4, AND SPECIAL DWARF SIGNAL MOVEMENT

**LOW POT SIGNALS, MODELS 3 AND 4, AND SPECIAL
DWARF SIGNAL MOVEMENT**

Lamps, glass roundels or lenses are not included in these lists and should be ordered separately if desired. For lamps see Plate 479; for lenses Plate 482; for roundels Plate 481.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Special Dwarf Signal Movement, complete with fittings as shown; without lag screws.....	5 30
1	Signal Movement Stand.....	2 55
1a	Signal Movement Stand, with stud, washer and cotter	3 00
2	1"x3½" Stud, with cotter.....	45
2a	Washer for No. 2.....	03
3	Escapement Crank.....	85
4	Trunnion, with cap, bolts and rivet.....	82
4a	Trunnion.....	32
5	Trunnion Cap.....	24
6	½"x1" Bolt with nut for fastening trunnion.....	06
7	¼"x1" Rivet.....	01
8	¾"x4" Lag Screw.....	09
B	Malleable Switch Light Stand, complete with fittings as shown; no lamp or glass.....	3 10
1	Stand.....	1 50
2	Crank Arm.....	65
3	Lamp Spindle.....	95
4	¾" Dowel Pin.....	03
5	½"x2½" Lag Screw.....	03
C	Low Pot Signal, complete with fittings as shown; no lamp or lag screws.....	12 25
1	Stand.....	3 60
1a	Stand, with crank shaft, crank, dowel pins and lamp base.....	9 90
2	Crank.....	45
3	Crank Shaft, with 2¾" dowel pins.....	60
4	Lamp Base, with tap bolts.....	2 15
5	¾"x¾" Tap Bolt.....	03
6	Danger Target.....	1 15
7	Clear Target.....	1 15

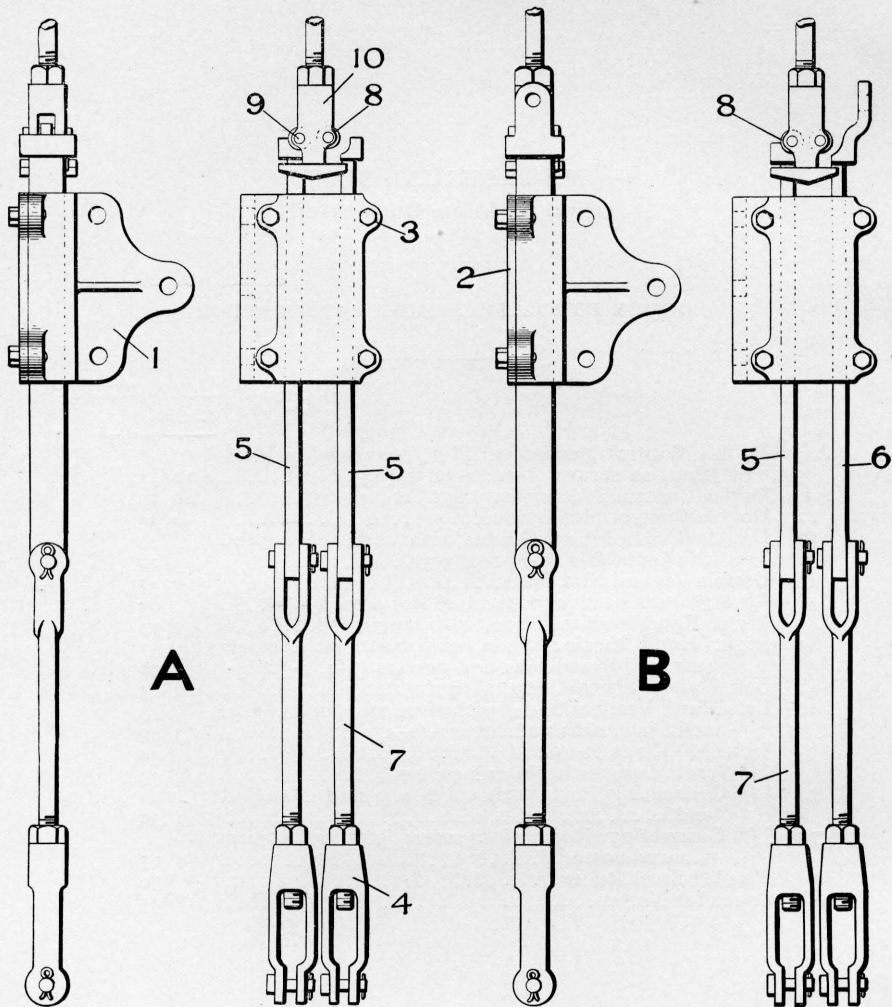


MECHANICAL SLOT
(Pipe or Wire Connected)

MECHANICAL SLOT
(Pipe or Wire Connected)

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Double Control Mechanical Slot, complete with fittings as shown (1-1a, 1-4a, 1-4c, 1-8).....	12 95
A1	Triple Control Mechanical Slot, complete.....	26 75
1	Double Control Slot Guide.....	2 30
1a	Double Control Slot Guide, with slide, cover and tap bolts (1-1, 1-2, 1-9, 3-3).....	5 20
2	Double Control Slot Slide.....	2 45
3	$\frac{3}{8}$ "x $\frac{5}{8}$ " Tap Bolt for fastening No. 9 to No. 2....	03
4	Right Hand Vertical Slide, with rivet stop.....	2 15
4a	Right Hand Vertical Slide, with rivet stop, screw jaw, solid jaw, pins and cotters (1-4, 1-7a)....	3 90
4b	Left Hand Vertical Slide, with rivet stop.....	2 15
4c	Left Hand Vertical Slide, with rivet stop, screw jaw, solid jaw, pins and cotters (1-4, 1-7a).....	3 90
5	$\frac{5}{8}$ "x1 $\frac{3}{8}$ " Rivet Stop.....	24
6	$\frac{3}{4}$ " Screw Jaw, with pin and cotter.....	43
7	$\frac{3}{4}$ " Connecting Rod, with solid jaw and threaded end.....	1 30
7a	$\frac{3}{4}$ " Connecting Rod, with screw jaw, solid jaw, pin and cotter.....	1 75
8	2"x1 $\frac{1}{2}$ " Steel Roller.....	30
9	Cover for No. 2.....	25

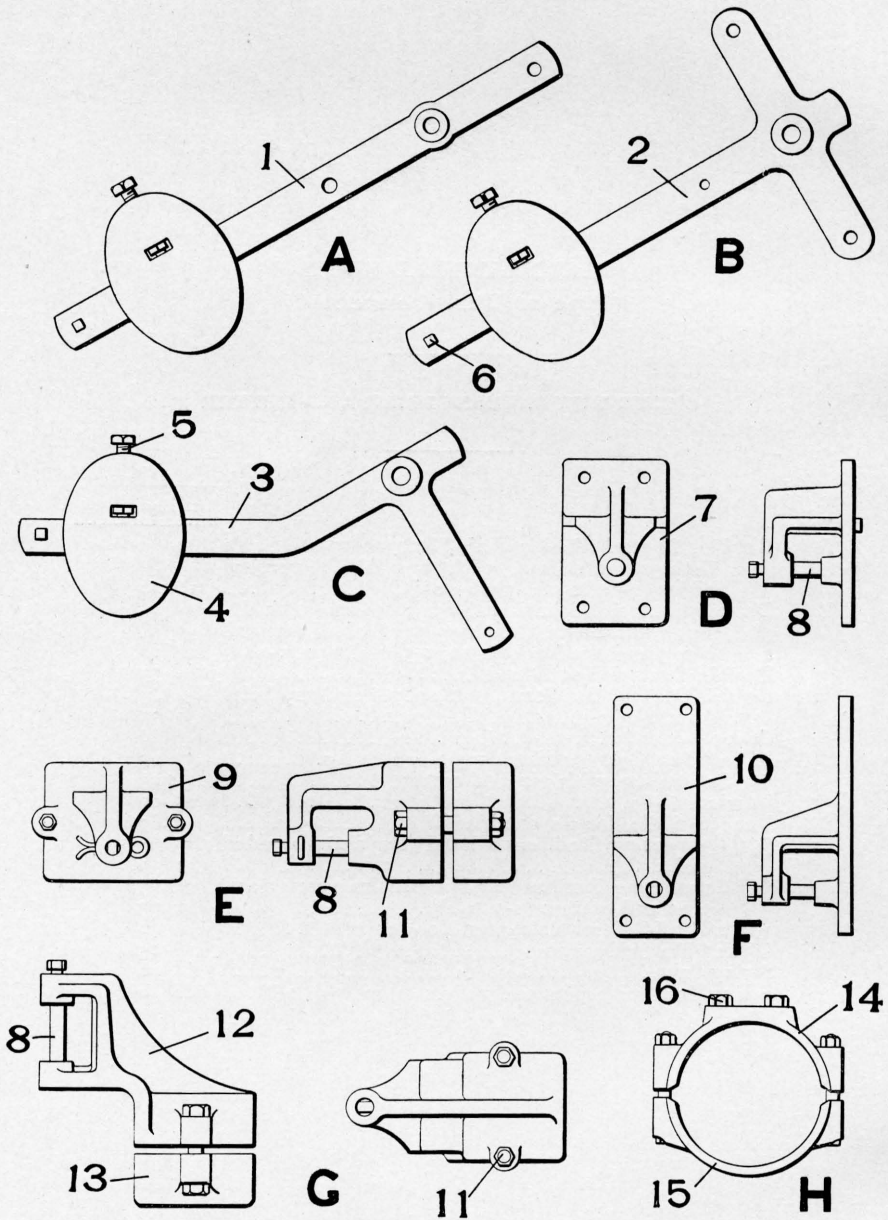


MECHANICAL SLOT
(Pipe or Wire Connected)

MECHANICAL SLOT
(Pipe or Wire Connected)

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Double Control Mechanical Slot, complete with fittings, as shown, with two (No. 5) vertical slides (1-1a, 2-5, 2-7a, 1-10a).....	16 20
B	Double Control Mechanical Slot, complete with fittings as shown, with two vertical slides, one No. 5 and one No. 6 (1-1a, 1-5, 1-6, 2-7a, 1-10a)	18 10
1	Double Control Slot Stand.....	1 75
1a	Double Control Slot Stand, with cover and tap bolts (1-1, 1-2, 4-3).....	2 55
2	Cover for No. 1.....	60
3	$\frac{3}{8}$ "x1" Tap Bolt for fastening No. 2 to No. 1.....	03
4	$\frac{3}{4}$ " Screw Jaw, with pin and cotter.....	43
5	Vertical Slide.....	3 00
6	Vertical Slide, for distant blade.....	4 85
7	$\frac{3}{4}$ " Connecting Rod, with solid jaw and threaded end.....	1 30
7a	$\frac{3}{4}$ " Connecting Rod, as per No. 7, with screw jaw, pins and cotters (1-7, 1-4).....	1 75
8	$1\frac{1}{8}$ "x $\frac{5}{8}$ "x $1\frac{1}{2}$ " Steel Roller for No. 10.....	60
9	$\frac{1}{2}$ "x2" Pin for No. 10.....	05
10	Swing Jaw.....	90
10a	Swing Jaw, with pins and rollers (1-10, 2-9, 2-8)....	2 40



BALANCE LEVERS, STANDS, CLAMPS, ETC.

BALANCE LEVERS, STANDS, CLAMPS, ETC.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Straight Balance Lever for Home Signal, with 10-lb. counterweight and bolts with nuts, as shown..	3 10
A1	Straight Balance Lever for Distant Signal, with 14-lb. counterweight and bolts with nuts.....	3 70
B	T Balance Lever for Home Signal, with 10-lb. counterweight and bolts with nuts, as shown.....	4 05
B1	T Balance Lever for Distant Signal, with 14-lb. counterweight and bolts with nuts, as shown..	4 90
C	L Balance Lever for Home Signal, with 40-lb. counterweight and bolts with nuts, as shown.....	7 00
C1	L Balance Lever for Distant Signal, with 40-lb. counterweight and bolts with nuts.....	7 30
D	One Way Balance Lever Stand, Model 1, for wood post, with pin and cotter.....	2 10
D1	Two Way Balance Lever Stand, Model 1, for wood post, with pin and cotter.....	2 31
D2	Three Way Balance Lever Stand, Model 1, for wood post, with pin and cotter.....	2 65
D3	Four Way Balance Lever Stand, Model 1, for wood post, with pin and cotter.....	3 15
E	One Way Clamp Balance Lever Stand, Model 2, 5" section, with clamp, bolts with nuts, pin and cotter.....	3 90
E1	Two Way, as per E.....	4 20
E2	One Way, as per E, 6" section.....	4 15
E3	Two Way, as per E2.....	4 45
F	One Way Balance Lever Stand, Model 3, with pin and cotter, for separate clamps on iron post, as shown.....	2 10
F1	Two Way, as per F.....	2 31
F2	Three Way, as per F.....	2 65
F3	Four Way, as per F.....	3 15

BALANCE LEVERS, STANDS, CLAMPS, ETC.

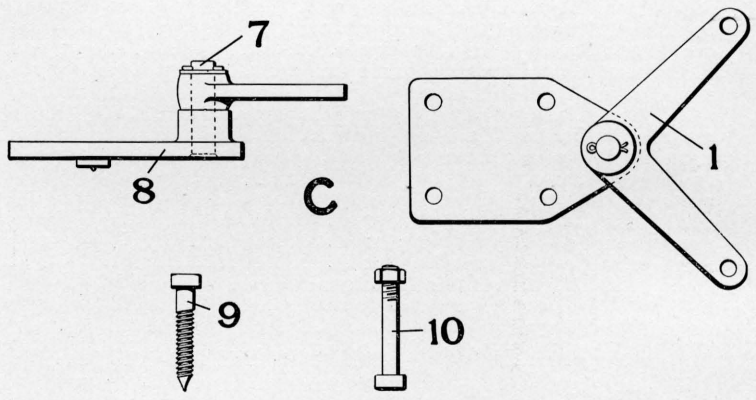
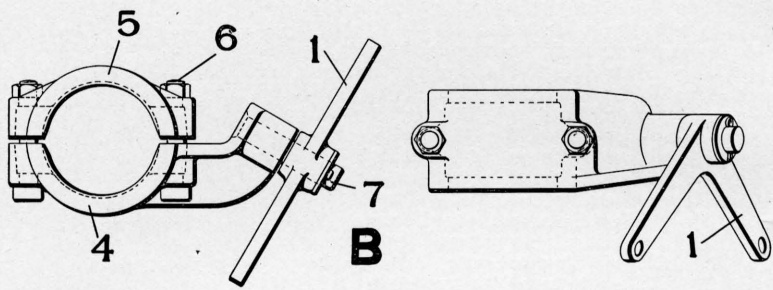
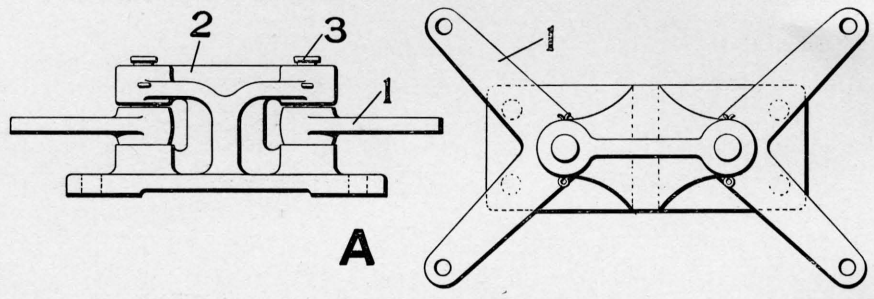
ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
G	One Way Clamp Balance Lever Stand, Model 4, (5" section) with clamp, bolts with nuts, pin and cotter as shown.....	4 15
G ₁	Two Way, as per G.....	4 70
G ₂	Three Way, as per G.....	5 20
H	Special Clamps, with bolts and nuts (4" section) as shown.....	2 00
H ₁	Special Clamps, with bolts and nuts (5" section)...	2 00
H ₂	Special Clamps, with bolts and nuts (6" section)...	2 00
H ₃	Special Clamps, with bolts and nuts (7" section)...	2 25
H ₄	Special Clamps, with bolts and nuts (8" section)...	2 30
1	Straight Balance Lever, 12"x30".....	2 25
1a	Straight Balance Lever, 7"x24".....	1 95
2	T Balance Lever, 8"x8"x24".....	2 90
2a	T Balance Lever, 12"x12"x30".....	3 45
3	L Balance Lever, 8"x24".....	3 45
3a	L Balance Lever, 12"x30".....	3 75
4	10-lb. Counterweight, with bolt and nut.....	1 00
4a	14-lb. Counterweight, with bolt and nut.....	1 35
4b	17-lb. Counterweight, with bolt and nut.....	1 55
4c	20-lb. Counterweight, with bolt and nut.....	1 95
4d	40-lb. Counterweight, with bolt and nut.....	3 30
4e	56-lb. Counterweight, with bolt and nut.....	4 65
4f	100-lb. Counterweight, with bolt and nut.....	8 15
5	3/8"x3 1/2" Bolt and nut for Nos. 4 and 4a.....	09
5a	5/8"x4" Bolt and nut for Nos. 4b, 4c, 4d and 4e....	10
5b	5/8"x4 1/4" Bolt and nut for No. 4f.....	11
6	1/4"x3/4" Stop Bolt and nut for Nos. 1, 2 and 3....	03
7	One Way Stand, Model 1.....	1 92
7a	Two Way Stand, Model 1.....	2 07
7b	Three Way Stand, Model 1.....	2 40
7c	Four Way Stand, Model 1.....	2 80

BALANCE LEVERS, STANDS, CLAMPS, ETC.

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
8	1"x5" Pin, with cotter for D, E, F or G.....	20
8a	1"x7" Pin, with cotter for D ₁ , E ₁ , F ₁ , or G ₁	25
8b	1"x9" Pin, with cotter for D ₂ , F ₂ or G ₂	30
8c	1"x11" Pin, with cotter for D ₃ or F ₃	35
9	One Way Stand, Model 2 (5" section).....	2 35
9a	Two Way Stand, Model 2 (5" section).....	2 60
9b	One Way Stand, Model 2 (6" section).....	2 35
9c	Two Way Stand, Model 2 (6" section).....	2 60
10	One Way Balance Lever Stand, Model 3.....	1 92
10a	Two Way Balance Lever Stand, Model 3.....	2 07
10b	Three Way Balance Lever Stand, Model 3.....	2 40
10c	Four Way Balance Lever Stand, Model 3.....	2 80
11	3/4"x6" Bolt with nut for E, G or H.....	18
12	One Way Balance Lever Stand, Model 4.....	2 55
12a	Two Way Balance Lever Stand, Model 4.....	3 15
12b	Three Way Balance Lever Stand, Model 4.....	3 60
13	Back Clamp (5" section) for E or G.....	80
13a	Back Clamp (6" section) for E.....	1 05
14	Front Clamp (4" section) for H.....	90
14a	Front Clamp (5" section) for H.....	90
14b	Front Clamp (6" section) for H.....	90
14c	Front Clamp (7" section) for H.....	1 00
14d	Front Clamp (8" section) for H.....	1 00
15	Back Clamp (4" section) for H.....	60
15a	Back Clamp (5" section) for H.....	60
15b	Back Clamp (6" section) for H.....	60
15c	Back Clamp (7" section) for H.....	66
15d	Back Clamp (8" section) for H.....	75
16	3/4"x2" Bolt for fastening signal wheel or Model 2 balance lever stand to H.....	12
17	3/4"x4" Lag Screw.....	00
18	5-16"x2 3/4" Cotter for D, E, F or G.....	01

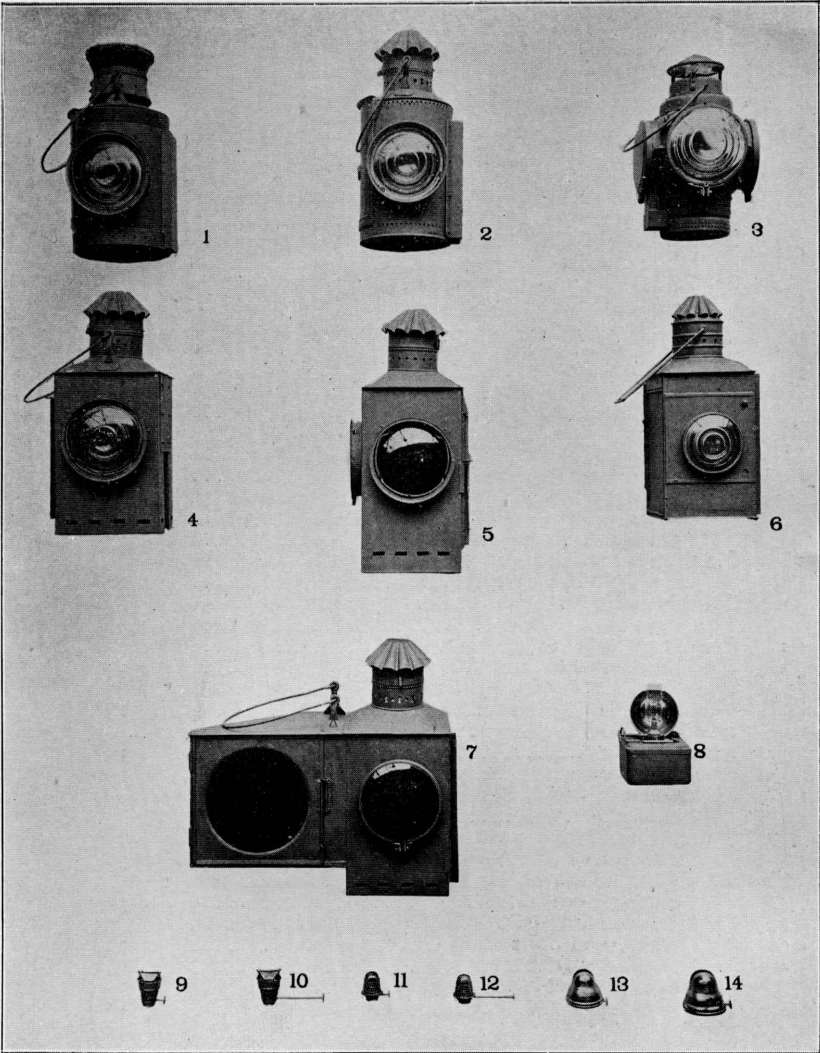


SPECIAL CRANKS AND STANDS FOR SIGNAL POSTS

**SPECIAL CRANKS AND STANDS FOR
SIGNAL POSTS**

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
A	Special Double Crank Stand, with pin, cotter and one crank (1-2, 1-3, 1-1).....	4 10
A1	Special Double Crank Stand, with pins, cotters and two cranks (1-2, 2-3, 2-1).....	5 70
A2	Special Double Crank Stand (2-high), with pin, cotter and two cranks on one pin (1-2b, 1-3a, 2-1).....	6 10
A3	Special Double Crank Stand (2-high), with pins, cotters and three cranks (1-2b, 2-3a, 3-1)....	7 80
A4	Special Double Crank Stand (2-high), with pins, cotters and four cranks (1-2b, 2-3a, 4-1)....	9 15
B	Clamp Crank Stand (4" section), with half clamp, bolts with nuts, stud, washer, cotter and one crank (1-4, 1-5, 2-6, 1-1).....	3 75
B1	Clamp Crank Stand (4" section), with half clamp, bolts with nuts, stud, washer, cotter and two cranks (1-4b, 1-5, 2-6, 2-1).....	5 05
C	Crank Stand, with stud, washer, cotter and one crank (1-8, 1-1).....	2 20
C1	Crank Stand, with stud, washer, cotter and two cranks (1-8a, 2-1).....	3 60
1	Crank only, 7 ³ / ₄ "x7 ³ / ₄ ", for A, B or C.....	1 26
2	One Way Double Crank Stand.....	2 50
2a	One Way Double Crank Stand, with pins and cotters.....	2 85
2b	Two Way Double Crank Stand.....	3 00
2c	Two Way Double Crank Stand, with pins and cotters.....	3 50
3	1"x5" Pin for A.....	18
3a	1"x7" Pin for A2.....	24
4	Clamp Crank Stand for B, with stud, washer and cotter.....	1 45
4a	Clamp Crank Stand for B, with stud, washer, cotter, clamp and bolts with nuts (1-way).....	2 50
4b	Clamp Crank Stand for B, with stud, washer and cotter (2-way).....	1 50
4c	Clamp Crank Stand for B, with stud, washer, cotter, clamp and bolts with nuts (2-way).....	2 55
5	Half Clamp for B.....	60
6	5 ⁵ / ₈ "x4 ¹ / ₂ " Bolt and Nut for clamping Nos. 4 and 5 to signal post.....	10
7	1"x4" Stud for B or C.....	15
7a	1"x6" Stud for B or C.....	21
8	Crank Stand for C, with stud, washer and cotter (1-way).....	90
8a	Crank Stand for C, with stud, washer and cotter (2-way).....	95
9	3 ³ / ₄ "x4" Lag Screw for No. 2.....	09
10	3 ³ / ₄ "x3" Bolt and Nut for No. 2.....	12

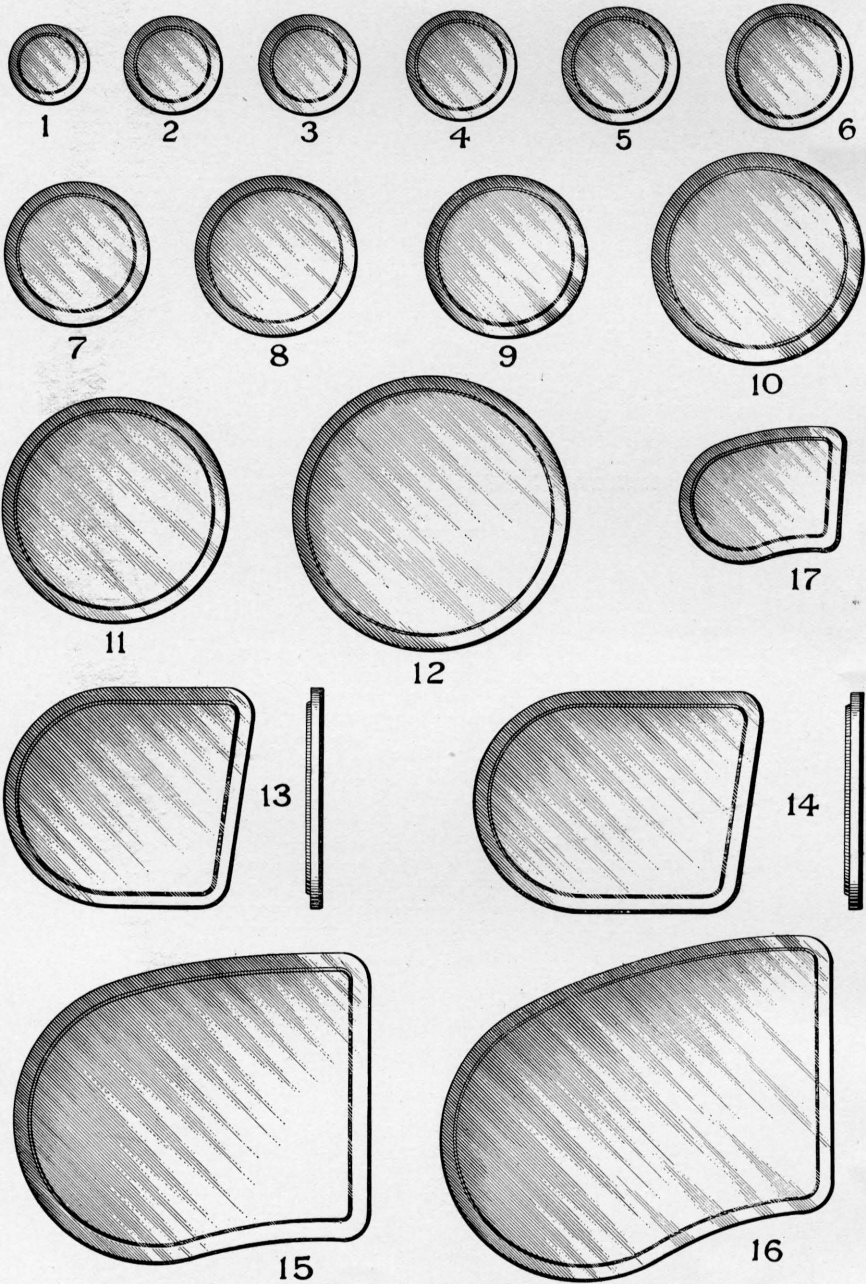


LAMPS AND BURNERS

LAMPS AND BURNERS

ORDER BY PLATE, NUMBER AND LETTER

No.		List Price
1	Semaphore Lamp, Model 1.....	8 00
2	Semaphore Lamp, Model 2.....	8 00
3	Semaphore Lamp, Model 3.....	13 15
4	Semaphore Lamp, Model 4.....	8 00
5	Pot Signal Lamp, Model 5.	11 25
6	Semaphore Lamp, square swing door, Model 6.....	7 70
7	Distant Semaphore Lamp, double color indication from single burner, Model 7.....	12 15
8	Dressel Long Time Burner and Oil Fount, Model 1..	4 45
9	Dressel Burner, short stem, Model 2.....	30
10	Dressel Burner, long stem, Model 3.....	33
11	Callender Burner, short stem, Model 4.....	18
12	Callender Burner, long stem, Model 5.....	21
13	No. 1 Zenith Burner, Model 6.....	48
14	No. 2 Zenith Burner, Model 7.....	60



MOULDED SEMAPHORE ROUNDELS

MOULDED SEMAPHORE ROUNDELS
Made of Kopp Solid-Color Glass

Having obtained the exclusive right to sell the entire output of Kopp solid color signal glass, manufactured by the Pittsburgh Lamp & Glass Company, we are prepared to furnish samples and quotations on any shade and shape of red, green, yellow, blue and purple glass required to suit designs and specifications of our customers and solicit correspondence to this end.

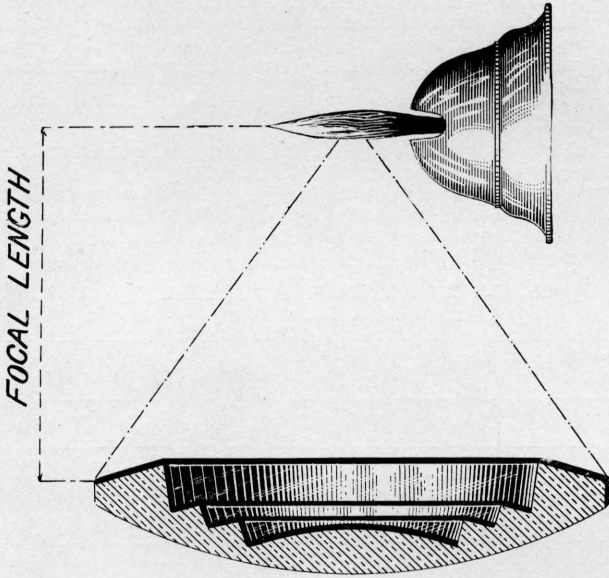
All signal glass furnished by us is subject to photometric and spectroscopic tests within close limits.

On Plates 481 and 482 will be found a few of the sizes and shapes of glass which we are now prepared to furnish.

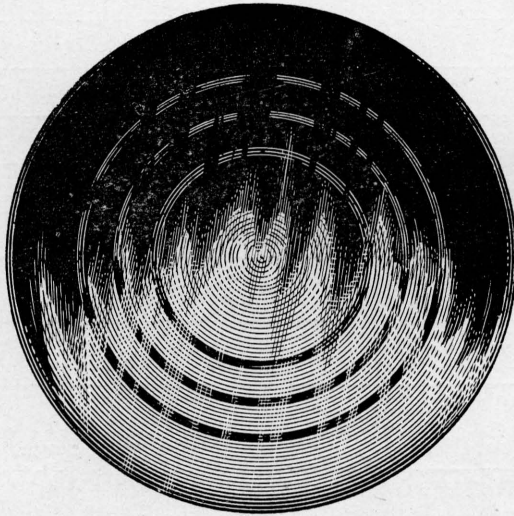
The opposite plate represents the most commonly used moulded roundels, which we can furnish of Kopp Solid-Color Glass on short notice. Quotations on special types furnished on application.

ORDER BY PLATE, NUMBER AND COLOR

No.	Moulded Semaphore Roundels	Diam.	Red	Green	Yellow	Blue	Purple
1		2 $\frac{3}{8}$ "	\$ 48	\$ 24	\$ 24	\$ 24	\$ 24
2		2 $\frac{7}{8}$ "	60	30	30	30	30
3		3"	60	30	30	30	30
4		3 $\frac{1}{2}$ "	72	36	36	36	36
5		3 $\frac{3}{4}$ "	72	42	42	42	42
6		4"	72	42	42	42	42
7		4 $\frac{3}{8}$ "	84	48	48	48	48
8		5"	90	60	60	60	60
9		5 $\frac{3}{8}$ "	90	60	60	60	60
10		6 $\frac{1}{2}$ "	1 50	84	84	84	84
11		6 $\frac{7}{8}$ "	1 65	90	90	90	90
12		8 $\frac{3}{8}$ "	2 25	1 50	1 50	1 50	1 50
13	P. R. R. Sema. Glass No. 3,045		1 95	84	84	84	84
14	P. R. R. Sema. Glass No. 3,047		2 40	1 20	1 20	1 20	1 20
15	N. Y. C. & H. R. R. R. Upper Sema. Glass....		4 50	2 25	2 25	2 25	2 25
16	N. Y. C. & H. R. R. R. Lower Sema. Glass....		5 25	2 64	2 64	2 64	2 64
17	Dwarf Signal Glass.....		90	60	60	60	60



FRESNEL LENSES
(Inside Corrugations)
Kopp Solid Color Glass



FRESNEL LENSES AND LANTERN GLOBES
Made of Kopp Solid-Color Glass

When ordering specify color and *focal length* desired.
 Prices on special sizes not given below will be furnished on application.

ORDER BY PLATE, NUMBER, LETTER AND COLOR

Number	Diam. of Lens	Focal Length of Lens				Price and Color of Lenses and Globes					
		A	B	C	D	Red	Yellow	Green	Blue	Purple	
18	3"	2½"				\$ 58	\$ 38	\$ 38	\$ 38	\$ 38	Pc.
19	3¾"					70	45	45	45	45	"
20	3⅞"					75	50	50	50	50	"
21	4"	2¾"	3¼"			75	50	50	50	50	"
22	4⅛"					83	55	55	55	55	"
23	4⅜"					83	55	55	55	55	"
24	4¼"					83	55	55	55	55	"
25	4½"	3"				88	60	60	60	60	"
26	5"	3½"				1.00	75	75	75	75	"
27	5⅜"	3½"	5⅝'	7⅝"		1.13	83	83	83	83	"
28	6"	4"				1.50	1.25	1.25	1.25	1.25	"
29	6⅜"	5"				1.63	1.38	1.38	1.38	1.38	"
30	7"					2.50	1.75	1.75	1.75	1.75	"
31	7⅜"					3.13	2.00	2.00	2.00	2.00	"
32	8"	9"				3.63	2.38	2.38	2.38	2.38	"
33	8⅜"	5"				3.88	2.50	2.50	2.50	2.50	"
34	2"	Bulls Eye for Lamps				54	27	27	27	27	"
35	Globes for Lanterns					13.75	8.75	8.75	8.75	8.75	Doz.

