



Catalog 150

1956

**PERKINS MARINE LAMP
AND HARDWARE CORPORATION
BROOKLYN, N. Y.**

Perkins Marine Lamp And Hardware Corp.

(Incorporated 1917)

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Manufacturers of

Running Lights, Searchlights, Binnacles, Steering Wheels, Stoves,
Pumps, Toilets, Lavatories, Blocks, Brass and Galvanized
Marine Hardware and Sheet Metal Specialties of
Every Description for All Types of Boats
from Canoes to Ocean Liners

Catalog No. 150

1956



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FOREWORD AND GENERAL INFORMATION



This catalog has been arranged for convenient reference by grouping the material according to its application in the marine field.

You will find illustrated herein a number of new items added to our fast growing line, indicating constant attention to changes in the marine field, our determination to keep abreast of the times and to retain the ability to supply the most desirable and modern equipment.

Of course we continue our strictest rules of adherence to highest quality and finish, fastest possible delivery and cooperation with our numerous friends and customers throughout the world.

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Material made to order is not returnable. Stock material is only returnable when permission has been granted by us, and is subject to a handling and refinishing charge.

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The weights given in this catalog are not guaranteed, but have been carefully determined and should be sufficient for general purposes.

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STREAMLINE COMBINATION LIGHTS

FOR OUTBOARD MOTOR BOATS AND SMALL RUNABOUTS

Heavy Gauge Wrought Brass

WITH REBULBING FEATURE AND FLAG POLE SOCKET

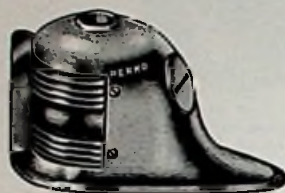


Fig. 1140

Complete with red and green fresnel lenses and double contact electric socket.

Height Inches	Base Inches	Lens Inches	Flagpole Socket Inches	Weight Pounds
3 1/4	3 3/4 x 6 1/4	2 9/16 x 3	3/4	1
Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each	
\$9.75	\$11.25	\$1.45	\$.55	

Spare D.C. Sockets, see Fig. 747, No. 1.
Spare Lenses, see Fig. 259, Class A Special.
Spare rebulbing feature complete
Polished \$2.20, Chrome \$2.65 Each.

WITHOUT REBULBING FEATURE OR FLAG POLE SOCKET



Fig. 1140-A

With red and green fresnel lenses and double contact electric socket. All brass body.

Dimensions and spares same as Fig. 1140 above.

Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
\$10.00	\$1.45	\$.55

SELF CONTAINED BATTERY TYPE WITH FLAG POLE SOCKET AND SWITCH FOR SINGLE CELL FLASHLIGHT BATTERY



Fig. 1144

Battery and bulb easily replaced by removal of three thumb screws from base.

With red and green fresnel lenses, miniature socket and bulb. All brass body. Batteries not included.

Dimensions same as Fig. 1140 above.

Chromium Plated Each	Spare Lenses Each	Spare Bulbs Each
\$14.00	\$1.45	\$.28

Zamak Die Casting

WITH REBULBING FEATURE AND FLAG POLE SOCKET

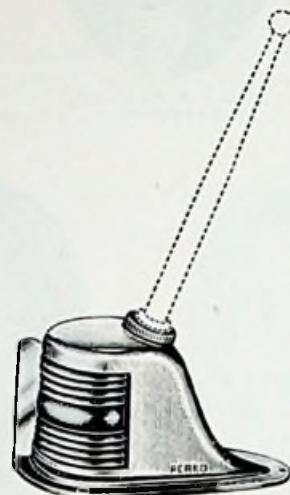


Fig. 1232

Complete with red and green fresnel lenses and double contact electric socket.

Chromium Plated Each	Height Inches	Size Base Inches	Size Lens Inches	Flag Pole Socket Inches	Wght. Lbs.
\$8.00	3 1/2	6 1/4 x 3 3/8	2 9/16 x 3	3/4	1

Spare D.C. Sockets, see Fig. 747, No. 1.

SELF CONTAINED BATTERY TYPE WITH FLAG POLE SOCKET AND SWITCH FOR SINGLE CELL FLASHLIGHT BATTERY

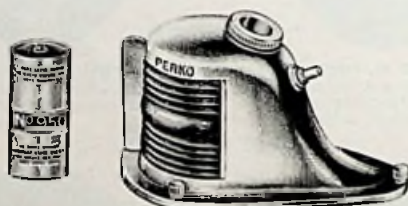


Fig. 1236

Battery and bulb easily replaced by removal of three thumb screws from base.

With red and green fresnel lenses, miniature socket and bulb. Zamak die cast body. Battery not included.

Chromium Plated Each	Height Inches	Size Base Inches	Size Lens Inches	Flag Pole Socket Inches	Wght. Lbs.
\$10.50	3 1/2	6 1/4 x 3 3/8	2 9/16 x 3	3/4	1 1/4

Spare Flag Pole Socket only for Fig. 1232 and 1236, \$.90 each.

Spare Lenses, see Fig. 259, Class A Special.

Spare Miniature Bayonet Socket and Switch Assembly for Fig. 1236, \$1.10 each.



Brass "2 in 1"

Streamline Combination Light

WITH REBULBING FEATURE

FLAG POLE SOCKET—FLASHLIGHT CASE WITH SWITCH—2 SPRING CLAMPS—BULB ALL WIRED READY FOR INSTALLATION ALL BRASS LIGHT

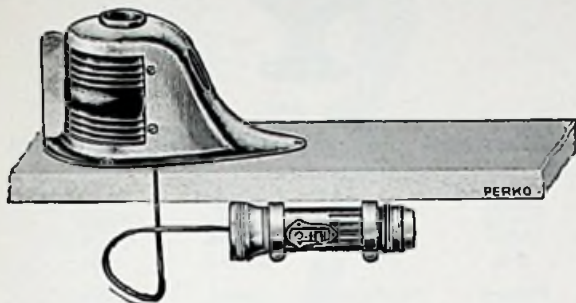


Fig. 1147

In addition to a very practical and attractive navigation light, the user has a 2 cell flashlight available and handy at all times as the flashlight case is complete with reflector for light projection.

Supplied with 4 feet of wire to permit location of flashlight case at most convenient spot. Lamp socket is miniature screw type.

Batteries are not included.

Height Light Inches	Base Light Inches	Size Lens Inches	Flag Pole Socket Inches	Weight Pounds
3 1/4	3 3/4 x 6 1/4	2 1/16 x 3	3/4	1 1/2
Chromium Plated Each		Spare Lenses Each		Spare Bulbs Each
\$15.00		\$1.45		\$.25

Zamak "2 in 1"

Streamline Combination Light

WITH REBULBING FEATURE

FLAG POLE SOCKET—FLASHLIGHT CASE WITH SWITCH—2 SPRING CLAMPS—BULB ALL WIRED READY FOR INSTALLATION ZAMAK DIE CASTING—CHROMIUM PLATED

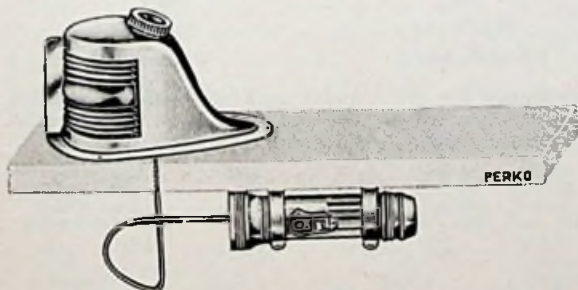


Fig. 1235

Supplied with 4 feet of wire to permit location of flashlight case at most convenient spot. Lamp socket is miniature screw type.

Batteries are not included.

Chromium Plated Each	Height Light Inches	Base Light Inches	Size Lens Inches	Flag Pole Socket Inches	Wght. Lbs.
\$12.00	3 1/2	6 1/4 x 3 3/8	2 1/16 x 3	3/4	1 1/2

Spare Lenses for Figs. 1147 and 1235 see Fig. 259 class A special.

"Little Joe" Combination Light

DIE CAST ALUMINUM ALLOY—WITH FLAG POLE SOCKET—NO REBULBING FEATURE



Fig. 1146

A neat little light suitable for small boats to which an outboard motor is attached.

Polished Each	Spare Lenses Each	Height Inches	Base Inches	Height Lens Inches	F. P. Socket Inches	Weight Ounces
\$4.15	\$.85	2	4 1/4 x 3 3/8	1 1/16	1/2	4

Spare miniature bayonet S.C. bulbs, each \$.25. Flag pole for above, see Fig. 496, No. 1.

Runabout Combination Lights

CAST BRONZE

WITH REBULBING FEATURE AND F. P. SOCKET



Rear view showing method of changing bulb.

Fig. 598

Complete with red and green fresnel lenses and double contact electric socket.

No.	Height Inches	Base Inches	Lens Inches	Flagpole Socket Inches	Weight Pounds
1	3 1/2	3 3/8 x 6 1/4	2 1/16 x 3	3/4	2
2	3 1/2	4 3/4 x 7 3/4	2 1/16 x 3	1	3 1/2
3	4 3/8	5 1/2 x 8 3/4	3 1/16 x 3 3/8	1	4 3/4

No.	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
1	\$17.50	\$1.45	\$.55
2	20.00	1.45	.55
3	26.50	2.20	.55

VENTILATOR TYPE

WITH REBULBING FEATURE AND F. P. SOCKET CAST BRONZE

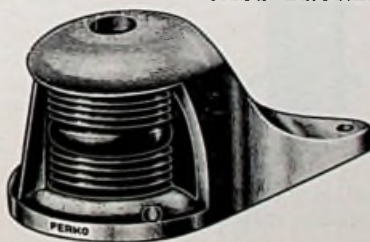


Fig. 640

Complete with red and green fresnel lenses and double contact socket.

Height Inches	Base Inches	Lens Inches	Flagpole Socket Inches	Weight Pounds
3 1/2	4 1/2 x 7 3/4	2 1/16 x 3	1	3 3/4

Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
\$20.00	\$1.45	\$.55

Spare Lenses for Figs. 598 and 640, see Fig. 259 Class A Standard and Class 1.

Spare D.C. Sockets, see Fig. 747 No. 1.



Cruiser Combination Light

FOR CLASS 1 CRUISERS
HEAVY GAUGE WROUGHT BRASS
WITH REBULBING FEATURE AND F. P. SOCKET



Fig. 1141

Height Inches	Base Inches	Lens Inches	Flagpole Socket Inches	Weight Pounds
5 1/8	5 5/8 x 9 1/2	4 1/4 x 3 1/8	1	2
Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each	
\$15.25	\$18.75	\$3.00	\$.55	

Spare D.C. Sockets, see Fig. 747, No. 5.

Spare Rebulbing feature complete, Polished \$2.20, Chrome \$2.65 each.

Battery Anchor Light

BRASS CASE
WITH TOGGLE SWITCH AND BULB



Fig. 48

Uses ordinary 1 1/2 volt dry cell such as Eveready No. 6 or equal. Bulb is Mazda No. 131.

Polished Brass Each	Chromium Plated Each	Height Inches	Diam. Base Inches
\$15.75	\$18.50	10 1/2	3

With battery, add \$1.50 each.

With red, green or blue globe, add \$.50 each.

Spare globes, see Fig. 250.

Spare batteries, \$1.50 each.

Spare bulbs, \$.28 each.

Outboard Combination Light

WROUGHT BRASS



Fig. 485

Complete with red and green fresnel lenses and double contact electric socket.

Height Overall Inches	Diam. Body Inches	Size Lens Inches	Weight Pounds
4 1/2	2 1/2	2 3/8 x 3	3/4
Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
\$5.75	\$7.25	\$1.45	\$.90

"Sport Kit" Lights

FLASHLIGHT BATTERY TYPE — 2 CELL
CHROMIUM PLATED



Fig. 1142
Comb. Light



Fig. 1143
Stern Light

Designed for small craft such as rowboats, canoes, dinghys, etc., when an outboard motor is attached. Lights are required by law in such cases.

Height Overall Inches	Height Overall Inches	Diam. Stem Inches	Size Lens Inches	Size Globe Inches	Weight Each
Fig. 1142	Fig. 1143		Fig. 1142	Fig. 1143	
13 3/8	20	3/8	2 3/8 x 3	1 3/8	1
Fig. 1142 Each	Fig. 1143 Each				Extra Bulbs Each
\$11.25	\$10.00				\$.25

Clearance in regular clamp is 1 3/8"; with larger clamp, 2" clearance, add \$.75 each.

Price includes one bulb in each light, no batteries.

SPARE PARTS

Lenses for Fig. 1142	Each	\$1.48
Globe for Fig. 1143 with Ferrule	Each	1.80
Head with lenses for Fig. 1142	Each	4.80
Battery container only	Each	3.75
Clamp only	Each	4.25



Improved Pole Light Assembly

2½ OR 3 INCH GLOBE, FIG. 250 OR 251
 COMPLETE WITH FLAG POLE SOCKET AND
 ELECTRIC CONNECTIONS IN POLE AND SOCKET
 HOLLOW MAHOGANY POLE—VARNISHED



Fig. 531

Insert pole in socket and electric connection is complete. No wires exposed, no springs to corrode. A real positive hook-up, unaffected by water or corrosion.

Pole may remain in socket at all times, no switch necessary. Female part of connector in base of pole has four holes, two for on position, two for off position. Male part of connector in flag pole socket has two prongs (no springs). To light, loosen thumb screw, lift pole, give half turn and reset. To disconnect, reverse operation.

Globe will accommodate bulb up to 50 C.P.

Length Pole Inches	Chromium Plated Each	Diam. Base of Pole Inches	Weight Pounds
24	\$17.50	1¼	2
30	18.50	1¼	2½
36	19.50	1¼	2¾
48	20.50	1¼	3

Spare clear globes (2½ or 3 inch) \$2.20 Each
 Spare electric bulb sockets fig. 747, No. 2 .55 Each
 Electric connectors only (male & female) 1.30 per set
 Complete except F. P. socket, deduct 1.50 Each
 With Red, Green or Blue Globe, add .50 Each
 Furnished with 2½ inch globe unless otherwise specified.

Junior Pole Light Assembly

1½ INCH FRESNEL BALL GLOBE, FIG 604
 COMPLETE WITH SOCKET AND ELECTRIC
 CONNECTIONS IN POLE AND SOCKET
 MAHOGANY POLE—CAST BRONZE SOCKET



Fig. 1145

Wired through hollow center of pole. Globe will take a 6 C. P. bulb, double contact. Base of pole is 1 inch.

Length Pole Inches	Chromium Plated Each	Weight Pounds
20	\$15.50	1
24	16.25	1¼
30	17.25	1¾

Complete except F. P. socket, deduct\$1.00 Each
 Spare clear globes 1.45 Each
 Spare electric bulb sockets fig. 747, No. 255 Each
 Electric connectors only (male & female).... 1.20 per set

Junior Pole Light Assembly

ELECTRIC CONNECTIONS IN POLE AND SOCKET
 HOLLOW BRASS POLE—CAST BRONZE SOCKET
 1½ INCH FRESNEL BALL GLOBE, FIG. 604



Fig. 846

Length Pole Inches	Chromium Plated Each	Diam. Pole Inches	Weight Pounds
20	\$13.75	¾	1½
24	14.00	¾	1¾
30	14.50	¾	1¾

Complete except F. P. socket, deduct \$.80 Each
 Spare clear globes 1.45 Each
 Spare electric bulb sockets, fig. 747, No. 2 .55 Each
 Electric connectors only (male & female) 1.20 per set



Adjustable Flag Pole Light

1½ INCH FRESNEL BALL GLOBE,
HOLLOW BRASS POLE—WITH CONNECTORS
FORGED BRONZE STREAMLINE BASE
DOUBLE CONTACT ELECTRIC SOCKET



Fig. 609

Adjustable to various lengths down to 5 inches. Knurled nut holds pole firmly in base.

Maximum Length Inches	Chromium Plated Each	Diam. Pole Inches	Weight Pounds
20	\$11.75	¾	1¼
24	12.00	¾	1⅓
30	12.50	¾	1½

Adjustable Flag Pole Light

1¾ INCH FRESNEL GLOBE—BRASS POLE
ZAMAK DIE CAST STREAMLINE BASE
DOUBLE CONTACT ELECTRIC SOCKET



Fig. 1233

Adjustable to various lengths down to 4¾ inches. Knurled nut holds pole firmly in place.

Maximum Length Inches	Chromium Plated Each	Diameter Pole Inches	Dimensions Base Inches	Weight Pounds
20	\$ 9.25	¾	3⅝x2¼	1
24	9.50	¾	3⅝x2¼	1⅓
30	10.00	¾	3⅝x2¼	1½

Spare Globes for Figs. 603, 609, 625, see Fig. 604.

Spare Globes for Fig. 1233, see Fig. 248.

Spare Electric Sockets for all above, see Fig. 747 No. 2

Junior Flag Pole Light

1½ INCH FRESNEL BALL GLOBE
HOLLOW BRASS POLE
CAST BRONZE BASE
DOUBLE CONTACT ELECTRIC SOCKET



Fig. 603

Length Overall Inches	Diam. Pole Inches	Weight Ounces
20	¾	11
24	¾	12
30	¾	16

Length Overall Inches	Polished Brass Each	Chromium Plated Each
20	\$9.25	\$11.25
24	9.50	11.50
30	10.00	12.00

"Little Joe" Pole Light

POLISHED ALUMINUM
1½ INCH FRESNEL BALL GLOBE
DOUBLE CONTACT ELEC. SOCKET

An attractive companion for our "Little Joe" combination light Fig. 1146.

Pole is adjustable to various lengths down to 5 inches.



Fig. 625

Length Overall Inches	Each	Diam. Pole Inches	Weight Ounces
20	\$7.00	⅝	10
24	7.25	⅝	11

Battery Pole Light

CHROMIUM PLATED

Two standard flashlight cells in battery case will supply weeks of service in ordinary intermittent use. Complete with bulb and switch, no batteries.



Fig. 710
Mahogany Pole



Fig. 711
Brass Pole

Fig.	Each	Length Overall Inches	Diam. Base Inches	Weight Ounces
710	\$8.00	20	1	8
711	8.25	20	¾	17

"2 in 1"

Adjustable Flag Pole Light

WITH 1 1/2 INCH FRESNEL BALL GLOBE
ALL BRASS WITH STREAMLINE BASE
COMPLETE AS ILLUSTRATED — WITH BULB

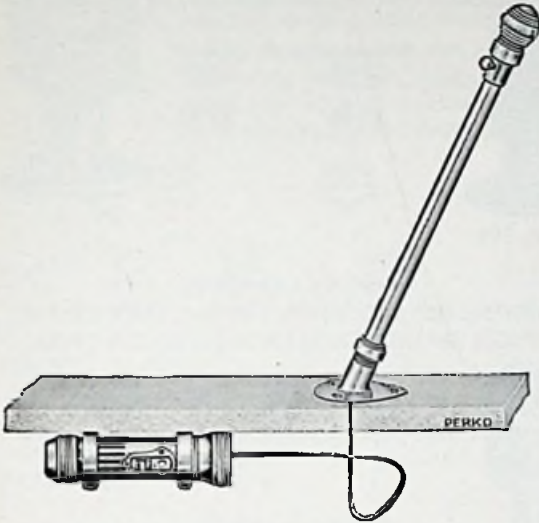


Fig. 1148

This is our popular Fig. 609 pole light supplied with a 2 cell flashlight case, mounting clamps and sufficient wire for locating case at most convenient spot.

The flashlight case is complete with reflector for light projection so the user not only has an attractive stern light for night running but in addition a handy flashlight for other purposes.

Batteries are not included.

Maximum Length Inches	Chromium Plated Each	Diameter Pole Inches	Weight Pounds
20	\$15.50	3/4	1 1/4
24	15.75	3/4	1 1/8

Spare clear globes Fig. 604\$1.45 Each
Spare bulbs25 Each

"2 in 1" Battery Light Assembly

CHROMIUM PLATED

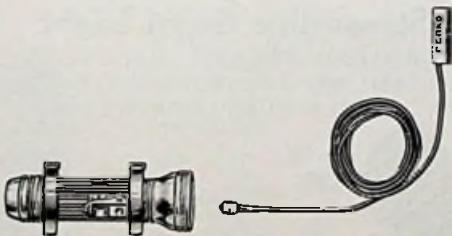


Fig. 1149

Used for adapting combination lights. Figs. 1140, 1144 etc and Pole Lights Figs. 609, 1233 etc. to complete assemblies such as Figs. 1147, 1148. Length socket, No. 1, 5/8 inch, No. 2, 1 1/2 inches. Length wire cable, 48 inches.

No. 1 for Combination Lightsper set \$3.25
No. 2 for Pole Lightsper set 3.25

"2 in 1"

Adjustable Flag Pole Light

WITH 1 1/2 INCH FRESNEL GLOBE
BRASS POLE — STREAMLINE ZAMAK BASE
COMPLETE AS ILLUSTRATED — WITH BULB

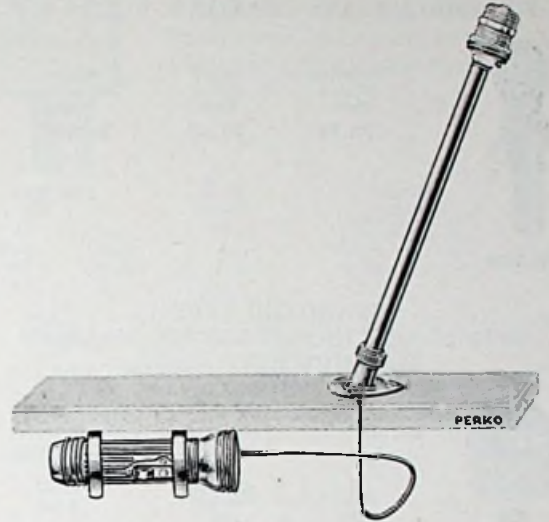


Fig. 1239

This assembly consists of our new pole light Fig. 1233 with new type globe and Zamak base.

Batteries are not included.

Maximum Length Inches	Chromium Plated Each	Diameter Pole Inches	Weight Pounds
20	\$13.00	3/4	1 1/2
24	13.25	3/4	1 5/8

Flag Poles

MAHOGANY

Turned from solid seasoned mahogany. Varnished, hand rubbed polished finish.



Fig. 496

No.	Each	Length Overall Inches	Diam. Base Inches	Weight Ounces
1	\$1.45	14	1/2	1
2	1.75	18	3/4	2 1/2
3	2.20	18	1	4
4	3.00	24	1	5
5	4.25	30	1 1/4	8 1/2
6	5.00	36	1 1/4	13
7	6.50	48	1 1/4	26

With brass ferrule, add \$.75 Each.

BRASS - CHROMIUM PLATED

Tubular Brass Pole with eyes for flag. Base to fit combination lights, Figs. 1140, 1144, 1233, etc.

Length Inches	Each	Diam. Base Inches	Weight Ounces
18	\$3.25	3/4	6

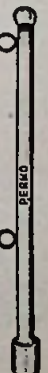


Fig. 495

Pole Lights

BRASS—WITH THREADED FRESNEL GLOBE
DOUBLE CONTACT SOCKET—NOT WIRED
JUNIOR TYPE
WITH 1½ INCH GLOBE, FIG. 604
FOR SMALL BOATS—MAXIMUM BULB 6 C. P.



Fig. 600

	Chromium Plated Each	Spare Globes Each	Spare Sockets Each	
	\$5.75	\$1.45	\$.55	
Height Inches		I. D. Neck Inches		Wt. Oz.
4¼		¾		7

Stern Lights

BRASS—WITH THREADED FRESNEL GLOBE
DOUBLE CONTACT SOCKET
JUNIOR TYPE
WITH 1½ INCH GLOBE, FIG. 604
FOR SMALL CRUISERS—MAXIMUM BULB 6 C. P.



Fig. 404

	Chromium Plated Each	Spare Globes Each	Spare Sockets Each	
	\$7.25	\$1.45	\$.55	
Height Overall Inches		Diam. Base Inches		Wt. Oz.
3½		2¾		7

STANDARD TYPE

WITH 2½ OR 3 INCH GLOBE FIG. 250 OR 251
MAXIMUM BULB 50 C. P.



Fig. 491

No.	Chromium Plated Each	Spare Globes Each			
1	\$7.25	\$2.20			
2	7.25	2.20			
No.	Diam. Globe In.	Height In.	I. D. Neck In.	Wt. Oz.	
1	2½	5	¾	12	
2	3	5¾	¾	14	

STANDARD TYPE

GLOBE HOLDER SPUN FROM SHEET BRASS
WITH 2½ OR 3 INCH GLOBE FIG. 250 OR 251



Fig. 422

No.	Chromium Plated Each	Spare Globes Each			
1	\$8.00	\$2.20			
2	8.00	2.20			
3	9.25	2.20			
No.	Diam. Globe Inches	Height Overall Inches	Diam. Base Inches	Weight Oz.	
1	2½	6	2¾	12	
2	3	6½	2¾	14	
3	3	12	2¾	20	

HEAVY DUTY TYPE

GLOBE HOLDER MILLED FROM BRASS ROD
WITH 2½ OR 3 INCH GLOBE FIG. 250 OR 251



Fig. 484

No.	Chromium Plated Each	Spare Globes Each			
1	\$8.75	\$2.20			
2	8.75	2.20			
No.	Diam. Globe In.	Height In.	I. D. Neck In.	Wt. Oz.	
1	2½	5	¾	16	
2	3	5¾	¾	18	

HEAVY DUTY TYPE

GLOBE HOLDER MILLED FROM BRASS ROD
WITH 2½ OR 3 INCH GLOBE FIG. 250 OR 251



Fig. 506

No.	Chromium Plated Each	Spare Globes Each			
1	\$10.50	\$2.20			
2	10.50	2.20			
3	11.50	2.20			
No.	Diam. Globe Inches	Height Overall Inches	Diam. Base Inches	Weight Oz.	
1	2½	5½	2¾	18	
2	3	6	2¾	20	
3	3	12	2¾	26	

Streamline Stern Light

JUNIOR TYPE—FOR SMALL CRUISERS
THREADED FRESNEL BALL GLOBE
STREAMLINE FORGED BRONZE BASE
DOUBLE CONTACT SOCKET



Fig. 439

No.	Chromium Plated Each	Diam. Globe Inches	Height Overall Inches	Wt. Oz.
1	\$8.75	1½	6	11
2	9.75	1½	12	18

Spare clear globes, \$1.45 each

Streamline Stern Light

THREADED FRESNEL BALL GLOBE
STREAMLINE FORGED BRONZE BASE
DOUBLE CONTACT SOCKET



Fig. 438

No.	Chromium Plated Each	Diam. Globe Inches	Height Overall Inches	Wt. Oz.
1	\$9.25	2½	6	13
2	9.25	3	6½	13
3	10.50	2½	12	20
4	10.50	3	12½	20

Spare clear globes, \$2.20 each

Stern Lights

CAST BRONZE



Fig. 375

Equipped with 360 degree fresnel lens and double contact electric socket.

Any height desired can be secured by placing required length of 1 inch brass pipe at joint marked A. These parts have standard 1 inch pipe thread.

Height Inches	Diam. Base Inches	Diam. Body Inches	Size Lens Inches	Weight Pounds
7	3 1/2	3 1/2	3 5/16 x 3 3/16	2 3/4
Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Spare Lens Fig. 261 Each	Spare Socket Fig. 747 Each
\$14.25	\$15.50	\$17.75	\$2.20	\$.55

With red, green, blue or amber lens, add \$1.50 each.
With medium screw socket fig. 346 for 15 watt bulb, add \$1.80 each.

Stern Lights

CAST BRONZE

WITH FIG. 106 THREADED GLOBE FOR BULB UP TO 60 WATTS



Fig. 112

Equipped with clear fresnel globe and fig. 222 No. 1 medium screw electric socket.

Height Overall Inches	Diam. Base Inches	Size of Globe Inches	Weight Pounds
8 3/4	3 1/8	5 x 3 1/2	3 3/4
Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	
\$12.00	\$14.00	\$16.25	

Spare globes, \$3.25 each.

Spare sockets, \$.85 each.

With red, green, blue or amber globe, add \$1.75 each.

With double contact socket fig. 276, No. 3 add \$.90 each.

Stern Lights

WROUGHT BRASS

With 360 degree fresnel lens and double contact electric socket.

Can be furnished in any height desired. 18" and longer, has a 5 1/4" diameter base.



Fig. 1119

Height Overall Inches	Diam. Base Inches	Diam. Neck Inches	Size Lens Inches	Weight Pounds
10	3 1/2	7/8	3 5/16 x 3 3/16	1 3/4
Polished Brass Each	Chromium Plated Each			
\$11.50	\$13.25			

Height other than standard, add \$1.80 for each 6 inches or fraction thereof.

With red, green, blue or amber lens add \$1.50 each.

Spare clear lens fig. 261, \$2.20 each.
Spare socket fig. 276, No. 3 \$.90 each.

Mast Lights

CAST BRONZE



Fig. 521

Equipped with 360 degree clear fresnel lens and double contact electric socket. Extra long neck.

Height Inches	Diam. Body Inches	Size Lens Inches	Inside Length Neck Inches	Inside Diam. Neck Inches	Weight Pounds
6 3/4	3 1/2	3 5/16 x 3 3/16	2 1/2	1 1/4	2
Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Spare Lens Fig. 261 Each	Spare Socket Fig. 747 Each	
\$13.00	\$14.00	\$15.75	\$2.20	\$.55	

With red, green, blue or amber lens, add \$1.50 each.
With medium screw socket fig. 346 for 15 watt bulb, add \$1.80 each.

Mast Lights

CAST BRONZE

WITH FIG. 106 THREADED GLOBE FOR BULB UP TO 60 WATTS



Fig. 113

Equipped with clear fresnel globe and fig. 222 medium screw electric socket.

Height Overall Inches	Diam. Bottom Opening Inches	Inside Length Neck Inches	Size of Globe Inches	Weight Pounds
9	1 3/4	2 1/2	5 x 3 1/2	4
Plain Bronze Each	Polished Bronze Each	Chromium Plated Each		
\$12.75	\$15.00	\$17.50		

Spare globes, \$3.25 each.

Spare sockets, \$.85 each.

With red, green, blue or amber globe, add \$1.75 each.
With double contact socket fig. 276, No. 3 add \$.90 each.

Improved Mast Light

CAST BRONZE—WITH THREADED GLOBE GUARD INTEGRAL CABLE ENTRANCE WITH TERMINAL TUBE



Fig. 83

With Fig. 106 Clear Threaded Globe for bulb up to 60 watts, medium screw socket.

Hgt. Overall Inches	Diam. Bottom Opening Inches	Inside Length Neck Inches	Size of Globe Inches	Weight Pounds
10	1 3/4	2 1/2	5 x 3 1/2	5 1/2
Plain Bronze Each	Polished Bronze Each	Chromium Plated Each		
\$20.00	\$23.50	\$27.00		

Spare clear globes, \$3.25 each.

Spare guards, \$4.85 each.

Spare sockets, \$.85 each.

With red, green, blue or amber globe add \$1.75 each.
With double contact socket fig. 276, No. 3, add \$.90 each.



Pole or Mast Light

HEAVY BRASS—THREADED FRESNEL GLOBE
DOUBLE CONTACT SOCKET—FOR 1/2 INCH PIPE



Fig. 362.

With 2 1/2 or 3 inch globe fig. 250 or 251, will accommodate up to 50 C. P. bulb.

No.	Plain Brass Each	Polished Brass Each	Chromium Plated Each	Diam. Globe Inches	Height Overall Inches	Diam. Base Inches	Wt. Lbs.
1	\$6.00	\$6.85	\$7.75	2 1/2	3 1/2	2 3/8	1
2	6.00	6.85	7.75	3	4	2 3/8	1 1/8

Mast and Yardarm Lights

CAST BRONZE—CLEAR FRESNEL GLOBE
MEDIUM SCREW SOCKET—FOR 15 WATT BULB



Fig. 103



Fig. 104

Fig. 103 threaded for 1/2 inch pipe.

Fig. 104 for mounting on Truck or Yardarm.

Will accommodate 15 watt A-17 bulb.

Fig.	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Height Overall Inches	Diam. Globe Inches	Wt. Lbs.
103	\$8.75	\$10.75	\$12.75	6	3	2
104	9.75	12.25	14.25	5 5/8	3	2

With red, green or blue globe, add \$1.00 each.

Spare clear globes fig. 249, \$2.40 each.

Spare sockets fig. 222, No. 1, \$.85 each.

With double contact socket fig. 276, add \$.90 each.

Mast Lights

BRASS BASE—CLEAR FRESNEL GLOBE
MEDIUM SCREW SOCKET



Fig. 488



Fig. 489

Fig. 488 threaded 1/2 inch I. P. S.

Fig. 489 drilled for mounting on mast truck.

Plain Bronze Each	Polished Bronze Each	Height Overall Inches	Diam. Base Inches	Size Globe Inches	Opening in Globe Inches	Wt. Lbs.
\$7.00	\$7.85	6	2 5/8	5 1/2 x 2 5/8	1 7/8	1

Chromium plated finish, add \$1.00 to polished price.

Spare clear globes fig. 77, \$2.20 each.

With red, green or blue globe, add \$1.00 each.

Special porcelain electric sockets only fig. 222, No. 1, \$1.20 each.

Bulbs for above, 120 volt 10 watt, clear \$.55 each.

Pole or Mast Light

CAST BRONZE—THREADED FRESNEL GLOBE
BAYONET DOUBLE CONTACT SOCKET
FOR 1 1/2 INCH DIAMETER MAST



Fig. 136

No.	Plain Brass Each	Polished Brass Each	Chromium Plated Each	Diam. Globe Inches	Height Overall Inches	Diam. Base Inches	Wt. Lbs.
1	\$5.35	\$6.35	\$6.75	2 1/2	4	1 1/2	1
2	5.35	6.35	6.75	3	4 1/2	1 1/2	1

Spare globes, see figs. 250 or 251.

Mast Lights

CAST BRONZE—WITH MEDIUM SCREW SOCKET
FIG. 106 CLEAR THREADED GLOBE—60 WATT



Fig. 145 with Guard



Fig. 309 without Guard

Fig.	Height Overall Inches	Size Globe Inches	Opening in Globe Inches	Tapped for Pipe Size Inches	Wt. Lbs.
145	7 3/8	5x3 1/2	2 3/4	1/2	3 1/4
309	6 1/2	5x3 1/2	2 3/4	1/2	2 1/2

Fig.	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Spare Clear Globes Each
145	\$14.50	\$16.50	\$19.50	\$3.25
309	9.75	11.50	13.50	3.25

With red, green, blue or amber globe, add \$1.25 each.

Spare medium screw sockets fig. 222 No. 1, \$.85 each.

With double contact socket fig. 276 No. 3, add \$.90 each.

Spare threaded brass guards, \$4.80 each.

Meal and Absent Light

CAST BRONZE—WATERTIGHT



Fig. 329 with Double Contact Socket

Fig. 330 with Medium Screw Socket

For mounting on yardarm. Supplied with two Fresnel globes, one blue, the other clear, Figs. 250 or 251.

Fig.	Polished Bronze Each	Chromium Plated Each	Length Overall Inches	Size Base Inches	Diam. Globe Inches	Wt. Lbs.
329	\$17.75	\$21.00	9	3 3/8 x 1 3/4	2 1/2	2
330	19.75	23.00	10	3 3/8 x 1 3/4	3	2 1/2

Bulbs for Fig. 329, see Fig. 337 all sizes listed.

Bulbs for Fig. 330, see Fig. 8 all sizes listed.



Streamline Side Lights

CAST BRONZE
CLASSES 2 AND 3 —ELECTRIC

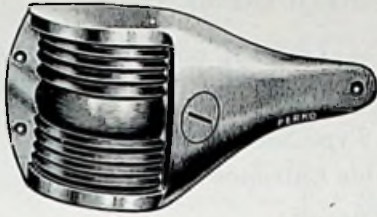


Fig. 563

With our popular rebulbing feature which makes it unnecessary to remove light from the boat to change bulb.

Furnished in pairs, with red and green fresnel lenses and double contact electric sockets.

Class	Height Inches	Length Inches	Size Lens Inches	Weight Per Pair Pounds
2	4 3/4	10 1/8	4 1/4 x 4 3/4	5 1/2
3	6	10 1/2	5 1/8 x 5 9/16	7 1/2
	Polished Bronze Per Pair	Chromium Plated Per Pair	Spare Lenses Each	Spare Sockets Each
Class	\$26.50	\$32.00	\$3.00	\$.55
3	39.00	45.00	3.75	.55

Spare Lenses, see Fig. 259.

Spare D.C. Sockets, see Fig. 747, No. 1.

Streamline Bow Lights

CAST BRONZE
CLASSES 2 AND 3—ELECTRIC

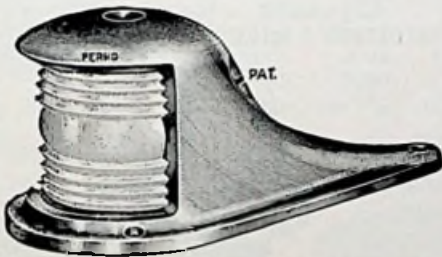


Fig. 561

Furnished with clear fresnel lens and double contact electric socket.

Class	Height Inches	Size Base Inches	Size Lens Inches	Flagpole Socket Inches	Weight Pounds
2	5 1/4	5 3/4 x 11 1/2	4 1/4 x 6 3/8	1	7
3	6 3/8	6 5/8 x 13	5 1/8 x 7 13/16	1	8 3/4
	Polished Bronze Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each	
Class	\$23.50	\$29.00	\$3.00	\$.55	
3	33.50	39.50	3.75	.55	

Spare Lenses, see Fig. 260.

Spare D.C. Sockets, see Fig. 747, No. 5

Streamline Side Lights

WROUGHT BRASS
CLASS 2—ELECTRIC



Fig. 1138

Design is gracefully streamlined and quality is up to our usual high standard.

Contains our patented swivel type waterproof rebulbing feature, no screws to remove.

Furnished in pairs, with red and green fresnel lenses, and double contact electric sockets.

Extreme Height Inches	Extreme Length Inches	Size Lens Inches	Weight Per Pair Pounds
6 9/16	9 9/8	4 1/4 x 4 3/4	3 1/4
Bright Finish Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair	Spare Lenses Each
\$21.75	\$23.75	\$29.00	\$3.00
			Spare Sockets Each
			\$.55

Spare Lenses, see Fig. 259.

Spare D.C. Sockets, see Fig. 747, No. 1.

Streamline Bow Lights

WROUGHT BRASS
CLASS 2—ELECTRIC



Fig. 1139

A very attractive running mate for Fig. 1138 above. Containing our swivel type waterproof rebulbing feature, no screws to remove.

Furnished with clear fresnel lens and double contact electric socket.

A flag pole socket in top if required.

Height Inches	Size Base Inches	Size Lens Inches	Flagpole Socket Inches	Weight Pounds
5 1/2	5 5/8 x 9 1/2	4 1/4 x 6 3/8	1	2
Bright Finish Each	Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
\$15.50	\$16.75	\$19.00	\$3.00	\$.55

Spare Lenses, see Fig. 260.

Spare D.C. Sockets, see Fig. 747, No. 5.

With Flag Pole Socket add \$1.10 each.

Furnished without Flag Pole Socket unless otherwise specified.

SPARE REBULBING FEATURES FOR ALL ABOVE LIGHTS, POLISHED \$2.20, CHROMIUM PLATED \$2.65 EACH. LIGHTS ON THIS PAGE CANNOT BE SUPPLIED WITH MEDIUM SCREW SOCKET.

PERKO "INTERNATIONAL" NAVIGATION LIGHTS

CAST BRONZE — WATERTIGHT

VARIOUS FINISHES, PLAIN — POLISHED — CHROMIUM PLATED
SHIELDED TO U.S.C.G. VISIBILITY REQUIREMENTS

LEGAL FOR CLASS 2 AND CLASS 3 BOATS — UNDER 65 FEET LONG
FOR USE ON INLAND OR INTERNATIONAL WATERS.

Electric—Double Contact Bayonet Type Sockets

Watertight Packing Glands for Cable Entrance

Neck Threaded 3/8 Inch 18 Thread

Side Lights

10 POINTS — 112½ DEGREES
VISIBILITY — 2 MILES
COLORED LENSES — 1 RED AND 1 GREEN

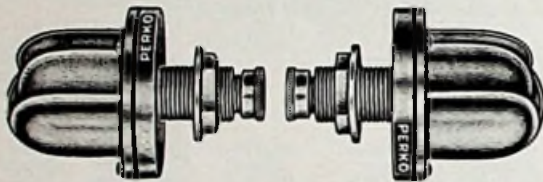


Fig. 910

	Plain Bronze Per Pair	Polished Bronze Per Pair	Chromium Plated Per Pair
Price	\$15.00	\$19.00	\$22.00
Height Lens Inches	2½		
Length Overall Inches		4¾	
Diam. Flange Inches		2½	
Weight Per Pair Pounds			2½

Stern Lights

12 POINTS — 135 DEGREES
VISIBILITY 3 MILES — CLEAR LENS

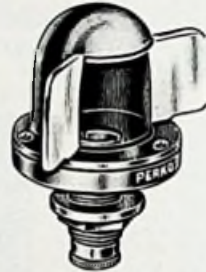


Fig. 912

	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
Price	\$7.50	\$9.50	\$11.00
Height Lens Inches	2½		
Length Overall Inches		4¾	
Diam. Flange Inches		2½	
Weight Each Pounds			1¼

Bow or Masthead Lights

20 POINTS — 225 DEGREES
VISIBILITY 3 MILES — CLEAR LENS



Fig. 911

	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
Price	\$7.50	\$9.50	\$11.00
Height Lens Inches	2½		
Length Overall Inches		4¾	
Diam. Flange Inches		2½	
Weight Each Pounds			1½

Anchor or Range Lights

32 POINTS — 360 DEGREES
VISIBILITY 3 MILES — CLEAR LENS

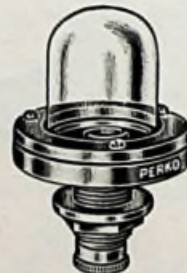


Fig. 913

	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
Price	\$7.00	\$9.00	\$10.00
Height Lens Inches	2½		
Length Overall Inches		4¾	
Diam. Flange Inches		2½	
Weight Each Pounds			¾

Special Coupling

3/8 inch 18 Thread To 1/2 Inch I.P.S. Thread

For mounting above lights on 1/2 inch pipe this special reducing coupling is offered.

Fig. 57 — \$1.40 each

Spare Lenses for all above lights:

Clear	\$1.00 each
Colored, Red or Green	1.20 each
Spare D.C. Sockets, Fig. 276 No. 0	.90 each



Royal Combination Lights

ELECTRIC ONLY—DOUBLE CONTACT
FOR CLASSES A AND 1 BOATS



Height Inches	Width Inches	Size Lens Inches	Weight Pounds
3 3/4	4 1/4	3 7/16 x 3 5/8	1 1/4

Material	Price Each
Galvanized	\$8.00
Polished Brass	\$9.75
Chromium Plated	\$11.75

Spare Lenses, see Fig. 259, Cl. 1.

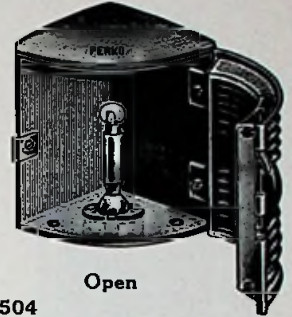
Fig. 89

De-Lite Side Lights

WITH FRONT DOORS
FOR CLASSES 2 AND 3 BOATS
CAST BRONZE



Closed



Open

Fig. 504

A quick change of bulb or lens is simple. Lenses are fastened in doors by brass straps and machine screws. Doors have positive latch which cannot work loose due to vibration or wind.

Furnished in pairs, with red and green fresnel lenses and double contact or medium screw sockets.

Royal Side Lights

ELECTRIC ONLY—DOUBLE CONTACT
FOR CLASSES 1, 2 AND 3 BOATS



Class	Height Inches	Size Lens Inches	Weight Per Pair Pounds
Class 1	4 1/4	3 7/16 x 3 5/8	1 3/4
Class 2	5	4 1/4 x 4 3/4	2
Class 3	6	5 3/16 x 5 9/16	3

Class	Galv. Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
Class 1	\$12.00	\$15.50	\$19.50
Class 2	12.50	16.00	20.00
Class 3	14.50	18.00	22.00

Spare Lenses, see Fig. 259.

Fig. 91

Class	Height Inches	Angle Inches	Size Lens Inches	Weight Per Pair Pounds
2	5 1/2	3 3/4 x 3 3/4	4 1/4 x 4 3/4	6 1/2
3	6	4 x 4	5 3/16 x 5 9/16	8

Class	Polished Bronze Per Pair	Chromium Plated Per Pair	Spare Lenses Each	Spare Sockets Each
2	\$27.50	\$32.50	\$3.00	\$.90
3	32.50	38.50	3.75	.90

With medium screw sockets, add \$3.50 per pair.

Spare D.C. Sockets, see Fig. 276, No. 0.

Spare Lenses, see Fig. 259.

With clear lens, Class 2 or 3, add \$2.00 per pair.

Royal Bow Lights

ELECTRIC ONLY—DOUBLE CONTACT
FOR CLASSES 1, 2 AND 3 BOATS



Class	Height Inches	Size Lens Inches	Weight Pounds
Class 1	4 1/4	3 7/16 x 5 3/8	1
Class 2	5	4 1/4 x 6 3/8	1 1/2
Class 3	6	5 3/16 x 7 13/16	2

Class	Galv. Each	Polished Brass Each	Chromium Plated Each
Class 1	\$6.00	\$7.75	\$ 9.75
Class 2	6.25	8.00	10.00
Class 3	7.25	9.00	11.00

Spare Lenses, see Fig. 260.

Fig. 92

De-Lite Bow Lights

WITH FRONT DOORS
FOR CLASSES 2 AND 3 BOATS
CAST BRONZE



Fig. 505

Same construction as Fig. 504 above. Furnished with clear fresnel lens and double contact or medium screw socket.

Class	Height Inches	Width Inches	Size Lens Inches	Weight Pounds
2	5 1/2	5 1/2	4 1/4 x 6 3/8	3 3/4
3	6 1/2	6	5 3/16 x 7 13/16	4 1/4

Class	Polished Bronze Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
2	\$13.75	\$16.25	\$3.00	\$.90
3	16.25	19.25	3.75	.90

With medium screw sockets, add \$1.75 Each.

Spare D.C. Sockets, see Fig. 276, No. 0.

Spare Lenses, see Fig. 260.

With Colored Lens, Class 2, add \$1.75 Each.

With Colored Lens, Class 3, add \$2.50 Each.

Colored Lenses are Red, Green or Blue.

Amber available in Class 2 only.

Masthead, Range and Stern Lights

To meet U.S.C.G. Revised International Rules



Fig. 98

20 Points
225 Degrees

With clear lens, electric only, double contact.



Fig. 99

12 Points
135 Degrees

Fig.	Polished Brass Each	Chromium Plated Each	Height Inches	Size Lens Inches	Weight Pounds
98	\$11.00	\$13.75	5 1/4	4 1/4 x 8 1/2	1 1/2
99	9.50	12.00	5 1/4	4 1/4 x 5	1 1/4

See U.S.C.G. 169 Rules 2-A, 7-B and 10-A.

All Above Lights with Medium Screw

Adapter Fig. 153 Add \$.75 Each.



"Perko" De-Lite Anchor Lights

TURRET TOP—REMOVABLE GUARDS
FOR CLASSES 1, 2 AND 3 BOATS

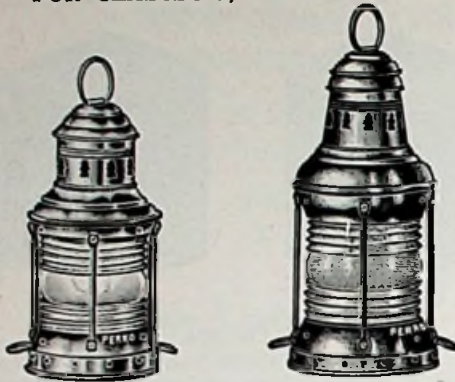


Fig.	Height Less Ring Inches	Diam. Base Inches	Size of Lens Inches	Weight Pounds
0-2	8 $\frac{5}{8}$	4 $\frac{1}{2}$	3 $\frac{1}{16}$ x3 $\frac{1}{16}$	2
0-6	11 $\frac{3}{4}$	5 $\frac{5}{8}$	4 $\frac{1}{4}$ x4	3

OIL OR ELECTRIC ONLY

Fig.	Galv. Each	Polished Brass Each	Chromium Plated Each
0-2	\$9.00	\$11.25	\$14.50
0-6	10.75	13.00	16.50

Comb. Oil and Electric, add \$1.75 each.
Fig. 0-6 with Hinged Bottom, add \$1.00 each.

FLAT TOP—REMOVABLE GUARDS
FOR CLASSES 1, 2 AND 3 BOATS



Fig.	Height Less Ring Inches	Diam. Base Inches	Size of Lens Inches	Weight Pounds
11	6	4 $\frac{1}{2}$	3 $\frac{1}{16}$ x3 $\frac{3}{16}$	1 $\frac{1}{2}$
12	9	5 $\frac{5}{8}$	4 $\frac{1}{4}$ x4	2 $\frac{1}{2}$

ELECTRIC ONLY—DOUBLE CONTACT SOCKETS

Fig.	Galv. Each	Polished Brass Each	Chromium Plated Each
11	\$9.00	\$11.25	\$14.50
12	10.75	13.00	16.50

With Red, Green, Blue or Amber Lens.
Figs. 0-2 and 11, add \$2.00 each.
Figs. 0-6 and 12, add \$2.40 each.

All above lights with Medium Screw Electric Sockets,
add \$.75 each.

SPARE PARTS

	Each
Lenses, fig. 261, Clear, for figs. 0-2 and 11	\$2.20
Lenses, fig. 261, Clear, for figs. 0-6 and 12	2.90
Oil Founts, fig. 287, Brass, for fig. 0-2	2.00
Oil Founts, fig. 286, Brass, for fig. 0-6	2.00
Oil and Electric Founts, fig. 735, for fig. 0-2	4.25
Oil and Electric Founts, fig. 736, for fig. 0-6	4.25
Oil Burners, fig. 246, No. 0, Brass, for fig. 0-2	.35
Oil Burners, fig. 246, No. 1, Brass, for fig. 0-6	.40
Other parts, see page 17.	

10 Day Oil Anchor Light

360 DEGREE CLEAR FRESNEL LENS
LATCHED SWIVEL FOUNT

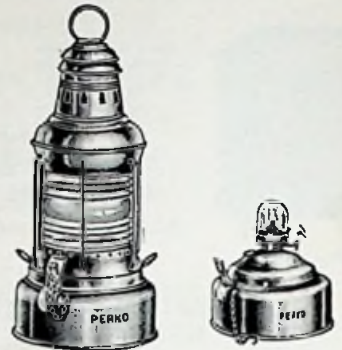


Fig. 596

Fig. 596A

At least 10 days of continuous light on one filling of
good grade kerosene. Wick is non-carbonizing type.

Polished Brass Each	Size Lens Inches	Height Overall Inches	Diam. Fount Inches	Capacity Fount Pints	Weight Pounds
\$26.00	4 $\frac{1}{4}$ x4	14	7	3 $\frac{1}{2}$	4 $\frac{1}{2}$

With red, green, blue or amber lens, add \$2.40 each.

Fig. 596-A Fount complete, \$13.00 each.

Light only, less Fount. \$15.50 each.

Spare burners, wicks and chimneys, see figs. 245 and
272.

Spare lenses, see fig. 261.

Sail Boat Side Lights

SMALL SIZE — OIL BURNING

Designed for Sail Boats where small oil burning side
lights are desirable.



Fig. 69

Size of Lens Inches	Extreme Height Inches	Diam. of Base Inches	Weight Per Pair Pounds
3 $\frac{1}{16}$ x3 $\frac{3}{16}$	9	4 $\frac{1}{4}$	4

Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
\$16.00	\$20.00	\$27.00

Oil and Electric, with Fig. 735, Fount, add \$3.50 per
pair.

Electric socket is bayonet double contact.

Spare Lenses, see Fig. 259, Class 1.

Spare Founts, see Figs. 287 or 735.

Spare Burners and Wicks, see Figs. 246 and 302 No. 0.



"Perko" De-Lite Combination Lights

TURRET TOP—FRONT DOOR

FOR CLASS ONE BOATS—16 FEET AND OVER AND LESS THAN 26 FEET IN LENGTH

OIL AND ELECTRIC, DOUBLE CONTACT

Green Lens for Starboard, Red Lens for Port

Height, less ring, 9 3/8 inches

Measurements of base, 5 inches x 5 1/2 inches

Size of lens, 3 3/16 inches x 3 3/8 inches

Weight, 3 3/8 pounds



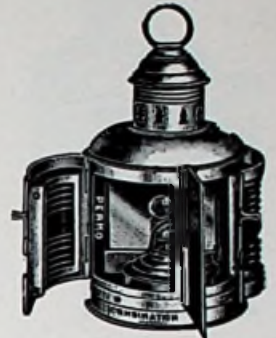
(Closed)

Galvanized
Each
\$13.00

Fig. 0-1

Polished
Brass
Each
\$15.25

Chromium
Plated
Each
\$19.00



(Opened)

De-Lite Combination Lights

FLAT TOP—FRONT DOOR

ELECTRIC ONLY—DOUBLE CONTACT SOCKET

Height, less ring, 6 1/2 inches

Measurements of base, 5 inches x 5 1/2 inches

Size of lens, 3 3/16 inches x 3 3/8 inches

Weight, 3 pounds



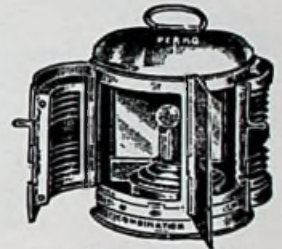
(Closed)

Galvanized
Each
\$13.00

Polished
Brass
Each
\$15.25

Fig. 0-10

Chromium
Plated
Each
\$19.00



(Opened)

Combination Lights

TURRET TOP — BOTTOM OPENING

FOR CLASS 1 BOATS

WITH RED AND GREEN LENSES

Height less Ring, 9 inches.

Meas. of Base, 4 3/4 x 4 1/2 inches.

Size of Lenses, 3 3/16 x 3 3/8 inches.

Weight. 2 1/2 pounds.



Fig. 1

	Galvanized Each	Polished Brass Each
Oil or Elec. Only	\$10.00	\$12.50
Oil and Electric	11.00	13.50

Chromium plated finish, add \$3.50 each to Pol. Brass price.

Electric Socket is Double Contact.

Combination Lights

FLAT TOP—BOTTOM OPENING

FOR CLASS 1 BOATS

ELECTRIC ONLY—DOUBLE CONTACT SOCKET

WITH RED AND GREEN

LENSES

Height less Ring, 6 1/2 inches.

Meas. of Base, 4 3/4 x 4 1/2 inches.

Size of Lenses, 3 3/16 x 3 3/8 inches.

Weight, 2 pounds.



Fig. 3

	Galvanized Each	Polished Brass Each	Chromium Plated Each
	\$10.00	\$12.50	\$16.00

ALL LIGHTS ON THIS PAGE WITH MEDIUM SCREW ELECTRIC SOCKETS ADD \$1.70 EACH

SPARE PARTS

Lenses, fig. 259, Class 1 Combination	Each	\$2.20
Oil Founts, fig. 582, Brass, for fig. 01		2.00
Oil Founts, fig. 733, Brass, for fig. 1		2.00
Oil and Electric Founts, fig. 733, Brass, for fig. 1		4.25
Oil Burners, fig. 246, No. 0, Brass .....		.35
Oil Wicks, fig. 302, No. 0 .....		.06
Electric Sockets, Double Contact, fig. 276, No. 2 .....		.90
Electric Sockets, Medium Screw, fig. 346, No. 1 .....		.65



“Perko” De-Lite Side Lights

TURRET TOP
FOR CLASS 2 BOATS—26 FEET OR OVER AND LESS THAN 40 FEET IN LENGTH
OIL AND ELECTRIC, DOUBLE CONTACT
Furnished in pairs—one green light for Starboard and one red light for Port

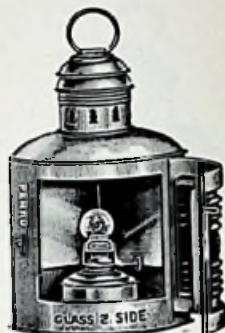


(Closed)

Height, less ring, 10½ inches
Measurements of base, 5¼ inches x 5¼ inches
Size of lens, 4¼ inches x 4¼ inches
Weight, per pair, 6¼ pounds

Fig. 0-4

Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
\$22.50	\$27.50	\$35.00



(Opened)

“Perko” De-Lite Bow Lights

TURRET TOP
CLASS 2—OIL AND ELECTRIC, DOUBLE CONTACT

Height, less ring, 10½ inches
Size of lens, 4¼ inches x 6½ inches
Measurements of base, 5 inches x 5½ inches
Weight, each 3 pounds

Fig. 0-5

	Galvanized Each	Polished Brass Each	Chromium Plated Each
With clear lens	\$11.25	\$13.75	\$17.50
With Red, Green, Amber or Blue Lens	13.50	16.00	19.75



(Closed)



(Opened)

“Perko” De-Lite Side Lights

FLAT TOP—CLASS 2
ELECTRIC ONLY—DOUBLE CONTACT SOCKET

Height, less ring, 7¼ inches
Measurements of base, 5½ inches x 5½ inches
Size of lens, 4¼ inches x 4¼ inches
Weight, per pair, 5½ pounds

Fig. 0-40

Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
\$22.50	\$27.50	\$35.00



(Closed)



(Opened)

“Perko” De-Lite Bow Lights

FLAT TOP—CLASS 2
ELECTRIC ONLY—DOUBLE CONTACT SOCKET

Height, less ring, 7¾ inches
Measurements of base, 5 inches x 5½ inches
Size of lens, 4¼ inches x 6½ inches
Weight, each, 2¾ pounds

Fig. 0-50

	Galvanized Each	Polished Brass Each	Chromium Plated Each
With clear lens	\$11.25	\$13.75	\$17.50
With Red, Green, Amber or Blue Lens	13.50	16.00	19.75



(Closed)



(Opened)

ALL LIGHTS ON THIS PAGE WITH MEDIUM SCREW ELECTRIC SOCKETS ADD \$1.70 EACH

SPARE PARTS

	Each
Lenses, fig. 259, Class 2, for figs. 0-4 and 0-40	\$3.00
Lenses, fig. 260, Class 2, for figs. 0-5 and 0-50	3.00
Oil Founts, fig. 582, Brass, for figs. 0-4 and 0-5	2.00
Oil Burners, fig. 246, No. 1, Brass, for figs. 0-4 and 0-5 .....	.40
Oil Wicks, fig. 302, No. 1 .....	.07
Electric Sockets, Double Contact, fig. 276, No. 2 .....	.90
Electric Sockets, Medium Screw, fig. 346, No. 1 .....	.65



"Perko" De-Lite Side Lights

TURRET TOP

FOR CLASS 3 BOATS—40 FEET OR OVER AND NOT MORE THAN 65 FEET IN LENGTH
OIL AND ELECTRIC, DOUBLE CONTACT

Size of lens, $5\frac{5}{16}$ inches x $5\frac{5}{16}$ inches
Height, less rings, $12\frac{1}{4}$ inches
Measurements of base, $5\frac{5}{8}$ inches x $5\frac{5}{8}$ inches
Weight, per pair, 8 pounds



(Closed)



(Opened)

Fig. 0-8

Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
\$26.00	\$31.50	\$40.00

"Perko" De-Lite Bow Lights

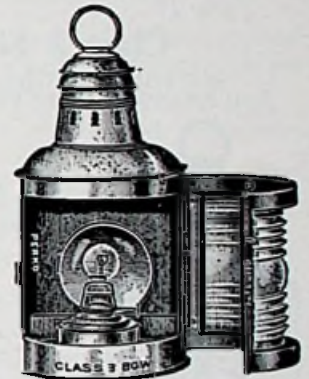
TURRET TOP

CLASS 3—OIL AND ELECTRIC, DOUBLE CONTACT

Size of lens, $5\frac{1}{16}$ inches x $7\frac{15}{16}$ inches
Height, less ring, $12\frac{1}{4}$ inches
Measurements of base, $5\frac{1}{2}$ inches x $6\frac{1}{8}$ inches
Weight, each, 4 pounds



(Closed)



(Opened)

Fig. 0-9

	Galvanized Each	Polished Brass Each	Chromium Plated Each
With clear lens	\$13.00	\$15.75	\$20.00
With Red, Green or Blue Lens	15.50	18.25	22.50

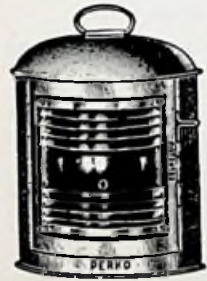
"Perko" De-Lite Side Lights

FLAT TOP—CLASS 3

ELECTRIC ONLY—DOUBLE CONTACT SOCKET

Size of lens, $5\frac{1}{2}$ inches x $5\frac{5}{16}$ inches
Height, less ring, $8\frac{1}{2}$ inches
Measurements of base, $5\frac{5}{8}$ inches x $5\frac{5}{8}$ inches
Weight, per pair, 7 pounds

Fig. 0-80



(Closed)



(Opened)

Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
\$26.00	\$31.50	\$40.00

"Perko" De-Lite Bow Lights

FLAT TOP—CLASS 3

ELECTRIC ONLY—DOUBLE CONTACT SOCKET

Size of lens, $5\frac{5}{16}$ inches x $7\frac{15}{16}$ inches
Height, less ring, $8\frac{1}{2}$ inches
Measurements of base, $5\frac{1}{2}$ inches x $6\frac{1}{8}$ inches
Weight, each, 4 pounds

Fig. 0-90



(Closed)



(Opened)

	Galvanized Each	Polished Brass Each	Chromium Plated Each
With clear lens	\$13.00	\$15.75	\$20.00
With Red, Green or Blue Lens	15.50	18.25	22.50

ALL LIGHTS ON THIS PAGE WITH MEDIUM SCREW ELECTRIC SOCKETS ADD \$1.70 EACH

SPARE PARTS

Lenses, fig. 259, Class 3, for figs. 0-8 and 0-80.....	Each	\$3.75
Lenses, fig. 260 Class 3, for figs. 0-9 and 0-90.....		3.75
Oil Founts, fig. 582, Brass, for figs. 0-8 and 0-9.....		2.00
Oil Burners, fig. 246 No. 1, Brass, for figs. 0-8 and 0-9.....		.40
Oil Wicks, fig. 302 No. 1.....		.07
Electric Sockets, Double Contact, fig. 276, No. 3.....		.90
Electric Sockets, Medium Screw, fig. 346, No. 1.....		.65



Class 2 Side Lights

BOTTOM OPENING—SPRING FOUNT
FOR BOATS 26 to 39 FEET LONG INCLUSIVE



Size of Lenses, $4\frac{1}{4} \times 4\frac{3}{4}$ inches.
Extreme Height, $10\frac{1}{2}$ inches.
Size of Base, $4\frac{3}{4} \times 5\frac{1}{2}$ inches.
Weight, per pair, $5\frac{1}{2}$ lbs.

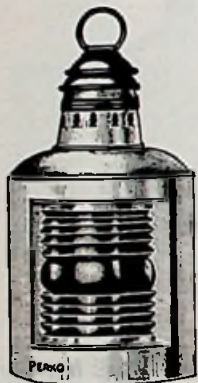
	Galvanized Per Pair	Polished Brass Per Pair
Oil or Elec. only	\$17.50	\$21.00
Oil and Electric	21.00	24.50

Chromium plated finish, add \$6.50
per pair to Polished Brass price.

Fig. 17

Class 3 Side Lights

BOTTOM OPENING—SPRING FOUNT
FOR BOATS 40 TO 65 FEET LONG INCLUSIVE



Size of Lenses, $5\frac{3}{16} \times 5\frac{5}{16}$ inches
Extreme Height, $12\frac{1}{2}$ inches
Size of Base, $5 \times 6\frac{1}{4}$ inches
Weight, per pair, $7\frac{1}{2}$ lbs.

	Galvanized Per Pair	Polished Brass Per Pair
Oil or Elec. Only	\$21.00	\$26.50
Oil and Electric	24.50	30.00

Chromium plated finish, add \$7.00
per pair to Polished Brass price.

Fig. 19

Flat Top Side Lights

CLASSES 2 AND 3
BOTTOM OPENING—SPRING FOUNT
ELECTRIC ONLY—DOUBLE CONTACT SOCKET



Fig. 4

Class	Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
2	\$17.50	\$21.00	\$27.50
3	21.00	26.50	33.50

ALL LIGHTS ON THIS PAGE WITH MEDIUM SCREW ELECTRIC SOCKETS ADD \$.75 EACH.
ALL LIGHTS ON THIS PAGE WITH HINGED BOTTOMS ADD \$1.00 EACH.

Oil and Electric Founts fig. 736
Oil Founts, fig. 286
Lenses, figs. 259 and 260

SPARE PARTS

Electric Adapters, figs. 291 or 292
Electric D.C. Adapters, fig. 355
Oil Burners and Wicks, figs. 246 and 302 No. 1

Class 2 Bow Lights

BOTTOM OPENING—SPRING FOUNT
FOR BOATS 26 TO 39 FEET LONG INCLUSIVE



Size of Lens, $4\frac{1}{4} \times 6\frac{3}{8}$ inches
Extreme Height, $10\frac{1}{2}$ inches
Size of Base $4\frac{3}{4} \times 5$ inches
Weight, each, 3 lbs.

WITH CLEAR LENS

	Galvanized Each	Polished Brass Each
Oil or Elec. Only	\$8.75	\$10.50
Oil and Electric	10.50	12.25

Chromium plated finish, add \$3.25
each to Polished Brass price.

With Red, Green, Amber or Blue
Lens add \$2.25 Each.

Fig. 18

Class 3 Bow Lights

BOTTOM OPENING—SPRING FOUNT
FOR BOATS 40 TO 65 FEET LONG INCLUSIVE



Size of Lens, $5\frac{3}{16} \times 7\frac{13}{16}$ inches
Extreme Height, $12\frac{1}{2}$ inches
Size of Base, $5\frac{1}{2} \times 6\frac{1}{4}$ inches
Weight, each $3\frac{1}{2}$ lbs.

WITH CLEAR LENS

	Galvanized Each	Polished Brass Each
Oil or Elec. Only	\$10.50	\$13.25
Oil and Electric	12.25	15.00

Chromium plated finish, add \$3.50
each to Polished Brass price.

With Red, Green or Blue Lens add
\$2.50 Each.

Fig. 20

Flat Top Bow Lights

CLASSES 2 AND 3
BOTTOM OPENING—SPRING FOUNT
ELECTRIC ONLY—DOUBLE CONTACT SOCKET



Fig. 5

CLASS 2

Size of Lens, $4\frac{1}{4} \times 6\frac{3}{8}$ inches.
Extreme Height, $7\frac{1}{4}$ inches
Size of Base, $4\frac{1}{2} \times 5$ inches.
Weight, each, $2\frac{1}{2}$ lbs.

CLASS 3

Size of Lens, $5\frac{3}{16} \times 7\frac{13}{16}$ inches.
Extreme Height, $8\frac{1}{2}$ inches.
Size of Base, $5\frac{1}{2} \times 6\frac{1}{4}$ inches.
Weight, each, $3\frac{3}{4}$ lbs.

Class	Galvanized Each	Polished Brass Each	Chromium Plated Each
2	\$ 8.75	\$10.50	\$13.75
3	10.50	13.25	16.75

Class 2 with Red, Green, or Blue lens add \$2.25 each.
Class 3 with Red, Green, or Blue lens add \$2.50 each.



UNITED STATES COAST GUARD

MOTORBOAT REGISTRATIONS & NAVIGATION FINES SECTION

EQUIPMENT REQUIREMENTS FOR PLEASURE AND COMMERCIAL FISHING MOTORBOATS

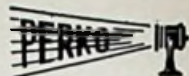
For complete details, contact local Coast Guard office or write to, Commandant, U. S. Coast Guard, Washington, D. C. for copy of "Motorboat Regulations" C.G. 168 latest issue.

EQUIPMENT	CLASS A 0 to less than 16 feet	CLASS 1 16 to less than 26 feet	CLASS 2 26 to less than 40 feet	CLASS 3 40 to not more than 65 feet
COMBINATION LIGHT	1—in fore part of boat showing red to port and green to starboard from right ahead to 2 Points abaft the beam, visible at least 1 mile.		NONE	NONE
PORT SIDE LIGHT	NONE	NONE	1—on port side, properly screened to show red from right ahead to 2 points abaft the beam, visible at least 1 mile.	
STARBOARD SIDE LIGHT	NONE	NONE	1—on starboard side, properly screened to show green from right ahead to 2 points abaft the beam, visible at least 1 mile.	
STERN LIGHT	1—bright white light aft showing all around the horizon, visible at least 2 miles.			
BOW LIGHT	NONE	NONE	1—bright white light in fore part of boat showing from right ahead to 2 points abaft the beam on both sides, visible at least 2 miles.	
WHISTLE (1)	NONE	1—hand, mouth, or power-operated. Audible at least 1/2 mile.	1—hand or power-operated. Audible at least 1 mile.	1—power-operated. Audible at least 1 mile.
BELL	NONE	NONE	1—which produces, when struck, a clear bell-like tone of full round characteristics.	
LIFESAVING DEVICES (2)	1—approved life preserver, buoyant vest, ring-buoy, or buoy-cushion for each person on board.			1—approved life preserver or ring buoy for each person on board.
FLAME ARRESTORS	1—on each carburetor of all gasoline engines installed after April 25, 1940, except outboard motors. (Approved.)			
VENTILATION	At least 2 ventilators with cowls or equivalent capable of removing gases from the bilges in engine and fuel tank compartments of boats constructed or decked after April 25, 1940, using gasoline or other fuel of a flashpoint less than 110° Fahrenheit.			
FIRE EXTINGUISHERS (3)	Any one of the following types of extinguishers: 1 quart vaporizing liquid 1 1/4 gallon foam 4 pound CO ₂ 4 pound dry chemical None required on pleasure outboard motorboats of open construction.		Any two of the following types of extinguishers: 1 quart vaporizing liquid 1 1/4 gallon foam 4 pound CO ₂ 4 pound dry chemical	Any three of the following types of extinguishers: 1 quart vaporizing liquid 1 1/4 gallon foam 4 pound CO ₂ 4 pound dry chemical

¹ Commercial fishing motorboats may carry any of these specified devices.

² Commercial fishing motorboats may carry in lieu of this specified equipment prescribed wooden life floats.

³ Those vessels which are fitted with a fixed fire extinguishing system in the machinery space may dispense with one (1) of the required fire extinguishers.



TOWING OR SIGNAL LIGHTS

ALL CAST BRONZE — WITH WATERTIGHT BOX
 MEDIUM SCREW SOCKET — CLEAR FRESNEL GLOBES — CAST BRONZE GUARD
 MAXIMUM LAMP 60 WATTS—VISIBILITY 5 MILES PER U.S.C.G. REGULATIONS

SINGLE LIGHT

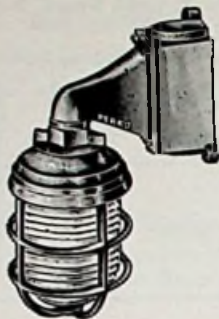


Fig. 540

Box Not Tapped, See Below

Each	Height Overall Inches	Width Overall Inches	Weight Pounds
\$29.00	10 ¼	6 ¾	6 ¾

DOUBLE LIGHT

With ½" Brass Pipe — Lights 3 Feet Apart

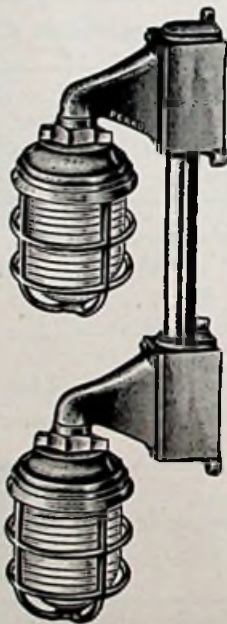


Fig. 541

Each	Height Overall Inches	Width Overall Inches	Weight Pounds
\$68.00	46 ½	6 ¾	16

TRIPLE LIGHT

With ½" Brass Pipe — Lights 3 Feet Apart

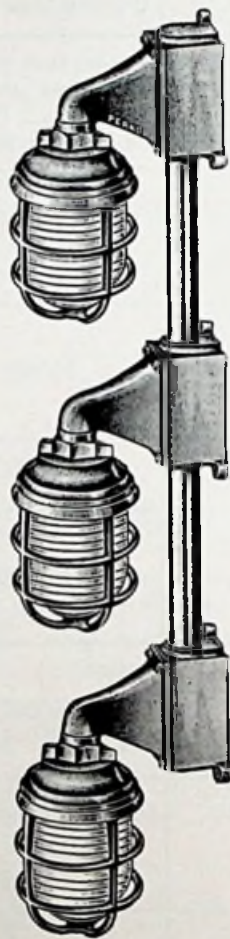


Fig. 542

Each	Height Overall Inches	Width Overall Inches	Weight Pounds
\$108.00	82 ½	6 ¾	25 ½

SPARE GLOBES clear Fig. 106. \$3.25 each.

COLORED GLOBES can be supplied. Colors are red, green, blue or amber. Add \$1.25 for each globe.

SPARE GUARDS Cast Bronze. \$4.80 each.

SPARE SOCKETS Porcelain Fig. 222 No. 1, \$.85 each.

TAPPING Fig. 540 with one ½ inch pipe tap, add \$.50, with two ½ inch pipe taps, add \$1.00. Box will accommodate ¾ inch pipe tap, if such tapping required, price on application.

Figs. 541 and 542 with ¾ inch pipe or tapping for same, price on application.

Figs. 541 and 542 are tapped for the connecting pipe only. If additional taps required, see above.



Blinker and Loading Light

CAST BRONZE—PLAIN FINISH
WITH RED AND CLEAR FRESNEL LENSES
MEDIUM SCREW BAKELITE SOCKETS

Four sockets in lower section for 25 watt tubular bulbs. One socket in upper section for bulb up to 60 watt. Bulbs not included. Base threaded 1 inch I. P. S.



Fig. 1163

Extreme Height Inches	Size Red Lens Inches	Size Clear Lens Inches	Weight Pounds
17 1/2	5x3 1/2	5 1/2 x 5 1/4	18

Each	Tubular Bulbs Each	Spare Sockets Each
\$75.00	\$.90	\$.65

Spare clear lenses fig. 261, \$8.75 each.

Spare red lense fig. 106, \$4.50 each.

Mast or Blinker Signaling Lights

CAST BRONZE—WATERTIGHT—PLAIN FINISH
WITH 360° FRESNEL LENS



Fig. 403

Size No.	Size Lens Inches	Height Overall Inches	I. P. S. Thread Inches	Weight Pounds	For Vessel Feet
1	3 1/8 x 3 1/8	6 3/4	1/2	4	up to 65
2	4 1/4 x 4	8 1/4	3/4	6	65 to 150
3	5 1/2 x 5 1/4	9 3/4	1	10	over 150

Size No.	Clear Each	Colored Each	Electrical Equipment
1	\$25.00	\$26.50	1 medium screw socket
2	29.00	31.00	1 medium screw socket
2-B	36.00	38.00	6 light candelabra unit
2-C	33.00	35.00	1 mogul 3 wire socket
3	41.50	48.00	1 medium screw socket
3-A	47.00	53.50	4 medium screw sockets
3-C	48.50	55.00	6 light candelabra unit
3-D	45.00	51.50	1 mogul 3 wire socket

All above sockets are Phenolic (Bakelite).

For spare lenses, see fig. 261.

Colored lenses are red, green, blue or amber.

BULBS FOR ABOVE

120 volt 60 watt A-19 clear for Nos. 1, 2, 3, \$.55 each.

120 volt 25 watt T-10 clear for No. 3-A, \$.90 each.

120 volt 50/50 watt P-25 clear for No. 2-C, 3-D, \$6.00 each.

120 Volt, 15 Watt, T-7 clear with candelabra base for Nos. 2-B and 3-C. \$1.05 each.

Portable Staff Light

ELECTRIC—360° FRESNEL LENS
WITH PACKING GLAND FOR
CABLE
MEDIUM SCREW SOCKET

Size Lens Inches	Height Lens Bails Inches	Diam. Base Inches	Weight Pounds
4 1/4 x 4	8 1/4	5 5/8	2 1/2

Polished Brass Each	Electric Fount Each
\$26.00	\$6.00

With red, green or blue lens, add \$2.75 each.

Spare lenses, see fig. 261, Senior.



Fig. 16

Globe—Distress or Signal Light

CLEAR GLOBE

OIL BURNING

Diam. Globe Inches	Height Overall Inches	Weight Pounds
6	11	4
8	14 1/2	6
10	22	12

Diam. Globe Inches	Galvanized Steel Each	Polished Brass Each
6	\$16.00	\$24.00
8	18.75	28.00
10	33.50	45.00

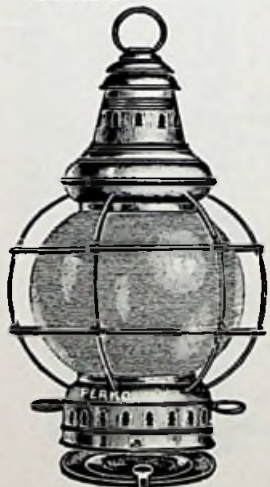


Fig. 44

With red, green, blue or frosted globe, add \$5.00 each. Electric only, same prices as above.

Comb. oil and electric 6 and 8 inch, add \$1.75 each.

Comb. oil and electric 10 inch, add \$3.75 each.

Hinged bottom furnished with 8 inch size only.

SPARE PARTS

Size	Globes	Burners	Oil	Elec.
6	Fig. 264	Fig. 246 No. 0	Fig. 735	Fig. 274
8	Fig. 264	Fig. 246 No. 1	Fig. 286	Fig. 292
10	Fig. 264	Fig. 242 No. 2	Fig. 282	Fig. 288

Note—6 inch size with Green Globe, not available.

Watertight Blinker Key

CAST BRONZE—PLAIN FINISH—IMPROVED
TUNGSTEN POINTS—CONDENSER
U.S.C.G. APPROVED



Fig. 9

Condenser is metal encased, 400 volts D. C. .25 M. F. D. Ground test 2000 volts.

Cover sealed by 6 screws and rubber gasket. Box has three mounting lugs.

Each	Length Inches	Width Inches	Height Inches	Weight Pounds
\$33.50	4 3/8	2 3/4	2 3/8	4

Interior complete with Condenser, each \$13.00



ELECTRIC NAVIGATION LIGHTS FOR VESSELS OVER 65 FT. LONG

**Watertight — Cast Bronze Rebulbing Cap — Terminal Tubes
MOGUL 3-WIRE PHENOLIC SOCKETS FIG. 270 FOR DOUBLE FILAMENT BULBS**



Fig. 1150

Side Lights, Fig. 1150

112½ DEGREE RED AND GREEN LENSES—10 POINT—IN PAIRS
WITH BRACKET FOR MOUNTING

No.	Galvanized Steel Per Pair	Polished Brass Per Pair	Lens Fig. 259 Height Inches	Height Less Handle Inches	Size Base Inches	Weight Per Pair Pounds	For Size Vessel Feet
1	\$96.00	\$120.00	6¾	11	7¼ x 7¼	18	65 to 150
2	124.00	152.00	7½	13½	9½ x 9½	30	over 150
3	212.00	250.00	8½	15¼	10¾ x 10¾	36	over 150

Masthead, Range and Towing Lights, Fig. 1151

225 DEGREE CLEAR LENS—20 POINT
WITH FOUR LUGS FOR MOUNTING

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 256 Height Inches	Height Less Handle Inches	Size Base Inches	C to C of Lugs Inches	Weight Each Pounds
1	\$48.00	\$60.00	6¾	11	7¼ x 7¼	8¾	10
2	62.00	76.00	7½	13½	9 x 10	10¾	15
3	106.00	125.00	8½	15¼	10¾ x 11¼	12¾	21

With red or green lens (special purpose) add \$10.00 each.
With amber lens in Sizes No. 1 and 2 only, add \$10.00 each.



Fig. 1151



Fig. 1152

Stern Lights, Fig. 1152

135 DEGREE CLEAR LENS—12 POINT
WITH FOUR LUGS FOR MOUNTING

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 269 Height Inches	Height Less Handle Inches	Size Base Inches	C to C of Lugs Inches	Weight Each Pounds
1	\$48.00	\$60.00	6¾	11	7 x 7½	8¾	9
2	62.00	76.00	7½	13½	9 x 10	10¾	12
3	106.00	125.00	8½	15¼	10¾ x 10¾	12¼	15

With red or green lens (special purpose) add \$10.00 each.
With 45 degree red lens (for suction dredges) add \$13.50 each.
With amber lens in Sizes No. 1 and 2 only, add \$10.00 each.

Anchor Lights, Fig. 1153

360 DEGREE CLEAR LENS—32 POINT
WITH FOUR LASHING EYES AND WIRE GUARD

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 261 Height Inches	Height Less Handle Inches	Diam. Base Inches	Weight Each Pounds
1	\$47.00	\$59.00	6¾	10¾	7¾	11
2	61.00	75.00	7½	12¾	9¾	16
3	105.00	124.00	8½	14¾	10½	22

Breakdown Lights, Fig. 1154

360 DEGREE RED LENS—32 POINT
WITH FOUR LASHING EYES AND WIRE GUARD

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 261 Height Inches	Height Less Handle Inches	Diam. Base Inches	Weight Each Pounds
1	\$53.00	\$65.00	6¾	10¾	7¾	11
2	67.00	81.00	7½	12¾	9¾	16
3	114.00	133.00	8½	14¾	10½	22



Fig. 1153
Fig. 1154

NOTES

Above prices do not include bulbs.
Complete with double filament bulb fig. 532, 50 or 100 watt, add \$5.50 each.
With 2 medium screw phenolic sockets, sizes No. 2 and 3 only, add \$6.50 each.
With medium screw phenolic sockets fig. 346, deduct \$1.00 each.
Spare cast bronze watertight caps with gasket, diameter overall 5¾", diameter across thread 5", \$6.50 each.

COPPER LIGHTS MADE TO ORDER—PRICE ON APPLICATION



OIL NAVIGATION LIGHTS FOR VESSELS OVER 65 FT. LONG

American Improved Hinged Top—Bottom Opening

SWIVEL FOUNT FIG. 282 — HINGED BURNER FIG. 242

LIP CHIMNEY FIG. 267 — FLAT WICK FIG. 302

Side Lights, Fig. 1155

112½ DEGREE RED AND GREEN LENSES—10 POINT—IN PAIRS WITH BRACKET FOR MOUNTING

No.	Galvanized Steel Per Pair	Polished Brass Per Pair	Lens Fig. 259 Height Inches	Height Less Handle Inches	Size Base Inches	Weight Per Pair Pounds	For Size Vessel Feet
0	\$92.00	\$117.00	5½	13¾	6¾ x 6¾	14	65 to 90
1	96.00	120.00	6¾	14¾	7¼ x 7¼	18	90 to 150
2	124.00	152.00	7½	18	9½ x 9½	29	over 150
3	212.00	250.00	8½	19¾	10¾ x 10¾	38	over 150

Fig. 1155



Masthead, Range and Towing Lights Fig. 1156

225 DEGREE CLEAR LENS—20 POINT WITH FOUR LUGS FOR MOUNTING

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 256 Height Inches	Height Less Handle Inches	Size Base Inches	C to C of lugs Inches	Weight Each Pounds
0	\$46.00	\$58.50	5½	13¾	7 x 7¼	8½	7
1	48.00	60.00	6¾	14¾	7½ x 7¾	8¾	9
2	62.00	76.00	7½	18	9 x 10	10%	15
3	106.00	125.00	8½	19¾	10¾ x 11¼	12%	21

With red or green lens, (special purpose) add \$10.00 each.

With amber lens Sizes No. 0, 1 and 2 only, add \$10.00 each.

Fig. 1156



Stern Lights, Fig. 1157

135 DEGREE CLEAR LENS—12 POINT WITH FOUR LUGS FOR MOUNTING

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 269 Height Inches	Height Less Handle Inches	Size Base Inches	C to C of lugs Inches	Weight Each Pounds
0	\$46.00	\$58.50	5½	13¾	7 x 7¼	8½	6
1	48.00	60.00	6¾	14¾	7 x 7½	8¾	8
2	62.00	76.00	7½	18	9 x 10	10%	13
3	106.00	125.00	8½	19¾	10¾ x 10%	12¼	16

With red or green lens, (special purpose) add \$10.00 each.

With 45 degree red lens (for suction dredges) add \$13.50 each.

With amber lens Sizes No. 0, 1 and 2 only, add \$10.00 each.

Fig. 1157



Anchor Lights, Fig. 1158

360 DEGREE CLEAR LENS—12 POINT WITH FOUR LASHING EYES AND WIRE GUARD

No.	Galv. Steel Each	Polished Brass Each	Lens Fig. 261 Height Inches	Height Less Handle Inches	Diam. Base Inches	Wt. Each Lbs.
0	\$45.00	\$57.50	5½	13	7¾	10
1	47.00	59.00	6¾	14	7¾	11
2	61.00	75.00	7½	17¼	9¾	17
3	105.00	124.00	8½	18¾	10½	23

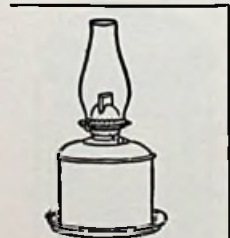
Breakdown Lights, Fig. 1159

360 DEGREE RED LENS—32 POINT WITH FOUR LASHING EYES AND WIRE GUARD

No.	Galv. Steel Each	Polished Brass Each	Lens Fig. 261 Height Inches	Height Less Handle Inches	Diam. Base Inches	Wt. Each Lbs.
0	\$50.00	\$62.50	5½	13	7¾	10
1	53.00	65.00	6¾	14	7¾	11
2	67.00	81.00	7½	17¼	9¾	17
3	114.00	133.00	8½	18¾	10½	23



Fig. 1158



Oil Lamp used in Lights on this page

No.	Each
0 or 1 Comp.	\$6.50
2 or 3 Comp.	7.80

ELECTRIC ONLY

With Fig. 288 Medium Screw Adapter, use above prices.

With Fig. 289 Medium Screw Adapter, add \$2.75 each.

With Fig. 1082 3 Wire Mogul Adapter, add \$3.00 each.

COMBINATION OIL AND ELECTRIC

With Fig. 288 Medium Screw Adapter, add \$4.50 each.

With Fig. 289 Medium Screw Adapter, add \$7.25 each.

With Fig. 1082 3 Wire Mogul Adapter, add \$7.50 each.



ELECTRIC NAVIGATION LIGHTS FOR VESSELS OVER 65 FT. LONG

Flat Top Style — Bottom Opening

MEDIUM SCREW 2 WIRE PHENOLIC ADAPTER FIG. 288 FOR SINGLE FILAMENT BULBS

Side Lights, Fig. 30



112½ DEGREE RED AND GREEN LENSES—10 POINT—IN PAIRS WITH BRACKET FOR MOUNTING

No.	Galvanized Steel Per Pair	Polished Brass Per Pair	Lens Fig. 259 Height Inches	Height Less Handle Inches	Size Base Inches	Weight Per Pair Pounds	For Size Vessel Feet
0	\$70.00	\$95.00	5½	10½	6½ x 6½	12	65 to 90
1	74.00	102.00	6¾	11	7½ x 7½	14	90 to 150
2	98.00	130.00	7½	13½	9½ x 9½	24	over 150

Fig. 30

Masthead, Range and Towing Lights, Fig. 983

225 DEGREE CLEAR LENS—20 POINT WITH FOUR LUGS FOR MOUNTING

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 256 Height Inches	Height Less Handle Inches	Size Base Inches	C to C of Lugs Inches	Weight Each Pounds
0	\$35.00	\$47.50	5½	10½	7 x 7	8½	6
1	37.00	51.00	6¾	11	7 x 7	8¾	8
2	49.00	65.00	7½	13½	9 x 9½	10%	12½

With red or green lens (special purpose) add \$10.00 each.
With amber lens, add \$10.00 each.



Fig. 983

Stern Lights, Fig. 986

135 DEGREE CLEAR LENS—12 POINT WITH FOUR LUGS FOR MOUNTING

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 269 Height Inches	Height Less Handle Inches	Size Base Inches	C to C of Lugs Inches	Weight Each Pounds
0	\$35.00	\$47.50	5½	10½	7 x 7	8½	5½
1	37.00	51.00	6¾	11	7 x 7	8¾	7
2	49.00	65.00	7½	13½	9 x 9½	10%	9½

With red or green lens (special purpose) add \$10.00 each.
With 45 degree red lens (for suction dredges) add \$13.50 each.
With amber lens, add \$10.00 each.



Fig. 986

Anchor Lights, Fig. 32

360 DEGREE CLEAR LENS—32 POINT WITH FOUR LASHING EYES AND WIRE GUARD

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 261 Height Inches	Height Less Handle Inches	Diam. Base Inches	Weight Each Pounds
0	\$34.00	\$46.50	5½	9%	7½	8
1	36.00	50.00	6¾	10%	7½	9
2	48.00	64.00	7½	12%	9%	13

Breakdown Lights, Fig. 84

360 DEGREE CLEAR LENS—32 POINT WITH FOUR LASHING EYES AND WIRE GUARD

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 261 Height Inches	Height Less Handle Inches	Diam. Base Inches	Weight Each Pounds
0	\$39.00	\$51.50	5½	9%	7½	8
1	42.00	56.00	6¾	10%	7½	9
2	54.00	70.00	7½	12%	9%	13



Fig. 32

Fig. 84

NOTES

Above prices do not include bulbs.
With double 2 wire medium screw adapter fig. 289 (Size 2 only) add \$2.75 each.
With 3 wire mogul adapter fig. 1082 for double filament bulb, add \$3.00 each.
COPPER LIGHTS MADE TO ORDER—PRICE ON APPLICATION



OIL NAVIGATION LIGHTS FOR VESSELS OVER 65 FT. LONG

Turret Top — Bottom Opening
SWIVEL FOUNT FIG. 282 — HINGED BURNER FIG. 242

LIP CHIMNEY FIG. 267 — FLAT WICK FIG. 302



Fig. 21

Side Lights, Fig. 21

112½ DEGREE RED AND GREEN LENSES—10 POINT—IN PAIRS WITH BRACKET FOR MOUNTING

No.	Galvanized Steel Per Pair	Polished Brass Per Pair	Lens Fig. 259 Height Inches	Height Less Ring Inches	Size Base Inches	Weight Per Pair Pounds	For Size Vessel Feet
9	\$70.00	\$95.00	5½	14	6½ x 6½	13	65 to 90
10	74.00	102.00	6¾	15	7½ x 7½	15	90 to 150
11	98.00	130.00	7½	18¾	9½ x 9½	26	over 150

Masthead, Range and Towing Lights, Fig. 982

225 DEGREE CLEAR LENS—20 POINT WITH FOUR LUGS FOR MOUNTING

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 256 Height Inches	Height Less Ring Inches	Size Base Inches	C to C of Lugs Inches	Weight Each Pounds
0	\$35.00	\$47.50	5½	14	7 x 7	8½	7½
1	37.00	51.00	6¾	15	7 x 7	8½	9½
2	49.00	65.00	7½	18¾	9 x 9½	10¾	14

With red or green lens (special purpose) add \$10.00 each.
 With amber lens, add \$10.00 each.



Fig. 982

Stern Lights, Fig. 985

135 DEGREE CLEAR LENS—12 POINT WITH FOUR LUGS FOR MOUNTING

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 269 Height Inches	Height Less Ring Inches	Size Base Inches	C to G of Lugs Inches	Weight Each Pounds
0	\$35.00	\$47.50	5½	14	7 x 7	8½	6
1	37.00	51.00	6¾	15	7 x 7	8½	7½
2	49.00	65.00	7½	18¾	9 x 9½	10¾	10½

With red or green lens (special purpose) add \$10.00 each.
 With 45 degree red lens (for suction dredges) add \$13.50 each.
 With amber lens, add \$10.00 each.

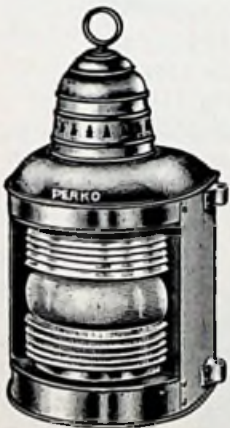


Fig. 985

Anchor Lights, Fig. 23

360 DEGREE CLEAR LENS—32 POINT WITH FOUR LASHING EYES AND WIRE GUARD

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 261 Height Inches	Height Less Ring Inches	Diam. Base Inches	Weight Each Pounds
22	\$34.00	\$46.50	5½	13¾	7½	8½
22½	36.00	50.00	6¾	14½	7½	10
23	48.00	64.00	7½	17¾	9¾	14

Breakdown Lights, Fig. 129

360 DEGREE RED LENS—32 POINT WITH FOUR LASHING EYES AND WIRE GUARD

No.	Galvanized Steel Each	Polished Brass Each	Lens Fig. 261 Height Inches	Height Less Ring Inches	Diam. Base Inches	Weight Each Pounds
22	\$39.00	\$51.50	5½	13¾	7½	8½
22½	42.00	56.00	6¾	14½	7½	10
23	54.00	70.00	7½	17¾	9¾	14



Fig. 23 or Fig. 129

ELECTRIC ONLY

With Fig. 288 Medium Screw Adapter, use above prices.

With Fig. 289 Medium Screw Adapter, installed only in Sizes No. 2, 11 and 23, add \$2.75 each.

With Fig. 1082 3 Wire Mogul Adapter, add \$3.00 each.

COMBINATION OIL AND ELECTRIC

With Fig. 288 Medium Screw Adapter, add \$4.50 each.

With Fig. 289 Medium Screw Adapter, installed only in Sizes No. 2, 11 and 23 add \$7.25 each.

With Fig. 1082 3 Wire Mogul Adapter, add \$7.50 each.

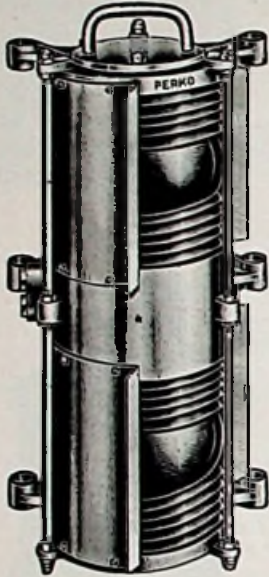
COPPER LIGHTS MADE TO ORDER—PRICE ON APPLICATION



NEW TYPE TWO LENS NAVIGATION LIGHTS FOR SHIPS

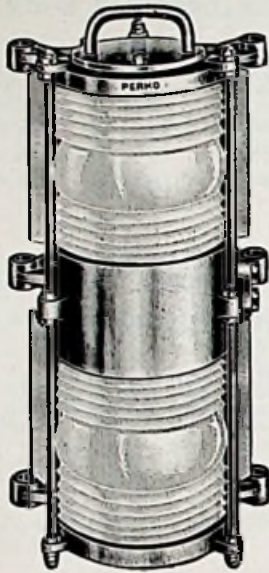
PER A.I.E.E. SPECIFICATION NO. 45 SECTION 34 PARAGRAPH 34.01
 WATERTIGHT—ELECTRIC ONLY—CAST BRONZE
 U.S. COAST GUARD APPROVED

SIDE LIGHTS



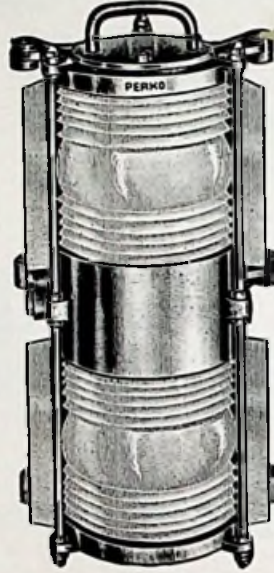
10 point-112½°
Fig. 1164

MASTHEAD—RANGE
& TOWING LIGHTS



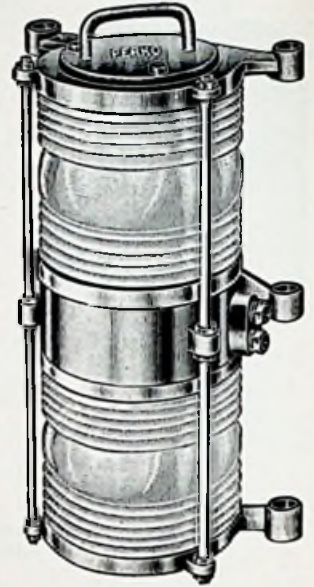
20 Point-225°
Fig. 1165

STERN LIGHTS



12 Point-135°
Fig. 1166

ANCHOR OR
BREAKDOWN LIGHTS



32 Point-360°
Fig. 1167-Clear
Fig. 1168-Red

Two individual lights in one body. Each section contains a Fresnel Lens, a medium screw phenolic socket for single filament lamp and a watertight cap for relamping or cleaning. A watertight terminal tube for cable entrance to each section and shields for light angle are included.

Fig.	Description	Price
1164	SIDE LIGHTS, with red lenses for port side, green lenses for starboard side,	Per Pair \$250.00
1165	MASTHEAD, RANGE OR TOWING LIGHTS, with clear lenses	Each 120.00
1166	STERN LIGHTS, with clear lenses	Each 120.00
1167	ANCHOR LIGHTS, with clear lenses	Each 118.00
1168	BREAKDOWN LIGHTS, with red lenses	Each 125.00

FIG'S 1165 OR 1166 WITH COLORED LENSES, RED OR GREEN, ADD \$7.00 EACH

Spare Lenses Fig. 261 No. 1½		Spare Sockets Fig. 346 No. 2	Spare Rubber Lens Gaskets	Height Less Handle Inches	Centers of Mounting Lugs Inches	Height Lens Inches	Weight Each Pounds
Clear Each	Colored Each	Each	Each	18½	8%	6%	30
\$14.00	\$21.00	\$.65	\$3.00				



Fig. 1169-Clear
Fig. 1170-Red

New Type Single Lens Anchor or Breakdown Lights

PER A.I.E.E. SPECIFICATIONS NO. 45
 WATERTIGHT—ELECTRIC ONLY—CAST BRONZE
 32 POINT—360 DEGREE CLEAR OR RED LENS
 Medium Screw Phenolic Socket For Single Filament Lamp

Fig. 1169 Each	Fig. 1170 Each	Height Less Handle Inches	Centers of Mounting Lugs Inches	Height Lens Inches	Weight Pounds
\$75.00	\$78.50	9	8%	6%	15½

With shield for reduced light angles, (give degrees of light required) add each \$10.00.



Navy or Life Boat Lantern

OIL BURNING—APPROVED
HINGED TOP—CLEAR GLOBE



Fig. 49

Galv. Each	Polished Brass Each	Height Inches	Diam. of Base Inches	Size of Globe Inches	Weight Lbs.
\$10.50	\$13.00	11	5 1/2	4 x 6 1/2	3

With Red or Green globe, add \$1.50 each.

With electric adapter fig. 292, add \$.75 each.

SPARE PARTS

Globe fig. 262. | Wick fig. 302, size 1.
Burner fig. 246, size 1. | Fount fig. 286.

Bulkhead Lantern

WITH REMOVABLE GLASSES
OIL BURNING



Fig. 46

Galvanized Each	Glasses Only Each	Size Body		Height Overall Inches
		Front Inches	Side Inches	
\$29.50	\$1.30	9 x 13	7 3/4 x 13	16

Supplied for electric only with medium screw socket to order, add \$3.60 each.

Spare brass founts only, \$5.50 each.

Spare burners, Fig. 242 No. 2, \$1.80 each.

Spare chimneys Fig. 267 No. 2, \$1.20 each.

Spare reflectors, \$5.00 each.

Watertight Hand Portables

CAST BRONZE—WOOD HANDLE
THREADED GLOBE



Fig. 1180

With Medium Screw Socket

No.	Complete Each	Spare Globes Each	Wattage	Overall Length Inches	Length Globe Inches
1	\$11.75	\$1.45	25	13 1/2	4
2	12.50	1.85	60	15 1/2	6

Day Signals

FOLDING TYPE—24 INCH DIAMETER
HEAVY DUCK—DOUBLE STITCHED—
BRASS GROMMETS—GALVANIZED ROD
AND RIBS



Fig. 169



Ball Folded

Fig.	No.	Height Inches	Weight Lbs.	Each
169	5 Black ball	24	2 1/2	\$14.50
170R	3 Red ball	24	2 1/2	19.00

Ditty Bags

COMPLETE



Fig. 85

A waterproof canvas bag containing sailmaker's palm, needles, sail twine, marline, marline spike, and wax.

Complete, Each\$7.00

SELF CONTAINED BATTERY NAVIGATION LIGHTS For Oil Carriers, Barges, Scows, Etc.

WATERTIGHT TYPE

3 MILE VISIBILITY—FOR 3 NO. 6 DRY CELLS IN SERIES—WITH SWITCH

Side Lights
112½ Degrees



Fig. 1001

Masthead or
Range Light
225 Degrees



Fig. 1002

Stern
Light
135 Degrees



Fig. 1003

Standard No. 6 Dry
Cells used with
These Lights



	Fig. 1001 Red and Green Per Pair	Fig. 1002		Fig. 1003		Fig.	DIMENSIONS			Weight Less Batteries Pounds
		Clear Each	Amber Each	Clear Each	Amber Each		Lens Height Inches	Height Body Inches	Size Base Inches	
Galvanized	\$102.00	\$66.00	\$76.00	\$66.00	\$76.00	1001	6¾	11	7¼ x 7¼	18
Pol. Brass	129.00	80.00	90.00	80.00	90.00	1002	7½	13½	9 x 10	15
Spare Lenses	25.00	15.00	28.00	12.00	19.00	1003	7½	13½	9 x 10	12

Above prices include bulbs, no batteries. With batteries add \$4.50 per set of 3.

Spare bulbs, G. E. No. 518, 4 volts, .55 amps, miniature screw base. \$.45 each.

Note—If longer life of batteries and two mile visibility is desirable, use bulb G. E. No. 13, 3.8 volts, .3 amps.

WATERPROOF TYPE

2 MILE VISIBILITY—FOR 2 NO. 6 DRY CELLS IN SERIES—WITH SWITCH
200 HOURS CONTINUOUS OPERATION ON ONE SET OF BATTERIES

Side Lights
112½ Degrees

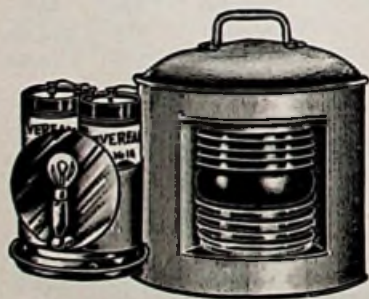


Fig. 1008

Masthead or
Range Light
225 Degrees



Fig. 1013

Stern
Light
135 Degrees



Fig. 1014

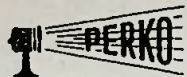
	Fig. 1008 Red and Green Per Pair	Fig. 1013		Fig. 1014		Fig.	DIMENSIONS			Weight Less Batteries Pounds
		Clear Each	Amber Each	Clear Each	Amber Each		Lens Height Inches	Height Body Inches	Size Base Inches	
Galvanized	\$83.00	\$58.00	\$68.00	\$58.00	\$68.00	1008	6¾	11	7½ x 7½	15
Spare Lenses	25.00	15.00	28.00	12.00	19.00	1013	7½	13½	9 x 9½	13
						1014	7½	13½	9 x 9½	10

Above prices include bulbs, no batteries.

With batteries, add \$3.00 per set of 2.

Bulb is double contact 2.5 volts .15 amp. S-8. \$1.55 each.

Battery containers as illustrated, complete with reflector, socket, bulb and switch. Without batteries, \$31.50 per pair.



30 Day Battery Anchor Light

360 DEGREE CLEAR FRESNEL LENS
WATERTIGHT—WITH SWITCH

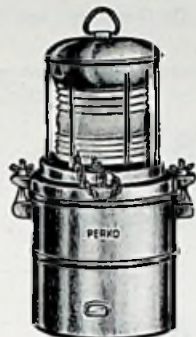


Fig. 470

For use with four ordinary 1½ volt dry cells such as Eveready No. 6, readily obtainable.
720 continuous hours of light on one set of batteries.

No.	Galv. Steel Each	Polished Copper Each	Size Lens Inches	Height Overall Inches	Diam Base Inches	Wt. Lbs.
1	\$36.00	\$43.50	4¼ x 4	15	6¾	5½
2	51.00	59.00	5½ x 5¼	16½	6¾	8½

No. 1 red, green, blue or amber lens, add \$2.40 each.
No. 2 red, green, blue or amber lens, add \$5.50 each.
Light shielded to 112½, 135 or 225 degrees, add \$9.00 each.
Prices include bulb. With batteries, add \$6.00 per set.
Spare bulbs, 6 volt .04 amp. miniature base. \$.45 each.
Spare lenses, see fig. 261. Spare switches, see fig. 745.
Spare sockets, \$.60 each.
Spare battery containers, galv., \$11.50 each. Copper, \$14.50 each.

8 Day Western Trap Light

360 DEGREE CLEAR FRESNEL LENS
OIL BURNING—LATCHED FOUNT



Fig. 14

With special Zenith burner and gear arrangement for control of wick from exterior of light.

Eight days of continuous light on one filling.

NOTE—This light is made to order and only in quantities of 12 or more.

Galvanized Steel Each	Height Lens Inches	Height Overall Inches	Diam. Bottom Fount Inches	Capacity Plnts	Weight Pounds
\$94.50	7½	22	10	6	20

With red, green or blue lens, add \$7.25 each.
Fount complete with burner and gears, \$36.00 each.
Light only, without fount, \$63.00 each.
Zenith burner only, \$2.50 each.
Zenith burner with gears, \$6.50 each.
Spare lenses, see fig. 261.

Tri-Color Trawler Lights

FOR VESSELS UP TO 75 FEET

ELECTRIC ONLY—MEDIUM SCREW SOCKET
45 DEGREE CLEAR FRESNEL LENS—4 POINT
90 DEGREE RED AND GREEN FRESNEL LENSES—8 POINT
WITH FIG. 131 BACK BRACKET
BOTTOM OPENING—SPRING FOUNT



Fig. 408 — No. 0

Galvanized Steel Each	Spare Lenses Each	Height Lens Ring Inches	Height Lenses Inches	Weight Pounds
\$35.00	\$4.25	8½	5¾	3½

With bayonet double contact socket to order, same price as above.

With ventilated top for oil burning add \$6.00 each.
For oil and electric, add \$7.75 each.

Tri-Color Trawler Lights

FOR STEAM TRAWLERS AND
FISHING VESSELS LONGER THAN 75 FEET

45 DEGREE CLEAR FRESNEL LENS—4 POINT
90 DEGREE RED AND GREEN FRESNEL LENSES—8 POINT
WITH FOUR LUGS FOR MOUNTING
BOTTOM OPENING—SWIVEL FOUNT



Fig. 407 — No. 1
Oil or
Oil and Electric



Fig. 408 — No. 1
Electric only

Galv. Steel Each	Spare Lenses Each	Height Lens Fig. 407 Inches	Handle Fig. 408 Inches	Centers of Lugs Inches	Height Lenses Fig. 407 Inches	Weight Pounds
\$71.00	\$6.50	14¾	11½	8½	6¾	9

Above prices apply to Fig. 407 oil or electric and Fig. 408 electric only, with medium screw socket.
Fig. 407 oil and electric, add \$4.50 each.



“PERKO” BRIDGE AND PIER LIGHTS

In strict accordance with specifications and regulations of the Treasury Department, U. S. Coast Guard, on marking and lighting of bridges. See “Aids To Navigation” C.G.-208 Subpart 68.15, January 1st, 1953 with amendments and last four pages of this Catalog before Index.

REGULATION PIER LIGHTS

For Piers, Axis, Abutments, Channel Sides, or Channel Margins
 180 Degree Red Fresnel Lens
 Body of Sheet Steel or Sheet Brass
 Electric Socket Is Phenolic Medium Screw, U.S.C.G. Approved

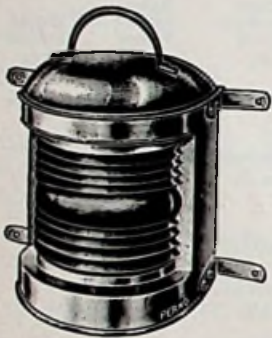


Fig. 29

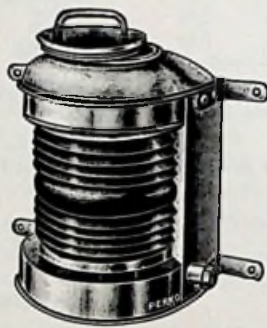


Fig. 31

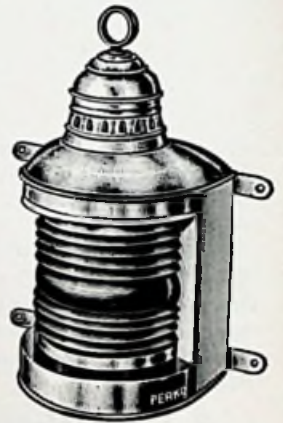


Fig. 59

FIG 29—For electric only. With bottom opening and brass swivel electric adapter.

FIG. 31—Watertight, for electric only, with cast bronze threaded cap and brass packing gland for cable.

FIG. 59—For Oil only, Electric only, or Oil and Electric. Has bottom opening and brass swivel fount with burner, wick and chimney for oil, or brass electric adapter for electricity. Both supplied for “Oil and Electric.”

All above supplied with four brackets for mounting.

FIG.	Galv. Steel Each	Polished Brass Each	Height Overall Lens Inches	*Height Overall Light Inches	Width Overall Inches	Size Base Inches	Weight Pounds
29 Electric only	\$67.00	\$82.00	7 3/8	13 1/4	14 1/2	9 7/8 x 9 7/8	9
31 Electric only	74.00	89.50	7 3/8	13 1/4	14 1/2	9 7/8 x 9 7/8	11
59 Oil or Electric	67.00	82.00	7 3/8	18	14 1/2	9 7/8 x 9 1/8	13
59 Oil and Electric	71.00	87.00	7 3/8	18	14 1/2	9 7/8 x 9 7/8	13

With Clear Lens for main channel markers on fixed bridges or with green or amber lens for special purpose, use above prices.

* Height of light does not include handle or ring.

SPARE PARTS

	Each	Each	
Fresnel Lenses	\$21.00	Oil Fount	\$4.50
Mounting Brackets	1.30	Oil Burner	1.80
Electric Socket .....	.65	Oil Wicks .....	.09
Electric Adapter	4.50	Chimneys	1.20



REGULATION PIER LIGHTS

Cast Bronze or Cast Aluminum — Emery Finish — Watertight
 For Piers, Axis, Abutments, Channel Sides or Channel Margins
 180 Degree Red Fresnel Lens
 Electric Only — With Phenolic Medium Screw Approved Socket



Fig. 125



Fig. 1005

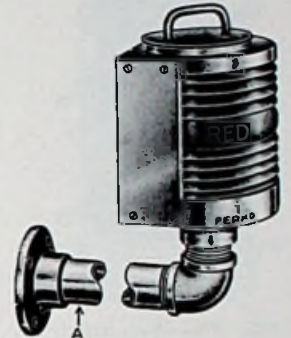


Fig. 1010

- FIG 1005—Has four integral mounting lugs drilled for $\frac{3}{8}$ inch diameter bolt and brass packing gland for cable.
 FIG. 125—This is fig. 1005 mounted on 1 inch brass pipe and good sturdy cast bronze flange. Brass packing gland for cable with 2 inch pipe and flange, add \$12.00 each.
 FIG. 1010—This is fig. 1005 mounted on 2 inch brass pipe and fittings. Standard length of pipe "A" is $3\frac{1}{2}$ inches. Special length, please specify, price on application.

FIG.	Cast Bronze Each	Cast Aluminum Each	Height Overall Lens Inches	*Height Overall Light Inches	Width Light Inches	Size Base Inches	Weight Pounds	
							Bronze	Aluminum
1005	\$103.00	\$103.00	7 $\frac{3}{4}$	9 $\frac{1}{4}$	**9 $\frac{1}{4}$	8 $\frac{3}{8}$ x 7 $\frac{3}{8}$	18	12
125	115.00	115.00	7 $\frac{3}{8}$	19	8 $\frac{1}{4}$	5	24	18
1010	163.00	163.00	7 $\frac{3}{8}$	17 $\frac{1}{2}$	8 $\frac{1}{4}$	6	28	22

With clear lens for main channel markers on fixed bridges or with green or amber lens for special purpose, use above prices.

*Height of light does not include handle.

**Width is to centers of mounting holes.

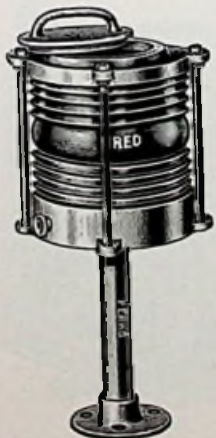


Fig. 126

SPECIAL PURPOSE LIGHTS ON PEDESTAL

With 360 Degree Red, Green, or Clear Lens
 For Sheer Booms, Isolated Piers, Obstructions, etc.
 Cast Bronze or Cast Aluminum — Emery Finish
 Watertight — Electric Only

Mounted on 1 inch brass pipe and good sturdy cast bronze flange. Has phenolic medium screw socket and brass packing gland for cable. Cast threaded cap.

Cast Bronze Each	Cast Aluminum Each	Height Overall Lens Inches	*Height Overall Light Inches	Width Light Inches	Diam. Base Inches	Weight Pounds	
						Br.	Alum.
\$115.00	\$115.00	7 $\frac{3}{8}$	19	11 $\frac{1}{2}$	5	24	18

This light can be supplied shielded to various degrees as required. Price on application.

*Height of light does not include handle.

NOTE—Figs. 125, 126 and 1010 in special height other than standard, price on application.

REGULATION SWING, DRAW OR FOLDING BRIDGE LIGHTS

For Span of Through, Deck and Half Through Swing Bridges or Single Opening Draw Bridges with Alternate Red and Green 60 Degree Fresnel Lenses.
Socket Is Phenolic Medium Screw, U.S.C.G. Approved.



Fig. 35

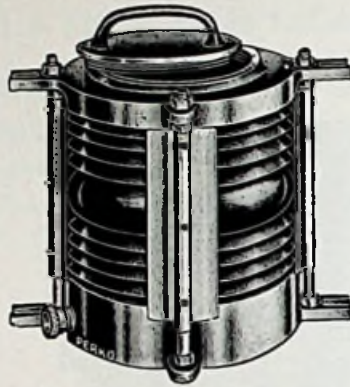


Fig. 39



Fig. 50

- FIG. 35—Watertight, for electric only. Made of sheet metal, either galvanized steel or brass with cast bronze threaded cap and brass packing gland for cable.
- FIG. 39—Watertight, for electric only. Made of cast bronze or cast aluminum in emery finish. With cast threaded cap and packing gland for cable.
- FIG. 50—For Oil, Electric or Oil and Electric. Made of sheet metal, either galvanized steel or brass. Has bottom opening and brass swivel fount with burner, wick and chimney for oil, or adapter for electricity. Both supplied for "Oil and Electric".

FIG.	Galv. Each	Polished Brass Each	Cast Bronze Each	Cast Aluminum Each	Spare Lenses Each	Height Overall Lens Inches	*Height Overall Light Inches	**Width Overall Inches	Weight Pounds	
									Br.	Alum.
35 Elec. only	\$91.00	\$107.00			\$11.00	7 $\frac{3}{4}$	13 $\frac{3}{4}$	12 $\frac{1}{2}$	13 $\frac{1}{2}$	
39 Elec. only			\$120.00	\$120.00	11.00	7 $\frac{3}{4}$	9 $\frac{3}{4}$	11 $\frac{3}{4}$	22	15
50 Oil or Elec.	76.00	92.50			11.00	7 $\frac{3}{4}$	18	12 $\frac{1}{2}$	14	
50 Oil and Elec.	81.00	97.50			11.00	7 $\frac{3}{4}$	18	12 $\frac{1}{2}$	14 $\frac{1}{2}$	

*Height of light does not include handle or ring.
**Width includes mounting brackets.

BOX TYPE REGULATION DRAW SPAN LIGHTS

With 360 Degree Clear Fresnel Lens Enclosed by Alternate Red and Green Flat Glass Panels Showing 60 Degrees of Light.



Fig. 63

FIG. 63—For Oil, Electric or Oil and Electric, made of Sheet Steel and Galvanized. Bottom opening with brass fount or adapter.

FIG. 1007—Watertight, for electric only. Made of cast bronze with threaded cap and packing gland.

FIG.	Galv. Each	Bronze Each	Spare Lens Each	Spare Panels Each
63 Oil or Elec.	\$100.00		\$15.00	\$4.00
63 Oil and Elec.	106.00		15.00	4.00
1007 Elec. only		197.00	15.00	4.00

Spare oil founts complete for Fig. 63, each \$11.50.
Spare electric adapter for Fig. 63, each \$10.00.

FIG.	Height Lens Inches	Height Less Handle Inches	Width Overall Inches	Dimensions of Panels Inches	Weight Pounds
63	7 $\frac{3}{4}$	18	11 $\frac{1}{4}$	9 $\frac{1}{2}$ x 10 $\frac{1}{2}$	18
1007	7 $\frac{3}{4}$	12	12 $\frac{1}{2}$	9 x 9	48

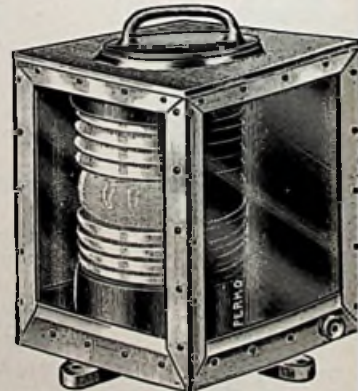


Fig. 1007

All lights on this page supplied with one lens or panel shielded for 3-way light (one red, two green) use above prices, please specify.



REGULATION MID-CHANNEL SPAN LIGHTS

For Fixed Bridges

360 Degree Green Fresnel Lens

Electric Socket Is Phenolic Medium Screw, U.S.C.G. Approved



Fig. 68



Fig. 1006



Fig. 80

- FIG. 68—For electric only, with bottom opening and brass swivel electric adapter. Made of sheet metal, either galvanized steel or brass.
- FIG. 1006—Watertight, for electric only. Made of cast bronze or cast aluminum in emery finish. With cast threaded cap and brass packing gland.
- FIG. 80—For oil only, electric only, or oil and electric. Made of sheet metal, either galvanized steel or brass. Has bottom opening and brass swivel fount with burner, wick and chimney for oil, brass electric adapter for electricity.

FIG.	Galvanized Steel Each	Polished Brass Each	Cast Bronze Each	Cast Aluminum Each	Height Overall Lens Inches	*Height Overall Light Inches	Width Overall Inches	Weight Pounds	
								Br.	Alum.
68 Electric only	\$54.00	\$70.00			7 3/8	14 1/2	9 1/2	13	
1006 Electric Only			\$102.00	\$102.00	7 3/8	9 1/2	11 1/2	21	14
80 Oil or Elec.	67.00	81.00			7 3/8	18	9 3/4	17	
80 Oil and Elec.	71.50	85.50			7 3/8	18	9 3/4	17	

With clear, or red lens for special purpose, use above prices.

REGULATION MID-CHANNEL SPAN LIGHT WITH PIVOT MOUNTING

Cast Bronze or Cast Aluminum — Emery Finish
 Watertight — Electric Only — Medium Screw Socket
 360 Degree Green Fresnel Lens

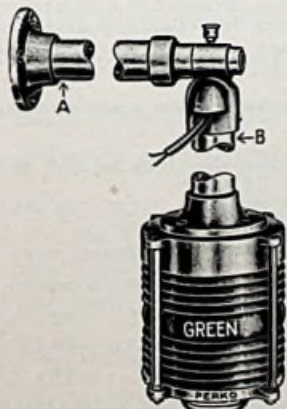


Fig. 1011

Cast Bronze Each	Cast Aluminum Each	Height Overall Lens Inches	*Height Overall Inches	Width Overall Inches	Weight Pounds	
					Bronze	Aluminum
\$190.00	\$190.00	7 3/8	20 1/4	11 3/8	36	29

NOTE—With special length of pipe at "A" or "B", price on application.

*Height does not include handle.

LIFT SPAN LIGHTS FOR BASCULE BRIDGES

For Single and Double Lift Bridges
180 Degree Red and Green Fresnel Lenses
Cast Bronze or Cast Aluminum — Emery Finish
Watertight — Electric Only — Medium Screw Socket



Fig. 22

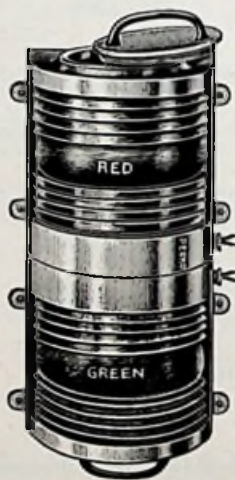


Fig. 127

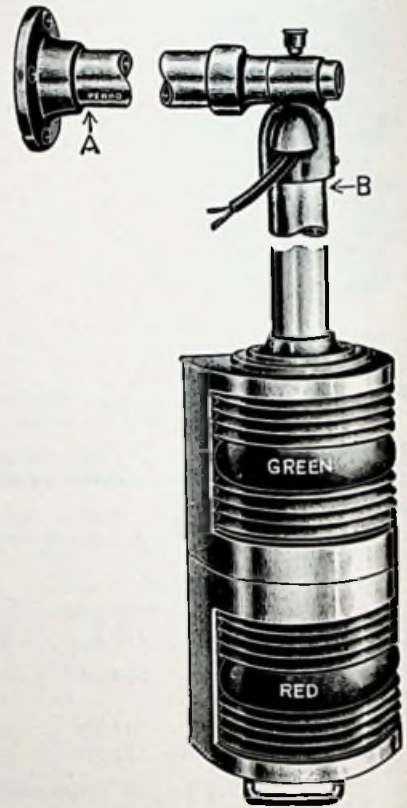


Fig. 1012

FIG. 22—Swinging type with fixed extension. Pipe is brass, 2 inch size, 6 inches long. Bracket is cast bronze. Light contains two bakelite medium screw sockets, one for each lens. Entrance for rebulbing or cleaning is through two 4½ inch openings, one in back of upper section, the other in bottom of lower section, both closed by threaded cast caps. Complete with brass grease cup.

FIG. 127—Fixed type, has eight integral mounting lugs, drilled for ¾ inch diameter bolt. Two brass packing glands for cable and two threaded caps for entrance to each section.

FIG. 1012—Swinging type with pipe extension, pipe "A" and "B" is brass, 2 inch size, 2 inches long at "A" and 6 inches long at "B". Other fittings are cast bronze. Light is the same as Fig. 22 above.

FIG.	Cast Bronze Each	Cast Aluminum Each	*Height Overall Inches	Height Lens Inches	Width Light Inches	Size of Bracket Inches	Weight Pounds	
							Bronze	Aluminum
22	\$310.00	\$310.00	30½	7¾	8½	6¼ x 6¼	54	42
127	215.00	215.00	18½	7¾	**9¼		36	24
1012	325.00	325.00	32	7¾	8½	6	56	44

NOTE—Supplied in special color combinations if required, such as two red or two green lenses also clear or amber lenses at above prices.

Special length of pipe at "A" or "B", price on application.

*Height does not include handle.

**Width is to centers of mounting holes.



**LIGHT COLORS AND HORIZONTAL ARCS OF VISIBILITY
IN ACCORDANCE WITH "AIDS TO NAVIGATION"
REGULATIONS ON LIGHTING FOR BRIDGES**



180 DEGREE RED—For piers, axis, abutments, channel sides or channel margins.



180 DEGREE CLEAR—For main channel markers on fixed bridges.



360 DEGREE RED, GREEN OR CLEAR—For sheer booms, isolated piers and obstructions not part of the bridge or bridge approach structure. May be shielded to various degrees as required.



60 DEGREE ALTERNATE RED AND GREEN—For draw span of draw bridges or swing span of through swing bridges. When required for swing span of deck or half-through swing bridges, one red lens is shielded.



360 DEGREE GREEN—For mid-channel or channel center, for span of fixed bridge over a navigable channel.



180 DEGREE GREEN AND RED—For span of single and double-lift bascule bridges. Green when lift span is fully open for navigation, red for all other positions of lift span.

SPARE PARTS FOR BRIDGE AND PIER LIGHTS

180 DEGREE LENSES —For figs. 22-29-31-59-125-127-1005-1010-1012	Clear \$15.00 each, Colored \$21.00 each
360 DEGREE LENSES —For figs. 68-80-126-1006-1011	Clear \$15.00 each, Colored \$23.00 each
WATERTIGHT CAPS —Cast Bronze—For figs. 22-31-35-39-125-126-127-1005-1006-1007-1010-1011-1012	\$ 6.50 each
RUBBER GASKETS —For caps.....	\$.30 each
RUBBER GASKETS —For 360 degree lenses.....	\$ 3.50 each
ELECTRIC SOCKETS —Medium screw—For all lights.....	\$.65 each
SOCKET SUPPORTS —Brass—For all watertight electric lights.....	\$ 1.20 each
ELECTRIC ADAPTERS —For figs. 29-50-59-68-80	\$ 4.50 each
OIL FOUNTS —Brass—For figs. 50-59-80	\$ 4.50 each
OIL BURNERS —Brass—For above founts.....	\$ 1.80 each
OIL WICKS —For above burners.....	\$.09 each
CHIMNEYS —For above burners.....	\$ 1.20 each

NOTE—For extracts from Government Regulations on Lighting for Bridges, see last four pages of this Catalog, before Index.

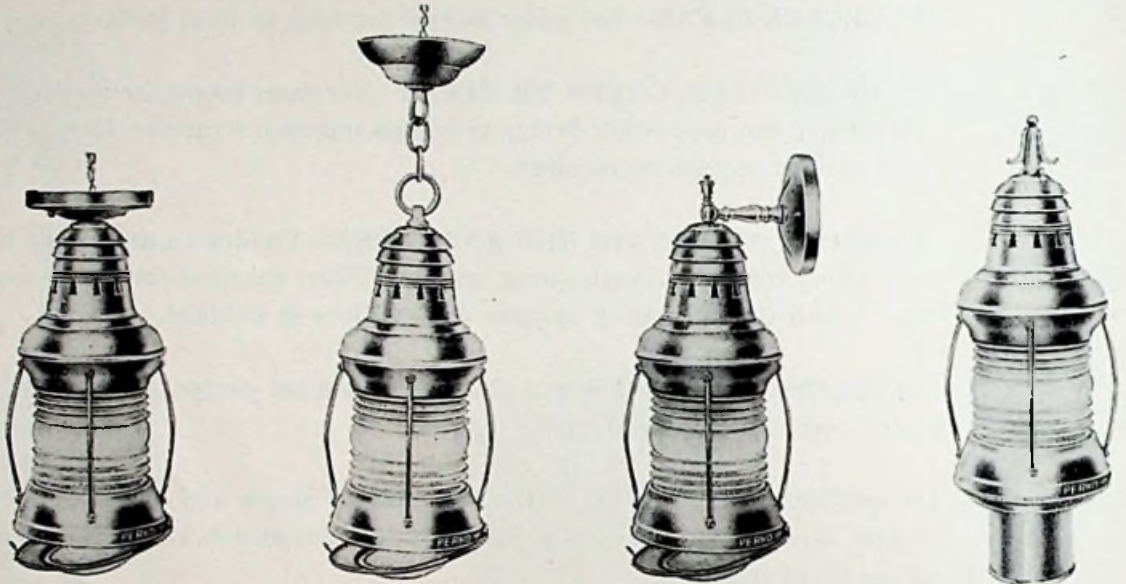
MARINE HOUSE FIXTURES

All Brass — With Genuine Marine Clear Fresnel Lens

These are genuine marine lamps with authentic fresnel lenses and solid brass metal parts. They are adaptations of the lamps that we manufacture for use on all classes of vessels that sail the seas. They meet all marine requirements for visibility, light projection, durability, resistance to corrosion and the ability to withstand the worst in weather conditions.

These fixtures have been developed for and are exceptionally desirable for homes along the waterways, yacht clubs, establishments with marine motif or nautical atmosphere, marine rooms or dens, etc. The metal parts are all polished, antiqued or sprayed black and bake-lacquered to protect the finish.

All wired, ready for installation. Each fixture meets Underwriters Laboratories requirements for residential lighting fixtures.



FLUSH CANOPY
Fig. 1023

No.	Polished Brass Each	Antique Finish Each
1	\$21.50	\$21.50
2	24.00	24.00

CANOPY AND CHAIN
Fig. 1024

No.	Polished Brass Each	Antique Finish Each
1	\$22.00	\$22.00
2	24.50	24.50

WALL BRACKET
Fig. 1025

No.	Polished Brass Each	Antique Finish Each	Black Finish Each
1	\$23.50	\$23.50	\$22.50
2	25.75	25.75	24.75

POST MOUNTING
Fig. 1026

No.	Polished Brass Each	Antique Finish Each	Black Finish Each
1	\$28.00	\$28.00	\$26.50



CANOPY AND CHAIN
Fig. 1027

No.	Polished Brass Each	Antique Finish Each	Black Finish Each
3	\$56.75	\$56.75	\$55.00

DIMENSIONS AND WEIGHT

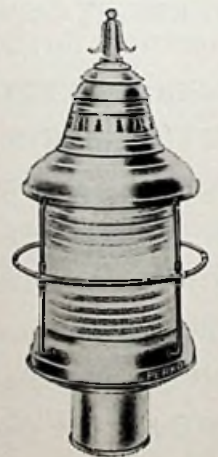
No.	Height Lamp Only Inches	Diameter Lamp Inches	Height Lens Inches	Approx. Weight Pounds
1	8 $\frac{5}{8}$	4 $\frac{1}{2}$	3 $\frac{5}{16}$	3
2	11 $\frac{3}{4}$	5 $\frac{5}{8}$	4 $\frac{1}{4}$	4
3	13 $\frac{3}{8}$	7 $\frac{1}{2}$	5 $\frac{1}{2}$	9 $\frac{1}{2}$

Length Chain with Figs. 1024, 1027, 24 inches

COLORED LENSES

Red - Green - Blue - Amber

No.	Add Each
1	\$2.00
2	2.40
3	5.00



POST MOUNTING
Fig. 1029

No.	Polished Brass Each	Antique Finish Each	Black Finish Each
3	\$58.25	\$58.25	\$56.50



MARINE HOUSE FIXTURES

All Brass — With Genuine Marine Globes or Fresnel Lens

THESE HAVE ALL THE QUALITIES AND MEET THE REQUIREMENTS MENTIONED ON PRECEDING PAGE.

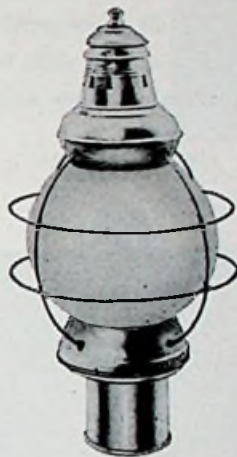
WHITE FROSTED
WITH GLOBE



FLUSH CANOPY
Fig. 1031



CANOPY and CHAIN
Fig. 1032



POST MOUNTING
Fig. 1033

No.	Fig. 1031		Fig. 1032		Fig. 1033		Height Lamp Only Inches	Diameter Globe Inches	Approx. Weight Pounds
	Polished Brass Each	Black Finish Each	Polished Brass Each	Black Finish Each	Polished Brass Each	Black Finish Each			
1	\$36.00	\$34.50	\$36.50	\$35.00	\$43.00	\$41.50	11	6	3
2	39.25	37.75	40.00	38.50	73.50	72.00	14	8	4 1/2
3			70.00	68.50			16 1/2	10	6 1/2

Size No. 1 with Red or Blue Globe, add \$1.00 each.

Size Nos. 2 and 3 with Red, Green or Blue Globe, add \$2.00 each.

Size No. 1 has one horizontal guard. Sizes No. 2 and 3 have two horizontal guards.

Fig. 1032 Supplied with 24 inches of chain.

**SHIPS MASTHEAD LIGHT
FLAT BACK—FOR WALL MOUNTING**

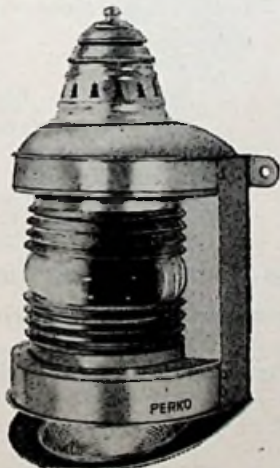


Fig. 1034

Polished Brass Each	Black Finish Each	Height Light Inches	Width Light Inches	Height Lens Inches	Weight Pounds
\$62.50	\$61.00	14	7	5 1/2	7 1/2

**SHIPS CABIN LAMP
SWINGING TYPE—ELECTRIC**



Fig. 1035

Polished Brass Each	Antique Finish Each	Height Overall Inches	Width Overall Inches	Weight Pounds
\$24.00	\$24.00	12 1/2	6	2

AUTHENTIC MARINE TABLE LAMPS

WITH HAND PAINTED SHADES

Presenting an attractive assortment of table lamps designed for those who have a natural love for the sea and vessels that sail upon it, and who desire a nautical atmosphere or motif in their surroundings, be it their home, boat, office, club or eating place.

Manufactured and designed by this country's oldest and most highly regarded manufacturer of navigation lights, these lamps are the real thing, not imitations.

All lenses are true molded fresnels made to government requirements for navigational purposes, in light projection and color. Colors (Red, Green, Blue, etc.) are molded into the lens not coated or painted on.

Shades are all paper parchment hand painted in colorful nautical scenes.

Metal parts are all solid brass or cast bronze, polished or chromium plated. NOT LACQUERED.

All wired and complete with extension and plug.

"Nautilus"



Fig. 1210-A or B

"Corsair"



Fig. 1211

"Neptune"



Fig. 1212-A or B

Above are equipped with two Keyless Sockets, one under the shade, the other inside globe or lens. A three way turn switch for light above or below or both.

Fig.	Lamp Only Less Shade		Shade Only Each	Height Inches	Diam. Base Inches	Size of Shade Inches	Size of Globe Inches	Weight Pounds
	Polished Brass Each	Chromium Plated Each						
1210-A	\$35.75	\$43.00	\$6.35	19	4 1/4	9x15x 9	6	3
1210-B	41.00	49.00	8.75	21 1/2	5 3/4	10x18x10 1/2	8	4
1211	22.50	25.50	4.75	14	4 1/4	6x10x 6 1/2	3 5/16x3 3/16	2
1212-A	27.25	31.50	6.75	18 3/4	5 3/4	10x14x 9	4 1/4 x 4	3
1212-B	33.50	38.75	8.75	21 1/2	7	10x18x10 1/2	5 1/2 x 5 1/4	4 3/4

NOTE—ABOVE LAMPS SHIPPED COMPLETE WITH SHADE UNLESS OTHERWISE SPECIFIED.

Height shown above is from base to top of shade. Sizes of shade shown above are 1st, diameter of top; 2nd, diameter of bottom; 3rd, height.

Prices shown above apply to Fig. 1210 with white frosted globe, Figures 1211 or 1212 with clear fresnel lenses.

Fig. 1210-A with colored globe (red or blue) add \$4.25 each.

Fig. 1210-B with colored globe (red, green or blue) add \$4.25 each.

Fig. 1211 with colored lens (red, green, blue or amber) add \$1.00 each.

Fig. 1212-A with colored lens (red, green, blue or amber) add \$1.80 each.

Fig. 1212-B with colored lens (red, green, blue or amber) add \$5.00 each.

"Mariner"



Fig. 1213

"Voyager"



Fig. 1214

"Seafarer"



Fig. 1215

"Sea-Gull"



Fig. 1218

"Skipper"



Fig. 1216

"Trade-Wind"



Fig. 1217

Fig.	Lamp Only		Shade Only Each	Height Inches	Diam. Base Inches	Size of Shade Inches	*Diameter Wheel Inches	Weight Pounds
	Polished Brass Each	Chromium Plated Each						
1213	\$26.00	\$28.75	\$4.75	15	5½	5x 9x6½	4¾	2¾
1214	21.50	26.50	** 3.30	15	5½	5x 9x6½		2½
1215	21.50	26.50	4.75	15	5½	5x 9x6½		2¾
1216	38.00	46.00	6.75	20½	5¾	10x14x9	8½	4¾
1217	31.00	38.50	6.75	20½	5¾	10x14x9		5
1218	20.00	23.50	3.60	12½	4½	4x 8x6		1¼

NOTE—ABOVE LAMPS SHIPPED COMPLETE WITH SHADE UNLESS OTHERWISE SPECIFIED.

Height shown above is from base to top of shade.

Sizes of shade shown above are 1st, diameter of top; 2nd, diameter of bottom; 3rd, height.

NOTE—Shades are interchangeable, i.e., if lamp Fig. 1213 is preferred with shade Fig. 1215, etc., or if lamp Fig. 1216 is preferred with shade Fig. 1217 etc., please specify.

*Diameter of wheel is measured from end to end of handles.

**This shade has printed map of the world. All others are hand painted.
All lamps on this page have weighted base.



Junior Cabin Lamp

DOUBLE SWING—WEIGHTED BASE
ALL BRASS



Fig. 168

Same construction as our well known Newport Cabin Lamp Fig. 141, but reduced in size for use where space or headroom is limited.

No.	Polished Brass Each	Chromium Plated Each	Overall Height Inches	Extension Inches	Capacity Fount Pints	Weight Ounces
0	\$13.25	\$17.00	9	5	1/2	19

Philadelphia Cabin Lamp

DOUBLE SWING—WEIGHTED BASE
REMOVABLE FOUNT—ALL BRASS



Fig. 137

With 2 1/2 inch diameter wall plate, hinge burner Fig. 242 No. 2 and 6 inch chimney Fig. 267 No. 2.

No.	Polished Brass Each	Chromium Plated Each	Overall Height Inches	Extension Inches	Capacity Pints	Weight Pounds
4	\$18.75	\$23.00	14	8 1/2	1 1/2	3 3/4

Newport Cabin Lamp

DOUBLE SWING—WEIGHTED BASE
ALL BRASS



Fig. 141

This lamp is of very sturdy construction, refined appearance and minimum practical extension from wall. Diameter of wall plate 2 1/2 inches.

No.	Polished Brass Each	Chromium Plated Each	Overall Height Inches	Extension Inches	Capacity Fount Pints	Weight Pounds
1	\$13.25	\$17.00	10 1/2	5 1/2	1	1 3/4
2	15.00	19.00	12 1/2	6	1 1/4	2

SPARE PARTS FOR CABIN LAMPS

No.	Each
0 and 1 Spare Burners Fig. 231	\$.65
0 and 1 Spare Chimneys Fig. 230	.65
2 and 4 Spare Burners Fig. 242 No. 2	1.80
2 and 4 Spare Chimneys Fig. 267 No. 2	1.20

Universal Wall Lamp

TIN PLATE OR ALL BRASS



Fig. 312

Has polished reflector and gives excellent illumination. Uses No. 2 size wick.

Polished Tin Each	Polished Brass Each	Spare Chimneys Each	Spare Burners Each	Height of Back Inches	Diam. of Fount Inches	Weight Each Lbs.
\$6.00	\$8.25	\$1.20	\$.90	9	5	1 1/2

Smoke Bell and Arm

ALL BRASS



Fig. 128

No.	Polished Brass Each	Chromium Plated Each	Diam. Bell Inches	Extension to Center Inches	Weight Ounces
0	\$3.25	\$4.50	3 1/2	3 1/2	3 1/2
1	3.25	4.50	4	3 3/4	4
2	3.25	4.50	4	4	4
4	3.25	4.50	6 1/4	6 1/2	7

No. 0 size is for lamp Fig. 168.

No. 1 and 2 sizes are for lamp Fig. 141.

No. 4 size is for lamp Fig. 137.



ELECTRIC CABIN FIXTURES

WITH MEDIUM SCREW SOCKETS
FOR 6-12-32 OR 110 VOLTS

Round Base Pattern

SPUN BRASS—WITH TURN SWITCH



Fig. 308

Polished Brass Each	Chromium Plated Each	Diam. Base Inches	Drop less Lamp Inches	Projection less Lamp Inches	Weight Ounces
\$4.00	\$4.75	2 1/2	2 1/2	3	6

Spare socket with switch, \$.90 each.

Upright Pattern

ZAMAK DIE CASTING—CHROMIUM PLATED
WITH TURN SWITCH



Fig. 225

Chromium Plated Each	Size Base Inches	Length Overall Inches	Projection less Lamp Inches	Weight Ounces
\$3.25	3 1/8 x 2 1/8	5 3/8	2 3/8	10

Spare sockets with switch, \$.90 each.

Square Base Pattern

CAST BRONZE—WITH TOGGLE SWITCH



Fig. 450

Polished Bronze Each	Chromium Plated Each	Size Base Inches	Drop less Lamp Inches	Projection less Lamp Inches	Weight Ounces
\$5.00	\$5.50	2x2	2	2 5/8	12

Spare interiors with switch, \$1.00 each.

Upright Pattern

CAST BRONZE—WITH TOGGLE SWITCH



Fig. 304

Polished Bronze Each	Chromium Plated Each	Size Plate Inches	Projection Less Lamp Inches	Weight Ounces
\$7.25	\$8.00	4 1/2 x 2 3/8	2 3/8	17

Spare interiors with switch, \$1.00 each.

Streamline Pattern

ZAMAK DIE CASTING—CHROMIUM PLATED
WITH TURN SWITCH



Fig. 217

Chromium Plated Each	Size Base Inches	Drop Less Lamp Inches	Depth Less Lamp Inches	Weight Ounces
\$2.50	2 1/2 x 2 1/4	2 1/4	2 1/2	8

Spare sockets with switch, \$.90 each.

Oval Base Pattern

ZAMAK DIE CASTING—CHROMIUM PLATED
WITH TURN SWITCH



Fig. 1237

Chromium Plated Each	Size Base Inches	Drop Less Lamp Inches	Projection Less Lamp Inches	Weight Ounces
\$4.40	4 1/2 x 1 3/8	4 1/2	2 5/8	6

Spare sockets with switch \$.90 each.

PRICES ON THIS PAGE DO NOT INCLUDE BULBS. WHEN ORDERING BULBS, SPECIFY VOLTAGE AND CANDLEPOWER, FROSTED OR CLEAR. ABOVE FIXTURES ARE SUPPLIED NOT WIRED.

Double Ceiling Fixture

CAST BRONZE—MEDIUM SCREW SOCKETS
WITH TOGGLE SWITCH



Fig. 451

Polished Bronze Each	Chromium Plated Each	Size Base Inches	Extension from Ceiling Inches	Weight Ounces
\$10.00	\$11.50	3 1/2 x 2	2 5/8	14

Spare interior only, \$ 1.00 each.

Marine Shields for Fixtures

PARCHMENT PAPER
HAND PAINTED OR PLAIN



For Hanging Bulb
Fig. 27



For Upright Bulb
Fig. 28

A marine design hand painted in colors makes these shields very decorative and appropriate for a yacht stateroom, cabin, club or marine room.

Metal clip is for a bulb up to 60 watts.

Painted Each	Plain Each	Width Inches	Depth Inches	Weight Ounces
\$2.20	\$1.80	4	3 3/4	1 1/2

Junior Fixtures

WITH DOUBLE CONTACT SOCKET
CAST BRONZE—TOGGLE SWITCH



Fig. 605

Polished Bronze Each	Chromium Plated Each	Size Base Inches	Drop Less Lamp Inches	Projection Less Lamp Inches	Weight Ounces
\$4.50	\$5.25	1 3/4 x 1 3/4	2	2	8

Spare toggle switch, see Fig. 745.

Dashboard Lamp

BRASS—NICKEL PLATED
DOUBLE CONTACT SOCKET—WITH SWITCH

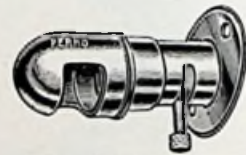


Fig. 184

Bulb is not included.

Each	Height Overall Inches	Size Base Inches	Weight Ounces
\$1.00	2 5/16	1 1/8 x 1 1/2	1 1/2

"Tear-Drop" Fixture

CHROMIUM PLATED
DOUBLE CONTACT SOCKET—TURN SWITCH



Front View



Side View

Fig. 301

An attractive fixture for cabin or berth. Has streamlined thick glass globe and supplied with 6 volt 21 C.P. bulb.

Complete Each	Spare Globe Each	Spare Socket Each	Spare Bulb Each	Overall Size Inches	Depth Inches	Weight Ounces
\$5.50	\$1.00	\$0.50	\$0.50	5 x 3	1 1/4	11

Spare Switches, \$1.00 each.

Spare Gaskets, \$0.30 each.

Dome Light

WROUGHT BRASS—WITH TOGGLE SWITCH
WITH NICKEL PLATED REFLECTOR
FROSTED GLASS FIG. 132
MEDIUM SCREW SOCKET FIG. 346



Fig. 753

Will accommodate a bulb up to 100 watts.

Polished Brass Each	Chromium Plated Each	Diam. Base Inches	Diam. Glass Inches	Depth Overall Inches	Weight Pounds
\$17.50	\$20.00	9 5/8	8	3	2



Dome Lights

WROUGHT BRASS
WITH FIG. 257 DIFFUSING GLASS
TOGGLE SWITCH—DOUBLE CONTACT SOCKET



Fig. 294

Diam. Glass Inches	Polished Brass Each	Chromium Plated Each	Diam. Base Inches	Depth Overall Inches	Weight Ounces
3	\$6.35	\$8.35	4 1/4	2	6
4	7.50	9.50	5 1/2	2 1/4	9
5	8.50	10.50	6 1/2	2 1/2	15
6	10.50	12.50	7 1/2	2 3/4	20

Spare sockets, see fig. 747, No. 2.

Dome Lights

WROUGHT BRASS
WITH FIG. 132 FROSTED GLASS
TOGGLE SWITCH—DOUBLE CONTACT SOCKET



Fig. 296

Diam. Glass Inches	Polished Brass Each	Chromium Plated Each	Diam. Base Inches	Depth Overall Inches	Weight Ounces
3	\$6.35	\$8.35	4 1/4	1 3/8	5 1/2
4	7.50	9.50	5 1/2	1 7/8	8 1/2
5	8.50	10.50	6 1/2	2	12
6	10.50	12.50	7 1/2	2 1/8	15

Spare sockets, see fig. 747, No. 2.

Dome Lights

WROUGHT BRASS
WITH OPAL GLOBE—TOGGLE SWITCH
DOUBLE CONTACT OR MEDIUM SCREW SOCKET



Fig. 385

—With Fig. 747 No. 2 Double Contact Socket—						
No.	Polished Brass Each	Chromium Plated Each	Diam. Base Inches	Diam. Globe Inches	Depth Inches	Weight Ounces
7	\$8.00	\$10.00	6	4 1/4	2 3/8	12
8	9.50	11.50	7	5 3/8	2 5/8	15
—With Fig. 346 Medium Screw Socket—						
9	\$10.00	\$12.00	7	5 3/8	2 5/8	16

Bulb with medium screw base for this light, see Fig. 8. Spare globes, see Fig. 133.

SPARE TOGGLE SWITCHES FOR ALL ABOVE LIGHTS, SEE FIG. 745

Dome Lights

CAST BRONZE—WITH TOGGLE SWITCH
WITH FIG. 257 RIBBED DIFFUSING GLASS



Fig. 555

No. 1 has Fig. 747 double contact socket and will accommodate a 50 C.P. bulb.

No. 2 has Fig. 346 medium screw socket and will accommodate a 15 watt A-17 bulb Fig. 340 or any listed size of Fig. 8.

No.	Polished Bronze Each	Chromium Plated Each	Diam. Glass Inches	Diam. Base Inches	Depth Inches	Weight Pounds
1	\$14.50	\$17.00	4	5 1/2	1 7/8	1 3/4
2	19.75	22.75	6	7 7/8	3 1/8	3 3/4

Watertight Dome Light

CAST BRONZE—DOUBLE CONTACT SOCKET
WITH THREADED DIFFUSING GLOBE

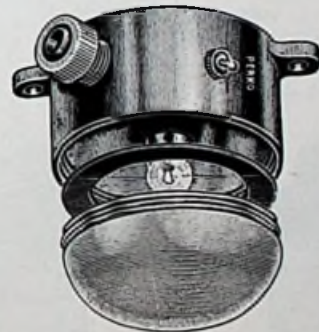


Fig. 1266

For small boats. Will accommodate up to a 50 C.P. No. RP-11 bulb. With nickel plated reflector, toggle switch and one packing gland for cable.

Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Extreme Diameter Inches	Diameter Globe Inches	Extreme Depth Inches	Weight Pounds
\$12.50	\$14.00	\$16.00	3 1/2	3 1/4	2 3/4	1 3/4

Spare Sockets \$.55 each.

Spare Globes, \$1.00 each.

Extra Packing Glands installed, \$2.00 each gland.

VAPOR-PROOF FIXTURES

CAST BRONZE BODIES — WIRE GUARDS — SCREW GLASS GLOBES
STANDARD CAST IRON JUNCTION BOXES

90° ANGLE FIXTURES

CEILING FIXTURES

Keyless

Key Switch

Keyless

Key Switch

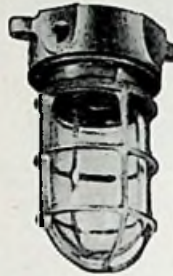
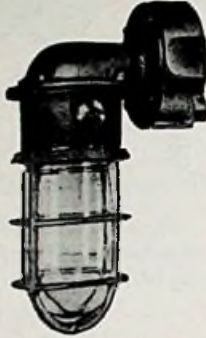


Fig. 1075
Fig. 1077

Fig. 1078

Fig. 1079
Fig. 1080

Fig. 1081

Fig.	Each	For Lamp Wattage	Length Guard Inches	Weight Pounds
1075	\$15.00	60 to 100	6	5 ½
1077	24.75	150 to 200	9	8 ½
1078	18.00	60 to 100	6	6

Fig.	Each	For Lamp Wattage	Length Guard Inches	Weight Pounds
1079	\$10.25	60 to 100	6	4
1080	17.00	150 to 200	9	7 ½
1081	15.50	60 to 100	6	5 ½

Size of junction box is 4¼ inches in diameter, 1½ inches in depth.

With cast bronze boxes add to the above prices \$2.75 each.

With cast bronze guards add to the above prices \$2.50 each for 100 watts and \$4.25 each for 200 watts.

PENDENT FIXTURES CAST BRONZE BODIES—WIRE GUARDS

COMBINATION JUNCTION BOX-FIXTURES CEILING AND BULKHEAD TYPE CAST BRONZE WITH WIRE GUARDS

Keyless

Key Switch

Ceiling Type

Bulkhead Type



Fig. 1083
Fig. 1084

Fig. 1085
Fig. 1086

Fig. 1087
Fig. 1088

Fig. 1090

Fig.	Each	For Lamp Wattage	Length Guard Inches	Weight Pounds
1083	\$11.00	60 to 100	6	3
1084	17.00	150 to 200	9	6
1085	14.50	60 to 100	6	3 ½
1086	23.50	150 to 200	9	6

Fig.	Each	For Lamp Wattage	Length Guard Inches	Weight Pounds
1087	\$11.00	60 to 100	6	3 ½
1088	18.00	150 to 200	9	4
1090	11.00	60 to 100	6	4

With cast bronze guards add to the above prices \$2.50 each for 100 watts and \$4.25 each for 200 watts.

Above fixtures supplied with one ½" I.P.S. tapping. Extra tapping \$.45 per hole.



STANDARD MARINE RECEPTACLES AND PLUGS
WATERTIGHT—CAST BRONZE BOXES—POLARIZED—10 AMP. 125 VOLTS

Plugs for Receptacles

BAKELITE BODY—BRASS FITTINGS



Fig. 1260

Type	Each	Overall Length Inches	Diam. Body Inches	Weight Ounces
2 wire	\$2.35	2 $\frac{5}{16}$	1 $\frac{1}{8}$	4
3 wire	3.20	2 $\frac{5}{16}$	1 $\frac{1}{8}$	4

Note — When used with the rubber grommet in cap these will accommodate $\frac{3}{8}$ inch outside diameter cable. Without grommet, use $\frac{1}{16}$ inch O. D. cable.

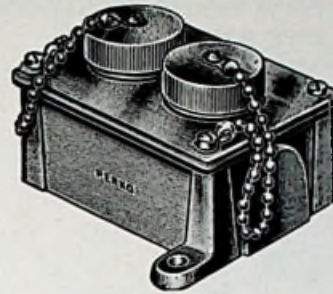


Fig. 1265

GANG TYPE
2 wire only

Gang	Size Inches	Weight Pounds
2 gang	4 $\frac{1}{8}$ x 3 x 2	3
3 gang	6 $\frac{1}{4}$ x 3 x 2	3 $\frac{3}{4}$
4 gang	8 x 3 x 2	5 $\frac{1}{4}$

Receptacles

FURNISHED UNTAPPED UNLESS SPECIFIED
 MAXIMUM I. P. S. THREAD $\frac{1}{4}$ INCH

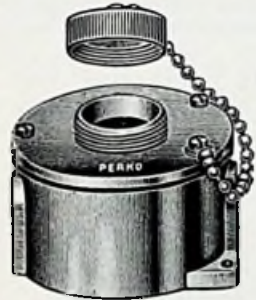


Fig. 1262

SURFACE TYPE

2 wire only

Each	Diam. Inches
\$6.65	3
Inches Height	Weight Pounds
1 $\frac{1}{8}$	2 $\frac{1}{4}$

Single Switch and Receptacle

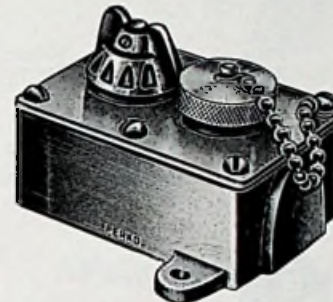


Fig. 1267

Each
\$11.80

Size Inches	Weight Pounds
4 $\frac{1}{2}$ x 3 x 2	3

Supplied in other combinations such as single switch and double receptacle etc. Price on application.

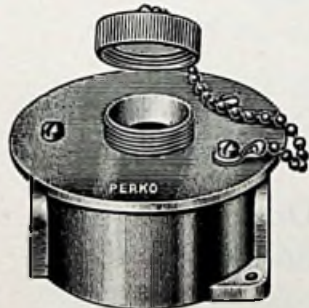


Fig. 1263

FLUSH TYPE

2 wire only

Each	Diam. Box Inches	Diam. Flange Inches
\$10.90	3	4
Depth Inches	Weight Pounds	
1 $\frac{1}{8}$	2 $\frac{1}{2}$	

Watertight Connection Box

CAST BRONZE—SURFACE TYPE

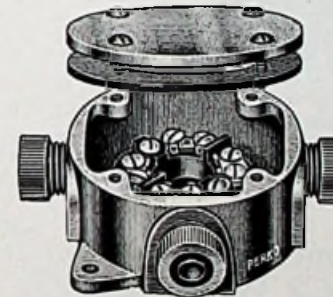


Fig. 1252

With 4 wire phenolic connection block and rubber gasket.

Complete Each	Spare Blocks Each	
\$7.50	\$2.20	
Inside Diam. Inches	Inside Depth Inches	Weight Pounds
3	1 $\frac{1}{8}$	1 $\frac{1}{4}$

Price does not include packing glands in illustration.

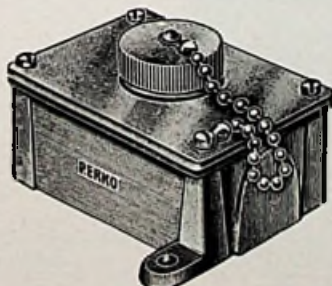


Fig. 1264

RECTANGULAR TYPE

2 and 3 wire

Each	
2 wire \$7.75	
3 wire 9.00	
Size Box Inches	Weight Pounds
4 $\frac{1}{4}$ x 3 x 2	3

Watertight Fuse Box

CAST BRONZE—SURFACE TYPE

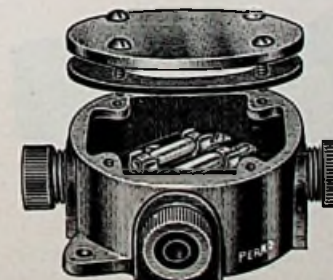


Fig. 1255

With fuse block for 2 glass fuses up to 30 amp., and rubber gasket.

Complete Each	Spare Fuse Blocks Each	
\$9.00	\$3.65	
Inside Diam. Inches	Inside Depth Inches	Weight Pounds
3	1 $\frac{3}{8}$	1 $\frac{1}{4}$

Price does not include fuses or packing glands in illustration.

NOTE—ALL BOXES ABOVE CAN BE FURNISHED WITH PACKING GLANDS FOR CABLE ENTRANCE AS ILLUSTRATED ON FIG. 1255. ADD \$2.00 FOR EACH GLAND. STATE NUMBER AND POSITION. TAPPING ONLY, ADD \$.45 PER HOLE.



YACHT SIZE RECEPTACLES AND PLUGS

WATERTIGHT — CAST BRONZE BOXES — VOLTAGES 6 TO 125

AS SMALL AND COMPACT AS PRACTICABLE FOR INSTALLATION WHERE SPACE IS LIMITED

ROUND FLUSH TYPE WITHOUT BOX
5 AMP.—2 WIRE



Fig. 968

Complete With Plug Each	Plug Only Each	Diam. Plate Inches	Depth Inches	Weight Pounds
\$10.20	\$4.20	2 1/4	3/4	1/2

RECTANGULAR TYPE WITH BOX
5 AMP.—SIDE INLET—2 WIRE
FLUSH OR SURFACE MOUNTING



Flush Type
Fig. 980

Surface Type
Fig. 981

	Fig. 980 Complete Each	Fig. 981 Complete Each	Plugs Only Each	Dimensions Box Inches	Weight Pounds
Single	\$12.20	\$11.20	\$4.20	3 3/8 x 2 1/8 x 1 1/2	1 1/2
Double	24.50	23.50	4.20	4 1/2 x 2 1/8 x 1 1/2	2

Note—Double size can be supplied with one receptacle and one switch instead of two receptacles at same price.

ROUND FLUSH TYPE WITH BOX
5 AMP.—BOTTOM INLET—2 WIRE



Fig. 969

Complete With Plug Each	Plug Only Each	Diam. Plate Inches	Diam. Box Inches	Depth Box Inches	Weight Pounds
\$12.00	\$4.20	2 1/4	1 5/8	1 1/4	3/4

Watertight Turn Switches

5 AMP.—SIDE INLET—SINGLE POLE—2 WIRE
FLUSH OR SURFACE MOUNTING



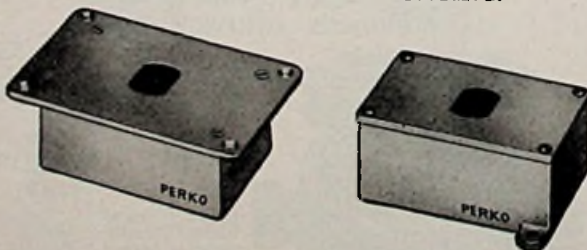
Flush Type
Fig. 988

Surface Type
Fig. 993

	Fig. 988 Complete Each	Fig. 993 Complete Each	Dimensions Box Inches	Weight Pounds
Single	\$ 7.50	\$ 6.50	3 3/8 x 2 1/8 x 1 1/2	1 1/2
Double	13.85	13.50	4 1/2 x 2 1/8 x 1 1/2	2

Convenience Outlets for Standard 2 Wire Plugs

10 AMP. 250 VOLTS—15 AMP. 125 VOLTS
CAST BRONZE BOX
FLUSH OR SURFACE MOUNTING.



Flush Type
Fig. 964

Surface Type
Fig. 965

	Fig. 964 Complete Each	Fig. 965 Complete Each	Dimensions Box Inches	Weight Pounds
Single	\$6.50	\$6.00	3 3/8 x 2 1/8 x 1 1/2	1 1/2
Double	8.50	8.00	3 3/8 x 2 1/8 x 1 1/2	1 3/4

Weatherproof Dock Receptacle with Self-Closing Cover

10 AMP. 250 VOLTS—15 AMP. 125 VOLTS
CAST BRONZE BOX
FOR STANDARD 2 WIRE PLUG

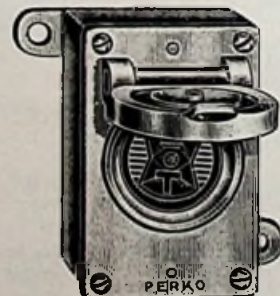


Fig. 975

Each	Dimensions Box Inches	Weight Pounds
\$14.00	3 3/8 x 2 1/8 x 1 5/8	3

NOTE—Above are only tapped to order, add \$.45 for each hole. All plugs are 5/16" O.D. cable.



YACHT SIZE RECEPTACLES AND PLUGS

WATERTIGHT — CAST BRONZE BOXES — VOLTAGES 6 TO 125

AS SMALL AND COMPACT AS PRACTICABLE FOR INSTALLATION WHERE SPACE IS LIMITED

HEAVY DUTY TYPE—10 AMP.—2 WIRE

HEAVY DUTY TYPE—10 AMP.—2 WIRE
SINGLE OR DOUBLE RECEPTACLE WITH SWITCH

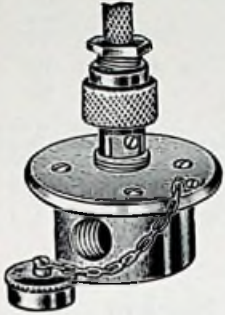


Fig. 970
Flush Type

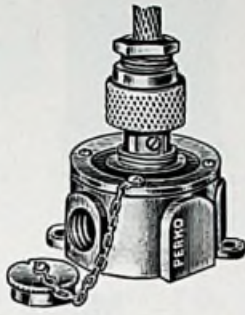


Fig. 971
Surface Type

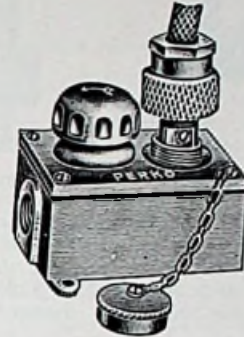


Fig. 973

Fig. 970 Complete Each	Fig. 971 Complete Each	Plugs Only Each	Diam. Plate Fig. 970 Inches	Diam. Box Fig. 971 Inches	Weight Fig. 970 Pounds
\$14.60	\$13.50	\$4.20	3 1/2	2 3/4	1 3/4

	Complete With Plug Each	Plugs Only Each	Dimensions Box Inches	Weight Pounds
Single	\$18.25	\$4.20	4 1/2 x 2 1/2 x 1 3/4	3 1/2
Double	28.50	4.20	5 1/2 x 2 1/2 x 1 3/4	4

HEAVY DUTY TYPE—10 AMP.—2 WIRE
DOUBLE OR TRIPLE



Fig. 972

	Complete Each	Plugs Only Each	Dimensions Box Inches	Weight Pounds
Double	\$21.50	\$4.20	4 1/2 x 2 1/2 x 1 3/4	3 3/4
Triple	31.50	4.20	5 1/2 x 2 1/2 x 1 3/4	4

Watertight Junction Boxes

CAST BRONZE—SURFACE TYPE

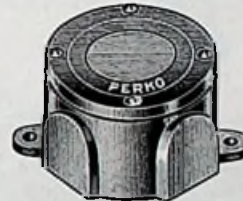


Fig. 1257

With rubber gasket. For 4 way tapping.

No.	Each	Inside Diam. Inches	Inside Depth Inches	Weight Pounds
1	\$4.85	2 1/4	1 3/8	1
2	5.00	3	1 3/8	1 3/4

Watertight Snap Switch

FLUSH TYPE OR SURFACE TYPE—10 AMP.
2 WIRE

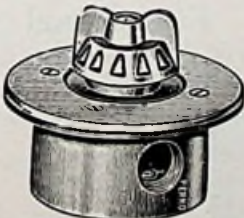


Fig. 974

Ratchet under knob to prevent turning in wrong direction.

	Flush Type	Surface Type	Diam. Plate Inches	Diam. Box Inches	Depth Box Inches	Weight Pounds
Single Pole	\$11.00	\$10.00	4	3	1 1/2	2
Double Pole	13.00	11.25	4	3	1 1/2	2

Watertight Push Buttons

CAST BRONZE



Fig. 978

With nickel silver springs, platinum contacts, rubber gaskets and pig skin cap over button, with screws.

	Polished Bronze Each	Chromium Plated Each	Diam. Base Inches	Weight Ounces
	\$6.50	\$8.00	2 5/8	6

NOTE—Above are only tapped to order, add \$.45 for each hole. All plugs are for 1/2" O.D. cable.



Watertight Connection

DOUBLE CONTACT

Deck Socket

All Metal Plug



Fig. 423



Fig. 425

DECK SOCKET. All brass, double contact, complete with threaded cap and chain as illustrated.

PLUG. All brass, double contact, threaded lock nut for fastening to deck socket, Fig. 423. Threaded cap with rubber gasket inside to prevent water running down cable.

	Polished Brass Each	Chromium Plated Each	Dimensions Inches
Socket Only	\$2.40	\$3.40	1 1/2 x 1 3/4
Plug Only	2.40	3.40	1 1/2 x 1

Spare electric sockets only, see fig. 747, No. 2.

Watertight Connection

BRASS—DOUBLE CONTACT



Fig. 477

Complete as illustrated, with rubber grommet inside cap for cable.

	Polished Brass Each	Chromium Plated Each	Composition Interiors Only Per Set	Size Inches
	\$4.25	\$5.25	\$.65	1 1/2 x 1 1/4

Watertight Cable Outlet

BRASS—FOR 5/16 INCH CABLE



Fig. 424

Has rubber grommet for watertight passage of cable through deck or bulkhead, also prevents chafing of cable insulation.

	Polished Brass Each	Chromium Plated Each	Extreme Diameter Inches
	\$1.50	\$2.25	1 1/4

Medium Screw Sockets

PHENOLIC—250 VOLTS—660 WATTS
APPROVED BY U.S.C.G. AND U.S.M.C.



Fig. 346

With 1/8 or 3/8 inch I. P. S. thread.

No.	Each	Size Thread Inches
1	\$.65	1/8
2	.65	3/8

No.	Height Inches	Extreme Diameter Inches	Weight Dozen Pounds
1	1 1/8	1 3/8	1
2	1 1/8	1 3/8	1

Mogul 3 Wire Socket

PHENOLIC—NAVY DRAWING 9-4779-L
600 VOLTS—1500 WATTS



Fig. 270

For use with double filament bulb Fig. 532.

Each	Height Inches	C to C of Mounting Holes Inches	Weight Ounces
3.85	2 3/16	1 3/8	6

With white metal mounting cap tapped 3/8 inch I. P. S. add \$.35 each.

Socket Supports

BRASS—3/8 INCH I. P. S. THREAD

Used in Fig. 1150 series Navigation Lights for sockets Fig. 270 and 346.

No. 1 for Lights Sizes No. 1 and 2.

No. 2 for Lights Size No. 3.



Fig. 341

No.	Each	Height Inches	Size Base Inches
1	\$1.20	1	7/8 x 2 3/4
2	1.50	2 1/4	7/8 x 2 3/4

No.	C to C of Holes Inches	Weight Ounces
1	2 1/16	1 1/2
2	2 1/16	3

Fuse Panel

BAKELITE—BRASS METAL PARTS
FOR GLASS FUSES UP TO 30 AMP.

No. 1 for one active fuse and one spare.

No. 2 for two active fuses and one spare.



Fig. 694

No.	Each	Length Inches
1	\$.70	2 1/4
2	.90	2 1/4

Width Inches	Thickness Inches	Length Fuse Inches
1	3/8	1 1/4
1 3/8	3/8	1 1/4



Medium Screw Sockets

PORCELAIN—250 VOLTS—660 WATTS



Fig. 222

No.	Complete Each	Gaskets Only Each	Height Inches	Size Base Inches	C to C of Slots Inches
1	\$.85	\$.12	1 5/8	2 x 1 1/4	1 1/2
2	1.20	.12	1 5/8	1 3/4 x 1 1/4	1 1/2

No. 1 size is standard.

No. 2 size has special small size base for Figs. 488 and 489 mast lights.

Electric Socket Adapters



Fig. 405

For converting various types of sockets.

No.	Each
650—From Bayonet Dble. Contact to Med. Screw....	\$.75
670—From Med. screw to Bayonet Dble. Contact....	.90
680—From Med. Screw to Bayonet Single Contact..	.90
830—From Med. Screw to Foreign Bayonet D. C.....	1.00
X12—From Mogul to Medium Screw.....	1.00

Bayonet Double Contact Sockets

BRASS CASE—TAPPED 1/8 INCH I. P. S.



Fig. 276

Used in our De-Lite motor boat lights, classes 1, 2 and 3, and various types of dome lights.

No.	Each	Length Overall Inches	Weight Per Dozen Ounces
0	\$.90	1 3/8	7
1	.90	1 5/8	8
2	.90	2	11
3	.90	2 3/8	14

Socket Support

BRASS—FOR FIG. 276 SOCKET

Threaded 1/8 inch I. P. S. Complete with screws for installing.



Fig. 277

Each	Height Inches	Size Base Inches	Weight Dozen Ounces
\$.80	7/8	5/8 x 1 1/2	6

Bayonet Double Contact Sockets

BRASS CASE—HARD RUBBER INSULATION



Fig. 747

No.	Each	Length Inches	Weight Dozen Ounces
1	\$.55	7/8	5
2	.55	1 1/16	5
5	.55	1 1/4	6
6	.60	1 1/2	8
7	.60	2	9

Outside diameter, all sizes, 1 1/16 inches.

No. 1 Wires enter side, screws in bottom.
No. 2 Wires enter bottom, screws in same side.
Nos. 5, 6, 7 Wires enter side, screws in bottom.

Note—No. 1 used with rebulbing feature in stream-line lights such as Figs. 563, 1138, 1140, 1140A.

No. 2 used in pole lights, dome lights, etc.

Bayonet Double Contact Socket

BRASS CASE—BAKELITE INSULATION



Fig. 71

For easier wiring, this socket has phosphor bronze springs and brass terminal screws.

Each	Length Inches	Outside Diameter Inches	Weight Dozen Ounces
\$.95	1 3/8	1 1/16	8

Navy Standard Electric Sockets

PHENOLIC INSULATION—BRONZE PARTS



Candelabra Screw Fig. 15



Bayonet Double Contact Fig. 76

Fig. 15 complies with Navy Drawing 9-S-2036-L.
No. 76 complies with Navy Drawing 9-S-4634-L.

Fig.	Each	Height Inches	Size Base Inches	Weight Dozen Ounces
15	\$.75	1 1/8	1 x 1 1/2	12
76	.85	1 1/8	1 x 1 1/2	16

Bayonet Sockets

PHENOLIC—SINGLE AND DOUBLE CONTACT



Fig. 472

No.	Each	Type	Height Inches	Diam. Base Inches	Weight Dozen Ounces
20	\$.90	Double contact	1	1 3/8	9
21	.90	Single contact			



Bayonet Double Contact Socket

FLANGED TYPE—BRASS AND HARD RUBBER



Fig. 377

Each	Length Inches	Diam. Inches	Weight Dozen Ounces
\$.75	1 1/4	1 1/16	9
	Size-Flange Inches	C to C of Holes Inches	
	1 1/8 x 1 1/2	1 3/16	

Double Contact Plug and Socket



Fig. 399

Plug and socket insulation is hard rubber.

All metal parts are brass.

Per Set	Size Flange In.	Outside Diam. Socket In.	Length Socket In.	Wt. Doz. Oz.
\$1.20	1 1/8 x 1 1/2	1 1/16	1 3/8	14

Bayonet Double Contact Adapter

ALL BRASS



Fig. 458

For adapting oil lights to combination oil and electric. Just remove burner from fount, place collar around threaded portion of burner and replace assembly in oil fount. Consists of double contact bayonet socket, collar and hollow nut.

Per Set. Complete\$1.95

Double Contact Connectors

HARD RUBBER INSULATION—BRASS CONTACTS WITH SOFT RUBBER WATERPROOF CAPS



Fig. 749

Each	Size Inches	Weight Dozen Ounces
\$.80	1 5/16 x 2 1/2	10

"Midget" Connectors

BAKELITE BODY—BRASS CONTACTS DOUBLE CONTACT

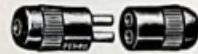


Fig. 26

Designed for use in limited space. Split pins insure a firm positive connection.

Each	Size Inches	Weight Dozen Ounces
\$1.00	9/16 x 1 3/8	6

Bayonet Double Contact Adapter

BRASS AND HARD RUBBER



Fig. 355

For adapting oil fount to electricity. Screw adapter in place of oil burner and punch hole in bottom of fount for cable entrance.

Each	Overall Length Inches	Diam. Thread Inches	Weight Dozen Ounces
\$.90	1 1/4	7/8	8

Ship to Shore Heavy Duty Connector

110 VOLT—25 AMPS.
BAKELITE AND RUBBER CONSTRUCTION
ALL BRASS METAL PARTS

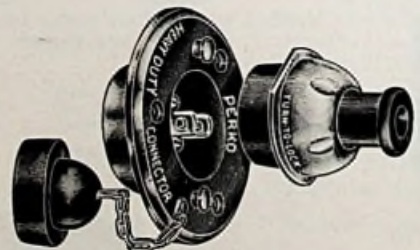


Fig. 72

Bakelite base has heavy duty male terminals. Plug is phenolic with bronze female prongs, all rubber covered. Will accommodate No. 10 wire. Plug locks in base. A chained rubber cap for base when disconnected.

Complete Each	Diam. Base Overall Inches	Depth of Base Inches	Diam. Hole Required Inches	Weight Ounces
\$2.90	3 3/8	3/4	1 3/4	5

Spare female plug only, each \$.80.
Spare female plug with rubber cover and brass locking cap, each \$1.60.

Bayonet Double Contact Plugs

ALL METAL OR HARD RUBBER



All Metal
Fig. 383



Hard Rubber
Fig. 746

With flush type contact screws, used with sockets Figs. 76, 276, 377, 472, 747.

Fig. 383 all metal plug has large opening for 1/2 inch cable.

Fig. 746 has soft rubber waterproof cap.

Fig. 383 Each	Fig. 746 Each	Length Inches	Diam. Fig. 383 Inches	Diam. Fig. 746 Inches	Weight Dozen Ounces
\$.65	\$.40	1 1/2	3/4	1 5/16	8



Brass Cable Straps

FOR CABLE, TUBING, CONTROL WIRE, ETC.



Fig. 121

Inside Diam. Inches	Per 100	Length Inches	Width Inches
1/8	\$2.70	1 7/16	1/2
3/16	3.00	1 3/8	1/2
1/4	3.25	1 5/16	1/2
5/16	3.25	1 3/16	1/2
3/8	3.60	1 1/8	1/2
7/16	3.90	1 5/8	1/2
1/2	4.20	1 1/2	1/2
5/8	5.00	1 3/4	1/2
3/4	5.50	1 7/8	1/2

Supplied only in standard packages of 100 pieces.

Line Support Clips

ALUMINUM

WITH SYNTHETIC RUBBER CUSHION

Used in the aircraft industry for supporting electrical, fuel, instrument, oil and water lines.



Fig. 163

For O.D. Line Inches	Per 100	Width Inches
3/16	\$ 6.00	3/8
1/4	6.00	3/8
5/16	6.75	1/2
3/8	7.75	1/2
1/2	8.50	1/2



Fig. 164

DOUBLE LINE

For O.D. Line Inches	Per 100	Width Inches
3/16	13.00	3/8
1/4	13.00	3/8
5/16	13.00	1/2
3/8	13.00	1/2
1/2	15.50	1/2

TRIPLE LINE

For O.D. Line Inches	Per 100	Width Inches
3/16	17.00	3/8
1/4	17.75	3/8
5/16	18.00	1/2
3/8	18.00	1/2
1/2	21.00	1/2



Fig. 165

Knife or Battery Switches

FIBRE BASE—SINGLE POLE—30 AMP.

UPRIGHT TYPE



Fig. 70

	Each	Dimensions Base Inches	Weight Ounces
Single Throw	\$2.40	2 1/2 x 1 1/8	1 3/4
Double Throw	2.90	3 3/4 x 1 1/8	2 1/2

FLAT TYPE



Fig. 74

	Each	Dimensions Base Inches	Weight Ounces
Single Throw	\$1.00	2 3/8 x 1	1 1/4

Knife or Battery Switches

EBONY ASBESTOS BASE—HIGH JAWS

ONE OR TWO POLE

SINGLE OR DOUBLE THROW

250 VOLT D.C.—500 VOLT A.C.

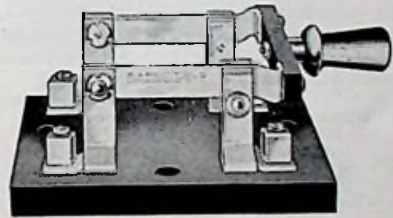


Fig. 191

SINGLE POLE—SINGLE THROW

No.	Each	Amps.	Dimensions Base Inches	Weight Pounds
1	\$ 3.85	60	6 3/4 x 1 5/8 x 5/8	3/4
2	7.85	100	6 3/4 x 2 x 3/4	2 1/2
3	14.00	200	10 x 3 x 1	4

SINGLE POLE—DOUBLE THROW

4	6.35	60	9 1/4 x 2 x 3/4	2 1/2
5	14.50	100	10 x 3 x 3/4	4
6	20.50	200	12 x 4 x 1	8

DOUBLE POLE—SINGLE THROW

7	6.00	60	6 x 4 1/2 x 5/8	3
8	12.00	100	7 1/8 x 5 x 3/4	5 1/2
9	20.00	200	9 1/2 x 6 x 1	10 1/4

DOUBLE POLE—DOUBLE THROW

10	9.50	60	9 1/2 x 6 x 3/4	5 1/4
11	20.50	100	10 1/4 x 7 x 3/4	8 3/2
12	33.00	200	15 x 7 3/4 x 1	16



Switch Panels

BLACK BAKELITE PANEL—WHITE LETTERING
BRASS, NICKEL PLATED TOGGLE SWITCHES
WITH OR WITHOUT FUSE HOLDERS

All lettering is engraved. "On" position of switch is indicated. Fuse holders are the enclosed type for glass fuses up to 30 amp.

SINGLE SWITCH PANEL



Fig. 516

Supplied complete with any one of the Fig. 519 name plates shown below, please specify.

With Fuse Holder Each	Without Fuse Holder Each	With Fuse Holder Size Inches	Without Fuse Holder Size Inches
\$3.85	\$3.00	4 1/2 x 1 1/4	3 3/4 x 1 1/4

5 GANG SWITCH PANEL



Fig. 517

Our stock panel is illustrated. Dealer or user may change name plates as desired as they are removable. For additional selection see Fig. 519. For changes made at factory, add \$1.00 each.

With Fuse Holders Each	Without Fuse Holders Each	With Fuse Holders Size Inches	Without Fuse Holders Size Inches
\$15.50	\$11.00	6 1/2 x 4 1/4	6 1/2 x 3 3/4

Supplied with fuse holders unless otherwise specified.

Starter — Ignition — Lights Switch Panel

BLACK BAKELITE PANEL—WHITE LETTERING
2 POINT PUSH BUTTON STARTER SWITCH
LOCK TYPE IGNITION SWITCH—TWO KEYS
BRASS TOGGLE TYPE LIGHT SWITCH



Fig. 514

Visible portion of all switches is chromium plated.

Complete Each	Length Inches	Width Inches	Weight Ounces
\$7.25	5	2 1/2	8

Starter and Ignition Switch Panel

BLACK BAKELITE PANEL—WHITE LETTERING
TWO POINT PUSH BUTTON STARTER SWITCH
LOCK TYPE IGNITION SWITCH—TWO KEYS



Fig. 518

Visible portion of both switches is chromium plated.

Complete Each	Length Inches	Width Inches	Weight Ounces
\$6.00	4 1/2	2 1/2	5

SPARE PARTS

Ignition Switches, see Fig. 316.

Toggle Switches, see Fig. 745.

Fuse Holders, \$1.00 each.

Starter Switches, see Fig. 255, all Brass.

Switch Name Plates

BLACK BAKELITE—ENGRAVED WHITE LETTERING

In addition to those illustrated, stock name plates are as follows:



Fig. 519

- | | | |
|--------------|----------|----------------|
| HORN | STARTER | BOW LIGHT |
| SIREN | FAN | MASTHEAD LIGHT |
| FUEL PUMP | MASTER | STERN LIGHT |
| DECK LIGHTS | HEATER | PORT LIGHT |
| PILOT | ON | STBD. LIGHT |
| PANEL LIGHTS | OFF | RANGE LIGHT |
| CHOKER | LIGHTS | FLOOD LIGHTS |
| IGNITION | THROTTLE | TOWING LIGHTS |
| REVERSE | FORWARD | SPREADER LIGHT |
| NEUTRAL | | |

Per Dozen	Length Inches	Width Inches	Per Dozen Weight Ounces
\$6.60	1 1/2	1/2	1/2

Packed one dozen each name per box.
Less than one dozen each name \$.75 each.
Special name plates, price on application. Specify lettering and size.



Toggle Switches

BRASS WITH BAKELITE INSULATION
WITH 6 INCH WIRE LEADS



Fig. 745

No.	Nickel Plated Each	Length Neck Inches	Diam. Neck Inches	Between Lock Nuts Inches	Weight Ounces
1	\$1.05	3/16	7/16	3/16	3/4
2	1.05	3/16	7/16	5/16	3/4

No. 2 supplied unless otherwise specified.
With watertight cap and chain, add \$1.00 each.

Toggle Switch with Face Plate

BRASS WITH BAKELITE INSULATION
SCREW POSTS—NO LEADS



Fig. 718

Chromium Plated Each	Size Face Plate Inches	Weight Ounces
\$1.05	1 1/2 x 1	3/4

Push and Pull Switch

ALL BRASS THROUGHOUT

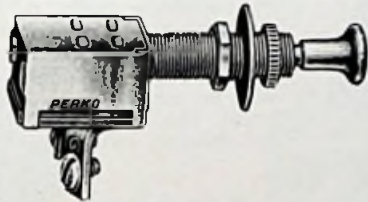


Fig. 105

Chromium Plated Each	Diameter Neck Inches	Length Neck Inches	Length Overall Inches	Weight Ounces
\$1.10	3/8	1	3	2

Push and Pull Switch with Face Plate

ALL BRASS THROUGHOUT

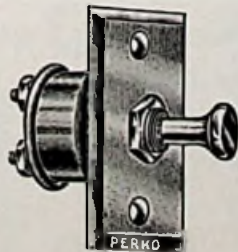


Fig. 216

Chromium Plated Each	Diameter Neck Inches	Length Neck Inches	Size Face Plate Inches	Weight Ounces
\$1.30	3/8	1	1 1/2 x 1	1 3/4

Push and Pull Switches

STEEL OR BRASS—WITH IVORY KNOB



Fig. 94

With ivory colored tenite knob. Steel switches are cadmium plated.

No. 1 Steel Each	No. 2 Brass Each	Diameter Neck Inches	Length Neck Inches	Weight Ounces
\$1.05	\$1.30	3/8	1	1 3/4

Momentary Starter Switches

OR DASHBOARD HORN BUTTON
PUSH BUTTON TYPE—STEEL OR BRASS



Fig. 255

2 point 2 terminal spring action switch with chromium plated button. Steel switches are cadmium plated.

No. 1 Steel Each	No. 2 Brass Each	Diameter Neck Inches	Length Neck Inches	Weight Ounces
\$1.45	\$1.85	3/8	3/4	2 1/2

Momentary Starter Switch

PULL TYPE—ALL BRASS

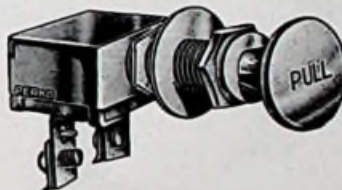


Fig. 142

2 point, 2 terminal spring action with chromium plated knob imprinted "Pull." Rated 20 amps. at 6 volts.

Each	Diameter Neck Inches	Length Neck Inches	Weight Ounces
\$1.90	3/8	1	3

Ignition Lock Switch

2 TERMINAL—2 KEYS

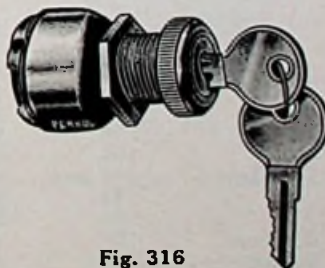


Fig. 316

Brass lock, switch, terminal screws and lock nut. Face plate is chromium plated.

Each	Diameter Neck Inches	Length Neck Inches	Weight Ounces
\$1.95	3/4	3/4	4



MAZDA LIGHTING BULBS

Miniature Screw or Bayonet Base



Fig. 337

Bulb No.	Diam. Inches	Length Overall Inches
13	7/16	7/8
131	7/16	7/8
518	3/4	1 1/16
1483	9/16	1
14	7/16	1 5/16
G-4 1/2	9/16	1
G-6	3/4	1 7/16
S-6	3/4	1 3/8
T-7	7/8	2 1/8
G-8	1	1 3/8
S-8	1	2
RP-11	1 3/8	2 1/8



Fig. 340

Medium Screw Base

Bulb No.	Diam. Inches	Length Overall Inches
T-10	1 1/4	5 3/8
S-14	1 3/8	3 3/4
A-17	2 1/8	3 3/8
A-19	2 3/8	3 15/16
A-21	2 5/8	4 7/16

Volts	Candle Power	No.	Base	Clear Each
1.3	.1 amp.	131	Min. Screw	.28
1.3	.1 amp.	351	Min. Bayonet	.28
2.5	.15 amp.	S-8	D. C.	1.55
2.5	.3 amp.	14	Min. Screw	.25
3.8	.3 amp.	13	Min. Screw	.28
4.0	.55 amp.	518	Min. Screw	.45
6	.04 amp.	1483	Min. Screw	.45
6	1	51	Min. Bayonet	.25
6	1 1/2	G-4 1/2	Min. Bayonet	.18
6-8	3	G-6	D. C.	.18
6-8	6	G-6	D. C.	.20
6-8	15	S-8	D. C.	.37
6-8	21	S-8	D. C.	.40
12	1 1/2	G-4 1/2	Min. Bayonet	.33
12-16	3	G-6	D. C.	.20
12-16	6	G-6	D. C.	.25
12-16	15	S-8	D. C.	.40
12-16	21	S-8	D. C.	.45
32	3	G-6	D. C.	.77
32	6	G-8	D. C.	.90
32	15	S-8	D. C.	1.00
32	21	RP-11	D. C.	1.20
110	6 watt	S-6	D. C.	.66
120	10 watt	C-7	D. C.	.55
120	15 watt	T-7	Candelabra	1.05

Packed, 10 bulbs to a box.

Volts	Watts	No.	Base	Clear Each	Frosted Each
6	15	A-17	Medium	\$1.05	\$.80
6	25	A-19	Medium		.80
6	50	A-21	Medium		1.00
12	15	A-17	Medium	1.10	.85
12	25	A-19	Medium		.85
12	50	A-21	Medium		1.10
32	15	A-17	Medium	.90	.65
32	25	A-19	Medium		.65
32	50	A-21	Medium		.65
120	25	T-10	Medium	.90	
120	10	S-14	Medium	.50	
120	50	A-19	Medium	.55	
120	60	A-19	Medium	.55	
120	100	A-21	Medium	.60	

Packed, 6 bulbs to a package
Please specify, clear or frosted

FOR DOME AND BERTH LIGHTS



Fig. 8

Bulb No.	Diam. Inches	Length Overall Inches	Clear Each
S-11	1 3/8	2 3/8	
6-8	8	21	Medium \$1.00
12-16	8	21	Medium 1.10
32	8	15	Medium 1.65
120	8	15	Medium 1.35

Packed, 6 bulbs to a box



Fig. 532

Two Filament Bulb

MOGUL BASE FOR THREE WIRE SYSTEM
120 VOLTS

Eliminates the method of using two separate bulbs in two light electric installations. Lamps are always properly focused.

Should one filament burn out it will be indicated on the telltale panel, the other filament can be immediately switched into use.

Watts	Each	Height Overall Inches	Diam. Inches
50-50	\$6.00	5	3 1/8
100-100	6.60	5	3 1/8

Mazda Searchlight Bulbs Fig. 24

Volts	Watts	Candle Power	No.	Base	Diameter Inches	Length Overall Inches	Each
6-8		32	RP-11	D. C.	1 1/4	2 5/16	\$.45
6-8		50	RP-11	D. C.	1 3/8	2 3/8	.50
6-8		100	G-16 1/2	D. C.	2 1/16	3	2.20
6-8	108	18 amp.	P-25	Medium	3 3/8	4 3/4	5.25
12-16		32	RP-11	D. C.	1 1/4	2 5/16	.50
12-16		50	RP-11	D. C.	1 3/8	2 3/8	.80
12-16		100	G-16 1/2	D. C.	2 1/16	3	2.20
12-16	216	18 amp.	P-25	Medium	3 3/8	4 3/4	6.00
32		32	RP-11	D. C.	1 1/4	2 5/16	1.40
32		50	RP-11	D. C.	1 3/8	2 3/8	1.90
32	2. amp.	100	G-16 1/2	D. C.	2 1/16	3	2.50
32	3.5 amp.	150	G-16 1/2	D. C.	2 1/16	3	3.00
32	256	8 amp.	P-25	Medium	3 3/8	4 3/4	6.00
120	100		G-16 1/2	D. C.	2 1/16	3	3.00
120	250		T-10	Medium	1 1/4	5 1/2	7.00
120	500		T-20	Medium	2 1/2	5 1/2	7.25
120	1000		T-20	Medium	2 1/2	5 1/2	10.00
120	1000		T-20	Mogul Screw	2 1/2	9	10.00



Marcy Hinge Burners

ALL BRASS



Fig. 242

Used in all cabin lamps, large running lights, bulk-head lamps, etc.

No.	Per Dozen	Diam. Thread Inches	Wick Inches
2	\$21.60	1 1/4	7/8
2-A	24.00	1 1/4	7/8

Size No. 2-A is for same size chimney, Fig. 267.

Marcy Lip or Dual Chimneys



Fig. 267

No.	Per Dozen	Height Inches	Diam. Bottom Inches
2	\$14.40	5	2 1/16
2	14.40	5 1/2	2 1/16
2	14.40	6	2 1/16
2-A	14.40	6	2 9/16

Specify height of chimney when ordering.

Brass Burners



Fig. 246

No.	Per Dozen	Diam. Thread Inches	Wick Inches
0	\$4.20	3/8	1/2
1	4.80	3/8	5/8

No. 0 used in Class 1 lights.
No. 1 used in Class 2 and 3 lights.

Hornet Chimney and Burner

CLEAR CHIMNEY—ALL BRASS BURNER

Used on Cabin Lamp Fig. 141 Size 1 and Fig. 168 Size 0.

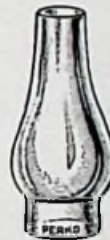


Fig. 230



Fig. 231

Burner used with Flat Wick Fig. 302, No. 0.



Fig. 302

Flat Wicks

	Per Dozen
Flat Wicks, No. 0, 1/2 inch wide	\$.72
Flat Wicks, No. 1, 5/8 inch wide	.84
Flat Wicks, No. 2, 3/4 inch wide	1.08

Long Time Burner and Chimney

BRASS

Used in 10 Day Anchor Lights, Fig. 596

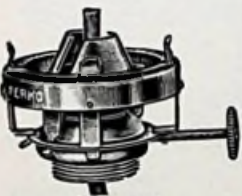


Fig. 245



Fig. 272

Burners Per Dozen	Chimneys Per Dozen	Wicks Per Dozen	Height Chimney Inches	Diameter Chimney Inches
\$27.00	\$19.00	\$2.40	1 1/4	1 1/2

Navy Lantern Globes



Fig. 262

This globe is standard equipment in Navy lantern, Fig. 49.

Diameter of top	2 1/2 inches
Diameter of bottom	4 inches
Height overall	6 1/2 inches
Net weight, per dozen	9 pounds

Clear Per Doz.	Red Per Doz.	Green Per Doz.	Blue Per Doz.
\$12.75	\$25.00	\$25.00	\$25.00

Colored globes are solid colors, not painted.

Round Globes

FOR FIG 44 GLOBE OR DISTRESS LIGHTS



Fig. 264

Supplied in clear, colored or frosted. Colors are Red, Green or Blue.

Size Inches	Clear Each	Frosted or Colored Each	Diameter		Height Overall Inches
			Top Inches	Bottom Inches	
6	\$4.50	\$8.50	3 3/8	3 3/8	6 3/8
8	7.25	11.25	4	4	7 1/2
10	10.50	15.00	5 3/8	5 3/8	10 1/8

NOTE—6 inch size not available in green.



Fresnel Ball Globes

WITH THREADED BASE
1 1/2 INCH DIAMETER

For pole lights, Figs. 404, 439, 551, 600, 603, 609, 625, 846, 1145, 1148.



Fig. 604

Outside diameter 1 1/2 in.
Height overall 1 7/8 in.
Diameter of opening 1 3/16 in.
Net weight, each 1 3/4 oz.

Clear Each	Red Each	Green Each	Blue Each
\$1.45	\$1.95	\$1.95	\$1.95

1 3/4 INCH DIAMETER

For pole lights, Figs. 1233 and 1239. These are interchangeable with Figs. 250 and 251 as thread is same size.



Fig. 248

Outside diameter 1 3/4 in.
Height overall 2 1/2 in.
Diameter of opening 1 1/2 in.
Diameter of thread 2 in.
Net weight, each 3 oz.

Clear, Each \$2.20

2 1/2 INCH DIAMETER

For pole lights, Figs. 329, 362, 422, 438, 484, 491, 492, 506, 531.



Fig. 250

Outside diameter 2 1/2 in.
Height overall 2 5/8 in.
Diameter of opening 1 1/2 in.
Diameter of thread 2 in.
Net weight, each 6 oz.

Clear Each	Red Each	Green Each
\$2.20	\$2.70	\$2.70

3 INCH DIAMETER

For pole lights, Figs. 330, 362, 422, 438, 484, 491, 492, 506, 531.



Fig. 251

Outside diameter 3 in.
Height overall 3 in.
Diameter of opening 1 1/2 in.
Diameter of thread 2 in.
Net weight, each 7 oz.

Clear Each	Red Each	Green Each	Blue Each
\$2.20	\$2.70	\$2.70	\$2.70

3 INCH DIAMETER

For mast lights, Figs. 103, 104.



Fig. 249

Outside diameter 3 in.
Height overall 3 3/8 in.
Diameter of opening 2 1/4 in.
Diameter of thread 2 1/4 in.
Net weight, each 10 oz.

Clear Each	Red Each	Green Each	Blue Each
\$2.40	\$3.40	\$3.40	\$3.40

Mast Light Globes

WITH THREADED BASE
2 1/2 INCH DIAMETER

For mast lights Figs. 488 and 489.



Fig. 77

Outside diameter 2 1/2 in.
Height overall 5 1/2 in.
Diameter of opening 1 1/8 in.
Diameter of thread 2 3/8 in.
Net weight, each 9 oz.

Clear Each	Red Each	Green Each	Blue Each
\$2.20	\$3.20	\$3.20	\$3.20

3 1/2 INCH DIAMETER

For mast and stern lights, Figs. 83, 112, 113, 145, 309, 1163.



Fig. 106

Outside diameter 3 1/2 in.
Height overall 5 in.
Diameter of opening 2 1/2 in.
Diameter of thread 3 3/16 in.
Net weight, each 1 1/4 lbs.

Clear Each	Red Each	Green Each	Blue Each	Amber Each
\$3.25	\$4.50	\$4.50	\$4.50	\$4.50

Dome Light Glasses

RIBBED DIFFUSING TYPE



Fig. 257

For Dome Lights Figs. 294, 555.

Trade Size Inches	Each	Diam. Overall Inches	Depth Inches
3	\$1.20	3 3/4	2 7/8
4	1.50	4	3 1/8
5	1.75	5	1 3/8
6	2.00	6	1 1/2

FROSTED TYPE

For Dome Lights Figs. 296, 753.



Fig. 132

Trade Size Inches	Each	Diam. Overall Inches	Depth Inches
3	\$1.20	2 7/8	3 3/8
4	1.50	4	1 1/2
5	1.75	5	3 1/4
6	2.00	6	7/8
8	2.50	7 3/4	7/8

RIBBED OPAL TYPE

For Dome Lights, Fig. 385.



Fig. 133

Outside Diam. Inches	Each	Extreme Depth Inches
4 1/4	\$2.50	1 1/8
5 3/8	2.75	1 3/8

NOTE—Spare gaskets for above ball and mast light globes, \$.20 each
Spare gaskets for above dome glasses and globes, \$.30 each.



Fresnel Lenses

FOR SIDE AND COMBINATION LIGHTS
112½ DEGREES

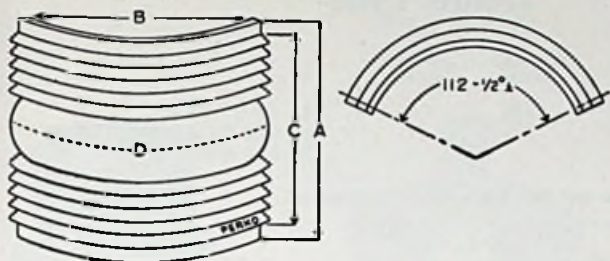


Fig. 259

For Motor Boats	A In.	B In.	C In.	D In.	Clear Each	Red or Green Each	Amber Each
Class A-Std.	2 ⁹ / ₁₆	1 ³ / ₄	2 ³ / ₈	3		\$1.45	
Class A Spec.	2 ⁹ / ₁₆	1 ⁷ / ₈	2 ¹ / ₁₆	3		1.45	
Class 1	3 ³ / ₁₆	2 ⁹ / ₁₆	2 ⁷ / ₈	3 ⁵ / ₈	\$2.20	2.20	\$2.60
Class 2	4 ¹ / ₄	3 ³ / ₁₆	3 ¹¹ / ₁₆	4 ³ / ₄	3.00	3.00	3.60
Class 3	5 ³ / ₁₆	3 ¹¹ / ₁₆	4 ³ / ₈	5 ⁹ / ₁₆	3.75	3.75	

For Vessels Over 65 ft.

No. 8	5 ¹ / ₂	4 ¹ / ₁₆	4 ¹³ / ₁₆	5 ⁷ / ₈		6.30	
No. 0 or 9	5 ¹ / ₂	5 ³ / ₄	5	8 ³ / ₁₆	8.50	8.50	
No. 1 or 10	6 ³ / ₄	6	6	8 ⁵ / ₈		12.50	
No. 2 or 11	7 ¹ / ₂	8 ¹ / ₂	6 ⁷ / ₈	11 ³ / ₈		17.50	
No. 3	8 ¹ / ₂	9 ³ / ₄	7 ³ / ₄	13		19.00	

Class A Standard is used in Figs. 485, 598, 640, 1142.

Class A Special is used in Figs. 1140, 1140A, 1144, 1232, 1235, 1236.

FOR ANCHOR LIGHTS—360 DEGREES

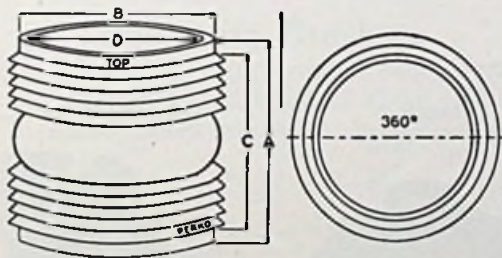


Fig. 261

For Motor Boats	A In.	B In.	C In.	In. D	Clear Each	Colored Each
Junior	3 ³ / ₁₆	3 ³ / ₁₆	2 ⁷ / ₈	2 ³ / ₄	\$2.20	\$2.90
Senior	4 ¹ / ₄	4	3 ⁹ / ₁₆	3 ⁷ / ₁₆	2.90	4.30

For Vessels over 65 ft.

No. 0 or 22	5 ¹ / ₂	5 ³ / ₄	5	4 ³ / ₈	8.75	15.00
No. 1 or 22½	6 ³ / ₄	5 ³ / ₄	6 ¹ / ₈	4 ¹ / ₂	12.75	19.00
No. 1½	6 ³ / ₄	6	6	5 ⁷ / ₁₆	14.00	20.00
No. 2 or 23	7 ¹ / ₂	7 ¹ / ₂	6 ¹ / ₄	6 ¹ / ₂	15.00	23.00
No. 3	8 ¹ / ₂	8 ¹ / ₂	7 ³ / ₄	7 ³ / ₄	19.00	30.00

Colors are red, green, blue or amber.

Sizes No. 1 and 2 not available in blue.

Sizes No. 1½ and 3 not available in blue or amber.

FOR BOW LIGHTS—180 DEGREES

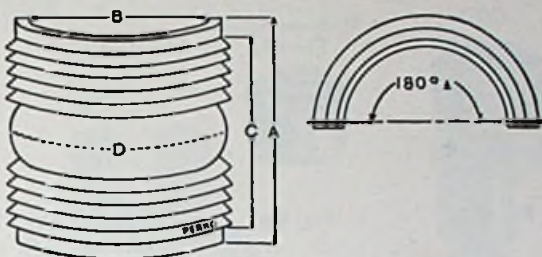


Fig. 260

For Motor Boats	A In.	B In.	C In.	D In.	Clear Each	Colored Each
Class 1	3 ⁷ / ₁₆	2 ³ / ₄	2 ⁷ / ₈	5 ⁷ / ₈	\$2.90	\$5.00
Class 2	4 ¹ / ₄	3 ¹ / ₄	3 ³ / ₈	6 ³ / ₈	3.00	5.15
Class 3	5 ³ / ₁₆	3 ⁷ / ₈	4 ⁹ / ₁₆	7 ¹³ / ₁₆	3.75	6.25
Mld. 59	7 ³ / ₈	6 ⁷ / ₈	6 ³ / ₈	12 ⁵ / ₈	15.00	21.00

Colors are red, green, blue or amber.

Class 3 not available in amber.

Mld. 59 not available in blue.

Mld. 59 used in pier and lift span lights for bridges.

FOR MASTHEAD LIGHTS—225 DEGREES

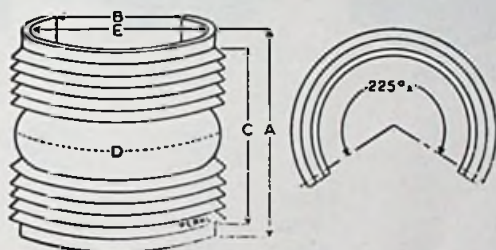


Fig. 256

For Vessels Over 65 ft.	A In.	B In.	C In.	D In.	E In.	Clear Each	Colored Each
No. 0	5 ¹ / ₂	4	5	12 ¹ / ₄	4 ⁷ / ₈	\$10.50	\$21.50
No. 1	6 ³ / ₄	4	6	12 ¹ / ₄	4 ⁷ / ₈	13.50	24.50
No. 2	7 ¹ / ₂	5 ³ / ₈	6 ³ / ₈	16 ³ / ₈	6 ¹ / ₂	15.00	28.00
No. 3	8 ¹ / ₂	6 ⁷ / ₈	7 ⁵ / ₈	18 ³ / ₈	7 ³ / ₄	18.50	32.00

Colors are red, green or amber.

Size No. 3 not available in amber.

FOR STERN LIGHTS—135 DEGREES

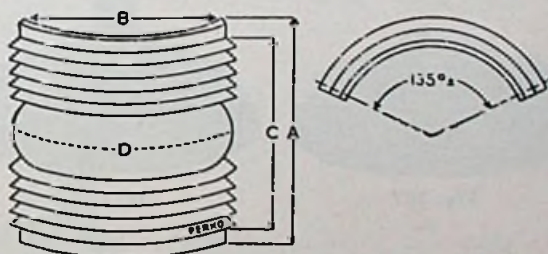


Fig. 269

For Vessels Over 65 ft.	A In.	B In.	C In.	D In.	Clear Each	Colored Each
No. 0	5 ¹ / ₂	4 ³ / ₈	4 ⁷ / ₈	7 ¹ / ₂	\$8.50	\$12.00
No. 1	6 ³ / ₄	4 ³ / ₈	6 ¹ / ₈	7 ¹ / ₂	9.50	13.00
No. 2	7 ¹ / ₂	6 ³ / ₈	6 ³ / ₄	10	12.00	19.00
No. 3	8 ¹ / ₂	7 ¹ / ₂	7 ³ / ₄	11 ¹ / ₄	14.50	21.50

Colors are red, green, blue or amber.

Size No. 0 not available in blue.

Size No. 3 not available in blue or amber.



OIL FOUNTS AND ELECTRIC ADAPTERS

ALL BRASS—FOR LIGHTS CLASS 3 AND SMALLER

Delite Type



Fig. 582

Medium Screw Electric



Fig. 588

Fig.	Each	Diameter Inches	Weight Ounces	For Lights Figs.
582	\$2.00	2 3/4	4	01-04-05-08-09
588	3.00	2 3/4	4	01-010-04-05-040-050-08 09-080-090

Price of Fig. 582 does not include holder illustrated.
Holder only, \$1.20 each.

Spring Type

Oil



Fig. 286

Oil and Electric Double Contact



Fig. 736

Electric Double Contact



Fig. 291

Electric Medium Screw



Fig. 292

Oil and Electric Double Contact



Fig. 733

Fig.	Each	Diameter Overall Inches	Opening In Light Inches	Weight Per Dozen Pounds	For Lights Figs.
286	\$2.00	3 5/8	3 1/8	2 1/2	06-17-18-19-20-49-408 No. 0 and 44, 8 inch size
291	3.00	3 5/8	3 3/16	3	4-5-06-12-17-18-19-20
292	3.00	3 5/8	3 1/16	3 1/2	06-12-17-18-19-20-49-408 No. 0 and 44, 8 inch size
*733 oil only	2.00	3 1/2	2 5/8	2	1
733 O. and E.	4.25	3 1/2	2 5/8	3 3/4	1
736	4.25	3 5/8	3 3/16	4 1/2	06-17-18-19-20

*Supplied without burner or wick.

Swivel Type

Oil



Fig. 287

Electric Double Contact



Fig. 293

Electric Medium Screw



Fig. 274

Oil and Electric Double Contact



Fig. 735

Fig.	Each	Diameter Overall Inches	Opening In Light Inches	Weight Per Dozen Pounds	For Lights Figs.
274	\$3.00	4 1/2	4	4	02-11-69 and 44, 6 inch size
287	2.00	4 1/2	4	3	02-69 and 44, 6 inch size
293	3.00	4 1/2	4	4	02-11-69 and 44, 6 inch size
735	4.25	4 1/2	4	4 1/2	02-69

NOTES

Oil burners and wicks, see Figs. 246 and 302.

D. C. Electric sockets for Figs. 291 and 293, see Fig. 355.

D. C. Electric sockets for Figs. 733, 735 and 736, see Fig. 276.

D. C. Electric sockets and holders for Figs. 733, 735 and 736, see Fig. 458.

Medium screw sockets for Figs. 274, 292 and 588, see Fig. 346, No. 1.



OIL FOUNTS AND ELECTRIC ADAPTERS
ALL BRASS—LIGHTS FOR VESSELS OVER 65 FEET LONG
Swivel Type

Oil

Single Electric
2 Wire
Medium Screw

Double Electric
2 Wire
Medium Screw

Electric
3 Wire
Mogul



Fig. 282



Fig. 288



Fig. 289



Fig. 1082

Size No.	Height Fig. 282 Inches	Diameter Overall Inches	Diameter Opening In Light Inches	Fig. 282 Only Each	*Fig. 282 Complete Each	Fig. 289 Each	Fig. 289 Each	Fig. 1082 Each
0	2 7/8	4 3/4	3 3/4	\$3.35	\$6.50	\$4.50		\$7.50
1	3 1/2	4 3/4	3 3/4	3.35	6.50	4.50		7.50
2	4 1/2	5 3/4	4 3/4	4.50	7.80	4.50	7.25	7.50

*Complete with Burner, Wick and Chimney

ABOVE ARE FOR THE FOLLOWING LIGHTS

Fount No.	SIDE LIGHTS		MASTHEAD LIGHTS		STERN LIGHTS		ANCHOR LIGHTS		BREAKDOWN LIGHTS	
	Light Fig.	Light Size	Light Fig.	Light Size	Light Fig.	Light Size	Light Fig.	Light Size	Light Fig.	Light Size
0	21	9	982	0	985	0	23	22	84	0
1	21	10	982	1	985	1	23	22 1/2	84	1
2	21	11	982	2	985	2	23	23	84	2
0	30	0	983	0	986	0	32	0	129	22
1	30	1	983	1	986	1	32	1	129	22 1/2
2	30	2	983	2	986	2	32	2	129	23
0	1155	0	1156	0	1157	0	1158	0	1159	0
1	1155	1	1156	1	1157	1	1158	1	1159	1
2	1155	2-3	1156	2-3	1157	2-3	1158	2-3	1159	2-3

1 Also used in Fig. 44, 10 inch size; Figs. 407 and 408, No. 1
 2 Also used in Figs. 29-50-59-68-80

Mounting Brackets

FOR NAVIGATION LIGHTS
 GALVANIZED SHEET IRON



Fig. 131

No.	Galvanized Each	Width Inches	Height Inches
1	\$.90	1 1/2	4 3/8
2	1.30	2	6 3/8

No. 1— For motor boat side and bow lights, Classes 1, 2 and 3.

No. 2— For larger side lights, sizes 0, 1, 9 and 10.



Fig. 135

GALVANIZED MALL IRON

Each	Height Overall Inches	Width Overall Inches	Width Bracket Inches
\$2.75	7 1/2	5 3/8	2 1/2

For large side lights, sizes 2, 3 and 11.

Mounting Sockets

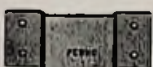


Fig. 25

Galv. Each	Brass Each	Chromium Plated Each	Inside Width Inches
\$.65	\$1.05	\$1.40	1 1/4

For mounting Royal Lights Fig. 89 to 99 inclusive.

Electric Adapters

DOUBLE CONTACT SOCKET
 FOR ROYAL LIGHTS FIGS. 89 TO 99 Inc.



Fig. 138

Brass Each	Diam. Overall Inches	Opening in Light Inches	Weight Ounces
\$1.70	2 3/16	1 3/8	1 1/2

Specify whether for Class 1, 2 or 3.



Fig. 153

MEDIUM SCREW SOCKET
 FOR ROYAL LIGHTS FIGS. 89 TO 99 Inc.

Brass Each	Diam. Overall Inches	Opening in Light Inches	Weight Ounces
\$2.00	2 3/16	1 3/8	2

Color Shield

FOR COMBINATION LIGHTS
 DIVIDES RED AND GREEN LENSES

Used on class 1 combination lights, Figs. 01-010-1-3 and 89. If for Fig. 89 please specify. Made of heavy gauge brass or galvanized iron.



Fig. 130

Galvanized Each	Polished Brass Each	Chromium Plated Each
\$1.30	\$1.65	\$2.20



“PERKO” SEALED BEAM SEARCHLIGHTS

ALL BRASS — CHROMIUM PLATED
WITH CLEAR LENS — NOT FLUTED

SIZE NO. 1 — 6 AND 12 VOLT — 30 WATT — RANGE ABOUT ¼ MILE — 45,000 BEAM CANDLEPOWER

SIZE NO. 2 — 6 AND 12 VOLT — 30 WATT — RANGE ABOUT ½ MILE — 95,000 BEAM CANDLEPOWER

SIZE NO. 3 — 6 AND 12 VOLT — 100 WATT — RANGE ABOUT ½ MILE — 200,000 BEAM CANDLEPOWER

A “SEALED BEAM” unit consisting of the bulb, reflector and lens all in one piece is the most practical for marine searchlights. It is absolutely watertight and vibration proof.

A watertight packing gland is installed around control rod to prevent entrance of water where rod passes through pilot house roof.

Deck Control

WITH TOGGLE SWITCH IN HEAD
WIRING NOT VISIBLE



Fig. 436

No.	6 Volt Each	12 Volt Each	Diam. Lens Inches	Diam. Base Inches	Height Above Deck Inches	Weight Pounds
1	\$25.00	\$26.00	4 ½	4	9	2
2	27.50	28.50	6	4	10 ½	2 ¼
3	35.00	35.00	7	6 ¼	13	4

Pilot House Control

WIRING NOT VISIBLE



Fig. 437

Sizes No. 1 and 2



Fig. 437

Size No. 3

Deck Control

WITH TOGGLE SWITCH IN HEAD
RUBBER COVERED WIRING VISIBLE



Fig. 454

No.	6 Volt Each	12 Volt Each	Diam. Lens Inches	Diam. Base Inches	Height Above Deck Inches	Weight Pounds
1	\$21.00	\$22.00	4 ½	4	9	2
2	23.50	24.50	6	4	10 ½	2 ¼
3	30.00	30.00	7	6 ¼	13	4

NOTE—Size No. 3 is equipped with lever type control shown above instead of ball.

Length of control below base, 8 inches.

No.	6 Volt Each	12 Volt Each	Diam. Lens Inches	Diam. Base Inches	Height Above Deck Inches	Weight Pounds
1	\$39.50	\$40.50	4 ½	4 ⅛	8 ¾	2 ¾
2	42.50	43.50	6	4 ⅛	10 ¾	3
3	50.00	50.00	7	6 ¼	13 ½	5



Adjustable Searchlight

BRASS—CHROMIUM PLATED
SEALED BEAM—6 OR 12 VOLTS
STREAMLINE BASE

For Mounting Forward or Aft of Windshield

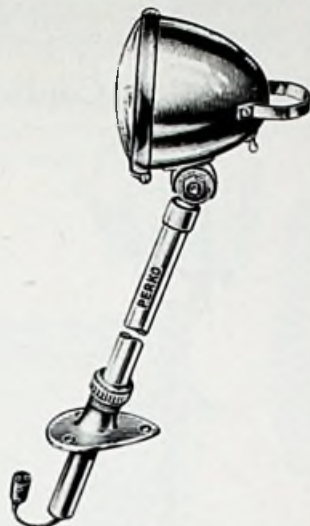


Fig. 240-A

Adjustable to various heights. From under the searchlight head to the deck, maximum 17 inches, minimum 3 inches, measured vertically.

Knurled nut and washer holds staff at desired height.

Angle of staff from deck is 68 degrees. Complete with toggle switch.

No.	6 Volt Each	12 Volt Each	Diam. Lens Inches	Diam. Base Inches	Weight Pounds
1	\$27.00	\$28.00	4 1/2	3 3/8 x 2 1/4	2 1/8
2	29.50	30.50	6	3 3/8 x 2 1/4	2 3/8

Combination Light and Searchlight

ALL BRASS—CHROMIUM PLATED
SEALED BEAM SEARCHLIGHT
6 OR 12 VOLT—30 WATT—RANGE 1/4 MILE



Fig. 416

The searchlight is our 4 1/2 inch diameter sealed beam type. The combination light is our Fig. 1140 with re-bulbing feature. The searchlight has a toggle switch.

6 Volt Each	12 Volt Each	Height Overall Inches	Size Base Inches	Weight Pounds
\$34.00	\$35.00	9	3 3/4 x 6 1/4	2 1/4

Remote Control Searchlights

FOR OPERATION FROM DASH
SEALED BEAM—6 OR 12 VOLTS
BRASS—CHROMIUM PLATED

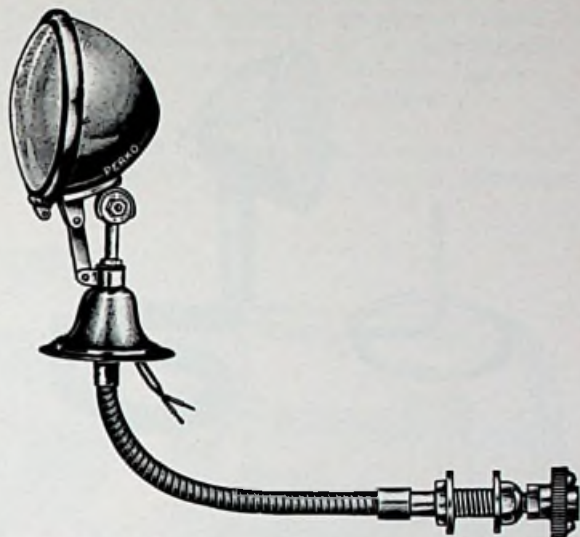


Fig. 241

These operate with extreme ease in both the vertical and horizontal range by an effortless twist or pull of the attractive control handle on the dash.

The light may be mounted at any desired location on the deck.

The control casing is galvanized steel with okoseal rubber covering which protects the casing against corrosion and acts as a grease retainer.

Horizontal angle of beam is 360 degrees. Vertical angle of beam is 27 degrees below and 35 degrees above horizontal.

No.	Diam. Lens Inches		Height Above Deck Inches		Diam. Base Inches		Weight Pounds	
	6 Volt Each	12 Volt Each	30	40	5 1/4	5 1/4	2 1/2	3
1	\$57.50	\$58.50	4 1/2	10 1/2	5 1/4	5 1/4	2 1/2	3
2	60.00	61.00	6	12	5 1/4	5 1/4	2 1/2	3

Sealed Beam Spotlight Units

6 OR 12 VOLTS



Fig. 433

The sealed all glass unit used in the searchlights on this and the preceding page. The lens is hermetically sealed to the reflector. Dirt and moisture are positively excluded. The reflector cannot tarnish.

No.	6 Volt Each	12 Volt Each	Diam. Lens Inches	Watts	Beam C. P.	Range About
1	\$2.50	\$3.25	4 1/2	30	45M	1/4 mile
2	2.50	3.25	6	30	95M	1/3 mile
3	5.50	5.50	7	100	200M	1/2 mile



Hand Searchlight

BRASS—CHROMIUM PLATED
SEALED BEAM—PISTOL GRIP
PUSH BUTTON SWITCH—8 FT. COILED CORD
WITH DOUBLE CONTACT OR
CIGAR LIGHTER PLUG

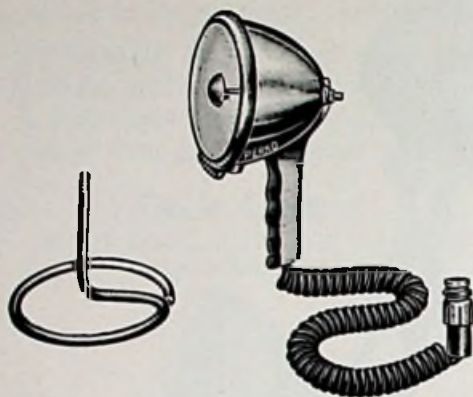


Fig. 440

Has sealed beam spotlight unit, range about ¼ mile, supplied with or without chromium plated wire stand illustrated.

Volts	Without Stand Each	With Stand Each	Diameter Lens Inches	Weight Pounds
6	\$22.50	\$23.75	4 ½	2
12	23.50	24.75	4 ½	2

Supplied with cigar lighter plug unless otherwise specified.

Spreader Floodlight

ALL BRASS—CHROMIUM PLATED
DOUBLE CONTACT BAYONET SOCKET
WITH 6, 12 or 32 VOLT—15 C.P. BULB



Fig. 254

For illumination of sails and rigging when underway at night, or for flood-lighting decks, anchorages, docks, etc.

For attachment to narrow spreader. An additional reflector around neck of bulb makes fixture quite waterproof.

Each	Diam. Reflector Inches	Projection From Spreader Inches	Size Mounting Plate Inches	Weight Ounces
\$11.75	4 ¾	3 ½	6 x 1	8

Please specify voltage. 6 volt supplied unless otherwise specified.

“Sunbeam” Searchlights

WITH GLASS MIRROR REFLECTOR
6 OR 12 VOLT—50 CANDLEPOWER
BAYONET DOUBLE CONTACT SOCKET
ENCASED WIRING—FOCUSING DEVICE
WATERTIGHT GLANDS AT CABLE
AND CONTROL ROD ENTRANCES

For higher power see notes below.

Pilot House Control



Fig. 306

No.	Polished Brass Each	Chromium Plated Each	Diam. Inches	Diam. Reflector Inches	Height Above Deck Inches	Diam. Base Inches
3	\$99.50	\$115.00	8	7 ¼	14	5 ½
4	108.00	123.50	8	7	14	5 ½

Length control rod below base, 10 inches.

No. 3 has parabolic mirror reflector, range about ½ mile.

No. 4 has mangin mirror reflector and 100 C. P. bulb, range about ¾ mile.

Deck Control

WITH TOGGLE SWITCH IN HEAD



Fig. 305

No.	Polished Brass Each	Chromium Plated Each	Diam. Inches	Diam. Reflector Inches	Height Above Deck Inches	Diam. Base Inches
3	\$69.50	\$79.50	8	7 ¼	14	5 ½
4	75.50	85.50	8	7	14	5 ½

No. 3 has parabolic mirror reflector and 50 C. P. bulb.
No. 4 has mangin mirror reflector and 100 C. P. bulb.
Figs. 305 and 306 size 3 with 6 or 12 volt 100 C. P. bulb, add \$2.00 each.

Both sizes with 32 volt 50 C.P. bulb, add \$1.75 each.
Both sizes with 32 volt 100 C.P. bulb, add \$2.50 each.



"Perko" High Power Searchlights

WITH MIRROR REFLECTOR—MEDIUM SCREW SOCKET

VOLTAGE—6, 12, 32, AND 120 VOLTS

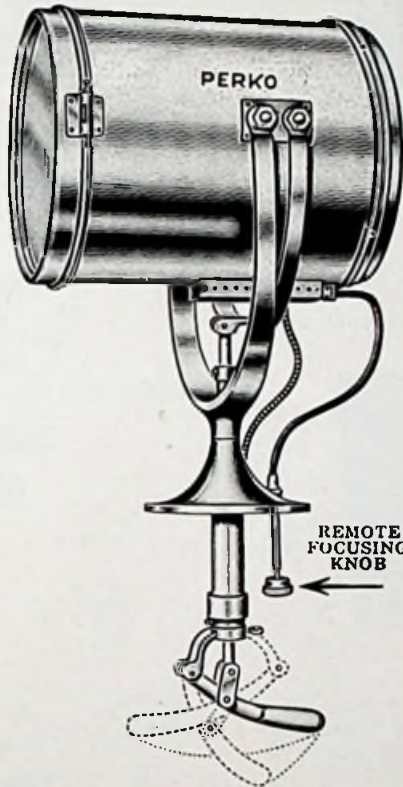
PACKING GLANDS AT CABLE AND CONTROL ROD ENTRANCES

BODIES—are constructed of heavy wrought brass; stands, yokes, and control mechanism are all cast bronze.
REFLECTORS—a glass mirror reflector, which projects a highly concentrated beam of light a great distance.
FOCUSING DEVICE—new remote control type, diameter of beam can be changed from inside pilot house.
PILOT HOUSE CONTROLS—are of the wheel or lever type, both having their distinct advantages.
WIRING—enclosed in flexible metal hose, fully protected from weather.

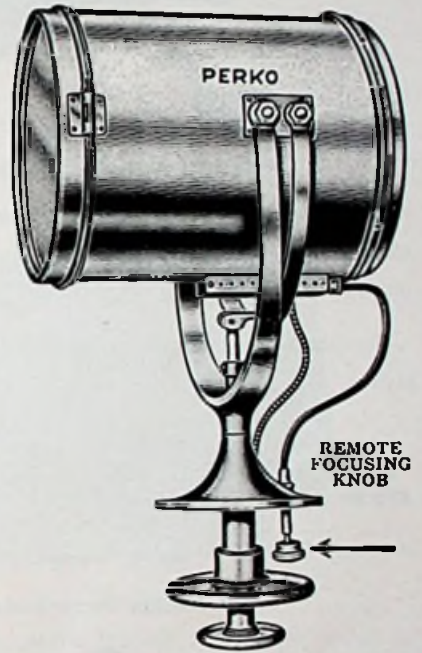
BULBS—Bulbs furnished as standard equipment in various voltages are as follows—6 volts, 18 amps.; 12 volts, 18 amps.; 32 volts, 8 amps.; 120 volts, 500 watt. Can also furnish 120 volts, 250 or 1000 watt bulbs for additional price. See notes below.



DECK CONTROL
Fig. 480



PILOT HOUSE CONTROL
Fig. 297



PILOT HOUSE CONTROL
Fig. 529

Size Inches	Diameter Reflector Inches	Range	Beam Candle Power	Length of Body Inches	Clearance of Glass in Door Inches	Height Above Deck Inches	Weight Pilot House Type Pounds	Diameter of Base Inches
8	8	up to ¼ mile	350,000	12¾	7¾	19	30	6⅞
10	10	up to 1 mile	590,000	14¾	9½	21	34	6⅞
12	12	up to 1½ miles	700,000	17	11¾	24	41	6⅞
14	14	up to 2 miles	850,000	19	13½	26	56	8⅞

Size Inches	Fig. 480		Fig. 297		Fig. 529	
	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each
8	\$205.00	\$225.00	\$240.00	\$270.00	\$265.00	\$295.00
10	228.00	253.00	270.00	300.00	295.00	325.00
12	280.00	310.00	324.00	360.00	350.00	385.00
14	350.00	380.00	390.00	425.00	415.00	450.00

NOTES

With 120 volt 250 watt bulb, add \$2.00 each.
 With 120 volt 1000 watt mogul screw bulb (special construction) in 12 or 14 inch sizes only, add \$72.00 each.
 Spare bulbs, reflectors, lenses, etc. See pages 56 and 66.

Standard length of control below base, Fig. 297 all sizes, from base to fulcrum of handle, 8 inches. Fig. 529 all sizes from base to center of upper wheel rim, 6½ in.
 Special length of pilot house control on Fig. 297 only to order, price on application.
 Spare medium screw sockets, \$1.20 each.



Floodlights

ENCLOSED — WEATHERPROOF

An economically priced line with choice of types to fill most requirements.

CLAMP TYPE
with Mogul Socket

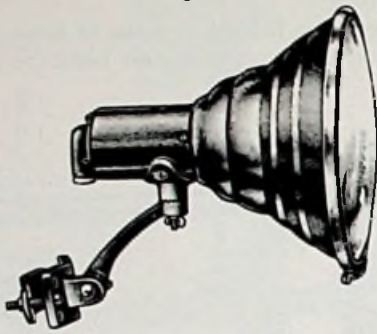


Fig. 227

With polished spun aluminum reflector and heat resisting glass lens. Cast aluminum bracket, spun aluminum housing.

For mounting on wall, cross arm or pipe up to 2½ inches.

Each	Spare Lens Each	Spare Rims Each	Diam. Lens Inches	Length Housing Inches	Maximum Wattage	Weight Pounds
\$25.00	\$7.00	\$4.25	12	14	500	7

DECK TYPE

with Medium Screw Socket



Fig. 228

With glossy white enameled reflector and weatherproof sealed lens, gray tone enamel exterior, 6 foot approved cord and plug.

Each	Diam. Lens Inches	Length Housing Inches	Diam. Base Inches	Maximum Wattage	Weight Pounds
\$8.80	7½	8	4¼	100	3

Spare lenses with gasket, each \$3.75.
Spare rim for lens, each \$2.00.

Mirror Reflectors FOR SEARCHLIGHTS



Fig. 427

High grade mirrors designed for long distance projection of concentrated beam of light.

Diam. Inches	Each	Style	For Searchlights Fig. and Size
7	\$12.00	Mangin	305-306 No. 4
7¼	10.00	Parabolic	305-306 No. 3
8	20.00	Parabolic	297-480-529— 8 inch
10	22.00	Parabolic	297-480-529—10 inch
12	27.50	Parabolic	297-480-529—12 inch
14	37.50	Parabolic	297-480-529—14 inch

Metal Reflectors FOR SEARCHLIGHT BRASS—CHROMIUM PLATED



Fig. 428

Extrem Diam. Inches	Each	For Searchlights Fig. and Size
7	\$8.00	Old 1022-1023
7¾	9.00	305-306 No. 3

Cork Gaskets for Reflectors, \$.50 each.

Front Lens FOR SEARCHLIGHTS

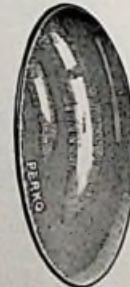


Fig. 429

Diam. Inches	Each	Style	For Searchlights Fig. and Size
7	\$2.20	Convex	Old 1022-1023
7¼	2.50	Convex	305-306- Nos. 3 & 4
8¾	2.75	Flat	297-480-529— 8 inch
10¼	3.15	Flat	297-480-529—10 inch
12¼	4.30	Flat	297-480-529—12 inch
14¼	5.00	Flat	297-480-529—14 inch



Lucite Parallel Rules

TRANSPARENT
WITH BRASS, CHROMIUM PLATED BARS

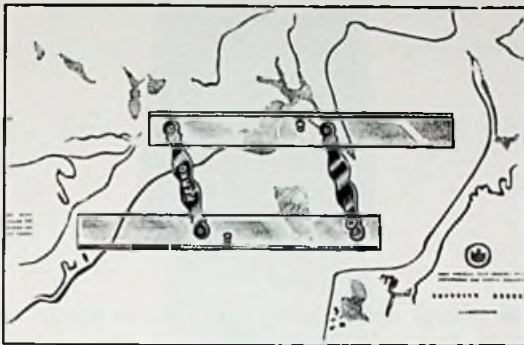


Fig. 630

A new transparent rule of heavy lucite through which the chart data can be easily seen.
Supplied with finger grips and tightening device.

Length Closed Inches	Each	Width Closed Inches	Weight Ounces
12	\$6.50	2 1/2	5
15	8.00	2 1/2	6 1/2
18	9.50	2 1/2	7 1/2

Parallel Rules

EBONY FINISH—BRASS, NICKEL PLATED PARTS



Fig. 686

Length Closed Inches	Each	Width Closed Inches	Weight Ounces
12	\$4.00	2 1/2	6
15	4.50	2 1/2	6 1/2
18	5.25	2 1/2	7

Dividers

BRASS—NICKEL PLATED—NAVY TYPE



Fig. 693

- No.
1 Length, 5 1/2 inches, each\$1.20
2 Length, 7 inches, each 3.00

Chart Cases



Fig. 372

Made of galvanized iron or sheet copper, water-tight cover, folding handle on side for carrying.

Diam. Inches	Length Inches	Galv. Each	Copper Each
3	36	\$8.25	\$16.50
4	36	10.00	19.75

Improved Course Protractor

INDICATES COURSE AND REVERSE COURSE
TRANSPARENT

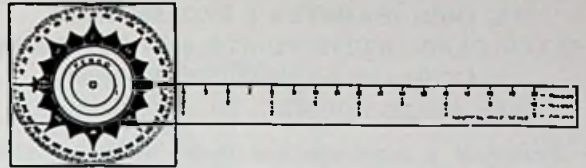


Fig. 706

Arm has various mileage scales used on all coastal and harbor charts.

Arm extended on short end to show reverse course.

A precision instrument, accurate in detail. Positions, depths, etc., are clearly visible when covered by protractor.

Each	Extreme Length Inches	Diam. Compass Card Inches
\$3.25	21 1/2	6 3/8

Yacht Log Books

100 PAGES



Fig. 708

In addition to pages for log data, these books contain useful information such as extracts from Bowditch Practical Navigator on symbols for weather, state of sea, cloud formations, force of wind, etc.

- No. 1 Binding: Imitation leather, pebble finish, starboard green color, gold letters, without gold border. Each\$3.75
No. 2 Binding: Imitation leather, pebble finish, pilot blue color, gold letters and gold border. Each \$3.90

Electric Compass Light

BRASS—CHROMIUM PLATED



To be mounted on compass box for illuminating compass at night. A shield is furnished over the bulb to eliminate glare. Shield has small hole sufficient to illuminate proper portion of compass card.

Chromium Plated Each	Height Overall Inches	Weight Ounces
\$4.25	8	5

NOTE—Shield will accommodate a G-6 bayonet D.C. bulb 6, 12 or 32 volt.

Fig. 707



“Star” Spherical Compasses With Built-in Compensator

3 1/2 INCH DIAMETER 5 DEGREE CARD
BLACK CARD—WHITE POINTS AND LETTERING
PLEXIGLASS DOME—OVERLIGHTED
ALL BRASS HOUSING—BLACK FINISH

Featuring a super-sensitive metal barometer type diaphragm, special alloy high power magnets, non-warping all metal dial, genuine hand polished sapphire jewel and pivot bearing. Universal bracket for vertical or horizontal mounting.

Oscillation Period—6 seconds.

Displacement Factor—Less than 5° after maximum disturbance.

THE “GUIDARE” CRUISER MODEL



Fig. 448

Each	Diameter Overall Inches	Height Overall Inches	Weight Pounds
\$48.75	4 5/8	5 1/4	3

Supplied with Flush Shelf Mounting if desired, add \$6.75 each.

THE “GUIDARE” SAILBOAT MODEL



Fig. 562

With internal gimbal ring to compensate for extra amount of heel prevalent in all types of sailing craft. Gives steady performance even at 90 degree heel. Lubber line is also self aligning.

Each	Diameter Overall Inches	Height Overall Inches	Weight Pounds
\$77.00	4 5/8	5 1/4	3

Supplied with Flush Shelf Mounting if desired, add \$6.75 each.

Oil Compasses WITH JEWEL BEARING



Fig. 487

Has several exclusive features such as special alloy magnets that hold their magnetic charge indefinitely. Hand treated non-warping dial, a barometer type diaphragm for expansion and contraction and a hand polished pivot.

A guaranteed trouble and bubble proof compass.

Diameter Card Inches	Complete With Box Each	Outside Diam. Gimbal Ring Inches	Outside Meas. Box Inches	Weight Pounds
2	\$18.50	3 11/10	4 3/4 x 4 3/4	2 1/4
2 1/2	21.00	4 1/4	5 1/2 x 5 1/2	2 1/2
3	28.50	4 3/4	6 x 6	3 1/4
4	36.75	6	7 x 7	7
5	47.50	7 1/10	8 7/8 x 8 7/8	10
6	66.25	8 3/4	10 1/4 x 10 1/4	15

“Star” Spherical Compass The “Guidare” In Semi-binnacle

BRASS—CHROMIUM PLATED

The “Guidare” compasses Figures 448 or 562 illustrated on this page are available in semi-binnacle for deck or shelf mounting on cruiser or sailboat.



Fig. 560

With Fig. 448 Compass Chromium Plated Each			With Fig. 562 Compass Chromium Plated Each		Binnacle only Chromium Plated Each
\$67.00			\$95.00		\$18.00
Complete			Binnacle Only		
Height Overall Inches	Diam. Base Inches	Weight Pounds	Height Inches	Diam. Opening For Dome Inches	Weight Pounds
5 1/4	6 1/4	3 1/2	4	3 5/8	1/2



“Star” Pathfinder Compasses

MAGNIFIED DIAL—INDIRECT ILLUMINATION
WITH MAGNETIC COMPENSATORS

Designed for small boats, cruisers, runabouts, etc.

DASHBOARD OR BULKHEAD MOUNTING



Fig. 33

UNIVERSAL MOUNTING



Fig. 34

Each	Diam. Face Inches	Depth Inches	Diam. Mounting Inches	Weight Ounces
\$21.00	2 1/4	2 3/4	3 1/2	13

FLUSH TYPE FOR DASHBOARD
WITHOUT COMPENSATORS



Fig. 447

Each	Diam. Face Inches	Diam. Plate Inches	Diam. Hole in Dashboard Inches	Weight Ounces
\$21.00	2 1/4	3 1/2	3	10

“Neptune” Marked Lead Lines

WITH VINYLITE PLASTIC MARKERS
1-INCH CIRC. ITALIAN HEMP LINE

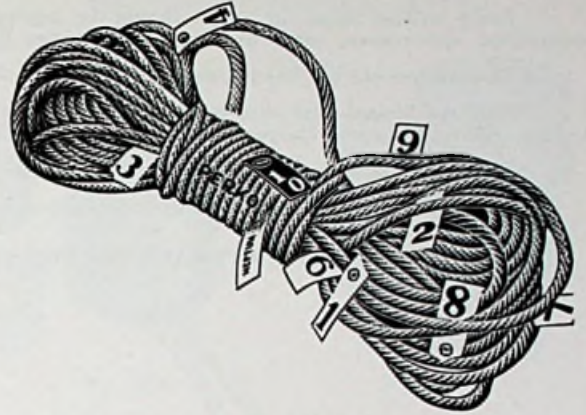


Fig. 190

A lead line that makes sense and can be easily read by anyone using it regardless of experience.

Instead of the old cryptic markings, it makes use of colored Vinylite Plastic Markers printed with numerals in contrasting colors. These markers are soft and resilient, unaffected by salt, grease, oil and sunlight.

The Neptune line was widely used during the war by the Navy, Army and U. S. Maritime Commission.

Stock Sizes		Sizes Made To Order	
Length Fathoms	Each	Length Fathoms	Each
7	\$ 6.75	50	\$29.75
10	8.00	60	32.00
15	10.75	75	40.00
20	12.75	100	73.00
25	15.25	120	82.00
30	18.00	150	99.00
40	24.00		

NOTE: Markings up to 10 fathoms inclusive marked every fathom and half fathom, the latter indicated by yellow strip.

Longer lines marked according to Navy standard i.e. 2-3-5-7-10-13-15-17-20 fathoms and every 5 fathoms thereafter.

Sounding Leads



Fig. 940

All weights from 2 to 16 pounds each inclusive carried in stock.

	Per Pound
2 to 14 Pounds	\$.72
15 to 50 Pounds .....	.70
Larger Sizes .....	.66

STREAMLINED MASTS

CAST ALUMINUM
HINGED FORWARD

PAINTED WHITE ENAMEL
WITH CLEAT AND EYES FOR HALYARD

Every cruiser large or small should be equipped with a mast of this type to complete or add to its rakish streamlined appearance, carry its signal flags, range light and antenna.

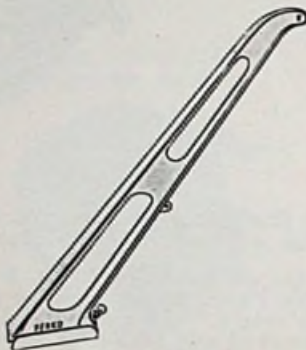
This assortment has been designed and made with lightweight, strength, appearance and utility in mind.

Note the hinged base with large thumb screw to permit instant lowering of the mast when passing under low bridges. All types have a Halyard Cleat and a glare shield to reduce reflection of range light.

White enamel is our stock finish, but, of course the owner may repaint to suit his own color requirements.

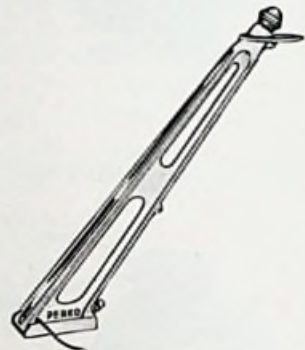
All lengths shown do not indicate the vertical height above deck but are actually the length of the mast.

STRUCTURAL TYPE FOR SMALL CRUISERS—NO YARDARM



WITHOUT LIGHT
Fig. 42

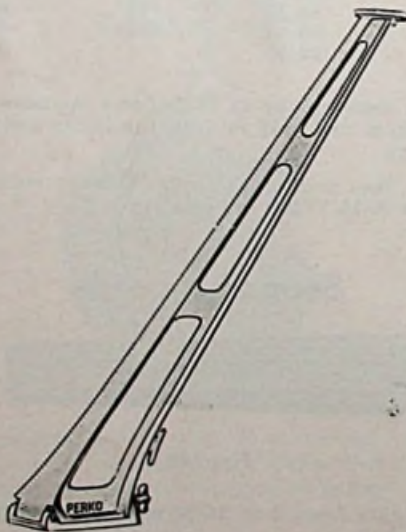
Each	Length Inches	Dimensions Base Inches	Weight Pounds
\$9.50	22	4 1/2 x 2 3/4	2



WITH LIGHT
Fig. 47

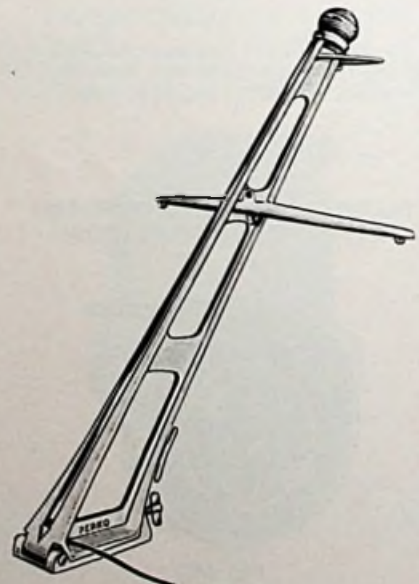
Each	Length Inches	Dimensions Base Inches	Weight Pounds
\$14.50	22	4 1/2 x 2 3/4	2 3/4

STRUCTURAL TYPE FOR LARGER CRUISERS



WITHOUT YARDARM
Fig. 36

No.	Without Light Each	With Light Each	Length Inches	Dimensions Base Inches	Weight Pounds
1	\$28.00	\$34.00	33	7 1/2 x 3 1/2	6
2	44.50	50.50	52	9 3/4 x 4 3/4	11



WITH YARDARM
Fig. 37

No.	Without Light Each	With Light Each	Length Inches	Dimensions Base Inches	Width Yardarms Inches	Weight Pounds
1	\$33.00	\$39.00	33	7 1/2 x 3 1/2	2 3/4	7 1/2
2	49.50	55.50	52	9 3/4 x 4 3/4	3 3/4	13

Hollow Masts

CAST ALUMINUM—PAINTED WHITE ENAMEL
HINGED FORWARD—HALYARD CLEAT AND EYE

WITHOUT YARDARM
WITH LIGHT AND GLARE SHIELD

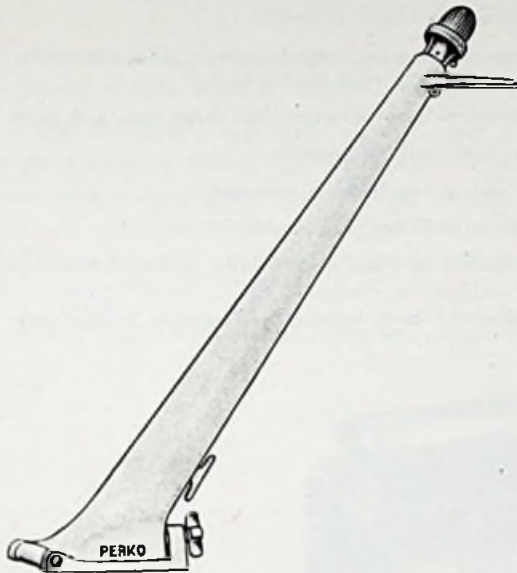


Fig. 40

No.	Each	Length Inches	Dimensions Base Inches	Weight Pounds
1	\$46.00	33	8 1/4 x 3 3/4	6 3/4
2	67.00	52	10 1/2 x 4 3/4	12

WITH YARDARM
WITH LIGHT AND GLARE SHIELD

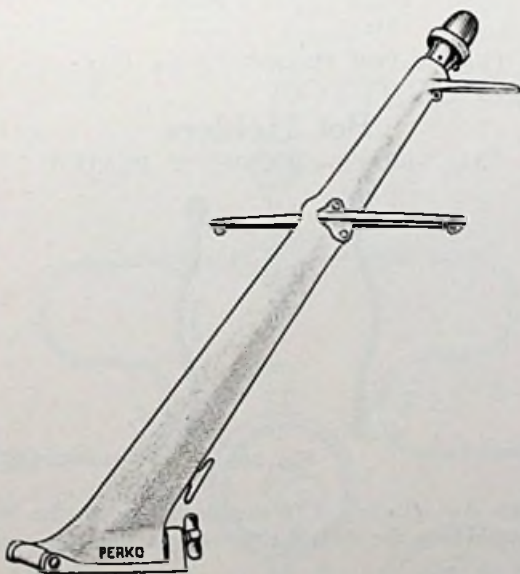


Fig. 41

No.	Each	Length Inches	Dimensions Base Inches	Width Yardarms Inches	Weight Pounds
1	\$49.75	33	8 1/4 x 3 3/4	23 1/2	8
2	72.00	52	10 1/2 x 4 3/4	31 1/2	14

Combination Swinging Ash Trays and Glass Holders

ALL BRASS—CHROMIUM PLATED



Fig. 798



Fig. 799

Ash tray complete with cigarette clip. Glass holder will accommodate average tumbler or highball glass.

Fig.	Each	Size Mounting Plate Inches	Inside Diam. Ring Inches	Weight Ounces
798	\$7.00	1 3/4 x 1 1/4	2 5/8	13 1/2
799	4.50	1 3/4 x 1 1/4	2 5/8	3 1/2

Spare Mounting Plates, \$1.50 each.

"Galley Slave" Gravity Alcohol Stove

WHITE VITREOUS ENAMELED
BRASS BURNERS—BRASS FUEL TANK
BRASS GUARD RAILS

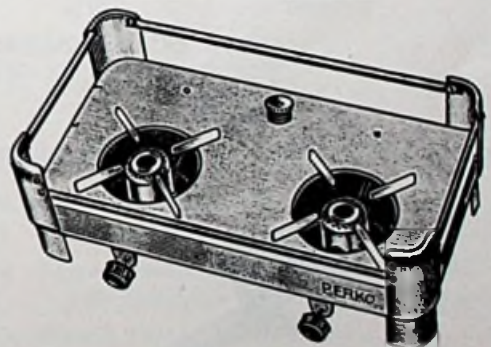


Fig. 376

The Fuel Tank is underneath out of sight, filled through filler cap located on top behind burners.

An economical and easy to operate stove, no pumping necessary, just preheat burners then operate with knobs like stove at home. Has an intense blue flame with remarkable heating ability.

Each	Length Overall Inches	Width Overall Inches	Height Overall Inches	Weight Pounds
\$29.75	19 1/2	11	6 1/2	6 1/2



“PERKO” MONEL ALCOHOL STOVE

2 BURNER — PRESSURE TYPE — WITH REMOVABLE TRAY
MONEL METAL BODY AND TRAY — NATURAL FINISH

CAST BRONZE BURNERS — BRASS, CHROMIUM PLATED GUARD RAIL

CONSTRUCTION — of heavy gauge monel metal. Satin finish.

BURNERS — Cast bronze with slotted manifold producing intense heat.

TRAY — An integral part of front apron, readily removable for cleaning but will not rattle. It insulates the fuel tank from heat. Sheet asbestos is affixed to its bottom. Tray cannot slide out when boat is heeled.

GUARD RAIL — Brass, chromium plated. Front section is removable to accommodate large pots and pans.

AIR PRESSURE GAUGE — Accurate and easy to read; it shows best working pressure.

PRESSURE PUMP — All brass, knob locks into pump, cannot back out under back pressure.

FILLER CAP AND AIR ESCAPE VALVE — Inside of front apron, but readily accessible.

FUEL TANK — 1½ gallon capacity, rectangular shape and hidden by front apron, fully insulated from heat of burners.

FUEL CONSUMPTION — Using a good grade of “Burning Alcohol,” both burners will operate continuously for 14 hours on one gallon of fuel and one pound of air pressure.

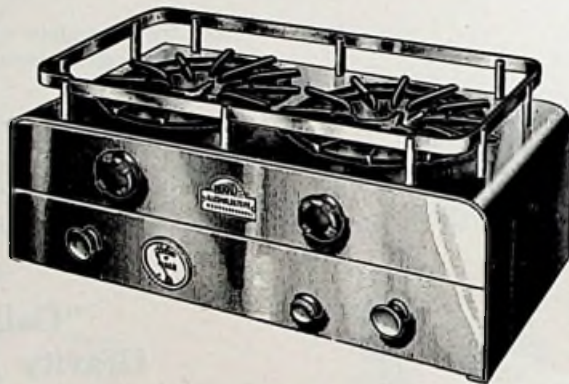


Fig. 364

Complete Each	Extreme Length Inches	Extreme Width Inches	Extreme Height Inches	Weight Pounds
\$116.00	20½	12	8½	27

ABOVE PRICE INCLUDES A FIG. 365 FUNNEL FOR FILLING.

Funnel

HEAVY GAUGE ZINC—BRASS STRAINER



Fig. 365

Designed primarily for filling our stoves, this funnel is a handy one for various purposes on a boat, at home or in a garage.

Pot Holders

ALL BRASS—CHROMIUM PLATED

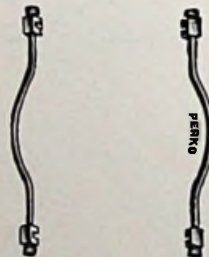


Fig. 369

Made for attachment to our alcohol stove (fig. 364). Adjustable on the stove for various sizes of pots, pans, etc.

Each	Capacity Ounces	Diam. Mouth Inches	Diam. Spout Inches	Weight Ounces	No.	Per Pair	Length Centers of Rail Inches	Weight Per Pair Ounces
\$2.75	3	3	¾	2	1	\$4.50	9¾	7½
					2	4.50	10½	8

Size No. 1 is for older models of stove.



“PERKO” MONEL BOTTLED GAS STOVE

FOR USE WITH PROPANE OR BUTANE L. P. GAS
 2 BURNER — WITH REMOVABLE TRAY
 MONEL METAL BODY AND TRAY — SATIN FINISH
 COLD FORGED ALUMINUM CENTER SIMMER BURNERS
 BRASS, CHROMIUM PLATED GUARD RAIL AND POSTS
 BLACK PLASTIC CONTROL KNOBS AND TRAY HANDLE

The last word in convenience, practicability and good looks with many of the faults of older models eliminated. No enamel to chip, crack or discolor. Monel metal is rich looking, easily cleaned and is non-corrosive.

THE BURNER is especially unique, in fact it's two burners in one. The outer rim is a high speed cooking burner for quick broiling, frying, etc. There is also a tiny, inner, economical simmer burner which maintains the cooking while using only a fraction of the gas usually consumed with ordinary single burners and it can be used independently of the starting burner; no other type of burner possesses this decided advantage. The center simmer burner provides exactly the right heat for every cooking requirement from the full fire power of the starting burner to the mere beads of flame of the “keep-warm” position of the center simmer. All controlled by the one control knob.

EASY CLEANING — The burner cap can be removed in less than one second.

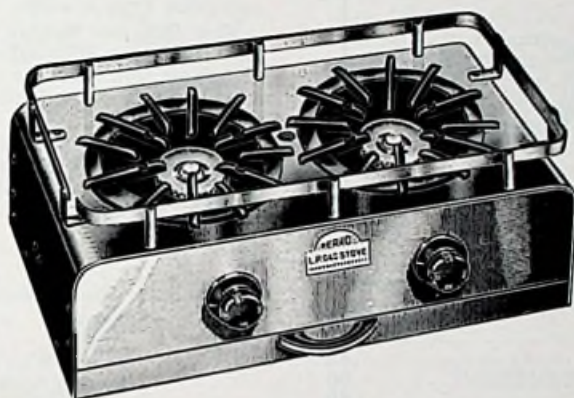


Fig. 373

Complete Each	Extreme Length Inches	Extreme Width Inches	Extreme Height Inches	Weight Pounds
\$98.00	20¾	12	8½	25

BOTTLED GAS STOVE EQUIPMENT

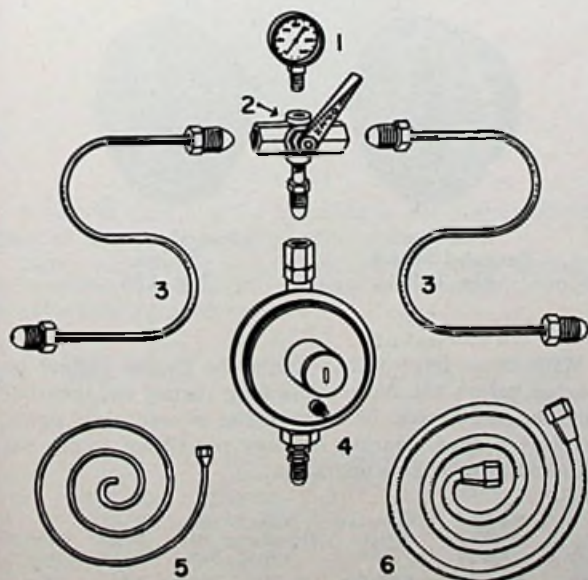


Fig. 374

No.	Description	Each
1	Polished Brass Pressure Gauge	\$ 5.00
2	Forged Bronze Two Way Valve Manifold with Indicating Handle	8.25
3	Pigtails (Tank Connections)	3.25
4	Pressure Regulator with Relief Valve and Mounting Brackets	12.00
5	¼ inch Copper 10 Foot Vent Line with One Fitting	4.50
6	⅜ inch Copper 20 Foot Fuel Supply Line with Two Fittings	13.50
7	Plugs for Manifold	1.80

Note — The above Manifold item No. 2 and Regulator item No. 4 is listed by the Underwriters Laboratories.



"Perko" Alcohol Burner

CAST BRONZE



Fig. 367

Each

Burner with Needle Valve and Control Handle, no Fittings, Filter or Priming Pan.....	\$16.00
Wire Brush Filters Only.....	2.40
Priming Pan Only.....	1.50
Packing Nut for Valve Stem.....	.45
Grates only for Stove.....	2.40

Alcohol Stove Parts

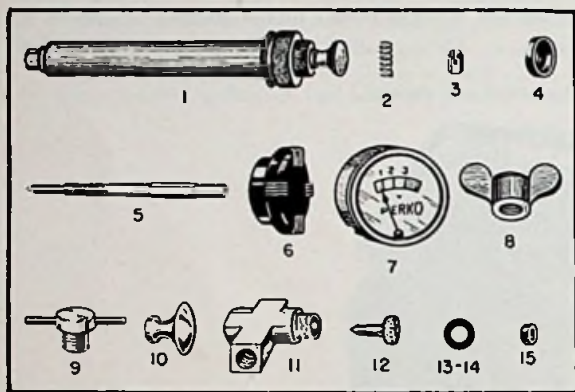


Fig. 368

No.	Each
1 Fuel Tank Air Pump complete	\$3.75
2 Pump Check Valve Spring .....	.40
3 Pump Check Valve .....	.60
4 Leather Plunger for Pump .....	.40
5 Needle Valve Stem .....	.85
6 Plastic Control Knob	1.00
7 Air Pressure Gauge	3.00
8 Wing Nut for Filter Entrance .....	.85
9 Filler Cap for Fuel Tank	1.25
10 Knob for Removable Tray .....	.85
11 Fitting for Fuel Supply Line	1.20
12 Screw for Air Escape Valve .....	.40
13 Lead Gasket for Wing Nut No. 8 .....	.30
14 Lead Gasket for Filler Cap No. 9 .....	.30
15 Graphite Packing for Valve Stem .....	.12

Water Deck Irons

GALVANIZED CAST IRON



Fig. 430

Size of Stove Pipe Inches	Each	Outside Diam. of Neck Inches	Diam. Flange Inches	Weight Pounds
2	\$2.75	2 1/4	5 1/2	1 1/4
2 1/2	4.40	2 3/4	6 1/2	1 3/4
3	4.65	3 3/8	7 1/2	4
3 1/2	5.80	3 7/8	8 1/2	5
4	6.50	4 3/8	9 1/4	6 1/4
4 1/2	7.50	4 7/8	10	8
5	8.50	5 3/8	10 1/2	9
5 1/2	9.00	5 7/8	11	9 3/4
6	10.00	6 1/2	11 1/4	11 1/4
7	12.50	7 3/8	12 3/4	13 1/4
8	18.00	8 3/8	13 3/8	19

Hot Air Cabin Heater

CAST ALUMINUM BODY

6 OR 12 VOLTS

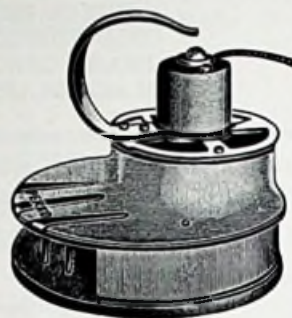


Fig. 595

Now you can use your galley stove to heat your boat. Works equally well on gas, alcohol, kerosene, coal or any other type of stove.

This Hot Air Heater takes the heat from the stove and distributes it to all corners of the cabin. This blast of hot air will heat the average cabin in a few minutes and maintain a comfortable temperature as long as required.

Just place the heater on the stove over the burner, connect electric fan wires to battery, light the stove and in a few minutes the cabin will be as comfortable as you want it.

Volts	Each	Amperes	Diam. Inches	Height Inches	Weight Pounds
6	\$26.00	1.5	8 1/2	7	9 1/2
12	28.00	.75	8 1/2	7 1/4	9 3/4

Specify Voltage When Ordering

Improved Blower and Ignition Switches

CAST BRONZE—FLUSH TYPE



Watertite Enclosed Switch
Fig. 149



Non-Watertite Switch
Fig. 155

With these improved switches the engine cannot be started before the blower has been turned on, then before the engine can be stopped the blower must again be started thus clearing out any remaining fumes before and after engine operation.

Fig.	Polished Bronze Each	Chromium Plated Each	Diam. Face Plate Inches	Diam. Box Inches	Depth Inches	Weight Pounds
149	\$13.50	\$15.00	4 1/4	3 3/4	1 3/4	1 3/4
155	12.50	14.25	3 3/8	.....	1 3/4	1 1/2



Marine Exhaust Blowers

CAST ALUMINUM HOUSING
6-12-32 OR 110 VOLTS

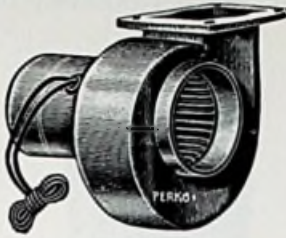


Fig. 778

For removing dangerous gasoline fumes from the bilge and engine room, exhausting excess heat and cooking odors from the galley. Getting rid of foul air or odors from cargo holds and bilges.

An absolute necessity to the motor boat because their use decreases the hazard of fires and explosions from gasoline fumes.

No.	Size Intake Inches	Size Outlet Inches	Dimensions Overall Inches	Capacity Cubic Feet Per Minute		Size Flange Inches		
				No. 1	No. 2	No. 1	No. 2	
1	3	2½	7½x6x6	90		3½x3½		
2	4	4	8½x8x8	186		4½x4½		
Volts	No. 1 Each		No. 2 Each		Amperes		Horsepower	
6	\$20.00		\$32.00		5.5	7.0	1/75	1/40
12	22.00		35.00		2.7	4.0	1/75	1/40
32	40.00		40.00		1.0	1.3	1/75	1/40
110 D.C.	40.00		40.00		.30	.32	1/40	1/60

A caution plate is furnished with every Blower.

Improved Exhaust Blowers

CAST ALUMINUM HOUSING
6-12-32 OR 110 VOLTS

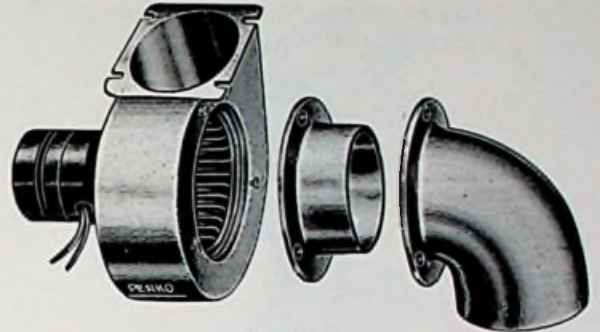


Fig. 795

The improvement is obvious; notice that the inlet fittings are not an integral part of the housing, permitting use of the straight or 90° fitting whichever is preferred.

The neck of the straight fitting is 1½ inches long allowing better fit of duct. The 90° fitting can be set at three different angles and eliminates the use of an elbow in the duct.

Volts	No. 1—3 Inch With Straight Inlet Each		No. 2—4 Inch With Straight Inlet Each	
	With 90° Inlet Each	With 90° Inlet Each	With 90° Inlet Each	With 90° Inlet Each
6	\$24.00	\$25.50	\$37.00	\$39.50
12	26.00	27.50	39.00	41.50
32	29.50	31.00	45.00	47.50
110 D.C.			45.00	47.50

All other dimensions and data, same as Fig. 778. Specify type of inlet required.

Exhaust Blowers For Bilge Installation

FULLY ENCLOSED SPARKPROOF MOTOR
CAST ALUMINUM HOUSING—ALL VOLTAGES



Fig. 791

A blower that may be installed in the bilge without fear of sparks igniting gasoline fumes.

Motor enclosed in brass cover. Shaft passes through a Neoprene seal and electric cable enters cover through a watertight packing gland.

No.	Size Intake Inches	Size Outlet Inches	Dimensions Overall Inches	Capacity Cubic Feet Per Minute		Flange Inches		
				No. 1	No. 2	No. 1	No. 2	
1	3	2½	7½x6x6	90		3½x3½		
2	4	4	8½x8x8	186		4½x4½		
Volts	No. 1 Each		No. 2 Each		Amperes		Horsepower	
6	\$27.00		\$39.00		5.5	7.0	1/75	1/40
12	29.00		42.00		2.7	4.0	1/75	1/40
32	32.00		47.00		1.0	1.3	1/75	1/40
110 D.C.	48.00		48.00		.30	.32	1/40	1/60

A caution plate is furnished with every Blower.

Turbine Ventilators

FOR MARINE USE
IMPROVED BEARING RUNNING IN OIL
GALVANIZED STEEL OR COPPER



Fig. 744

For removing gasoline fumes from engine room and bilge, cooking odors from the galley, ventilation of the cabins, etc.

The moving breeze whirls the head and the resulting vacuum causes a powerful upward lift to the air below. Absolutely quiet in operation, durable and rainproof.

Inside Diam. Inches	Galv. Steel Each	Copper Each	Height Overall Inches	Diam. Overall Inches	Capacity C.F.M.	Galv. Weight Pounds
4	\$12.50	\$21.00	10	7	140	2¾
5	12.75	21.50	12	8½	152	3½
6	13.00	22.00	13	9½	196	4½
7	15.50	26.25	15	11	243	6
8	16.50	27.75	16	12½	285	7
10	20.00	34.00	18½	15	445	10
12	23.00	38.00	20	17½	650	12

With reinforcing band around bottom of neck supplied to order, price on application. Galvanized vents are painted aluminum.

Cowl Ventilators

ROUND MOUTH
WITH THREADED DECK PLATE
SHEET STEEL OR SHEET BRASS
CAST BRONZE DECK PLATE



Fig. 510

Steel ventilators are hot galvanized after fabrication.

Deck Plate Size Inches	Galv. Each	Polished Brass Each	Chromium Plated Each	Diam. Mouth Inches	Height Overall Inches	Weight Pounds
2	\$16.75	\$24.00	\$31.00	4	5½	1⅜
2½	18.00	26.00	33.00	5	6½	1¾
3	19.75	28.00	35.00	6	8	2½
4	23.75	32.00	39.00	8	11	4
5	40.00	49.50	58.00	10	13	6
6	54.00	63.00	72.00	12	16	9
8	102.00	125.00	145.00	16	21	15½

Cowl Ventilators

WITH SWIVEL DECK PLATE
SHEET STEEL OR SHEET BRASS
CAST BRONZE DECK PLATE



Fig. 513

Deck Plate Size Inches	Galv. Each	Polished Brass Each	Chromium Plated Each	Diam. Mouth Inches	Height Overall Inches	Weight Pounds
3	\$22.50	\$30.75	\$38.00	6	8	2
4	28.50	36.75	44.00	8	12	3¾
5	43.00	52.50	61.00	10	13½	4¾
6	56.75	66.00	75.00	12	17½	7½
8	84.00	107.00	127.00	16	20½	11½
10	146.00			20	28	30

Note—10 inch size is heavy 18 gauge steel and price applies to cowl only with galvanized band on neck. No deck plate.

Cover for Fig. 513 deck plate for use when ventilator is removed, price on application.

Polished copper vents supplied to order, price on application.

Cowl Ventilators

OVAL MOUTH
CAST BRONZE—WITH THREADED DECK PLATE

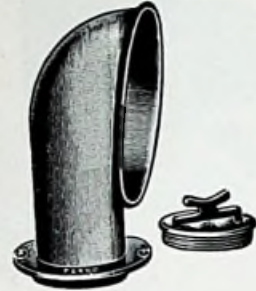


Fig. 509

Deck Plate Size Inches	Polished Bronze Each	Chromium Plated Each	Size Mouth Inches	Height Above Deck Inches	Weight Pounds
3	\$29.75	\$37.00	6¼ x 4	8⅛	6
4	38.50	48.00	6½ x 4¾	8¾	8

Cowl Ventilators

OVAL MOUTH
CAST BRONZE—WITH SWIVEL DECK PLATE



Fig. 515

Supplied complete with cover for use when ventilator is removed.

Deck Plate Size Inches	Polished Bronze Each	Chromium Plated Each	Size Mouth Inches	Height Above Deck Inches	Weight Pounds
3	\$35.00	\$42.50	6¼ x 4	9¼	6
4	44.50	54.00	6½ x 4¾	9¾	8

VENTILATOR NOTES

Spare Deck Plates for above Cowl Ventilators, see Figs. 419 and 527.

When ordering cowl ventilators only, without deck plate, please specify whether with or without ring on neck.

All above cowl ventilator sizes are standard; special sizes and heights made to order.



Cast Bronze Cowl Ventilators

WITH CAST BRONZE SCREW DECK PLATE
ROUND MOUTH



Fig. 421

Deck Plate Size Inches	Polished Bronze Each	Chromium Plated Each	Diam. Mouth Inches	Height Overall Inches	Weight Pounds
3	\$29.00	\$36.50	6	7 $\frac{3}{8}$	4 $\frac{1}{2}$
4	38.00	47.50	8	9 $\frac{3}{8}$	8 $\frac{1}{2}$

Mosquito Screens

FOR COWL VENTILATORS
BRASS FRAME—COPPER SCREENING

Supplied with spring clips to slip over bead of ventilator mouth.



Fig. 507

Diameter Mouth of Ventilator Inches	Each	Inside Diameter of Screen Inches
4	\$3.85	4 $\frac{3}{8}$
5	4.50	5 $\frac{3}{8}$
6	5.00	6 $\frac{3}{8}$
8	6.00	8 $\frac{3}{8}$
10	7.75	10 $\frac{3}{8}$
12	10.00	12 $\frac{1}{2}$
16	13.00	16 $\frac{1}{2}$

Above are made to fit our Vents, Figs. 510 and 513.

Ice Box Ventilators

CAST BRONZE



Fig. 783

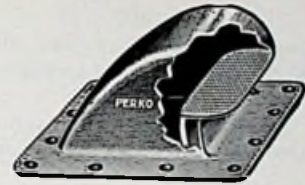
No.	Polished Bronze Each	Chromium Plated Each	Diam. of Opening Inches	Size Plate Inches	Weight Pounds
1	\$6.85	\$8.85	1 $\frac{1}{2}$	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	$\frac{1}{2}$
2	7.25	9.25	2 $\frac{1}{2}$	3 $\frac{1}{4}$ x 3 $\frac{1}{4}$	1
3	8.75	10.75	3	4 $\frac{1}{8}$ x 4 $\frac{1}{8}$	1 $\frac{1}{2}$
4	10.75	13.00	3 $\frac{3}{8}$	4 $\frac{7}{8}$ x 4 $\frac{7}{8}$	1 $\frac{3}{4}$

Cruiser Ventilator

STREAMLINE—CAST BRONZE



Fig. 908



Cut away view showing screen and water guard

An extremely neat ventilator for cruiser decks and cabin roofs.

An integral water guard inside mouth prevents spray or rain from entering ventilator. A bronze screen permanently installed to keep insects out of cabin.

Brushed Bronze Each	Polished Bronze Each	Chromium Plated Each	Size Base Inches	Height Overall Inches	Weight Pounds
\$16.50	\$21.00	\$22.00	7x7	3 $\frac{1}{2}$	4 $\frac{3}{4}$

Junior Transom Ventilators

CAST BRONZE



Fig. 1069

Burnished Bronze Each	Chromium Plated Each	Size Flange Inches	Depth Collar Inches	Weight Pounds
\$1.80	\$4.00	6 $\frac{3}{4}$ x 2 $\frac{1}{4}$	$\frac{3}{4}$	$\frac{3}{4}$

With bronze screen soldered in, add \$.90 each.

Senior Transom Ventilator

CAST BRONZE



Fig. 1062

Plain Bronze Each	Chromium Plated Each	Dimensions Inches	Weight Pounds
\$3.25	\$5.50	10x4	1



Streamline Space Saver Ventilator

CAST BRONZE



Starboard Side
Fig. 771

For mounting on catwalk against outside of deck house or bulkhead where space is limited.

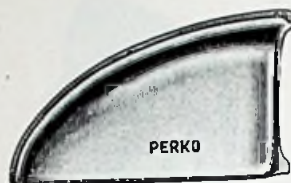
Bosses for fastening are inside ventilator out of sight but angled toward mouth for insertion of wood screws.

Supplied in pairs for starboard and port sides. When ordering a half pair mention side required.

Polished Bronze Per Pair	Chromium Plated Per Pair	Length Overall Inches	Height Overall Inches	Dimensions Mouth Inches	Weight Per Pair Pounds
\$13.00	\$15.75	9 3/4	4 1/2	4 x 1 3/4	3 1/2

"Air Stream" Space Saver Ventilators

PRESSED BRASS—CHROMIUM PLATED



Starboard Side
Fig. 762

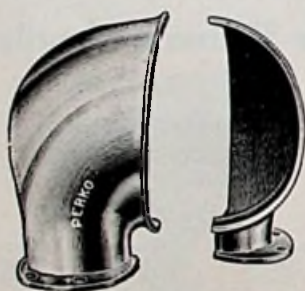
Stamped from heavy gauge brass. Has rounded edges for rigidity and strength.

Installation is easy and side flanges flex to conform to cabin sides. Internal flange on bottom for gasket.

No.	Chromium Plated Per Pair	Length Overall Inches	Height Overall Inches	Depth Overall Inches	Weight Per Pair Pounds
1	\$11.00	9 1/2	4 1/4	2 1/8	1 3/4
2	16.50	11	6	2 1/4	3

Space Saver Ventilators

CAST BRONZE



Starboard Side
Port Side

Fig. 778

Designed especially for mounting against outside of deck house or cabin, takes up very little space, can be used to advantage in connection with exhaust fan Fig. 778.

No.	Inside Diameter at Base Inches	Measurements Inside at Mouth Inches	Height Overall Inches	Weight Per Pair Pounds
1	2 1/2	2 3/8 x 5	6 3/4	3 3/4
2	3 1/2	3 1/8 x 7 1/2	9	6

No.	Brushed Bronze Per Pair	Polished Bronze Per Pair	Chromium Plated Per Pair
1	\$11.50	\$16.80	\$21.25
2	16.25	22.00	26.50

Note—When ordering a half pair, please mention whether for port or starboard side.

Space Saver Ventilators

PRESSED BRASS—CHROMIUM PLATED



Starboard Side
Fig. 763

For easy installation against side of cabin where space is restricted. Has exterior flanges on sides for fastening and interior flange on bottom for gasket.

Side flanges flex to conform to cabin sides. Edge of mouth is rounded for rigidity and appearance.

No.	Chromium Plated Per Pair	Height Overall Inches	Width Overall Inches	Depth Overall Inches	Weight Per Pair Pounds
1	\$11.00	7 1/4	4 1/2	2 5/8	1 1/2
2	16.50	10	6 3/8	3 3/8	3

Clam Shell Ventilators

CAST BRONZE



Fig. 323

No.	Width Opening Inches	Height Opening Inches	Size Base Inches	Weight Ounces
4	2 3/4	1 3/4	3 5/8 x 3 1/2	7
5	3 1/2	2	4 x 3 7/8	14

No.	Polished Bronze Each	Chromium Plated Each
4	\$2.50	\$3.40
5	2.95	3.85

Streamline Ventilator

CAST BRONZE



Fig. 324

No.	Width Opening Inches	Height Opening Inches	Size Base Inches	Weight Ounces
2	1 3/4	1	2 5/8 x 3 3/8	6
3	2 7/8	1 5/8	3 5/8 x 4 3/4	12

No.	Polished Bronze Each	Chromium Plated Each
2	\$2.50	\$3.40
3	2.95	3.85

Streamline Ventilator

CAST BRONZE



Fig. 476

No.	Polished Bronze Each	Chromium Plated Each	Width Opening Inches	Height Opening Inches	Size Base Inches	Weight Pounds
6	\$6.50	\$8.00	3 1/2	2 3/4	5 x 6	1
7	8.25	9.75	4 3/8	3 1/4	6 x 7	2
8	11.00	13.00	5 3/4	3 1/2	7 x 8	2 3/4

Streamline Ventilator

CAST BRONZE



Fig. 310

A ventilator with graceful lines that will enhance the appearance of any boat.

Polished Bronze Each	Chromium Plated Each	Size Opening Inches	Size Base Inches	Weight Pounds
\$6.50	\$8.25	3 x 1	7 1/2 x 4	1 1/2

Ventilator Deck Plates

CAST BRONZE—SCREW TYPE



Fig. 527

Complete with key and extra ring for cowl.

Diameter Opening Inches	Machine Finish Each	Polished Bronze Each	Chromium Plated Each	Diameter Plate Inches	Weight Pounds
2	\$ 6.85	\$ 8.00	\$ 9.75	3 5/8	3/4
2 1/2	7.75	8.80	10.50	4 1/2	1
3	8.80	10.25	12.00	4 7/8	1 1/4
3 1/2	11.50	13.00	15.50	5 1/2	1 3/4
4	13.00	15.50	17.50	5 3/4	2 1/4
5	19.00	22.00	24.50	7 1/16	3 3/4
6	24.00	27.50	30.00	8 1/4	4 1/2
8	52.00	57.00	62.00	10 1/4	7 1/2

Swivel Deck Plates

CAST BRONZE—FOR COWL VENTILATORS



Fig. 419

Permits cowl to be turned to any direction.

For Size Ventilator Inches	Opening in Base Inches	Machine Finish Each	For Size Ventilator Inches	Opening in Base Inches	Machine Finish Each
3	2 1/4	\$11.25	6	5	\$25.00
4	3 1/2	17.00	8	7	33.00
5	4 1/2	21.00			

Price does not include cap, if cap is desired add 25% to above prices.



Automatic Boat Bailers

BRASS TUBING—CAST BRONZE FITTINGS
WITH BALL CHECK
FOR RUNABOUTS

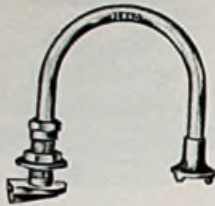


Fig. 410

Has outlet fitting in streamline design to reduce resistance, screened inlet fitting.

Operates at speed of about 7 miles per hour.

Requires no further attention after installation.

Each	Height Inside Hull Inches	Diameter Tubing Inches	For Hull Thickness Inches	Weight Pounds
\$10.00	7	3/4	up to 1 3/8	1 1/2

Automatic Boat Bailers

BRASS TUBING—CAST BRONZE FITTINGS
BALL TYPE—STREAMLINE
HEAVY DUTY

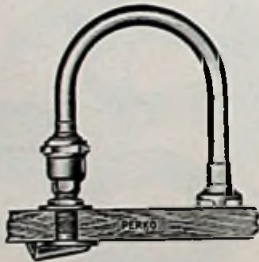


Fig. 397

Requires no attention after it is installed. Water cannot back up into the boat as the top of the tubing is above the water line.

A sponge rubber ball is forced into a machined seat automatically closing the opening when the boat is in reverse or not in motion.

Heavy bronze strainer in inlet end.

Starts draining at speed of 7 miles per hour.

No.	Each	Height Inside Hull Inches	Diam. Tubing Inches	For Thickness Hull Inches	Weight Pounds
1	\$12.50	8	3/4	up to 1 1/2	2
2	13.50	15 1/2	1 1/8	up to 2 1/4	4

SPARE RUBBER BALLS

Size No. 1, 1 5/16 inch diameter, per dozen	\$1.50
Size No. 2, 1 3/8 inch diameter, per dozen	3.00

Small Boat Drainer

THREADED TYPE
CAST BRONZE—BURNISHED

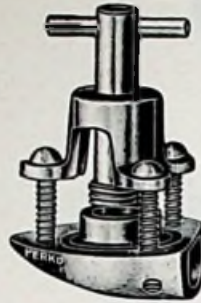


Fig. 386

Each	Height Inside Boat Inches	Width Overall Inches	Weight Pounds
\$5.25	2 3/4	2 1/2	1 1/4

Starts draining at speed of 5 miles per hour. Install in after end of boat and be sure that mouth is toward the stern.

Made for hulls 3/8 inch or thicker but may be used with thinner hulls by cutting away necessary portion of neck.

Depth of mouth below hull is 3/4 inch.

Small Boat Drainer

SPRING TYPE
CAST BRONZE OR ALUMINUM

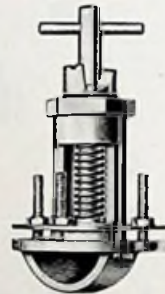


Fig. 387

Installed in after end of boat with mouth toward stern. Starts draining at about 5 miles per hour.

To open lift T handle and lock by half turn to left. A slight turn to right will release strong spring closing drainer tightly.

For use in metal or wood boats.

Bronze Each	Aluminum Each	Height Inside Boat Inches	Diam. Flange Inches	Weight Bronze Pounds
\$6.00	\$5.75	4	2 3/4	1

Transom Drain Plugs

FOR OUTBOARD BOATS
PLAIN BRASS

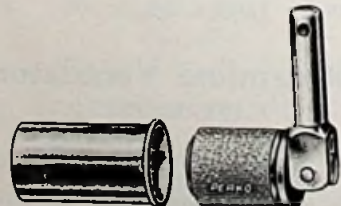


Fig. 414

To release plug, raise handle to position illustrated. Remove plug while boat is in motion and water will drain out. Install in lowest part of transom. Watertight when closed.

Each	Diam. Tube Inches	Length Overall Inches	Length Tube Inches	Weight Ounces
\$2.75	1	2 1/2	1 7/8	4 1/2



Garboard Drain Plugs CAST BRONZE—BURNISHED

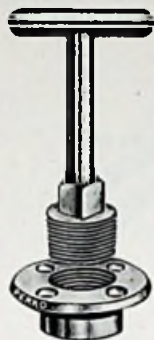


Fig. 263



Fig. 266

The handle and plug are cast in one piece eliminating the need for a wrench. However if the plug should "freeze" into the flange a wrench may be used on the squared portion of the stem.

Each	Pipe Size Inches	Diam. Flange Inches	Depth Inches	Weight Ounces
\$3.25	3/4	2 3/8	5/8	11

Garboard Drain Plugs CAST BRONZE—BURNISHED



Fig. 714

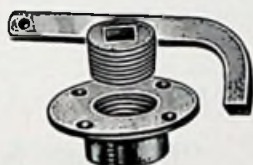


Fig. 124

A few of these installed in garboard allows quick drainage of boat when hauled out, by removing heavy plug. Threads are tapered pipe sizes and plugs are watertight.

Fig.	Burnished Bronze Each	Pipe Size Inches	Diam. Flange Inches	Depth Inches	Weight Ounces
714	\$1.90	1/2	2	5/8	3
124	3.50	1	3 3/8	1	10

Fig. 124 is furnished complete with galvanized wrench.

Automatic Boat Drainers CAST BRONZE—BURNISHED



Fig. 213

For use in life boats. Made of heavy cast bronze, with sponge rubber ball valve. Cast bronze cover with chain attached, threaded 1 1/10 inches, No. 14 thread.

Complete Each	Caps Only With Chain Each	Balls Only Per Dozen	Diam. Opening Inches	Diam. Flange Inches	Diam. Ball Inches
\$5.50	\$1.75	\$3.00	1 1/4	3 3/4	1 1/2

Pump Valves



Fig. 237

Galvanized iron with oak leather clapper, galvanized iron weight on both sides of leather riveted together and screwed to casting.

Diameter, inches	2	2 1/2	3	4
Wgt., per dz. lbs.	4	6	7	11
Per doz.	\$8.00	\$10.00	\$12.00	\$18.00

Leather Plungers OAK LEATHER

Riveted together, strong and durable.



Fig. 239

For Diam. Pump Inches	Per Dozen	Weight Per Dozen Lbs.
2	\$5.75	3/4
2 1/2	6.50	1 1/4
3	7.00	1 1/2
4	8.50	1 3/4

Bronze Navy Pump Strainers



Fig. 704

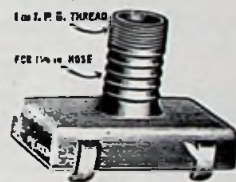


Fig. 705



Fig. 721



Fig. 722

Fig.	Each	Pipe Thread Inches	For Hose Inches	Length Inches	Width Inches	Weight Pounds
704	\$3.25	1	1 1/4	7	2 3/4	2
705	3.25	1	1 1/4	4 3/4	2 3/4	1 1/2
721	3.25	1 1/4		5	2 3/4	1 1/2
722	3.25	1 1/4		4 3/4	2 3/4	1 3/4

Junior Strainer

CAST BRONZE
FOR 3/8 INCH RUBBER HOSE



Fig. 709

Excellent for use with bilge pumps having 3/8 inch hose for intake such as our Fig. 202, etc.

Each	Length Overall Inches	Width Inches	Weight Ounces
\$2.10	4	1 3/4	6



“Champion” Navy Bilge Pump

FOR PIPE
BRASS CYLINDER—CAST BRONZE PARTS
WITH WEIGHTED LEATHER VALVE



Fig. 1016
CAPACITY—13 STROKES—5 GALLONS

Each	Extreme Length Inches	Diameter Cylinder Inches	Inlet Pipe Thread Inches	Outlet Pipe Thread Inches	Diameter Plunger Rod Inches
\$24.50	24	2 3/4	1 1/4	1 1/2	1/2

Fig. 147—Weighted leather valve only, each\$1.35
Fig. 151—Flax packed plunger only, each 2.50



Fig. 151
Flax Packed Plunger



Fig. 147
Weighted Leather Valve

“Super” Navy Bilge Pump

FOR HOSE OR PIPE
WITH WEIGHTED LEATHER VALVE

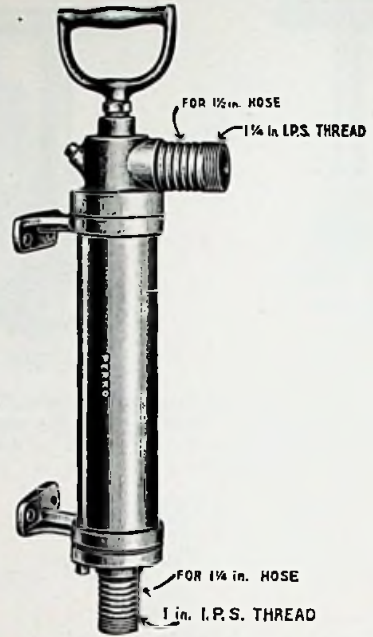


Fig. 701

This is our very popular “Champion” Pump improved by cast bronze integral fittings at inlet and outlet ends for connecting hose or pipe.

Each	Extreme Length Inches	Inlet Sizes		Outlet Sizes	
		Pipe Inches	Hose Inches	Pipe Inches	Hose Inches
\$27.00	27	1	1 1/4	1 1/4	1 1/2

“Junior” Navy Bilge Pump

FOR PIPE
WITH WEIGHTED LEATHER VALVE



Fig. 1018

This is the Fig. 1016 “Champion” Pump reduced in length for installation in limited space.

Each	Extreme Length Inches	Diameter Cylinder Inches	Inlet Pipe Thread Inches	Outlet Pipe Thread Inches	Weight Pounds
\$23.00	16 1/4	2 3/4	1 1/4	1 1/2	5 1/2

Fig. 108 Plunger Assembly only, complete, No. 1 for pumps Figs. 702 and 1018, \$8.25 each, No. 2 for pumps Figs. 701 and 1016, \$8.75 each.

“Midget” Navy Bilge Pump

FOR HOSE OR PIPE
WITH WEIGHTED LEATHER VALVE

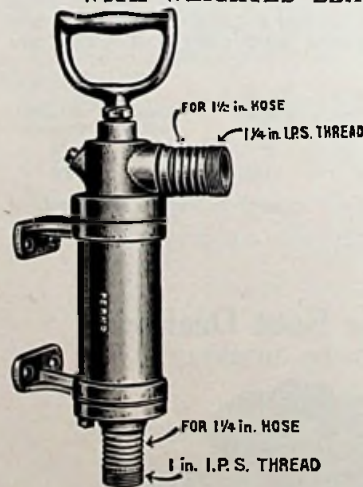


Fig. 702

Our Fig. 701 pump reduced in length for boats requiring a large capacity pump to be installed where space is limited.

Each	Extreme Length Inches	Diam. Cylinder Inches	Inlet Sizes		Outlet Sizes	
			Pipe Inches	Hose Inches	Pipe Inches	Hose Inches
\$25.50	18 1/4	2 3/4	1	1 1/4	1 1/4	1 1/2



Fig. 108

Brass Bilge Pumps DOUBLE ACTION

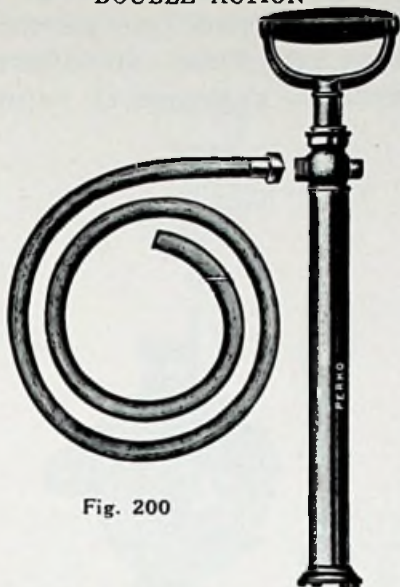


Fig. 200

Heavy brass seamless tubing, cast bronze fittings, treated leather packing, hollow brass ball checks. D shaped handle. Moulded rubber hose 5 feet long furnished with each pump.

No.	With Hose Each	Height Inches	Diam. Inches	Capacity Per Min. Gallons	Weight Pounds
1	\$ 9.50	17 $\frac{5}{8}$	1 $\frac{1}{8}$	6	2 $\frac{1}{4}$
2	12.35	20	1 $\frac{1}{2}$	12	3 $\frac{1}{4}$
4	15.50	29	1 $\frac{1}{2}$	16 $\frac{1}{2}$	4

Without hose, deduct \$.50 each.

Brass Bilge Pumps DOUBLE ACTION

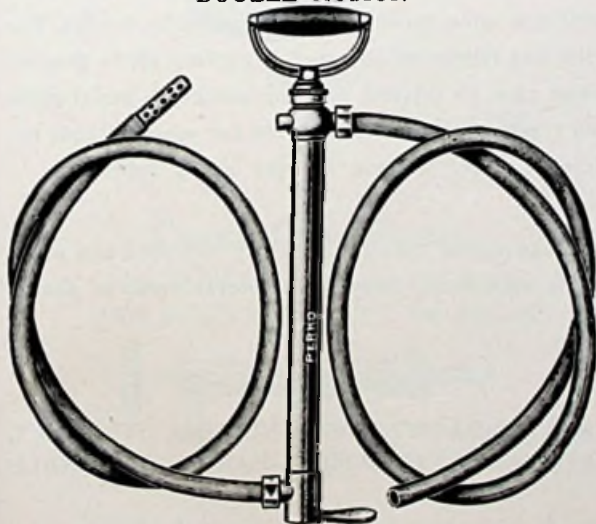


Fig. 202

Cast bronze foot rest and two 5 foot lengths of hose for suction and discharge.

No.	With Hose Each	Height Inches	Diameter Inches	Capacity Per Min. Gallons	Weight Pounds
5	\$13.00	18 $\frac{5}{8}$	1 $\frac{3}{8}$	6	3
6	16.25	21	1 $\frac{1}{2}$	12	4
8	21.00	30	1 $\frac{3}{4}$	16 $\frac{1}{2}$	5

Without hose, deduct \$.50 for each hose.

Brass Bilge Pump SINGLE ACTION

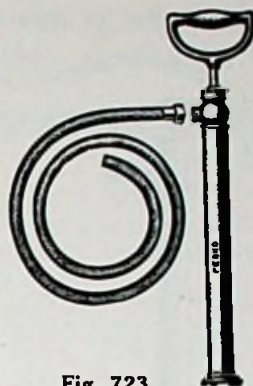


Fig. 723

Complete with 5 feet of rubber hose. Has moulded neoprene rubber plunger producing excellent capacity. Capacity 2 $\frac{1}{2}$ gallons per minute.

With Hose Each	Without Hose Each	Diameter Inches	Extreme Length Inches	Weight Pounds
\$8.50	\$8.00	1 $\frac{3}{8}$	17 $\frac{5}{8}$	2

Parts for Brass Bilge Pumps

Flange and cup washers are leather, especially treated for use in salt water. Split washer is wrought brass. Ball is hollow and made of wrought brass.

No. 1 for numbers 1 and 5 bilge pumps.
No. 2 for numbers 2, 4, 6 and 8 bilge pumps.



	No.	Outside Diam. Inches	Each
Flange Washer Fig. 203	No. 1	1 $\frac{1}{10}$	\$.40
	No. 2	1 $\frac{7}{10}$	.45
Cup Washer Fig. 204	No. 1	1 $\frac{1}{10}$	\$.40
	No. 2	1 $\frac{3}{8}$	.45
Split Washer Fig. 205	No. 1	1 $\frac{7}{16}$	\$.11
	No. 2	1 $\frac{3}{16}$	.17
Hollow Ball Fig. 206	No. 1	$\frac{1}{2}$	\$.35
	No. 2	$\frac{7}{8}$	.40
Valve Fitting For Plunger Fig. 456	No. 1		\$1.10
	No. 2		1.20
Packing Nut Fig. 457	No. 1		\$1.20
	No. 2		1.55

NOTE—The above parts are also used in Fig. 345 bilge pumps, and Fig. 146 crank case pump.

Rubber Hose and Strainer

FOR FIGS. 200, 202 and 723 BRASS BILGE PUMPS

Heavy moulded rubber hose, durable and lasting. $\frac{3}{8}$ inch inside diameter.



	Each
Standard 5 ft. length	\$1.20
Cast Bronze Strainer	.90

Other lengths of hose can be furnished. Price on application.

Fig. 208 Fig. 209



Small Boat Bilge Pump

STEEL—ZINC PLATED
GOOD CAPACITY—EASY OPERATION

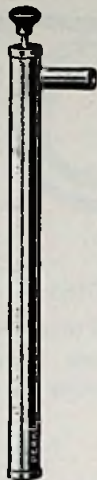


Fig. 152

Has felt retainer washer to prevent squirt through cap.
Capacity—7 gallons per minute at normal speed.

Each	Length Inches	Diameter Body Inches	Diameter Spout Inches	Weight Pounds
\$3.75	24	1½	1	2½

Outboard Bilge Pump

ALL BRASS—WITH 3 FT. RUBBER HOSE
BRASS BRACKETS FOR MOUNTING

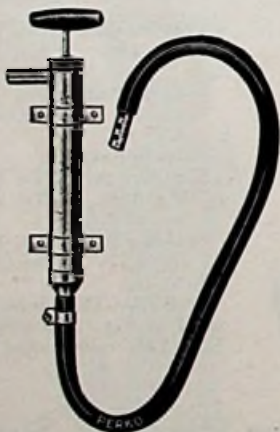


Fig. 201

For small boats, outboard motor, sail or rowboats.

Brackets permit permanent installation on transom or side, allowing one hand pumping while boat is in use.

Complete with bronze intake strainer.

Each	Length Body Inches	Diam. Inches	Capacity Per Min. Gallons	Weight Pounds
\$8.00	11	1½	1½	2¾

“Perko” Wing Pumps

DOUBLE ACTION—ALL BRONZE
FOR MARINE, INDUSTRIAL AND DOMESTIC USE
IMPROVED VALVES HOLD PRIME

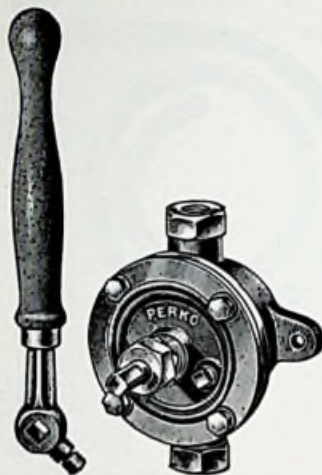


Fig. 681

Constructed entirely of cast bronze, principally for use as a marine bilge pump, but is used in large quantities in the industrial field for pumping oil and gasoline, hot liquids, juices, etc.

The interior consists of a cast bronze wing which oscillates on a bronze shaft connected to handle. The wing has lubricated square flax packing set in grooves which runs on interior of drum and as no metal parts rub together this pump will last for years without noticeable wear. Packing is very easily replaced.

Intake valves have been greatly improved and priming is unnecessary even after several weeks of disuse.

GREAT CAPACITY—LIFT AND HEAD OVER 35 FT.
EFFORTLESS OPERATION—HARDWOOD HANDLE

No.	Each	Size Pipe Connection Inches	Overall Diameter of Body Inches	Capacity Per Minute Gallons	Weight Pounds
0	\$52.00	½	5½	5	11½
1	60.00	¾	5¾	7	14
2	66.00	1	6¾	9¾	19½

Spare handles, complete, \$6.60 each. Wood only, \$1.10 each.



Brass Bilge Pumps

DOUBLE ACTION—WITH BULKHEAD BRACKETS
THREADED FOR 3/4 INCH PIPE



Fig. 345

No.	Without Tail Pieces Each	With Tail Pieces Each	Diam. Barrel Inches	Length Overall Inches	Weight Pounds
2	\$17.25	\$19.25	1 1/2	21	3
4	20.50	22.50	1 1/2	31	4

Spare Parts, See Page 83.

Supplied with tail pieces if not otherwise specified.

Steel Boat Bailers

GALVANIZED—RIVETED HANDLE



Fig. 180

Each	Diameter Inches	Weight Pounds
\$3.50	8 1/4	1

Crank Case Pump

FOR RUBBER HOSE OR TUBING
SINGLE ACTION—STEEL OR BRASS

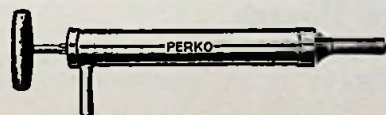


Fig. 335

Steel pump is painted red. Brass pump is in natural finish.

Inlet and outlet tubes will fit 5/8 inch rubber hose or tubing, so equipped, this pump may also be used as a bilge pump for small boats.

Steel Each	Brass Each	Length Body Inches	Diam. Body Inches	Weight Pounds
\$3.25	\$5.25	11	1 1/2	1 1/2

Crank Case Pump

DOUBLE ACTION—ALL BRASS

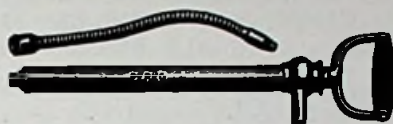


Fig. 146

For draining the crank case through filler opening, with outlet spout for attaching rubber hose. Intake is bronze flexible metal hose.

Complete Each	Spare Intake Hose Each	Length Overall Inches	Length Intake Hose Inches	Diam. Pump Inches	Weight Pounds
\$10.75	\$3.50	17 1/2	12 1/2	1 1/8	2 1/2

NOTE—Above supplied with intake tube for 5/8 inch rubber hose instead of metal hose illustrated, specify Fig. 1029, \$9.50 each.

Improved Crank Case Pump

SINGLE ACTION—ALL BRASS
WITH BRONZE FLEXIBLE METAL HOSE
OUTLET SPOUT AND NEOPRENE PLUNGER



Fig. 388

Outlet spout permits continuous operation. The new plunger has increased capacity with smoother operation.

Complete Each	Spare Intake Hose Each	Diam. Barrel Inches	Length Barrel Inches	Length Overall Inches	Weight Pounds
\$8.00	\$3.15	1 1/2	12	15 1/2	2

Spare Neoprene plungers, \$.35 each.

Crank Case Pump

WITH FLEXIBLE METAL INTAKE HOSE
SINGLE ACTION—STEEL OR BRASS

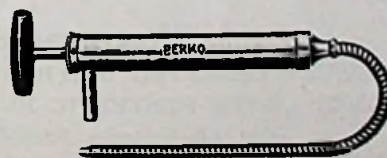


Fig. 336

Steel pump is painted red. Brass pump is in natural finish.

Flexible intake hose is 18 inches long, 1/2 inch outside diameter. Outlet spout is 2 1/2 inches long, 5/8 inches outside diameter.

Steel Each	Brass Each	Length Body Inches	Diam. Body Inches	Weight Pounds
\$3.85	\$6.00	11	1 1/2	1 1/2



Perko Improved "Flexo-Shaft" Electric Bilge Pumps

Patented

WITH FLEXIBLE PHOSPHOR BRONZE DRIVE SHAFT AND WATERPROOF CASING
 CASING HAS "TEMFLEX" PLASTIC COVERING TO INCREASE ITS STRENGTH
 ALL BRONZE EXCEPT MOTOR — BURNISHED FINISH.

The value of this pump arrangement is obvious at first sight.

Pass the shaft around corners, over or under bulkhead, ribs or any other obstructions and it operates.

Mount the motor anywhere, in a cabin, pilot house, or out in the cockpit far removed from gasoline fumes that usually settle in low places; place the pump where it is needed at the moment, at the lowest point of the bilge, under the engine, under low decking or any place other types of pumps cannot reach.

Inlet is through base which has heavy gauge brass strainer. Outlet is illustrated and is for 1 inch rubber hose, or 1/2 inch pipe.

CAPACITY — 650 gallons per hour at 1 foot MAXIMUM HEAD — 11 feet, with 3 foot shaft.
 MOTOR IS LOW AMPERAGE 1/16 H.P. at 2000 R.P.M.

WITH DIRECT DRIVE

WITH ANGLE DRIVE

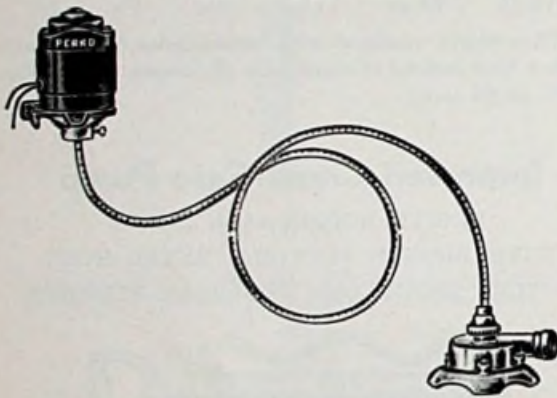


Fig. 666

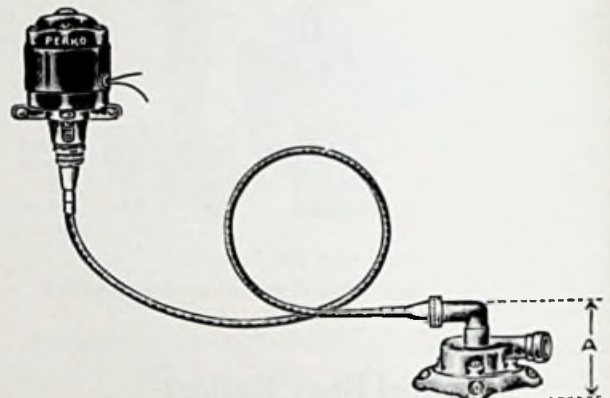


Fig. 689

	WITH DIRECT DRIVE				WITH ANGLE DRIVE			
	Height Pump Inches	Diam. Base Inches	Weight Pounds	110 D.C. Volts Each	Height at "A" Inches	Diam. Base Inches	Weight Pounds	110 D.C. Volts Each
	4 1/4	4 5/8	7		3 1/8	4 5/8	7 1/2	
	6 Volt Each	12 Volt Each	32 Volt Each	110 D.C. Volts Each	6 Volt Each	12 Volt Each	32 Volt Each	110 D.C. Volts Each
With 3 ft. shaft	\$44.50	\$46.00	\$51.50	\$51.50	With 3 ft. shaft	\$51.00	\$52.50	\$58.00
With 6 ft. shaft	48.50	50.00	55.50	55.50	With 6 ft. shaft	55.00	56.50	62.00
Motor only	12.50	14.00	22.00	22.00	Motor only	12.50	14.00	22.00

CAPACITY WITH 4 FOOT HEAD—400 GALLONS PER HOUR
 CAPACITY WITH 8 FOOT HEAD—170 GALLONS PER HOUR.

SPARE PARTS

3 Foot shafts only	\$9.75 Each	Fig. 689 Mitre Gears with shaft	\$3.00 Per Pair
6 Foot shafts only	14.50 Each	Fig. 689 Angle Elbow Less Gears	3.30 Each
Fig. 666 Complete Pump Unit only	15.00 Each	Motor Bulkhead Bracket only	3.75 Each
Fig. 689 Complete Pump Unit only	19.50 Each	NOTE—See page 92 for "Pipe to Hose" coupling, permits attaching 5/8 inch hose to above pumps.	
Impeller only	2.00 Each		

Automatic Switch For Bilge Pumps

PRESSURE OPERATED DIAPHRAGM TYPE — FOR NON-AUTOMATIC BILGE PUMPS

CAST BRONZE — WITH SYNTHETIC RUBBER DIAPHRAGM — HEAVY DUTY MECHANICAL SWITCH

For All Voltages From 6 to 110

This device consists of a very sensitive switch in contact with a diaphragm of oil and grease resistant material. The wires are led through a neoprene hose above any normal water level.

This switch will start the pump operating when the water reaches the top of the switch or 2 1/4 inches. It will turn off again when the water reaches a depth of 1 inch but by connecting 1/4 inch tubing to the 1/2 inch pipe tapped end of switch and into the discharge line of the pump the pressure in the pump discharge line will continue to operate the switch until the pump sucks air.

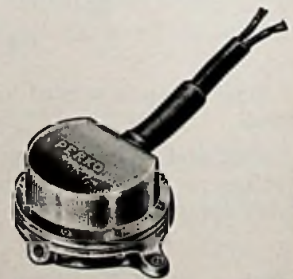


Fig. 662

Burnished Complete Each	Spare Switch Each	Spare Diaphragm Each	Height Inches	Diam. Base Inches	Weight Pounds
\$13.50	\$2.50	\$1.00	2 1/4	4 1/4	2

Perko Improved "Flexo-Shaft" Automatic Electric Bilge Pumps

Patented

FLEXIBLE PHOSPHOR BRONZE DRIVE SHAFT AND WATERPROOF CASING
 CASING HAS "TEMPLEX" PLASTIC COVERING TO INCREASE ITS STRENGTH
 PRESSURE OPERATED DIAPHRAGM TYPE AUTOMATIC SWITCH—THREE WAY DASHBOARD SWITCH
 ALL BRONZE EXCEPT MOTOR—6-12-32 AND 110 VOLTS—BURNISHED FINISH
 WATERTIGHT—OPERATES WITH PUMP AND SWITCH HOUSING SUBMERGED

FEATURES — See write up on Figs. 666 and 689 (opposite page) for installation and other features.

BREATHER TUBE — Is heavy flexible "Koroseal," 18 inches long with 1/8 inch wall.

THREE WAY DASHBOARD SWITCH — Is indicated "Off," "Automatic" and "Non-automatic" and permits remote control accordingly.

ADJUSTABLE BUSHING — For adjustment of tension on drive shaft to assure full R.P.M. of pump impeller.

AUTOMATIC SWITCH — Starts pump operating when bilge water reaches a depth of about 1 1/2 inches and will "Shut off" at a depth of about 3/4 inch.

CAPACITY — 650 gallons per hour at 1 foot head — 400 gallons at 4 feet — 170 gallons at 8 feet. Maximum head 11 feet with 3 foot shaft.

MOTOR — Low amperage 1/16 H.P. at 2000 R.P.M.

WITH DIRECT DRIVE

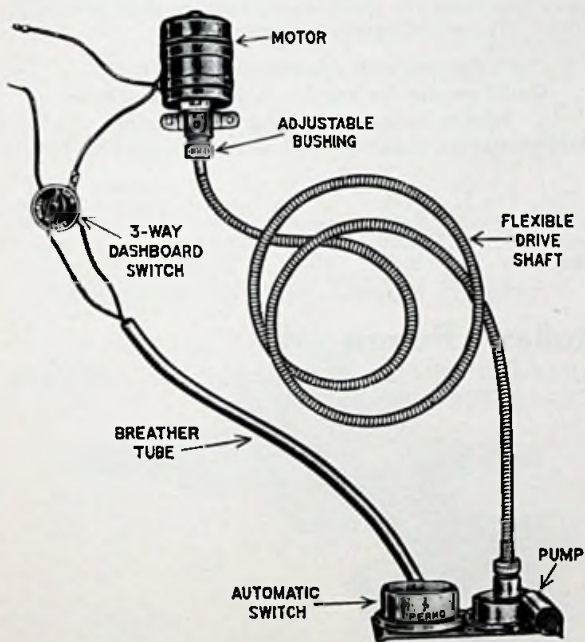


Fig. 742

WITH ANGLE DRIVE

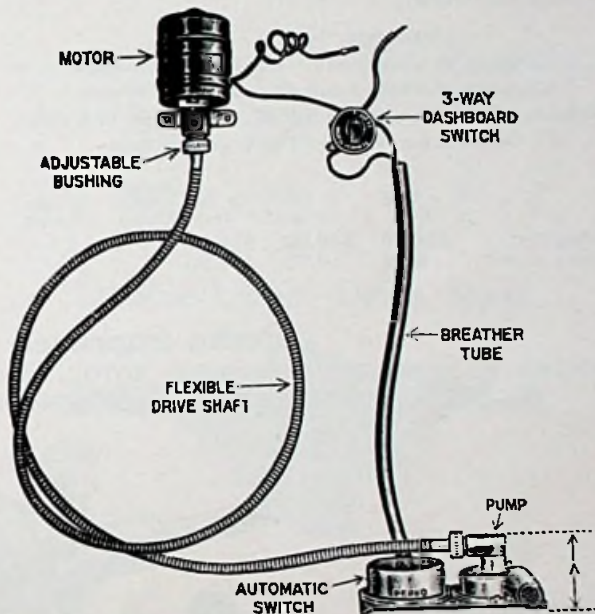


Fig. 743

	Fig. 742				Fig. 743				Fig. 742	Fig. 743	Size	Weight
	6 Volt Each	12 Volt Each	32 Volt Each	110 D.C. Volts Each	6 Volt Each	12 Volt Each	32 Volt Each	110 D.C. Volts Each	Height Pump Inches	Height at "A" Inches	Inches	Pounds
With 3 foot shaft	\$63.50	\$65.00	\$71.00	\$71.00	\$70.00	\$71.50	\$77.50	\$77.50	2 1/2	2 3/4	7x4	8
With 6 foot shaft	67.50	69.00	75.00	75.00	74.00	75.50	81.50	81.50	2 1/2	2 3/4	7x4	8

Spare pump unit, complete except motor and shaft, Fig. 742, \$34.50 each, Fig. 743, \$39.50 each.

Spare 3 way dashboard switches, \$2.50 each.

Other spare parts, see page 86.

PERKO "FLEXO-SHAFT" WATER SYSTEM PUMP

WITH PIPE INLET AND OUTLET — 1/2 INCH
 CAST BRONZE—BURNISHED FINISH

Supplied complete with Flexible Drive Shaft and Motor per Fig. 666 Page 86.
 See Page 90 for diagram of installation. Capacity same as Fig. 666.

	6 Volt Each	12 Volt Each	32 Volt Each	110 D.C. Volts Each	Height Pump Inches	Weight Pump only Pounds
With 3 foot shaft	\$45.00	\$46.50	\$52.00	\$52.00	3 1/4	2
With 6 foot shaft	49.00	50.50	56.00	56.00	3 1/4	2

Pump only as illustrated, no shaft or motor, \$15.50 each.

NOTE—This pump does not have the ability to lift water from below the pump level, therefore, it is not intended for use as a bilge pump.

See Page 92 for "Pipe to Hose" coupling, for attaching hose to above pumps.

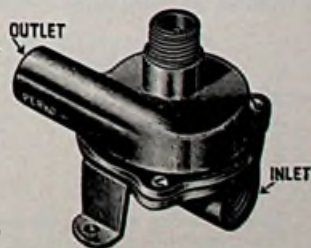


Fig. 748



"Junior" Electric Bilge Pump

NON-AUTOMATIC—6, 12 OR 32 VOLTS
ALL BRASS EXCEPT MOTOR
BAKED GRAY FINISH



Fig. 780

The result of a determined effort to produce a good practical electric bilge pump of high capacity at a price as low as possible and within the means of the majority of small boat owners.

Maximum head—7 feet

Capacity at 1 foot head—7 gallons per minute

Capacity at 4 foot head—4 gallons per minute

Motor is 1/60 H.P. at 2000 R.P.M.—5.3 amps. at 6 volts

Outlet is for regular 3/8 inch garden hose

	6 Volt Each	12 Volt Each	32 Volt Each	Height Overall Inches	Weight Pounds
Complete	\$24.50	\$26.00	\$28.00	8 1/2	2 5/8
Motor only	9.00	10.50	12.50		

Bait Tank or Water System Pump

ELECTRIC—6, 12 OR 32 VOLTS
ALL BRASS EXCEPT MOTOR
BAKED GRAY FINISH



Fig. 781

When installed at or below the water line this pump is ideal for keeping the bait tank supplied with constant water changes.

As a water system pump it can be placed in the supply line from the fresh water tank to sink, lavatory, shower, etc., per diagram on page 90.

Complete with side mounting bracket

Outlet on side for regular 3/8 inch garden hose

Inlet in bottom tapped for 1/2 inch pipe

Information on head, capacity and motor see Fig. 780

	6 Volt Each	12 Volt Each	32 Volt Each	Height Overall Inches	Weight Pounds
Complete	\$25.00	\$26.50	\$28.50	8 1/2	2 5/8
Motor only	9.00	10.50	12.50		

Perko Improved "Rotoflex" Pumps

SYNTHETIC NEOPRENE COMPOUND ROTOR—NEOPRENE U-CUP SEALS—LEAKPROOF—ALL BRONZE BODY—MONEL SHAFT—BRASS GREASE CUPS—BURNISHED FINISH

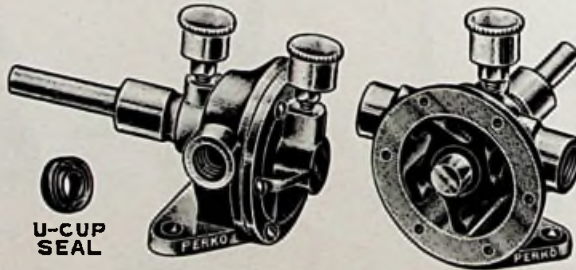


Fig. 696

Quiet operation—long continuous service—large capacity at low speed — for use with salt water, oil and tars self priming—will pump in either direction.

The rotor is a synthetic compound of neoprene and other chemicals resulting in high resistance to abrasion or wear, is impervious to oil and other impurities. The vanes of the rotor are highly flexible yet tough enough to resist the wear encountered by the passage of sand and other foreign matter; produce the necessary high vacuum and stand the continuous flexing as the rotor revolves.

The use of U-cup seals eliminates packing and packing glands.

Lift in feet, 25 to 30. Head in feet, 30 to 40.

Not to be used with synthetic solvents such as gasoline, naphtha, etc.

No.	Each	Spare Rotors Each	Size Pipe Connection Inches	Diam. Shaft Inches	Extreme Height Inches	Extreme Width Inches	Extreme Length Inches	Dimensions Base Inches	Capacity G.P.M.			Weight Pounds
									600 R.P.M.	*1000 R.P.M.	1500 R.P.M.	
2	\$16.00	\$1.65	5/8	1/2	3 1/2	3 1/2	6 1/4	3 x 1 3/4	4.1	4.9	6.4	2 5/8
3	21.00	2.40	1/2	5/8	3 3/4	4	6 3/8	3 5/8 x 2 1/8	7.1	8.5	11.0	3 3/4
4	25.50	2.85	3/4	5/8	4	4 1/2	8 3/8	4 x 3	13.0	16.5	22.0	5 3/4
5	30.50	2.85	1	5/8	4	5	8 3/8	4 1/8 x 3	15.7	19.2	26.0	6
6	56.75	6.50	1 1/4	5/8	5	7 1/4	9 1/2	5 1/2 x 3 1/2	19.5	33.5	48.0	14

Spare U-cup seals with brass retainer—\$.60 each. Specify size of shaft.

*Recommended maximum for continuous duty. Capacity shown based on 0 lbs. pressure. With special length of shaft, price on application. Motor recommended 1/4 to 1/2 H.P. for sizes No. 2-3-4-5 and up to 3/4 H.P. for size No. 6.



"PERKO" BRONZE GEAR TYPE PUMPS

SIZES NO. 3 AND 4 HAVE DROP FORGED BRONZE BODIES

The entire interior, including bearings, is tool machined, insuring perfect alignment and absolutely tight joints, blank bearing ends are solid (not soldered), all bearings are fully lubricated by brass grease cups. The drive shaft is in perfect alignment with the pump body. Pipe connections are Briggs standard pipe tap.

Single Lower Drive Shaft

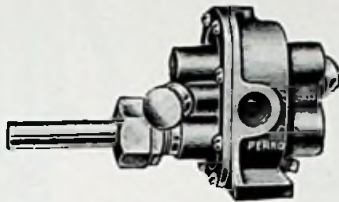


Fig. 684

Pump No.	With Spur Gears Each	With Herringbone Gears Each	Size Pipe Connection Inches	Size Drive Shaft Inches	Approximate Weight Each Pounds
2	\$20.75	\$21.50	¼	½	3 ¾
3	23.75	24.50	⅜	⅝	5 ½
4	25.75	-----	½	⅞	6
7	33.25	34.00	¾	⅞	9
9	34.75	35.50	1	⅞	9 ½

Single Upper Drive Shaft

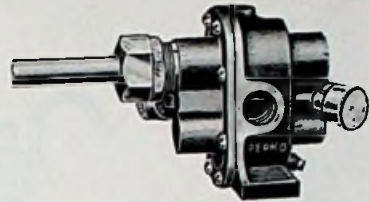


Fig. 682

Pump No.	With Spur Gears Each	With Herringbone Gears Each	Size Pipe Connection Inches	Size Drive Shaft Inches	Approximate Weight Each Pounds
2	\$20.75	\$21.50	¼	½	3 ¾
3	23.75	24.50	⅜	⅝	5 ½
4	25.75	-----	½	⅞	6
7	33.25	34.00	¾	⅞	9
9	34.75	35.50	1	⅞	9 ½

Double Lower Drive Shaft

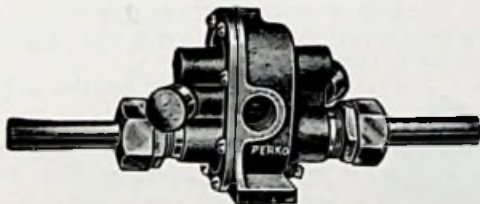


Fig. 685

Pump No.	With Spur Gears Each	With Herringbone Gears Each	Size Pipe Connection Inches	Size Drive Shaft Inches	Approximate Weight Each Pounds
2	\$24.50	\$25.25	¼	½	4 ½
3	28.25	29.00	⅜	⅝	6 ¼
4	30.00	-----	½	⅞	6 ¾
7	38.50	39.25	¾	⅞	9 ½
9	41.00	41.75	1	⅞	9 ¾

Double Upper Drive Shaft

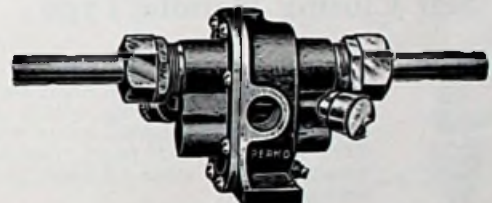


Fig. 683

Pump No.	With Spur Gears Each	With Herringbone Gears Each	Size Pipe Connection Inches	Size Drive Shaft Inches	Approximate Weight Each Pounds
2	\$24.50	\$25.25	¼	½	4 ½
3	28.25	29.00	⅜	⅝	6 ¼
4	30.00	-----	½	⅞	6 ¾
7	38.50	39.25	¾	⅞	9 ½
9	41.00	41.75	1	⅞	9 ¾

NOTE—Figs. 682 and 684 in all sizes except 1 inch are reversible. That is, any person, dealer, user, etc., can change a lower shaft pump to "upper shaft" or vice versa in a few minutes.

NOTE—Don't fail to state figure and pump number desired. When ordering pump with herringbone gears be sure to specify direction of rotation, clockwise or counter-clockwise.

CAUTION—When above pumps are operated by belt and pulley be sure to use intermediate bearing on shaft.

CAPACITY TABLES FOR GEAR PUMPS AT 1725 R.P.M. PRESSURE AND GALLONS PER MINUTE

GEAR PUMP PARTS				
Pump No.	Spur Gears Each	Herringbone Gears Each	Drive Shaft Each	Idle Shaft Each
2	\$3.00	\$3.25	\$2.50	\$1.75
3	3.00	3.25	3.00	2.25
4	3.75	-----	3.00	2.25
7	5.75	6.00	3.00	2.25
9	6.50	6.75	3.00	2.25

Pump No.	2		20		40		60		80	
	Lbs.	H.P.	Lbs.	H.P.	Lbs.	H.P.	Lbs.	H.P.	Lbs.	H.P.
2	4.0	¼	3.7	¼	3.5	½	3.4	½	3.2	½
3	7.5	½	7.0	½	6.5	¾	6.5	1	6.3	1
4	10.5	¾	10.0	¾	9.5	¾	9.1	1	8.5	1 ½
7	19.5	¾	19.0	1	18.5	1 ½	18.5	2	18.5	2
9	23.5	1	23.0	1 ½	22.5	2	22.0	2	21.5	3



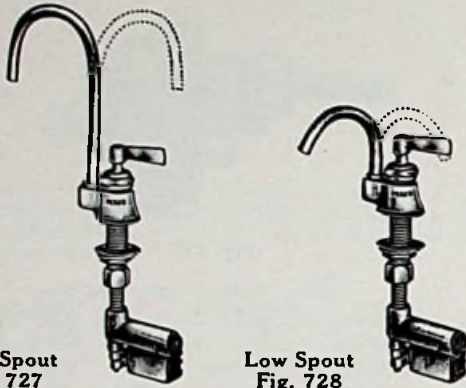
"Perko" Electric Water Faucets

ALL CAST BRONZE—WITH ADJUSTABLE SPOUT—6-12-32 AND 110 VOLTS

TURN THE HANDLE OR PRESS THE FOOT SWITCH AND THE WATER STARTS TO FLOW. NO HAND PUMPING OR PRIMING NECESSARY.

Connect one or several of the faucets to our Figure 748 electric pump. (See bottom of page for suggested installation.) Water is then supplied to your sink or lavatory as easily as in your home. All connections are threaded for 1/2 inch pipe.

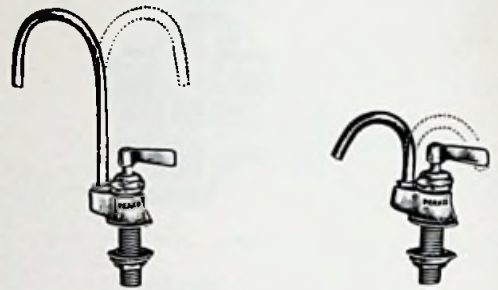
WITH HAND SWITCH



High Spout
Fig. 727

Low Spout
Fig. 728

FOR FOOT SWITCH



High Spout
Fig. 729

Low Spout
Fig. 730

Fig.	Chromium Plated Each	Height Above Drain Board Inches	Length Below Drain Board Inches	Weight Pounds
727	\$31.00	8 1/4	5 1/2	2 1/2
728	30.50	3 3/8	5 1/2	2 1/4

Fig.	Chromium Plated Each	Height Above Drain Board Inches	Length Tail Piece Inches	Weight Pounds
729	\$21.50	8 1/4	2 1/4	1 1/2
730	21.00	3 3/8	2 1/4	1 1/2

Self Closing Handle Type



Fig. 740

Chromium plated with hand switch. The handle is a spring action self-closing type that cannot waste water. Turn handle to start pump. The pump automatically stops when handle springs closed.

Chromium Plated Each	Ht. Above Drain Board Inches	Spout Projection Inches	Weight Pounds
\$20.00	3 3/8	2 3/8	2 1/2

Foot Switch

CAST BRONZE—WATERTITE
FOR USE WITH FAUCETS, FIGS. 729 AND 730



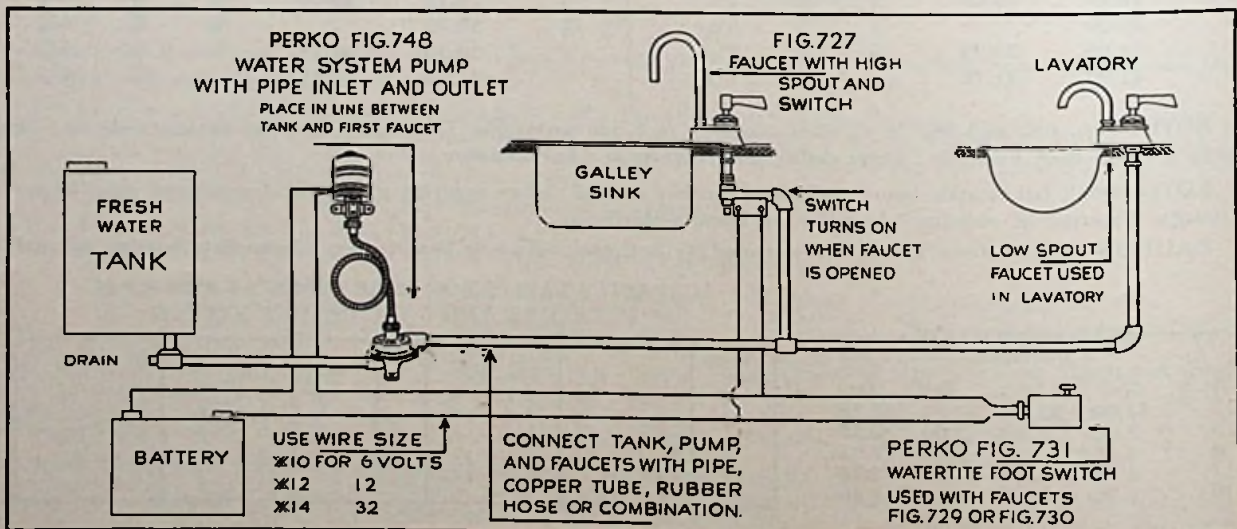
Fig. 731

For convenient location in galley or lavatory.

A spring type switch requiring very slight pressure. May also be operated by knee or hand.

Size Box, inches, 3 5/16 x 2 5/16 x 1 1/8.

Chromium Plated Each	Weight Pounds
\$11.50	1



Improved Galley and Lavatory Pumps

IMPROVED INLET VALVE TO HOLD PRIME—WITH LEAKPROOF NEOPRENE U-CUP SEALS
BRONZE—CHROMIUM PLATED

All Metal Handle
High Spout



Fig. 467
Straight Base

Mahogany Handle
High Spout

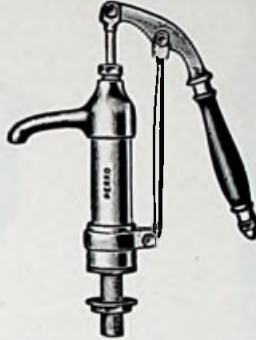


Fig. 473 Straight Base
Fig. 478 Flared Base

Mahogany Handle
Low Spout

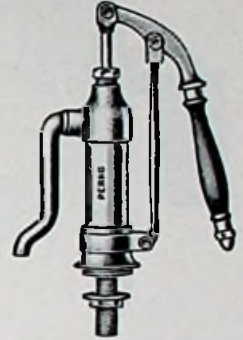


Fig. 474 Flared Base
Fig. 479 Straight Base

These pumps have been greatly improved by the new inlet valves which operate under phosphor bronze spring tension holding the prime a considerable time. Also the use of neoprene u-cup seal around the plunger rod instead of packing glands which always require attention. The handles cannot pinch the hand.

Fig.	Chromium Plated Each	Chromium Plated Handle Only Each	Mahogany Grip Only Each	Diam. Barrel Inches	Length Barrel Inches	Length Neck Inches	Threaded For Pipe Inches	Spread Handle Up Inches	Weight Pounds
467	\$25.50	\$4.00		1 1/2	6 1/2	2 1/2	1/2	13 1/2	3 1/2
473-478	27.75	5.00	\$.95	1 1/2	6	2 1/2	1/2	14	3 1/2
474-479	30.75	5.00	.95	1 1/2	6	2 1/2	1/2	14	3 1/2

Repair Kits for all above pumps, each \$3.00

ANGLE TYPE DOUBLE ACTION—SWIVEL SPOUT EFFORTLESS OPERATION

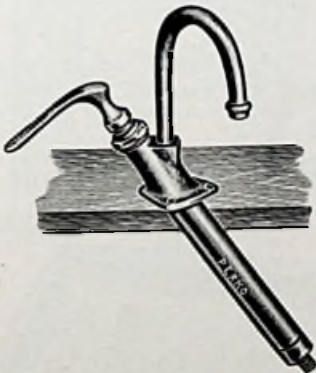


Fig. 677

Angle toward user when installed permits easy effortless operation.

Spout swivels to various positions.

Bottom valve is an improved type to hold prime.

Capacity, 10 strokes per quart.

Chromium Plated Each	Inlet Pipe Size Inches	Spout Projection Inches	Height Flange to Spout Inches	Weight Pounds
\$20.00	3/8	4	4 1/4	2 1/4

Repair Kit, each \$2.00

The "Ezy-Flo" ALL BRASS—CHROMIUM PLATED

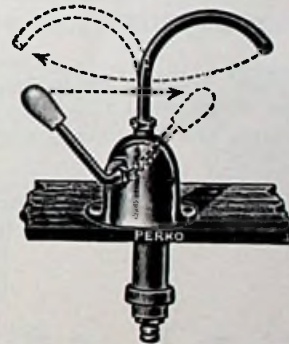


Fig. 177

Finger tip control, easy operation, self priming.

Handle operates with short rocking strokes so effortless a child can work it.

Spout swivels to any direction desired.

Inlet fits 3/8" rubber hose or 3/8" pipe.

Capacity—20 strokes per quart.

Extreme Height Above Drain Board Inches	Dimensions Mounting Base Inches	Weight Pounds	
\$22.00	8	4x1 3/8	2 1/4

Repair Kit, each \$4.00



Galley and Lavatory Pumps

BRONZE—CHROMIUM PLATED
NEOPRENE PLUNGER
IMPROVED VALVES
FLARED FLANGE



Fig. 144



Fig. 1040

Length of stroke is 5 1/4 inches.
Inlet is threaded for 3/8 inch pipe.

Capacity per minute, Low Speed Stroke—3 Gallons

Fig.	Diam. Barrel Inches	Length Overall Inches	Projection Spout Inches	Height Spout Inches	Weight Pounds
144	1 1/2	13 1/2	3	0	3
1040	1 1/2	14 1/2	4 1/2	3	3 1/2

Fig.	Exposed Parts Only—Chromium Plated Each	Repair Kits Each
144	\$20.00	\$2.50
1040	21.00	2.50

Stainless Steel Sinks

DEEP DRAWN, SEAMLESS CONSTRUCTION
19 GAUGE 18-8—NATURAL FINISH

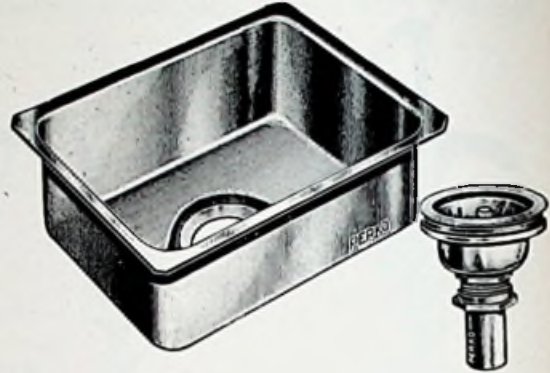


Fig. 356

Fig. 357

Corrosion resistant and immune to rust.
No crevices for dirt or bacteria to collect.
No painted or coated surface to crack or wear off.

Fig. 357 Cup strainer is brass, chromium plated, with 1 1/2 inch tail piece used with size Nos. 1 to 4 inclusive.

No.	Sink Only Each	Strainer Only Each	Size Inside Inches	Size Outside Inches	Depth Inside Inches	Wt. Lbs.
1	\$22.00	\$5.75	9 3/8 x 13 3/8	11 3/8 x 15 3/8	5	4
2	26.75	5.75	11 1/2 x 16 3/4	13 1/4 x 18 1/2	6	6 1/2
3	35.50	5.75	11 5/8 x 19 5/8	13 3/4 x 21 1/8	7	6 1/2
4	57.00	5.75	16 x 20 1/8	17 1/2 x 21 3/8	8 1/2	9 1/2

OVAL BOWL—20 gauge

5	23.00	2.75	10 5/8 x 13 3/4	12 x 15	5	2 1/4
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ROUND BOWL—20 gauge

6	17.75	2.75	10	11 1/8	5	2
7	29.00	2.75	13	14 1/4	6	4

Size Nos. 5, 6 and 7 have 2 inch drain hole for drain fitting as supplied with Fig. 402.

Bronze Utility Check Valve

WITH BRASS BALL CHECK AND STRAINER



Fig. 265

Ideal for holding prime in the inlet line of galley and lavatory pumps, bilge pumps, etc. Threaded both ends.

Each	Pipe Size Inches	Length Inches	Weight Ounces
\$1.90	1/2	1 7/8	3 1/2

Pressed Steel Sink

WHITE PORCELAIN ENAMELED

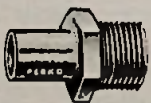


Fig. 402

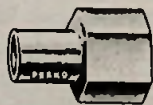
With flat rim and chromium plated combination sink drain and stopper in one unit, 1 1/2 inch tail piece.

Brass "Pipe To Hose" Couplings

1/2" PIPE TO 5/8" HOSE



Male Pipe Thread
Fig. 210



Female Pipe Thread
Fig. 212

Each	Length Overall Inches	Length Hose Coupling Inches	Weight Ounces
\$1.15	1 1/2	3/4	2 1/4

Complete Each	Drain Fittings Only Each	Size Inside Inches	Size Outside Inches	Depth Inches	Weight Pounds
\$11.25	\$2.75	10 1/2 x 16	12 3/4 x 18	4 3/4	4

Corner Lavatory

WHITE VITREOUS CHINA



Fig. 830

Has integral back and round basin with overflow. Fitted with chromium plated waste plug chainstay, chain and stopper. Size of outlet $1\frac{1}{4}$ inches outside diameter. Inlet to pump $\frac{1}{2}$ inch inside diameter.

No.	Without Pump or Faucet Each	With Faucet Each	Size of Sides Inches	Diam. of Basin Inches	Height Back Inches
1	\$35.00	\$43.50	12x12	10	2½
2	43.00	51.50	14x14	11	2½

NOTE—Pumps for above, see Figs. 144, 467, 473, 474, 478, 479 and 1040.

Faucets are chromium plated bronze marked hot or cold, please specify.

Flat Back Lavatory

WHITE VITREOUS CHINA



Fig. 832

Has integral back and round basin with overflow. Complete with chromium plated waste plug, chainstay, chain, and stopper. Size of outlet $1\frac{1}{4}$ inches outside diameter. Inlet to pump $\frac{1}{2}$ inch inside diameter.

Without Pump or Faucet Each	With Faucet Each	Size Inches	Diam. Basin Inches	Height Back Inches
\$35.00	\$43.50	14x14	11	2½

NOTE—Pumps for above, see Figs. 144, 467, 473, 474, 478, 479 and 1040.

Faucets are chromium plated bronze marked hot or cold, please specify.

Flat Back Lavatory

WHITE VITREOUS CHINA



Fig. 831

Has integral back and round basin with overflow. Complete with chromium plated waste plug, chainstay, and stopper. Size of outlet $1\frac{1}{4}$ inches outside diameter.

Without Pump or Faucet Each	With Faucet Each	Size Inches	Diam. Basin Inches	Height Back Inches
\$30.00	\$38.50	12x12	10	2½

NOTE—Pumps for above, see Figs. 144, 467, 473, 474, 478, 479 and 1040.

Faucets are chromium plated bronze marked hot or cold, please specify.

Lucite Lavatories

CHIP PROOF—HEAT RESISTANT—RESILIENT
LIGHTWEIGHT—IMPERVIOUS TO RUST
LUSTROUS WHITE



Fig. 823



Fig. 825

These sturdy basins have all the appearance of fine vitreous china and will perform all the functions of same while providing light weight and lower cost.

Will accommodate regular faucets or our various lavatory pumps.

Supplied complete with $1\frac{1}{4}$ inch tail piece for outlet.

Fig.	Each	Size Inches	Size Basin Inches	Height Back Inches	Weight Pounds
823	\$18.00	14 x 15¾	12 x 9	1¾	1¾
825	18.00	14¼ x 12¾	12½ x 7½	1¾	2

ALL ABOVE FURNISHED WITHOUT PUMP OR FAUCET UNLESS OTHERWISE SPECIFIED

"PERKO" IMPROVED MARINE CLOSETS

FOR ABOVE OR BELOW WATERLINE
 WHITE VITREOUS CHINA BOWLS—ALL BRONZE PUMPS AND FITTINGS, WHITE FINISH
 ALL WHITE SEATS AND COVERS WITH BRASS CHROMIUM PLATED HINGES
 WITH NEOPRENE "JOKER" BACKWATER CHECK VALVE

BOWL is of rim flushing type with thru-way integral boss on back for positive and watertight connection of supply pipe.

PUMP for supply and discharge is 2½ inches with double action cup leather piston. Length of stroke is 2 inches.

VALVES, waste valve contains Neoprene Clack Washers. The combination supply and check valve has thick Neoprene washer. A Neoprene "Joker" Backwater Check Valve is in the discharge tail piece.

WASTE ARM has ½ inch pipe size clean out opening in both ends ample to allow cleaning out of foreign matter or quick draining when hauling out.

OUTLET is 1½ inches I. P. S. with tail piece for lead pipe or hose connection.

INLET is ¾ inch I. P. S. with tail piece for lead pipe or hose connection.

DIMENSIONS OVERALL, side to side, 17 inches; front to back, 16 inches; height 13¾ inches; base 10¼ x 4¾ inches. Weight 47 pounds. Dimensions and weight include seat and cover.

The Boatman

With Hand Operated Supply Valve

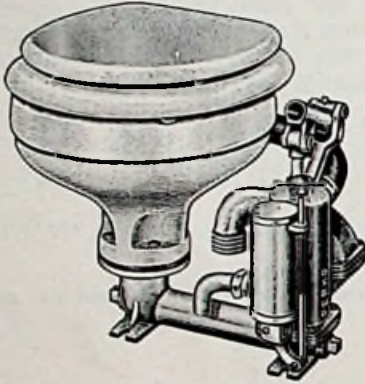


Fig. 828-C



Horizontal Handle



Vertical Handle

The Yachtsman

With Foot Operated Supply Valve

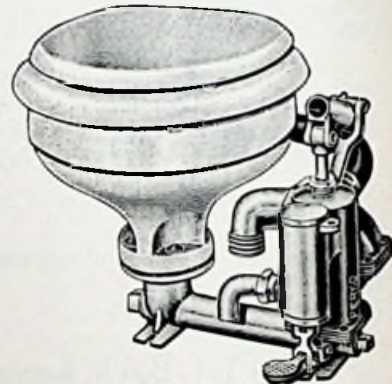


Fig. 829-C

Fig. 828-C-H with Horizontal HandleEach \$114.00
 Fig. 828-C-V with Vertical HandleEach 115.00

Fig. 829-C-H with Horizontal HandleEach \$115.00
 Fig. 829-C-V with Vertical HandleEach 116.00

All furnished with pump on right or left side. Right hand facing supplied unless otherwise specified.

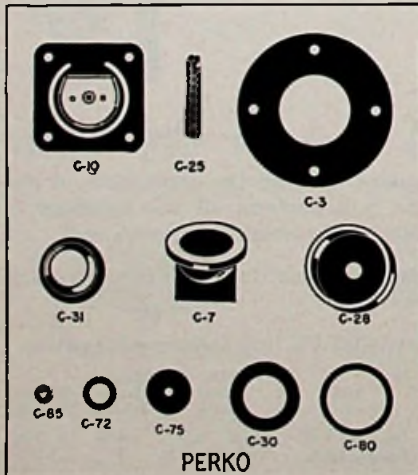
NOTE — HEIGHT HAS BEEN REDUCED 1¾ INCHES TO PERMIT INSTALLATION UNDER SEATS OR IN VERY LIMITED SPACE.

Spare Parts and Repair Kits

White Seat and Cover completeEach \$8.75
 White Vitreous Bowl onlyEach 20.00
 Flush Tube (Rubber Hose)Each 1.50

REPAIR KITS

Repair Kits complete, consisting of the following parts and quantity in each kitEach \$7.50



PERKO

Fig. 909

Part No.	Each	Description	Quantity Per Closet
C-3	\$.90	Bowl Flange Gasket	1
C-7	1.30	Neoprene Joker Valve	1
C-10	1.00	Neoprene Check Valve	2
C-25	.20	Flax Piston Rod Packing	2
C-28	.60	Cup Leathers for Piston	2
C-30	.10	Bowl Spud Friction Washer	2
C-31	.10	Bowl Spud Gasket	2
C-72	.10	Inlet Coupling Washer	1
C-75	.15	Inlet Valve Seat Rubber	1
C-80	.10	Cap Nut Washer	2
C-85	.30	U-Cup Seal for Supply Valve	1
C-86	.02	Brass Cotter Pins 1/16x1	6

Bronze Sea Cocks WITH DRAIN PLUGS—ROUND WAY REMOVABLE HANDLE



Fig. 834



Fig. 835

Size Inches	Fig. 834 Each	Fig. 835 Each	With Fig. 86 Strainer Add Each	Size Strainer Inches	Without Hull Connection Deduct Each
3/4	\$14.75	\$14.25	\$.90	3 1/2	\$1.55
1	21.00	20.00	.90	3 1/2	2.05
1 1/4	26.00	25.00	1.25	4 1/4	3.05
1 1/2	29.25	28.75	2.00	5	3.60
2	49.00	48.00	2.20	6	5.75
2 1/2		72.00	5.00	8	7.80

Bronze Tail Pieces

For lead pipe or hose connections, furnished complete with rubber washer.



Fig. 67 Straight
Fig. 78,
90 Degree

I. P. S. Size Inches	O. D. Tail Piece Inches	Fig. 67 Each	Fig. 78 Each
1/4	3/8	\$.65	
3/8	1/2	.70	
1/2	1 1/2	.90	
3/4	3/4	1.10	\$1.45
1	1	1.45	2.10
1 1/4	1 1/4	1.90	2.60
1 1/2	1 1/2	2.30	3.00
2	2	3.30	4.40
2 1/2	2 1/2	6.40	

Water Outlet CAST BRONZE



Fig. 332

No.	Size Pipe Inches	Diam. Flange Inches	Length of Pipe Inches	Weight
1	3/4	2 1/4	2 1/4	12 oz.
2	1	3	3 1/4	1 lb.

No.	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
1	\$3.55	\$4.65	\$5.50
2	4.10	5.50	6.30

Speedboat Strainers

CAST BRONZE—BURNISHED



Fig. 65

Designed to prevent clogging. Will admit full supply of water at all speeds.

Size Pipe Inches	Each	Length Pipe Inches	Size Strainer Inches	Weight Pounds
1/2	\$2.75	2 1/4	2 1/2 x 3 1/2	3/8
3/4	3.25	2 9/16	3 x 4	7/8
1	4.10	3	3 1/8 x 4 1/4	1 1/8
1 1/4	5.70	3 3/8	3 3/8 x 4 1/2	1 3/4
1 1/2	7.25	3 3/8	3 1/2 x 5	2

Thru-Hull Connections

CAST BRONZE—BURNISHED
WITH AND WITHOUT TAIL PIECE



Fig. 64



Fig. 322

Size Pipe Inches	Fig. 64 Each	Fig. 322 Each	Length Neck Inches	O.D. Tail Piece Inches	Diam. Flange Inches	Wt. Fig. 64 Lbs.	Wt. Fig. 322 Lbs.
3/8	\$2.20	\$1.50	2 3/8	1/2	1 1/8	1/2	1/4
1/2	2.55	1.65	2 3/8	1/2	1 5/8	3/4	1/3
3/4	3.20	2.10	2 3/8	3/4	2	1	1/2
1	4.15	2.75	2 7/8	1	2 1/4	1 1/4	3/4
1 1/4	6.05	4.15	3 1/2	1 1/4	2 7/8	1 3/4	1
1 1/2	7.30	5.00	3 3/4	1 1/2	3	2 1/4	1 1/4
2	11.00	7.75	4	2	3 1/2	3 1/2	2
2 1/2		11.75	4		4 1/2		2 3/4

Scoop Strainers

CAST BRONZE—BURNISHED



Fig. 66

Can be used with inlet connection, Fig. 64. No. 1 will fit up to 1/2 inch. No. 2 will fit up to 1 inch. No. 3 will fit up to 1 1/4 inches. No. 4 up to 2 inches.

No.	Each	Outside Dimension Inches	Weight Each
1	\$.70	3 1/2 x 2 1/2	4 oz.
2	1.00	5 x 3 1/4	7 oz.
3	1.65	6 1/4 x 4 1/4	1 lb.
4	3.60	8 1/4 x 5 1/4	2 lbs.

Round Strainers

CAST BRONZE—BURNISHED



Fig. 86

Outside Diam. Inches	Each	Inside Diam. Inches	Weight Each
2 1/2	\$.55	1 3/4	2 oz.
3	.60	2	4 oz.
3 1/2	.90	2 1/2	5 oz.
4 1/4	1.25	3	6 oz.
5	2.00	3 3/4	12 oz.
6	2.20	4 1/2	1 lb.
8	5.00	6	2 lbs.
10	7.75	8 1/4	3 lbs.

IMPROVED "AIR SCOOP" CABIN WINDOWS

WITH SPIGOT — FINISHING FRAME — BUILT-IN SCREEN

CAST BRONZE OR CAST ALUMINUM

HINGED PLEXIGLASS WINDOW, RUBBER GASKETED, WATERTIGHT

Patent Pending

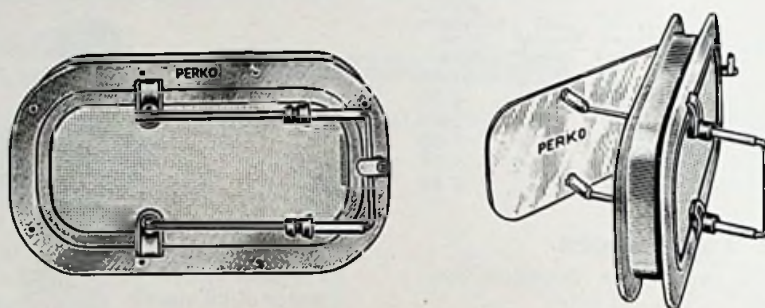


Fig. 843

A new idea in marine windows but a proven principle for gathering in every possible cup full of air as any owner of a modern automobile will agree.

The answer to a galley slaves prayer.

Eliminates the need for old fashioned unsightly wind scoops.

Eliminates the heavy hinged door, the tightening and loosening of large wing nuts, the chains, hooks etc. necessary to keep the window open.

The window handle serves two purposes, to open or close the window and to hold the window at the desired opening for a little or lot of ventilation.

The handle is held in closed position by a turn latch. The simple method of operating is clearly shown in the above illustration. The window, when closed against the soft rubber gasket, is watertight. The rubber corks visible on the handle are used to close opening in screen when window is open.

The ~~screw~~ *screen* is permanently built in and does not interfere with opening or closing the window.

No.	Size of Opening Inches	Plain Bronze Each	Plain Aluminum Each	Without Finishing Frame Deduct		Outside Dimensions of Frame Inches	Length Spigot Inches	Thickness Glass Inches	Bronze Weight Pounds	Aluminum Weight Pounds
				Bronze Each	Aluminum Each					
1	5x12	\$42.00	\$28.00	\$2.80	\$1.60	8x15	2	5/16	12	4 1/4
2	7x16	63.00	41.00	3.70	2.10	10x19	2	5/16	15 1/2	5 1/2



Round Portlights

CAST BRONZE

GLASS AREA IS SAME DIAMETER AS OPENING



Fig. 317

Diam. Opening Inches	Plain Bronze Each	Diam. Clear Glass Inches	Outside Diam. Frame Inches	Thickness Glass Inches	Weight Pounds
4	\$ 9.00	4	7 $\frac{3}{8}$	$\frac{1}{4}$	2 $\frac{3}{4}$
5	10.80	5	8 $\frac{3}{4}$	$\frac{1}{4}$	4 $\frac{3}{8}$
6	12.75	6	9 $\frac{3}{4}$	$\frac{1}{4}$	5 $\frac{5}{16}$
7	18.75	7	10 $\frac{7}{8}$	$\frac{3}{8}$	8
8	21.25	8	12 $\frac{1}{4}$	$\frac{3}{8}$	9 $\frac{7}{8}$
10	39.00	10	15 $\frac{3}{8}$	$\frac{1}{2}$	19 $\frac{1}{2}$
12	66.00	12	17 $\frac{1}{8}$	$\frac{1}{2}$	24

All sizes except 12 inch have Removable Hinge Pin.
10 inch has Two Fastenings.
12 inch has Three Fastenings.

Deck Lights

CAST BRONZE—FOR WOOD DECKS



Fig. 838

Diameter Clear Glass Inches	Plain Bronze Each	Polished Bronze Each	Thickness Glass Inches	Outside Diam. Frame Inches	Weight Pounds
3 $\frac{1}{2}$	\$ 5.00	\$ 8.50	$\frac{1}{4}$	5 $\frac{3}{4}$	1 $\frac{3}{4}$
4	5.25	8.75	$\frac{1}{4}$	6 $\frac{1}{2}$	2
5	7.75	11.75	$\frac{3}{8}$	7 $\frac{1}{2}$	3 $\frac{3}{8}$
6	10.50	15.00	$\frac{3}{8}$	8 $\frac{1}{2}$	3 $\frac{3}{8}$
8	18.00	23.00	$\frac{1}{2}$	11	7 $\frac{1}{4}$

MORE-AIR PORTLIGHTS

INSIDE PATTERN—FOR WOOD HULLS

CAST BRONZE—PLAIN

COMPLETE WITH OUTSIDE FINISHING RING
GLASS AREA IS SAME DIAMETER AS OPENING
ALL SIZES ARE GROOVED FOR SCREENS
WITH REMOVABLE HINGE PIN

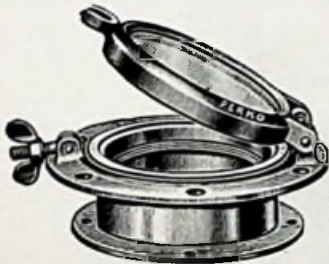
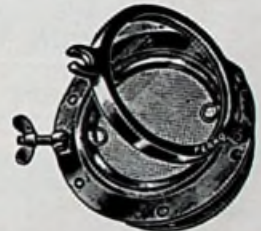


Fig. 157

Showing Screen in Place



Opening Inches	For Thickness of Wood		Outside Diameter Frame Inches	Thickness Glass Inches	Weight 1 $\frac{1}{2}$ Inch Spigot In Pounds
	1 $\frac{1}{2}$ Inch Plain Bronze Each	3 Inch Plain Bronze Each			
4	\$14.35	\$16.00	6 $\frac{7}{8}$	$\frac{1}{4}$	4 $\frac{1}{2}$
5	17.60	19.35	7 $\frac{3}{4}$	$\frac{1}{4}$	6
6	20.65	23.20	8 $\frac{3}{8}$	$\frac{1}{4}$	7 $\frac{3}{4}$
7	30.00	32.35	10 $\frac{1}{8}$	$\frac{3}{8}$	11
8	33.65	36.65	11 $\frac{1}{2}$	$\frac{3}{8}$	14 $\frac{1}{2}$
9	44.25	47.65	13 $\frac{1}{4}$	$\frac{1}{2}$	18 $\frac{1}{2}$
10	59.35	66.00	14 $\frac{1}{4}$	$\frac{1}{2}$	20
12	74.65	82.65	17	$\frac{1}{2}$	32 $\frac{1}{2}$

For 1 inch wood, use 1 $\frac{1}{2}$ inch price. For 2 or 2 $\frac{1}{2}$ inch wood use 3 inch price, etc.

10 and 12 inch sizes have two fastenings.

Without outside finishing ring, deduct from above prices the following:

	4 Inch	5 Inch	6 Inch	7 Inch	8 Inch	9 Inch	10 Inch	12 Inch
Plain	\$1.20	\$1.45	\$1.85	\$3.05	\$4.25	\$5.20	\$6.15	\$8.15

Note—Screens for all portlights above see Fig. 442.

Stock size is for 1 $\frac{1}{2}$ inch wood, other sizes made to order only.



Marine Windows

WITH SPIGOT
PLAIN BRONZE OR ALUMINUM
WATERTIGHT—TWO FASTENINGS

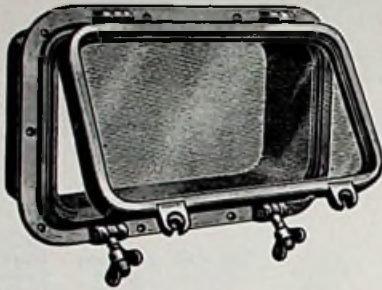


Fig. 796

Furnished complete with removable screen and outside finishing frame.

Designed to supply the maximum amount of air and light possible while keeping bulk and weight to a minimum.

No.	Size of Opening Inches	Plain Bronze Each	Plain Aluminum Each	Without Finishing Frame Deduct	
				Bronze Each	Aluminum Each
1	5x12	\$38.65	\$35.00	\$3.00	\$2.20
2	7x16	48.35	42.00	3.75	2.85

No.	Dimensions Outside of Frame Inches	Length Spigot Inches	Thickness Glass Inches	Bronze Weight Pounds	Aluminum Weight Pounds
2	10 x 19 1/4	2	1/4	22	10

Marine Windows

WITHOUT SPIGOT
PLAIN BRONZE OR ALUMINUM
WATERTIGHT—TWO FASTENINGS

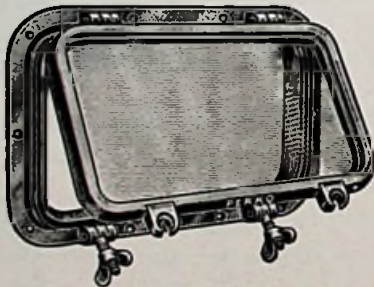


Fig. 803

Furnished complete with removable screen. Without finishing frame.

No.	Size of Opening Inches	Plain Bronze Each	Plain Aluminum Each	Bronze Weight Pounds	Aluminum Weight Pounds
3	5x12	\$35.00	\$31.00	11 1/2	5
4	7x16	45.00	38.00	16	7

SPECIAL FINISHING FRAMES FOR FIG. 803

3	5x12	\$ 6.00	\$ 5.60	2 1/2	1
4	7x16	7.85	7.50	3 1/2	1 1/2

Note—These Special Finishing Frames have mounting holes drilled to line up with those in window frame.

For other dimensions, see Fig. 796 above.

Note—Spare Screens for Figs. 796 and 803, size 5x12 inches—\$6.75 each. Size 7x16 inches—\$7.85 each.

Oval Inside Portlights

PLAIN BRONZE OR ALUMINUM
WITH OUTSIDE FINISHING RING AND
REMOVABLE HINGE PIN

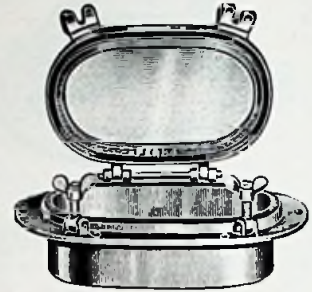


Fig. 897

Size of Opening Inches	Bronze		Aluminum	
	For Wood Thickness 1 1/4 Inches	For Wood Thickness 2 Inches	For Wood Thickness 1 1/4 Inches	For Wood Thickness 2 Inches
4x7	\$24.25	\$25.20	\$18.70	\$19.80
5x9	30.00	30.75	22.25	24.00

Without Outside Finishing Ring,
Deduct from Above Prices the Following.

Size Inches	Bronze Each	Aluminum Each
4x7	\$ 1.80	\$ 1.50
5x9	2.50	2.20

Size of Opening Inches	Length Flange Inches	Width Flange Inches	Thickness Glass Inches	Bronze Weight Pounds	Aluminum Weight Pounds
4x7	10	7	3/8	8 1/2	4 1/4
5x9	12 1/2	8	3/8	11 3/4	6

Note—Screens for above, see Fig. 443.

Rubber for Portlights



Fig. 461

Size	Per Foot
1/4 inch square	\$.20
3/16 inch square	.25
1/8 inch square	.30

Supplied only in 12 1/2 foot lengths

Glass Run Window Channel

WITH STAINLESS STEEL BEAD

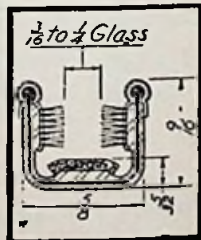


Fig. 482

Vulcanized rubber covered, mohair lined. The highest quality channel of its type.
Supplied only in 8 foot lengths.

Per Length	Outside Width Inches	Height Inches	For Glass	Weight Per Length Pounds
\$5.50	5/8	1/10	1/16 - 1/4	1 1/4



Round Frames For Glass

CAST BRONZE



Fig. 444

Size No.	Plain Each	Polished Each	Chromium Plated Each	Inside Diameter Inches	Outside Diameter Inches	Weight Pounds
1	\$1.35	\$2.50	\$3.50	4	5 3/4	1/2
2	1.50	3.30	4.40	4 1/4	6 1/4	5/8
3	1.60	3.60	4.70	5	6 3/4	11/16
4	1.70	4.30	5.50	5 1/8	7 1/4	3/4
5	2.65	5.00	6.20	6	8	7/8
6	3.10	5.25	6.75	6 3/16	8 1/2	1
7	3.50	6.90	8.40	7 1/4	9 3/4	1 3/8
8	5.40	8.75	10.75	8 1/8	11 1/4	1 7/8
9	5.60	9.00	11.50	9 1/8	12 1/4	2
10	7.25	11.00	14.00	10 3/8	13 1/4	2 3/4

Round Portlight Screens

BRONZE—SPRING TYPE

FOR FIGS. 157 AND 317 PORTLIGHTS



Fig. 442

For Size Opening Inches	Dull Chromium Plated Each		For Size Opening Inches	Dull Chromium Plated Each	
	Bronze Each	Chromium Plated Each		Bronze Each	Chromium Plated Each
4	\$2.65	\$3.65	8	\$4.35	\$5.35
5	3.00	4.00	9	4.65	5.65
6	3.35	4.35	10	5.75	6.75
7	3.95	5.00	12	6.60	7.75

Round Finishing Rings For Inside Portlights

CAST BRONZE—PLAIN



Fig. 455

Size No.	Plain Each	For Size Portlight Inches	Inside Diam. Inches	Outside Diam. Inches	Weight Pounds
1	\$1.20	4	4 9/32	5 9/16	1/2
2	1.45	5	5 5/16	6 9/16	1/2
3	1.85	6	6 5/16	7 9/16	5/8
4	3.10	7	7 5/16	9 1/16	1
5	4.25	8	8 5/16	10 3/4	1 3/4
6	5.20	9	9 5/16	11 1/2	2 3/4
7	6.15	10	10 3/8	13	2 3/4
8	8.15	12	12 3/8	15 1/8	3 3/4

Oval Portlight Screens

BRONZE—SPRING TYPE

FOR FIG. 897 PORTLIGHT



Fig. 443

For Size Opening Inches	Bronze Each	Dull Chromium Plated Each
4x7	\$3.85	\$4.85
5x9	4.50	5.50

Round Portlight Screens

BRASS FRAME—COPPER SCREENING

FRICTION TYPE—FOR RECESSED PORTLIGHTS



Fig. 434

Outside Diameter Inches	For Size Portlight Inches	Each	Outside Diameter Inches	For Size Portlight Inches	Each
4 1/16	4	\$2.65	8 1/16	8	\$4.40
5 1/16	5	3.00	9 1/16	9	4.65
6 1/16	6	3.35	10 1/16	10	5.75
7 1/16	7	4.00	12 1/16	12	6.55

Larger sizes made to order—Price on application.

Portlight Chains

BRONZE



Fig. 441

Polished Each	Chromium Plated Each	Length Inches	Size Plate Inches	Weight Ounces
\$1.75	\$2.75	8	1 1/4 x 1	3

"No-Rope"

Outboard Cable Steerer

POLISHED ALUMINUM—22 DEGREE ANGLE
15 INCH DIAMETER STEEL CORED WHEEL
COLORS — RED OR IVORY

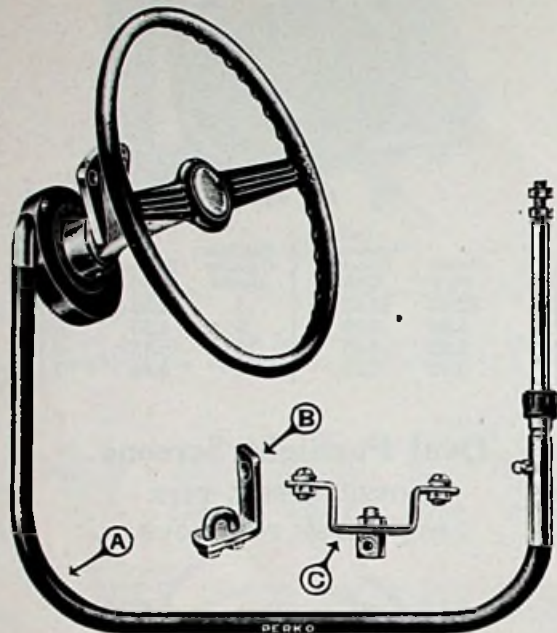


Fig. 548

Turns outboard motor smoothly and effortlessly through heavy duty push-pull cable "A" connected to remote steering control bracket of motor.

Cable has brass sliding member, brass tube, stainless steel interior and is neoprene covered.

Fasten cable under gunwale with cable clamps Figs. 121 or 163.

Motor can be turned by steering arm while cable is attached.

Supplied complete with transom bracket "B" and motor connecting bracket "C". Cable is not included as length depends on size of boat and location of steerer.

Each	Diameter Drum Inches	Length Overall Inches	Length Dash To Center of Wheel Inches	Weight Pounds
\$39.00	4	10	5	7

Flexible Steering Cables

BRASS ROD—BRASS TUBE
STAINLESS STEEL INTERIOR
NEOPRENE COVERED—PUSH-PULL TYPE

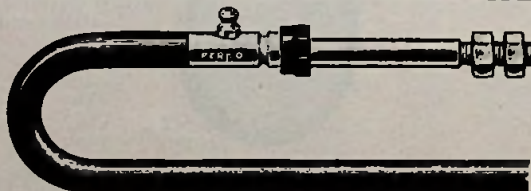


Fig. 536

Length Feet	Each	Length Feet	Each
8	\$20.00	14	\$29.00
10	23.50	16	32.50
12	26.50	18	36.00

Shorter or longer lengths supplied to order, price on application.

Improved Outboard Steerers

POLISHED ALUMINUM
15 INCH DIAMETER STEEL CORED WHEEL
COLORS — RED OR IVORY
DOUBLE SCORED DRUM—FOR TILLER ROPE

DASHBOARD TYPE
FOR OUTBOARD RUNABOUTS

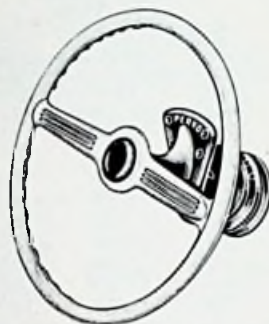


Fig. 549

With 22 degree polished aluminum dash bracket.
Without throttle control.

Specify color when ordering. Ivory shipped if color is not specified.

Each	Diameter Drum Inches	Length Overall Inches	Length Dash To Center of Wheel Inches	Weight Pounds
\$16.50	3 1/2	9 3/4	5	6

RACING TYPE



Fig. 550

With strong aluminum mounting flange in plain finish.

Without throttle control.

Specify color when ordering. Ivory shipped if color is not specified.

Each	Diameter Drum Inches	Diameter Base Inches	Height Overall Inches	Weight Pounds
\$16.00	3 1/2	5 3/4	5 1/4	5 1/2



Nylon Covered Tiller Rope

7x19 STEEL CENTER—VERY FLEXIBLE
MAXIMUM DURABILITY—FOR HARDEST SERVICE



Fig. 760

Nylon plastic is extruded around the steel strands under heat and pressure to form a solid one piece coating, a rope which combines strength, flexibility, durability and corrosion resistance.

The nylon coating cushions the wires against abrasion and protects them against oils, detergents, alkalis and oxidizing acids.

Outside Diameter Inches	Per 100 Feet	Core Diameter Inches	Breaking Strength Pounds	Weight Per 100 ft. Pounds
5/32	\$22.00	3/32	920	1.6
3/16	28.00	3/32	920	3.6
1/4	48.50	1/8	4200	7.5

Supplied only in 250 foot reels

"Polycord" Tiller Rope

Same appearance and construction as Fig. 760 above but with blue transparent polyvinyl plastic covering. High quality.

Fig. 857

Outside Diameter Inches	Per 100 Feet	Core Diameter Inches	Breaking Strength Pounds	Weight Per 100 Ft. Pounds
1 1/64	\$15.00	3/32	920	2.6

Supplied only in 300 foot reels

Braided Tiller Rope

MAHOGANY COLOR—BRONZE WIRE CENTER



Fig. 761

No.	Outside Diam. Inches	Per 100 Feet
6	3/16	\$11.00
8	1/4	14.50
10	5/16	22.50
12	3/8	26.50

NOTE—Size Nos. 6 and 8 only in 500 foot coils.
Larger sizes in 250 foot coils.

Handles and Bolts FOR STEERING WHEELS



Fig. 553

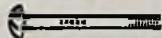


Fig. 554

Handles Only		Galvanized Bolts Only		Bronze Bolts Only	
Length Inches	Each	Size Inches	Each	Size Inches	Each
3	\$.25	3/8 x 3 1/2	\$.25	3/8 x 3 1/4	\$.50
3 1/2	.30	1/16 x 4	.35	1/16 x 4	.60
4	.40			1/16 x 4 1/2	.70

Universal Worm Geared Steerer

CAST BRONZE HOUSING—ALL BRONZE GEARS

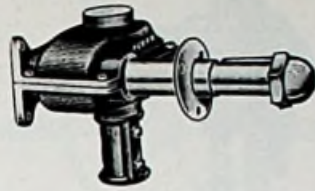


Fig. 524

A completely universal steerer in all respects. Can be operated either right or left hand and wheel shaft may be quickly and easily reversed for wheel box or thru-bulkhead mounting.

For rudder of 4 square foot area.
For 1 inch diameter vertical shaft.

Each	Diam. Wheel Shaft Inches	*Length Wheel Shaft Inches	Length For Hub Inches	Size Bracket Overall Inches	Weight Pounds
\$62.50	1	3	2 1/8	5 x 2 3/4	7 1/2

With chromium plated nut and plate add \$1.00.

*Length between box and wheel.

WITH WHEEL AND FITTINGS
ALL BRONZE
WITHOUT VERTICAL SHAFT

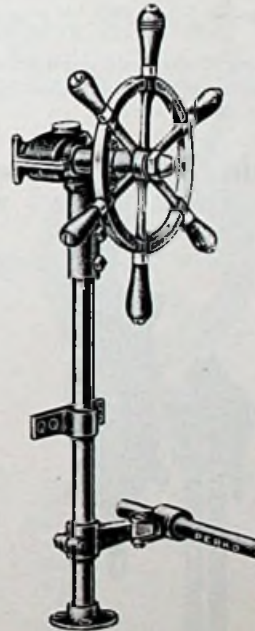


Fig. 820

No.	With Polished Bronze Wheel Each	With Chromium Plated Wheel Each	Diameter Wheel Inches	Weight Pounds
1	\$108.00	\$114.00	16	22
2	113.00	122.00	20	25
3	129.00	138.00	24	29

Wheel used is Fig. 976 sizes 4, 5 or 6.

If preferred with wheel Figs. 657 or 914 add difference in price of wheel only.

Other spare parts see Fig. 865 Part Nos. 1, 5, 6 & 8.



Chain Type Steerers
ALL BRONZE—WITH ROLLER CHAIN
FOR WHEEL BOX MOUNTING

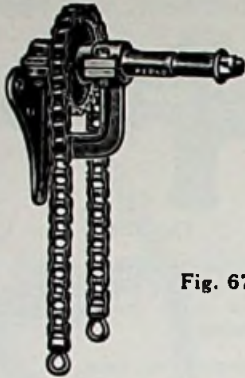


Fig. 678

Sprocket, 4 3/8 inch diameter, 21 teeth.
Chain, 36 inches long, 5/8 inch pitch.
Shaft machined for hub 2 1/2 inches thick.

Wheel End of Shaft Inches	Each	*Length Shaft Inches	Dimensions of Bracket Inches	Weight Pounds
7/8	\$45.00	2 7/8	6x5 1/2	11
1	45.00	2 7/8	6x5 1/2	11 1/2

*Length between bracket and wheel.

With chromium plated nut add \$.75 each.

Chain only, without Shackles, per foot	\$4.75
Chain Shackles, each	.75
Acorn Nuts, each	1.75
Sprocket only, each	5.00

Wheels for above see Figs. 657, 914 and 976, Sizes 4, 5 and 6.

Special machining of shaft, on application.

Supplied with reversed shaft for thru-bulkhead mounting at above prices, please specify.

Chain Type Steerers
WITH INLAID MAHOGANY WHEEL



Fig. 676

Diameter Wheel Inches	Polished Bronze Hub Each	Chromium Plated Hub Each	Wheel End of Shaft Inches
20	\$92.00	\$97.50	7/8
24	98.50	104.00	1
28	112.50	120.00	1

Supplied for wheel box or thru-bulkhead mounting at same price. Supplied as illustrated unless otherwise specified.

Chain Type Steerers
WITH CAST BRONZE WHEEL
POLISHED OR CHROMIUM PLATED

These are our Fig. 678 steerers with Fig. 976 size No. 1, 2 or 3 wheels.



Fig. 674
For Wheel Box Mounting



Fig. 675
For Thru-Bulkhead Mounting

Diameter Wheel Inches	Polished Bronze Each	Chromium Plated Each	Machined Wheel End of Shaft Inches	Diam. Shaft Inches
16	\$62.50	\$69.00	7/8	1
20	68.00	77.50	7/8	1
24	83.00	92.50	1	1

Wheel, shaft and nut only are polished or plated, balance of steerer is plain bronze.

NOTE—Both of the above steerers can be supplied with Fig. 914 wheel. For price, add the difference between Figs. 976 and 914, sizes No. 1, 2 or 3.

Drum Steerers

GALVANIZED CAST IRON OR CAST BRONZE
FOR TILLER ROPE



Fig. 661

Overall Diam. Inches	Galv. Each	Polished Bronze Each	Chromium Plated Each	Size Base Inches	Diam. Drum Inches	Length Drum Inches
12	\$ 8.25	\$12.50	\$16.50	3 3/8 x 3 3/8	2 3/8	3
16	11.25	18.50	24.00	4 x 4	2 5/8	3 3/8
20	19.50	31.00	37.00	5 1/8 x 5 1/8	3 3/8	4 3/8

SPARE PARTS

	12 inch		16 inch		20 inch	
	Galv. Each	Bronze Each	Galv. Each	Bronze Each	Galv. Each	Bronze Each
Posts with Back Plates	\$1.55	\$2.25	\$2.60	\$4.50	\$4.50	\$7.10
Wood Drums	.70	.70	1.30	1.30	3.25	3.25
Acorn Nuts	.25	.80	.45	1.00	.70	1.60
*Wheel Only	3.50	5.00	5.00	8.00	7.50	11.00

*Does not include handles or bolts.



Steering Wheels

CAST BRONZE—WOOD GRIPS
¼ INCH KEYWAY



Fig. 976

With Short Hub for steerers Figs. 674 and 675

No.	Overall Diam. Inches	Polished Bronze Each	Chromium Plated Each	For Shaft Inches	Length Hub Inches	Weight Pounds
1	16	\$17.50	\$23.50	7/8	1	4
2	20	23.00	32.00	7/8	1	6 3/4
3	24	38.00	47.00	1	1 1/4	10 3/4

With Long Hub for Steerers Figs. 524 and 678

No.	Overall Diam. Inches	Polished Bronze Each	Chromium Plated Each	For Shaft Inches	Length Hub Inches	Wt. Lbs.
4	16	\$23.00	\$29.00	3/4, 7/8 or 1	2 1/8	4 1/4
5	20	28.00	37.00	3/4, 7/8 or 1	2 1/8	7 3/4
6	24	44.00	53.00	1	2 1/2	11

Steering Wheels

BRASS—WOOD GRIPS—ROUND SPOKES
¼ INCH KEYWAY



Fig. 914

With Short Hub for steerers Figs. 674 and 675

No.	Overall Diam. Inches	Polished Brass Each	Chromium Plated Each	For Shaft Inches	Length Hub Inches	Weight Pounds
1	16	\$24.00	\$29.00	7/8	1	4 1/4
2	20	28.00	34.00	7/8	1	5 1/4
3	24	34.50	42.00	1	1 1/4	6 3/4

With Long Hub for Steerers Figs. 524 and 678

No.	Overall Diam. Inches	Polished Brass Each	Chromium Plated Each	For Shaft Inches	Length Hub Inches	Wt. Lbs.
4	16	\$27.50	\$32.50	3/4, 7/8 or 1	2 1/8	4 3/4
5	20	33.00	39.00	3/4, 7/8 or 1	2 1/8	6 1/4
6	24	40.00	47.50	1	2 1/2	7

Aluminum Steering Wheel

CAST ALUMINUM—NON MAGNETIC
2 SPOKE TYPE
EMERY FINISH

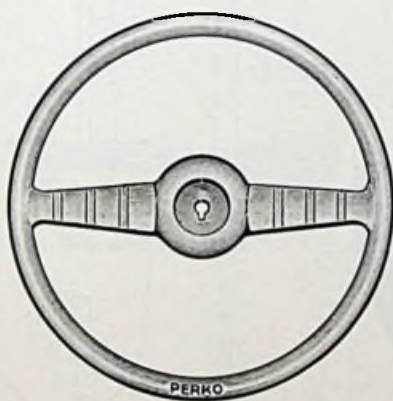


Fig. 539

A modern and attractive design, this wheel made of non-magnetic aluminum will not effect action of compass. An ideal type of wheel for flying bridge steerers.

Hub is not bored or keyseated but is supplied with 1/4-inch pilot hole.

Will accommodate maximum bore of 1 1/4 inches with keyway.

Each	Diameter Inches	O.D. Hub Inches	Weight Pounds
\$24.00	16 1/2	4 1/4	6 1/2

Brass finishing cap for hub of wheel in chromium plated, satin finish, is available, each \$3.00.

Mahogany Steering Wheels

WITH PLUGGED OR INLAID RIM
CAST BRONZE HUB—POLISHED

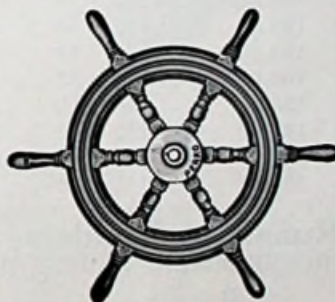


Fig. 657

Diam. Overall Inches	Plugged Each	Inlaid Each	For Shaft Inches	Size Keyway Inches	Thickness of Hub Inches	No. of Spokes
*18	\$37.50	\$42.50	7/8	1/4	2 1/8	6
*20	40.50	47.00	7/8 or 1	1/4	2 1/8	6
*24	48.75	53.50	1	1/4	2 1/8	6
28	61.50	67.50	1	1/4	2 1/8	6
30	67.50	75.00	1	5/16	2 1/8	8
32	81.00	91.00	1 1/4	3/8	2 1/2	8
36	110.00	121.00	1 1/4	3/8	2 1/2	8
42	126.00	138.00	1 1/4	3/8	2 1/2	8
48	141.00	154.00	1 3/8	3/8	3	8
54	177.00	190.00	1 3/8	3/8	3 1/4	8
60	197.00	210.00	1 3/8	3/8	3 1/4	10

*These sizes with chromium plated hub carried in stock, add \$5.50 each.

Larger sizes with chromium plated hub made to order only, add \$7.50 each.

NOTE—Shaft sizes above are stock bores, special boring supplied to order, price on application.

Wheel with inlaid hub supplied unless otherwise specified.

Cruiser Rudders
CAST MANGANESE BRONZE

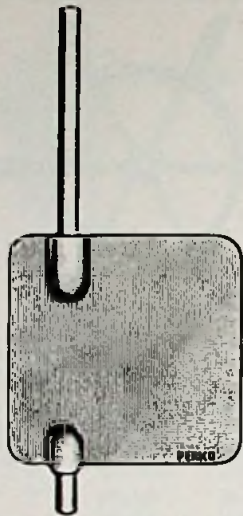


Fig. 816

No.	Blade Size Inches	Each	Blade Thickness Inches	Diam. of Stock Inches	Total Length of Stock Inches	Longer Stocks Per Inch	Weight Pounds
1	12x12	\$44.00	1/4	1	12	.44	15
2	13x13	48.00	1/4	1	12	.44	16
3	14x14	62.00	1/4	1	12	.44	22
4	15x15	73.00	1/4	1	12	.44	25
5	16x16	84.50	1/4	1	12	.44	30
6	18x16	90.00	1/4	1	12	.44	33
7	18x18	94.50	1/4	1	12	.44	35
8	20x18	100.00	1/4	1 1/4	18	.70	37
9	20x20	105.00	1/4	1 1/4	18	.70	40
10	22x18	113.00	1/4	1 1/4	18	.70	43
11	22x20	140.00	3/8	1 1/4	18	.70	56
12	22x22	150.00	3/8	1 1/4	18	.70	61
13	24x20	167.00	3/8	1 1/4	18	.70	69
14	24x22	184.00	3/8	1 1/4	18	.70	77
15	24x24	194.00	3/8	1 1/4	18	.70	83

Runabout Rudders
HARD BRONZE BLADE—BRONZE SHAFT



Fig. 824

Hard Bronze having a composition of 60% copper and 40% zinc has a tensile test of 80,000 pounds, which is higher than that of the best quality brass.

Length of shaft above blade is 12 inches. Special lengths to order, price on application.

No.	Each	Width of Blade		Height of Blade	Thickness of Blade	Diam. Shaft
		Top Inches	Bottom Inches	Inches	Inches	Inches
1	\$17.50	8	7	7	1/8	3/4
2	26.50	9	8	8	3/16	1

Weight No. 1, 4 pounds; No. 2, 7 1/4 pounds.

Speed Boat Rudders
CAST MANGANESE BRONZE

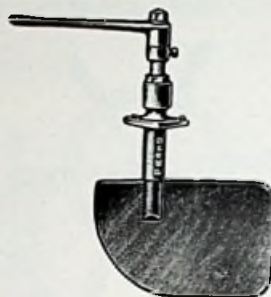


Fig. 813

Furnished complete with tiller, collar, nut, rudder port and machined stock. Standard length stock above blade 12 inches.

No.	Complete Each	Rudder Only Each	Blade Size Inches	Diam. Stock Inches	Length Tiller Inches	Weight Rudder Only Pounds
1	\$62.00	\$32.00	9x14	1	12	12
2	78.00	45.00	10x16	1	12	14
3	106.00	57.00	11x18	1 1/8	14	22
4	127.00	65.00	12x20	1 1/4	16	26

With stock longer than standard, price on application. "Rudder Only" supplied without machined stock. With machined stock, price on application.

Hyspeed Rudder and Stock
CAST MANGANESE BRONZE

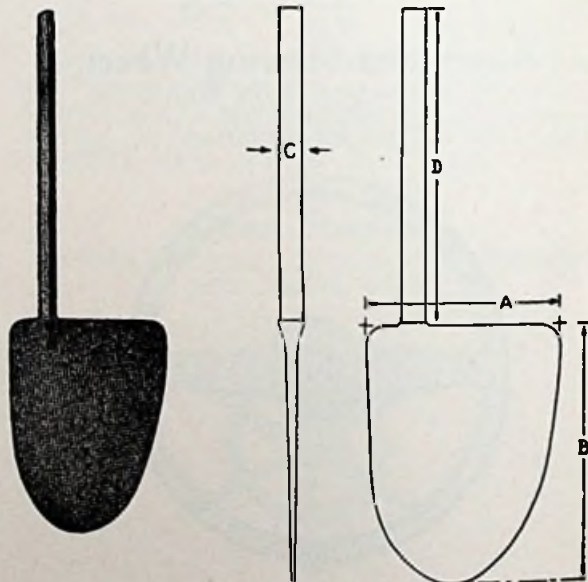


Fig. 818

Constructed in perfectly balanced proportion. Designed for express cruisers, runabouts, speedboats and all boats not carrying a skag.

No.	Each	Longer Stock Add per Inch	Dimensions Inches				Weight Pounds
			A	B	C	D	
1	\$38.00	\$.44	9	12	1	16	12
2	46.50	.52	10 1/2	14	1 1/8	18	17
3	64.25	.70	12	16	1 1/4	18	20
4	90.00	.78	13 1/2	18	1 3/8	24	30
5	116.00	.86	15	20	1 1/2	24	40
6	189.00	1.15	16 1/2	22	1 3/4	30	69
7	227.00	1.45	18	24	2	36	84
8	298.00	1.70	20	26	2 1/4	40	120
9	527.00	1.95	24	30	2 1/2	48	225



Galvanized Rudders
GALVANIZED FORGED STEEL



Fig. 647

Size No.	Galv. Each	Size Plate Inches	Square End of Post Inches	Length Rudder Post Inches	Diam. Rudder Post Inches	Weight Pounds
00	\$ 6.50	6x8x $\frac{1}{16}$	$\frac{5}{8}$	25	$\frac{3}{4}$	3
0	12.50	12x12x $\frac{1}{8}$	$\frac{5}{8}$	40	$\frac{3}{4}$	11
1	15.00	14x14x $\frac{1}{8}$	$\frac{5}{8}$	42	$\frac{3}{4}$	13
2	23.00	16x16x $\frac{3}{16}$	$\frac{3}{4}$	48	1	25
3	32.50	18x18x $\frac{1}{4}$	$\frac{3}{4}$	52	1	35

Rudder Skags

DROP FORGED STEEL OR BRONZE



Fig. 649

Size No.	Galv. Each	Plain Bronze Each	Dimensions Inches	For Rudder Post Inches	Weight Pounds
0	\$ 5.00	\$ 9.75	24x1 $\frac{1}{2}$ x $\frac{3}{8}$	$\frac{3}{4}$	4 $\frac{1}{2}$
1	7.00	15.50	30x1 $\frac{3}{4}$ x $\frac{1}{2}$	$\frac{3}{4}$	9
2	13.50	29.00	42x2 x $\frac{1}{2}$	1	17

Straight Tillers

GALVANIZED MALLEABLE IRON OR BRONZE

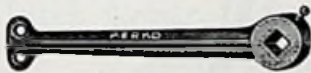


Fig. 650

With square hole and set screw for Fig. 647 rudder.

Length Inches	Galv. Each	Plain Bronze Each	Size of Square Hole Inches	Weight (Iron) Pounds
8	\$ 3.00	\$ 5.30	$\frac{5}{8}$ x $\frac{5}{8}$	1
10	3.40	5.85	$\frac{3}{4}$ x $\frac{3}{4}$	1 $\frac{3}{4}$
12	5.10	6.35	$\frac{3}{4}$ x $\frac{3}{4}$	2 $\frac{1}{2}$
15	6.50	11.50	$\frac{7}{8}$ x $\frac{7}{8}$	3 $\frac{1}{2}$

Bronze Tillers

CAST BRONZE

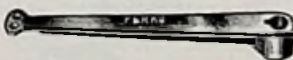


Fig. 810

For round stock rudders Figs. 813, 816, 818.

No.	Each	Length Inches	For Rudder Stock Inches	Size Keyway Inches	Weight Pounds
1	\$ 7.00	8	$\frac{3}{4}$ or 1	$\frac{3}{16}$ or $\frac{1}{4}$	1 $\frac{1}{2}$
2	8.25	10	1	$\frac{1}{4}$	2
3	9.60	12	1	$\frac{1}{4}$	3 $\frac{1}{4}$
4	22.00	14	1 $\frac{1}{8}$	$\frac{1}{4}$	4 $\frac{1}{2}$
5	29.75	16	1 $\frac{1}{4}$	$\frac{5}{16}$	7

Note—Size No. 1, please specify size of rudder stock.

Rudder Ports with Stuffing Box
CAST BRONZE—PLAIN

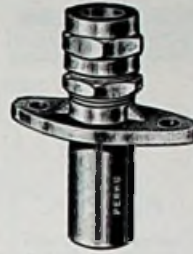


Fig. 1089

Eliminates leakage at rudder post entrance through the hull.

Bronze bearing is full length of casting. Assures smooth action with minimum wear.

Size Inches	Each	Size Flange Inches	Length Bearing Inches	Drilled for Fastening Inches	Weight Pounds
$\frac{3}{4}$	\$ 10.00	4 x2	5 $\frac{1}{8}$	$\frac{5}{16}$	3
$\frac{7}{8}$	10.50	4 $\frac{1}{4}$ x2 $\frac{1}{4}$	5 $\frac{3}{8}$	$\frac{3}{8}$	3 $\frac{1}{2}$
1	10.75	4 $\frac{1}{4}$ x2 $\frac{1}{2}$	5 $\frac{3}{4}$	$\frac{3}{8}$	3 $\frac{1}{2}$
1 $\frac{1}{8}$	11.80	5 x2 $\frac{3}{8}$	5 $\frac{3}{4}$	$\frac{1}{2}$	3 $\frac{3}{4}$
1 $\frac{1}{4}$	13.20	5 $\frac{3}{4}$ x3	6 $\frac{3}{8}$	$\frac{1}{2}$	5 $\frac{1}{2}$
1 $\frac{3}{8}$	15.40	6 $\frac{1}{4}$ x3 $\frac{1}{4}$	6 $\frac{3}{4}$	$\frac{1}{2}$	6 $\frac{1}{2}$
1 $\frac{1}{2}$	17.00	6 $\frac{1}{2}$ x3 $\frac{1}{2}$	6 $\frac{3}{4}$	$\frac{1}{2}$	6 $\frac{3}{4}$

Bronze Rudder Collars



Fig. 815

For Diam. Stock Inches	Each	Outside Diameter Inches	Thickness Inches	Weight Ounces
$\frac{3}{4}$	\$1.80	1 $\frac{1}{8}$	$\frac{13}{16}$	2 $\frac{1}{4}$
$\frac{7}{8}$	2.25	1 $\frac{1}{4}$	$\frac{7}{8}$	4
1	2.40	1 $\frac{3}{4}$	$\frac{15}{16}$	7
1 $\frac{1}{8}$	2.40	1 $\frac{3}{4}$	$\frac{15}{16}$	6 $\frac{1}{2}$
1 $\frac{1}{4}$	3.40	2 $\frac{1}{8}$	$\frac{15}{16}$	11
1 $\frac{3}{8}$	4.25	2 $\frac{1}{2}$	1 $\frac{1}{8}$	19
1 $\frac{1}{2}$	4.50	2 $\frac{1}{2}$	1 $\frac{1}{8}$	19

Quadrant Tillers

GALVANIZED MALLEABLE IRON



Fig. 651

Radius Inches	Galv. Each	Max. Diam. Rope Inches	Square Hole Adjustable Inches	Weight Pounds
7	\$ 6.30	$\frac{3}{8}$	$\frac{9}{16}$ to $\frac{3}{4}$	3
10	14.50	$\frac{3}{8}$	$\frac{9}{16}$ to 1	5 $\frac{1}{4}$
12	17.75	$\frac{3}{8}$	$\frac{3}{4}$ to 1 $\frac{1}{4}$	8 $\frac{1}{2}$
15	35.00	$\frac{1}{2}$	$\frac{3}{4}$ to 1 $\frac{3}{4}$	13
18	44.00	$\frac{5}{8}$	1 to 1 $\frac{3}{4}$	27
24	79.00	$\frac{3}{4}$	1 $\frac{1}{2}$ to 1 $\frac{3}{4}$	46

Rudder Brace Pintles

CAST BRONZE

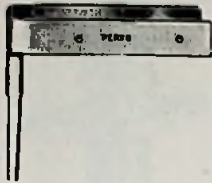


Fig. 1071

Size No.	Burnished Each	Between Straps Inches	Length Straps Inches	Width Straps Inches	Weight Ounces
00	\$.85	5/8	2 7/8	3/4	8
0	.90	3/4	3 1/2	7/8	9
1	1.35	7/8	4 1/4	7/8	10
2	1.65	1	4 1/2	1	11
3	2.20	1 1/4	4 3/4	1	13
4	3.30	1 1/2	5 1/2	1 1/4	22

Sizes No. 00 to No. 1 inclusive have machined straight shank. Larger sizes have tapered shank.

Rudder Brace Gudgeons

CAST BRONZE STRAP TYPE



Fig. 1070

Size No.	Burnished Each	Between Straps Inches	Length Straps Inches	I. D. Hole Minimum Inches	Weight Ounces
00	\$.65	5/8	2	1/2	4
0	.75	3/4	2 1/2	1/2	5
1	.90	7/8	3	1/2	6 1/2
2	1.35	1	3	9/16	7
3	1.65	1 1/4	3 1/4	5/8	8
4	2.00	1 1/2	3 3/4	3/4	15

NARROW PLATE TYPE



Fig. 1072

Size No.	Burnished Each	Length Plate Inches	Width Plate Inches	I. D. Hole Minimum Inches	Weight Ounces
00	\$.70	2	1	1/2	2 1/2
0	.80	2	1	1/2	2 1/2
1	.90	2 1/4	1 1/8	1/2	4

WIDE PLATE TYPE



Fig. 1073

Size No.	Burnished Each	Length Plate Inches	Width Plate Inches	I. D. Hole Minimum Inches	Weight Ounces
00	\$.70	3 1/2	7/8	1/2	3
0	.75	3 1/2	7/8	1/2	3
1	.90	3 3/8	7/8	1/2	4
2	1.15	4 1/8	1	5/8	6
3	1.40	4 3/8	1 1/8	5/8	8
4	1.70	4 3/8	1 1/4	11/16	9

Rudder Brace Gudgeons

CAST BRONZE SCREW TYPE

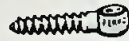


Fig. 1074

Size No.	Burnished Each	Diam. Shank Inches	I. D. Hole Minimum Inches	Weight Ounces
00	\$.25	3/8	1/2	1
0	.35	3/8	1/2	1 1/2
1	.45	7/16	1/2	2

Reverse Gear Controls

CAST BRONZE

A good substantial handle which will not bend under side leverage, special hard government bronze. Handle is removable and a flush plate is furnished to fit opening in deck flange.



Fig. 720

Furnished with two sockets threaded for 3/4 inch rod. Deck flange is 5x2 3/4 inches. Length of throw is 8 1/2 inches.

Polished Bronze Each	Chromium Plated Each	Length Handle Inches	Length Lever Inches
\$37.00	\$49.00	25	8

Reverse Gear Controls

CAST BRONZE



Fig. 278

An ideal control for light installations, such as runabouts, small cruisers, etc. Clevis supplied for 1/2-inch pipe.

Polished Bronze Per Set	Chromium Plated Per Set	Length Overall Inches	Length Handle Inches	Size Base Inches	Weight Pounds
\$14.75	\$18.75	20	16	4 3/4 x 2 1/2	3 1/2

Spare clevises, see Fig. 865 Part No. 2



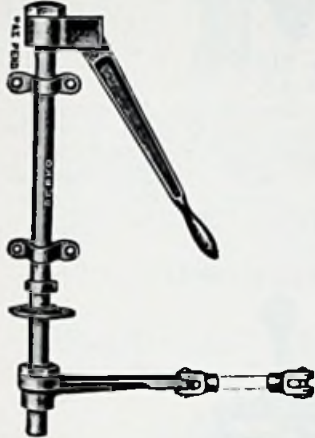
Reverse Gear Controls

HEAVY CAST BRONZE—POLISHED
FOR 1 INCH OR 1 1/2 INCH SHAFT

NO MACHINING OF SHAFT—NO EXTRA EXPENSE

The main feature of "Perko" controls is that it is unnecessary to have shaft machined, such as threading, key seating or drilling.

A mechanically perfect wedging device is incorporated in both upper and lower lever. When installing it is only necessary to insert tapered bushing "B" around shaft and tighten nut "A" and an absolutely fast grip on the shaft is obtained, at no extra expense for machining, and very little labor.



Interior view of tapered fastening device.

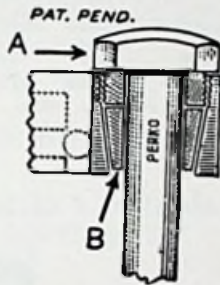


Fig. 663

Length Handle Inches	Length Lower Lever Inches	Sockets Threaded for Rod Inches	Bulkhead to Center of Shaft Inches	Weight Without Shaft Pounds
18	10	3/4	2	15 1/4

Fittings complete—except shaft\$47.50
Handle complete with tapered bushing and nut 23.75
Lever complete with tapered bushing and nut 19.00
Chromium plated, add 25% to above prices.

Do not fail to specify size of shaft when ordering; parts for 1 1/2 inch shaft supplied unless otherwise specified.

Clutch Control Handles

CAST BRONZE—FOR 1 INCH SHAFT

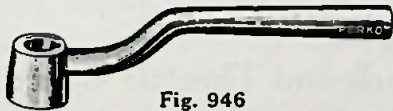


Fig. 946

Used with Fig. 822 clutch control

Length from Center of Bore Inches	Polished Bronze Each	Chromium Plated Each	Weight Pounds
8	\$ 9.50	\$13.00	1 1/4
10	10.50	14.00	2
12	12.25	16.25	2 1/4

Clutch Control Handles for Dual Control

CAST BRONZE—FOR 1 INCH SHAFT

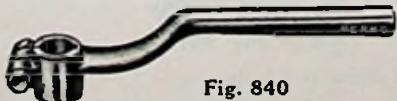


Fig. 840

Bored straight through for 1-inch shaft. Has 1/4-inch keyway and tightening bolt.

Polished Bronze Each	Chromium Plated Each	Length from Center of Bore Inches	Weight Pounds
\$12.25	\$15.75	10	2

Reverse Gear Controls

HEAVY CAST BRONZE—POLISHED
FOR 1 INCH OR 1 1/2 INCH SHAFT

Same tapered bushing device as Fig. 663 in upper and lower levers, no machining of shaft necessary.

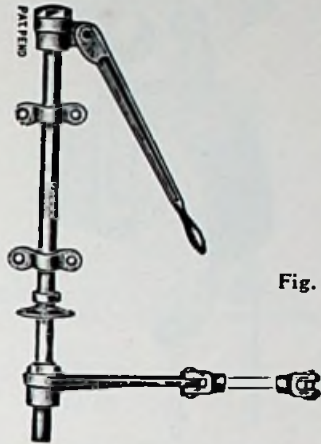


Fig. 664

Length Handle Inches	Length Lower Lever Inches	Sockets Threaded For Rod Inches	Bulkhead to Center of Shaft Inches	Weight Without Shaft Pounds
18	10	3/4	2	13 1/4

Fittings complete—except shaft\$38.00
Handle complete with tapered bushing and nut 19.50
Lever complete with tapered bushing and nut 19.00
Chromium plated, add 25% to above price.
Specify size of shaft when ordering; parts for 1 inch shaft supplied unless otherwise specified.

Clutch Controls

CAST BRONZE—FOR 1 INCH SHAFT

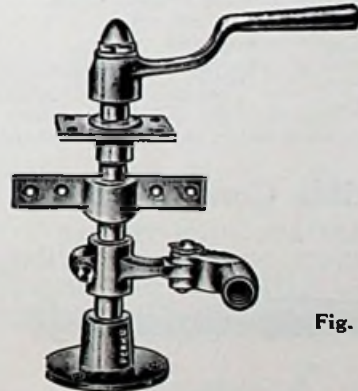


Fig. 822

Supplied with bulkhead bracket or shelf plate (please specify). Shaft is not included.

With 8" Handle	With 10" Handle	With 12" Handle
Polished Chromium Plated Per Set	Polished Chromium Plated Per Set	Polished Chromium Plated Per Set
\$32.00	\$40.00	\$35.00
Chromium Plated Per Set	Chromium Plated Per Set	Chromium Plated Per Set
\$33.50	\$41.50	\$43.50

SPARE PARTS

	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
Acorn Nut		\$2.25	\$2.75
Shelf Plate, Fig. 865 No. 9		5.00	7.00
Bulkhead Bracket, Fig. 865 No. 6		5.30	7.30
Lever, Fig. 865 No. 3		\$6.75	
Clevis, Fig. 865 No. 4		5.50	
Lower Bearing, Fig. 865 No. 11		4.50	
Note—Spare parts for Figs. 663 and 664, see Fig. 865, Nos. 2, 7, 10 and 12.			

"Perkomatic" Controls

FOR THROTTLE AND CLUTCH
CAST BRONZE—CHROMIUM PLATED
HEAVY DUTY

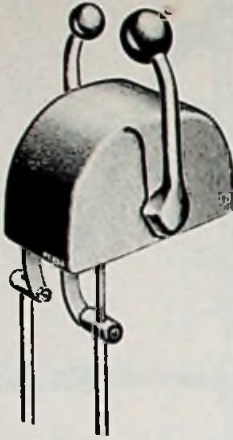


Fig. 698

Designed for easy operation and positive control of inboard engine throttles and hydraulic clutches.

The operation is smooth and effortless. The mechanism is simple and free of unnecessary gadgets.

The control with large knob for clutch, with small knob for throttle. The tension on both handles is adjustable to suit individual needs.

For push or pull operation and for use with the high quality modern control cable illustrated below.

The price does not include control cable.

Each	Length Housing Inches	Width Housing Inches	Height Overall Inches	Weight Pounds
\$34.00	5 3/4	3 1/4	6	5

Flexible Control Cables

BRASS ROD—1/4-28 THREAD
BRASS TUBES—NEOPRENE COVERING



Fig. 699

For push-pull operation, these cables are solid as a rod but flexible as a wire rope.

Diameter rod, 1/4 inch; Outside diameter tubes, 3/8 inch.

Length Feet	Each	Length Feet	Each
8	\$13.00	14	\$18.50
10	14.75	16	20.50
12	16.75	18	22.00

Shorter or longer lengths supplied to order. Price on application.

Throttle Controls

RATCHET TYPE—CAST BRONZE
FOR BOWDEN WIRE



Fig. 715

Knob is black bakelite.

Length of throw, 3 inches.

Burnished Bronze Each	Polished Bronze Each	Chromium Plated Each	Length Plate Inches	Width Plate Inches	Weight Pounds
\$11.25	\$14.25	\$16.25	6	2 3/8	2

FOR CONTROL ROD



Fig. 716

Knob is black bakelite.

Length of throw, 3 inches.

Rod socket is for 1/4, 5/16 or 3/8 inch rod.

Burnished Bronze Each	Polished Bronze Each	Chromium Plated Each	Length Plate Inches	Width Plate Inches	Weight Pounds
\$11.25	\$14.25	\$16.25	6	2 3/8	2

Supplied for 1/4 inch rod unless otherwise specified.

Spark and Throttle Control

RATCHET TYPE—FOR CONTROL ROD
CAST BRONZE

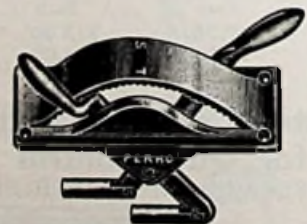


Fig. 331

Length of throw is 3 inches.

Rod sockets are for 1/4, 5/16 or 3/8 inch rod.

Polished Bronze Each	Chromium Plated Each	Length Plate Inches	Width Plate Inches	Weight Pounds
\$15.25	\$17.75	6	2 1/2	2 3/4

Supplied for 5/16 inch rod unless otherwise specified.



"Sea-Way" Throttle Controls

RATCHET TYPE—FOR 3/8 INCH ROD
CAST BRONZE

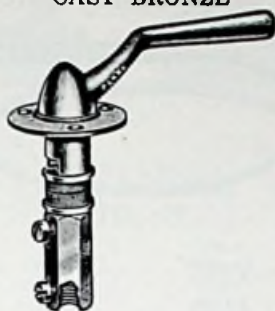


Fig. 847

A powerful control with a man sized handle. For mounting on top of wheel box or shelf.
A spring type ratchet inside handle hub holds control at desired position.

Polished Bronze Each	Chromium Plated Each	Length Handle Inches	For Rod Diam. Inches	Diam. Flange Inches	Weight Pounds
\$9.50	\$11.00	4 1/2	3/8	2 5/8	1

Throttle Controls

RATCHET TYPE—CAST BRONZE
FOR CONTROL ROD OR BOWDEN WIRE

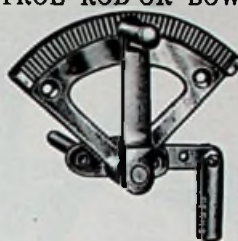


Fig. 690—For Rod
Fig. 690-A—For Wire

For bulkhead up to 2 inches thick.
Length of throw, 3 inches.
Rod socket is for 1/4, 5/16 or 3/8 inch rod.
Supplied for 1/4 inch rod unless otherwise specified.

Polished Bronze Each	Chromium Plated Each	Size Frame Inches	Weight Pounds
\$6.00	\$8.00	4 1/4 x 3 1/2	3/8

"Sea-Prince" Throttle Controls

RATCHET TYPE—FOR CONTROL ROD
CAST BRONZE



Fig. 848

Same design and ability as the Sea-Way Control above but fitted with lever arm and socket for mounting on side of wheel box or bulkhead.

Length of throw is 5 inches.
Rod socket is for 1/4, 5/16 or 3/8 inch rod.

Polished Bronze Each	Chromium Plated Each	Length Handle Inches	Length Lever Arm Inches	Diam. Flange Inches	Weight Pounds
\$10.50	\$12.00	4 1/2	3 1/2	2 5/8	1

Supplied for 5/16 inch rod unless otherwise specified.

Spark and Throttle Controls

RATCHET TYPE—CAST BRONZE
FOR CONTROL ROD OR BOWDEN WIRE



Fig. 691—For Rod
Fig. 691A—For Wire

For bulkhead up to 2 inches thick.
Length of throw, 3 inches.
Rod sockets are for 1/4, 5/16 or 3/8 inch rod.
Supplied for 1/4 inch rod unless otherwise specified.

Polished Bronze Each	Chromium Plated Each	Size Frame Inches	Weight Pounds
\$10.50	\$13.50	6x3	1 3/4

Spark and Throttle Controls

RATCHET TYPE—FOR CONTROL WIRE
CAST BRONZE

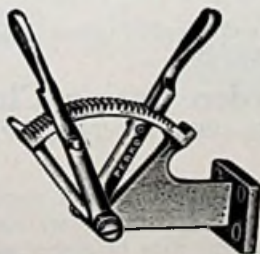


Fig. 409

Length of throw is 3 inches.

	Polished Bronze Each	Chromium Plated Each	Length Arc Inches	Extreme Projection Inches	Mounting Plate Inches	Weight Pounds
Single	\$ 7.60	\$10.00	2 5/8	5	1 3/8 x 1 3/8	3/4
Double	10.50	13.25	2 5/8	5	1 7/8 x 1 3/8	1

Spark and Throttle Controls

RATCHET TYPE—FOR CONTROL ROD
CAST BRONZE—ADJUSTABLE



Fig. 904

Sockets are for 1/4, 5/16 or 3/8 inch rod.
Length of throw is 2 3/4 inches.

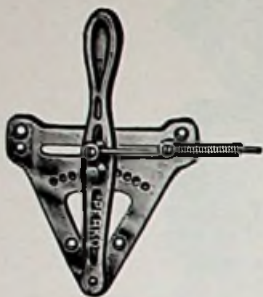
	Polished Bronze Each	Chromium Plated Each	Dimensions of Base Inches	Dimensions of Frame Inches	Weight Ounces
Single	\$5.25	\$7.25	2 x 7/8	4 1/2 x 3 3/4	10
Double	6.75	9.75	2 x 7/8	4 1/2 x 3 3/4	13

Supplied for 1/4 inch rod unless otherwise specified.

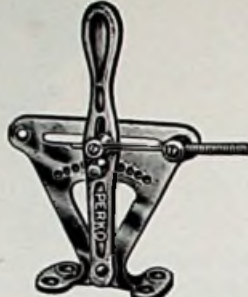


Improved Throttle Controls

RATCHET TYPE—FOR CONTROL WIRE
FORGED BRONZE



Side Mounting
Fig. 350



Floor Mounting
Fig. 351

The spring type ratchet holds the control at the speed desired, non slip.

Fig.	Dull Bronze Each	Polished Bronze Each	Chromium Plated Each	Size Frame Inches	Height Overall Inches	Weight Ounces
350	\$3.00	\$4.50	\$5.50	4 1/2 x 4	6 1/2	12
351	3.25	5.00	6.00	4 1/2 x 3 3/4	6 1/2	13

Control Cranks

BURNISHED CAST BRONZE—FOR CONTROL ROD



Side Type
Fig. 636



Upright Type
Fig. 637

Length Arms Inches	Height Overall Inches	Size Base Inches	Weight Single Ounces	Weight Double Ounces
2	2 3/8	2 1/4 x 3/8	5	7
For Rod Inches	Single Complete Each	Double Complete Each	Cranks Only Each	Brackets Only Each
1/4	\$1.75	\$2.90	\$.60	\$.65
5/16	1.85	3.00	.60	.65
3/8	2.00	3.15	.60	.65

Supplied for 1/4 inch rod unless otherwise specified.

Control Levers

PLAIN BRASS



Fig. 354

No.	Each	Length Overall Inches	For Shaft Inches	For Clevis Pin Inches	Weight Ounces
1	\$.90	2 3/8	5/16	5/32	1 1/4
2	1.35	3 3/8	5/16	5/32	1 1/2

Size No. 1 is used on controls Figs. 690, 690-A, 691, and 691-A.

Size No. 2 is used on control Fig. 848.

Dashboard Choke Controls

BRASS CHROMIUM PLATED HANDLE
WITH BRASS CASING AND WIRE



Fig. 371

5 Ft. Lengths Per Set	7 Ft. Lengths Per Set	10 Ft. Lengths Per Set	15 Ft. Lengths Per Set
\$4.20	\$4.90	\$5.80	\$7.50

Bowden Wire and Casing

BRASS

1/4 INCH O.D. CASING—LEFT HAND LAY
WIRE DIAMETER .072 INCHES



Fig. 353

Stock Lengths in Feet	Complete	Casing Only	Wire Only
5	\$ 1.85	\$ 1.60	\$.25
7	2.75	2.40	.35
10	3.60	3.10	.50
15	5.40	4.80	.60
25	8.00	7.00	1.00
50	16.00	14.00	2.00

Improved Control Wire Handles

FOR CASING WITH RIGHT OR LEFT HAND LAY
ALL BRASS—CHROMIUM PLATED



Fig. 692

Control wire and casing can be easily attached. No soldering necessary, wire held by set screw in knob. Casing threaded into tube. For use on a dash or bulk-head up to 2 inches thick.

Each	Length Overall Closed Inches	Outside Diam. Stem Inches	Weight Ounces
\$2.40	4 1/2	3/8	3

Left hand thread supplied unless otherwise specified.

Bowden Casing Clamp

BRASS—SWIVEL TYPE—PLAIN



Fig. 352

Will hold control casing firmly while swivel feature allows smooth sliding of control wire in casing at any angle.

Each	Size Base Inches	Weight Ounces
\$.75	2 1/4 x 1	3



Control Rod Sockets PLAIN BRASS

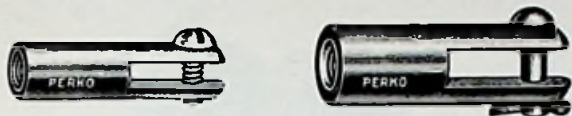


Fig. 328

Fig. 295

Standard Fig. 328

No.	Each	Tapped For Rod Inches	Outside Diam. Inches	Overall Length Inches	Between Jaws Inches	Length Jaws Inches
1	\$.40	1/4-20	3/8	1 5/8	3/10	5/8
2	.40	3/16-18	7/16	1 5/8	3/16	9/16
3	.45	3/8-16	1/2	1 5/8	1/4	3/4

Heavy Duty Fig. 295

4	.50	1/4-20	1/2	1 3/8	1/4	3/4
4-A	.60	1/4-28	1/2	1 3/4	1/4	3/4
5	.60	3/16-18	1/2	1 3/4	1/4	3/4
6	.60	3/8-16	1/2	1 7/8	1/4	1 1/16

Length jaws measured to center of pin

Control Rod Sockets EXTRA HEAVY TYPE—BRASS—PLAIN



Fig. 298

Made from 1/2 inch square brass rod.

No.	Each	Tapped For Rod Inches	Outside Diam. Inches	Overall Length Inches	Between Jaws Inches	Length Jaws Inches
7	\$.60	1/4-20	7/16	1 3/8	1/4	7/16
8	.60	3/16-18	7/16	1 7/16	1/4	7/16

Length jaws measured to center of pin

Control Wire Sockets PLAIN BRASS

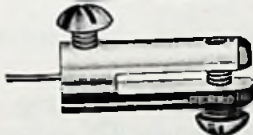


Fig. 679

Complete with brass cotter pin and brass set screws.

Each	Length Inches	Diameter Inches	Between Jaws Inches	Length Jaws Inches	Weight Ounces
\$.40	1	3/8	1/8	1/2	1/2

Length jaws measured to center of screw.

Brass Ball Joints

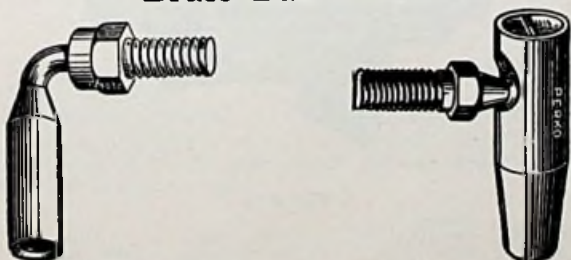


Fig. 792

Fig. 793

Fig. 793 is adjustable for wear. Spring tension around ball with screw for adjusting.

No.	Fig. 792 Each	Fig. 793 Each	Thread Inches	Length Thread Inches	O. D. Female End Inches	Weight Ounces
1	\$.45	\$.65	1/4-20	1/2	7/16	1/2
2	.55	.75	3/16-18	1/2	7/16	1
3	.55	.75	1/4-28	1/2	7/16	1/2

Steerer and Control Parts CAST BRONZE



1. Lever

2. Clevis

3. Lever

4. Elbow Clevis

5. Angle Clevis

6. Bulkhead Bracket

7. Bulkhead Bracket

8. Lower Bearing

PERKO



9. Shelf Plate



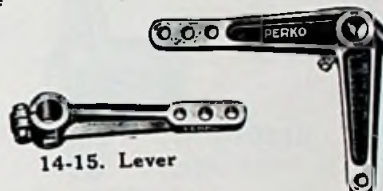
10. Deck Plate



11. Lower Bearing



12. Collar



14-15. Lever

13. Angle Lever

Fig. 865

No.	Each	Length Overall Inches	Length Center of Bore Inches	Tapped for Rod Inches	Tapped for Pipe Inches	Bored for Shaft Inches	Weight Pounds
1	\$8.25	8	6			1	1 1/8
2	2.75	2 3/4		3/4	1/2		3/4
*2A	3.50	4		1	3/4		1 1/4
3	6.75	4 1/2	2 3/4			1	1 1/4
4	5.50	3 1/2		1	3/4		1 1/4
5	4.00	3	1 3/4	1	3/4		3/4
13	9.35	**	**			1	1 7/8
†14	7.00	8	5-6			3/4	1
‡15	8.00	9	5-6-7			1	1 3/4

No.	Each	Length Overall Inches	Width Overall Inches	Outside Diam. Inches	Bored for Shaft Inches	To Center of Bore Inches	Weight Pounds
6	\$5.30	7	1		1	1 1/8	1/2
7	5.30	4 1/2	1		1 or 1 1/8	2	3/4
8	5.00			3 3/4	1		3/8
9	5.00	4	3 1/4		1		1 1/8
10	5.00			4	1 or 1 1/8		1/2
11	4.50			4	1		1
12	2.25			1 1/8	1 or 1 1/8		1/4

*Same style as No. 2.

**Short arm 6 inch centers. Long arm, 6, 7 and 8 inch centers.

†Has two holes with 5 and 6 inch centers.

‡Has three holes with 5, 6 and 7 inch centers.

Item Nos. 6, 7, 9, 10 and 12 are polished. For chromium plated finish add 30% to above prices. All others are in burnished finish.

Item Nos. 1, 2, 3, 4, 5, 13, 14, 15 are bored for 1/2 inch bolt. Item No. 1 has 1/4 inch keyway.

Item Nos. 2, 2A, 4 and 5 have 1/2 inch jaws.

Item No. 11 is 2 1/2 inches high.

Note — When ordering Items 2, 2A, 4 and 5 specify whether tapped for rod or pipe.

Stuffing Boxes
CAST BRONZE—REGULAR



Fig. 320

Shaft Size Inches	Each	Size Flange Inches	For Diam. Bolt Inches	C. to C. Bolt Holes Inches	Length Bearing Inches	Weight Pounds
5/8	\$4.75	3 3/8 x 1 3/4	3/16	2 3/8	2 1/8	1 1/8
3/4	4.85	4 x 1 3/4	3/8	2 3/8	2 1/8	1 1/8
7/8	5.10	4 1/8 x 1 7/8	7/16	3	2 5/8	1 1/2
1	6.10	4 1/4 x 2 1/8	7/16	3	2 5/8	1 3/4
1 1/8	6.90	4 7/8 x 2 1/8	1/2	3 3/8	2 7/8	2 1/4
1 1/4	8.20	5 3/4 x 2 3/8	1/2	4 5/16	2 7/8	3
1 3/8	9.50	6 1/4 x 3	1/2	4 3/4	3	3 1/4
1 1/2	10.75	6 1/2 x 3	3/4	5	3	3 1/2
1 3/4	16.50	7 x 3 3/4	3/4	5 1/2	4	5 3/4

Extra Heavy Stuffing Boxes
RECTANGULAR FLANGE—CAST BRONZE

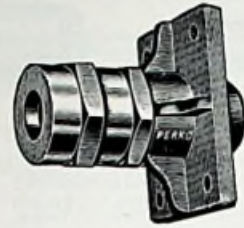


Fig. 819

Shaft Size Inches	Each	Size Flange Inches	For Diam. Bolt Inches	C. to C. Bolt Holes Inches	Length Bearing Inches	Weight Pounds
1	\$13.25	5 x 3	1/2	3 3/4 x 1 3/4	4	5 1/2
1 1/8	14.50	5 1/2 x 3 3/8	1/2	4 1/4 x 2 3/4	4 1/4	6 1/2
1 1/4	17.50	5 3/8 x 3 5/8	1/2	4 3/8 x 2 3/4	4 3/4	7
1 3/8	20.00	6 x 4	1/2	4 7/16 x 2 1/2	5	9
1 1/2	23.00	6 x 4 3/8	1/2	4 1/2 x 3	5 1/2	10
1 3/4	29.00	6 1/2 x 4 1/2	5/8	5 1/8 x 3 1/4	7	13 1/2
2	34.50	7 3/4 x 5	5/8	5 7/8 x 3 3/8	7 3/8	15 1/2

Stern Bearings
CAST BRONZE—REGULAR



Fig. 321

Shaft Size Inches	Each	Size Flange Inches	For Diam. Bolt Inches	C. to C. Bolt Holes Inches	Length Bearing Inches	Weight Pounds
5/8	\$2.50	3 3/8 x 1 3/4	3/16	2 3/8	2 1/8	3/4
3/4	2.75	4 x 1 3/4	3/8	2 3/8	2 1/8	3/4
7/8	3.00	4 1/8 x 1 7/8	7/16	3	2 5/8	1
1	3.50	4 1/4 x 2 1/8	7/16	3	2 5/8	1 1/4
1 1/8	4.25	4 7/8 x 2 1/8	1/2	3 3/8	2 7/8	1 1/2
1 1/4	5.25	5 3/4 x 2 3/8	1/2	4 5/16	2 7/8	2
1 3/8	6.60	6 1/4 x 3	1/2	4 3/4	3	2 1/4
1 1/2	7.15	6 1/2 x 3	3/4	5	3	2 1/2
1 3/4	9.75	7 x 3 3/4	3/4	5 1/2	4	3 3/4

Extra Heavy Stern Bearings
RECTANGULAR FLANGE—CAST BRONZE



Fig. 906

For Diam. Shaft Inches	Plain Each	Weight Pounds
1	\$ 8.25	4
1 1/8	9.00	5
1 1/4	11.00	5 1/2
1 3/8	13.20	6 3/4
1 1/2	14.40	8
1 3/4	21.50	10 1/2
2	27.00	12

All other dimensions same as Fig. 819 above.

Flax Packed Stuffing Boxes and Stern Bearings
WITH RECTANGULAR FLANGE

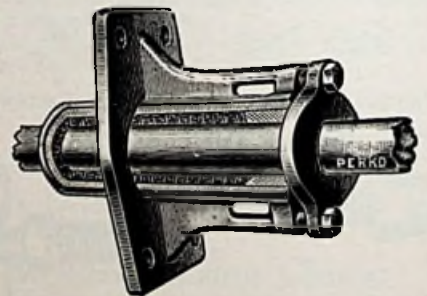


Fig. 811

Shaft Size Inches	Each	Size Flange Inches	Length Bearing Inches
1	\$16.50	5 3/4 x 3	5 1/4
1 1/8	20.50	6 x 3	5 1/2
1 1/4	24.25	6 3/4 x 3 1/2	5 3/4
1 3/8	26.50	7 x 3 7/8	5 3/4
1 1/2	33.00	7 1/2 x 4 1/4	6 1/2
1 3/4	45.00	8 1/2 x 4 3/4	6 1/2
2	60.00	9 1/2 x 5 1/4	8 1/8

Packing Nuts and Locknuts
FOR STUFFING BOXES—CAST BRONZE
BURNISHED



Fig. 73



Fig. 79

Shaft Size Inches	For Fig. 73 Each	For Fig. 79 Each	For Fig. 73 Each	For Fig. 819 Each
5/8	\$1.80	\$.70		
3/4	1.85	.75		
7/8	2.00	.80		
1	2.10	.90	\$4.25	\$1.80
1 1/8	2.15	1.00	4.60	1.85
1 1/4	2.45	1.10	4.85	2.00
1 3/8	2.90	1.30	5.50	2.15
1 1/2	3.85	1.50	6.00	2.15
1 3/4	4.65	2.00	7.25	2.75
2			7.85	3.00

NOTE—LENGTH BEARING SHOWN DOES NOT INCLUDE PACKING NUT OR SPACE FOR PACKING.

Self Aligning Stuffing Boxes

CAST BRONZE—RECTANGULAR FLANGE

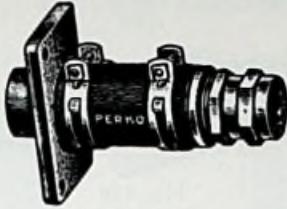


Fig. 734

No.	Each	For Shaft Inches	Size Flange Inches	Length from Flange to End of Box Inches	Weight Pounds
1	\$11.50	3/4	5x3 1/4	6 1/2	5
2	12.50	7/8	5x3 1/4	6 1/2	5
3	13.00	1	5x3 1/4	6 3/4	5
4	16.00	1 1/8	6x4 1/4	7 3/4	9
5	16.50	1 1/4	6x4 1/4	7 3/4	9 1/2
6	25.00	1 3/8	7x4 1/2	8	12 1/2
7	26.00	1 1/2	7x4 1/2	8 1/4	13

Iron Shaft Couplings

CAST IRON

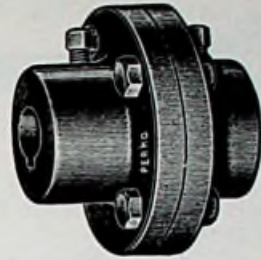


Fig. 327

No.	Each	For Diameter Shaft Inches	Diam. Flange Inches	Lgth. Over-all Inches	Wt. Lbs.
0	\$ 6.00	5/8, 3/4	3	2 3/8	2 1/2
1	7.50	5/8, 3/4, 7/8, 1, 1 1/8	4	3 1/2	5 1/2
2	9.50	3/4, 7/8, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2	4 1/2	4 1/8	8

For divided sizes such as 1 x 1 1/8, add \$1.10 each.
For 1/2 coupling add \$.55 to half of above prices. No bolts furnished.

Bronze Universal Joints

CAST BRONZE—BURNISHED



Fig. 93

No.	Bored Each	Tapped Each	Bored for Rod Inches	Tapped for Pipe Inches	Extreme Length Inches	Weight Pounds
1	\$8.25	\$8.75	3/4	1/2	4 1/2	1
2	11.50	12.00	1	3/4	6	2 1/4

PLEASE SPECIFY WHETHER FOR ROD OR PIPE

SIZE OF KEYWAY IN SHAFT COUPLINGS

Size Shaft Inches	Keyway Inches
5/8 - 3/4	3/16
7/8 - 1 - 1 1/8	1/4
1 1/4	3/16
1 3/8 - 1 1/2	3/8

Bronze Shaft Couplings

CAST BRONZE—BURNISHED

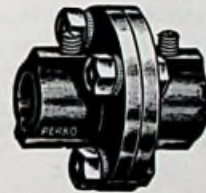


Fig. 389

Set screws, bolts and washers are all bronze.

Each	For Diameter Shaft Inches	Diam. Flange Inches	Length Overall Inches	Weight Pounds
\$9.00	5/8, 3/4, 7/8, 1	2 3/4	2 3/4	1 1/2

For divided sizes such as 3/4 inch one end, 1 inch the other end, add \$.50 each.

5/8 and 3/4 inch sizes have 1/8 inch keyway.
7/8 and 1 inch sizes have 1/4 inch keyway.

Outboard Flushing Nozzles

ALUMINUM AND BRASS
FOR INTERNAL FLUSHING OF LOWER UNIT IN OUTBOARD MOTOR

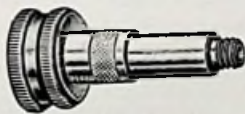


Fig. 179

The male threaded end is for attachment to all motors having flush plugs.

The female threaded end is for regular garden hose. Occasional flushing of salt water and other matter from lower unit will save repair bills to water pump and other internal parts.

No.	Each	Size Thread	Length Overall Inches	Weight Ounces
1	\$1.50	3/8" x 16	2 1/8	1 1/2
2	1.95	3/8" x 16	2 3/4	2
3	1.50	1/8" Pipe	2	1 1/2
4	1.95	7/16" x 20	2 3/8	2

No. 1 for Johnson 25 H.P., Evinrude 14 and 25 H.P.

No. 2 for Evinrude 15 H.P., Johnson 10 H.P.

No. 3 for Evinrude 7 1/2 H.P. and others.

No. 4 for Evinrude and Johnson 3 H.P. and others.

Sleeve Type Shaft Couplings

CAST BRONZE



Fig. 378

No.	Each	For Diam. Shaft Inches	Length Inches	Keyway Inches	Weight Pounds
1	\$5.25	3/4	3	3/16	3/4
2	5.25	7/8	3	1/4	3/4
3	5.25	1	3	1/4	3/8



Midget Self Aligning Shaft Logs

CAST BRONZE—FOR SMALL INBOARD ENGINES



Fig. 695

Stuffing box and base are connected by heavy rubber hose to take up vibration and whip. Base is undrilled to allow drilling as required.

No.	Each	Size Shaft Inches	Size Base Inches	Length Overall Inches	Degrees of Pitch	Weight Pounds
0	\$10.25	5/8	9 3/8 x 2 1/2	15	10	3 3/4
1	10.25	3/4	9 3/8 x 2 1/2	15	10	3 3/4

This unit uses stuffing box Fig. 672 size 0 machined for either 5/8 or 3/4 inch shaft.

Adjustable Shaft Logs

CAST BRONZE



Fig. 577

Cast bronze ball and socket arrangement gives ample adjustment in all directions.

Range of adjustment between 12 and 25 degrees.

Flange bolts are locked with set screws.

Furnished complete with grease cup.

No.	Each	Size Shaft Inches	Length Overall Inches	Length Base Inches	Width Base Inches	Wt. Lbs.
1	\$34.00	3/4	17 3/4	14	3 5/8	11
2	34.00	7/8	17 3/4	14	3 5/8	11
3	34.00	1	17 3/4	14	3 5/8	11
4	52.00	1 1/8	25	20	4 1/2	21
5	52.00	1 1/4	25	20	4 1/2	21
6	80.00	1 3/8	28 1/2	23	5 1/4	28
7	80.00	1 1/2	28 1/2	23	5 1/4	28

Adjustable Shaft Logs

CAST BRONZE—EXTRA HEAVY



Fig. 627

Furnished complete with grease cup.

No.	Each	Size Shaft Inches	Length Base Inches	Width Base Inches	Weight Pounds
8	\$125.00	1 3/4	28	5 1/2	57
9	130.00	2	28	5 1/2	57

Self Aligning Shaft Logs

CAST BRONZE
ALLOWS INSTALLATION OF ENGINE WELL AFT



Fig. 589

Stuffing box and shaft are cushioned in rubber, reducing vibration in the hull to a minimum and eliminating excessive wear on shaft and bearing.

Base is drilled for bolts or screws.

No.	Each	For Size Shaft Inches	Size Base Inches	Length Overall Inches	Degrees of Pitch	Wt. Lbs.
0	\$10.25	5/8 or 3/4	9x4	10	14	3 1/2
1	12.50	3/4	11x5	12 1/4	14	6
2	12.75	7/8	11x5	12 1/4	14	6
3	13.00	1	11x5	12 1/4	14	6

Self Aligning Shaft Logs

CAST BRONZE



Fig. 671

Stuffing box and base are connected by heavy rubber hose to take up vibration and whip.

No.	Each	Size Shaft Inches	Size Base Inches	Length Overall Inches	Anglo in Degrees	Wt. Lbs.
*1	\$13.50	3/4	12x3 1/2	18	11	6
*2	13.50	7/8	12x3 1/2	18	11	6
*3	13.50	1	12x3 1/2	18	11	6
4	23.50	1 1/8	17x4 1/4	23 1/2	11	12
5	23.50	1 1/4	17x4 1/4	23 1/2	11	12
6	38.00	1 3/8	19x5	28	11	20
7	38.00	1 1/2	19x5	28	11	20

*Drilled for bolts or screws, balance of sizes not drilled.

STUFFING BOX AND EXTRA RUBBER HOSE FOR SELF ALIGNING SHAFT LOG AND STUFFING BOX



Fig. 672



Fig. 1092



Fig. 673

For Log No.	Size Shaft Inches	Stuffing Box Each	Hose Each	Hose Clamps Per Pair	I. D. Hose Inches	O. D. Hose Inches	Length Hose Inches
0	5/8 - 3/4	\$4.25	\$.80	\$.90	1 1/4	1 3/4	3 1/4
1	3/4	5.35	1.15	1.00	1 3/4	2 1/4	4
2	7/8	5.50	1.15	1.00	1 3/4	2 1/4	4
3	1	6.35	1.15	1.00	1 3/4	2 1/4	4
4	1 1/8	7.25	1.90	1.90	2 3/8	3 3/8	5
5	1 1/4	8.60	1.90	1.90	2 3/8	3 3/8	5
6	1 3/8	10.00	3.40	2.40	2 5/8	3 1/2	5
7	1 1/2	12.00	3.40	2.40	2 5/8	3 1/2	5



Adjustable Struts

WITH MARINE BABBITT BEARING
ALL CAST BRONZE

Side View

End View

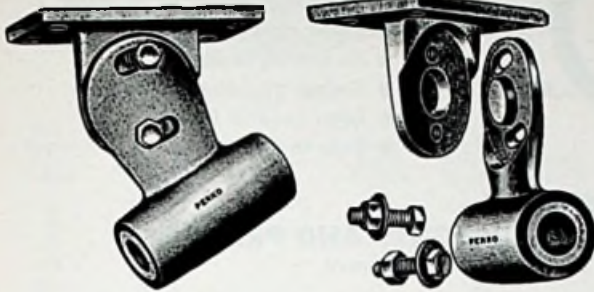


Fig. 628

Adjustable to any practical angle of the propeller shaft, held fast at necessary angle by two heavy bronze bolts. Bearing is of a special marine babbitt, the highest grade obtainable. Length of drop is figured from bottom of keel to center of shaft.

Size Shaft Inches	Width Flange Inches	Length Flange Inches	Length Bearing Inches	Approx. Weight Pounds
3/4	3	5 1/2	4 1/8	6 1/2
7/8	3	5 1/2	4 1/8	6 1/2
1	3	5 1/2	4 1/8	6 1/2
1 1/8	3	5 1/2	4 1/8	6 1/2
1 1/4	3 1/2	6 1/2	4 1/2	12 1/2
1 3/8	3 1/2	6 1/2	4 1/2	12 1/2
1 1/2	3 1/2	6 1/2	4 1/2	12 1/2

Lgth. Drop In.	Size Shaft Inches						
	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2
5	\$24.00	\$24.00	\$24.00	\$24.00			
6	24.75	24.75	24.75	24.75	\$36.50	\$36.50	\$36.50
7	24.75	24.75	24.75	24.75	37.25	37.25	37.25
8	26.25	26.25	26.25	26.25	38.00	38.00	38.00
9	27.00	27.00	27.00	27.00	39.00	39.00	39.00
10	28.50	28.50	28.50	28.50	40.00	40.00	40.00
11	29.75	29.75	29.75	29.75	41.00	41.00	41.00
12					43.25	43.25	43.25

Specify size of shaft and length of drop, when ordering.

Adjustable Struts

FOR CUTLESS RUBBER BEARING
CAST BRONZE—EXTRA HEAVY



Fig. 1019

Size Shaft Inches	Width Flange Inches	Length Flange Inches	Length Bearing Inches	Approx. Weight Pounds
3/4	3	5 1/2	3	6 3/4
7/8	3	5 1/2	3 1/2	6 3/4
1	3	5 1/2	4	6 3/4
1 1/8	3	5 1/2	4 1/2	6 3/4
1 1/4	3 1/2	6 1/2	5	12
1 3/8	3 1/2	6 1/2	5 1/2	12
1 1/2	3 1/2	6 1/2	6	12

PRICES BELOW DO NOT INCLUDE RUBBER BEARING

For bearings see Fig. 1021.

Use bearings having the smallest outside diameter listed.

Lgth. Drop In.	Size Shaft Inches						
	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2
5	\$23.50	\$24.00	\$24.50	\$24.25			
6	24.25	24.75	25.25	25.75	\$35.00	\$36.00	\$37.00
7	25.00	25.50	26.00	26.50	35.75	36.75	37.75
8	25.75	26.25	26.75	27.25	36.50	37.50	38.50
9			27.50	28.00	37.25	38.25	39.25
10			29.00	29.50	38.50	39.25	40.25
11					40.75	41.25	42.25
12					42.75	43.25	44.50

Specify size of shaft and length of drop, when ordering. If desired, complete with rubber bearing, please specify.

Midget Adjustable Strut

CAST BRONZE—FOR SMALL INBOARD ENGINES



Fig. 660

Maximum drop is 5 inches, can be reduced to 3 inches. Adjustable to any angle of shaft.

Plain Bronze Each	Diam. Shaft Inches	Size of Base Inches	Length Bearing Inches	Weight Pounds
\$6.50	5/8 or 3/4	3 1/2 x 2 1/4	2 1/4	2

Electrolysis Eliminators

PURE ZINC



Fig. 244

A necessity if the boat is used in salt water. Streamlined for mounting on the deadwood or planking. Arrests electrolysis of under water brass fittings.

Most boats require two, in some cases larger boats require more.

No.	Each	Length Inches	Width Inches	Depth Inches	Weight Pounds
1	\$1.00	3 1/2	1 3/4	5/8	1/2
2	1.20	5 1/4	2 1/8	1	1 1/2

B. F. GOODRICH CUTLESS RUBBER BEARINGS OIL RESISTING

Often Outlast Hard Surface Bearings 15 Times



Standard Cutless Bearing with bronze shell

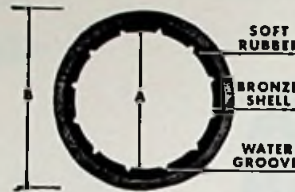


Fig. 1021

- Efficiently lubricated by water.
- Resist sand and grit.
- No scoring of shaft.
- Reduce vibration and noise.
- Least possible friction.
- Easy to install.

STANDARD BEARINGS STOCK SIZES—TABLE OF DIMENSIONS, WEIGHTS AND PRICES

Sizes Shown Here are in Stock for Immediate Shipment

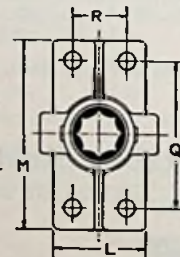
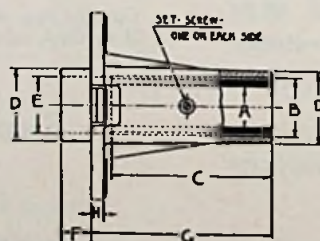
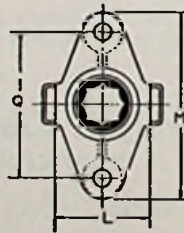
Code	A—Shaft Diameter	B—Outside Diameter	Standard Length	Shipping Weight, Lbs.	Price Each	Special Length Price per Lin. In.*	Code	A—Shaft Diameter	B—Outside Diameter	Standard Length	Shipping Weight, Lbs.	Price Each	Special Length Price per Lin. In.*	Code	A—Shaft Diameter	B—Outside Diameter	Standard Length	Shipping Weight, Lbs.	Price Each	Special Length Price per Lin. In.*
KALE.....	3/4"	1 1/4"	3"	3/4	\$ 6.70	\$2.49	KITEM.....	1 1/4"	2 3/8"	7 1/2"	3 1/2	\$22.90	\$3.67	NEPHEW...	3 3/8"	4 1/2"	14 1/2"	12 3/4	\$61.70	\$5.12
KATY.....	1 1/8"	1 3/8"	3 1/2"	3/4	7.80	2.49	KITEZ.....	1 1/2"	2 3/8"	7 1/2"	4	22.90	3.67	NEPTUNE...	3 3/8"	4 1/2"	15"	10 1/2	68.50	6.50
KATZ.....	3/4"	1 1/2"	3 1/2"	1	7.80	2.49	KITH.....	2"	2 3/8"	8"	3 1/2	24.60	3.72	NERVE.....	3 3/8"	5"	15"	17 1/2	68.50	6.50
KAYAK.....	1"	1 1/2"	4"	1	9.00	2.62	KNAVE.....	2"	3"	8"	4 1/2	24.60	3.72	NEST.....	3 3/8"	5 1/2"	15"	18	68.50	6.50
KEFER.....	1"	1 3/8"	4"	1 1/4	9.00	2.62	KNIT.....	2 1/4"	2 3/8"	8 1/2"	4 1/2	26.50	3.72	NEWELL...	3 3/8"	5 1/2"	15 1/2"	20	73.20	6.81
KEEPER.....	1"	2"	4"	1 1/2	9.00	2.62	KNOB.....	2 1/4"	3 1/8"	8 1/2"	4 1/2	26.50	3.72	NIBBLE...	4"	5"	10"	28	78.70	5.92
KERSEY...	1 1/4"	1 3/8"	4 1/2"	1 1/4	10.80	2.75	KNOLL...	2 1/4"	2 3/8"	9"	4 1/2	28.50	3.78	NIBBLED...	4"	5 1/2"	10"	20 1/2	78.70	5.92
KERNY...	1 1/4"	1 3/8"	4 1/2"	1 1/4	10.80	2.75	KORAN...	2 1/4"	3 1/8"	9"	5	28.50	3.78	NIBBLING...	4 1/4"	5 1/2"	16 1/2"	31	82.40	6.15
KID.....	1 1/4"	2"	4 1/2"	1 1/2	10.80	2.75	KUMISS...	2 1/4"	3 3/8"	9"	6	28.50	3.78	NICETY...	4 1/4"	5 1/2"	17"	29 1/2	85.60	6.15
KIDNAP...	1 1/4"	1 3/4"	5"	1 1/2	12.40	2.81	NABAS...	2 1/4"	3 3/8"	9 1/2"	6	30.80	3.81	NICHE.....	4 3/8"	5 3/4"	17 1/2"	33 1/4	89.50	6.26
KIANO...	1 1/4"	2"	5"	1 3/4	12.40	2.81	NAKED...	2 1/2"	3 1/4"	10"	5	31.80	3.87	NICK.....	4 1/2"	5 1/2"	18"	33 1/4	94.30	6.43
KIDNEY...	1 1/4"	2 1/4"	5"	2	12.40	2.81	NATION...	2 1/2"	3 3/8"	10"	6	31.80	3.87	NIGGARD...	4 1/2"	5 3/4"	18"	35	94.30	6.43
KIN.....	1 3/8"	1 3/4"	5 1/2"	2	13.70	2.99	NATISM...	2 1/2"	3 3/8"	10 1/2"	5 1/2	34.70	4.02	NIGGARDLY...	4 3/8"	6 1/8"	18 1/2"	39	102.90	7.10
KINAH...	1 3/8"	2"	5 1/2"	2 1/4	13.70	2.99	NATIVE...	2 1/2"	3 3/8"	11"	5 1/2	38.50	4.27	NIGHTLY...	4 3/8"	6 1/8"	10 1/2"	43	116.40	7.63
KINCY...	1 3/8"	2 1/4"	5 1/2"	2 1/4	13.70	2.99	NATURE...	2 1/2"	3 3/8"	11"	6	38.50	4.27	NIGHT...	5"	6 3/8"	20"	45	122.60	7.85
KINDLE...	1 3/8"	2 3/8"	5 3/8"	2 1/2	13.70	2.99	NAVAL...	2 1/2"	3 3/4"	11 1/2"	6 1/2	39.90	4.35	NOBLE...	5"	6 1/2"	20"	50 1/2	122.60	7.85
KINE.....	1 3/4"	2"	6"	2	15.80	3.13	NAVY.....	3"	3 3/4"	12"	8	42.40	4.40	NOBODY...	5 1/4"	7"	21"	80 1/2	136.10	8.30
KINGDOM...	1 3/4"	2 3/8"	6"	2 1/2	15.80	3.13	NECK...	3"	4"	12"	8 1/2	42.40	4.40	NOBUR...	5 3/8"	7"	21 1/2"	75	142.60	8.50
KINKY...	1 3/4"	2 3/4"	6 1/4"	2 1/2	18.40	3.40	NECKING...	3 1/4"	4 1/4"	12 1/2"	8 1/2	45.60	4.46	NOMAD...	5 3/8"	7"	22"	65	148.60	8.69
KINSHIP...	1 3/4"	2 3/4"	6 3/4"	3	18.40	3.40	NECTAR...	3 1/4"	4"	13"	9 1/2	49.00	4.63	NOMAR...	5 3/8"	7"	22 1/2"	70	154.70	8.84
KIP.....	1 3/4"	2 3/4"	7"	2 3/4	20.80	3.56	NEGATIVE...	3 1/4"	4 1/4"	13"	10	49.00	4.63	NONAGE...	5 3/8"	7"	23"	62 3/4	161.30	8.98
KITE.....	1 3/4"	2 3/4"	7"	3 1/4	20.80	3.56	NEGLECT...	3 3/4"	4 1/4"	13 1/2"	10 1/2	52.30	4.82	NOOK.....	5 3/8"	7 1/2"	24"	70	178.40	8.17

*To obtain price of bearing lengths other than standard, multiply length in inches by price per lineal inch given in this column.

STERN CASTINGS COMPLETE WITH CUTLESS RUBBER BEARINGS, OVAL AND SQUARE BASE



Oval Base Fig. 187



Rectangular Base Fig. 188

Prices and dimensions of larger sizes furnished on request. When ordering, it is only necessary to give pattern number. Holes in flanges drilled unless otherwise specified.

The advantages of this type of bearing are many. The castings are made of high-grade bronze of heavy construction, and will last as long as the boat. They are not to be confused with some of the light, flimsy constructions often sold at a price.

The flanges correspond in sizes with the usual bronze and babitted bearings of this type. The B. F. Goodrich Cutless Bearing can be easily removed from the main casting by taking out the set screws.

No vibration. Sand or silt is carried out without injury to shaft or bearing.

No attention or adjustment necessary. These bearings are provided with scoops for water lubrication and no additional scoops or other provisions for water supply are necessary.

TABLE OF DIMENSIONS AND PRICES															
Dimensions of Cutless Bearings			Casting Dimensions								Pat. No. Sq. Base	Drilled for Bolts, Ins.	Pat. No. Oval Base	Drilled for Bolts, Ins.	Price Complete with Cutless Bearing
A	B	C	D	E	F	G	H	L	M						
3/4	1 1/4	3	1 3/4	1 1/4	1 1/2	1 1/2	1 1/2	2 1/2	4 1/2	B-1	3/8	B-3	3/8	\$20.00	
1	1 1/2	3 1/2	1 3/4	1 1/4	1 1/2	1 1/2	1 1/2	2 1/2	4 1/2	B-2	3/8	B-4	3/8	21.25	
1 1/4	1 3/4	4 1/4	2	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	5	C-1	1/2	C-9	1/2	22.30	
1 1/2	2	5	2 1/4	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	5 1/2	C-2	1/2	C-10	1/2	26.20	
1 3/4	2 1/4	5 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	6	C-3	1/2	C-11	1/2	32.40	
2	2 1/2	6	2 3/4	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	6 1/2	C-4	1/2	C-12	1/2	35.70	
2 1/4	2 3/4	6 1/2	3	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	7	C-5	1/2	C-13	1/2	47.60	
2 1/2	3	7	3 1/4	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	7 1/2	C-6	1/2	C-14	1/2	60.50	
2 3/4	3 1/4	8	3 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	8	C-7	1/2	C-15	1/2	76.70	
3	3 1/2	9	3 3/4	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	9	C-8	1/2	C-16	1/2	96.40	
3 1/4	3 3/4	10	4	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	10 1/2	E-20	3/4	---	---	148.60	

Flat Bearings

GRAY IRON—BABBITTED



Fig. 789

For Shaft Size Inches	Each	Dimensions of Base Inches	C. to C. Bolt Holes Inches	Diam. Bolt Holes Inches	Weight Pounds
5/8	\$4.40	4 x 1 1/8	3 1/8	1/4	1
3/4	4.40	4 1/4 x 1 3/16	3 1/2	5/16	1 1/8
7/8	4.75	4 1/4 x 4 1/4	3 3/8	3/16	1 1/4
1	4.75	4 7/8 x 1 1/2	3 3/4	3/8	1 1/2
1 1/8	5.60	5 1/4 x 1 5/8	4 1/4	3/8	2 1/4
1 1/4	5.60	5 1/2 x 1 3/4	4 1/4	3/8	2 5/8
1 3/8	7.00	5 3/8 x 1 7/8	4 5/8	3/8	3 1/2
1 1/2	7.00	6 1/4 x 2	4 7/8	7/16	4 1/4
1 3/4	8.75	6 3/8 x 2 1/4	5 3/8	1/2	6
2	11.00	7 1/2 x 2 1/2	5 3/4	1/2	7 1/4

Larger and intermediate sizes supplied to order.

Intermediate Shaft Bearings

BALL BEARING TYPE—SELF ALIGNING WITH GREASE RETAINING SEAL STANDARD DUTY



Fig. 790

For Shaft Size Inches	Each	Dimensions of Base Inches	C. to C. Bolt Holes Inches	Diam. Bolt Holes Inches	Weight Pounds
7/8	\$14.70	7 x 2	5 3/8	1/2	3 1/2
1	14.70	7 x 2	5 3/8	1/2	3 1/8
1 1/8	17.80	7 1/2 x 2	5 3/4	1/2	5
1 1/4	21.00	8 1/4 x 2 1/4	6 1/4	5/8	6 1/2
1 3/8	21.00	8 1/4 x 2 1/4	6 1/4	5/8	6 1/2
1 1/2	23.25	8 1/2 x 2 3/8	6 1/2	5/8	7 1/2
1 3/4	24.85	8 3/4 x 2 3/8	6 1/2	5/8	8
2	39.00	11 1/4 x 2 3/4	8 1/2	5/8	15

Bronze Flat Bearings

CAST BRONZE—NOT BABBITTED



Fig. 809

For Shaft Size Inches	Each	Dimensions of Base Inches	C. to C. Bolt Holes Inches	Diam. Bolt Holes Inches	Weight Pounds
3/4	\$6.00	4 1/2 x 2	3 5/16	5/16	1 1/2
7/8	6.00	4 1/2 x 2	3 5/16	5/16	1 1/2
1	6.00	4 1/2 x 2	3 5/16	5/16	1 3/8

Thrust Ball Bearings

GROOVED RACES STEEL RETAINING BAND



Fig. 943

Diam. Shaft Inches	Each	Outside Diam. Inches	Thickness Inches
5/8	\$1.10	1 1/32	29/64
3/4	1.10	1 21/32	33/64
7/8	1.50	1 29/32	19/32
1	1.50	1 31/32	3/8
1 1/8	1.65	2 3/32	5/8
1 1/4	2.25	2 11/32	45/64
1 3/8	2.90	2 15/32	5/8
1 1/2	2.90	2 19/32	5/8
1 5/8	6.00	2 31/32	13/16
1 3/4	6.75	3 3/32	13/16
2	8.25	3 11/32	13/16
2 1/4	11.50	3 23/32	13/16
2 1/2	13.00	3 27/32	13/16

Safety Shaft Collars

MILLED BAR STEEL—MACHINED



Fig. 787

Shaft Size Inches	Each	Outside Diameter Inches	Width Inches	Weight Ounces
5/8	\$.40	1 3/32	1/2	1 1/2
3/4	.45	1 1/4	9/16	2
7/8	.55	1 1/2	9/16	3
1	.65	1 5/8	5/8	3 1/2
1 1/8	.80	1 3/4	5/8	4
1 1/4	.90	2	11/16	5 1/2
1 3/8	1.10	2 1/8	3/4	6 1/2
1 1/2	1.20	2 1/4	3/4	7
1 3/4	2.60	2 3/4	7/8	13
2	2.85	3	7/8	15

Exhaust Pipe Flanges CAST BRONZE



Fig. 214

For Pipe Inches	Inside Diameter Inches	Outside Diameter Inches	Weight Pounds
2	2 13/32	4	1/2
2 1/2	2 29/32	4 1/2	1/2
3	3 17/32	5 1/2	3/4
3 1/2	4 1/32	6	1

	Burnished Each	Polished Bronze Each	Chromium Plated Each
2	\$2.00	\$3.00	\$3.50
2 1/2	2.75	4.00	4.50
3	3.30	4.75	5.50
3 1/2	3.50	5.25	6.00

Gy-A-Liner Engine Aligners

U. S. PATENT NOS. 2123484—2170690—2164615

A simple way to accurate engine alignment. "Gy-A-Liner" consists of leveling wedges made of cast iron. Designed for self adjustment with a few turns on the take-up bolts that anyone can do with accuracy.

Baked Enamel Finish—All Bolts Galvanized.

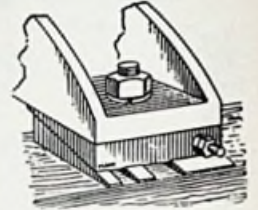


Fig. 1097

For use under motors having only single corner bed bolts. Can be used under intermediate propeller shaft bearings.

Exhaust Tube Flanges CAST BRONZE



Fig. 738

For Tubing Inches	Inside Diam. Inches	Outside Diam. Inches	Weight Pounds
2	2 1/8	4	1/2
2 1/2	2 7/8	4 1/2	1/2
3	3 1/8	5 1/2	3/4
3 1/2	3 5/8	5 1/2	3/4
4	4 1/8	6	7/8

	Burnished Each	Polished Bronze Each	Chromium Plated Each
2	\$1.50	\$2.75	\$3.25
2 1/2	2.00	3.00	3.50
3	2.75	4.00	4.50
3 1/2	3.30	4.75	5.50
4	3.50	5.25	6.00

"Perko" Zinc Marine Oilers

SPRING BRASS BOTTOM

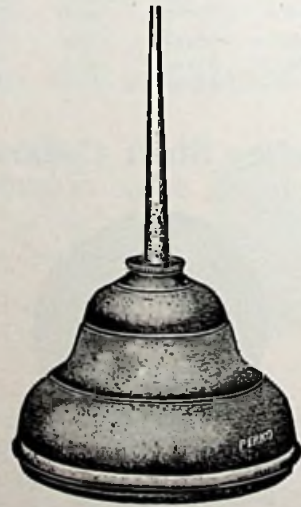


Fig. 326

Heavy gauge zinc with spring brass bottom, cut threads. Spouts are interchangeable.

Brass Grease Cups



Fig. 961

No.	Each	Height Closed Inches	Outside Diam. Inches	Pipe Thread Inches	Capacity Ounces
1	\$.50	1 1/8	7/8	1/8	1/4
2	.75	1 3/8	1 1/8	1/8	1/2
3	1.00	2	1 1/8	1/8	3/4

No.	Complete Per Gross	Extra Spouts Per Gross	Capacity Ounces	Diam. Inches	Length Spout Inches	Weight Per Gross Pounds
3	\$136.00	\$42.00	8	4	4	40
4	175.00	45.50	12	4 1/2	6	48



Hy-Gear Marine Hose Clamps

100% STAINLESS STEEL



Fig. 6400

HIGH QUALITY—Extra-wide, stainless steel band . . . interlocked stainless steel housing—no rivets, no welds. With stainless steel screw for ultimate corrosion resistance.

HIGH SPEED—Goes on with hose in position. . . . Safety collar on screw keeps screw driver from slipping. . . . Compact design fits snugly in cramped quarters.

HIGH POWER—Gear-drive principle assures positive, leak-proof seal under all conditions.

Part Number	Price Per 100	Fits Hose I. D. Inches		Clamp Diameter Inches		Package Quantity	Weight Per 100 in Pounds
		From	To	Min.	Max.		
*6410	\$45.00	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$1\frac{1}{16}$	10	6
6416	46.00	$\frac{3}{4}$	1	$1\frac{3}{16}$	$1\frac{1}{2}$	10	7
*6420	47.00	1	$1\frac{1}{4}$	$1\frac{3}{16}$	$1\frac{3}{4}$	10	7
*6428	49.00	$1\frac{1}{4}$	$1\frac{3}{4}$	$1\frac{5}{16}$	$2\frac{1}{4}$	10	8
*6436	51.00	$1\frac{3}{4}$	$2\frac{1}{4}$	$1\frac{13}{16}$	$2\frac{3}{4}$	10	9
6444	54.00	$2\frac{1}{4}$	$2\frac{3}{4}$	$2\frac{5}{16}$	$3\frac{1}{4}$	10	9
6452	57.00	3	$3\frac{3}{4}$	$2\frac{13}{16}$	$3\frac{3}{4}$	50	11
6464	61.00	$3\frac{1}{2}$	4	$3\frac{9}{16}$	$4\frac{1}{2}$	50	12

*The most popular stock sizes.

NOTE "STOCKIT"—A combination display and stock holder of permanent steel construction, clear plastic bins, stocked with 100 clamps in the four most popular sizes, contents 20 #6410, 20 #6420, 40 #6428 and 20 #6436—price complete—\$49.75.

Universal Marine Hose Clamps

INSTANTLY ADJUSTABLE FOR ANY SIZE HOSE UP TO 6 INCH
ALL 18-8 STAINLESS STEEL OR ELECTRO GALVANIZED STEEL WITH ZINC PLATED SCREW

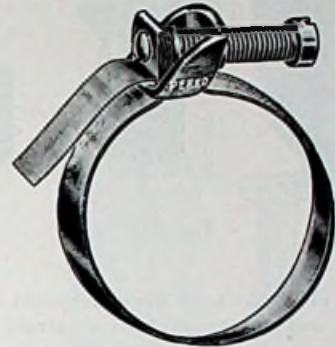


Fig. 499

Designed primarily for marine and aircraft use. Uniform pressure on entire circumference of hose, no distortion or crimping to permit leaks.

These two sizes do the job of eight or more sizes necessary when ordinary hose clamps are used.

These may be used for larger sizes of hose by joining two or more clamps together, used in this way the size range is practically unlimited.

Extremely easy to install or remove, will not slip or loosen from vibration.

Packed 50 Clamps Per Box

No.	Stainless Steel Each	Electro Galvanized Each	Length Open Inches	Width Strap Inches	Diam. Screw Inches	Weight Ounces
1	\$.60	\$.13	12	$\frac{1}{2}$	$\frac{9}{32}$	$1\frac{1}{2}$
2	.70		18	$\frac{1}{2}$	$\frac{9}{32}$	2

Size No. 1 shipped unless otherwise specified.

"Snaplock" Hose Clamps

HEAT TREATED—RUST PROOF PLATING



Fig. 565

Size No.	Each	Fits Hose		Clamp Diameter	
		From Inches	To Inches	Minimum Inches	Maximum Inches
12	\$.33	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{4}$
20	.35	1	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{3}{4}$
28	.36	$1\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{7}{8}$	$2\frac{1}{4}$
36	.38	2	$2\frac{1}{4}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$
48	.41	$2\frac{1}{2}$	3	2 $\frac{3}{4}$	$3\frac{1}{4}$

Packed 10 Clamps Per Package.

An attractive counter display box containing 50 assorted "Snaplock" clamps is available. Per box \$18.00

Improved Gasoline Strainers

WITH "KWICK KLEAN" FILTER ELEMENTS
CAST BRONZE HOUSING

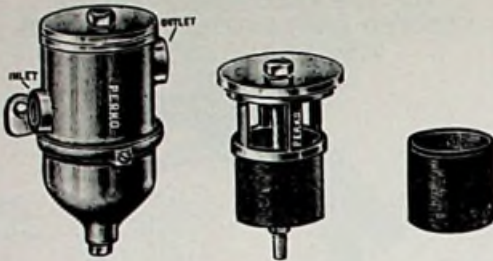


Fig. 299

The filter elements used are equivalent to 300 mesh screen cloth and are guaranteed to strain water from gasoline. They have a high flow rate, long life and are easy to clean. They can also be replaced in a few minutes by the removal of one nut. A soldering iron is not necessary.

Cover easily removed and the strainer removed for cleaning without disturbing pipe connections. Pipe plug in bottom for draining. Side bracket supports the strainer, relieving the fuel pipes of all weight.

Size No.	Complete Each	Spare Elements Each	Length Overall Inches	Diam. Inches	Tapped For Pipe Inches	Weight Pounds
1	\$11.00	\$.70	5 1/2	2 3/8	1/4 or 3/8	3 3/4
1 1/2	12.00	.85	6 1/4	3 1/8	3/8 or 1/2	6
2	16.50	1.10	7 1/4	3 3/8	1/2 or 3/4	7

Note—When ordering, be sure to specify pipe size, otherwise largest size shown will be supplied.

Flame Arresters

RUGGED CONSTRUCTION—LONG LIFE
REQUIRED BY LAW ON ALL MARINE
CARBURETOR INSTALLATION

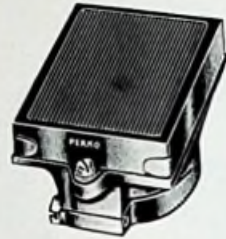


Fig. 464

A Flame Arrester attached to the air inlet of the carburetor eliminates the possibility of a fire being caused by backfiring through the carburetor. A special element, consisting of curved plates, dissipates the heat and in this way fire does not extend through the flame arrester.

Size No.	Style No.	Each	Inside Diam. Inches	Dimensions of Top Inches	Height Overall Inches
1	C-175-11A	\$10.15	1 1/4	2 13/16 x 2 1/16	2
2	B-175-19	10.65	1 7/16	3 23/32 x 2 5/16	2 1/8
3	B-175-19A	10.65	1 1/2	3 5/8 x 2 5/16	2 1/8
4	B-175-14	12.30	2 1/16	4 1/8 x 2 11/16	2 7/32
5	B-175-12A	13.75	2 5/16	5 1/8 x 2 15/16	2 19/32
6	B-175-12	13.75	2 3/8	5 1/8 x 2 15/16	2 19/32
7	B-175-16	13.75	2 5/8	5 1/8 x 2 15/16	2 19/32
8	B-175-13	16.00	3	5 7/8 x 3 9/16	2 19/32
9	B-175-13A	16.00	3 5/16	5 7/8 x 3 9/16	2 19/32

"Perko" Gasoline Filters

WITH "KWICK KLEAN" FILTER ELEMENTS
COPPER BOWL



Fig. 406

The filter element will strain water out of gasoline as it is equivalent to 300 mesh screen cloth. It is easy to clean, has high flow rate and long life.

The copper bowl and element can be quickly removed for cleaning by a few turns of the knurled nut illustrated.

No.	Complete Each	Spare Elements Each	Tapped for Pipe Inches	Height Overall Inches	Width Overall Inches	Weight Ounces
1	\$4.20	\$1.00	1/8	4 1/4	2 1/2	9 1/2
2	4.20	1.00	1/4	4 1/4	2 1/2	9 1/2

Gas Tank Vents

CAST BRONZE
WITH FLANGED ELBOW



Fig. 503

A fitting designed for leading the gas tank vent out-board per recommendations of insurance underwriters.

No.	Plain Each	Chromium Plated Each	Pipe Size Inches	For Wood Inches	For Tanks Up To	Weight Ounces
1	\$3.00	\$4.00	1/8	1 1/8	100 Gals.	8
2	3.00	4.00	1/2	1 1/8	100 Gals.	8



Intake Water Strainers

CAST BRONZE
MONEL METAL STRAINER
TRANSPARENT LUCITE CYLINDER



Fig. 493

For installation between hull connection and water pump to the engine.

Lucite cylinders are difficult to break even when struck with hammer. Gaskets are corprene, (neoprene) and cork) waterproof and resilient.

No.	Complete Each	Spare Cylinders Each	Spare Gaskets Each	Spare Strainers Each
1	\$20.00	\$ 4.75	\$.30	\$ 2.10
2	32.00	6.30	.40	3.15
3	33.50	6.80	.40	3.40
4	35.00	7.35	.40	3.70
5	44.00	11.50	.80	5.25
6	81.00	23.00	.80	14.75

No.	Pipe Size Inches	Size Cylinder Inches	Height Inches	Width Overall Inches	Weight Pounds
1	1/2	3 1/2 x 4	6	4 1/4	3 1/2
2	3/4	4 1/2 x 5	7 3/4	5 1/2	6 1/2
3	1	4 1/2 x 5 1/2	8 1/4	5 1/2	6 3/4
4	1 1/4	4 1/2 x 6	8 3/4	5 1/2	7
5	1 1/2	6 x 8	11 1/2	7	12
6	2	6 x 12	17 1/4	9	22

Height does not include top nut or drain plug.

Gasoline Funnels

GALVANIZED—WITH STRAINER



Fig. 81

Made of galvanized sheet steel with No. 100 mesh bronze removable strainer.

No.	Each	Diam. Top Inches	Height Inches	Capacity Pints	Weight Ounces
1	\$2.00	6 5/8	7	1	6
2	2.25	8	8 1/2	2	8 1/2

The Improved "Engine Saver" Combination Intake Water Strainer and Rust Preventer

CAST BRONZE—WITH MOUNTING BRACKETS
MONEL METAL STRAINER
TRANSPARENT LUCITE CYLINDER
FILLED WITH ANTI-RUST CRYSTALS

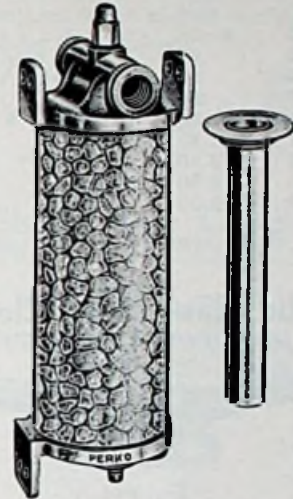


Fig. 494

For installation in the cooling system between the hull connection and pump or between pump and engine.

The cooling water (salt or fresh) passing through the "Engine Saver" slowly dissolves the crystals, creating a chemical solution which forms a very thin film on the inner surfaces of the cooling system (water jackets, manifolds etc.) protecting the metal from rust and assisting in the control of electrolysis.

The rate of crystal consumption is very small, as low as 2 pounds per year in the No. 2 size, depending upon the amount of use and temperature of the water.

The monel metal strainer is installed in tubular form, the full length of the lucite cylinder, giving extreme cubic area of filtering surface and effectively keeping foreign matter out of cooling system.

The brass tube illustrated is located inside of the monel strainer, same has been added to assure maximum solution as the water must pass into the lower end of the tube to reach the outlet.

Gaskets are of neoprene and cork. Castings are carefully machined against leakage.

No.	Motor H.P.	Complete Each	Spare Cylinders Each	Spare Gaskets Each	Spare Strainers Each
1	up to 60	\$37.00	\$ 9.50	\$.30	\$3.15
2	60 to 150	56.00	12.60	.40	5.00
3	60 to 150	58.00	12.60	.40	5.25
4	60 to 150	61.00	12.60	.40	5.50
5	150 to 200	84.00	19.00	.80	7.85

Anti-rust crystals, per pound \$1.50, in 1, 5 or 10 pound bags.

No.	Pipe Size Inches	Size Cylinder Inches	Height Inches	Width Overall Inches	Weight Complete Pounds
1	1/2	3 1/2 x 8 1/2	10 1/2	4 1/4	11
2	3/4	4 1/2 x 11	14	5 1/2	15 1/2
3	1	4 1/2 x 12	15	5 1/2	18
4	1 1/4	4 1/2 x 13	16	5 1/2	20
5	1 1/2	6 x 15	18 1/2	7	30

Height does not include top nut or drain plug.

Open Base Boat Cleats

GALVANIZED IRON OR CAST BRONZE



Fig. 544

Length Inches	Cast Iron Each	Mall. Iron Each	Polished Bronze Each	Chromium Plated Each	Galv. Weight Pounds
3 1/2	\$.24	\$.35			3/16
4	.26	.45	See Figure 544 A		1/4
5	.40	.55			3/8
6	.48	.80			1/2
8	.85	1.50	\$ 3.30	\$ 4.00	1 1/4
10	1.80	2.30	4.65	6.00	2 1/4
12	2.55	3.20	6.90	8.25	3 3/4
14	3.80	5.50			6 1/4
18	6.50	9.00			11 1/2

Galvanized cleats supplied in cast unless otherwise specified.

Solid Base Boat Cleats

DROP FORGED BRONZE



Fig. 544-A

These have much greater strength than cast bronze cleats. The finish is finer (no sand holes). They polish and plate to smoothness and brilliance not probable with castings.

Length Inches	Dull Bronze Each	Polished Bronze Each	Chromium Plated Each	For Wood Screw No.	Weight Ounces
3	\$.75	\$1.00	\$1.45	8	2 1/2
4	.95	1.20	1.80	10	4
5	1.15	1.60	2.10	14	5 1/2
6	1.50	1.90	2.75	14	8

Sturdy Cleats

CAST BRONZE—HEAVY DUTY



Fig. 384

Length Inches	Polished Bronze Each	Chromium Plated Each	For Rope Inches	Weight Pounds
4	\$1.85	\$3.00	1/4	1/2
5	2.80	3.90	3/8	3/4
6	3.40	4.70	7/16	1
8	5.90	7.90	9/16	1 3/4

Flag Pole or Fender Cleats

BRASS

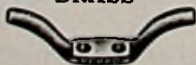


Fig. 564

Burnished Brass Each	Chromium Plated Each	Length Inches	Drilled For Screw No.	Weight Ounces
\$.28	\$.35	1 7/8	5	1/2

Brass shipped unless otherwise specified.

Streamline Cleats

ZAMAK DIE CASTINGS—CHROMIUM PLATED



Fig. 566

Length Inches	Chromium Plated Each	Size Base Inches	For Diam. Rope Inches	Weight Ounces
2	\$.75	1 1/2 x 1	5/16	1
3	1.00	2 3/8 x 1 3/8	1/2	3
4 1/2	2.25	3 x 1 3/4	1/2	8
6	3.00	3 1/2 x 2	5/8	16

Fender Cleats

DROP FORGED BRONZE



Fig. 583

Length Inches	Dull Finish Each	Polished Bronze Each	Chromium Plated Each	Size Base Inches	Weight Ounces
2 1/4	\$.60	\$.85	\$1.25	1 3/4 x 1	1 1/2

Hollow Cleats

CAST BRONZE—CLOSED ENDS



Fig. 572

Length Inches	Polished Bronze Each	Chromium Plated Each	Weight Pounds
4 1/2	\$ 2.50	\$ 3.50	1 1/2
5 1/2	2.75	3.85	5/8
6 1/2	3.10	4.30	3/4
8	4.15	5.35	1 1/4
10	7.50	8.70	2
12	11.25	13.25	3

Ship Cleats

CAST IRON—HEAVY



Fig. 511

Length Inches	Galv. Each	Size of Base Inches	Holes for Diam. Bolts Inches	Weight Each Pounds
8	\$ 2.20	4 1/4 x 2 3/8	7/16	3
10	3.80	4 3/4 x 2 1/2	1/2	5 3/4
12	6.20	6 7/8 x 3	5/8	10
15	7.75	7 1/4 x 3 1/2	3/4	14
18	11.75	7 1/2 x 4	3/4	20 1/4
24	27.00	8 1/2 x 4 3/8	7/8	35



Awning Cleats

GALVANIZED MALLEABLE IRON



Fig. 927

Length Inches	Per 100 Pieces	Wt. Per 100 In Lbs.
4½	\$11.60	4%
6	16.80	8%

Bow Chocks

GALVANIZED OR BRONZE



Fig. 546

Lgth. Inch.	Galv. Iron Per Pair	Dull Bronze Per Pair	Polished Bronze Per Pair	Chrom. Plated Per Pair	Width Inches	For Diam. Rope Inches	Wt. Per Pair Lbs.
3	\$.48	\$1.75	\$2.00	\$3.35	5/8	1/2	1/4
4	.52	2.00	2.35	4.00	3/4	5/8	1/2
5	.95	3.10	3.50	5.50	7/8	7/8	1
6	1.70		5.80	8.80	1	1	1 1/2
8	2.60		9.50	13.50	1 1/4	1 1/8	3
10	4.25		17.00	22.00	1 3/4	1 1/4	5 1/4
12	12.00		25.50	31.50	2	1 1/4	11 1/4
15	27.25				3 1/2	1 3/4	40

NOTE—3, 4 and 5 inch sizes are forged bronze.
Balance of sizes are cast bronze.

Straight Stern Chocks

GALVANIZED OR BRONZE



Fig. 119

Lgth. Inch.	Galv. Iron Each	Dull Bronze Each	Polished Bronze Each	Chrom. Plated Each	Width Inches	For Diam. Rope Inches	Wt. Each Lbs.
4	\$.32	\$1.15	\$1.30	\$2.25	7/8	3/4	1/4
5	.50	1.65	2.00	3.00	1	7/8	1/2
6	.75		2.75	4.25	1 1/8	1	3/4
8	1.55		5.00	7.00	1 1/8	1 1/8	1 1/2
10	2.40		8.50	11.00	1 1/4	1 1/2	2 1/4
12	4.50		14.00	17.00	2 1/4	1 3/4	7 1/2
15	10.75				3 3/8	1 3/4	20
18	16.00				3 1/2	2	31

NOTE—4 and 5 inch sizes are forged bronze.
Balance of sizes are cast bronze.

Streamline Chocks

FOR BOW OR STERN
ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1240

The bow line can pass through these chocks at the usual angle without wear as the vertical part of each jaw is rounded for that purpose.

Each	Length Inches	Extreme Width Inches	For Diameter Rope Inches	Weight Ounces
\$1.60	4	1 1/2	5/8	2 1/2

Skene Bow Chocks

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1223

Per Pair	Length Overall Inches	Width Base Inches	For Diam. Rope Inches	Weight Per Pair Ounces
\$2.25	3 1/2	1 1/2	5/8	4

Skene Bow Chocks

CAST BRONZE



Fig. 160

Size No.	Polished Bronze Per Pair	Chromium Plated Per Pair	Length Inches	Width Inches	Open- ing Inches	Weight Per Pair Pounds
1	\$ 4.00	\$ 6.00	4 1/2	3/4	5/8	3/4
2	5.75	8.00	5 1/2	1 1/8	7/8	1 1/2
3	10.00	13.00	7 1/4	1 3/8	1	4
4	15.00	18.50	8	1 1/2	1 1/8	5 1/2
5	21.50	25.50	10	1 3/4	1 1/8	8 1/2

Skene Stern Chocks

CAST BRONZE



Fig. 161

Size No.	Polished Bronze Each	Chromium Plated Each	Length Inches	Width Inches	Opening Inches	Weight Each Pounds
11	\$ 1.75	\$ 2.60	4	7/8	3/4	1/2
12	3.15	4.30	5 1/4	1 1/4	1	1
13	5.75	7.35	7	1 5/8	1 1/4	2
14	11.50	14.00	9	2 1/2	1 3/4	4

Skene Bulwark Bow Chocks
CAST BRONZE



Fig. 751

Length Inches	Pol. Bronze Per Pair	Chromium Plated Per Pair	For Diam. Rope Up to Inches	Thickness of Rail Inches	Height Inches	Weight Per Pair Pounds
6	\$10.00	\$14.75	1	1 1/4	2 1/4	2 3/4
7	14.50	18.75	1 1/4	1 1/2	2 3/4	4 1/4

Skene Bulwark Stern Chocks
CAST BRONZE



Fig. 752

Length Inches	Pol. Bronze Each	Chromium Plated Each	For Diam. Rope Up to Inches	Thickness of Rail Inches	Height Inches	Weight Each Pounds
6	\$7.50	\$10.20	1 1/4	1 1/2	2 3/4	2

Bulwark Bow Chocks
CAST BRONZE



Fig. 768

No.	Polished Bronze Per Pair	Chromium Plated Per Pair	Length Inches	Width Overall Inches	Height Inches	Size of Rope Inches
1	\$15.00	\$19.00	10	1	1 7/8	1
2	19.00	23.00	11 1/4	1 1/4	2 1/4	1 1/4
3	23.00	28.50	11 1/4	1 1/2	2 3/4	1 1/2

Bulwark Stern Chocks
CAST BRONZE



Fig. 769

No.	Polished Bronze Each	Chromium Plated Each	Length Inches	Width Overall Inches	Height Inches	Size of Rope Inches
1	\$10.00	\$12.00	9 1/4	1 3/8	2 5/8	1 1/2
2	11.50	14.00	11 1/2	1 3/4	3	1 3/4

Tiller Rope Tighteners

CADMIUM PLATED STEEL OR ALL BRASS
MAXIMUM PULL 80 POUNDS



Fig. 732

For eliminating slack and keeping tension on tiller rope at all times.

The all brass tightener will outlast several of the lower priced steel tighteners.

Made of heavy gauge spring wire.

Steel Each	All Brass Each	Normal Length Inches	Length Compressed Inches	Outside Diameter Inches	Weight Ounces
\$.50	\$.95	4	5	1 1/16	4 1/2

Tiller Rope Tighteners

CADMIUM PLATED STEEL
MAXIMUM PULL 100 POUNDS



Fig. 754

For eliminating slack and keeping tension on tiller rope at all times. Especially desirable when installing tiller rope in outboard motor boats.

Each	Normal Length Inches	Max. Length Compressed Inches	Outside Diameter Inches	Weight Ounces
\$.60	5 3/4	7 3/4	3/4	5

Dock Line Springs

STEEL—ZINC PLATED



Fig. 759

A very strong compression spring for dock and mooring lines. It cushions the strain and contributes greatly to the life of the line.

Size No. 1 will accommodate 1/2 inch diameter rope, No. 2 for 3/4 inch rope.

The end loops may be readily disassembled for attachment of thimbles or other fittings.

We recommend the application of zinc chromate paint under a marine paint to thoroughly protect the spring against corrosion.

No.	Each	Length Overall Inches	Diameter Spring Inches	Diameter Metal Inches	Compression Inches	Weight Pounds
1	\$2.25	10	1 1/2	3/10	4 1/2	7 1/2
2	4.75	18	2	1/4	8	2 3/4



Mooring Bitts

CAST BRONZE

ROUND POST—ROUND BASE

POST TAPERED TO HOLD LINE AT BOTTOM
ROUND TO PREVENT WEAR ON LINE



Fig. 597

An improved design in appearance and practicability for small boats. The line stays at the bottom of the post, the point of greatest holding power. The round post will not chafe the line.

No.	Polished Bronze Each	Chromium Plated Each	Diam. Base Inches	Height Inches	Weight Pounds
1	\$5.25	\$6.75	2 3/4	2 5/8	3/4
2	6.50	8.00	3 3/8	3 5/8	1 1/2

Riding Bitts

GALVANIZED CAST IRON



Fig. 926

Size No.	Galv. Each	Height Inches	Size Base Inches	Bored for Bolt Diam. Inches	Weight Pounds
00	\$ 3.30	3 1/2	2 1/2 x 2 1/2	1/4	1 1/2
0	4.25	4 1/2	3 x 3	5/16	2 1/4
01	5.25	5 3/4	3 1/2 x 3 1/2	3/8	4
1	6.30	6 3/4	5 x 5	1/2	6
1 1/2	9.45	8 1/4	5 1/2 x 5 1/2	5/8	9
2	18.50	10	5 1/2 x 7 1/2	5/8	18

Anchor Lift Leaders

GALVANIZED MALLEABLE IRON



Fig. 483

For attaching to bow of boat. The sheave projects over the stem. These are very handy for raising or dropping anchor.

Each	For Diam. Rope Inches	Size Sheave Inches	Length Overall Inches	Length Plate Inches	Weight Pounds
\$2.00	3/8	2 x 1 1/2	7 1/2	4 1/2	1 1/4

Mooring Bitts

CAST BRONZE

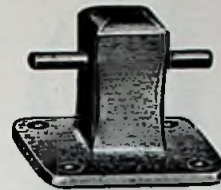


Fig. 608

No.	Polished Bronze Each	Chromium Plated Each	Size Base Inches	Height Inches	Weight Pounds
1	\$ 6.35	\$ 8.35	3 x 3	2 1/2	7/8
2	8.80	11.30	4 1/4 x 4 1/4	3 1/2	1 1/8
3	17.50	21.50	6 x 6	5	4 1/2
4	27.50	32.50	7 x 7	6 1/2	12

Comb. Bitt and Rope Deck Pipes

CAST BRONZE



Fig. 431

A hollow one piece casting of minimum weight but maximum strength. An opening in one side of bitt to allow rope to be stored below deck but always ready for use.

No.	Polished Bronze Each	Chromium Plated Each	Size Base Inches	Height Inches	For Diam. Rope Inches	Weight Pounds
1	\$ 9.50	\$12.00	4 1/4 x 4 1/4	3 1/2	3/4	1 3/4
2	18.25	22.25	6 x 6	5	1	4

Rope Deck Pipes

GALVANIZED CAST IRON OR CAST BRONZE



Fig. 741

No.	For Diam. Rope Inches	Inside Diam. Inches	Diam. Flange Inches	Height Above Deck Inches	Weight Pounds
0	5/8	1 1/4	3	1 3/8	3/4
1	3/4 & 1	1 5/8	4 1/4	1 3/4	1 5/8
2	1 1/4	2 1/8	4 3/8	1 7/8	1 7/8

No.	Galvanized Each	Chromium Plated Each
0	-----	\$ 5.50
1	\$2.75	11.50
2	4.00	16.00

Ribbed Socket Rowlocks

GALVANIZED—CAST IRON



Fig. 638

Size No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Pounds
0	\$.95	\$.55	\$.42	1 3/4	1 1/8
1	1.00	.58	.42	2	1 1/4
2	1.40	.85	.55	2 1/4	1 3/4

Standard Socket Rowlocks

GALVANIZED MALLEABLE IRON



Fig. 639

Size No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Pounds
0	\$1.42	\$1.00	\$.42	1 3/4	1 1/8
1	1.57	1.15	.42	2	1 1/4
2	2.35	1.60	.75	2 3/4	1 3/4
3	3.40	2.50	.90	2 1/2	2 5/8

North River Rowlocks

WITH STANDARD SOCKET

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1227

No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Ounces
0	\$3.85	\$2.60	\$1.40	1 3/4	15

North River Rowlocks

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 643

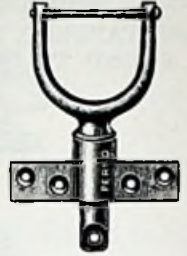


Fig. 644

Fig.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Pounds
643 Galv.	\$1.82	\$1.45	\$.42	2 1/8	1 1/2
644 Galv.	2.35	1.45	.90	2 1/8	1 1/2
643 Pl. Bronze	3.00	2.10	.90	2 1/8	1 1/2
644 Pl. Bronze	3.70	2.10	1.60	2 1/8	1 1/2
643 Pol. Bronze	5.10	3.60	1.50	2 1/8	1 1/2
644 Pol. Bronze	6.35	3.60	2.75	2 1/8	1 1/2
643 Chrom. Pltd.	7.50	5.10	2.40	2 1/8	1 1/2
644 Chrom. Pltd.	8.70	5.10	3.60	2 1/8	1 1/2

Hole in horn shank for chain not included.

North River Rowlocks

WITH FANCY SIDE PLATE

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 652

Size No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Pounds
1 Galv.	\$2.65	\$1.45	\$1.20	2 1/8	1 1/2
1 Pl. Bronze	4.00	2.10	1.90	2 1/8	1 1/2
1 Pol. Bronze	7.00	3.60	3.40	2 1/8	1 1/2
1 Chrome Pltd.	9.00	4.60	4.40	2 1/8	1 1/2

North River Rowlocks

WITH SIDE PLATE SOCKET

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1228

No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Ounces
0	\$5.00	\$2.60	\$2.60	1 3/4	18

NOTE—BRASS SAFETY CHAIN FOR ROWLOCKS, \$.45 PER PAIR



Boston Side Plate Rowlocks

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 646

Size No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Pounds
0 Galv.	\$2.15	\$1.00	\$1.15	1 3/4	1 1/4
1 Galv.	2.35	1.15	1.20	2	1 1/2
0 Pl. Bronze	3.85	1.95	1.90	1 3/4	1 1/4
1 Pl. Bronze	3.95	2.05	1.90	2	1 1/2
0 Pol. Bronze	6.60	3.20	3.40	1 3/4	1 1/4
1 Pol. Bronze	6.80	3.40	3.40	2	1 1/2
0 Chrome Pltd.	8.60	4.20	4.40	1 3/4	1 1/4
1 Chrome Pltd.	8.80	4.40	4.40	2	1 1/2

Side Plate Rowlocks

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 645

Size No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Pounds
0 Galv.	\$1.95	\$1.05	\$.90	1 3/4	1 1/4
1 Galv.	2.05	1.15	.90	2	1 1/4
1 Pl. Bronze	4.45	2.85	1.60	2	1 1/4
1 Pol. Bronze	6.85	4.10	2.75	2	1 1/4
1 Chrome Pltd.	8.60	5.10	3.50	2	1 1/4

Boston Socket Rowlocks

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 545

Size No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Opening Inches	Weight Per Pair Pounds
0 Galv.	\$1.42	\$1.00	\$.42	1 3/4	1 1/4
1 Galv.	1.57	1.15	.42	2	1 1/2
0 Pl. Bronze	2.85	1.95	.90	1 3/4	1 1/4
1 Pl. Bronze	2.95	2.05	.90	2	1 1/2
0 Pol. Bronze	4.70	3.20	1.50	1 3/4	1 1/4
1 Pol. Bronze	4.90	3.40	1.50	2	1 1/2
0 Chrome Pltd.	6.80	4.40	2.40	1 3/4	1 1/4
1 Chrome Pltd.	7.00	4.60	2.40	2	1 1/2

Davis Pattern Rowlocks

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 641

Size No.	Galv. Per Pair	Plain Bronze Per Pair	Polished Bronze Per Pair	Chromium Plated Per Pair	Opening Inches	Weight Per Pair Pounds
0	\$2.60				1 3/4	2
1	2.95	\$4.25	\$7.90	\$9.90	2	2
2	3.85				2 1/4	2 1/2

Round Socket Rowlocks

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 642

Size No.	Complete Per Pair	Horns Only Per Pair	Sockets Only Per Pair	Inside Diam. Inches	Weight Per Pair Pounds
0 Galv.	\$1.47	\$1.05	\$.42	2	1 1/4
1 Galv.	1.67	1.25	.42	2 1/4	1 1/2
2 Galv.	2.20	1.45	.75	2 1/2	1 3/4
1 Pl. Bronze	3.40	2.50	.90	2 1/4	1 1/4
1 Pol. Bronze	5.95	4.45	1.50	2 1/4	1 1/4
1 Chrome Pltd.	7.95	5.45	2.50	2 1/4	1 1/4

Copper Oar and Paddle Tips

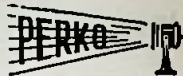


Fig. 794



Fig. 788

Fig. 794 Oar Tips—Per Pair\$.50
 Fig. 788 Paddle Tips—Each30



Step Plates

ZAMAK DIE CASTING—CHROMIUM PLATED
WITH BLACK OR WHITE MOULDED
RUBBER STEP PADS

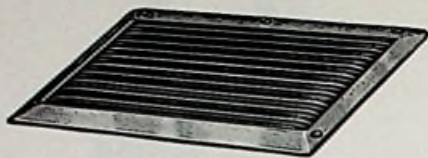


Fig. 1225

No.	Black Complete Each	White Complete Each	Frames Only Each	Extreme Dimensions Inches	Weight Ounces
1	\$3.10	\$3.25	\$2.30	8 3/4 x 3 1/4	8
2	4.00	4.15	3.00	11 1/2 x 5 3/4	12

Black supplied unless otherwise specified.

Rubber Pads Only

BLACK OR WHITE



Fig. 1050

No.	Black Each	White Each	Length Inches	Width Inches	Thickness Inches	Weight Ounces
1	\$.80	\$.95	8	2 1/2	3/16	3 1/4
2	1.00	1.15	11	5	3/16	8 1/4

Black supplied unless otherwise specified.

"Sav-Or"

COMBINATION OAR SLEEVE AND STOP
BLACK MOULDED NATURAL RUBBER



Fig. 648

An excellent item for adding years of life to a pair of oars plus noiseless operation when fishing. Also serves as a sleeve for outrigger or fishing pole socket.

Fits snugly to shape of oar yet easy to attach.

Inside diameter is tapered from 1 1/2 inches at small end to 1 1/4 inches at large stop end.

Per Pair	Length Inches	Outside Diameter Stop Inches	Thickness Stop Inches	Weight Per Pair Ounces
\$2.75	9	3	3/4	8

Non Skid Step Plates

WITH MOULDED RUBBER STEP PADS
BLACK OR WHITE
CAST BRONZE FRAME—CHROMIUM PLATED

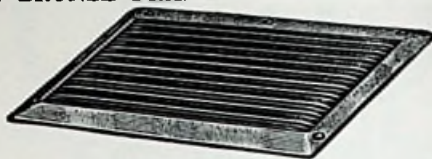


Fig. 1043

No.	Black Complete Each	White Complete Each	Frames Only Each	Extreme Dimensions Inches	Weight Pounds
1	\$4.80	\$4.95	\$4.00	8 3/4 x 3 1/4	3/4
2	6.50	6.65	5.50	11 1/2 x 5 3/4	1 3/4

Black supplied unless otherwise specified.

Utility Rubber Step Plates

HEAVY CORRUGATED
BLACK OR WHITE RUBBER WITH
BRASS, CHROMIUM PLATED FRAME
WITH OR WITHOUT NAME OF BOAT



Fig. 1039—Name Inlaid



Fig. 1044—Plain

No.	Fig. 1044		Fig. 1039 Black or White Each	Extreme Dimensions Inches	Weight Pounds
	Black Each	White Each			
3	\$4.20	\$4.35	\$ 8.20	8 1/2 x 3 1/2	1/2
4	5.25	5.40	9.20	10 x 4	3/4
5	5.85	6.05	11.20	13 x 5	1
6	6.30	6.50	12.20	17 x 6	1 1/2
7	7.40	7.70	13.20	18 x 7	2
8	8.40	8.70	14.20	20 x 8	2 1/2
9	9.40	9.70	15.20	22 x 9	3

Note—Be sure to specify color. Black shipped unless otherwise specified.

Fig. 1039 has name of white rubber inlaid in black pad or the reverse, please specify.

Each letter requires 2 inches of space, i.e., a 5 letter word will require a 10 inch plate size No. 4.

Oar Leathers and Buttons

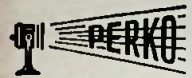
RUSSET LEATHER



Fig. 233

A high grade russet leather and button.

	Per Pair
Complete, Leathers and Buttons	\$1.60
Leathers Only—7x6 1/2 Inches	1.30
Buttons Only—3/2x13 Inches .....	.35



Transom Plates

FOR OUTBOARD MOTORS
ZAMAK DIE CASTING—CHROMIUM PLATED
WITH LEATHER PADS



Fig. 1224

Per Pair	Length Overall Inches	Inside Diameter Inches	Weight Per Pair Ounces
\$1.20	3 3/8	1 3/4	2 3/4

FORGED BRONZE—WITH LEATHER PADS



Fig. 814

Dull Finish Per Pair	Polished Per Pair	Chromium Plated Per Pair	Outside Diameter Inches	Inside Diameter Inches	Weight Per Pair Ounces
\$1.40	\$1.75	\$2.25	3	1 3/4	7

Rubber Clamp Pads

NEOPRENE—WITH REINFORCING DISC



Fig. 171

Attaches to motor clamp, cushions noise and vibration. Fits all motors.

Per Pair	Diameter Inches	Weight Per Pair Ounces
\$3.00	2 1/2	6 1/2

Outside Transom Plates

FOR OUTBOARD MOTORS
WROUGHT ALUMINUM



Fig. 185

Protects outside of transom. Fits all motors.

Each	Height Inches	Width Top Inches	Width Bottom Inches	Weight Ounces
\$1.75	9	10 3/4	8	5 1/2

Transom Plates

FOR OUTBOARD MOTORS
ALUMINUM—PLAIN

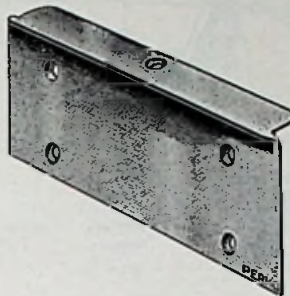


Fig. 739

Has angle flange to protect top of transom and lip on inboard side to keep motor from jumping off if clamps become loose.

No.	Each	Dimensions of Plate Inches	Angle Flange Inches	Weight Ounces
1	\$2.00	10 x 4	1	7
2	2.50	8 1/4 x 3 3/4	7/8	9

Size No. 1 is wrought aluminum and large enough for 25 H.P. motor.

Size No. 2 is cast aluminum.

Rubber Transom Pad

FOR OUTBOARD MOTORS
NEOPRENE—WITH FORMICA INSERT



Fig. 172

Reduces noise and vibration. Protects both sides of transom. Fits all sizes and models of O.B. motors.

Black Each	Extreme Width Inches	Weight Pounds
\$3.95	10 1/2	1 1/2

Drip Pan

POLYETHYLENE—SILVER TONE FINISH



Fig. 173

Catches overflow of gas and oil from motor, also serves as a tool or parts shelf. Back is formed to fit over bracing knee.

Lightweight - Unbreakable
Fits all sizes and models of motors.

Each	Width Overall Inches	Height Overall Inches	Extends Inches	Weight Ounces
\$3.00	11 3/4	4 3/4	4 1/2	12

Bow Plates
CAST BRONZE



Fig. 181

Polished Bronze Each	Chromium Plated Each	Size Plate Inches	Diam. Eye Inches	Weight Ounces
\$3.50	\$4.00	4 1/8 x 4 3/8	3 1/4	10

Bow Eyes
CAST BRONZE



Fig. 303

No.	Metal In Eye Inches	Length of Straps Inches	Extreme Length Inches	Inside Diam. Eye Inches	Wt. Ozs.
1	3/8	1 3/4	3	3/4	3 1/2
2	1/2	2 5/8	3 3/4	7/8	5

No.	Burnished Bronze Each	Polished Bronze Each	Chromium Plated Each
1	\$.85	\$1.45	\$1.90
2	1.00	1.85	2.30

Bow Rings
DROP FORGED BRONZE
EXTRA STRONG SHANK



Fig. 238

For towing or mooring small boats. Points under shoulder prevent turning or twisting of eye.

No.	Plain Bronze Each	Pol. Bronze Each	Chromium Plated Each	I. D. Eye Inches	Lgth. Shank Inches	Diam. Shank Inches	Wt. Ozs.
1	\$1.10	\$1.65	\$2.10	1	3 1/2	3/8	5 1/2
2	1.75	2.25	2.60	1	6	3/8	7

Solid Brass Rings
POLISHED



Fig. 417

Inside Diam. Inches	Thickness Inches	Per Dozen	Inside Diam. Inches	Thickness Inches	Per Dozen
1/2	5/32	\$1.35	1 1/4	3/16	\$3.25
5/8	5/32	1.50	1 1/2	7/32	4.45
3/4	5/32	1.75	1 3/4	7/32	6.10
7/8	5/32	2.15	2	1/4	7.15
1	5/32	2.60	2 1/2	9/32	9.25

Ring on Plate
GALVANIZED DROP FORGED STEEL



Fig. 607

No.	Galvanized Each	Size Ring Inches	Size Plate Inches	Weight Per 10 Pounds
1	\$1.10	3/16 x 1 1/2	2 1/8 x 2 1/8 x 1/4	33
2	1.35	3/8 x 2	2 1/8 x 2 1/8 x 1/4	50

Ring on Plate

CAST BRONZE—STREAMLINE PATTERN



Fig. 182

No.	Polished Bronze Each	Chromium Plated Each	Length Base Inches	Width Base Inches	Size of Ring Inches	Weight Ounces
1	\$1.95	\$2.65	2 3/4	1 1/2	3/10 x 1 1/4	2 3/4
2	2.45	3.15	3 1/4	1 7/8	7/32 x 1 1/2	3 1/2

Rings with Straps

GALVANIZED MALLEABLE IRON
OR CAST BRONZE—HEAVY PATTERN



Fig. 1020

Size No.	Galv. Each	Burnished Bronze Each	Pol. Bronze Each	Chromium Plated Each	Size Ring Inches	Size Strap Inches
1	\$.80	\$1.05	\$1.85	\$2.10	7/32 x 1 1/2	4 1/8 x 3
2	.90				3/16 x 1 3/4	4 1/8 x 3

Weight No. 1, 2 1/2 ounces, No. 2, 3 1/2 ounces.

Lifting Handle
FOR BOW OR TRANSOM
CAST BRONZE OR ALUMINUM



Fig. 186

Length Overall Inches	Height Inches	Width Base Inches	Size Opening Inches	Bronze Weight Ozs.
6 7/8	2	1 1/4	3 3/4 x 1 1/2	12

Polished Bronze Each	Chromium Plated Each	Polished Aluminum Each
\$2.85	\$3.50	\$2.85



Bow Lifting Handle

CAST BRONZE OR ALUMINUM



Fig. 363

Polished Bronze Each	Chromium Plated Each	Polished Aluminum Each	Length Overall Inches	Height Above Deck Inches	Bronze Wt. Ozs.
\$2.80	\$3.50	\$2.50	6½	2	9

Streamline Bow Handle

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1238

An extremely good looking bow handle for small boats. A practical grab handle for cabin boats.

Chromium Plated Each	Length Overall Inches	Height Above Deck Inches	Weight Ounces
\$4.00	13½	1¼	14

Bow Lifting Handle

ZAMAK DIE CASTINGS—CHROMIUM PLATED



Fig. 1221

Fig. 1234

Chromium Plated Each	Length Overall Inches	Height Above Deck Inches	Weight Ounces
\$2.50	6½	2	5½

Round Grip

Transom Lifting Handle

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1231

Extra strong for heavy boats. The round grip has no sharp edges and is ample to accommodate a man size hand.

Each	Length Overall Inches	Length Inside Inches	Height Inside Inches	Weight Ounces
\$1.80	6	3½	1½	7¼

Transom Lifting Handle

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1229

Will not hurt the hand, no sharp edge, grip is of proper angle to fit comfortably.

Chromium Plated Each	Length Overall Inches	Length Inside Inches	Weight Ounces
\$1.35	5¼	3½	2½

Transom Lifting Handles

CAST BRONZE

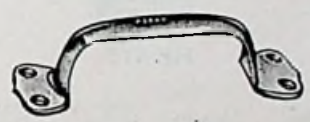


Fig. 775

No.	Polished Bronze Each	Chromium Plated Each	Length Overall Inches	Length Inside Inches	Weight Ounces
1	\$1.00	\$1.35	4¼	2½	2
2	1.35	1.75	5¾	3¾	4

Size No. 2 is U. S. Govt. Type No. 1274.

Hatch or Lifting Handle

GALV. MALL. IRON OR CAST BRONZE

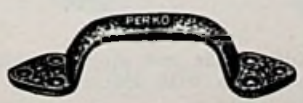


Fig. 361

Galv. Each	Burnished Bronze Each	Chromium Plated Each	Length Overall Inches	Size Opening Inches	Weight Ounces
\$.80	\$1.20	\$2.50	6½	3¼ x 1¼	8

Transom Lifting Handles

ZAMAK DIE CASTING—CHROMIUM PLATED

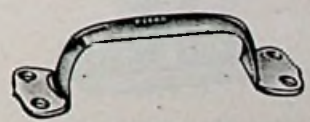


Fig. 1222

Chromium Plated Each	Length Overall Inches	Length Inside Inches	Weight Ounces
\$1.25	5¾	3¾	3¾

Improved Lifting Ring

WITH LOOSE DECK FLANGE
CAST BRONZE—FOR 1/8 INCH ROD



Fig. 412

The loose deck flange is a simple but worthwhile improvement as it eliminates all strain or pull on the deck when lifting the boat.

Chromium Plated Each	I. D. Eye Inches	Length Inches	Stock in Eye Inches	Diam. Flange Inches	Weight Ounces
\$5.50	1 3/8	3 1/2	7/16	2	10

Standard Lifting Ring

WITH INTEGRAL DECK FLANGE
CAST BRONZE—FOR 1/8 INCH ROD



Fig. 415

Chromium Plated Each	I. D. Eye Inches	Length Inches	Stock in Eye Inches	Size Flange Inches	Weight Ounces
\$5.20	1 3/8	3 1/2	1/2	3x2 1/4	12 1/2

Keel Plates

FOR ABOVE LIFTING RINGS
CAST BRONZE—FOR 1/8 INCH ROD



Fig. 446

Burnished Bronze Each	Size Base Inches	Weight Ounces
\$1.75	3x1 3/8	7

Battery Container

FOR

6 VOLT "HOT SHOT" BATTERY
GALVANIZED SHEET STEEL WITH
HEAVY GAUGE WROUGHT STEEL BRACKETS



Fig. 713

The problem of where to stow the battery in an outboard motor boat is now a thing of the past.

This container is designed for fastening to the under side of a seat, out of the way. It fits the 6 volt battery perfectly and has a rubber grommetted exit for the wires.

Supplied complete with two bronze 1/4" x 1 1/2" carriage bolts with wing nuts.

Each	Length Box Inches	Width Box Inches	Depth Box Inches	Weight Pounds
\$4.90	10 1/2	7 3/4	2 3/4	2 1/4

Battery Container For Storage Battery

GALVANIZED SHEET STEEL
WITH GALVANIZED WROUGHT STEEL
HOLDING BRACKETS



Fig. 712

To accommodate the wet storage battery necessary for outboard motors with electric self starters.

Has friction tight cover and opening for battery cable.

Each	Length Inside Inches	Width Inside Inches	Depth Inside Inches	Weight Pounds
\$9.50	9 1/2	7 1/2	10 1/2	4 1/4



Boat Hooks

GALVANIZED MALLEABLE IRON OR BRONZE SHARP POINTS



Fig. 223

Size No.	Galvanized Each	For Diam. Pole Inches	Extreme Length Inches	Weight Ounces
0	\$1.25	1	7 1/4	8
1	1.50	1 1/4	8 1/4	12
2	2.00	1 1/2	9 3/8	16
3	3.50	2	9 3/4	28

BALL POINTS

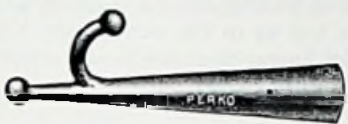


Fig. 224

Size No.	Galvanized Each	Polished Bronze Each	Chromium Plated Each	For Diam. Pole Inches	Extreme Length Inches	Wt. Oz.
3 1/2	\$1.40	\$3.25	\$4.25	1	7 3/8	9
4	1.70	3.50	4.50	1 1/4	8 1/4	12
5	2.00	4.50	5.50	1 1/2	9 3/8	18
6	3.50			2	9 1/2	28

Note—Pole end is measured by outside diameter to fit flush with surface of pole.

Lightweight Boat Hook

ALUMINUM WHITE RUBBER GRIPS—RUBBER BUMPER



Fig. 226

This boat hook will float if dropped overboard. Has a strong wide hook for quick grab, rubber bumper for pushing.

Length Overall Feet	Each	Diameter Pole Inches	Weight Pounds
5	\$5.50	1	1 5/8
6	6.10	1	2
7	6.60	1	2 1/2

Boat Hook Holders

SPRING BRASS

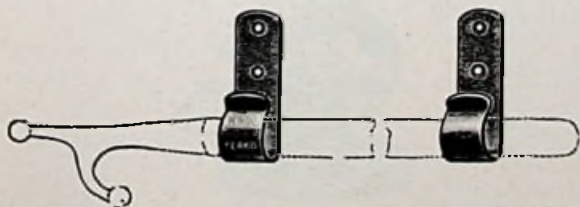


Fig. 490

Made of spring brass, they will accommodate poles up to 1 1/2 inch in diameter, and hold them firmly in place.

Polished Brass Each	Chromium Plated Each	Length Inches	Width Inches	Weight Pounds
\$.95	\$1.25	3 1/2	1	1 1/2

"Holdall" Spring Clamps

SPRING BRASS—CHROMIUM PLATED

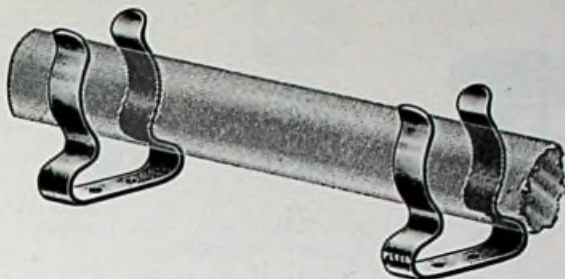


Fig. 502

A clamp having many uses aboard boats of every size and type. Also serves around the home, club, store or factory.

Excellent for stowing fishing rods; boat hooks, oars, swab, broom, flashlight, flagstaff, pump, etc., etc.

Produced in two general sizes but both can be adjusted to tightly clamp objects of various sizes.

No.	Chromium Plated Per Pair	Adjustability Inches	Length From Wall Inches	Width of Metal Inches	Weight Per Pair Ounces
1	\$1.50	5/8 to 1 1/4	1 1/2	1/2	2
2	1.90	1 to 1 3/4	2 1/4	5/8	2 1/2

Packed—1 Pair Per Box—25 Boxes Per Package.

Ring Buoy Holders

CAST BRONZE



Fig. 1017

Burnished Bronze Each	Polished Bronze Each	Chromium Plated Each	Width Mounting Plate Inches	Height Overall Inches	Weight Pounds
\$1.65	\$3.00	\$3.85	3	4 1/2	1/2

Fender Hooks

GALV. MALLEABLE IRON OR FORGED BRONZE



Fig. 547

No.	Galv. Each	Dull Bronze Each	Polished Bronze Each	Chromium Plated Each	For Rope Diam. Inches	Size Plate Inches
1	\$.35	\$.50	\$.75	\$1.10	5/16	1 5/8 x 1 1/4
2	.75	.85	1.20	1.70	1/4	2 1/4 x 1 1/4

Note—Bronze fender hooks in both sizes are forged bronze, not cast.

Flush Flag Pole Socket

GALVANIZED CAST IRON—CAST BRONZE



Bow
Fig. 218



Stern
Fig. 219

Inside Diam. Inches	Galv. Each	Polished Bronze Each	Chromium Plated Each	Diam. Flange Inches	Depth Socket Inches	Wt. Oz.
3/4	\$.75	\$1.50	\$2.00	2	1 1/2	4 1/2
1	.80	1.65	2.30	2 1/2	1 3/4	6
1 1/4	1.10	2.00	2.75	2 3/4	2	10
1 1/2	1.75	3.10	3.85	3 1/4	2 3/8	16

Upright Flag Pole Socket

ROUND BASE
CAST BRONZE



Bow
Fig. 220



Stern
Fig. 221

Inside Diam. Inches	Polished Bronze Each	Chromium Plated Each	Diam. Base Inches	Height Inches	Weight Ounces
3/4	\$2.20	\$2.75	2 1/2	1 3/4	7
1	2.75	3.75	2 1/2	2	8 1/2
1 1/4	3.40	4.25	2 3/4	2 1/2	11
1 1/2	4.25	5.30	3	3	16

New Upright Flag Pole Sockets

ZAMAK DIE CASTINGS—CHROMIUM PLATED



Bow
Fig. 342



Stern
Fig. 343

Inside Diam. Inches	Each	Diameter Base Inches	Height Overall Inches	Weight Ounces
3/4	\$1.60	2 1/2	2	4 1/2

Boat Cover Sockets

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 578

An excellent item for preventing or eliminating sag in boat cover.

Sockets will accommodate a piece of wood lattice 3/8 inches thick and up to 1 1/4 inches wide. Cut the lattice a few inches longer than the boat's width to obtain a low arch under the cover.

Per Pair	Length Overall Inches	Size Opening Inches	Width Overall Inches	Weight Per Pair Ounces
\$1.25	3 3/4	1 7/8 x 7/16	3/4	2

Water Ski Tow Hooks

CAST BRONZE

These strong hooks securely attached to the port and starboard knees are just the thing for towing skiers, aquaplanes or boats.

WITHOUT LINK



Fig. 817

Burnished Each	Chromium Plated Each	Length Overall Inches	Width Inches	Weight Pounds
\$2.10	\$3.15	3	1 3/4	1/2

WITH LINK



Fig. 861

Link prevents tow line from jumping out. This unit also serves as a chock or hook for dock line.

Chromium Plated Each	Length Overall Inches	Width Overall Inches	Weight Pounds
\$3.60	3 1/4	1 3/4	1/2

Streamline Grab Rail Posts

FOR 1 INCH O. D. TUBING—20 B & S GAUGE
CAST BRONZE



Fig. 413

Notice that the tubing does not pass through the post but fits snug over an integral projecting part of post, hence, the post and tubing when assembled provides a smooth streamline unit. No unsightly bulges.

Polished Bronze Each	Chromium Plated Each	Height Overall Inches	Dimensions Base Inches	Weight Each Ounces
\$3.60	\$4.75	2 1/4	3x2	10

Please specify whether center or end required.

BRASS TUBING, 1 INCH O.D. FOR ABOVE

Polished Per Foot	Chrome Plated Per Foot
\$1.85	\$2.40

6 foot lengths or less \$1.85 \$2.40

Not supplied in lengths longer than 6 feet.

Price applies to each foot or any fraction thereof.

Grab Rails

CAST BRONZE POSTS—BRASS TUBING



Fig. 379

Length Between Posts Inches	Diameter of Tubing			
	1 Inch		1 1/8 Inch	
	Polished Bronze Each	Chromium Plated Each	Polished Bronze Each	Chromium Plated Each
6	\$7.75	\$9.75	\$8.25	\$10.25
12	8.25	10.50	8.75	11.00
18	9.00	11.50	9.75	12.25

NOTE—Lengths longer than those listed above are made to order only and are not returnable.

Longer Lengths

Add per foot or fraction thereof.

Polished Brass	Chromium Plated
\$1.85	\$2.40

Posts only, end or center, see Fig. 380.

Not supplied in lengths longer than 6 feet.

Grab Rail Posts

CAST BRONZE—HOLLOW



Fig. 380

No.	Polished Bronze Each	Chromium Plated Each	Diam. Base Inches	Height Overall Inches	Diam. Hole Inches	Weight Each Pounds
1	\$3.00	\$4.00	2 1/2	3 3/8	1 or 1 1/8	5/8
2	6.00	7.50	3	3 1/2	1 1/4	1 3/4

Specify whether for center or end, also diameter of hole for No. 1 size.

Stanchion Posts

GALVANIZED CAST IRON OR BRONZE



Fig. 614—For End
Fig. 615—For Center

Size No.	Galv. Each	Pol. Bronze Each	Chrom. Plated Each	Extreme Height of Post Inches	Diam. Base Inches	Bored For
1	\$.65	\$1.90	\$3.00	2	1 5/8	5/8" Rod
1 1/2	.65	1.90	3.00	2	1 5/8	1/4" Pipe
2	.85	2.20	3.40	2 1/2	1 5/8	5/8" Rod
2 1/2	.85	2.20	3.40	2 1/2	1 5/8	1/4" Pipe

Special boring, other than above, price on application.

Hand Rail Sockets

CAST BRONZE



Center

End

Fig. 215

No.	Polished Bronze Each	Chromium Plated Each	For Diam. Rail Inches	Height Overall Inches	Size of Base Inches	Weight Ounces
1	\$3.00	\$3.75	1	1 3/4	3 1/2 x 5/8	5
2	3.85	4.75	1 1/4	2	3 3/4 x 3/4	9

Please specify whether center or end and size.

Wood Rail Hinges and Locks

CAST BRONZE



Fig. 122

Fig. 123

Lock has spring latch on bottom.

Fig. 122

No.	Polished Bronze Each	Chromium Plated Each	Size Rail Inches	Length Inches	Weight Pounds
1	\$10.00	\$11.50	1 1/2 x 2 1/2	5	1 7/8
2	10.00	11.50	1 3/8 x 3	3 5/8	1 3/4

Fig. 123

No.	Polished Bronze Per Set	Chromium Plated Per Set	Size Rail Inches	Length Inches	Weight Pounds
1	\$10.50	\$12.00	1 1/2 x 2 1/2	5	1 7/8
2	10.50	12.00	1 3/8 x 3	3 5/8	1 3/4



Windshield Brackets

FOR RUNABOUTS & OUTBOARD MOTOR BOATS
CAST BRONZE OR CAST ALUMINUM

All grooved for 1/4 inch glass, end brackets beveled to match the crown of most decks. All center brackets are two piece for quick assembly and easier installation. All brackets are open at the top.

CAST BRONZE—50 DEGREE ANGLE

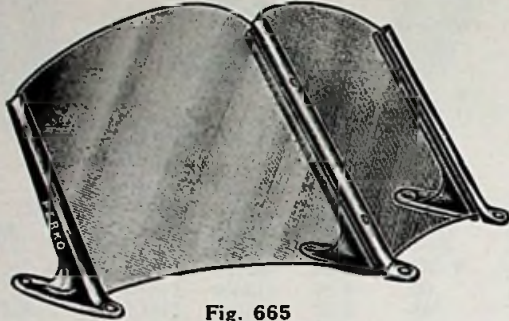


Fig. 665

Chromium Plated Per Set	Height Center Bracket Inches	Height End Brackets Inches	Length Center Base Inches	Weight Per Set Pounds
\$22.50	8 3/4	7	6	5 1/4

Price includes rubber for brackets, no glass supplied.

CAST ALUMINUM—50 DEGREE ANGLE

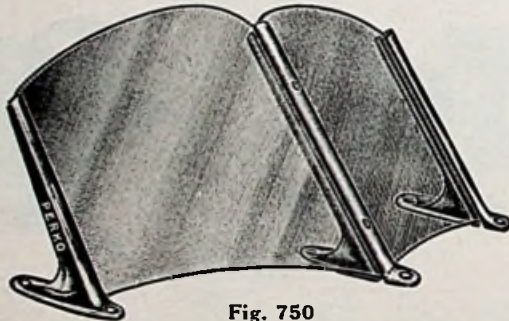


Fig. 750

Polished Per Set	Height Center Bracket Inches	Height End Brackets Inches	Length Center Base Inches	Weight Per Set Pounds
\$13.50	8 3/4	7	6	2

Price includes rubber for brackets, no glass supplied.

CAST BRONZE—60 DEGREE ANGLE

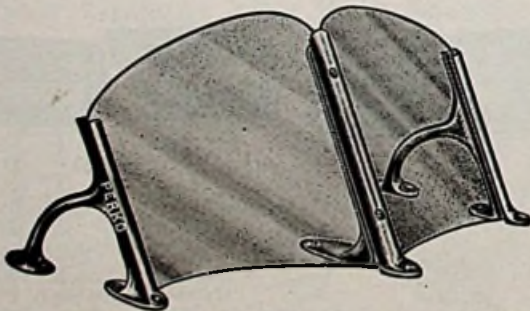


Fig. 930

Chromium Plated Per Set	Height Center Bracket Inches	Height End Brackets Inches	Length Side Base Inches	Weight Per Set Pounds
\$23.25	9 1/4	6 3/8	10	5 1/2

Price includes rubber for brackets, no glass supplied.

Windshield Brackets

FOR RUNABOUTS & OUTBOARD MOTOR BOATS
ZAMAK DIE CASTINGS—CHROMIUM PLATED
50 DEGREE ANGLE

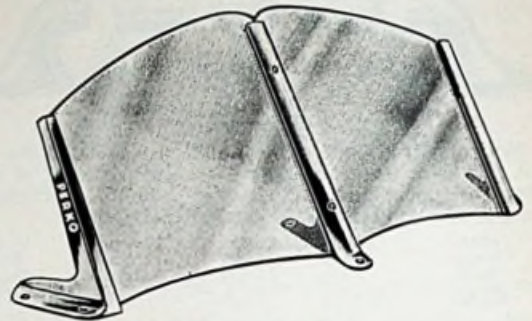


Fig. 1230

End brackets beveled for crown of deck. Center bracket is two piece for easier assembly. All brackets open at top.

For 1/4 inch glass

Chromium Plated Per Set	Height Center Bracket Inches	Height End Brackets Inches	Weight Per Set Pounds
\$14.50	9	7	3 1/2

Rubber Insulation for Windshields

BLACK OR WHITE



Fig. 667
For Bottom



Fig. 668
For Sides

Live moulded rubber for glass 1/4 inch thick.

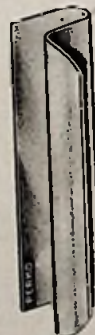
Fig.	Black Per Foot	White Per Foot
667	\$.25	\$.28
668	.12	.14

Fig. 667—Supplied only in 50 ft. lengths.

Fig. 668—Supplied in lengths of 50 feet or longer.

Sliding Window Handle

BRASS—CHROMIUM PLATED



For 1/4 inch glass.

A useful handle made for easier operation of sliding windows.

Each	Length Inches	Weight Ounces
\$1.30	3	1

Fig. 954



Windshield Adjusters

CAST BRONZE



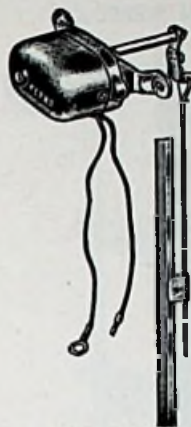
Port Side
Fig. 82

No.	Polished Bronze Per Pair	Chromium Plated Per Pair	Length Overall Inches	Length Adjustment Inches
1	\$12.25	\$15.25	6 1/2	5
2	15.00	19.00	9	7
3	17.50	22.00	12	9 1/2

Note—When ordering 1/2 pair, specify whether for port or starboard side.

Improved Windshield Cleaners

ELECTRIC—6 OR 12 VOLTS
BRASS MOTOR COVER—STAINLESS STEEL
ARM AND SHAFT—CHROMIUM PLATED



Inside mounting, for swing out windshields. Blade is adjustable to various lengths.

Furnished with drilling template, rubber insulating washers, connecting wires and switch.

Extreme Width Inches	Length Blade Inches	Length Shaft Inches	Weight Pounds
6	11	2 1/2	1 1/4
6 Volt Each		12 Volt Each	
\$15.00		\$17.00	

Supplied for outside mounting to order. Prices same as above.

Fig. 395

Windshield Adjusters

CAST BRASS



Fig. 1116

No.	Machine Polished Each	Chromium Plated Each	Length Inches	Diam. Rod Inches	Weight Ounces
1	\$4.75	\$6.30	8	3/8	11
2	5.00	6.80	10	3/8	12
3	5.30	7.25	12	3/8	13

SPARE PARTS

	Each		Each
Arm Assembly	\$1.20	Shaft Assembly	\$1.50
Blade	1.10	Reduction Gear Assy.	1.20
Armature Assembly ..	5.50	Small Spur Gear Assy.	1.20
Coil Assembly	3.25	Gear Rack	1.20
Brush Assembly	1.20	Large Spur Gear Assy.	1.50

Hand Windshield Cleaner

WITH EXTENSIBLE ARM—10 OR 12 INCH BLADE
STAINLESS STEEL ARM AND BLADE HOLDER
OTHER PARTS, BRONZE, CHROMIUM PLATED



Fig. 533

Rustproof — Leakproof

Nothing to get out of order, operates very smoothly by a flip of the wrist. The improved spring tension of the arm holds blade firmly against the glass.

The arm is extensible from 9 to 12 inches, spring tension is adjustable for best wiping pressure.

Chromium Plated Each	*Length Overall Inches	Diam. Shaft Inches	Length Handle Inches	Weight Ounces
\$6.75	15 to 18	3/8	2 3/8	8

*Length with 12 inch blade.

Note—If 10 inch blade is preferred, please specify.

Spare Arms	each	\$1.45
Spare Blades	each	.75

Windshield Keeper and Plate

CAST BRONZE



Fig. 697

Locks the windshield, preventing rattles and assisting in keeping same watertight.

Burnished Per Set	Polished Per Set	Chromium Plated Per Set	Base of Keeper Inches	Base of Plate Inches	Weight Ounces
\$2.10	\$3.45	\$3.95	1 1/2 x 3/8	1 1/4 x 3/8	3 1/2

A set consists of parts illustrated.

Folding Boarding Ladders

MAHOGANY WITH CAST BRONZE FITTINGS
 Made of high quality mahogany, varnished. Supplied complete with plates for hanging and polished bronze or chromium plated fittings.

CLOSED 2 STEPS—OPEN 4 STEPS

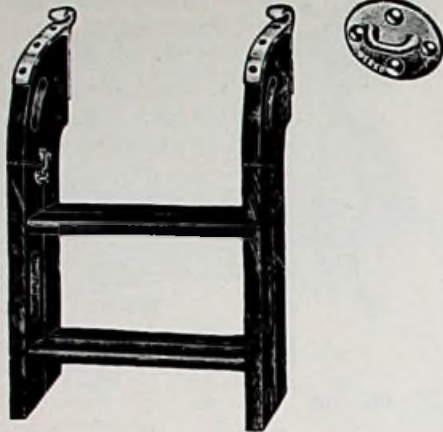


Fig. 557

With Polished Bronze Fittings Each	With Chromium Plated Fittings Each	Overall Length Open Inches	Overall Length Closed Inches	Overall Width Inches	Weight Pounds
\$59.50	\$66.00	36	21 1/2	15	9 1/2

CLOSED 3 STEPS—OPEN 6 STEPS

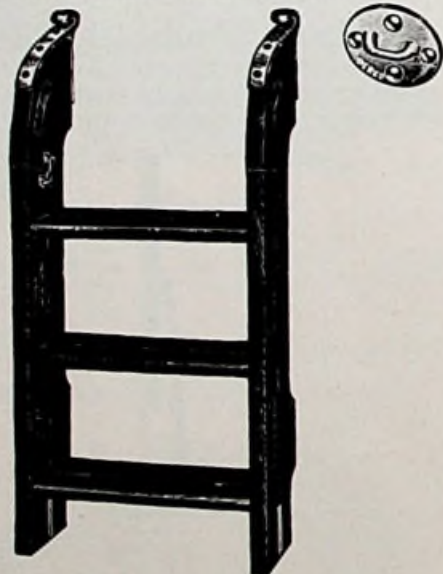


Fig. 558

With Polished Bronze Fittings Each	With Chromium Plated Fittings Each	Overall Length Open Inches	Overall Length Closed Inches	Overall Width Inches	Weight Pounds
\$62.50	\$69.00	51	30	15	12 1/2

SPARE PARTS

Hooks and Hanging Plates, See Fig. 717
 Hinges, See Fig. 556
 Cabin Door Hooks, See Fig. 956

DELUXE LADDERS

With black rubber matting and chromium plated moulding on step made to order. Fig. 557 add \$16.00 each. Fig. 558 add \$23.50 each.

Ladder Locks

FOR COMPANIONWAY OR UPPER BERTH
 CAST BRONZE



Fig. 669

Height Inches	Length Socket Inches	Length Bracket Inches	Weight Per Set Ounces
1 1/4	1	1 3/4	12
Polished Bronze Per Set	Chromium Plated Per Set	Polished Bronze Per Pair	Chromium Plated Per Pair
\$4.50	\$6.75	\$3.25	\$4.75

A set consists of four pieces illustrated.

Ladder Hooks

CAST BRONZE



Fig. 670

Extreme Length Inches	Length Brace Inches	Size Plate Inches	Weight Per Set Pounds
12	4	2 1/2 x 3 1/4	4
Polished Bronze Per Set	Chromium Plated Per Set	Polished Bronze Per Pair	Chromium Plated Per Pair
\$19.00	\$25.50	\$6.00	\$8.00

Ladder Hooks for Folding Boarding Ladder

CAST BRONZE

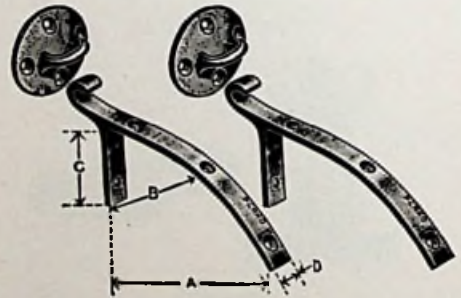


Fig. 717

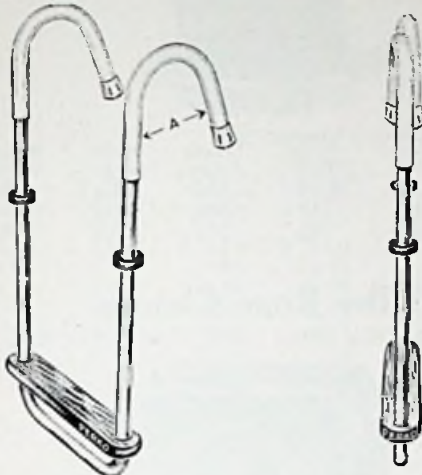
Used on our Figs. 557 and 558 folding boarding ladders. Designed for wide woodwork.

A Inches	B Inches	C Inches	D Inches	Length Curved Arm Inches	Size Plate Inches	Weight Per Set Pounds
6 1/2	4	2 1/2	7/8	7	2 1/2 x 3 1/4	2 1/2
Complete		Plates Only				
Polished Bronze Per Set	Chromium Plated Per Set	Polished Bronze Per Pair	Chromium Plated Per Pair			
\$17.50	\$22.50	\$6.00	\$8.00			



"Leg Over" Ladder

FOLDING TYPE
ALUMINUM TUBING—MAHOGANY STEPS
WHITE RUBBER TRIM—RUBBER BUMPERS



Open for Use

Closed for Stowing

Fig. 999

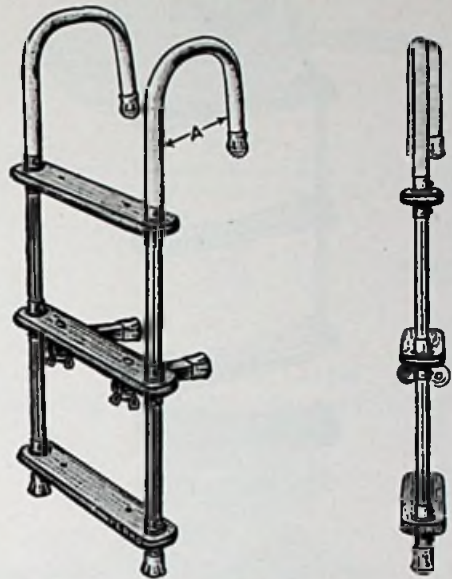
For outboards, rowboats, etc. Place one foot on the step, throw the other over the side.

Folds to thickness of 3 inches for stowing.

Each	Size At "A" Inches	Length Overall Inches	Width Overall Inches	Weight Pounds
\$11.75	6	30 1/2	15 1/2	3 1/4

Heavy Duty Folding Swimming Ladders

FOR USE ON SALT WATER
ALUMINUM TUBING—ANODIZED
WHITE RUBBER TRIM AND BUMPERS
MAHOGANY STEPS



Open for Use

Closed for Stowing

Fig. 1004

A ladder that meets every requirement for small boats, especially desirable for water skiers, aquaplaning and swimming.

The aluminum tubing is anodized and salt water resistant.

The folding feature permits stowing under deck or seats. Thickness when folded is only 3 inches.

All parts which come in contact with the boat deck or hull are covered with white rubber.

The folding brackets may be attached to any step and can be adjusted to keep the ladder vertical on any boat.

For outboard and inboard runabouts and cruisers.

No.	Each	Number of Steps	Size At "A" Inches	Length Overall Inches	Width Overall Inches	Weight Pounds
1	\$21.50	3	7	37	15 1/2	5 3/4
2	23.00	3	9	37	15 1/2	6
3	29.50	4	11	48	15 1/2	7

Folding Swimming Ladders

FOR USE ON FRESH WATER
ALUMINUM TUBING—MAHOGANY STEPS
WHITE RUBBER TRIM

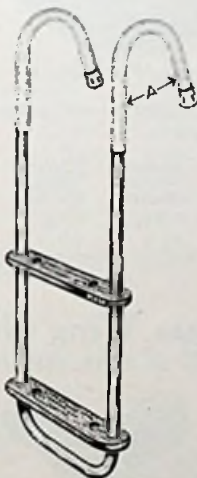


Fig. 1093

For outboards, rowboats and small inboards. Folds to thickness of 3 inches for stowing.

No.	Each	Number of Steps	Size At "A" Inches	Length Overall Inches	Width Overall Inches	Weight Pounds
1	\$14.25	2	6	30 1/2	15 1/2	4 1/4
2	17.25	3	6	37	15 1/2	5

Folding Fenders

FOR LADDERS FIGS. 999 AND 1093
MAHOGANY—WITH WHITE RUBBER BUMPERS

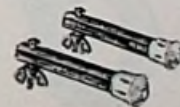


Fig. 1094

For attachment to ladders if required.
Complete with aluminum bolts and wing nuts.

Per Pair	Length Overall Inches	Length Bolt Inches	Weight Per Pair Ounces
\$2.75	7 3/4	2 1/2	8

Rope Swimming Ladders WITH FLAT ASH STEPS

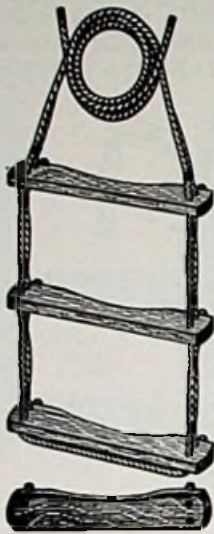


Fig. 992

Steps are mahogany stained, shellacked and varnished.

Dimensions of steps, 15x3 3/4 x 3/4 inches.

Steps are 12 inches apart, cut out on back for hand hold, each step has white rubber bumpers.

Rope is 1/2 inch diameter manila and has 3 foot loop above top step for hanging.

Number of Steps	Each	Number of Steps	Each
2	\$11.00	5	\$18.50
3	13.00	6	21.50
4	15.75		

Additional steps supplied to order, add \$4.25 Each.

Rope Ladder Hook CAST BRONZE



Fig. 817

Burnished Per Pair	Polished Chrome Per Pair	Length Overall Inches	Projection Overall Inches	Weight Per Pair Pounds
\$4.20	\$6.30	3	1 1/8	1 1/2

Tiller Rope Clamps ZAMAK DIE CASTING



Fig. 1226

For Rope Diam. Inches	Natural Finish Each	Chromium Plated Each	Length Inches	Width Inches	Weight Ounces
1/8	\$.30	\$.45	1 1/8	9/16	3/4
3/16	.32	.47	1 1/4	1 1/16	1
1/4	.44	.65	1 1/2	7/8	1 3/4

Tiller Rope Clamps GALVANIZED IRON AND CAST BRONZE



Fig. 358

For Rope Diameter Inches	Galv. Each	Plain Bronzo Each	Width Inches	Length Inches	Weight Ounces
1/8	\$.26	\$.36	3/4	1 5/8	1 3/4
3/16	.28	.38	3/4	1 3/4	2
1/4	.34	.50	1	1 3/4	3
5/16	.46	.60	1	2	3 1/2
3/8	.60	.95	1 1/8	2 1/4	5

Aluminum Racing Fin CAST SILICON ALUMINUM



Fig. 189

Supplied plain; undrilled or drilled and countersunk (6 holes) as illustrated.

Undrilled Each	Drilled Each	Length Overall Inches	Depth Blade Inches	Size Flange Inches	Weight Lbs.
\$3.00	\$3.75	9 1/4	5	2 3/8 x 9 1/4	1

Drilled fin supplied unless otherwise specified.

Brass Wing Nuts U. S. S. THREAD



Fig. 453

For Diam. Bolt Inches	Threads Per Inch	Plain Brass Each	For Diam. Bolt Inches	Threads Per Inch	Plain Brass Each
3/16	24	\$.08	7/10	14	\$.45
1/4	20	.09	1/2	13	.45
5/16	18	.12	3/8	11	1.10
3/8	16	.18	3/4	10	1.10



Regular Deck Plates

CAST BRONZE—WITH KEY



Fig. 526

Diam. Opening Inches	Machine Finish Complete Each	Polished Bronze Complete Each	Polished Chromium Plated Complete Each	Keys Only Each	Outside Diam. Plate Inches
1	\$ 1.80	\$ 2.75	\$ 3.60	\$.30	2 1/2
1 1/2	2.50	3.50	4.40	.35	3 1/4
2	3.60	4.80	5.70	.35	3 5/8
2 1/2	4.20	5.60	6.60	.50	4 1/2
3	4.60	6.15	7.25	.55	4 3/8
3 1/2	6.50	8.00	9.25	.66	5 1/2
4	7.15	9.35	11.00	.75	5 3/4
5	11.00	14.00	16.25	.85	7 1/16
6	14.30	17.50	20.00	1.55	8 1/4
8	36.00	43.50	50.00	2.20	10 1/4

Caps only, price is 50% of complete plate.

Pipe Deck Plates

CAST BRONZE—WITH KEY—I. P. S. THREAD



Fig. 528

Words, "water," "gas," "oil" or "fuel" marked in flange of all sizes except 3/4 inch when specified, otherwise unmarked deck plates are supplied.

Note, markings are in flange instead of cap. This is an obvious advantage as plate is identified when cap is removed.

Pipe Size Inches	Machine Finish Complete Each	Polished Bronze Complete Each	Polished Chromium Plated Complete Each	Keys Only Each	Outside Diam. Plate Inches
3/4	\$ 2.50	\$ 3.20	\$ 3.65	\$.25	2 5/8
1	2.70	3.45	4.15	.25	2 7/8
1 1/4	3.30	4.20	4.85	.30	3 1/16
1 1/2	3.75	4.60	5.40	.30	3 3/8
2	4.75	5.80	6.50	.45	4 1/4
2 1/2	5.80	6.80	7.50	.45	4 5/8
3	7.70	8.60	9.35	.55	5 3/8

Caps only, price is 50% of complete plate.

Safe-Cap Deck Plates

CAST BRONZE—WITH KEY—I. P. S. THREAD

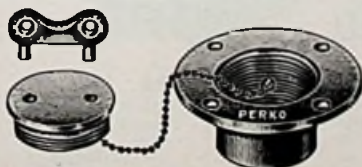


Fig. 525

Our Fig. 528 Pipe Deck Plates can be supplied with chain attached to cap per illustration.

Stock sizes, 1 1/4" and 1 1/2"add each \$.55
All other sizesadd each \$.75

Deck Plate Key

CAST BRONZE—BURNISHED
ADJUSTABLE TO ALL SIZES OF DECK PLATES
IMPROVED UNBREAKABLE PINS



Fig. 826

Will fit all sizes of deck plates up to 8 inch diameter, making it unnecessary to have separate keys for each plate.

Each	Length Overall Inches	Weight Pounds
\$2.10	8 1/2	1

Gas Tank Caps

WITH DECK FLANGE AND SAFETY CHAIN
CAST BRONZE



Fig. 520

Unusually attractive, will enhance the appearance of any boat, particularly a well finished runabout. Both parts are as shallow as practicable to bring the cap close to the deck.

Length of chain is 15 inches.

No.	Chromium Plated Each	Threaded for Pipe Inches	Height Overall Inches	Diam. Deck Flange Inches	Weight Pounds
1	\$6.25	1 1/2	1 3/8	3 1/4	1
2	7.00	2	1 3/8	4	1 1/4

Toggle Bolts

CAST BRASS—PLAIN FINISH

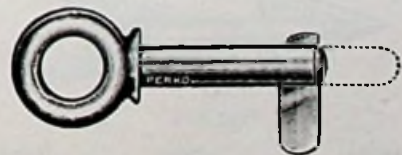


Fig. 196

Diameter Shank Inches	Length Inches	Each
1/4	1 to 6	On Application
5/16	1 to 6	
3/8	1 to 6	
1/2	1 to 6	
5/8	1 to 6	
3/4	1 to 6	

Made to order only, delivery about 3 weeks.

Not sold in quantities of less than 12 pieces of each diameter and length.

Length is measured from under shoulder to beginning of milled slot.

Letters and Figures

CAST BRONZE—REGULAR PATTERN



Fig. 348

Height Inches	Burnished Bronze Each	Weight Per 100 in Lbs.
3	\$.50	24½

GOTHIC PATTERN



Fig. 313

Height Inches	Burnished Bronze Each	Weight Per 100 in Lbs.
3	\$.50	18

Brass Axe Brackets

18 GAUGE—POLISHED



Fig. 325

A set consists of one blade socket and one handle bracket as illustrated.

Complete Sets Per Dozen	Blade Sockets Only Per Dozen	Handle Brackets Only Per Dozen	For Blade Width Inches	Weight Per Set Ounces
\$25.00	\$15.00	\$10.80	6	8

Sword Fish Darts

CAST BRONZE
POINT GROUND AND SHARPENED



Fig. 805

Burnished Each	Length Inches	Weight Ounces
\$.85	5	5

Dart Shanks

IRON SHANK—CAST BRONZE SOCKET

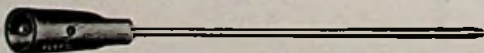


Fig. 655

Length overall, 24 inches; Weight, 1½ pounds.
Each \$3.25

Sail Makers Palms

HIDE MOUNTED



Fig. 411

No.	Right Hand Per Doz.	Left Hand Per Doz.
2 Seaming—Half Hide	\$14.50	\$15.00

"Right Hand" supplied unless otherwise specified.

Quarter Round Rubber Moulding

BLACK



Fig. 471

Generally used as trim or moulding around cabin windows and windshields.

Size ¾ x ¾ inches
Per Foot — \$.19

Supplied only in lengths of 25 feet.

Drip Moulding

WHITE SYNTHETIC RUBBER
NOT EFFECTED BY SUN OR WEATHER



Fig. 192

Per Foot	Height Inches	Extension Inches	Weight Per Foot Ounces
\$.25	¾	¾	1½

Supplied only in standard lengths of 10 feet.

Rubber Fender Moulding

HALF ROUND—WHITE



Fig. 158

Width Inches	Per Foot	Thickness Inches	Weight Per 100 Ft. Pounds
1	\$.27	½	25
1¼	.35	⅝	31
1½	.49	¾	38

Supplied only in 50 foot lengths.



Continuous Hinge
WROUGHT BRASS OR
18-8 STAINLESS STEEL



Fig. 211

For use on hatch covers, locker doors, windshields, etc. Holes are two inches apart, center to center.

Width Open Inches	Length Inches	Polished Brass Each	Brass Chromium Plated Each	Polished Stainless Steel Each	Thickness Inches
1 1/4	60	\$4.10	\$5.50	\$6.00	.045
1 1/4	72	4.85	6.50	7.20	.045
1 1/2	60	4.25	5.70	6.40	.045
1 1/2	72	5.00	6.75	7.70	.045
2	60	6.25	8.00		.045
2	72	7.50	9.50		.045

Flat Hatch Trim
WROUGHT BRASS OR
18-8 STAINLESS STEEL



Fig. 243

For finishing around edges of hatch. Drilled and countersunk off center for No. 6 flat head screws.

Width Inches	Length Inches	Brass Chromium Plated Each	Polished Stainless Steel Each	Thickness Inches
1 1/4	60	\$3.90	\$3.40	.040
1 1/4	72	4.70	3.90	.040
1 1/2	60	4.10	3.90	.040
1 1/2	72	4.85	4.70	.040

Aluminum Fender Moulding

ANODIZED ALUMINUM—POLISHED FINISH
DRILLED FOR WOOD SCREWS, 6 INCH CENTERS



Fig. 193

Width Inches	12 Foot Lengths Each	16 Foot Lengths Each	Thickness Inches	Drilled For Screw No.	Weight Per Foot Ounces
1/2	\$3.00		1/8	4	1
5/8	3.70		3/8	5	1 1/4
3/4	4.50	\$6.00	5/32	6	1 1/2

1/2 and 5/8 inch sizes supplied only in 12 foot lengths.
3/4 inch size supplied in 12 or 16 foot lengths. Please specify.

Stainless Steel Fender Moulding

18-8 QUALITY—POLISHED FINISH
DRILLED FOR WOOD SCREWS, 6 INCH CENTERS



Fig. 199

Width Inches	16 Foot Lengths Each	Thickness Inches	Drilled For Screw No.	Weight Per Length Pounds
3/4	\$23.00	3/16	6	8

Fender Moulding

18-8 STAINLESS STEEL .045" THICK
POLISHED



Fig. 110

Punched and countersunk 8 inch centers for No. 7 oval head wood screws.

- 6 foot length has both ends pointed.
- 12 foot length has one end pointed.
- 16 foot length has both ends pointed.

6 Foot Lengths Each	12 Foot Lengths Each	16 Foot Lengths Each	Width Outside Inches	Width Inside Inches	Weight Per Ft. Ounces
\$3.95	\$7.90	\$12.00	7/8	3/4	3

Moulding Ends

CAST BRONZE—CHROMIUM PLATED



Fig. 111

For finishing cut end of moulding Fig. 110.

Each	Length Overall Inches	Length Head Inches	Width Neck Inches	Weight Ounces
\$1.50	2 3/8	1 1/16	3/4	1 1/2

Moulding Couplings

CAST BRONZE—PLAIN



Fig. 38

For inside of Fig. 110 moulding at joint.

Each \$4.00

Swivel Fishing Chair

MAHOGANY WITH CAST BRONZE FITTINGS
DEMOUNTABLE—WITH COVER
FOR DECK FLANGE

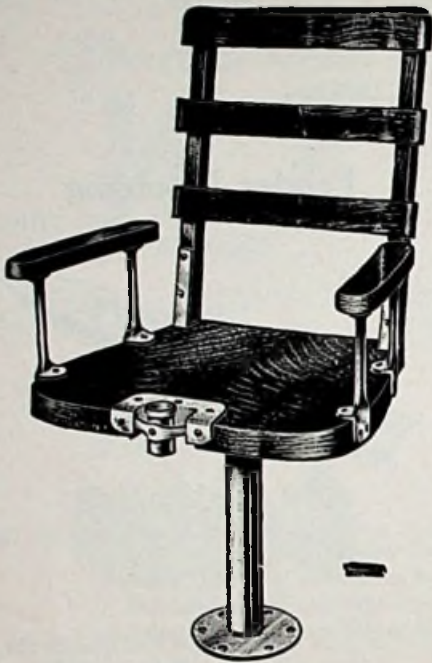


Fig. 559

Complete with universal fishing rod socket.

With Polished Bronze Fittings Each	With Chromium Plated Fittings Each	Height of Seat Inches	Dimensions of Seat Inches	Diam. Deck Flange Inches	Weight Pounds
\$140.00	\$160.00	18	19x22	7	45

SPARE PARTS

No.	No. Per Chair	Polished Bronze Each	Chromium Plated Each
1 Rod Socket Complete	1	\$15.00	\$18.00
2 Seat Flange, Plain	1	9.50	
3 Pedestal—2 inch pipe	1	13.50	16.50
4 Deck Flange Complete	1	16.00	19.00
5 Arm Supports	4	4.75	6.00
6 Back Rest Sockets	2	4.75	6.00
7 Back Rest Brace	1	10.75	13.00

Swivel Fishing Chair

ALUMINUM
KAPOK FILLED CANVAS COVERED CUSHION
MAHOGANY ARM RESTS
COLORS, RED, BLUE OR GREEN

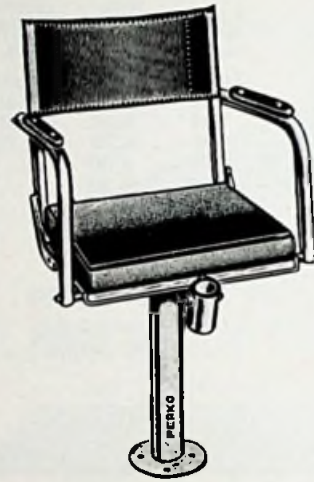


Fig. 580

This assembly can be easily taken apart and chair folded for stowage when not in use.

Designed and manufactured for use in small cruisers, inboard, outboard and other small boats where a comfortable and practical fishing chair is desirable and space is limited.

This chair has many features such as small but adequate size, lightweight, comfort, easy stowage and low price.

Complete with swinging rod socket.

Each	Dimensions of Seat Inches	Height of Seat Inches	Height of Back Inches	Weight Pounds
\$49.75	16 1/2 x 11	19	17	13

Supplied in other colors to order, in quantity only.
Price on application.



Improved Outrigger or Fishing Pole Sockets

HEAVY BRASS TUBING—CAST BRONZE BRACKETS—DETACHABLE

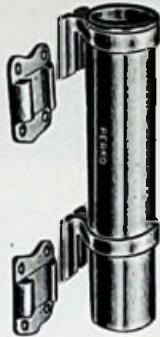


Fig. 460

Note the detachable brackets permitting stowage of the socket when not in use.

No.	Polished Brass Each	Chromium Plated Each	Inside Diam. Inches	Extreme Length Inches	Size Plate Inches	Weight Pounds
1	\$14.50	\$17.25	1 7/8	9 1/2	2 1/2 x 2	2 1/2
2	18.25	21.00	2 3/8	11 3/4	2 1/2 x 2	4

Outrigger or Fishing Pole Sockets

HEAVY BRASS TUBING—BRASS BRACKETS



Fig. 1100

No.	Polished Brass Each	Chromium Plated Each	Inside Diam. Inches	Extreme Length Inches	Width Bracket Inches	Wt. Lbs.
1	\$ 9.75	\$12.00	1 7/8	8 3/4	3 5/8	1 1/2
2	12.75	15.00	2 3/8	11 3/4	4	3

Adjustable Outrigger Pole Holders

HEAVY BRASS TUBING—BRONZE CASTINGS MANGANESE BRONZE TIGHTENING BOLT



Fig. 475

May be adjusted quickly to any desired angle or position vertically and horizontally. Locked by large thumb bolt illustrated.

Burnished Finish Each	Chromium Plated Each	Inside Diam. Socket Inches	Length Socket Inches	Dimensions Base Inches	Weight Pounds
\$15.25	\$22.00	1 7/8	9 1/2	3 5/8 x 2 1/4	3 3/4

Fishing Pole Sockets

ALL ALUMINUM—POLISHED

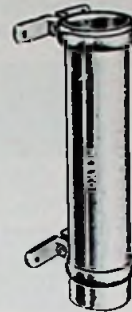


Fig. 1099

A low-priced socket very light but very strong.

Each	Inside Diam. Inches	Extreme Length Inches	Width Bracket Inches	Weight Ounces
\$5.50	1 7/8	8 3/4	3 5/8	5 1/2

Gimbal Fishing Rod Sockets

ALUMINUM—BRIGHT ETCH FINISH



Fig. 481

For attaching to chairs, seats, benches, etc.

Each	Inside Diameter Inches	Length Brackets Inches	Depth Socket Inches	Weight Ounces
\$4.50	1 7/8	2 1/2	2 3/4	7

A pair of aluminum U bolts for attaching above socket to tubular chairs is available. Specify Fig. 481-A \$.80 per pair.

Rubber Liners

FOR OUTRIGGER POLE HOLDERS



Fig. 648

Per Pair	Length Inches	Outside Diameter Inches	Inside Diameter Inches	Weight Per Pair Ounces
\$2.75	9	1 3/4 to 2	1 1/2 to 1 3/4	14

Folding Helmsman's Seat

ALL HEAVY GAUGE ALUMINUM
KAPOK FILLED CANVAS COVERED CUSHION
COLORS, RED, BLUE OR GREEN

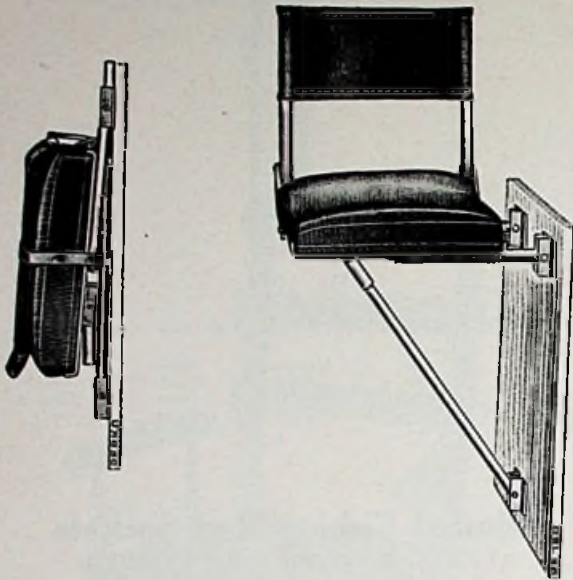


Fig. 931

An excellent item for cruisers of all sizes. Especially appreciated by the boat owner who has spent hours at the wheel.

The seat cushion is soft, comfortable and roomy enough for the person with wide beam. It is quickly detached for emergency use.

The back is set at proper angle for steering comfort, not for sleeping.

The entire unit folds without effort into a very compact package out of the way when standing is necessary.

May be installed on port or starboard side.

Each	Dimensions of Seat Inches	Height of Back Inches	Weight Pounds
\$28.00	16 3/8 x 11 1/4	18	8

Other colors can be supplied, made to order only in quantity and with manufacturing time allowed. Price and details on application.

Extra Seat Supports

FOR FOLDING HELMSMAN'S SEATS

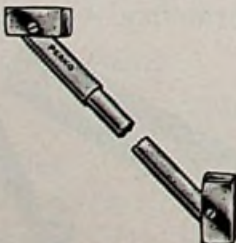


Fig. 963

For attachment to fig. 931 helmsman's seat when heavier duty or greater strength is required.

As illustrated
Per Set — \$6.00

Heavy Duty Folding Helmsman's Seat

ALL HEAVY GAUGE ALUMINUM
KAPOK FILLED CANVAS COVERED CUSHION
COLORS, RED, BLUE OR GREEN

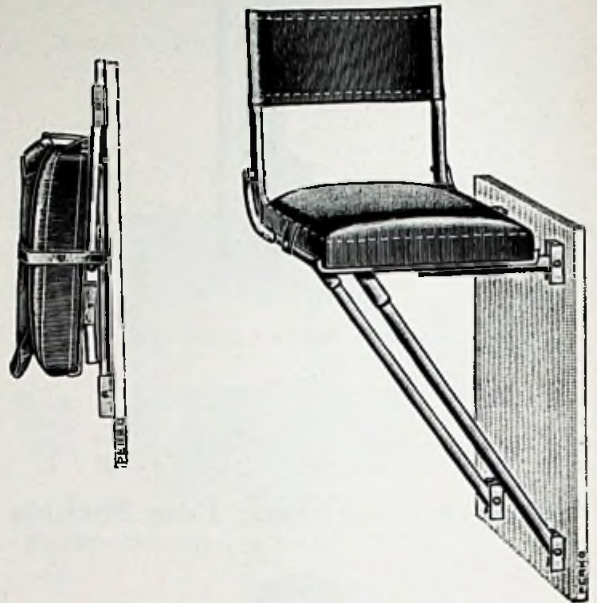


Fig. 962

Same general construction, appearance and details as fig. 931. An extra seat support has been added and back rest braces are much heavier and stronger.

Each	Dimensions of Seat Inches	Height of Back Inches	Weight Pounds
\$35.00	16 3/8 x 11 1/4	18	8 1/2

Other colors, see Fig. 931.

Folding Stools

VARNISHED SEAT—CAST BRONZE BRACKET



Fig. 1009

Seat is mahogany stained.

No.	Each	Diam. Seat Inches	Projection Inches	Length Bulkhead Bracket Inches	Weight Pounds
1	\$15.00	12	12 7/8	11	7
2	17.00	14	15	11	7 1/2

Swivel Helmsman's Seat

ALL HEAVY GAUGE ALUMINUM
KAPOK FILLED CANVAS COVERED CUSHION
HEAVY DUTY CONSTRUCTION
COLORS, RED, BLUE OR GREEN

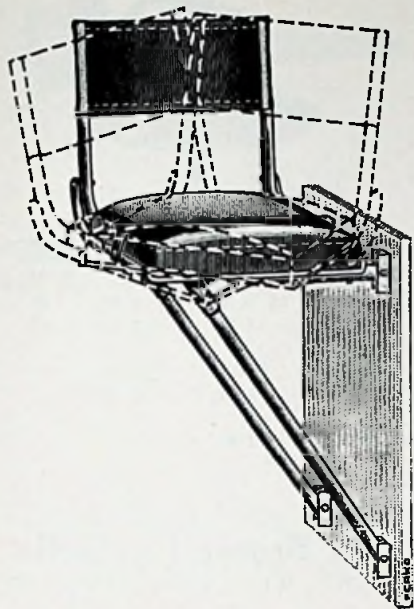


Fig. 966

The seat revolves in a 360° circle and is supported on a strong swivel, turning on stainless steel ball bearings.

The entire unit folds into a small space when use is not required.

The seat has two bulkhead brackets and two seat supports which can be easily changed over for port or starboard mounting.

The seat cushion is detachable for use as a life preserver in an emergency.

Each	Dimensions of Seat Inches	Height of Back Inches	Weight Pounds
\$38.00	16 3/4 x 11 1/4	18	10

Folding Foot Rest

HEAVY GAUGE ALUMINUM

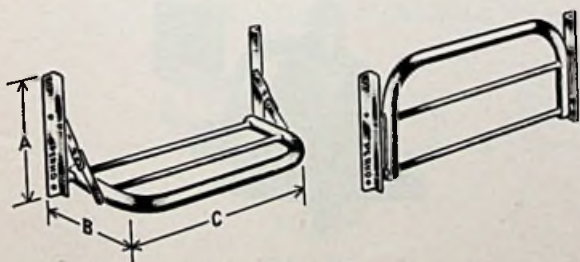


Fig. 967

Folds flat against bulkhead when not in use. Strong enough to stand on if necessary.

Each	A Inches	B Inches	C Inches	Weight Pounds
\$9.50	8	8	16	1 1/2

Standard Folding Step

FOR COCKPIT OR COMPANIONWAY
ALUMINUM FRAME, HINGES AND BRACKETS
VARNISHED MAHOGANY STEP

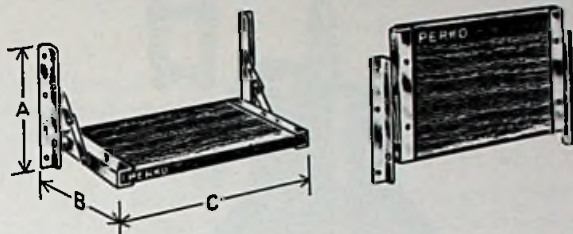


Fig. 543

Also serves as small folding table in cockpit, for ashtrays, drinks, etc.

Each	A Inches	B Inches	C Inches	Weight Pounds
\$11.25	8	9	14	3

De Luxe Folding Step

FOR COCKPIT OR COMPANIONWAY
SOLID MAHOGANY—SPAR VARNISHED
WHITE RUBBER STEP PAD



Fig. 602

Supplied complete with hinge and strong folding brackets, all brass, chromium plated.

Complete Each	Spare Folding Brackets Per Pair	Dimensions Step Inches	Thickness Step Inches	Weight Pounds
\$19.50	\$14.50	13 3/4 x 9	7/8	5 1/2

Folding Step

MANGANESE BRONZE



FOLDED

OPEN

Fig. 344

For mounting on hull or transom, folds up out of way when not in use. Spring holds step in position.

Chromium Plated Each	Size Step Inches	Size Base Inches	Extends Folded Inches	Weight Pounds
\$7.75	4x2	4 1/4 x 1 3/4	7/8	1 3/8



Cast Bronze Fog Bells

HEAVY WEIGHT—WITH REMOVABLE BRACKET



Fig. 150

Diameter Inches	Polished Bronze Each	Chromium Plated Each	Height Overall Inches	Weight Pounds
8	\$ 40.00	\$ 49.50	8	10
10	77.00	87.00	10 1/4	22
12	103.00	115.00	12	38

WALL PLATE ONLY

8	\$ 2.50	\$ 3.25	2 1/2	1/4
10	4.00	5.00	3 3/8	1
12	5.00	6.00	3 3/8	1

Wrought Brass Fog Bells

WITH REMOVABLE BRACKET
PRESSED BELL METAL



Fig. 159

Diam. Inches	Plain Brass Each	Polished Brass Each	Chromium Plated Each	Height Overall Inches	Wt. Lbs.
6	\$6.75	\$ 8.50	\$ 9.50	4	1
8	9.75	11.50	12.50	5	2 1/2
Wall Plate only	\$.95	\$1.20	\$1.50		
Arm only	1.55	1.90	2.40		
Clapper only —	1.20	1.65	2.25		
Eye Bolt only —	.50	.70	.90		

Cast Bronze Fog Bells

LIGHTWEIGHT—WITH REMOVABLE BRACKET



Fig. 581

Diam. Inches	Polished Bronze Each	Chromium Plated Each	Height Overall Inches	Weight Pounds
6	\$12.00	\$14.50	4 1/2	3
8	16.50	19.00	5 1/4	5
Wall Plate only	1.30	1.80	2	1 1/4

Cast Bronze Fog Bells

HEAVY WEIGHT—WITH STATIONARY BRACKET



Fig. 148

Diameter Inches	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Diameter Base of Bracket Inches	Weight Pounds
10	\$ 75.00	\$ 83.50	\$ 93.50	5 3/8	24 1/2
12	100.00	110.00	122.00	5 3/8	40
Spare Brackets	\$11.00	\$15.50	\$20.00		

Length bracket, 7 inches from wall to center of bore.
Base drilled for 7/16 inch bolt.

Cast Bronze Fog Bells

MEDIUM WEIGHT—WITH REMOVABLE BRACKET



Fig. 420

Diameter Inches	Polished Bronze Each	Chromium Plated Each	Height Overall Inches	Weight Pounds
6	\$16.00	\$19.00	5	4
8	24.00	28.00	6 1/2	8

WALL PLATE ONLY

6	\$1.90	\$2.50	2 1/2	1/4
8	2.50	3.25	2 1/2	1/4



Fog Horns

GALVANIZED STEEL OR BRASS



Fig. 162

Length Overall Inches		Galv. Steel Per Doz.	Pol. Brass Per Doz.
18	Without Bell	\$28.80	\$42.00
20	With Bell, as illustrated	33.00	49.20

Air Horns

HAND PUMP OPERATED

ALL BRASS HORNS—CHROMIUM PLATED
STEEL OR BRASS PUMPS

Designed and manufactured to meet the needs of the small boat owner for a hand operated loud air horn which combines good looks with practicability, short projector and no battery at a price he can afford.

Supplied complete ready for installation with 6 feet of rubber tubing and mounting brackets for horn and pump.

Can be heard a great distance and operation is effortless.

Single Horn

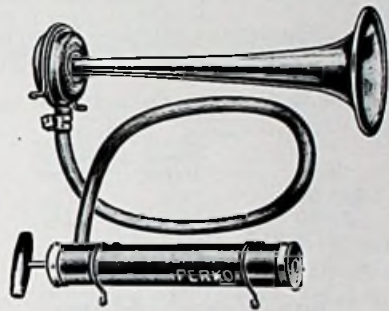


Fig. 631

With Steel Pump Per Set	With Brass Pump Per Set	Length Horn Overall Inches	Length Pump Body Inches	Weight Per Set Pounds
\$31.00	\$36.50	12 1/2	12 3/8	3

Triplex Motor Boat Whistle

PLASTIC—ORANGE COLOR

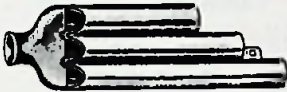


Fig. 167

Per Dozen	Length Overall Inches	Width Overall Inches	Weight Per Dozen Pounds
\$5.00	6	1 3/4	1

Dual Horns

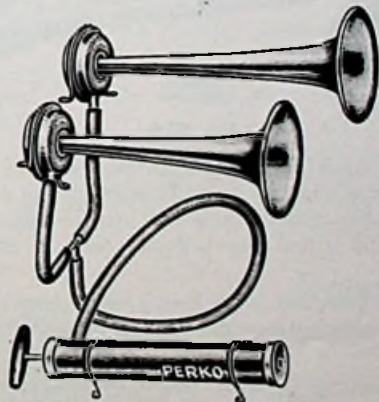


Fig. 632

With Steel Pump Per Set	With Brass Pump Per Set	Length Long Horn Overall Inches	Length Short Horn Overall Inches	Length Pump Body Inches	Weight Per Set Pounds
\$43.00	\$48.50	12 1/2	10 1/2	12 3/8	4

Police or Signal Whistle

BRASS—NICKEL PLATED



Fig. 349

Per Dozen	Length Inches	Width Inches	Weight Per Doz. Ounces
\$9.50	2	3/4	17



"Sea Echo" Horn

BRASS COVER AND PROJECTOR
BRASS SCREEN—CAST BRASS BASE
6 OR 12 VOLTS—CHROMIUM PLATED

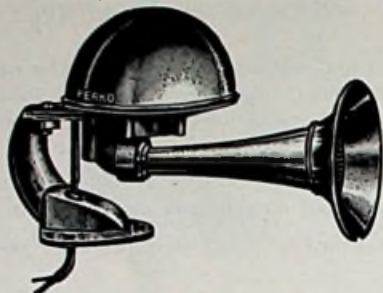


Fig. 590

A very loud resonating horn with short projector and a brass chromium plated screen in the mouth of the projector.

This horn is designed and produced to supply a long felt need for a combination of loud, distinctive tone, short projector and good looks.

Complete with 10 feet of cable and push button.

Volts	Each	Length Overall Inches	Height Overall Inches	Weight Pounds
6	\$35.00	10 3/4	7 1/8	4 1/4
12	35.50	10 3/4	7 3/8	4 3/4

"Sea-Tone" Horn

ALL BRASS—CHROMIUM PLATED—WATER-TIGHT—WEATHERPROOF—RESONATING
VOLTAGES—6—12—32—110 D.C.
RANGE—2 MILES

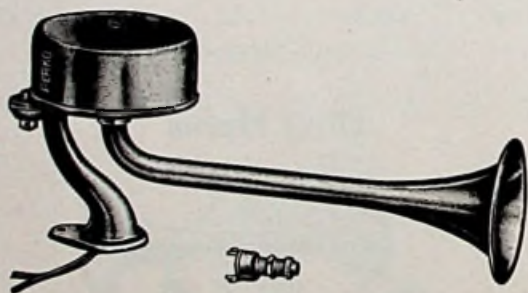


Fig. 576

A horn manufactured for marine use. It has great volume and distinctive tone. It answers the demand for a high quality marine horn that can be heard at great distance and stand the arduous test of use on salt water.

Supplied complete with heavy duty push button and 16 feet of cable in two eight-foot lengths.

Volts	Each	Extreme Length Inches	Extreme Height Inches	Weight Pounds
6	\$71.00	19	8 1/2	6 1/2
12	74.00	19	8 1/2	6 1/2
32	74.00	19	8 1/2	6 1/2
110 D.C.	96.00	19	8 1/2	6 1/2

.110 A.C. supplied to order, price on application.

Packed in individual cartons.

NOTE — PLEASE SPECIFY VOLTAGE,

Brass Electric Horns

VIBRATORY TYPE—6, 12 OR 32 VOLTS
POLISHED OR CHROMIUM PLATED
COAST GUARD MODEL

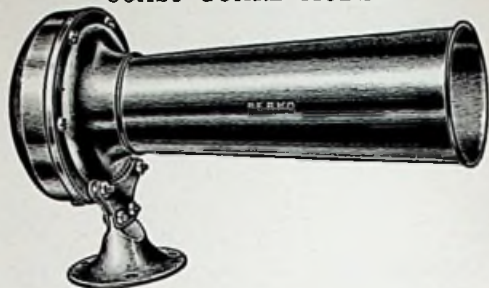


Fig. 75

Complete with button, cable, mounting bolts, screws, etc.

Internal steel parts treated against corrosion.

No.	6 Volt		Length Overall Inches	Height Overall Inches	Diam. Base Inches	Wt. Lbs.
	Pol. Brass Each	Chromium Plated Each				
1	\$23.25	\$25.00	13	7 1/4	3 3/8	4
2	32.25	35.00	14 3/4	8 1/2	3 3/8	6

For 12 volt add \$1.65.

For 32 volt add \$2.50.

Size No. 2 meets U. S. Coast Guard specification No. CR-23075.

Blaster Horn

WITH PUSH BUTTON, CABLE AND RELAY

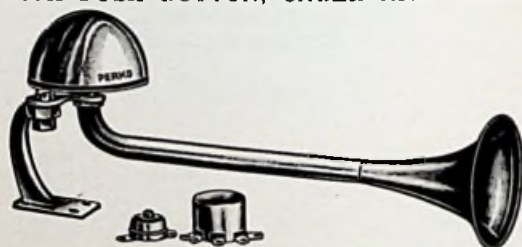


Fig. 989

Pol. Brass Each	6 Volt		Length Inches	Width Inches	Height Inches	Wt. Lbs.
	Chromium Plated Each					
\$35.50	\$38.00		22	5 3/8	8 3/4	6 3/4

For 12 volt add \$1.65.

For 32 volt add \$2.50.

Super-Blaster Twin Horns

WITH PUSH BUTTON, CABLE AND RELAY

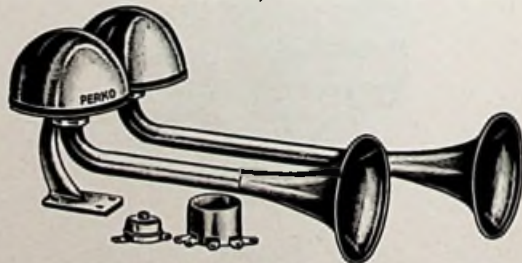


Fig. 990

Pol. Brass Per Pair	6 Volt		Length Inches	Width Inches	Height Inches	Wt. Lbs.
	Chromium Plated Per Pair					
\$56.00	\$60.50		22	11	9	11

For 12 Volt, add \$3.30—For 32 Volt, add \$5.00.

OTHERWISE 6 VOLT WILL BE SUPPLIED.



"Sea-Mite" Streamline Horn

STAINLESS STEEL DIAPHRAGM
DIE CAST BODY AND BASE
CHROMIUM PLATED—6 OR 12 VOLTS



Fig. 1120

A HORN—NOT A SIREN

This horn has exceptional tone quality for its size and is ideally suited for runabouts and small cruisers.

Note that the diaphragm is of stainless steel.

Furnished complete with 10 feet of cable and push-button.

6 Volt Each	12 Volt Each	Length Inches	Height Inches	Diameter Inches	Weight Pounds
\$35.50	\$37.25	7	6	4 1/2	4 1/4

Specify voltage when ordering.

"Sea-Pitch" Horn

BRASS—CHROMIUM PLATED
6 OR 12 VOLTS



Fig. 1121

A new horn designed to meet the need for a brass horn made for marine use at a price that every small boat owner can afford. Has a very loud tone that can be heard at a great distance.

The base is cast bronze—chromium plated. The diaphragm is cadmium plated, salt spray tested.

6 Volt Each	12 Volt Each	Length Overall Inches	Height Overall Inches	Diam. Base Inches	Weight Pounds
\$18.75	\$21.75	5	7 1/2	3 7/8	3 1/2

Marine Sirens

DIE CAST WHITE METAL
CHROMIUM PLATED—6 OR 12 VOLTS
THE SEA-MITE

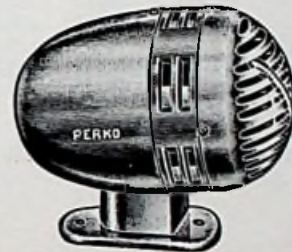


Fig. 1117

A siren of fine tone quality, dependability and performance.

Furnished complete with 10 feet of cable and heavy duty push button.

6 Volt Each	12 Volt Each	Length Inches	Height Inches	Diam. Inches	Weight Pounds
\$38.75	\$42.00	7	6	4 1/2	4 1/4

Heavy Duty Marine Siren

DIE CAST WHITE METAL
CHROMIUM PLATED—6, 12 OR 32 VOLTS
THE YACHTSMAN

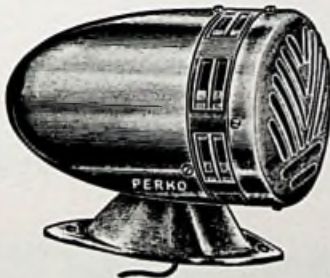


Fig. 1118

A siren that audibly commands the right of way. An ear piercing tone that can be heard for miles.

Has specially designed motor for economical operation. Equipped with greased sealed ball bearings for smooth operation.

Furnished complete with long cable and heavy duty push button.

6 Volt Each	12 Volt Each	32 Volt Each	Length Inches	Height Inches	Diam. Inches	Weight Pounds
\$71.00	\$74.00	\$81.00	10 3/8	7 1/2	5 3/4	10

Relays

CHROMIUM PLATED

Eliminates line loss where electric unit is located some distance from the battery.



Fig. 273

6 Volts Each	12 Volts Each	32 Volts Each
\$3.50	\$4.10	\$4.75

NOTE — PLEASE SPECIFY VOLTAGE, OTHERWISE 6 VOLT WILL BE SUPPLIED



Curtain Fasteners

WROUGHT BRASS



Fastener
Fig. 995



Screw Stud
Fig. 998



Eyelet
Fig. 996



Washer
Fig. 997

Made of stamped brass, for single and double curtains. Screws on single and double studs are 5/8" No. 7.

Complete Sets.	Brass Finish		Chromium Plated	
	Single Per 100	Double Per 100	Single Per 100	Double Per 100
Figs. 995-996-997	\$27.50	\$34.40	\$36.50	\$48.50
Figs. 998-996-997	28.50	35.40	38.90	52.00
Fig. 995 Only	23.00	25.00	26.50	28.00
Fig. 996 Only	3.20	3.20	6.00	6.00
Fig. 997 Only	1.70	1.70	4.50	4.50
Fig. 998 Only	24.00	26.00	28.80	31.50

Note—Double fasteners when ordered complete are supplied with two eyelets and two washers for each fastener.

Hand Punch

FOR ABOVE CURTAIN FASTENERS
CAST IRON WITH STEEL CUTTERS



Fig. 284 Each \$5.50

Hand Screw Driver

FOR "LIFT THE DOT" STUDS
STEEL WITH WOOD HANDLE



Fig. 290 Each \$2.50

"Lift The Dot" Fasteners

BRASS



Single
Stud
Fig. 114



Double
Stud
Fig. 115



Clinch
Plate
Fig. 118



Single
Socket
Fig. 116



Double
Socket
Fig. 117



Clinch Stud
Single Fig. 60
Double Fig. 61



Clinch
Washer
Fig. 62

Above cuts are all full size.

Screws on single and double studs are 1/2" No. 8.

Complete Sets.	Brass Finish		Nickel Plated	
	Single Per 100	Double Per 100	Single Per 100	Double Per 100
Figs. 60-62-116-118	\$17.80		\$18.90	
Figs. 61-62-117-118		\$36.60		\$37.80
Figs. 114-116-118	16.50		17.40	
Figs. 115-117-118		29.40		31.50
Fig. 60 Only	6.00		6.50	
Fig. 61 Only		12.60		12.80
Fig. 62 Only	1.70	1.70	1.85	1.85
Fig. 114 Only	6.50		6.80	
Fig. 115 Only		8.00		8.30
Fig. 116 Only	8.80		9.20	
Fig. 117 Only		9.20		10.00
Fig. 118 Only	1.70	1.70	1.85	1.85

Note—Double fasteners, when ordered complete are supplied with two double sockets and two clinch plates for each stud.

Chromium plated fasteners supplied to order. Price on application.



"Durable Dot" Fasteners

BRASS



Button
Fig. 896



Socket
Fig. 898

Curtain or Grommet Hooks

CAST BRASS

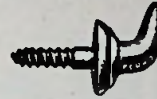


Fig. 1000

Plain
Brass
Per Dozen
\$2.70

Diam.
Flange
Inches
5/8

Length
Screw
Inches
1/2



Screw Stud
Fig. 900



Canvas Stud
Fig. 901



Eyelet
Fig. 907

Screws on Fig. 900 screw studs are 1/2 inch No. 6.

For canvas to canvas, use sets made up of Figs. 896, 898, 901 and 907.

For canvas to wood, use sets made up of Figs. 896, 898 and 900.

Grommet Hole Cutters

FORGED STEEL



Fig. 903

No.	Each	Diam. Hole Inches	No.	Each	Diam. Hole Inches
0	\$2.10	1/4	5	\$5.00	5/8
1	2.10	9/32	6	5.00	3/4
2	2.10	11/32	7	6.00	7/8
3	2.10	3/8	8	6.00	1 1/16
4	2.50	1/2			

Complete Sets,	Brass Finish Per 100	Chromium Plated Per 100
Figs. 896-898-901-907	\$6.70	\$18.40
Figs. 896-898-900	8.80	17.90
Fig. 896 Only	2.70	5.80
Fig. 898 Only	2.00	5.00
Fig. 900 Only	4.50	7.50
Fig. 901 Only	1.20	4.00
Fig. 907 Only	1.20	4.00

Senior Grommet Dies

FORGED STEEL

Style B for inserting Spur Grommets

Style C for inserting Washer and Teeth Grommets



Fig. 902

Hand Set Tool

FOR ABOVE BUTTONS AND EYELETS
STEEL



Fig. 905 Each \$1.70

Hand Punch

FOR "LIFT THE DOT" FASTENERS
CAST IRON WITH STEEL CUTTERS

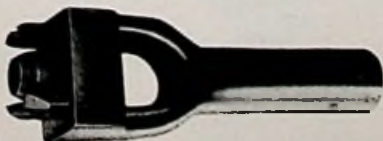


Fig. 285 Each \$3.25

Size No.	Style B Each	Style C Each	Weight Each Lbs.
0	\$ 5.80	\$ 5.80	1 1/4
1	6.40	6.40	1 3/8
2	6.55	6.55	1 3/8
3	6.75	6.75	1 7/16
4	7.50	7.50	2 3/8
5	8.90	8.90	2 5/8
6	17.00	17.00	3 1/2
7	25.00		3 3/4
8	25.00		5

Use a wooden mallet with above dies.



Mortise Lock Sets
CAST BRONZE

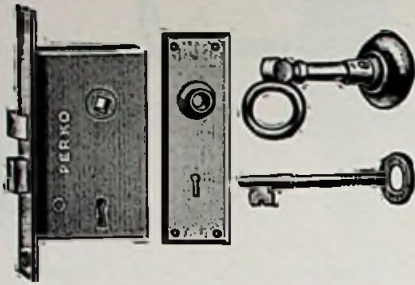


Fig. 945

Set No.	Case Inches	Facing Inches	Backset Inches	Door Thickness Inches
1	2 3/4 x 2 1/4 x 1/2	4 1/8 x 3/4	1 1/2	7/8 to 1 1/2
2	3 1/2 x 3 x 5/8	5 x 3/4	2 3/16	1 to 1 1/2

Combination Escutcheon Inches	Diameter Round Knob Inches	Spindle Inches	Shield Escutcheon Inches
4 1/2 x 1 5/8	1 3/4	5/16	1 1/2

SET A

With Combination Escutcheons, Round Knob and Drop Handle

	Polished Bronze	Chromium Plated
Size No. 1, Price Per Set	\$14.75	\$17.65
Size No. 2, Price Per Set	16.00	19.80

SET C

With Shield Escutcheons and Two Round Knobs

Size No. 1, Price Per Set	\$14.75	\$17.65
Size No. 2, Price Per Set	16.00	19.80

Rim Lock Sets
CAST BRONZE

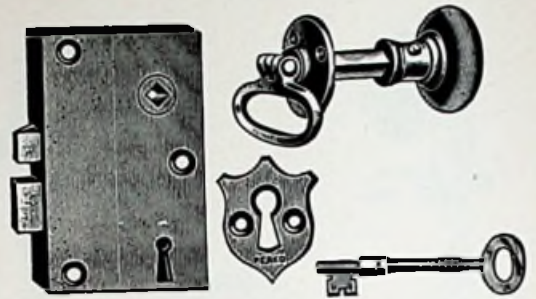


Fig. 1046

Set No.	Size Case Inches	Backset Inches	Door Thickness Inches
1	2 1/2 x 2 x 1/2	1 7/16	1/2 to 1 1/2
2	3 3/4 x 2 1/2 x 5/8	1 1/2	1/2 to 1 1/4

Combination Escutcheon Inches	Diameter Round Knob Inches	Spindle Inches	Shield Escutcheon Inches
4 1/2 x 1 3/8	1 3/4	5/16	1 1/2

SET A

With Combination Escutcheons, Round Knob and Drop Handle

	Polished Bronze	Chromium Plated
Size No. 1, Price Per Set	\$16.40	\$19.60
Size No. 2, Price Per Set	17.65	20.80

SET C

With Shield Escutcheons and Two Round Knobs

Size No. 1, Price Per Set	\$16.40	\$19.60
Size No. 2, Price Per Set	17.65	20.80

Extra keys for above locks furnished to order.

Mortise Lock Sets
CAST BRASS

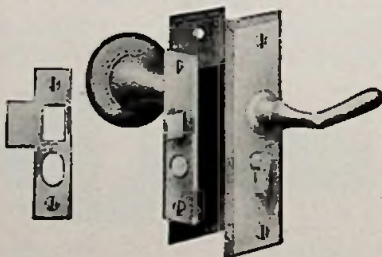


Fig. 960

Polished Brass Per Set	Chromium Plated Per Set	Case Size Inches	Combination Escutcheon Inches	Facing Inches
\$7.35	\$9.80	1 5/16 x 1 5/8 x 7/16	4 x 1 1/2	5 3/8 x 3 1/2

Backset Inches	Spindle Hub Inches	Diameter Round Knob Inches	Door Thickness Min. Inches
1 1/4	1/4	1 3/4	3/4

Rim Lock Sets
CAST BRASS

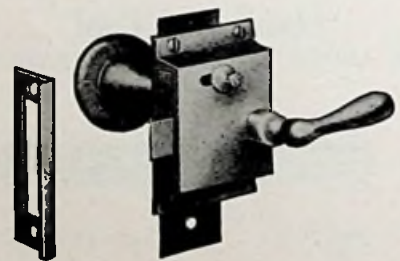


Fig. 1057

Polished Brass Per Set	Chromium Plated Per Set	Case Size Inches	Escutcheon Size Inches
\$9.50	\$13.20	3 x 2 x 5/8	4 x 1 1/2

Backset Inches	Spindle Hub Inches	Diameter Round Knob Inches	Door Thickness Min. Inches
1 1/2	1/4	1 3/4	3/4

Knob outside, drop handle inside, locked by thumb lever inside, no keys.

Knob outside, drop handle inside, locked by slide stop inside, no keys.



Tubular Lock Sets

ALL BRASS—FOR SMALL CABIN DOORS
POLISHED OR CHROMIUM PLATED

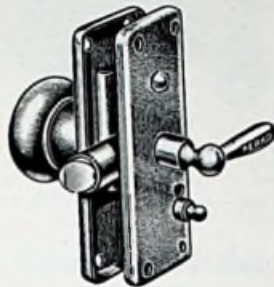


Fig. 567

Polished Brass Each	Chromium Plated Each	For Thickness Doors Inches	Size Escutcheon Inches	Size Knob Inches	Back-set Inches
\$5.35	\$7.15	3/8 to 1 3/8	4 3/8 x 1 5/8	1 3/4	1 3/8

Anti-Rattle Door Fastener

CAST BRASS

Has 1/4 inch hole in lever for padlock.

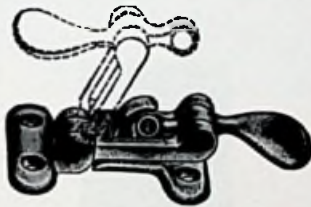


Fig. 1108

Polished Brass Each	Chromium Plated Each	Size Base Inches	Weight Ounces
\$3.00	\$4.15	3x2	6

Elbow Catches

CAST BRASS

Small spiral brass spring in catch lever. For light cupboard doors, etc.



Fig. 1056

Plain Brass Each	Polished Brass Each	Chromium Plated Each	Size Base Inches	Weight Ounces
\$.65	\$.90	\$1.25	1 1/10 x 5/8	1

Sliding Door Latches

CAST BRASS
HALF MORTISE

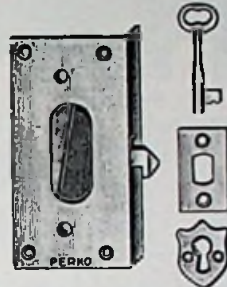


Fig. 573

Operated from inside by finger lever, from outside by key.

Complete with strike, key and shield escutcheon for keyhole.

No.	Polished Brass Per Set	Chromium Plated Per Set	Size Case Inches	Width Face Inches	Weight Ounces
1	\$10.00	\$11.35	3 1/16 x 1 3/4	5/8	6
2	11.35	14.30	5 x 2 1/2	1 1/16	20

Specify right or left hand.
Illustration shows left hand.

Door Buttons

CAST BRASS BUTTON—WROUGHT BRASS PLATE



Fig. 948

No.	Diam. Inches	Polished Brass		Chromium Plated	
		Complete Per Dozen	Without Plate Per Dz.	Complete Per Dozen	Without Plate Per Dz.
1	1 1/2	\$6.10	\$2.15	\$10.85	\$4.10
2	1 3/4	7.00	2.70	11.50	4.55
3	2	8.65	3.40	13.45	5.30

Friction Catches

ALL BRASS—ADJUSTABLE TENSION

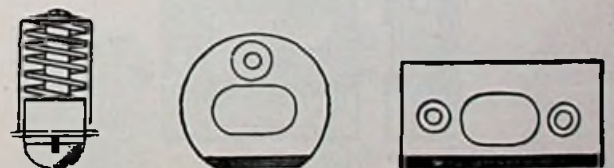


Fig. 178

Above cuts are full size.

Supplied complete with either round or oblong strike.
Please specify.

Per Gross — \$22.50

Cupboard Catches
CAST BRASS

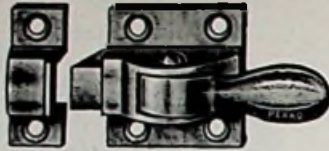


Fig. 1102

Furnished complete with screws.

No.	Polished Brass Each	Chromium Plated Each	Without Strike Inches	Weight Per Dozen Pounds
1	\$2.20	\$3.00	1 1/2 x 1 1/2	1 1/2
2	2.20	3.00	1 1/2 x 1 1/2	1 3/4

No. 2 has 3/8 inch offset.

Cupboard Bolt
CAST BRASS

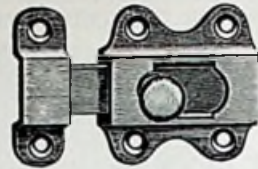


Fig. 1101

Emery Finish Each	Polished Brass Each	Chromium Plated Each	Without Strike Inches	Weight Per Dozen Pounds
\$1.45	\$1.80	\$2.35	1 3/4 x 1 3/8	1 1/2

Cupboard Turns
WROUGHT BRONZE



Fig. 1105

Furnished complete with screws

Polished Brass Each	Chromium Plated Each	Without Strike Inches	Weight Per Dozen Pounds
\$1.90	\$2.40	2 1/4 x 1 1/2	3

Flush Ring Catches
CAST BRASS



Fig. 1051

Size Inches	Polished Brass Each	Chromium Plated Each	Weight Ounces
1 5/8 x 1 1/4	\$1.75	\$2.25	1 1/2

Cupboard Turns
CAST BRASS

U.S. GOVT. TYPE NO. 1082-1083

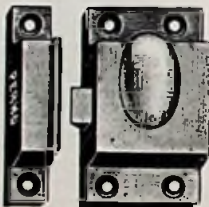


Fig. 949

No.	Emery Finish Each	Polished Brass Each	Chromium Plated Each	Without Strike Inches	Weight Per Dozen Pounds
1	\$2.10	\$2.30	\$2.90	1 3/4 x 1 1/8	2 1/2
2	2.30	2.70	3.25	2 1/4 x 1 5/8	3 3/4

Flush Ring Pulls
CAST BRASS



Fig. 841

No.	Polished Brass Each	Chromium Plated Each	Size Plate Inches	Weight Ounces
1	\$.85	\$1.20	1 1/4 x 1 1/2	1
2	1.10	1.40	1 1/2 x 1 7/8	1 1/2

Flush Ring Pulls

CAST BRASS
WITH ROUND STOCK IN RING



Fig. 1103

No.	Emery Finish Each	Polished Brass Each	Chromium Plated Each	Without Strike Inches	Weight Ounces	No.	Polished Brass Each	Chromium Plated Each	Size Plate Inches	Weight Ounces
1	\$1.40	\$1.55	\$2.00	1 1/2 x 1	1 1/4	1	\$1.15	\$1.80	1 1/4 x 1 1/2	1 1/4
2	1.50	1.70	2.10	1 1/2 x 1 1/4	2	2	1.40	2.00	1 7/8 x 2 1/2	2 3/4
3	1.65	1.80	2.25	1 1/2 x 1 1/2	2 1/4	3	2.20	2.90	2 x 2 3/4	3 1/4
4	1.75	1.90	2.40	1 1/2 x 1 3/4	2 1/2					

Cupboard Catches
CAST BRASS

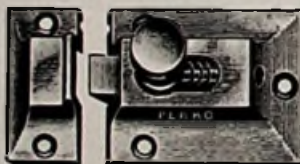


Fig. 950



Barrel Bolts
CAST BRASS

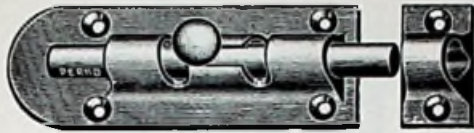


Fig. 947

No.	Polished Brass Each	Chromium Plated Each	Length Rod Inches	Size Base Without Strike Inches	Weight Per Dozen Pounds
1	\$1.55	\$2.30	2 1/4	2 x 1	1 1/2
2	2.00	2.80	3	3 x 1 1/8	2
3	2.30	3.35	4	3 1/2 x 1 1/4	3

Flush Bolts
CAST BRASS—POLISHED

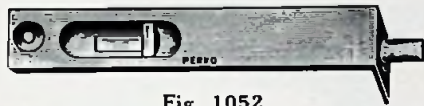


Fig. 1052

No.	Each	Size Inches	Weight Ounces
1	\$2.20	5/8 x 2 1/2	1 1/2
2	2.20	3/4 x 3	2

Ship Bolts
CAST BRASS



Fig. 1053

No.	Polished Brass Each	Chromium Plated Each	Size Without Strike Inches
1	\$1.55	\$1.80	2 5/8 x 1 3/8
2	2.20	2.50	3 5/8 x 1 3/8
3	3.00	3.50	4 3/4 x 1 5/8

Square Neck Bolts
CAST BRASS

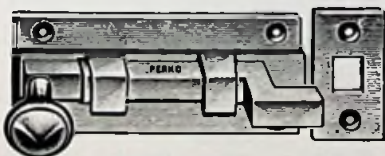


Fig. 1054

No.	Polished Brass Each	Chromium Plated Each	Size Inches
1	\$2.00	\$2.60	3 x 1 1/4
2	2.40	3.00	4 x 1 1/4

Window Bolts
CAST BRONZE
SPRING TYPE



Fig. 1055

Base Inches	Polished Bronze Each	Chromium Plated Each
1 1/8 x 1 1/4	\$1.55	\$1.95

Cabin Door Hooks
CAST BRASS

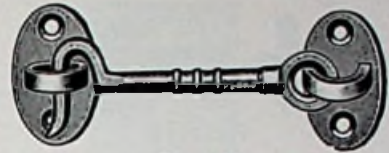


Fig. 956

Lgth. Hook In.	Polished Brass Each	Chromium Plated Each	Wt. Ozs.	Lgth. Hook In.	Polished Brass Each	Chromium Plated Each	Wt. Ozs.
1 1/2	\$.90	\$1.25	1	3 1/2	\$1.30	\$1.70	2 1/2
2	.95	1.30	1 1/2	4	1.50	2.00	3
2 1/2	1.05	1.45	1 3/4	5	1.60	2.10	3 1/2
3	1.15	1.55	2	6	1.80	2.30	4

Cabin Door Hooks
DOUBLE JOINTED
CAST BRASS



Fig. 957

Length Overall Inches	Polished Brass Each	Chromium Plated Each	Length Overall Inches	Polished Brass Each	Chromium Plated Each
2	\$1.95	\$2.50	4	\$2.65	\$3.20
2 1/2	1.95	2.50	5	3.45	4.20
3	2.05	2.60	6	3.70	4.60

Cabinet Latches
CAST BRASS



Fig. 1064

With flush striking plate and brass pin, spring closing. Made either right or left hand.

Polished Brass Each	Chromium Plated Each	Length Overall Inches	Length Lever Inches
\$1.40	\$1.65	2 1/2	2

Specify right or left hand.

Refrigerator Fasteners
CAST BRASS



Fig. 1063

Made either right or left hand with flush striking plate. Holds doors without strain on the rivet. Has brass pin.

Illustration shows right hand.

No.	Polished Brass Each	Chromium Plated Each	Lgth. Overall In.	Size Lever In.
1	\$3.30	\$4.20	5	4

Specify right or left hand.



Cupboard Door Holders
BRASS PLATED



Fig. 1178

A useful little fraction catch for use on cabinets, closets, cupboards and all small doors, size overall— $1\frac{1}{2} \times 1\frac{3}{8}$ inches.

Per Dozen \$1.20

Door Holders
SIDE PATTERN
CAST BRONZE

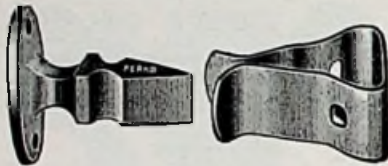


Fig. 1065

Polished Bronze Per Set	Chromium Plated Per Set	Base of Holder Inches	Base of Clip Inches	Projection Inches
\$2.45	\$3.00	$1\frac{5}{8} \times \frac{3}{4}$	$2\frac{1}{8} \times \frac{3}{4}$	2

FLOOR PATTERN

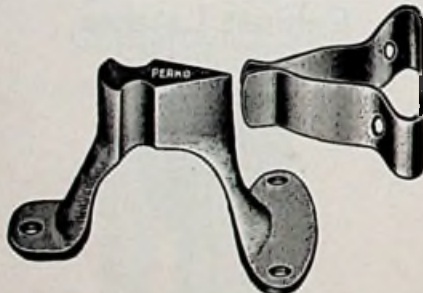


Fig. 1066

Polished Bronze Per Set	Chromium Plated Per Set	Height Holder Inches	Base of Holder Inches	Base of Clip Inches
\$2.75	\$3.50	1	$2\frac{5}{8} \times 1\frac{3}{4}$	$2\frac{1}{8} \times \frac{3}{4}$

Door Stops
CAST BRONZE
RUBBER TIP



Fig. 1109

Furnished complete with screws.

Polished Bronze Each	Chromium Plated Each	Diam. Base Inches	Projection Inches	Weight Ounces
\$1.90	\$2.65	2	$1\frac{1}{4}$	4

Security Hinged Hasps
WROUGHT BRASS—14 B. & S. GAUGE



Fig. 979

A lightweight but strong hasp. Ideal for lockers, cupboards, chests, etc.

Length Closed Inches	Polished Brass Each	Chromium Plated Each	Width Inches	Weight Ounces
$2\frac{7}{8}$	\$.85	\$1.20	1	$1\frac{1}{4}$

Security Hinged Hasps
CAST BRONZE



Fig. 955

Length Closed Inches	Emery Finish Each	Polished Bronze Each	Chromium Plated Each	Width Inches	Weight Ounces
2	\$1.20	\$1.45	\$2.00	1	$1\frac{1}{2}$
3	1.25	1.60	2.15	1	$2\frac{1}{2}$
$3\frac{3}{4}$	1.50	1.90	2.50	$1\frac{1}{8}$	$4\frac{1}{2}$

Safety Hasps
EXTRA HEAVY CAST BRONZE

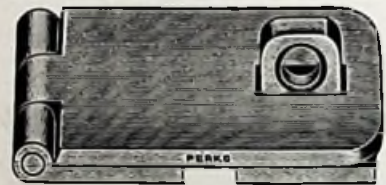


Fig. 1060

Emery Finish Each	Polished Bronze Each	Chromium Plated Each	Length Inches	Width Inches	Weight Ounces
\$3.30	\$4.10	\$4.90	$4\frac{1}{2}$	1	13

Door Stop and Holder
CAST BRASS



Fig. 574

Burnished Brass Each	Polished Brass Each	Chromium Plated Each	Projection Inches	Diam. Base Inches	Weight Ounces
\$3.65	\$4.40	\$5.40	$3\frac{1}{2}$	$1\frac{1}{8}$	$7\frac{1}{4}$



Strap Hinges

GALVANIZED MALLEABLE IRON OR BRASS BRASS PINS



Fig. 120

Length Open Inches	Galvanized Per Pair	Plain Brass Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair	Weight Per Pair Pounds
4	\$1.15	\$2.10	\$3.65	\$4.50	$\frac{5}{16}$
6	1.85	2.55	4.65	5.85	$\frac{5}{8}$
8	2.65	3.80	6.30	7.75	$\frac{7}{8}$
10	3.20	5.50	8.00	9.75	$1\frac{1}{8}$
12	4.85	7.35	10.50	13.00	$1\frac{1}{2}$

Port Hinges

GALVANIZED MALLEABLE IRON OR BRASS BRASS PINS

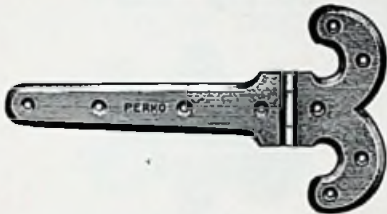


Fig. 109

Length Open Inches	Galvanized Per Pair	Plain Brass Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair	Weight Per Pair Pounds
4	\$1.85	\$ 3.10	\$ 4.90	\$ 6.00	$\frac{1}{2}$
6	2.35	4.15	6.70	8.00	$\frac{3}{8}$
8	4.40	6.65	9.75	11.35	$1\frac{1}{2}$
10	6.40	8.85	13.35	15.35	2
12	8.45	11.75	16.95	19.60	$2\frac{1}{2}$

Cuddy Door Hinges

WROUGHT BRASS—THICKNESS .060 INCHES

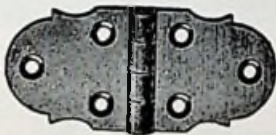


Fig. 924

Length Open Inches	Extreme Width Inches	Polished Brass Per Doz. Pair	Chromium Plated Per Doz. Pair
2 7/8	1 3/8	\$14.50	\$17.50

Packed one dozen pairs per box.

Cuddy Door Hinges

CAST BRASS

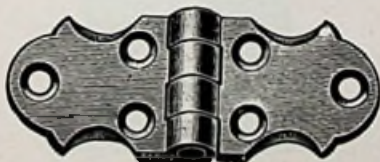


Fig. 951

Length Open Inches	Plain Brass Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
3	\$1.55	\$2.10	\$2.60
3 1/2	2.05	2.60	3.30
4	2.05	2.60	3.35
5	2.60	3.20	4.30

Fast Pin Butt Hinges

CAST BRASS—BRASS PINS



Fig. 952

Size Open Inches	Emery Finish Per Dz. Pairs	Polished Chromium Plated Per Dz. Pairs	Size Open Inches	Emery Finish Per Dz. Pairs	Polished Chromium Plated Per Dz. Pairs
1 1/2 x 1 1/4	\$16.00	\$31.55	2 1/2 x 2 1/2	\$31.80	\$59.35
1 1/2 x 1 1/2	16.00	31.55	3 x 2	34.20	61.55
2 x 1 1/4	18.30	36.20	3 x 2 1/2	35.80	63.00
2 x 1 1/2	18.30	36.20	3 x 3	39.75	72.20
2 x 1 3/4	20.15	40.30	3 1/2 x 3	47.70	86.25
2 x 2	21.00	41.90	3 1/2 x 3 1/2	53.00	91.25
2 1/2 x 1 3/4	27.60	51.55	4 x 3	62.20	101.70
2 1/2 x 2	29.20	54.60	4 x 4	74.20	122.40

Loose Pin Butt Hinges

BRASS WITH BRASS PINS

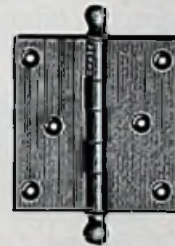


Fig. 953

Size Open Inches	Pol. Brass Per Pair	Chromium Plated Per Pair	Size Open Inches	Pol. Brass Per Pair	Chromium Plated Per Pair
1 1/2 x 1 1/2	\$ 3.00	\$ 3.90	3 x 2 1/2	\$ 5.40	\$ 7.10
2 x 1 1/2	3.50	4.60	3 x 3	5.55	7.30
2 x 2	4.00	5.20	3 1/2 x 3	6.40	8.40
2 1/2 x 2	4.60	6.00	3 1/2 x 3 1/2	7.10	9.35
2 1/2 x 2 1/2	5.10	6.65	4 x 3	7.30	9.65
3 x 2	5.20	6.85	4 x 4	8.55	11.25

Flush Surface Hinges

CAST BRASS

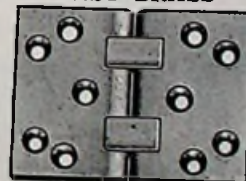


Fig. 928

Length Open Inches	Plain Brass Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair	Extreme Width Inches
2 1/2	\$1.55	\$2.10	\$2.60	2
3	2.05	2.60	3.30	1 1/4
4	2.05	2.60	3.35	3
5	2.60	3.20	4.30	

Packed 1/2 doz. pairs per box.

Invisible Hinges

HEAVY GAUGE WROUGHT BRASS
WITH BRASS LINKS AND PINS

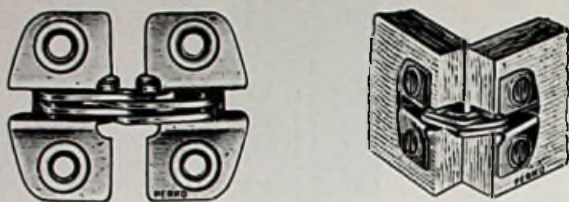


Fig. 1104

A smoothly operating hinge invisible when door or hatch is closed. Entire outer surface is free of projections or hardware.

Ideal for light doors, hatch covers, cabinets, etc.

Permits door to fit close to frame when closed and allows door to open 180 degrees.

Plain Brass Per Pair	Size Flap Inches	Depth of Mortise Inches	Weight Each Ounces
\$1.30	1 7/8 x 1	5/8	2

Cabinet Hinges

BRASS—POLISHED OR CHROMIUM PLATED
FLUSH OR OFFSET

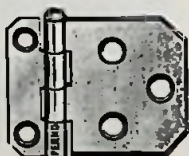


Fig. 772

Packed one dozen pairs per box, complete with screws. Offset is 3/8 inch.

Polished Brass Per Doz. Pairs	Chromium Plated Per Doz. Pairs	Size Open Inches	Gauge	Weight Per Pair Ounces
\$18.25	\$18.25	2 x 1 1/2	14	2

Flush or offset, same price, please specify.

Table Leg Fasteners

CAST BRASS

For fastening table leg to deck.



Fig. 719

Plain Brass Each	Polished Brass Each	Chromium Plated Each	Length Angle Inches	Width Angle Inches	Weight Ounces
\$2.05	\$2.60	\$3.25	1 3/4	7/8	4

Butterfly Hinges

WROUGHT BRASS—PLAIN



Fig. 1058

No.	Plain Per Pair	Polished Per Pair	Chromium Plated Per Pair
1	\$.28	\$.35	\$.60
2	.40	.50	.80

No.	Length Open Inches	Width at Pin Inches	Weight Per Pair Ounces	Thickness Inches
1	2 1/4	3/4	1/2	.040
2	3 1/8	1 1/16	1 1/2	.045

Spring Hinges

WROUGHT BRASS—PLAIN



Fig. 1059

No.	Per Pair	Length Inches	Width Open Inches	Weight Per Pair Ounces
1	\$1.05	2 3/8	1 7/8	3
2	1.30	3	2 3/8	5

Spring Hinges

CAST BRONZE

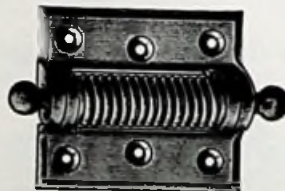


Fig. 1107

Polished Bronze Per Pair	Chromium Plated Per Pair	Length Inches	Width Inches	Weight Per Pair Ounces
\$7.20	\$9.00	3	2 1/2	12

Hatch Hinges

CAST BRONZE

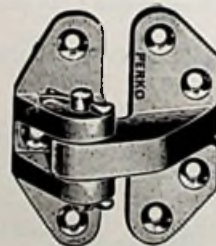


Fig. 773

For use with flush hatch cover.

Polished Bronze Per Pair	Chromium Plated Per Pair	Length Inches	Width Overall Inches	Weight Per Pair Pounds
\$8.75	\$11.00	3 3/8	2 5/8	1 3/4

Illustration shows one half pair.



Sash Hinges
CAST BRONZE

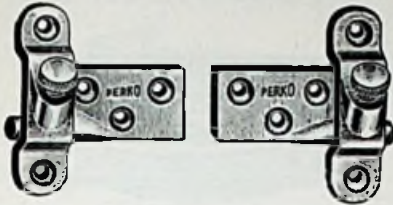


Fig. 418

A set consists of two brackets with adjusting screws and two hinge plates, right and left hand.

No.	Size of Hinge Plates Inches	Size of Bracket Base Inches	Weight Per Set Ounces	Length of Pin Inches
1	1 7/16 x 7/8	2 1/2 x 1 1/16	6	7/8
2	1 7/16 x 7/8	3 3/4 x 1 1/16	7	7/8

No.	Polished Bronze Per Set	Chromium Plated Per Set
1	\$3.25	\$4.50
2	3.85	5.00

Ladder Hinges
CAST BRONZE



Fig. 556

Polished Bronze Per Pair	Chromium Plated Per Pair	Length Open Inches	Width Inches	Weight Per Pair Ounces
\$7.25	\$8.25	5 3/4	3/4	9

Flap Hinges

WROUGHT BRASS—THICKNESS .050 INCHES



Fig. 929

Polished Brass Per Pair	Chromium Plated Per Pair	Length Open Inches	Extreme Width Inches	Weight Per Pair Ounces
\$.65	\$.80	2	7/8	1 1/4

Flap Hinges

CAST BRASS—FAST PIN



Fig. 984

No.	Emery Finish Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair	Size Open Inches	Weight Per Pair Ounces
1		\$.75	\$1.10	1/2 x 2 3/8	1 1/2
2		1.00	1.45	5/8 x 2 3/4	2
3		1.80	2.30	5/8 x 4 1/4	2 1/2

Wardrobe Hooks
CAST BRASS



Fig. 1106

Burnished Brass Each	Polished Brass Each	Chromium Plated Each	Width Inches	Projection Inches	Weight Ounces
\$.65	\$.85	\$.95	2 5/8	7/8	1 1/4

Wardrobe Hooks
CAST BRASS



Fig. 635

Polished Brass Each	Chromium Plated Each	Projection Inches	Width Inches	Weight Ounces
\$.65	\$.85	2	1 1/4	1

Coat and Hat Hooks
CAST BRASS



Fig. 959

Polished Brass Each	Chromium Plated Each	Projection Inches	Width Base Inches	Weight Ounces
\$.80	\$1.05	2 1/8	1 1/8	1 3/4

Coat and Hat Hooks
CAST BRASS

U. S. GOVT. TYPE NO. 1172



Fig. 994

Burnished Brass Each	Polished Brass Each	Chromium Plated Each	Projection Inches	Width Base Inches	Weight Ounces
\$.70	\$.90	\$1.25	3	1 1/4	2 3/4

Flush Hatch Lifting Ring
CAST BRASS—SAFETY TYPE



Fig. 575

No recess to catch heels, chair or table legs, etc.

No.	Polished Brass Each	Chromium Plated Each	Size Plate Inches	Inside Ring Inches	Weight Ounces
1	\$1.40	\$2.00	2 1/2 x 1 3/4	1 1/8	3 1/4
2	2.25	3.00	2 3/4 x 2 1/4	1 1/4	6

Flush Hatch Lifting Handle
CAST BRONZE—SAFETY TYPE



Fig. 774

No recess to catch heels, chair or table legs, etc.

Polished Bronze Each	Chromium Plated Each	Size Plate Inches	Inside Handle Inches	Weight Ounces
\$3.00	\$3.50	3 x 2 1/4	1 3/4 x 1	6

Drawer Pulls
CAST BRASS



Fig. 958

No.	Polished Brass Each	Chromium Plated Each	Width Overall Inches	Width Inside Inches	Weight Ounces
1	\$.60	\$.90	3 3/8	2 1/2	2
2	.85	1.15	4	2 7/8	3

Flush Drop Handles
CAST BRASS

RECESSED TYPE—FOR CHESTS, HATCHES, ETC.



Fig. 1111

No.	Emery Finish Each	Polished Brass Each	Chromium Plated Each	Size Plate Inches	Width Inside Handle Inches	Weight Ounces
1	\$2.60	\$2.85	\$3.60	3 x 2 1/4	1 7/8	4
2	2.70	3.00	3.80	3 1/2 x 2 1/2	2 3/8	6 1/2
3	5.30	5.90	6.70	4 3/4 x 4	2 3/4	19

Flush Pulls
CAST BRASS

FOR DRAWERS, SASH OR SLIDING DOORS



Fig. 1110

Inside recessed for finger grip as illustrated.

Emery Finish Each	Polished Brass Each	Chromium Plated Each	Dimensions Inches	Mortise Depth Inches	Weight Ounces
\$1.55	\$1.75	\$2.20	3 1/2 x 1 3/4	1/2	4

Surface Drop Handles
CAST BRASS
SWINGS HALF WAY ONLY

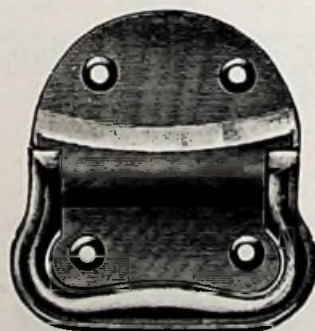


Fig. 1115

No.	Emery Finish Each	Polished Brass Each	Chromium Plated Each	Dimensions Inches	Width Inside Handle Inches	Weight Ounces
1	\$1.75	\$2.25	\$2.90	2 3/4 x 2 5/8	2 1/4	4 1/2
2	2.15	3.15	3.90	3 3/8 x 3 3/8	2 5/8	8
3	2.60	4.20	5.10	3 3/4 x 3 3/4	3 1/8	10

Drawer Knobs

BRASS—FOR DRAWERS UP TO 1 1/2" THICK



Fig. 925

No.	Polished Brass Per Dozen	Chromium Plated Per Dozen	Diameter Inches	Weight Per Dozen Ounces
1	\$ 7.70	\$10.80	1	12
2	11.50	14.80	1 1/4	18



Hatch Support Hinges

CAST BRASS



Fig. 758

Cut shows left hand hinge.

Length Open Inches	Polished Brass Per Pair	Chromium Plated Per Pair	Drilled for Screw No.	Packed Per Box Pairs
8	\$4.30	\$5.50	5	12
10	5.00	6.30	6	12
12	5.20	7.00	6	12
14	6.25	7.90	6	6
18	8.15	10.50	6	6

Sash Lifts

CAST BRONZE



Fig. 776

No.	Size of Plate	Polished Bronze Each	Chromium Plated Each	Weight Ounces
1	1/2 x 1 1/2	\$.55	\$.80	1/2
2	3/8 x 1 1/2	.60	.85	3/4

Hatch Adjusters

CAST BRONZE

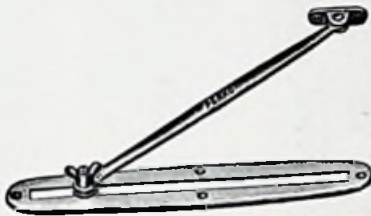


Fig. 797

Polished Bronze Each	Chromium Plated Each	Length Arm Inches	Length Adjustment Inches	Length Plate Inches	Weight Ounces
\$6.20	\$7.60	10	9 1/2	10 3/4	13

Sash Anti Rattlers

CAST BRONZE

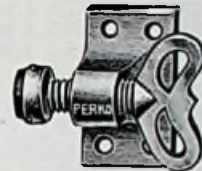


Fig. 839

Furnished with leather tip to prevent defacing of woodwork. Size of base 1 3/8" x 1".

Polished Bronze, Each	\$2.50
Chromium Plated, Each	2.90

Casement Adjusters

ALL BRASS—HEAVY PATTERN

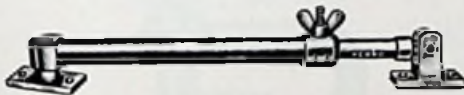


Fig. 1179

A non-slip adjuster with powerful grip to stay put in position desired. Illustration shows swivel base on left side and swinging base on right.

No.	Chromium Plated Each	Length Closed Inches	Length Open Inches	Diam. Outside Tube Inches	Weight Ounces
1	\$7.75	10	17	1/2	9
2	8.00	12	20	1/2	11

Casement or Windshield Adjusters

CAST BRASS



Fig. 1116

No.	Machine Polished Each	Chromium Plated Each	Length Inches	Diam. Rod Inches	Weight Ounces
1	\$4.75	\$6.30	8	3/8	11
2	5.00	6.80	10	3/8	12
3	5.30	7.25	12	3/8	13

Sash or Skylight Fasteners

CAST BRONZE



Fig. 770

Size Inches	Burnished Finish Each	Polished Bronze Each	Chromium Plated Each
3/8 x 4	\$3.50	\$4.10	\$4.95

Sash Fasteners

LEFT OR RIGHT HAND

CAST BRONZE



Fig. 777

No.	Machine Polished Each	Chromium Plated Each	Size Mounting Plate Inches	Weight Ounces
1	\$4.75	\$6.30	1 3/4 x 1	1 1/2
2	5.00	6.80		
3	5.30	7.25		

Please specify left or right hand

ANCHOR SHACKLES

GALVANIZED DROP FORGED STEEL OR BRONZE

SCREW PIN



Fig. 314

ROUND PIN



Fig. 315

Prices and Dimensions Below Apply to both Figs. 314 and 315.

Size Inches	Galvanized Each	Plain Bronze Each	Length Inside Inches	Between Eyes Inches	Diameter Pin Inches	Steel Weight Per 100 in Pounds	Steel Approx. Strength in Pounds
3/16	\$.55	\$.90	7/8	7/16	1/4	7	3000
1/4	.55	1.05	1 1/16	7/16	5/16	12	4005
5/16	.62	1.30	1 1/4	9/16	3/8	20	6165
3/8	.68	1.95	1 1/2	5/8	7/16	31	7920
7/16	.88	2.90	1 3/4	3/4	1/2	47	11925
1/2	1.05	3.80	2	7/8	5/8	69	15570
5/8	1.60		2 1/2	1 1/8	3/4	137	26100
3/4	2.30		2 7/8	1 3/16	7/8	219	35280
7/8	3.00		3 1/4	1 1/2	1	319	47700
1	4.30		3 1/2	1 5/8	1 1/8	500	58140
1 1/8	6.20		4 1/8	1 7/8	1 1/4	681	68400
1 1/4	7.70		4 1/4	2	1 3/8	950	85500
1 3/8	9.60		4 7/8	2 1/4	1 1/2	1218	104400
1 1/2	12.45		6	2 1/2	1 5/8	1625	124200
1 3/4	17.60		8	3	2	2700	190800
2	26.50		8	3 3/8	2 1/4	3725	230400

Bronze Shackles are only furnished with screw pin, Fig. 314.

Galvanized 3/16 inch size supplied only with screw pin, Fig. 314.

CHAIN SHACKLES

GALVANIZED DROP FORGED STEEL

SCREW PIN

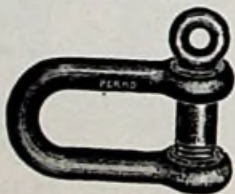


Fig. 338

ROUND PIN

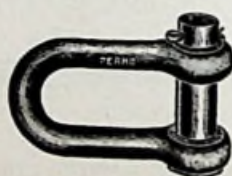


Fig. 339

Size Inches	Galvanized Each	Length Inside Inches	Between Eyes Inches	Diameter Pin Inches	Weight Per 100 in Pounds	Approx. Strength in Pounds
1/4	\$.55	1 3/16	7/16	5/16	10	4700
5/16	.62	1	9/16	3/8	18	7200
3/8	.68	1 1/4	5/8	7/16	28	9300
7/16	.88	1 5/8	3/4	1/2	44	14100
1/2	1.05	1 5/8	7/8	5/8	70	18300
5/8	1.60	2	1 1/8	3/4	130	30800
3/4	2.30	2 5/8	1 1/4	7/8	212	41600
7/8	3.00	2 7/8	1 3/4	1	300	56000
1	4.30	3 1/4	1 5/8	1 1/8	470	68800

MIDGET SHACKLE

STEEL—ZINC PLATED
SCREW PIN



Fig. 311

Size Inches	Each	Length Inside Inches	Between Eyes Inches	Diameter Pin Inches	Weight Per 100 in Pounds	Approx. Strength in Pounds
5/2	\$.50	1 5/16	3/8	5/16	2 1/2	500



Wire Rope Thimbles

GALVANIZED FORGED STEEL
FORGED BRONZE AND STAINLESS STEEL



Fig. 466

REGULAR

For Size Rope Inches	Galv. Per 100	Bronze Per Dozen	Stainless Steel Per Dozen	Length Overall Inches	Width Inside Inches	Galv. Wt. Per 100 in Lbs.
1/8	\$ 8.50	\$2.40	\$2.40	1 3/4	5/8	2 5/8
3/16	8.50	2.40	2.40	1 3/4	11/16	2 5/8
1/4	8.50	3.00	3.00	2	3/4	4 3/8
5/16	10.50	4.20	4.20	2 1/8	13/16	5 1/2
3/8	12.75	6.60	6.60	2 3/8	15/16	10 5/8
1/2	17.00	9.00		2 7/8	1 1/8	15 1/2
5/8	25.50	11.40		3 3/8	1 7/16	27 1/2
3/4	33.00	15.00		3 3/8	1 1/2	40
7/8	44.00			4 1/2	1 5/8	55
1	66.00			5 1/4	2 1/8	79

EXTRA LARGE

7/8	\$ 68.00			5 1/8	1 7/8	84
1	92.00			6 1/4	2 1/4	106
1 1/8	125.00			6 3/4	2 1/2	125
1 1/4	125.00			7	2 3/4	138
1 1/2	286.00			7 1/2	3	250
1 3/4	583.00			10	3 1/2	512
2	605.00			10	3 1/2	600

Manila Rope Thimbles

GALVANIZED DROP FORGED STEEL



Fig. 468

For Dia. Rope Inches	Galvanized Per 100	I. D. Hole Inches	O. D. Edge to Edge Inches	Weight Per 100 in Lbs.
5/16	\$ 13.20	3/8	3/4	1 1/2
3/8	13.20	1/2	3/4	2
7/16	16.30	5/8	1	3
1/2	16.90	3/4	1 1/4	5 1/2
5/8	20.10	7/8	1 1/2	9
3/4	23.50	1	1 3/4	17
7/8	31.50	1 1/16	2	25 1/2
1	38.70	1 3/8	2 1/4	34
1 1/8	42.40	1 7/16	2 1/2	38
1 1/4	62.90	1 1/2	2 3/4	48
1 3/8	84.70	2	3	70
1 1/2	105.60	2 3/8	3 1/2	108

Wire Rope Clips

MALLEABLE IRON SADDLE
STEEL U-BOLT AND NUTS
GALVANIZED



Fig. 333

Sail Thimbles

GALVANIZED MALLEABLE IRON OR BRASS



Fig. 469

*Size Inches	Galv. Per Dozen	Brass Per Dozen	Diam. Rope Inches	I. D. Hole Inches	Galv. Weight Per Doz. in Lbs.
1/2		\$.90	1/8	1/4	1/32
5/8		1.15	3/16	3/8	7/16
3/4	\$1.50	1.35	1/4	1/2	1/4
1	1.80	2.20	5/16	5/8	3/8
1 1/4	2.20	3.75	3/8	3/4	3/8
1 1/2	2.80	5.10	7/16	1	3/8
1 3/4	3.20	6.25	1/2	1 1/4	1 1/2
2	4.80	9.60	5/8	1 1/2	1 1/2
2 1/4	5.00		5/8	1 5/8	2
2 1/2	6.50		3/4	1 3/4	2 3/4
2 3/4	8.00		3/4	2	3
3	9.00		3/4	2 1/4	4 1/4

*Size is from edge to edge across hole.

Size Wire Rope Inches	Galvanized Per 100	Est. Wt. Per 100 in Lbs.	Size Wire Rope Inches	Galvanized Per 100	Est. Wt. Per 100 in Lbs.
3/16	\$19.50	8 1/2	3/4	\$ 85.30	101
1/4	23.00	16 1/2	7/8	121.50	149
5/16	25.00	19	1	145.00	190
3/8	35.00	25	1 1/8	234.00	310
7/16	39.00	32	1 1/4	271.00	375
1/2	44.80	40	1 3/8	460.00	560
5/8	59.40	62	1 1/2	524.00	645



Fig. 497

Eye Nuts

WELDLESS DROP FORGED STEEL

Threaded For Bolt Inches	Galv. Each	Inside Dimensions Inches	Diam. of Stock Inches	Weight Per 100 in Lbs.
1/4	\$.66	3/4 x 3/8	1/4	19
5/16	.66	3/4 x 3/8	1/4	19
3/8	.76	7/8 x 1 1/8	5/16	25
7/16	.88	1 1/4 x 1 1/2	3/8	38
1/2	.88	1 1/4 x 1 1/2	3/8	38
5/8	1.32	1 1/2 x 1 3/4	1/2	63
3/4	1.90	1 3/4 x 2 1/8	5/8	94

OPEN TURNBUCKLES

DROP FORGED STEEL—HOT GALVANIZED

HOOK AND EYE

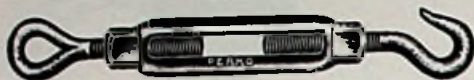


Fig. 390

EYE AND EYE



Fig. 391

HOOK AND HOOK

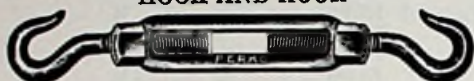


Fig. 392

JAW AND EYE



Fig. 393

JAW AND JAW



Fig. 394

Diameter and Take-up Inches	Fig. 390 Each	Fig. 391 Each	Fig. 392 Each	Fig. 393 Each	Fig. 394 Each	Overall Length Closed Inches	Opening in Hook Inches	Inside Eye Inches	Inside Jaw Inches	Approx. Weight Pounds
* 1/4 x 4	\$1.04	\$1.04	\$1.04	\$ 1.34	\$ 1.58	8	5/8	1/2 x 5/8	5/16 x 5/8	1/8
* 5/16 x 4 1/2	1.22	1.22	1.22	1.58	1.82	9 1/4	3/2	1/2 x 1 1/16	1/2 x 3/4	1/2
* 3/8 x 6	1.58	1.58	1.58	2.06	2.32	11 3/4	9/16	3/4 x 1	1/2 x 1 1/16	3/4
* 1/2 x 6	2.32	2.32	2.32	2.66	3.14	13	1 1/16	3/4 x 1 1/8	5/8 x 1	1 1/2
1/2 x 9	3.28	3.28	3.28	3.88	4.24	16		3/4 x 1 1/8	5/8 x 1	2
1/2 x 12	4.00	4.00	4.00	4.60	5.22	19		3/4 x 1 1/8	5/8 x 1	2 1/2
* 5/8 x 6	2.80	2.80	2.80	3.32	3.76	14	3/4	1 x 1 3/8	1 3/16 x 1 3/8	3
5/8 x 9	3.88	3.88	3.88	4.60	5.32	17		1 x 1 3/8	1 3/16 x 1 3/8	3 3/4
5/8 x 12	4.60	4.60	4.60	5.22	5.94	20		1 x 1 3/8	1 3/16 x 1 3/8	4 1/2
5/8 x 18		6.10		7.24	8.12	26		1 x 1 3/8	1 3/16 x 1 3/8	6
3/4 x 6	4.00	4.00	4.00	4.98	5.56	15 1/2	10/16	1 1/8 x 1 1/2	7/8 x 1 1/2	3 1/2
* 3/4 x 9	5.08	5.08	5.08	5.94	6.54	18 1/2		1 1/8 x 1 1/2	7/8 x 1 1/2	4 1/4
3/4 x 12	5.94	5.94	5.94	6.78	7.64	21 1/2		1 1/8 x 1 1/2	7/8 x 1 1/2	5 1/4
3/4 x 18		7.88		9.12	10.30	27 1/2		1 1/8 x 1 1/2	7/8 x 1 1/2	6 3/4
* 7/8 x 12	7.88	7.88		8.72	10.54	23 3/4	1 1/16	1 5/16 x 1 3/4	1 1/8 x 1 3/4	7 3/4
7/8 x 18		9.10		10.60	12.20	29 3/4		1 5/16 x 1 3/4	1 1/8 x 1 3/4	10
* 1 x 12	8.84		8.00	10.06	11.50	25	1 3/16	1 7/16 x 2	1 1/4 x 2	11 3/4
1 x 18		11.50		13.70	15.20	31		1 7/16 x 2	1 1/4 x 2	13 3/4
1 x 24				16.90	18.40	37		1 7/16 x 2	1 1/4 x 2	16 3/4
* 1 1/4 x 12		15.14		18.88	23.00	30		1 13/16 x 2 5/8	1 5/8 x 2	17 3/4
1 1/4 x 18		18.80		23.10	27.30	36		1 13/16 x 2 5/8	1 5/8 x 2	22 3/4
1 1/4 x 24		24.40		27.40	31.60	42		1 13/16 x 2 5/8	1 5/8 x 2	27 3/4
1 1/2 x 12					31.60	32		1 7/8 x 2 3/8	2 x 2 3/8	30
* 1 1/2 x 18					37.52	38		1 7/8 x 2 3/8	2 x 2 3/8	35
1 1/2 x 24					48.50	44		1 7/8 x 2 3/8	2 x 2 3/8	41

For one lock nut add 5% to above, for two locknuts add 10% to above.

*Indicates standard marine length. Same will be shipped when no length is specified.

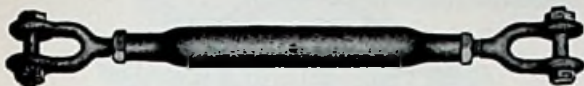
All turnbuckles have right and left hand threads.

3/4 inch diameter and larger in jaw type are supplied with pin and cotter instead of bolt and nut.



Improved Pipe Turnbuckles

GALVANIZED DROP FORGED STEEL WITH LOCK NUTS



Eye and Eye Fig. 381
Jaw and Jaw Fig. 382



Jaw and Eye Fig. 398

Diam. Thread Inches	Fig. 381 Eye & Eye Each	Fig. 382 Jaw & Jaw Each	Fig. 398 Jaw & Eye Each	Length of Pipe Inches	Weight Per 100 in Lbs.
1/4	\$1.10	\$ 2.86	\$ 2.50	5 1/2	47 1/2
5/16	1.30	3.20	2.86	5 3/4	62 1/2
3/8		3.74	3.30	6	102
1/2	2.30	5.20	4.50	8	178
5/8	3.30	7.26	6.40	10 1/2	369
3/4	4.40	9.30	8.70	10 3/4	500
7/8	5.75	13.20	12.10	13	775
1	7.75	17.00	15.10	14 3/8	1025
1 1/4		26.40	24.20	16	2050
1 1/2		48.40	42.90	21	3200

Petite Turnbuckles

CAST BRONZE—S.A.E. THREADS



Fig. 396

No.	Burnished Per Dozen	Diam. Ends Inches	Length Extended Inches	Takeup Inches	Weight Per 100 in Lbs.
1	\$4.10	3/8	3	3/4	3
2	4.60	5/32	4	1 1/8	6 1/4
3	7.25	3/16	5	1 1/2	11 1/2
4	8.10	1/4	5 3/4	1 7/8	15
5	10.30	5/16	6 3/8	2 1/4	24 1/2

Note—Nos. 1, 2 and 3 have wire eyes. Nos. 4 and 5 have cast solid eyes.

Swivels

GALVANIZED MALLEABLE IRON OR BRASS



Fig. 624

No.	Galv. Each	Plain Brass Each	Size Inches	I. D. Eye Inches	Inside Width Swivel Inches	Overall Length Inches	Weight Per 100 in Lbs.
1	\$.26	\$.48	7/10	5/10	3/8	1 3/4	4
2	.37	.66	3/4	3/8	7/10	2 1/8	7 1/2
3	.52	.84	1/2	7/16	1/2	2 1/2	10
4	.74	1.10	5/10	1/2	9/16	3 1/4	19 1/2
5	1.00	1.38	3/8	5/8	3/4	3 1/2	24 1/2
6	1.35	1.66	7/10	3/4	1	4 5/8	41

Swivels

DROP FORGED STEEL



Fig. 622

Size Inches	Galv. Each	Length Inches	Width Inside Inches	Weight Each in Lbs.
1/4	\$ 1.60	3 3/8	3/4	1/4
5/16	2.10	3 3/4	7/8	3/8
3/8	2.20	5 1/4	1 3/8	3/4
1/2	3.40	6	1 1/2	1 1/4
5/8	5.70	7 1/4	1 3/4	2 1/4
3/4	8.10	8 1/2	2	3 1/2
7/8	10.50	10 1/4	2 1/8	6 1/2

Swivel with Jaw End

DROP FORGED STEEL



Fig. 623

Size Inches	Galv. Each	Length Inches	Width Between Jaws Inches	Inside of Ball Inches	Weight Each in Lbs.
1/4	\$ 2.20	4	1/2	1 1/8 x 1 1/4	3/8
5/16	2.60	4 1/8	1/2	1 1/4 x 1 3/8	1/2
3/8	2.90	5	5/8	1 1/4 x 1 3/8	3/4
1/2	4.60	6	3/4	1 3/8 x 1 1/2	1 3/8
5/8	6.50	7 3/8	1 1/8	1 1/2 x 1 3/4	2 3/8
3/4	9.00	8 1/2	1 3/8	1 3/4 x 2	4 1/4
7/8	11.50	9	1 3/8	2 x 2 3/8	7 3/4

Swivels

NICKEL PLATED BRASS

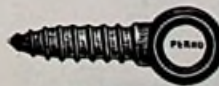


Fig. 1061

Size No.	Per Doz.	Standard Package Per Doz.	Length Inches	Diam. Eye Inches	Weight Doz. in Oz.
0	\$2.00	1	1 1/2	1/4	4 1/4
1	2.65	1	1 3/4	5/16	7 1/4
2	3.30	1	2 1/4	1/2	9

Lacing Eyes

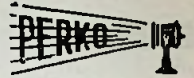
GALV. MALLEABLE IRON OR CAST BRASS



Without Shoulder Fig. 766

With Shoulder Fig. 767

No.	Galv. Per 100	Plain Brass Per Dozen	Pol. Brass Per Dozen	I. D. of Eye Inches	Length Under Eye Inches	Wt. Per 100 in Lbs.
1	\$ 8.50	\$1.20	\$ 3.60	5/10	1	2 1/2
2	12.75	1.60	4.30	3/8	1 1/4	4 1/2
3	14.00	2.00	9.00	1/2	1 1/2	8
4	23.00	2.60	13.20	5/8	2	12



Screw Eye Bolts

GALV. DROP FORGED STEEL OR BRONZE
LARGE EYE



Without Shoulder—Fig. 500

With Shoulder—Fig. 501

Size Inches	Fig. 500 Galv. Each	Fig. 501 Galv. Each	Fig. 501 Plain Bronze Each	Inside Diam. Eye Inches	Galv. Weight Per 100 in Lbs.
1/4 x 2	\$.30	\$.30	\$.74	1/2	6
5/10 x 2 1/4	.33	.33	1.05	5/8	9
3/8 x 2 1/2	.40	.40	1.26	3/4	16
1/2 x 3 1/4	.55	.55	2.52	1	35
5/8 x 4	1.00	1.00		1 1/4	67
3/8 x 4 1/2	1.65	1.65		1 1/2	106

Sizes are diameter and length of shank.

Galvanized Screw Ring Bolts

DROP FORGED STEEL



Without Shoulder—Fig. 618

With Shoulder—Fig. 619

Size Inches	Fig. 618 Galv. Each	Fig. 619 Galv. Each	I. D. Ring Inches	Weight Per 100 in Lbs.
1/4 x 2	\$.80	\$.80	1 3/4	15
5/10 x 2 1/4	.90	.90	2	25
3/8 x 2 1/2	1.00	1.00	2	38
1/2 x 3 1/4	1.30	1.45	2 1/2	85
5/8 x 4	2.10	2.20	2 3/4	160
3/4 x 4 1/2	3.25	3.55	3	245
x 6		4.35	3 3/4	590

Nut Eye Bolts

GALV. DROP FORGED STEEL OR BRONZE
LARGE EYE



Without Shoulder—Fig. 522

With Shoulder—Fig. 523

Size Inches	Fig. 522 Galv. Each	Fig. 523 Galv. Each	Fig. 523 Plain Bronze Each	Inside Diam. Eye Inches	Galv. Weight Per 100 in Lbs.
1/4 x 2	\$.34	\$.34	\$.85	1/2	7
1/4 x 4	.44	.44	1.15	1/2	10
5/10 x 2 1/4	.40	.40	1.15	5/8	13
5/10 x 4 1/4	.62	.62	1.60	5/8	17
3/8 x 2 1/2	.44	.44	1.50	3/4	21
3/8 x 4 1/2	.62	.62	2.20	3/4	27
3/8 x 6	.78			3/4	32
1/2 x 3 1/4	.66	.66	2.90	1	45
1/2 x 6	1.00	1.00	3.60	1	65
1/2 x 8	1.22			1	75
1/2 x 10	1.32			1	85
5/8 x 4	1.10	1.10		1 1/4	85
5/8 x 6	1.32	1.32	5.25	1 1/4	110
5/8 x 8	1.54			1 1/4	135
5/8 x 10	1.76			1 1/4	160
5/8 x 12	1.98			1 1/4	185
3/4 x 4 1/2	1.66	1.66		1 1/2	132
3/4 x 6	2.10	2.10		1 1/2	160
3/4 x 8	2.32			1 1/2	184
3/4 x 10	2.54			1 1/2	208
3/4 x 12	2.76			1 1/2	232
3/4 x 15	3.08			1 1/2	268
7/8 x 5	2.54	2.54		1 3/4	215
7/8 x 8	3.30	3.30		1 3/4	265
7/8 x 12	3.86			1 3/4	339
1 x 6	3.52	3.52		2	340
1 x 9	4.52	4.52		2	400
1 x 12	4.84			2	463
1 x 18	5.84			2	586

Sizes are diameter and length of shank.

Special lengths and threading available if ordered in manufacturing quantities.

Bronze eye bolts are drop forged bronze, not cast.

Nut Ring Bolts

GALV. DROP FORGED STEEL OR BRONZE



Without Shoulder—Fig. 620

With Shoulder—Fig. 621

Size Inches	Fig. 620 Galv. Each	Fig. 621 Galv. Each	Fig. 621 Plain Bronze Each	I. D. Ring Inches	Weight Per 100 in Lbs.
1/4 x 2	\$.80	\$.80	\$ 1.58	1 3/4	16
1/4 x 4	.90	.90		1 3/4	19
5/10 x 2 1/4	.90	.90	2.00	2	28
5/10 x 4 1/4	1.00	1.00		2	33
3/8 x 2 1/2	1.00	1.00	2.52	2	42
3/8 x 4 1/2	1.30	1.30		2	48
3/8 x 6	1.45			2	52
1/2 x 3 1/4	1.45	1.45		2 1/2	94
1/2 x 6	1.80	1.80		2 1/2	115
1/2 x 8	1.90			2 1/2	131
1/2 x 10	2.10			2 1/2	147
5/8 x 4	2.20	2.20		2 3/4	175
5/8 x 6	2.65	2.65		2 3/4	190
5/8 x 8	2.80			2 3/4	205
5/8 x 10	3.00			2 3/4	220
5/8 x 12	3.10			2 3/4	235
3/4 x 4 1/2	3.55	3.55		3	275
3/4 x 6	4.25	4.25		3	300
3/4 x 8	4.40			3	334
3/4 x 10	4.60			3	368
3/4 x 12	4.80			3	400
7/8 x 5	5.30	5.30		3 1/4	415
7/8 x 8	6.20			3 1/4	465
7/8 x 12	6.80			3 1/4	531
1 x 6	7.60	7.60		3 3/4	630
1 x 9	8.70			3 3/4	710
1 x 12	9.00			3 3/4	790



Paint Scraper Set

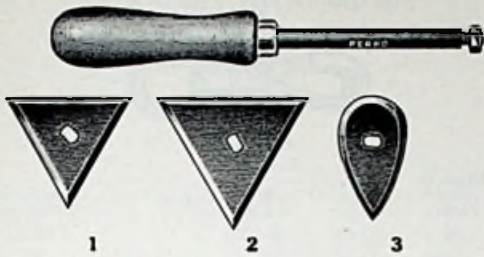


Fig. 1015

Per Set — \$3.10

Set consists of handle with 3 blades illustrated, and nut to change and attach blades.

Packed, 1 set to a box.

No. 1 Blade, Triangular—2 3/8 x 2 3/8 inches.

No. 2 Blade, Triangular—3 x 3 inches.

No. 3 Blade, Oval—2 1/2 x 1 1/4 inches.

Length Handle—8 1/2 inches.

Paint Scrapers



Triangular
Fig. 626

Oval
Fig. 918

Fig.	Complete Per Doz.	Size Blade Inches	Length Inches	Weight Per Doz. in Lbs.
626	\$12.00	3 x 3	9	6
626. 918	15.00	2 1/2 x 1 1/2	9	5 1/2

Ship Scrapers

GIBBS PATTERN—TEMPERED STEEL BLADES



Fig. 920

Each	Blades Only Each	*Handles Only Each	Size Blade Inches	Length Inches
\$5.20	\$2.30	\$3.60	4 1/2 x 1 1/2	17

*Handle complete with socket and bolt.

Genuine File Scrapers

FROM FLAT MILL FILES



Fig. 1174

Made from 14 inch and 16 inch used files, no selection of length. Carefully heat treated.

Per Dozen	Approx. Width Inches	Approx. Thickness Inches	Approx. Width Blade Inches	Approx. Weight Per Dozen Pounds
\$10.00	1 1/4	3/16	1 3/4	17

Double End Scrapers

FINE GRADE TOOL STEEL
HEAT TREATED



Fig. 1175

Per Dozen	Length Inches	Width Inches	Thick-ness Inches	Width Blade Inches	Weight Per Dozen Pounds
\$12.60	15	1	1/4	1 3/4	13

Marline Spikes

POLISHED STEEL
FOR WIRE ROPE

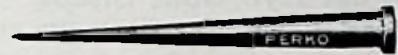


Fig. 921

Length Inches	Per Dozen	Approx. Weight Per Dozen in Pounds
8	\$43.70	6
10	46.90	10
12	51.00	12 1/2
14	54.00	16 1/2
16	62.80	25
18	72.40	30

FOR MANILA ROPE

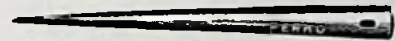


Fig. 922

Length Inches	Per Dozen	Approx. Weight Per Dozen in Pounds
6	\$22.50	5 3/4
8	22.50	7 1/2
10	25.00	12
12	31.25	17
14	38.00	23 1/2
16	54.00	27
18	65.00	34 3/4

Hand Fids

MAPLE



Fig. 923

For use in splicing ropes and light flexible cables; has a rounded end for hand use; varnished finish.

No.	Per Dozen	Size Blade Inches
0	\$10.50	12 x 1 3/4
1	12.60	14 x 1 3/4
2	13.90	16 x 2
3	15.70	18 x 2
4	23.64	20 x 2 1/4
5	41.60	24 x 3

Caulking Irons

MALLEABLE IRON



Fig. 307

Size No.	Per Dozen	Thickness Inches	Length Inches	Width Blade Inches	Weight Per Dozen in Lbs.
00	\$19.80	1/32	5	2	3 1/2
0	19.80	1/16	5 5/8	2 1/2	4 1/2
1	21.50	1/8	5 7/8	2 3/4	5 1/4

Jib Snaps

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 765

Size No.	Galv. Each	Plain Bronze Each	Extreme Length Inches	For Diam. Stay Inches	Weight Per 100 in Lbs.
0	\$.55	\$.60	1 3/8	1/4	4 3/8
1	.65	.70	2	3/16	10
2	.75	.85	2 3/8	3/8	12 1/2
3	.90	1.00	2 3/4	1/2	21
4	1.50	1.85	3	5/8	23 3/4

Fast Eye Boat Snaps

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 612

Size No.	Galv. Each	Plain Bronze Each	Polished Bronze Each	Inside Diam. Eye Inches	Extreme Length Inches	Weight Per 100 Pounds
0	\$.55	\$.60	\$1.25	3/8	2	5
1	.65	.70	1.45	3/8	2 3/4	10
2	.70	.80	1.60	3/4	3 1/4	13 3/8
3	.85	1.00	2.20	3/4	3 3/8	26 1/4
4	1.10	1.70		1	4 1/8	27 1/2
5	1.45	2.00		1 1/8	4 7/8	43 3/4
6	1.70			1 1/4	5 1/4	56 1/4

Swivel Eye Boat Snaps

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 613

Size No.	Galv. Each	Plain Bronze Each	Polished Bronze Each	Inside Diam. Eye Inches	Extreme Length Inches	Weight Per 100 Pounds
1	\$.90	\$1.15	\$1.75	3/8	3 1/4	11
2	1.05	1.25	2.00	3/8	3 1/4	16 1/4
3	1.35	1.55	2.75	3/8	4 3/4	32
4	1.60	1.90		1	5 1/4	37
5	1.95	2.70		1 1/8	6	60

Swivel Eye Snaps

MALLEABLE IRON OR BRONZE



Fig. 659

Nickel Plated Malleable Iron Each	Plain Bronze Each	Extreme Length Inches	Inside Eye Inches	Inside Hook Inches	Weight Ounces
\$.55	\$.65	3 1/2	3/4	3/8	2

Baby Snaps

BRASS—WITH FAST EYE



Fig. 842

Diam of Eye Inches	Brass Each	Length Inches
3/8	\$.20	1 7/8

Baby Snaps

WITH OBLONG EYE
ELECTRO GALVANIZED OR BRASS



Fig. 1041

Size of Eye Inches	Galvanized Each	Brass Each	Length Inches
5/8 x 3/16	\$.14	\$.17	1 5/8

Baby Snaps

WITH SWIVEL EYE
MALL. IRON, NICKEL PLATED OR BRASS



Fig. 1042

Diam. of Eye Inches	N. P. Malleable Each	Brass Each	Length Inches
3/8	\$.27	\$.35	2 3/8

Safety Mooring Hooks

DROP FORGED STEEL—HEAT TREATED
STAINLESS STEEL SPRING AND RIVET



Fig. 606

These hooks although light in design have exceptional strength.

Safe Working Load
No. 1 — 750 Pounds
No. 2 — 1700 Pounds

No.	Galvanized Each	I. D. of Eye Inches	Length Overall Inches	Throat Opening Inches	Weight Per 100 in Lbs.
1	\$.80	3/4	4	3/4	25
2	2.25	1	5 3/8	1 1/16	100

Galvanized Hooks

DROP FORGED STEEL—LARGE EYE



Fig. 656

Size Inches	Galv. Each	Hook Length Inches	I. D. Eye of Hook Inches	Throat Opening of Hook Inches	Approx. Strength Lbs.	Approx. Weight Per 100 in Lbs.
3/8	\$.64	2 7/8	3/4	1/2	1230	12
1/2	.84	3 3/8	7/8	5/8	2620	30
5/8	1.05	5 1/8	1 1/4	7/8	3810	62 1/2
3/4	1.48	5 1/2	1 1/2	1	5710	87 1/2
7/8	2.10	6 1/2	1 5/8	1 1/8	9100	135
1	2.62	6 7/8	1 7/8	1 1/16	9700	212

Hooks With Thimbles

DROP FORGED STEEL—LARGE EYE



With wire rope thimble Fig. 610

With manila rope thimble Fig. 611

Size Inches	Galv. Each	Length Overall of Hook Inches	Score of Wire Thimble Inches	Score of Manila Thimble Inches	Weight Per 100 in Lbs.
3/8	\$1.05	2 7/8	3/16	7/16	23
1/2	1.16	3 3/8	3/8	3/8	56
5/8	1.90	5 1/8	1/2	3/4	100
3/4	2.10	5 1/2	1/2	7/8	140
7/8	2.94	6 1/2	5/8	1	198
1	3.62	6 7/8	3/4	1 1/8	320

For size of eye and throat opening, see Fig. 656.

Screw Hooks

STEEL—GALVANIZED

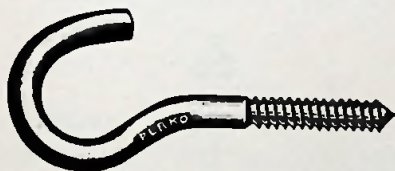


Fig. 779

Size Inches	Galvanized Per Doz.	Length Overall Inches	Weight Per Doz. Pounds
1/4	\$1.25	3 1/2	3/4
3/16	1.60	4	1
3/8	2.00	4 3/4	2 1/8
1/2	5.15	5 7/8	4 3/4

"S" Hooks

GALVANIZED WROUGHT STEEL



Fig. 680

Nominal Size Inches	Per Dozen	Length Overall Inches	Weight Per Doz. Pounds
3/16	\$.78	1 1/2	1/4
1/4	1.08	2	1/2
3/16	1.98	2 1/2	1
3/8	2.40	3	1 3/4
1/2	5.64	3 3/4	5

Connecting or Missing Links

DROP FORGED STEEL WITH INTERLOCKING LUGS



Fig. 319

Size Inches	Galv. Per Dozen	Overall Dimensions Inches	Weight Per Doz. Pounds
3/16	\$ 3.50	1 3/10 x 3/4	3 3/8
1/4	3.50	1 1/2 x 1	3 3/4
3/16	3.90	1 3/4 x 1 3/16	1 3/4
3/8	5.10	2 1/8 x 1 3/8	2 1/8
7/16	6.05	2 3/8 x 1 1/2	3 1/8
1/2	7.25	2 5/8 x 1 3/4	4 1/2
5/8	11.50	3 3/8 x 2 1/8	8
3/4	15.15	3 7/8 x 2 1/2	14 1/4
7/8	21.20	4 1/2 x 3	22
1	32.10	5 x 3 3/4	32

Swing Links

MALLEABLE IRON—WITH BRONZE RIVETS AND INTERLOCKING LUGS



Fig. 784

Size Inches	Galv. Per Dozen	Length Overall Inches	Diam. Eye Inches	Weight Per Dozen Pounds
3/16	\$ 3.50	1 3/4	3/16	7/8
1/4	4.00	2	3/8	1
3/16	4.75	2 1/4	7/16	1 3/4
3/8	6.50	2 5/8	1/2	2 3/4
7/16	9.00	3 1/4	5/8	4 1/2
1/2	11.75	3 3/8	3/4	6
5/8	19.00	4 3/8	7/8	11

Lap Links

GALVANIZED WROUGHT STEEL



Fig. 785

Size Inches	Per Doz.	Inside Dimensions of Link Inches	Size Inches	Per Doz.	Inside Dimensions of Link Inches
3/16	\$.90	1 x 1/2	3/8	\$3.00	1 3/16 x 1 1/16
1/4	1.10	1 1/2 x 1/2	1/2	5.20	2 x 1
3/16	2.20	1 1/2 x 3/8			

ANCHOR CHOCKS

CAST BRONZE—BURNISHED

FOR NAVY TYPE ANCHORS

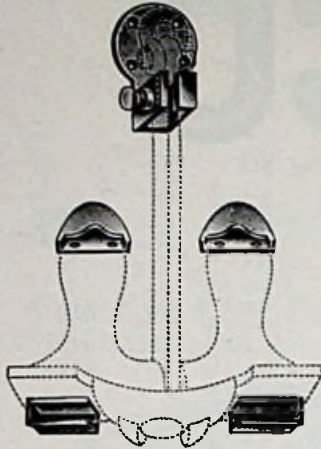


Fig. 938

Consists of five parts illustrated. Head of shank is held in place by an overhang and thumb screw arrangement. For all sizes up to 60 pounds inclusive.

Weight Per Set, 3 pounds

Complete, per set	\$9.50
Shank support only, each	3.90
Fluke supports only, per pair	3.35
Arm supports only, per pair..	2.80

FOR KEDGE ANCHORS

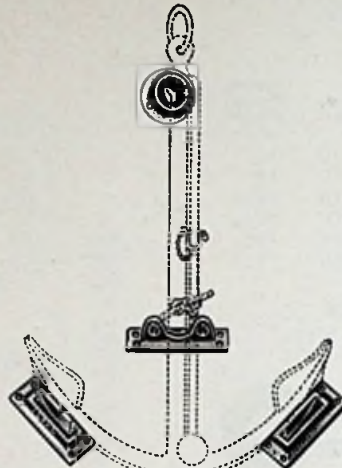


Fig. 939

Consists of four parts illustrated. The lashing piece has two eyes large enough for 3/8 inch diameter rope. For all sizes up to 75 pounds inclusive.

Weight Per Set, 2 1/2 pounds

Complete, per set	\$9.00
Shank support only, each	2.40
Lashing fitting only, each	2.40
Fluke supports only, per pair	5.00

FOR NORTHILL ANCHORS

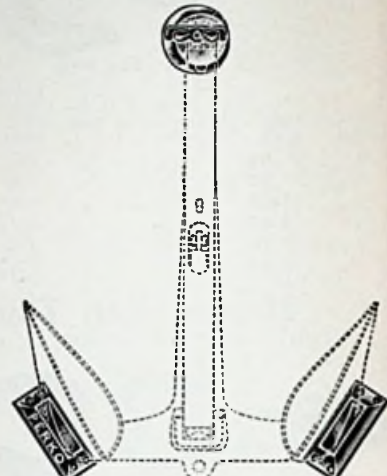


Fig. 941

Consists of three parts illustrated. Part for shank head has threaded bolt to pass through eye of shank, head is fastened down by wing nut and cross bar on bolt. For all sizes up to No. 20-R inclusive.

Weight Per Set, 2 pounds

Complete, per set	\$7.25
Shank support only, each	3.35
Fluke supports only, per pair	4.40

FOR DANFORTH ANCHORS

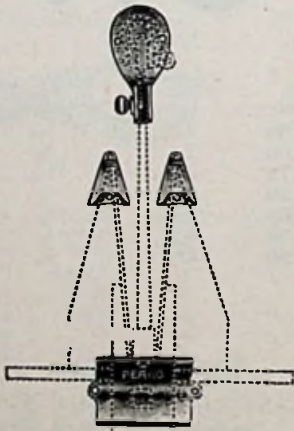


Fig. 933

Consists of four parts illustrated. Head of shank is held fast by slotted casting and thumb screw.

For all sizes up to 30 pounds inclusive.

Weight Per Set, 1 1/4 pounds

Complete, per set	\$7.00
Shank support only, each	3.10
Fluke supports only, per pair	2.20
Crown support only, each	2.25

FOR DANFORTH ANCHORS CAST MANGANESE BRONZE

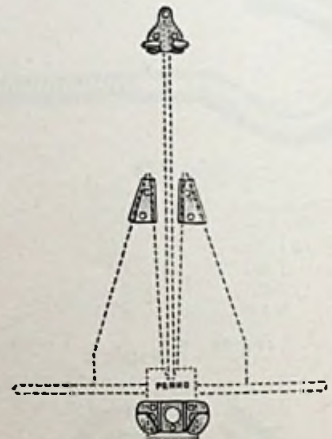


Fig. 1022

Consists of four parts illustrated. Part for shank head has integral cleat for lashing down.

	No. 1	No. 2
Complete per set	\$9.50	\$12.50
Shank support only, each	3.25	4.20
Fluke supports only, per pair	4.10	5.50
Crown support only, each	4.10	5.50
For size anchor, pounds	8 to 22	28 to 50
Weight per set, pounds	1 1/8	2



Non-Fouling Kedge Anchors

GALVANIZED DROP FORGED STEEL

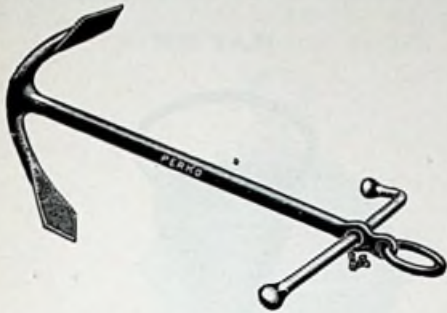


Fig. 236

The result of a great deal of experimenting and testing, the flukes are designed to bite and hold on the first pull of the cable. A weldless reinforcing under each fluke will prevent bending or breaking under maximum strain.

Weight Pounds	Galvanized Each	Length Overall Inches	Width Across Flukes Inches
5	\$ 9.25	21	13
10	13.50	26	15 3/4
15	15.75	29	18
20	18.75	32	19
25	22.00	36	20
30	26.25	36	20
35	28.25	40	22
42	35.00	40	22
50	43.00	43	24 1/2
60	51.00	44 1/2	27 1/2
75	61.00	46	29
100	84.00	50	32
125	100.00	52 1/2	32
150	115.00	59	34 1/2
200	175.00	65	34 1/2
250	240.00	62 1/2	43 1/2

Grappels

GALVANIZED DROP FORGED STEEL FIVE PRONG



Fig. 207

Weight Pounds	Galvanized Each	Weight Pounds	Galvanized Each
4	\$ 7.30	15	\$16.50
7	9.10	20	22.00
10	11.25		

Larger sizes—prices on application.

Fisherman's Anchors FOR SMALL BOATS



Fig. 1028

Weight Pounds	Self Colored Each	Galvanized Each	Diam. Inches	Height Inches
7	\$2.50	\$3.60	6	8
11	3.50	5.40	7	9
15	4.60	6.75	8	10

Northhill Utility Anchors

HEAT TREATED DUCTILON—GALVANIZED

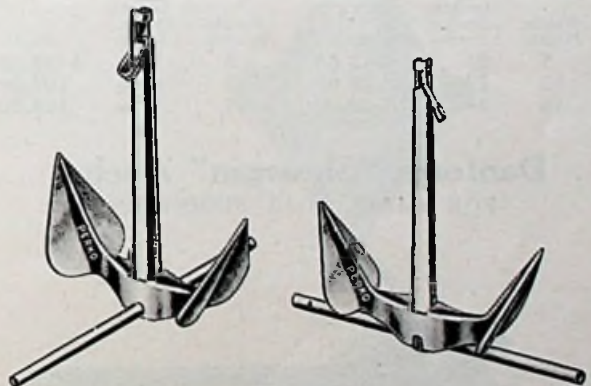


Fig. 1067

Type No.	Galv. Each	Weight Pounds	Com- parative Weight Kedge Type Pounds	Com- parative Weight Navy Type Pounds
Rowboat	\$ 4.85	3		50
3R	11.50	6	30	
6R	22.50	13	65	110
12R	37.50	25	130	225
20R	53.50	47	225	400
30R	74.50	75	350	610
50R	104.50	105	525	918

Note—Rowboat Anchor 12" long — 10" wide.

Navy Type Anchors

DROP FORGED SHANK—GALVANIZED



Fig. 45

Weight Pounds	Each	Weight Pounds	Each
5	\$ 3.75	40	\$ 23.50
10	5.90	50	27.50
15	7.90	75	48.00
20	10.00	100	63.00
25	13.75	150	90.00
30	16.00	200	115.00

"Danforth" Anchors
GALVANIZED STEEL

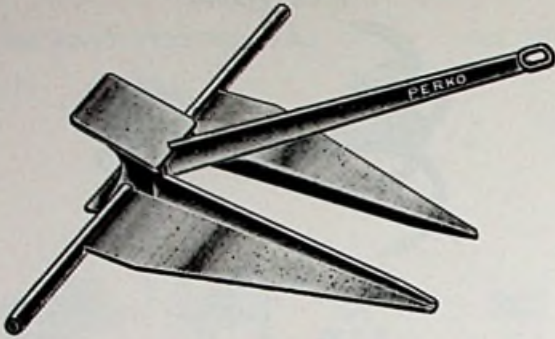


Fig. 700

Fig. 700A "Standard" Anchors
FLUKES FABRICATED FROM HIGH STRENGTH ALLOY STEEL PLATE. SHANK IS DROP FORGED STEEL

Weight Pounds	Length Overall Inches	Each	Weight Pounds	Length Overall Inches	Each
2½	17¼	\$ 3.70	40	40¾	\$ 42.00
4	19	7.50	65	50	60.00
8	24	13.50	85	54	76.00
13	28½	18.50	180	52	145.00
22	35	29.00	200	56½	175.00

Larger sizes, price on application.

Fig. 700B "High Tensile" Anchors
FLUKES FABRICATED FROM ROLLED-ALLOY STEEL SECTIONS. SHANK IS DROP FORGED ALLOY STEEL.

Holding power equal to "Standard" anchors of about twice the weight.

Weight Pounds	Length Overall Inches	Each	Weight Pounds	Length Overall Inches	Each
5	21	\$13.50	28	39½	\$ 52.00
12	27½	28.00	60	49¾	105.00
18	34	38.00	90	53½	125.00

Danforth "Shearpin" Anchor
FOR SMALL BOAT FISHERMEN

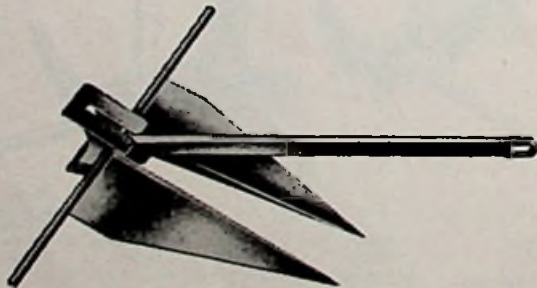


Fig. 700C

Designed to pull out backward, or crown first. Copper shearpin will allow strain of about 250 pounds at normal scope but will break at about a 30 pound pull when the boat is brought over a snagged anchor.

Weight Pounds	Each	Length Inches
4	\$7.50	19

Pick Up Buoys

GALVANIZED SHEET IRON

FLAT TOP



Fig. 234

Pick up handle is riveted to body. Eye on bottom for rope. All double seamed and soldered. Length shown does not include eye and handle.

No.	Each	Diam. Inches	Length Inches	Weight Pounds
1	\$12.60	9	14	4
2	14.75	12	18	5

CONE TOP



Fig. 235

No.	Each	Diam. Inches	Length Inches	Weight Pounds
0	\$ 8.40	7	11	3
1	11.60	13	22	5
2	13.75	16	24	6½

Buoy Rods

GALVANIZED STEEL

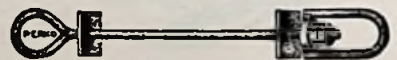


Fig. 166

No.	Each	Diameter Inches	Length Under Eye Inches	Weight Pounds
1	\$5.80	½	18	2¾
2	6.05	½	20	2¾
3	7.45	¾	26	5¼
4	8.00	¾	30	5¾
5	8.80	¾	36	7



Round Steel Mooring Buoy

17" DIAM.—18 GAUGE—WELDED—GALVANIZED STEEL ROD THROUGH CENTER—EYE ON TOP—SWIVEL ON BOTTOM WITH 1 3/8" DIAM. RUBBER BUMPER—BLACK FINISH



Fig. 1068

Body of buoy is grooved to firmly hold rubber bumper in place. The buoy rod passes through a length of pipe and is not attached to body of buoy. All strain is on the rod.

Load capacity, half submerged is 60 pounds, dead weight, equal to 75 feet of 1/4 inch chain or 32 feet of 3/8 inch chain.

Each	Diameter Rod Inches	Size Inside Swivel Inches	Weight Pounds
\$40.00	3/8	3 1/2 x 2	17

Hold Fast Mooring Buoy

WITH RUBBER BUMPER GALVANIZED SHEET IRON



Fig. 445

A heavy gauge galvanized sheet iron body, a 5/8 inch forged rod through a galvanized pipe in the body, large eye on top, large heavy swivel on bottom, a substantial rubber bumper set in groove of body, will not mar or scratch hull of boat.

No. 1 Load Capacity, dead weight — 60 pounds

No. 2 Load Capacity, dead weight — 100 pounds

No.	Each	Diam. Body Inches	Length Body Inches	Length Overall Inches	Inside Diam. Eye Inches	Weight Pounds
1	\$26.50	13	22	33 1/2	3	15
2	34.75	17	27	38 1/2	3	24

Junior Mooring Buoy

FOR RUNABOUTS AND ALL SMALL BOATS GALVANIZED SHEET IRON



Fig. 318

Made of sheet iron with 1/2 inch forged steel galvanized rod through a galvanized pipe in body. Rod has eye on top and swivel on bottom. All the strain is on the rod.

Load capacity, half submerged, 25 lbs., dead weight. Equal to 35 feet of 1/4 inch chain.

No.	Each	Diam. Body Inches	Length Body Inches
1	\$16.75	12	15

Cone Mooring Buoy

WITH RUBBER BUMPER GALVANIZED SHEET IRON



Fig. 370

Heavy galvanized iron, iron pipe running all the way through buoy, heavy galvanized 5/8 inch buoy rod through pipe allowing body to swivel, eye on top, swivel on bottom, body grooved for bumper which is of heavy 1 1/2 inch outside diameter rubber hose.

No.	Each	Body Size Inches	Load Capacity Deadweight Pounds
1	\$40.00	16x24	35
2	50.00	20x30	60
3	61.00	24x36	90
4	72.50	30x36	115

Size does not include swivel or eye.

New Zamak Tiller Rope Pulley

SWIVEL TYPE
ZAMAK DIE CASTINGS—CHROMIUM PLATED
BLACK NYLON SHEAVE



Fig. 1241

The polished chromium plated metal combined with the shiny black nylon sheave makes the complete unit very attractive.

Complete with chromium plated strap.

Each	Length Overall Inches	Diam. Sheave Inches	Length Strap Inches	Diam. Rope Inches	Weight Ounces
\$1.75	3 $\frac{3}{8}$	1 $\frac{1}{4}$	1 $\frac{7}{8}$	$\frac{5}{16}$	3

Without strap, deduct \$.15 each.

Standard Tiller Rope Pulley

WROUGHT BRASS—SWIVEL TYPE
LAMINATED PLASTIC OR BRONZE SHEAVE
FORGED BRONZE EYE



Fig. 587

With Plastic Sheave Each	With Bronze Sheave Each	Length Overall Inches	Diam. Sheave Inches	For Diam. Rope Inches	Weight Ounces
\$1.50	\$1.75	3 $\frac{3}{8}$	1 $\frac{1}{4}$	$\frac{5}{16}$	3

With forged bronze strap add \$.25 each.

Chromium plated finish with plastic sheave only, add \$.75 each.

Economy Tiller Rope Pulley

FORGED BRONZE BODY AND STRAP
LAMINATED PLASTIC SHEAVE— $\frac{1}{4}$ INCH ROPE

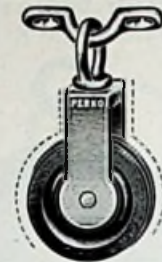


Fig. 579

Dull Bronze Each	Polished Bronze Each	Chromium Plated Each	Length Pulley Inches	Size Sheave Inches	Length Strap Inches	Weight Ounces
\$1.35	\$1.90	\$2.25	1 $\frac{1}{8}$	1 $\frac{1}{4}$ x $\frac{3}{8}$	1 $\frac{1}{8}$	1 $\frac{3}{4}$

Heavy Duty Tiller Rope Pulley

FORGED BRONZE—SWIVEL TYPE
LAMINATED PLASTIC OR BRONZE SHEAVE



PATENTED

Fig. 585

Has guaranteed strength forged bronze body, eye and strap. To take the strain of racing and large horsepower motors. Patented swivel will not jam. For tiller rope up to $\frac{5}{16}$ inch inclusive.

With Plastic Sheave Each	With Bronze Sheave Each	Length Overall Inches	Diam. Sheave Inches	Length Strap Inches	Weight Ounces
\$2.10	\$2.35	3 $\frac{3}{8}$	1 $\frac{1}{4}$	1 $\frac{7}{8}$	4

Without strap, deduct \$.25 each.

Lightweight Tiller Rope Pulley

WROUGHT BRASS BODY—SWIVEL TYPE
FORGED BRONZE STRAP AND EYE
LAMINATED PLASTIC OR BRONZE SHEAVE



Fig. 592

With Plastic Sheave Each	With Bronze Sheave Each	For Diam. Rope Inches	Length Overall Inches	Diam. Sheave Inches	Length Strap Inches	Weight Ounces
\$1.90	\$2.15	$\frac{5}{16}$	3 $\frac{3}{8}$	1 $\frac{1}{4}$	1 $\frac{7}{8}$	3

Without strap, deduct \$.25 each.

Lightweight Tiller Rope Pulleys

LAMINATED PLASTIC SHEAVE
BRASS BODY—FORGED BRONZE STRAP



Fig. 591

No.	Dull Brass Each	For Diam. Rope Inches	Length Overall Inches	Size Sheave Inches	Length Strap Inches	Wt. Oz.
0	\$1.75	$\frac{3}{8}$	2	1 $\frac{1}{4}$ x $\frac{3}{8}$	1 $\frac{1}{8}$	1 $\frac{3}{4}$
1	2.00	$\frac{5}{16}$	2 $\frac{3}{4}$	1 $\frac{1}{4}$ x $\frac{7}{16}$	2 $\frac{1}{4}$	3



Universal Tiller Rope Pulley

WROUGHT BRASS—SWIVEL TYPE
LAMINATED PLASTIC OR BRONZE SHEAVE
FORGED BRONZE MOUNTING PLATE



Fig. 552

With Plastic Sheave Each	With Bronze Sheave Each	Length Overall Inches	Diam. Sheave Inches	Length Plate Inches	For Diam. Rope Inches	Weight Ounces
\$1.90	\$2.15	3	1 3/4	2	5/16	3 3/4

Tiller Rope Pulley With Swivel Snap

ALL BRASS
LAMINATED PLASTIC OR BRONZE SHEAVE



Fig. 616

With Plastic Sheave Each	With Bronze Sheave Each	For Diam. Rope Inches	Snap Throat Opening Inches	Diam. Sheave Inches	Length Overall Inches	Weight Ounces
\$2.30	\$2.55	5/16	1/2	1 3/4	4 1/2	4

Coaming or Thru-Deck Pulleys

CAST ALUMINUM OR BRONZE
WITH 1 3/4 INCH LAMINATED PLASTIC SHEAVE



Fig. 617

Made as small and light as possible while maintaining necessary strength. The plastic sheave has deep score for wire or woven rope.

Dimensions Of Plate Inches	For Diameter Rope Inches	Weight In Bronze Ounces
3 3/8 x 1 3/8	1/4 or 5/16	4

Polished Aluminum Each	Burnished Bronze Each	Polished Bronze Each	Chromium Plated Each	Chromium Plated Each	For Rope Diameter Inches	Size Base Inches	Weight Ounces
\$2.00	\$2.00	\$2.50	\$2.75	\$1.15	3/16	7/8 x 1 1/2	1

Tiller Rope Guides

BRONZE



Fig. 359

No.	Burnished Bronze Each	Polished Bronze Each	Chromium Plated Each	Size Hole Inches	Size Base Inches	Weight Ounces
1	\$.40	\$.70	\$1.00	3/8	1 3/8 x 3/4	3/4
2	.50	.85	1.25	1/2	1 1/2 x 7/8	1 1/2
3	.65	1.10	1.60	5/8	1 3/4 x 1 1/4	2

No. 1 size is forged bronze.

Tiller Rope Guides

GALVANIZED CAST IRON OR BRONZE
OVAL PLATE



Fig. 599

No.	Galv. Iron Each	Plain Bronze Each	Pol. Bronze Each	Chromium Plated Each	Size Hole Inches	Size Base Inches
1	\$.20	\$.40	\$.70	\$1.00	3/8	1 3/8 x 7/8
2	.25	.50	.85	1.25	1/2	1 1/2 x 7/8
3	.30	.65	1.10	1.60	5/8	1 3/4 x 1 1/4

No. 1 size is forged bronze.

Tiller Rope Guides

BRASS SPRING WIRE



Fig. 229



Fig. 932

Brass Each	Chromium Plated Each	Brass Each	Chromium Plated Each	Size Hole Inches	Length Inches	Weight Ounces
\$.15	\$.22	\$.15	\$.22	3/8	1 7/16	1/4

New Tiller Rope Guides

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1243

Tiller Rope Guides
GALVANIZED CAST IRON OR BRONZE



Fig. 102

No.	Galv. Iron Each	Burnished Bronze Each	Polished Bronze Each	Chromium Plated Each	For Diam. Rope Inches	Diam. Base Inches
1	\$.35	\$.70	\$ 1.25	\$ 1.80	3/4	1 3/8
2	.45	.80	1.45	2.00	5/16	1 11/16
3	.65	1.20	2.00	2.80	3/8	1 3/4

Illustration shows size No. 3. Sizes No. 1 and 2 have rectangular base.

Tiller Rope Guides
FORGED BRONZE



Upright
Fig. 593



Side
Fig. 594

Fig.	Dull Bronze Each	Pol. Bronze Each	Chromium Plated Each	For Diam. Rope Inches	Size Base Inches	Wt. Ozs.
593	\$ 1.20	\$ 1.50	\$ 1.80	5/16	7/8 x 1 1/2	2
594	1.15	1.45	1.75	5/16	3/4 x 2	1 1/2

Assorted Brass Pins

FOR BLOCK SHACKLES, TURNBUCKLES, ETC.

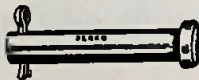


Fig. 1176

No.	Each	Diam. Pin Inches	Length Under Head Inches	Diam. Head Inches	Type Head
1	\$.25	3/16	5/8	1/4	Flat
2	.25	3/16	3/4	1/4	Flat
3	.28	3/16	7/8	1/4	Flat
4	.28	3/16	1	1/4	Flat
5	.28	1/4	5/8	5/16	Round
6	.30	1/4	3/4	3/16	Flat
7	.32	1/4	7/8	3/16	Flat
8	.35	1/4	1 1/16	3/16	Flat
9	.35	1/4	1 1/8	3/16	Flat
10	.35	1/4	1 1/4	3/16	Flat
11	.35	3/16	7/8	3/8	Flat
12	.35	3/16	1 5/16	3/8	Flat
13	.35	3/16	1	3/8	Flat
14	.37	3/16	1 1/16	3/8	Round
15	.37	3/16	1 1/4	3/8	Flat
16	.37	3/16	1 1/2	3/8	Flat
17	.42	3/16	1 3/16	1/2	Flat
18	.48	3/8	1 5/16	7/16	Flat
19	.48	3/8	1 1/16	7/16	Flat
20	.50	3/8	1 1/4	1/2	Round
21	.50	3/8	1 3/16	1/2	Flat
22	.55	3/8	1 3/4	1/2	Flat
23	.60	3/8	1 3/8	7/16	Flat
24	.65	7/16	1	3/8	Flat
25	.70	7/16	2 3/8	3/8	Flat
26	.75	1/2	1 3/8	3/8	Flat
27	.75	1/2	1 1/2	3/8	Flat
28	.80	1/2	1 1/2	3/8	Flat
29	.90	3/4	1 3/4	3/4	Round

Eye Straps
FORGED BRONZE



Fig. 881

No.	Plain Each	Polished Each	Chrome Plated Each	Length Inches	Size Eye Inches	Stock in Eye Inches	Wt. Ozs.
00		\$.25	\$.40	1 1/2	1/4	3/16	3/4
0	.25		.45	1 7/8	5/16	1/4	1 1/2
1	.35		.85	2 1/4	3/8	9/32	3/4
2	.40		1.15	2 3/4	1/2	5/16	1 1/2

New Eye Straps

ZAMAK DIE CASTING—CHROMIUM PLATED



Fig. 1242

Chromium Plated Each	Length Inches	Size Eye Inches	Stock in Eye Inches	Weight Ounces
\$.30	1 7/8	5/16	1/4	1/4

Assorted Sheaves

GALVANIZED IRON, BRONZE OR PLASTIC
COMMON BUSHED—FOR MANILA ROPE



Fig. 154

GALVANIZED

No.	Each	Diam. Inches	Thickness Inches	For Rope Inches	For Size Pin Inches
1	\$.22	3/4	3/16	3/16	1/4
2	.30	1	3/8	3/4	3/8
3	.33	1 1/4	3/8	3/16	3/16
4	.36	1 1/2	1/2	3/8	3/16
5	.48	1 3/4	7/16	7/16	1/4
6	.55	2	5/8	1 1/2	1/4
7	.65	2 1/2	3/4	5/8	3/16
8	.80	3	7/8	3/4	3/16
BRONZE					
9	.35	3/16	3/16	1/4	5/32
10	.40	5/8	3/8	3/16	3/32
11	.45	1 1/16	7/16	3/8	3/32
12	.45	3/4	3/8	3/16	1/4
13	.50	7/8	1/2	3/8	3/16
14	.50	1	3/8	3/4	1/4
15	.60	1 1/8	5/8	7/16	3/8
16	.60	1 3/16	7/16	3/16	1/4
17	.65	1 3/8	1/2	3/8	3/16
18	.75	1 3/4	3/8	3/16	1/4
19	.95	1 7/8	5/8	7/16	3/8
20	.95	2	7/16	3/16	5/16
21	1.10	2 1/4	1/2	3/8	3/8
PLASTIC					
23	.40	1 1/8	3/8	1/4	1/4
24	.45	1 1/4	3/8	1/4	3/16
25	.50	1 3/4	7/16	3/16	1/4
BLACK NYLON					
26	.50	1 3/4	7/16	3/16	1/4

Fast Eye Blocks

GALVANIZED MALLEABLE IRON OR BRONZE
SINGLE

Without Becket



Fig. 43

With Becket



Fig. 54

Size No.	Galv. Each Fig. 43	Galv. Each Fig. 54	Plain Bronze Each Fig. 43	For Diam. Rope Inches	Size Sheaves Inches	Wt. Lbs. Each
1	.26	.35	.50	$\frac{3}{16}$	$\frac{3}{4} \times \frac{5}{16}$	$\frac{3}{32}$
3	.32	.45	.60	$\frac{1}{4}$	1 x $\frac{3}{8}$	$\frac{3}{16}$
5	.40	.55	.95	$\frac{3}{16}$	$1\frac{1}{4} \times \frac{7}{16}$	$\frac{1}{4}$
7	.62	.80	1.20	$\frac{3}{8}$	$1\frac{1}{2} \times \frac{1}{2}$	$\frac{3}{8}$
9	.82	1.10	1.70	$\frac{7}{16}$	$1\frac{3}{4} \times \frac{9}{16}$	$\frac{1}{2}$
11	1.35	1.50	2.05	$\frac{1}{2}$	2 x $\frac{5}{8}$	$\frac{5}{8}$
13	2.25	2.90		$\frac{5}{8}$	$2\frac{1}{2} \times \frac{3}{4}$	$1\frac{7}{16}$
15	3.10	4.25		$\frac{3}{4}$	3 x $\frac{7}{8}$	$1\frac{1}{8}$

NOTE—Blocks with becket supplied only in galvanized.

Swivel Eye Blocks

GALVANIZED MALLEABLE IRON OR BRONZE

Single



Fig. 100

Size No.	For Diam. Rope Inches	Length Shell Inches	Diameter Sheave Inches	Weight Per Doz. in Lbs.
0	$\frac{3}{16}$	1	$\frac{1}{2}$	$\frac{1}{2}$
1	$\frac{3}{16}$	$1\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{4}$
3	$\frac{1}{4}$	$1\frac{3}{4}$	1	2
5	$\frac{5}{16}$	2	$1\frac{1}{4}$	$2\frac{7}{8}$
7	$\frac{3}{8}$	$2\frac{1}{4}$	$1\frac{1}{2}$	$4\frac{7}{8}$

Size No.	Galvanized Iron Each	Plain Bronze Each
0	\$.35	\$1.20
1	.45	1.25
3	.60	1.65
5	.90	2.00
7	1.00	2.30

Fast Eye Blocks

GALVANIZED MALLEABLE IRON OR BRONZE
DOUBLE

Without Becket



Fig. 51

With Becket



Fig. 55

Size No.	Galv. Each Fig. 51	Galv. Each Fig. 55	Plain Bronze Each Fig. 51	For Diam. Rope Inches	Size Sheaves Inches	Wt. Lbs. Each
2	\$.40	\$.55	\$.95	$\frac{3}{16}$	$\frac{3}{4} \times \frac{5}{16}$	$\frac{3}{16}$
4	.50	.80	1.20	$\frac{1}{4}$	1 x $\frac{3}{8}$	$\frac{1}{4}$
6	.85	1.35	1.75	$\frac{3}{16}$	$1\frac{1}{4} \times \frac{7}{16}$	$\frac{3}{8}$
8	1.00	1.60	2.75	$\frac{3}{8}$	$1\frac{1}{2} \times \frac{1}{2}$	$\frac{5}{8}$
10	1.30	2.00		$\frac{7}{16}$	$1\frac{3}{4} \times \frac{9}{16}$	$\frac{3}{4}$
12	1.65	2.70		$\frac{1}{2}$	2 x $\frac{5}{8}$	$1\frac{1}{4}$
14	2.95	4.75		$\frac{3}{8}$	$2\frac{1}{2} \times \frac{3}{4}$	$2\frac{7}{16}$
16	6.00	7.00		$\frac{3}{4}$	3 x $\frac{7}{8}$	$2\frac{3}{4}$

NOTE—Blocks with becket supplied only in galvanized.

Swivel Eye Blocks

GALVANIZED MALLEABLE IRON OR BRONZE

Double



Fig. 101

Size No.	For Diam. Rope Inches	Length Shell Inches	Diameter Sheave Inches	Weight Per Doz. in Lbs.
00	$\frac{3}{16}$	1	$\frac{1}{2}$	$1\frac{1}{16}$
2	$\frac{3}{16}$	$1\frac{1}{4}$	$\frac{3}{4}$	$2\frac{1}{4}$
4	$\frac{1}{4}$	$1\frac{3}{4}$	1	$3\frac{3}{4}$
6	$\frac{5}{16}$	2	$1\frac{1}{4}$	$4\frac{1}{2}$
8	$\frac{3}{8}$	$2\frac{1}{4}$	$1\frac{1}{2}$	7

Size No.	Galvanized Iron Each	Plain Bronze Each
00	\$.80	\$1.65
2	.85	1.80
4	1.10	2.30
6	1.30	4.60
8	2.25	6.00

Loose Hook Blocks

GALVANIZED MALLEABLE IRON BODY
FORGED STEEL HOOKS
SINGLE

Without Becket

With Becket



Fig. 52



Fig. 56

Size No.	Galv. Each Fig. 52	Galv. Each Fig. 56	Length of Shell Inches	For Diameter Rope Inches	Weight Each Pounds
1	\$2.00	\$2.20	1 1/2	3/16	3/16
3	2.10	2.25	1 5/8	1/4	1/4
5	2.15	2.35	2	5/16	5/16
7	2.40	2.75	2 3/8	3/8	9/16
9	3.30	3.50	3	7/16	5/8
11	4.25	4.75	3 1/4	1/2	1
13	5.50	6.00	4	5/8	2 1/4
15	8.00	8.75	4 3/8	3/4	2 1/2

Size of Sheave same as Fig. 43.

Loose Hook Blocks

GALVANIZED MALLEABLE IRON
DOUBLE

Without Becket

With Becket



Fig. 53



Fig. 58

Size No.	Galv. Each Fig. 53	Galv. Each Fig. 58	Length of Shell Inches	For Diameter Rope Inches	Weight Pounds Each
2	\$2.25	\$2.35	1 1/2	3/16	1/4
4	2.55	2.75	1 5/8	1/4	3/8
6	2.80	3.15	2	5/16	1/2
8	3.20	3.30	2 3/8	3/8	7/8
10	4.15	4.50	3	7/16	1
12	5.50	5.75	3 1/4	1/2	1 1/2
14	7.50	7.75	4	5/8	2 1/2
16	10.50	11.00	4 3/8	3/4	3 3/4

Size of Sheave same as Fig. 51.

Blocks on Plates

MALLEABLE IRON OR BRONZE



Fig. 107

Size No.	Cadmium Plated Each	Plain Bronze Each	For Diam. Rope Inches	Style Block	Weight Per 100 in Lbs.
3	\$1.25	\$2.95	1/4	Swivel Eye	20
5	1.35	3.50	5/16	Swivel Eye	35
7	1.50	4.25	3/8	Swivel Eye	66
9	2.85		7/16	Fast Eye	72

Deck Blocks

OPEN PATTERN

GALVANIZED IRON OR BRONZE
SINGLE



Fig. 87

Size No.	Mall. Iron Each	Cast Iron Each	Plain Bronze Each	For Rope Diam. Inches	Size of Sheave Inches	Weight Pounds
0	\$0.50	\$0.45	\$1.10	5/16	1 1/4 x 3/8	3/16
1	.80	.50	1.55	3/8	1 1/2 x 1/2	3/8
3	1.40	.95	2.75	1/2	2 x 5/8	1 1/16
5	2.50	1.90	4.40	5/8	2 1/2 x 3/4	1 9/16
7	3.90	3.00	5.50	3/4	3 x 7/8	2 7/16

Cast iron furnished unless otherwise specified.

Deck Blocks

OPEN PATTERN

GALVANIZED IRON OR BRONZE
DOUBLE



Fig. 88

Size No.	Mall. Iron Each	Cast Iron Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches
2	\$1.40	\$.90	\$2.45	3/8	1 1/2 x 1/2
4	2.50	1.90	4.50	1/2	2 x 5/8
6	4.00	3.50		5/8	2 1/2 x 3/4
8	6.00	4.75		3/4	3 x 7/8

Cast iron furnished unless otherwise specified.



Deck Blocks

FOR WIRE ROPE
GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 139

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
1	\$1.40	\$2.00	1/4 - 5/16	1 7/8 x 7/16	5/8
2	2.30	3.95	3/8	3 x 9/16	1 3/8
3	3.90	7.70	7/16	4 x 3/8	3
3 1/2	6.00		1/2	4 1/2 x 3/4	4 1/4
4	8.20		5/8	5 x 3/8	5 1/4
5	10.50		3/4	6 x 1	8 1/2

Cheek Blocks

FOR WIRE ROPE
GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 140

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
1	\$1.10	\$2.20	1/4 - 5/16	1 7/8 x 7/16	5/8
2	1.70	3.90	3/8	3 x 9/16	1 3/8
3	2.90	7.25	7/16	4 x 3/8	2 3/4
3 1/2	4.20		1/2	4 1/2 x 3/4	4 1/4
4	5.50		5/8	4 x 3/8	5 1/4
5	8.00		3/4	6 x 1	11

Cheek Blocks

GALVANIZED IRON OR BRONZE
SINGLE



Fig. 95

Size No.	Galv. Gray Iron Each	Galv. Mall. Iron Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
0	\$.65	\$.70	\$1.20	1/4	1 x 3/8	3/10
1	.70	.90	1.55	5/16	1 3/8 x 7/16	1/4
2	.75	1.10	1.90	3/8	1 1/2 x 1/2	3/8
3	1.10	1.75	3.20	1/2	2 x 3/8	3/4
4	2.20	2.40	3.50	5/8	2 1/2 x 3/4	1 1/4
5	3.20	4.00		3/4	3 x 3/8	2
6	5.70	7.00		7/8	3 1/2 x 1	4

Note—Galvanized malleable blocks shipped unless otherwise specified.

Wire Rope Pulleys

GALVANIZED MALLEABLE IRON OR BRONZE
UPRIGHT PATTERN



Fig. 279

SINGLE

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
10	\$2.00	\$3.50	3/16	2 1/2 x 3/8	5/8
20	2.40	4.10	1/4	3 1/4 x 1/2	1 1/2
30	3.60	6.50	5/16 - 3/8	4 1/2 x 9/16	2 1/2

Fig. 280

DOUBLE

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
110	\$3.00	\$5.40	3/16	2 1/2 x 3/8	1 1/8
120	3.40	6.00	1/4	3 1/4 x 1/2	2
130	5.75	11.50	5/16 - 3/8	4 1/2 x 9/16	4 1/4

Wire Rope Pulleys

GALVANIZED MALLEABLE IRON OR BRONZE
SIDE PATTERN



Fig. 194

SINGLE

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
1	\$2.00	\$3.50	3/16	2 1/2 x 3/8	1/2
2	2.40	4.10	1/4	3 1/4 x 1/2	1 1/4
3	3.60	6.50	5/16 - 3/8	4 1/2 x 9/16	2 3/8

Fig. 195

DOUBLE

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
11	\$3.00	\$5.40	3/16	2 1/2 x 3/8	1 1/8
12	3.40	6.00	1/4	3 1/4 x 1/2	2
13	5.75	11.50	5/16 - 3/8	4 1/2 x 9/16	4 1/4

Cheek Blocks

GALVANIZED IRON OR BRONZE
DOUBLE



Fig. 96

Size No.	Galv. Gray Iron Each	Galv. Mall. Iron Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
11	\$1.20	\$1.50	\$2.40	5/16	1 3/8 x 7/16	1/2
12	1.30	1.80	3.60	3/8	1 1/2 x 1/2	1 1/16
13	2.20	3.00	5.75	1/2	2 x 3/8	1 1/2



Bullet Blocks

FOR JIB SHEETS AND LEADERS
FORGED BRONZE



Fig. 869

No.	Dull Finish Each	Polished Each	For Rope Diam. Inches	Size Sheave Inches	Weight Ounces
0	\$1.25	\$1.75	1/4	3/4 x 7/16	2
1	1.40	1.90	3/8	7/8 x 1/2	2 1/2

Fast Eye Snap Shackles
CAST BRONZE—BURNISHED



Fig. 873

No.	Each	For Diam. Rope Inches	I. D. Eye Inches	Length Inside Inches	Width Inside Inches	Wt. Ozs.
0	\$3.90	1/4	3/8	9/16	5/8	2
1	3.90	5/16-3/8	7/8	3/4	1 1/16	4
2	5.10	7/16-1/2	5/8	13/16	7/8	7

Swivel Eye Snap Shackles
CAST BRONZE—BURNISHED

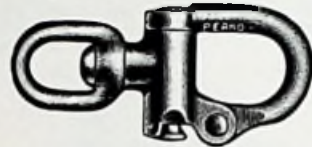


Fig. 874

No.	Each	For Diam. Rope Inches	I. D. Eye Inches	Length Inside Inches	Width Inside Inches	Wt. Ozs.
0	\$5.30	1/4	7/16	1 1/16	9/16	3
1	6.25	5/16-3/8	5/8	3/4	1 1/16	6

Centerboard Blocks

GALVANIZED CAST IRON OR BRONZE



Fig. 827

No.	Galv. Each	Plain Bronze Each	Size Rope Inches	Size Sheave Inches	Weight Pounds
1	\$1.25	\$2.50	5/8	1 1/2 x 1/2	3/4
2	2.00	3.90	1/2	2 x 3/8	1 1/2

Block Shackles
FORGED BRONZE



Fig. 893

No.	Size Inches	Dull Finish Each	Length Inside Inches	Width Inside Inches	Diam. Pin Inches	Wt. Ozs.
0	3/16	\$.65	5/8	7/16	3/16	1/2
1	1/4	.75	7/8	7/16	1/4	1
2	5/16	1.00	1 1/16	5/8	5/16	1 1/2

Outhaul Cheek Blocks

CAST BRONZE—BURNISHED
FOR ROPE



Fig. 885

Each	For Rope Size Inches	Size Sheave Inches	Weight Ounces
\$.85	1/4	3/4 x 5/16	3 1/2

Outhaul Cheek Blocks

CAST BRONZE—BURNISHED
FOR WIRE



Fig. 886

Each	For Wire Size Inches	Size Sheave Inches	Weight Ounces
\$1.50	1/8	1 1/4 x 9/32	5

Halyard Shackles

CAST MANGANESE BRONZE—BURNISHED



Fig. 887

Each	Size Inches	Diam. Pin Inches	Length Inside Inches	Width Inside Inches	Weight Ounces
\$1.50	1/4	5/16	1 5/8	5/8	2 1/2

Automatic Jam Cleats

CAST BRONZE—POLISHED

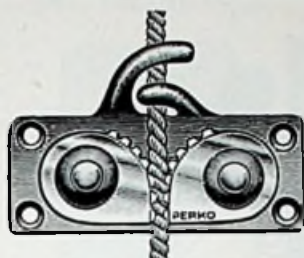


Fig. 895

No.	Each	For Rope Inches	Size Base Inches	Wt. Ozs.
1	\$7.35	1/4 - 5/16	3 1/2 x 1 1/2	10
2	8.75	3/8 - 1/2	5 1/8 x 1 3/4	18

Double Jam Cleats

CAST BRONZE—POLISHED



Fig. 1030

No.	Each	Overall Length Inches	Width Inches	Weight Ounces
0	\$1.00	3	7/16	2
1	1.20	4	1/2	3 1/2
2	1.70	5	5/8	5 1/2

Deck Straps

CAST BRONZE



Fig. 882

No.	Burnished Each	Polished Each	Chrome Plated Each	Length Inches	Size Eye Inches	Stock in Eye Inches	Wt. Ozs.
1	\$.65	\$1.10	\$1.45	3 1/2	1/2	5/16	1 1/2
2	.90	1.50	1.90	4 1/4	9/16	3/8	2 1/2

Flange Eyes

CAST BRONZE



Fig. 877

Size No.	Plain Bronze Each	Polished Bronze Each	Chrome Plated Each	Size Opening Inches	Size Base Inches	Weight Ounces
1	\$.30	\$.65	\$1.00	5/8	2 1/8 x 1 3/16	1
2	.35	.90	1.25	3/4	2 1/4 x 1 3/16	2

Single Flare Lip Leaders

CAST BRONZE



Fig. 764

No.	Burnished Each	Small Opening Inches	Weight Ounces
1	\$.30	1/2	1 1/2
2	.45	3/8	3

Thru-Deck Fairleaders

BRONZE



Fig. 891

Size No.	Bright Finish Each	Inside Dia. Hole Inches	Outside Dia. Flange Inches	Weight Ounces
1	\$.40	3/8	1 1/4	3/4
2	.50	1/2	1 1/2	1 1/2

Ratchet Winches

POLISHED BRONZE—TOP ACTION



Fig. 800

Handle is removable but firmly held into winch by snap action socket. Winch has double ratchet. Power ratio about 8 to 1.

No.	Complete Each	Handle Only Each	For Rope Diam. Inches	Height Inches	Diam. Base Inches	Wt. Lbs.
1	\$31.00	\$7.00	3/8	2 3/4	3 1/2	3

Silent Sheet Snubbing Winch

CAST BRONZE OR ALUMINUM

NOISELESS IN OPERATION—NO SPRING
NO RATCHET—NOTHING TO GET OUT OF
ORDER—ONE WAY ACTION IS POSITIVE



Fig. 937

Many sail boat owners find fault with the ratchet type winch as being too noisy. This new silent winch eliminates that complaint.

Drum is tapered to hold line or sheet at bottom.

No.	Pol. Bronze Each	Chrome Plated Each	Pol. Alum. Each	Height Inches	Diam. Top Inches	Diam. Base Inches	Wt. Ozs.
0	\$6.25	\$8.50	\$5.00	2 1/8	1 7/8	2	7
01	6.25	8.50	5.00	2 3/4	2 1/8	2	9

Note—Aluminum not recommended for use on salt water.

Bronze Rigging Turnbuckles

S. A. E. THREADS—HEXAGON BODY
LIGHTWEIGHT—STRONG



Fig. 917

The use of the bronze rod enabled us to produce a very strong lightweight turnbuckle for small boats.

Size Thread Inches	Plain Each	Length Pin to Pin		Jaw Opening Inches	Diam. Pin Inches	Weight Ounces
		Open Inches	Closed Inches			
1/4	\$2.55	7 1/2	5 3/8	3 1/16	5/32	3 1/2
5/16	4.00	9 1/2	6	1/4	1/4	5

With check nuts, add \$.35 to each turnbuckle.

Bronze Rigging Turnbuckles

DROP FORGED—WELDLESS
S. A. E. THREADS



Fig. 459

These are drop forged from special high strength solid bronze bars giving unusual strength as shown in table below.

Size Inches	Plain Each	With Two Check Nuts Add	For Diam. Wire Rope Inches	Weight Each Pounds
1/4	\$ 2.75	\$.35	1/8	3/8
5/16	4.75	.35	3/16	1/2
3/8	6.75	.40	1/16	3/4
1/2	9.75	.55	3/8	1 1/2
5/8	12.75	.55	1/2	2 1/2

1/4 inch size is cast manganese bronze.

Size Inches	Jaw Opening Inches	Diam. Pin Inches	Length Center to Center of Pins		Ultimate Strength Pounds
			Extended Inches	Closed Inches	
1/4	1/4	1/4	8 3/8	6 1/4	2300
5/16	5/16	5/16	10 3/8	7 1/4	4200
3/8	3/8	3/8	12 1/4	8 1/2	6900
1/2	1/2	1/2	14 1/2	10 1/4	11000
5/8	5/8	5/8	17	12	18000

Foot Rope Plates

GALVANIZED FORGED STEEL OR CAST BRONZE

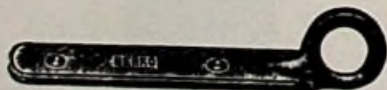


Fig. 568

Length Under Eye Inches	Galv. Each	Size Plate Inches	Inside Diam. Eye Inches	Diam. Metal in Eye Inches	Weight Pounds
3	\$.70	3/4 x 1/4	1/2	1/4	3/16
4	.90	7/8 x 3/16	5/8	1/4	3/8
5	1.00	1 x 1/4	3/4	5/16	1/2
6	1.20	1 x 3/16	7/8	5/16	3/4
8	1.60	1 1/4 x 3/16	1	3/8	1
10	2.40	1 1/2 x 3/8	1 1/8	7/16	1 1/2

Sliding Adjustable Gooseneck

CAST MANGANESE BRONZE

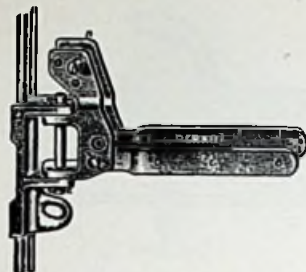


Fig. 915

Has three positions for tack of sail, two positions for boom. Ideal and universal for most small boats. Will accommodate booms up to 1 1/4 inches thick if necessary.

Burnished Each	For Track Inches	For Boom Thickness Inches	Length Inside Straps Inches	Weight Ounces
\$6.25	5/8	3/4 or 7/8	4 3/4	12

Lightweight Sliding Goosenecks

CAST BRONZE—BURNISHED



Fig. 916

Straps are adjustable for booms of various thickness. Track not included.

Each	For Track Inches	For Boom Thickness Inches	Length Inside Straps Inches	Weight Ounces
\$4.00	5/8	up to 1 1/2	3 1/2	8

Chain Plates

GALVANIZED FORGED STEEL OR CAST BRONZE



Fig. 569

Length Under Eye Inches	Galv. Each	Size of Plate Inches	Weight Galv. Pounds
4	\$.60	3/4 x 3/16	1/4
6	.80	1 x 5/16	1/2
8	1.00	1 1/8 x 1/4	3/4
10	2.50	1 5/16 x 5/16	1
12	2.80	1 7/16 x 9/16	1 1/4
14	3.25	1 9/16 x 9/16	2 1/8
18	4.75	1 13/16 x 9/16	3



Snipe Centerboards

GALVANIZED IRON



Fig. 134

Each	Height Inches	Width Inches	Thickness Inches	Weight Pounds
\$15.00	36	21	3/10	36

Masthead Sheaves

LIGHTWEIGHT—STRONG—DEEP SCORE



Fig. 919

Weight at the peak of the mast is a very important factor. These sheaves were designed accordingly, light but very strong.

LAMINATED PLASTIC

No.	Each	Diam. Inches	For Diam. Rope Inches	Thickness Inches	Diam. Bearing Inches	Weight Ounces
23	\$.40	1 1/8	1/4	3/8	1/4	1/2
24	.45	1 1/4	1/4	3/8	3/10	1/2
25	.50	1 3/4	5/10	7/10	1/4	3/4

BLACK NYLON

26	.50	1 3/4	5/10	7/10	1/4	3/4
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Mast Hoops and Jib Rings

GALVANIZED WROUGHT STEEL



Fig. 849

MAST HOOPS

Size Inches	Per 100
1/4 x 2	\$17.00
1/4 x 2 1/2	19.00
1/4 x 3	21.00
1/4 x 3 1/2	24.00
1/4 x 4	31.00

JIB RINGS

Size Inches	Per 100
5/16 x 1 1/2	\$18.00
5/16 x 2	21.00
5/16 x 2 1/2	25.00
3/8 x 2	27.00
3/8 x 2 1/2	32.00
3/8 x 3	37.00

Sizes are thickness of metal and inside diameter.

Masthead Sheaves

FOR MANILA ROPE

CAST BRONZE—PLAIN BEARING



Fig. 892

Diam. Inches	Each	For Diam. Rope Inches	Thickness Inches	Diam. Bearing Inches	Weight Ounces
1 3/4	\$.85	5/10	3/8	1/4	2 1/2
2	.95	5/10	7/10	5/10	3 1/2
2 1/4	1.30	3/8	1/2	3/8	5 1/2

Bronze Wire Rope Sockets

CAST BRONZE—BURNISHED

Eliminating the necessity of splicing wire rigging, especially the difficult splicing of stainless steel. While lead is commonly used when socketing the wire, we recommend the use of zinc.

CLOSED TYPE



Fig. 756

OPEN TYPE



Fig. 757

No.	Each	Diam. Wire Inches	Width Inside Inches	Length Overall Inches	Weight Ounces	No.	Each	Diam. Wire Inches	Jaw Opening Inches	Diam. Pin Inches	Length Overall Inches	Weight Ounces
00	\$.70	1/10	3/8	1 3/4	1	9	\$1.10	3/10	1/4	1/4	1 3/4	1
0	.70	3/32	3/8	1 3/4	1	10	1.10	3/32	1/4	1/4	1 3/4	1
1	.70	1/8	3/8	1 3/4	1	11	1.10	3/8	1/4	1/4	1 3/4	1
2	.90	3/10	1/2	2 1/4	2	12	1.30	3/10	9/10	9/10	2 3/4	2 1/2
3	1.10	1/4	5/8	2 3/4	3	13	1.90	1/4	3/8	3/8	2 3/4	3 1/2
4	1.80	5/10	3/4	3	4 1/2	14	2.40	5/10	1/2	1/2	3 1/4	5
5	2.10	3/8	1	3 1/4	8	15	3.20	3/8	3/8	3/8	3 1/2	9



Bob Stay Straps

CAST BRONZE



Fig. 303

No.	Plain Bronze Each	Pol. Bronze Each	Chromium Plated Each	Metal in Eye Inches	Length Straps Inches	I. D. Eye Inches	Wt. Ozs.
1	\$.85	\$1.45	\$1.90	3/8	1 3/4	3/4	3 1/2
2	1.00	1.85	2.30	7/16	2 5/8	7/8	5

Galvanized Eye Bands

STEEL—HOT GALVANIZED



Fig. 426

All sizes have bands 1 1/4" wide, all eyes are of 3/8" stock with 1 1/16" inside diameter.

Inside Diam. Inches	1 Eye Each	2 Eye Each	3 Eye Each	4 Eye Each
1 1/4	\$1.95	\$2.30	\$2.65	\$3.00
1 1/2	2.00	2.40	2.75	3.10
1 3/4	2.30	2.65	3.00	3.40
2		2.75	3.10	3.50
2 1/4	2.55	2.85	3.20	3.55
2 1/2	2.65	3.00	3.40	3.75
3	2.85	3.20	3.55	3.90
3 1/2	3.55	3.90	4.25	4.65
4	3.90	4.25	4.65	
4 1/2	4.25	4.65	5.00	5.40
5	4.65	5.00	5.40	5.75
6	6.40	6.80	7.20	7.60

Special sizes made to order, price on application.

Belaying Pins

GALVANIZED MALLEABLE IRON



Fig. 366

Diam. Shank Inches	Galv. Each	Length Head Inches	Extreme Length Inches	Weight Each Pounds
3/8	\$1.15	3	8	3/8
1/2	1.80	3 3/8	9 1/2	3/4
5/8	2.20	3 3/4	10 1/4	1
3/4	2.65	4 1/4	11	1 3/4

Wind Pennants

ADJUSTABLE COUNTERBALANCE
ALUMINUM PENNANT—BRASS STANDARD

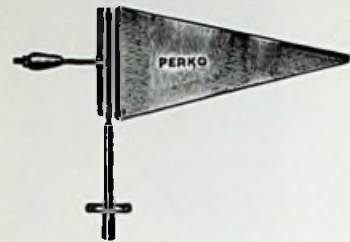


Fig. 435

Pennant swings on a needle point pivot and has an adjustable counterbalance should the weight of the pennant change from the application of paint or attachments of any kind.

Perfect balance and needle point bearing makes this pennant instantly responsive to the lightest of winds.

Furnished in Painted Finish, Red or Blue

For Mast 1 Inch Diam. at Top, 5/16" Role

No.	Each	Size of Pennant Inches	Height Overall Inches	Weight Ounces
1	\$3.90	6 1/2 x 3	6 1/2	2 1/2
2	4.40	9 1/2 x 4 1/2	7 3/4	4

Improved Wind Pennants

ADJUSTABLE COUNTERBALANCE

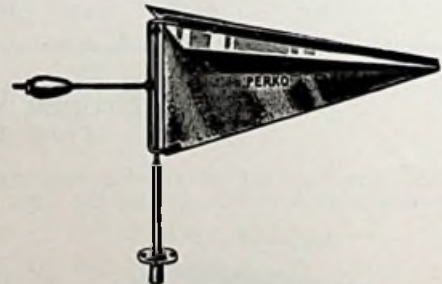


Fig. 837

This is the same as our popular Fig. 435 wind pennant improved by the addition of a horizontal vane attached to the regular vertical vane permitting a more distinct view when directly below the pennant. The horizontal vane is detachable if not required.

Furnished in painted finish, either red or blue.

No.	Complete Each	Size of Pennant Inches	Height Overall Inches	Weight Ounces
5	\$4.75	6 1/2 x 3	6 1/2	3
6	5.25	9 1/4 x 4 1/2	7 3/4	5



Cloud Formations and Symbols

1. **CIRRUS, (Ci.)**—Detached clouds, delicate and fibrous looking, taking the form of feathers, generally of a white color, sometimes arranged in belts which cross a portion of the sky in great circles, and, by an effect of perspective, converging toward one or two opposite points of the horizon.
2. **CIRRO-STRATUS, (Ci-S.)**—A thin, whitish sheet, sometimes completely covering the sky and only giving it a whitish appearance, or at others presenting, more or less distinctly, a formation like a tangled web. This sheet often produces halos around the sun and moon.
3. **CIRRO-CUMULUS, (Ci-Cu.)**—Small globular masses or white flakes, having no shadows, or only very slight shadows, arranged in groups and often in lines.
4. **ALTO-CUMULUS, (A-Cu.)**—Rather large globular masses, white or grayish, partially shaded, arranged in groups or lines, and often so closely packed that their edges appear confused. The detached masses are generally larger and more compact at the center of the group; at the margin they form into finer flakes. They often spread themselves out in lines in one or two directions.
5. **ALTO-STRATUS, (A-S.)**—A thick sheet of gray or bluish color, showing a brilliant patch in the neighborhood of the sun or moon, and which, without causing halos, may give rise to coronæ. This form goes through all the changes like the Cirro-Stratus, but its altitude is only half as great.
6. **STRATO-CUMULUS, (S-Cu.)**—Large globular masses or rolls of dark cloud, frequently covering the whole sky, especially in winter, and occasionally giving it a wavy appearance. The layer of Strato-Cumulus is not, as a rule, very thick, and patches of blue sky are often visible through the intervening spaces. All sorts of transitions between this form and the Alto-Cumulus are noticeable. It may be distinguished from Nimbus by its globular or rolled appearance and also because it does not bring rain.
7. **NIMBUS, (N.)**—Rain clouds; a thick layer of dark clouds, without shape and with ragged edges, from which continued rain or snow generally falls. Through the openings of these clouds an upper layer of Cirro-Stratus or Alto-Stratus may almost invariably be seen. If the layer of Nimbus separates into shreds or if small loose clouds are visible floating at a low level underneath a large Nimbus, they may be described as Fracto-Nimbus (Fr-N), the "scud" of sailors.
8. **CUMULUS, (Cu.)**—Woolpack clouds; thick clouds of which the upper surface is domeshaped and exhibits protuberances, while the base is horizontal. When these clouds are opposite the sun the surfaces usually presented to the observer have a greater brilliance than the margins of the protuberances. When the light falls aslant, they give deep shadows; when, on the contrary, the clouds are on the same side as the sun, they appear dark with bright edges. The true Cumulus has clear superior and inferior limits. It is often broken up by strong winds, and the detached portions undergo continual changes. These may be distinguished by the name of Fracto-Cumulus (Fr-Cu.).
9. **CUMULO-NIMBUS, (Cu-N)**—The thunder-cloud or shower-cloud; heavy masses of clouds rising in the form of mountains, turrets, or anvils, generally having a sheet or screen of fibrous appearance above, and a mass of clouds similar to Nimbus underneath. From the base there usually fall local showers of rain or of snow (occasionally hail or soft hail).
10. **STRATUS, (S.)**—A horizontal sheet of lifted fog; when this sheet is broken up into irregular shreds by the wind or by the summits of mountains, it may be distinguished by the name of Fracto-Stratus (Fr-S.).
11. **FRACTO-STRATUS, (Fr-S)**—A horizontal sheet of lifted fog broken into irregular shreds by wind or the summits of mountains.
12. **FRACTO-CUMULUS, (Fr-Cu.)**—Cumulus, when broken up by strong winds, undergo continual changes. These are distinguished by the name of Fracto-Cumulus (Fr-Cu.).

RULES OF THE ROAD

- A power boat gives way to a sail boat except when being overtaken.
- Power boats meeting head on pass portside to portside, unless signaled otherwise.
- Any vessel being overtaken by another has the right of way.
- Any vessel having right of way shall hold her course and speed, unless such action would cause a collision.
- The danger zone is from dead ahead to two points abaft the starboard beam.
- Any power boat having another in its danger zone shall give way to the other and shall, if necessary, alter course, slacken speed, stop or reverse.
- A vessel (under 65 ft.) using both sail and power, acts as a power boat by day, but as a sail boat by night.
- A sail boat running free gives way to the one close hauled.
- A sail boat running free with the wind on the port, gives way to one running free with the wind on the starboard.
- A sail boat close hauled with wind on the port, gives way to one close hauled with wind on the starboard.
- When two sail boats are running alike, the one to the windward gives way.

WHISTLE SIGNALS FOR POWER BOATS

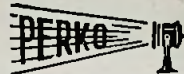
- A vessel's rights cannot be altered by whistle signals, the one which whistles first gains no rights over another. cross signals are unlawful.
- If the signal is correct for the circumstances, answer it, if it is not give the danger signal, stop, and come to an understanding.
- 1—Short blast—I wish to leave you on my port.
- 2—Short blasts—I wish to leave you on my starboard.
- 3—Short blasts—My engines are going astern. I am doing my best to stop.
- 4—Short blasts—Danger, stop, your signals are not clear or are not satisfactory to me.
- 4—Long blasts—Raise the bridge.
- Whistle signals are never given to or by a sail boat.

FOG SIGNALS FOR POWER BOATS

- 1—Long blast—I am under way.
- 1—Long and 2 Short blasts—I am towing something.

FOG HORN SIGNALS FOR SAIL BOATS

- 1—Short blast—I am on the starboard tack.
- 2—Short blasts—I am on the port tack.
- 3—Short blasts—I am running free.
- 1—Long and 2—Short blasts—I am being towed (any vessel).
- Rapid bell—I am at anchor (any vessel).



EXTRACTS FROM LATEST REGULATIONS ON LIGHTING OF BRIDGES

"Aids To Navigation" C.G.-208, January 1, 1953

SUBPART 68.01—BASIC PROVISIONS

§ 68.01—1 **General requirement.** All persons owning, occupying, or operating bridges over the navigable waters of the United States shall maintain at their own expense such lights required for the safety of marine navigation as may be prescribed by the Commandant, and, on bridges constructed between March 23, 1906, and August 2, 1946, or any international bridge constructed after March 23, 1906, such additional signals as may be prescribed by the Commandant.

§ 68.01—5 **Penalty for failure to maintain.** Any such person required to maintain lights upon any bridge or abutments over or in the navigable waters of the United States who shall fail or refuse to maintain such light or lights, or to obey any of the lawful rules and regulations relating to the same, shall be deemed guilty of a misdemeanor and shall be subject to a fine not exceeding the sum of \$100 for each offense. Each day during which such violations shall continue shall be considered as a new offense. (Sec. 1, 63 Stat. 501; 14 U. S. C. 85.)

§ 68.01—10 **Interference or obstruction prohibited.** No person shall obstruct or interfere with any lights or signals maintained in accordance with the regulations prescribed in this part. (Sec. 1, 63 Stat. 500; 14 U. S. C. 84.)

§ 68.01—15 **Penalty for interference or obstruction.** Any person violating the provisions of § 68.01—10 of this chapter shall be deemed guilty of a misdemeanor and be subject to a fine not exceeding \$500 for each offense. Each day during which such violation shall continue shall be considered a new offense. (Sec. 1, 63 Stat. 500; 14 U. S. C. 84.)

SUBPART 68.10—GENERAL CONDITIONS

§ 68.10—1 **Signals pertaining to the operation of bridges.** Lights and signals necessary for the execution of rules and regulations pertaining to the operation of bridges issued by the Secretary of the Army will be prescribed by the District Engineer.

§ 68.10—5 **Lighting during bridge construction.**

(a) While a bridge is under construction the District Engineer having jurisdiction over the work will prescribe the lights and other signals to be displayed for the protection of navigation.

(b) When unusual conditions exist the District Engineer will confer with the District Commander to determine the lights and signals necessary for the protection of navigation.

(c) When the construction of a bridge is completed the lights and other signals approved by the District Commander shall be displayed.

§ 68.10—10 **Lighting for the protection of aerial navigation.** The owner of a bridge which constitutes a hazard to aerial navigation should maintain, in addition to the lights prescribed in this part, such lights as may be prescribed by the Administrator of Civil Aeronautics.

§ 68.10—15 **Inspection.** Lights and signals maintained as required by the provisions of this chapter are subject to inspection at any time by the Coast Guard or such agent as may be appointed by the Commandant.

§ 68.10—20 **Periods of operation.**

(a) Lights shall be displayed from sunset to sunrise and at other times when the visibility is less than one mile.

(b) Operators shall not be required to exhibit the prescribed lights during seasons when vessels are unable to navigate in the vicinity of the bridge.

§ 68.10—25 **Visibility of lights.** All lights required by the regulations in this part shall be securely attached to the structure, and shall be of sufficient intensity to be visible against the background lighting for a distance of 2,000 yards on a dark night under the prevailing conditions of atmosphere. They shall be located as prescribed by the Commandant, with colors and arcs of visibility as specified.

SUBPART 68.15—MARKING REQUIREMENTS**§ 68.15—1 Lights on fixed bridges.**

(a) Each fixed bridge span over a navigable channel shall be lighted so that the center of the navigable channel under each span will be marked by a range of two green lights, and each margin of each navigable channel will be marked by a red light: **Provided**, That when a margin of a channel is limited by a pier, only those lights prescribed in paragraph (b) of this section shall be required to mark such channel margin. The green lights shall each show through a horizontal arc of 360°; they shall be securely mounted just below the outermost edge of the bridge span structure so as to be visible from an approaching vessel. Each red light shall show through a horizontal arc of 180°, and shall be securely mounted just below the outermost edge of the bridge span structure to show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 68, 80, 125, 126, 1005, 1006, 1010, 1011.)

(b) **Pier lights.** When the navigable channel extends from pier to pier or when piers are located within the navigable channel, each end of such piers shall be lighted with a red light. Each such light shall show through a horizontal arc of 180°, and shall be securely fastened at the end of the pier as low as practicable but not lower than 2 feet above navigable high water to show 90° on either side of line parallel to the axis of the channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 125, 1005, 1010.)

(c) **Main channel.** When necessary, the District Commander may prescribe that fixed bridges having two or more spans over a navigable channel shall have the main channel span marked with a set of three white lights arranged in a vertical line directly above each green light on the main channel span. Each white light shall show through a horizontal arc of 180°, and shall be mounted so that 1/2 of the horizontal arc will show on either side of a line parallel to the axis of the channel. These three white lights shall be securely mounted on the bridge structure and spaced as nearly 15 feet apart as the structure of the bridge will permit, with a minimum spacing of 7 feet. The lowest white light in the line of three lights shall be placed not less than 10 nor more than 15 feet above each green light on the main channel span. (See Figs. 29, 31, 59, 125, 1005, 1010, with clear lens.)

§ 68.15—5 Lights on swing bridges.

(a) **Swing span lights on through bridges.** Each swing span of every through swing bridge shall be lighted with three lanterns so that when viewed from an approaching vessel the swing span when closed will display three red lights on top of the span structure, one at each end of the span on the same level and one at the center of the span no less than 10 feet above the other two lights, and when open for navigation will display three green lights on top of the span structure in a line parallel to and directly above the long axis of the span, one at each end of the span on the same level, and one at the center of the span no less than 10 feet above the other two lights. Each lantern shall show through alternate red and green horizontal arcs of 60° each, the axis of adjacent arcs to be 90° from each other; each light shall be securely mounted with the axis of the green arcs parallel to the long axis of the swing span. (See Figs. 35, 39, 50, 63, 1007.)

(b) **Swing span lights on deck and half-through bridges.** Each swing span of every deck, half-through, girder, or similar type swing bridge shall be lighted with four lanterns so that when viewed from an approaching vessel the swing span when closed will display one red light at each end, and when open to navigation will display two green lights from each end. Each lantern shall show through one red and two green horizontal arcs of 60° each, the axis of each green arc to be 90° from the axis of the red arc; each light shall be securely mounted at the floor level of the span as near to the side of the span as practicable with the axis of the red light normal to the long axis of the swing span and so that the red light will be visible from an approaching vessel when the span is closed. (See Figs. 35, 39, 50, 63, 1007, with one red lens shielded.)



(c) **Pier lights.** Every swing bridge shall be lighted so that each end of the piers adjacent to the navigable channel (draw piers) or each end of their protection piers (draw pier protection piers) and each end of the piers protecting the pivot pier (pivot protection pier) will be marked by a red light. Each of these lights shall show through a horizontal arc of 180° and shall be mounted as low as practicable below the floor level of the swing span to show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 125, 1005, 1010.)

(d) **Axis lights.** Every swing bridge shall be lighted so that the intersection of the bridge axis with each side of the pivot pier and the channel side of each draw pier which has a protection pier will be marked by a red light: **Provided,** That if the draw and draw protection piers are straight along their channel faces these lights shall not be required. Each such light shall show through a horizontal arc of 180° , and shall be mounted on the navigable channel face of the pier as low as practicable below the floor level of the swing span to show 90° either side of a line normal to the axis of the navigable channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 125, 1005, 1010.)

(e) **Omission of lights.** Where the permanent navigable channel passes on only one side of the pivot pier of any swing span, the District Commander may authorize the omission of lighting of the unused channel.

§ 68.15—10 **Lights on single-opening drawbridges.**

(a) **Bridges in this class.** Bridges of the folding, pontoon and similar type single opening drawbridges are included in this class.

(b) **Draw span lights.** Each draw span of every single opening drawbridge shall be lighted with two lanterns so that when viewed from an approaching vessel the draw span when closed will display two red lights, one at each end of the span and when open to navigation will display two green lights, one at each end of the span. Each lantern shall show alternate red and green horizontal arcs of 60° each, the axis of adjacent arcs to be located 90° from each other; each lantern shall be securely mounted 15 feet above the roadway with the axis of the green arcs parallel to the long axis of the swing span. (See Figs. 35, 39, 50, 63, 1007.)

(c) **Pier or abutment lights.** Every swing bridge shall be lighted so that the end of each pier, abutment or fixed portion of the bridge adjacent to the navigable channel through the draw or each end of the protection piers for such piers, abutments, or fixed portions of the bridge will be marked by a red light. Each red light shall show through an arc of 180° , and shall be securely mounted on the pier, abutment or fixed portion of the bridge as low as practicable to show 90° on either side of a line normal to the axis of the channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 125, 1005, 1010.)

§ 68.15—15 **Lights on bascule bridges.**

(a) **Lift span lights.** Each lift span of every bascule bridge shall be lighted so that the free end of the span will be marked on each side by a green light which shows only when the span is fully open for the passage of a vessel and by a red light which shows for all other positions of the lift span. Each red and each green light shall show through a horizontal arc of not less than 60° nor more than 180° . The lighting apparatus shall be securely mounted to the side of the span so that the lights will show equally on either side of a line parallel to the axis of the channel, and so that they will be visible from an approaching vessel. (See Figs. 22, 127, 1012.)

(b) **Multiple parallel lift span lights.** The outermost side of each outer span of every bascule bridge with parallel multiple lifts shall be lighted as prescribed in paragraph (a) of this section; the lights shall be controlled so that the green lights will be displayed only when all spans are open for navigation. The inner sides of each outer lift span and both sides of each inner lift span of such bascule bridge shall be lighted by red lights for all positions of the lift span. These lights shall have the same arcs of illumination and shall be mounted as described in paragraph (a) of this section. (See Figs. 22, 127, 1012.)

(c) **Pier lights.** Every bascule bridge shall be lighted so that each end of every pier, or pro-



tection pier where provided, in or adjacent to the navigable channels under the lift span or spans will be marked by a red light. Each such red light shall show through a horizontal arc of 180°, and shall be securely mounted as low as practicable on the end of the pier, or protection pier, to show 90° either side of a line parallel to the axis of the navigable channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 125, 1005, 1010.)

(d) **Axis lights.** Every bascule bridge which has at least one pier provided with a protection pier shall be lighted so that the intersection of the long axis of the lift span with the channel side of each pier, or protection pier, will be marked by a red light: **Provided,** That if all such piers and protection piers are straight along their channel faces these lights shall not be required. Each such red light shall show through a horizontal arc of 180° and shall be securely mounted on the navigable channel face of the pier as low as practicable to show 90° on either side of a line normal to the axis of the navigable channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 125, 1005, 1010.)

§ 68.15—20 **Lights on vertical lift bridges.**

(a) **Lift span lights.** The vertical lift span of every vertical lift bridge shall be lighted so that the center of the navigable channel under the span will be marked by a range of two green lights when the vertical lift span is open for navigation, and by one red light on each side for all other positions of the lift span. The green lights shall each show through a horizontal arc of 360°; they shall be securely mounted just below the outermost edge of the bridge span structure so as to be visible from an approaching vessel. Each red light shall show through a horizontal arc of 180°, and shall be securely mounted just below the outermost edge of the lift span to show 90° on either side of the line parallel to the axis of the channel so that only one such light will be visible from an approaching vessel. (See Figs. 29, 31, 59, 68, 80, 125, 1005, 1006, 1010, 1011.)

(b) **Pier lights.** Every vertical lift bridge shall be lighted so that each end of every pier in or adjacent to navigable channels under the lift span, or each end of every protection pier when provided, will be marked by a red light. Each such light shall show through a horizontal arc of 180°, and shall be securely mounted as low as practicable on the end of the pier, or the protection pier, to show 90° on either side of line parallel to the axis of the navigable channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 125, 1005, 1010.)

(c) **Axis lights.** Every lift bridge which has at least one pier provided with a protection pier shall be lighted so that the intersection of the lift span axis with the channel side of each pier adjacent to the navigable channel will be marked by a red light: **Provided,** That if every such pier, or protection pier, is straight along its channel face these lights shall not be required. Each such light shall show through a horizontal arc of 180°, and shall be securely mounted on the navigable channel face of the pier as low as practicable to show 90° on either side of a line normal to the axis of the navigable channel so as to be visible from an approaching vessel. (See Figs. 29, 31, 59, 125, 1005, 1010.)

SUBPART 68.20—SPECIAL CONDITIONS

§ 68.20—1 **Bridges crossing channel obliquely.** Bridges crossing a body of water at an angle other than 90° with the axis of the channel shall be lighted in accordance with the regulations in this part with such modifications as are necessary in each particular case.

§ 68.20—5 **Lights on sheer booms.** The lights on sheer booms, isolated piers, and obstructions not part of the bridge or bridge approach structure come under the purview of § 66.01—35 and shall show a white or green light if kept on the left of vessels approaching from seaward, and shall show a white or red light if kept on the right of vessels approaching from seaward. For rivers the same rule shall apply, white or green lights shall be shown from the right descending bank; white or red lights to be shown from the left descending bank. The color of the light and its characteristics (fixed, flashing, occulting, etc.) shall be determined by the District Commander. (See Figs. 68, 80, 126, 1006, 1011, with color of lens required.)

§ 68.20—10 **Modification of requirements.** The District Commander may modify or change the requirements for the display of lights and signals on any bridge within the purview of the regulations in this part when a change in local conditions warrant such modification.



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