

Perkins Marine Lamp And Hardware Corp.

(Incorporated 1917)

1943 Pitkin Ave., Brooklyn 7, N. Y.
157 Snediker Ave., Brooklyn 7, N. Y.

Manufacturers of
Running Lights, Searchlights, Binnacles, Steering Wheels, Stoves,
Pumps, Toilets, Lavatories, Yacht 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. 140 1953



REG. TRADE MARK

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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. A remarkable fact as present conditions make the procurement of raw materials extremely difficult.

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.

PRICES AND TERMS

Our costs are subject to change due to causes beyond our control. The prices listed herein are only intended for guidance of our jobbers and do not necessarily establish resale prices. Applicable governmental regulations, shipping costs and other complications must be considered in arriving at a fair price. I.E. In areas west of the Mississippi, prices are generally 10% to 15% higher because of the heavy shipping cost involved. All prices are subject to change without notice and are F.O.B. New York, unless quoted otherwise. Terms are 30 days net; 2% if payment is sent 10 days from date of invoice.

GUARANTEE

Every item bearing our trade-mark is guaranteed free from defects at time of shipment. In case of defects, adjustments will gladly be made, provided the material is returned to our factory and repairs have not been attempted by other than our own workmen.

RETURN GOODS

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.

WEIGHTS

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

RATING

Orders from firms unknown to us and having no satisfactory commercial rating must be accompanied by cash or satisfactory references. C. O. D. shipments will be made if a 25% deposit is sent with order.

SHIPPING INSTRUCTIONS

Customers should send specific shipping instructions. But if this is not done, we will use our own judgment in selecting route.

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UNITED STATES COAST GUARD

MOTORBOAT REGISTRATIONS & NAVIGATION FINES SECTION

Requirements for Motorboats NOT in Commercial Service

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 15' 11"	CLASS 1 16' to 25' 11"	CLASS 2 26' to 39' 11"	CLASS 3 40' to 65'
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	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	1—life preserver or ring buoy or buoyant cushion for each person on aboard. (Approved.)			1—life preserver or ring buoy for each person on board. (Approved.)
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	1—1-Qt. carbon tetrachloride or 1-1 1/4 gal. foam or 1 - 4-lb. CO ₂ extinguisher. None required on outboard motorboats, not carrying passengers for hire.	2—1-Qt. tetrachloride or 2 - 1 1/4 gallon foam or 2 - 4-lb. CO ₂ extinguishers.	3—1-Qt. carbon tetrachloride or 3 - 1 1/4 gallon foam or 3 - 4 lb. CO ₂ extinguishers.	



"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 5/16 inches x 3 3/8 inches

Weight, 3 3/8 pounds



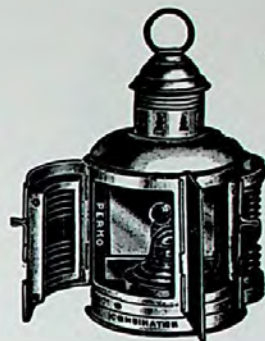
(Closed)

Galvanized
Each
\$11.25

Fig. 0-1

Polished
Brass
Each
\$12.75

Chromium
Plated
Each
\$15.75



(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 5/16 inches x 3 3/8 inches

Weight, 3 pounds



(Closed)

Galvanized
Each
\$11.25

Fig. 0-10

Polished
Brass
Each
\$12.75

Chromium
Plated
Each
\$15.75



(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 5/16 x 3 3/8 inches.

Weight, 2 3/8 pounds.



Fig. 1

	Galvanized Each	Polished Brass Each
Oil or Elec. Only	\$8.75	\$10.25
Oil and Electric	9.50	11.00

Chromium plated finish, add \$3.00
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 1/4 inches.

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

Size of Lenses, 3 5/16 x 3 3/8 inches.

Weight, 2 pounds.



Fig. 3

	Galvanized Each	Polished Brass Each	Chromium Plated Each
	\$8.75	\$10.25	\$13.25

ALL LIGHTS ON THIS PAGE WITH MEDIUM SCREW ELECTRIC SOCKETS ADD \$1.40 EACH

SPARE PARTS

	Each
Lenses, fig. 259, Class 1 Combination.....	\$1.65
Oil Founts, fig. 582, Brass, for fig. 01.....	1.40
Oil Founts, fig. 733, Brass, for fig. 1.....	1.40
Oil and Electric Founts, fig. 733, Brass, for fig. 1.....	3.30
Oil Burners, fig. 246, No. 0, Brass.....	.28
Oil Wicks, fig. 302, No. 0.....	.05
Electric Sockets, Double Contact, fig. 276, No. 2.....	.70
Electric Sockets, Medium Screw, fig. 346, No. 1.....	.55



"Perko" De-Lite Anchor Lights
TURRET TOP—REMOVABLE GUARDS
FOR CLASSES 1, 2 AND 3 BOATS



Junior Fig. 0-2
Senior Fig. 0-6

Fig.	Height Less Ring Inches	Diam. Base Inches	Size of Lens Inches	Weight Pounds
0-2	8 5/8	4 1/2	3 5/16 x 3 3/16	2
0-6	11 3/4	5 5/8	4 1/4 x 4	3

OIL OR ELECTRIC ONLY

Fig.	Galv. Each	Polished Brass Each	Chromium Plated Each
0-2	\$7.25	\$ 8.75	\$11.50
0-6	8.75	10.25	13.25

Comb. Oil and Electric, add \$.55 each.

Fig. 0-6 with Hinged Bottom, add \$.75 each.

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



Junior Fig. 11
Senior Fig. 12

Fig.	Height Less Ring Inches	Diam. Base Inches	Size of Lens Inches	Weight Pounds
11	6	4 1/2	3 5/16 x 3 3/16	1 1/2
12	9	5 5/8	4 1/4 x 4	2 1/2

ELECTRIC ONLY—DOUBLE CONTACT SOCKETS

Fig.	Galv. Each	Polished Brass Each	Chromium Plated Each
11	\$7.25	\$ 8.75	\$11.50
12	8.75	10.25	13.25

With Red, Green, Blue or Amber Lens.

Figs. 0-2 and 11, add \$1.80 each.

Figs. 0-6 and 12, add 2.20 each.

All above lights with Medium Screw Electric Sockets, add \$1.40 each.

SPARE PARTS

	Each
Lenses, fig. 261, Clear, for figs. 0-2 and 11.....	\$1.65
Lenses, fig. 261, Clear, for figs. 0-6 and 12.....	2.20
Oil Founts, fig. 287, Brass, for fig. 0-2.....	1.40
Oil Founts, fig. 286, Brass, for fig. 0-6.....	1.40
Oil and Electric Founts, fig. 735, for figs. 0-2 & 11	3.30
Oil and Electric Founts, fig. 736, for figs. 0-6 & 12	3.30
Oil Burners, fig. 246, No. 0, Brass, for fig. 0-2.....	.28
Oil Burners, fig. 246, No. 1, Brass, for fig. 0-6.....	.33
Other parts, see page 5.	

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
\$21.50	4 1/4 x 4	14	7	3 1/2	4 1/2

With red, green, blue or amber lens, add \$2.20 each.

Fig. 596-A Fount complete, \$11.00 each.

Light only, less Fount, \$13.00 each.

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

Spare lenses, see fig. 261.

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.
\$9.25	\$11.00	11	5 5/8	4 x 6 1/2	3

With Red, Green Globe, add \$1.50 each.

With electric adapter fig. 292, add \$1.40 each.

SPARE PARTS

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

"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

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



(Closed)



(Opened)

Fig. 0-4

Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
\$19.50	\$23.00	\$29.00

"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 6¾ inches
 Measurements of base, 5 inches x 5½ inches
 Weight, each 3 pounds



(Closed)



(Opened)

Fig. 0-5

	Galvanized Each	Polished Brass Each	Chromium Plated Each
With clear lens	\$9.75	\$11.50	\$14.50
With Red, Green, Amber or Blue Lens	11.50	13.25	16.25

"Perko" De-Lite Side Lights

FLAT TOP—CLASS 2
 ELECTRIC ONLY—DOUBLE CONTACT SOCKET

Height, less ring, 7¼ inches
 Measurements of base, 5⅞ inches x 5⅞ inches
 Size of lens, 4¼ inches x 4¼ inches
 Weight, per pair, 5½ pounds



(Closed)



(Opened)

Fig. 0-40

Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
\$19.50	\$23.00	\$29.00

"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 6¾ inches
 Weight, each, 2¾ pounds



(Closed)



(Opened)

Fig. 0-50

	Galvanized Each	Polished Brass Each	Chromium Plated Each
With clear lens	\$9.75	\$11.50	\$14.50
With Red, Green, Amber or Blue Lens	11.50	13.25	16.25

ALL LIGHTS ON THIS PAGE WITH MEDIUM SCREW ELECTRIC SOCKETS ADD \$1.40 EACH
SPARE PARTS

Lenses, fig. 259, Class 2, for figs. 0-4 and 0-40.....	\$2.30
Lenses, fig. 260, Class 2, for figs. 0-5 and 0-50.....	2.30
Oil Founts, fig. 582, Brass, for figs. 0-4 and 0-5.....	1.40
Oil Burners, fig. 246, No. 1, Brass, for figs. 0-4 and 0-5.....	.33
Oil Wicks, fig. 302, No. 1.....	.06
Electric Sockets, Double Contact, fig. 276, No. 2.....	.70
Electric Sockets, Medium Screw, fig. 346, No. 1.....	.55



(Closed)

“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, $5\frac{3}{16}$ inches x $5\frac{9}{16}$ 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

Fig. 0-8

	Polished Brass Per Pair	Chromium Plated Per Pair
Galvanized Per Pair	\$26.00	\$33.50
	\$22.50	



(Opened)



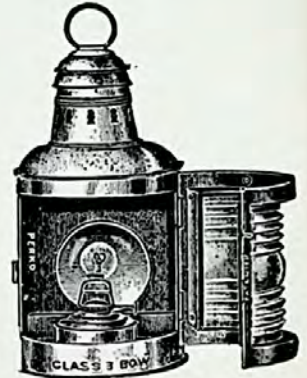
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“Perko” De-Lite Bow Lights
 TURRET TOP
 CLASS 3—OIL AND ELECTRIC, DOUBLE CONTACT

Size of lens, $5\frac{3}{16}$ inches x $7\frac{13}{16}$ 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

Fig. 0-9

	Polished Brass Each	Chromium Plated Each
Galvanized Each	\$11.25	\$13.00
With clear lens	13.50	15.25
With Red, Green or Blue Lens		19.00



(Opened)



(Closed)

“Perko” De-Lite Side Lights
 FLAT TOP—CLASS 3
 ELECTRIC ONLY—DOUBLE CONTACT SOCKET
 Size of lens, $5\frac{3}{16}$ inches x $5\frac{9}{16}$ 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

	Polished Brass Per Pair	Chromium Plated Per Pair
Galvanized Per Pair	\$26.00	\$33.50
	\$22.50	



(Opened)



(Closed)

“Perko” De-Lite Bow Lights
 FLAT TOP—CLASS 3
 ELECTRIC ONLY—DOUBLE CONTACT SOCKET

Size of lens, $5\frac{3}{16}$ inches x $7\frac{13}{16}$ 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

	Polished Brass Each	Chromium Plated Each
Galvanized Each	\$11.25	\$13.00
With clear lens	13.50	15.25
With Red, Green or Blue Lens		19.00



(Opened)

ALL LIGHTS ON THIS PAGE WITH MEDIUM SCREW ELECTRIC SOCKETS ADD \$1.40 EACH

SPARE PARTS

Lenses, fig. 259 Class 3, for figs. 0-8 and 0-80.....	Each	\$2.85
Lenses, fig. 260 Class 3, for figs. 0-9 and 0-90.....		2.85
Oil Founts, fig. 582, Brass, for figs. 0-8 and 0-9.....		1.40
Oil Burners, fig. 246 No. 1, Brass, for figs. 0-8 and 0-9.....		.33
Oil Wicks, fig. 302 No. 1.....		.06
Electric Sockets, Double Contact, fig. 276, No. 3.....		.70
Electric Sockets, Medium Screw, fig. 346, No. 1.....		.55

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	\$14.00	\$16.50
Oil and Electric	15.00	17.50

Chromium plated finish, add \$5.50 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, $5\frac{3}{16} \times 5\frac{9}{16}$ 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	\$17.50	\$21.00
Oil and Electric	19.00	22.50

Chromium plated finish, add \$6.00 per pair to Polished Brass price.

Fig. 19

Flat Top Side Lights

CLASS 2 AND 3

BOTTOM OPENING—SPRING FOUNT
ELECTRIC ONLY—DOUBLE CONTACT SOCKET



CLASS 2

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

CLASS 3

Size of Lenses, $5\frac{3}{16} \times 5\frac{9}{16}$ in.
Extreme Height, $8\frac{1}{2}$ in.
Size of Base, $5 \times 6\frac{1}{4}$ in.
Weight, per pair, 7 lbs.

Fig. 4

Class	Galvanized Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
2	\$14.00	\$16.50	\$22.00
3	17.50	21.00	27.00

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 $4\frac{1}{2} \times 5$ inches
Weight, each, 3 lbs.

WITH CLEAR LENS

	Galvanized Each	Polished Brass Each
Oil or Elec. Only	\$7.00	\$8.25
Oil and Electric	7.50	8.75

Chromium plated finish, add \$2.75 each to Polished Brass price.

With Red, Green, Amber or Blue Lens
Add \$1.75 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	\$8.75	\$10.50
Oil and Electric	9.50	11.25

Chromium plated finish, add \$3.00 each to Polished Brass price.

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

Fig. 20

Flat Top Bow Lights

CLASS 2 AND 3

BOTTOM OPENING—SPRING FOUNT
ELECTRIC ONLY—DOUBLE CONTACT SOCKET



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, $3\frac{1}{4}$ lbs.

Fig. 5

Class	Galvanized Each	Polished Brass Each	Chromium Plated Each
2	\$7.00	\$ 8.25	\$11.00
3	8.75	10.50	13.50
Class 2 with Red, Green, or Blue lens add \$1.75 each.			
Class 3 with Red, Green, or Blue lens add \$2.25 each.			

ALL LIGHTS ON THIS PAGE WITH MEDIUM SCREW ELECTRIC SOCKETS ADD \$1.40 EACH.

ALL LIGHTS ON THIS PAGE WITH HINGED BOTTOMS ADD \$.75 EACH.

SPARE PARTS

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

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



Royal Combination Lights

ELECTRIC ONLY — DOUBLE CONTACT
FOR CLASSES A AND 1 BOATS

Made of heavy gauge material, flat back and double contact electric socket. May be stored in very small space.



Fig. 89

Height Inches	Width Inches	Size Lens Inches	Weight Lbs.
3 3/4	4 1/4	3 5/16 x 3 5/8	1 1/4

Galvanized Each	Polished Brass Each	Chromium Plated Each
\$6.50	\$7.50	\$10.00

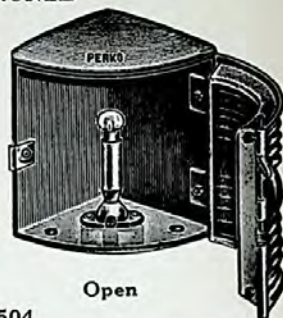
Spare Lenses, see Fig. 259, Cl. 1.

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

Same construction as above.



Fig. 91

Class	Height Inches	Size Lens Inches	Weight Per Pair Lbs.
Class 1	4 1/4	3 5/16 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	Pol. Brass Per Pair	Chrom. Plated Per Pair
Class 1	\$ 9.50	\$12.00	\$17.00
Class 2	10.00	12.50	17.50
Class 3	11.50	14.00	19.00

Spare Lenses, see Fig. 259.

Class	Height Inches	Angle Inches	Size Lens Inches	Weight Per Pair Lbs.
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	\$23.00	\$27.50	\$2.30	\$.70
3	27.00	31.00	2.85	.70

With medium screw sockets, add \$2.80 per pair.

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

Spare Lenses, see Fig. 259.

With clear lens, Class 2 or 3, add \$1.50 per pair.

Royal Bow Lights

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

Same construction as above.



Fig. 92

Class	Height Inches	Size Lens Inches	Weight Each Lbs.
Class 1	4 1/4	3 5/16 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	Pol. Brass Each	Chrom. Plated Each
Class 1	\$4.75	\$6.00	\$8.50
Class 2	5.00	6.25	8.75
Class 3	5.75	7.00	9.50

Spare Lenses, see Fig. 260.

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 Lbs.
2	5 1/2	5 1/2	4 1/4 x 6 3/8	3 1/4
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	\$11.00	\$13.25	\$2.30	\$.70
3	13.50	15.75	2.85	.70

With medium screw sockets, add \$1.40 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 \$2.25 Each.

Colored Lenses are Red, Green or Blue.

Also Amber in Class 2 only.

Royal Anchor Lights

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



Fig. 90

	Height Inches	Size Lens Inches	Weight Each Lbs.
Junior	4 1/2	3 5/16 x 3 3/16	1 1/4
Senior	5 1/2	4 1/4 x 4	2

	Pol. Brass Each	Chrom. Plated Each
Junior	\$6.00	\$ 8.25
Senior	8.00	10.25

Spare Lenses, see Fig. 261.

Above lights cannot be equipped with medium screw sockets.

Spare Brackets, see Fig. 25.

Spare Electric Adapters, see Fig. 138.



Streamline Side Lights

CAST BRONZE
CLASSES 2 AND 3 —ELECTRIC

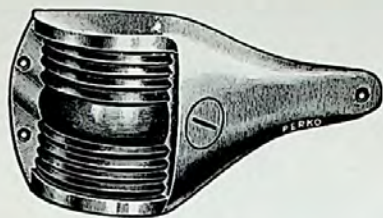


Fig. 563

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 Lbs.
2	4 3/4	10 1/8	4 1/4 x 4 3/4	5 1/2
3	6	10 1/2	5 3/16 x 5 9/16	7 1/2
	Polished Bronze Per Pair	Chromium Plated Per Pair	Spare Lenses Each	Spare Sockets Each
Class				
2	\$22.00	\$26.50	\$2.30	\$.40
3	32.50	37.50	2.85	.40

Spare Lenses, see Fig. 259.

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

Streamline Side Lights

WROUGHT BRASS
CLASS 2—ELECTRIC

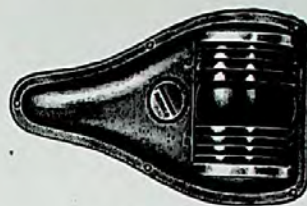


Fig. 1138

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 3/16	9 5/8	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
\$18.00	\$19.50	\$24.00	\$2.30
			Spare Sockets Each
			\$.40

Spare Lenses, see Fig. 259.

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

Streamline Bow Lights

CAST BRONZE
CLASSES 2 AND 3—ELECTRIC

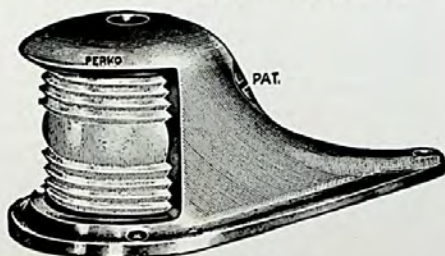


Fig. 561

Furnished with clear fresnel lens and double contact electric socket.

Class	Height Inches	Size Base Inches	Size Lens Inches	Weight Pounds	Flagpole Socket Inches
2	5 1/4	5 3/4 x 11 1/2	4 1/4 x 6 3/8	7	1
3	6 3/8	6 5/8 x 13	5 3/16 x 7 13/16	8 3/4	1
	Polished Bronze Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each	
Class					
2	\$19.50	\$24.00	\$2.30	\$.40	
3	27.75	33.25	2.85	.40	

Spare Lenses, see Fig. 260.

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

Streamline Bow Lights

WROUGHT BRASS
CLASS 2—ELECTRIC

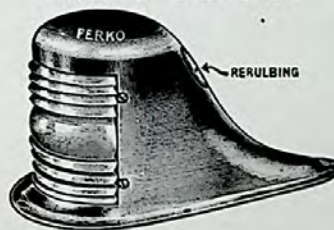


Fig. 1139

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 1/8	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
\$11.75	\$12.75	\$15.00	\$2.30	\$.40

Spare Lenses, see Fig. 260.

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

With Flag Pole Socket add \$.85 each.

Furnished without Flag Pole Socket unless otherwise specified.

SPARE REBULBING FEATURES FOR ALL ABOVE LIGHTS, POLISHED \$1.80, CHROME \$2.20 EACH. LIGHTS ON THIS PAGE CANNOT BE SUPPLIED WITH MEDIUM SCREW SOCKET.

STREAMLINE COMBINATION LIGHTS

FOR OUTBOARD MOTOR BOATS AND SMALL RUNABOUTS

Heavy Gauge Wrought Brass

WITH REBULBING FEATURE AND FLAG POLE SOCKET

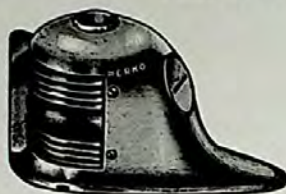


Fig. 1140

Furnished complete with red and green fresnel lenses and double contact 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
Bright Finish Each	Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
\$6.50	\$7.50	\$8.75	\$1.10	\$.40

Spare D.C. Sockets, see Fig. 747, No. 1.
Spare Lenses, see Fig. 259, Class A.

WITHOUT REBULBING FEATURE OR FLAG POLE SOCKET



Fig. 1140-A

With red and green fresnel lenses and double contact socket.

Dimensions same as Fig. 1140 above.

Bright Finish Each	Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
\$5.75	\$6.75	\$7.75	\$1.10	\$.40

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. Battery not included.

Dimensions same as Fig. 1140 above.

Bright Finish Each	Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Bulbs Each
\$8.75	\$9.75	\$11.00	\$1.10	\$.20

"Little Joe"

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
\$3.75	\$.70	2	4 1/4 x 3 3/8	1 1/16	1/2	4

Spare miniature bayonet S.C. bulbs. each \$.22.

Cast Bronze

WITH REBULBING FEATURE AND F. P. SOCKET



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 Lbs.
1	3 1/8	3 7/8 x 6 1/4	2 9/16 x 3	3/4	2
2	3 1/2	4 3/4 x 7 3/4	2 9/16 x 3	1	3 1/2
3	4 3/8	5 1/2 x 8 3/4	3 5/16 x 3 5/8	1	4 3/4

No.	Polished Bronze Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
1	\$12.75	\$14.50	\$1.10	\$.40
2	15.00	17.00	1.10	.40
3	18.75	22.00	1.65	.40

Spare Lenses, see Fig. 259.

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

VENTILATOR TYPE WITH REBULBING FEATURE AND F. P. SOCKET CAST BRONZE

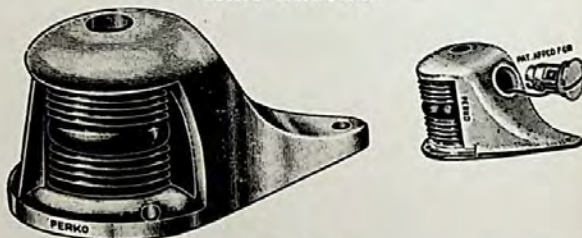


Fig. 640

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 9/16 x 3	1	3 1/4

Polished Bronze Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
\$16.00	\$18.00	\$1.10	\$.40

NOTE — Spare Rebulbing Features Complete for Figs. 598, 640, and 1140, Polished \$1.80, Chrome \$2.20 each.



Streamline Combination Light

FOR CLASS 1 CRUISERS

HEAVY GAUGE WROUGHT BRASS

WITH REBULBING FEATURE AND F. P. SOCKET

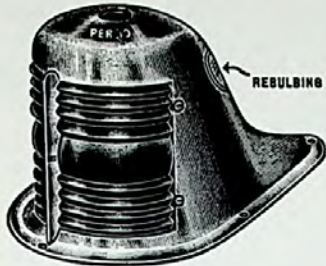


Fig. 1141

Height Inches	Base Inches	Lens Inches	Flagpole Socket Inches	Weight Pounds
5 1/8	5 3/8 x 9 1/2	4 1/4 x 3 1/8	1	2
Bright Finish Each	Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each
\$10.75	\$11.50	\$14.50	\$2.25	\$.40

Spare D.C. Sockets, see Fig. 747, No. 5.
Spare Rebulbing feature complete, Polished \$1.80, Chrome \$2.20 each.

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 1/4 x 3 3/8	9	4 1/4	4
Galvanized Per Pair	Pol. Brass Per Pair	Chromium Plated Per Pair	
\$14.00	\$17.00	\$22.75	

Oil and Electric, with Fig. 735 Fount, add \$1.10 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.

Outboard Combination Lights

WROUGHT BRASS



Fig. 485 Permanent Mounting



Fig. 486 Removable Mounting

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

Fig.	Height Overall Inches	Diam. Body Inches	Sizes Lens Inches	Weight Lbs.	
485	4 1/2	2 1/2	2 3/8 x 3	3/4	
486	4	2 1/2	2 9/16 x 3	1	
Fig.	Polished Brass Each	Chromium Plated Each	Spare Lenses Each	Spare Sockets Each	Spare Brackets Each
485	\$4.25	\$5.50	\$1.10	\$.75	
486	5.00	6.25	1.10	1.10	\$.75

"Sport Kit" Lights

FLASHLIGHT BATTERY TYPE — 2 CELL
ALL BRASS — NICKEL PLATED



Fig. 1142



Fig. 1143

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 Pounds
Fig. 1142	Fig. 1143		Fig. 1142	Fig. 1143	
13 3/4	20	1 1/4	2 1/8 x 3	1 3/8	1
Fig. 1142 Each	Fig. 1143 Each		Fig. 1143 Each	Extra Bulbs Each	
\$8.85	\$7.85		\$7.85	\$.22	

Clearance in regular clamp is 1 1/8"; with larger clamp, 2" clearance, add \$.60 each.

Price includes one bulb in each light, no batteries.

SPARE PARTS

Lenses for Fig. 1142	Each	\$1.10
Globe for Fig. 1143	Each	1.40
Head with lenses for Fig. 1142	Each	4.00
Battery container only	Each	3.00
Clamp only	Each	3.00

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	Polished Brass Each	Chromium Plated Each	Diam. Base of Pole Inches	Weight Pounds
24	\$12.00	\$14.00	1¼	2
30	12.75	14.75	1¼	2½
36	13.50	15.50	1¼	2¾
48	14.50	16.50	1¼	3

Spare clear globes (2½ or 3 inch), \$1.65 Each
 Spare electric bulb sockets fig. 747, No. 2, .40 Each
 Electric connectors only (male & female), 1.00 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	Polished Brass Each	Chromium Plated Each	Weight Pounds
20	\$11.00	\$12.75	1
24	11.50	13.25	1¼
30	12.25	14.00	1¾

Complete except F. P. socket—deduct—\$1.00 Each
 Spare clear globes, 1.10 Each
 Spare electric bulb sockets, fig. 747, No. 2, .40 Each
 Electric connectors only (male & female), 1.00 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	Polished Brass Each	Chromium Plated Each	Diam. Pole Inches	Weight Pounds
20	\$ 9.75	\$11.50	¾	1½
24	10.00	11.75	¾	1¾
30	10.25	12.00	¾	1½

Complete except F. P. socket, deduct \$.80 Each
 Spare clear globes, 1.10 Each
 Spare electric bulb sockets fig. 747, No. 2, .40 Each
 Electric connectors only (male & female), 1.00 per set



Combination Flag Pole and Light

ELECTRIC—HOLLOW MAHOGANY POLE
2½ OR 3 INCH CLEAR GLOBE, FIG. 250 OR 251
DOUBLE CONTACT SOCKET—WIRED



Length Overall Inches	Polished Brass Each	Chromium Plated Each	Weight Pounds
24	\$7.50	\$8.50	1 1/8
30	8.25	9.25	1 1/4
36	9.00	10.00	1 3/8
48	10.00	11.00	1 3/4

Diameter Base (all lengths) 1 1/4 inches.

Fig. 492

NOTE—Furnished with wire outlet through side of pole instead of bottom if desired. Add \$.50 each.

Globe will accommodate up to 50 C. P. bulb.
2½ inch globes furnished unless 3 inch is specified.
Spare clear globes (2½ or 3 inch) \$1.65 Each
Spare electric bulb sockets fig. 747, No. 2, .40 each
With Red, Green or Blue Globe, add .50 Each
Connectors for above, see Fig. 283 .30 Each

Phenolic Flag Pole Light

LAMINATED BAKELITE
LIGHT MAHOGANY COLOR

1½ INCH FRESNEL BALL GLOBE FIG. 604
DOUBLE CONTACT ELECTRIC SOCKET



Fig. 551

This new pole light produced for the purpose of saving scarce materials such as brass or aluminum and to offer a low priced light without sacrificing appearance, practicability or strength.

Laminated bakelite is salt spray resistant, weather proof and non-corrosive. Has high specific tensile strength.

The color of this light will match the average light mahogany deck.

Each	Length Overall Inches	Diam. Pole Inches	Weight Ounces
\$4.75	20	3/4	7

Junior Flag Pole Lights

1½ INCH FRESNEL BALL GLOBE, FIG. 604
HOLLOW BRASS POLE—CAST BRONZE SOCKET
DOUBLE CONTACT—WIRED



Fig. 603

Length Overall Inches	Diam. Pole Inches	Weight Oz.
20	3/4	11
24	3/4	12
30	3/4	16

Length Overall Inches	Polished Brass Each	Chromium Plated Each
20	\$7.00	\$8.75
24	7.25	9.00
30	7.50	9.25

Spare clear globes, \$1.10 Each.

Spare electric sockets, Fig. 747, No. 2, \$.40 Each.

Spare Flag Pole Sockets, Pol. Brass, \$2.20; Chrome Plated \$2.85 Each.

Connectors for above, see Fig. 283.

New Adjustable Flag Pole Light

1½ INCH FRESNEL BALL GLOBE, FIG. 604
HOLLOW BRASS POLE—WITH CONNECTORS
CAST BRONZE STREAMLINE SOCKET
DOUBLE CONTACT—WIRED



Fig. 609

Adjustable to various lengths down to 5 inches if desired. Knurled nut holds pole firmly in socket. Connectors pass through socket for removal of pole.

Maximum Length Inches	Diam. Pole Inches	Weight Pounds
20	3/4	1 1/4
24	3/4	1 1/2
30	3/4	1 1/2

Maximum Length Inches	Polished Brass Each	Chromium Plated Each
20	\$7.50	\$9.25
24	7.75	9.50
30	8.00	9.75

Spare clear globes, \$1.10 Each.

Spare electric sockets fig. 747, No. 2, \$.40 Each.

Spare Flag Pole Sockets, Pol. Brass \$3.00; Chrome Plated \$3.75 Each.

"Little Joe" Pole Light

ALL POLISHED ALUMINUM
1½ INCH FRESNEL BALL GLOBE
DOUBLE CONTACT ELECTRIC SOCKET



Fig. 625

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

Pole is adjustable to various lengths down to 5 inches.

Each	Length Overall Inches	Diam. Pole Inches	Weight Ounces
\$5.75	20	9/16	10



Battery Pole Light

ALL BRASS BATTERY CASE—NICKEL PLATED
SOLID MAHOGANY POLE—FRESNEL GLOBE



Fig. 710

Two standard flashlight cells in battery case will supply weeks of service in ordinary intermittent use.

Supplied complete with bulb and switch, no batteries.

Each	Length Overall Inches	Diam. Base Inches	Weight Ounces
\$6.35	20	1	8

New Battery Pole Light

ALL BRASS—NICKEL PLATED



Fig. 711

Uses two standard flashlight cells in battery case.

Supplied complete with bulb and switch. No batteries.

This unit is the same as our Fig. 710 except that the pole is brass instead of wood.

Each	Length Overall Inches	Diam. Base Inches	Weight Ounces
\$6.50	20	$\frac{3}{4}$	17

Mahogany Flag Poles

Turned from solid seasoned mahogany. Natural finish—varnished.



Fig. 496

Length Overall Inches	Each	Diameter Base Inches
18	\$1.40	$\frac{3}{4}$
18	1.75	1
24	2.50	1
30	3.50	$1\frac{1}{4}$
36	4.25	$1\frac{1}{4}$
48	5.50	$1\frac{1}{4}$

With brass ferrule, add \$.60 Each.

Battery Anchor Light

BRASS CASE
WITH TOGGLE SWITCH AND BULB
Uses ordinary $1\frac{1}{2}$ volt dry cell such as Eveready No. 6 or equal. Bulb is Mazda No. 131.



Fig. 48

Polished Brass Each	Chromium Plated Each	Height Inches	Diam. Base Inches
\$11.75	\$14.00	$10\frac{1}{2}$	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, \$.25 each.

Hand Utility Light

ALL BRASS—NICKEL PLATED



Fig. 71

A two cell flashlight case with a clear fresnel ball globe creates a light with many uses aboard a boat of any size, i.e., emergency stern light, signal light, flashlight and especially as a white light for sailboats.

Each	Length Inches	Diam. Inches	Weight Ounces
\$4.50	7	$1\frac{1}{4}$	11

Price includes bulb, no batteries.

Non-Fouling Flag Staff

ALL BRASS TUBING—BRASS CLIPS
LIGHTWEIGHT

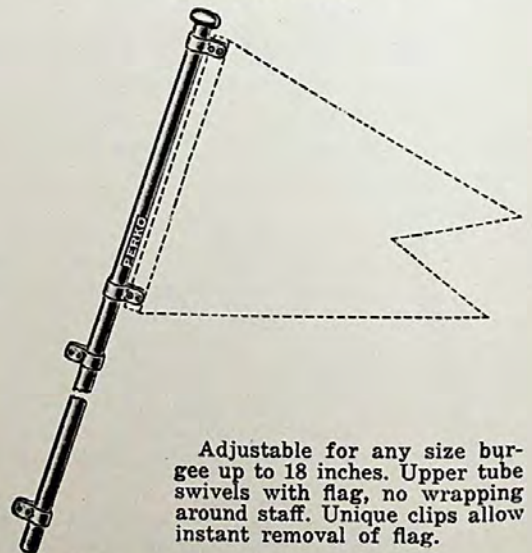


Fig. 507

Adjustable for any size burgee up to 18 inches. Upper tube swivels with flag, no wrapping around staff. Unique clips allow instant removal of flag.

Polished Brass Each	Chromium Plated Each	Length Overall Inches	Diameter Upper Tube Inches	Weight Ounces
\$7.00	\$9.00	36	$\frac{1}{2}$	14



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

Polished Brass Each	Chromium Plated Each	Spare Globes Each	Spare Sockets Each	Height Inches	I. D. Neck Inches	Wt. Oz.
\$3.85	\$4.85	\$1.10	\$.40	4¼	⅝	7

STANDARD TYPE

WITH 2½ OR 3 INCH GLOBE FIG. 250 OR 251
FOR CLASS 1, 2 AND 3 BOATS
MAXIMUM BULB 50 C. P.



Fig. 491

No.	Polished Brass Each	Chromium Plated Each	Spare Globes Each	Diam. Globe In.	Height In.	I. D. Neck In.	Wt. Oz.
1	\$4.65	\$5.65	\$1.65	2½	5	¾	12
2	4.65	5.65	1.65	3	5¾	¾	14

HEAVY DUTY TYPE

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



Fig. 484

No.	Polished Brass Each	Chromium Plated Each	Spare Globes Each	Diam. Globe In.	Height In.	I. D. Neck In.	Wt. Lbs.
1	\$5.75	\$6.75	\$1.65	2½	5	¾	1
2	5.75	6.75	1.65	3	5¾	¾	1½

NOTES

With Red, Green or Blue Globe, add \$.50 Each.
With Side Hole for Cable Exit, supplied to order,
add \$.50 each.

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

Polished Brass Each	Chromium Plated Each	Spare Globes Each	Spare Sockets Each	Height Overall Inches	Diam. Base Inches	Wt. Oz.
\$4.50	\$5.75	\$1.10	\$.40	3½	2¾	7

STANDARD TYPE

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



Fig. 422

No.	Polished Brass Each	Chromium Plated Each	Diam. Globe Inches	Height Overall Inches	Diam. Base Inches	Weight Ounces
1	\$5.25	\$6.50	2½	5½	2¾	12
2	5.25	6.50	3	6	2¾	14
3	6.00	7.50	3	12	2¾	20

HEAVY DUTY TYPE

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



Fig. 506

No.	Polished Brass Each	Chromium Plated Each	Diam. Globe Inches	Height Overall Inches	Diam. Base Inches	Weight Ounces
1	\$7.00	\$8.25	2½	5½	2¾	18
2	7.00	8.25	3	6	2¾	20
3	7.75	9.00	3	12	2¾	26

NOTES

Figs. 422, 484, 491, 506, Maximum Bulb, 50 C. P.
Spare clear globes for Figs. 422 and 506, \$1.65 Each
Spare sockets Fig. 747, \$.40 Each
With Red, Green or Blue Globe, add \$.50 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 Lbs.
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
\$11.75	\$12.75	\$14.75	\$1.65	\$.40

With red, green, blue or amber lens, add \$1.25 each.
With medium screw socket fig. 346 for 15 watt bulb, add \$1.40 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 Lbs.
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	
\$10.75	\$11.50	\$13.00	\$1.65	\$.40	

With red, green, blue or amber lens, add \$1.25 each.
With medium screw socket fig. 346 for 15 watt bulb, add \$1.40 each.

Stern Lights

CAST BRONZE

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



Fig. 112

Equipped with clear fresnel lens 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 3/8	5 x 3 1/2	3 3/4
Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	
\$9.75	\$11.50	\$13.75	

Spare globes, \$2.50 each.
Spare sockets, \$.70 each.

With red, green, blue or amber globe, add \$1.75 each.
With double contact socket fig. 276, add \$.70 each.

Mast Lights

CAST BRONZE

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



Fig. 113

Equipped with clear fresnel lens 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		
\$9.50	\$11.50	\$13.75		

Spare clear globes, \$2.50 each.
Spare sockets, \$.70 each.

With red, green, blue or amber globe, add \$1.75 each.
With double contact socket fig. 276, add \$.70 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	3/8	3 1/8 x 3 1/8	1 3/4
Polished Brass Each			Chromium Plated Each	
\$9.50			\$11.00	

Height other than standard, price on application.

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

Spare clear lens fig. 261, \$1.65 each.
Spare socket fig. 276, .70 each.

Improved Mast Light

CAST BRONZE—WITH THREADED LENS 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		
\$15.50	\$18.50	\$21.50		

Spare clear globes, \$2.50 each.
Spare guards, \$4.00 each.
Spare sockets, \$.70 each.

With red, green, blue or amber globe, add \$1.75 each.
With double contact socket fig. 276, add \$.70 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 In.	Height Overall In.	Diam. Base In.	Wt. Lbs.
1	\$5.00	\$5.75	\$6.50	2 1/2	3 1/2	2 1/8	1
2	5.00	5.75	6.50	3	4	2 1/8	1 1/2

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	Weight Pounds
103	\$7.25	\$9.00	\$11.00	6	3	2
104	8.00	10.25	12.25	5 5/8	3	2

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

Spare clear globes fig. 249, \$1.80 each.

Spare sockets fig. 222, \$.70 each.

With double contact socket fig. 276, add \$.70 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.

Fig.	Plain Bronze Each	Polished Bronze Each	Height Overall Inches	Diam. Base Inches	Size Globe Inches	Opening in Globe Inches	Weight Pounds
	\$5.50	\$6.25	6	2 3/4	5 1/2 x 2 3/4	1 1/8	1

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

Spare clear globes fig. 77, \$1.65 each.

With red, green or blue globe, add \$.85 each.

Special porcelain electric sockets only fig. 222, \$1.00 each.

Bulbs for above, 120 volt 10 watt, clear \$.45 each.

Mast Lights

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



Fig. 309

Height Overall Inches	Size Globe Inches	Opening In globe Inches	Tapped for Pipe Size Inches	Weight Pounds
6 1/2	5 x 3 1/2	2 3/4	1/2	2 1/2

Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
\$8.00	\$9.50	\$11.50

With red, green, blue or amber globe, add \$1.75 each
Spare clear globes fig. 106, \$2.50 each.

Spare sockets fig. 222, \$.70 each.

With double contact socket fig. 276, add \$.70 each.

Guarded Mast Light

CAST BRONZE—WITH MEDIUM SCREW SOCKET
LENS GUARD AND FIG. 106 GLOBE—60 WATT



Fig. 145

Plain Bronze Each	Height Overall Inches	Size Globe Inches	Opening In Globe Inches	Tapped for Pipe Size Inches	Weight Pounds
\$11.50	7 3/8	5 x 3 1/2	2 3/4	1/2	3 1/4

Spare Threaded Brass Guards \$4.00 each.

Other Spares and Extras, see Fig. 309 above.

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.

Fig.	Polished Bronze Each	Chromium Plated Each	Length Overall Inches	Size Base Inches	Diam. Globe Inches	Wt. Lbs.
329	\$14.75	\$18.25	9	3 3/8 x 1 3/4	2 1/2	2
330	17.00	20.50	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.

TOWING OR SIGNAL LIGHTS

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

SINGLE LIGHT

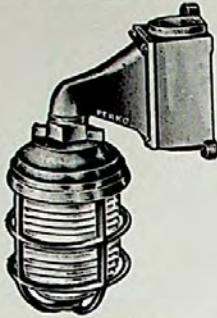


Fig. 540

Box Not Tapped, See Below

Each	Height Overall Inches	Width Overall Inches	Weight Pounds
\$24.00	10 1/4	6 3/4	6 3/4

DOUBLE LIGHT

With 1/2" Brass Pipe — Lights 3 Feet Apart

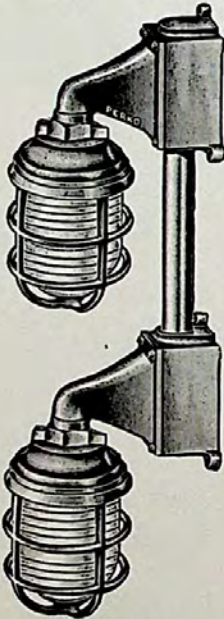


Fig. 541

Each	Height Overall Inches	Width Overall Inches	Weight Pounds
\$57.00	46 1/2	6 3/4	16

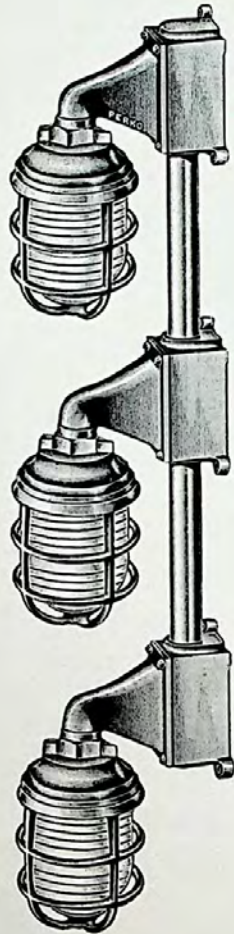


Fig. 542

Each	Height Overall Inches	Width Overall Inches	Weight Pounds
\$90.00	82 1/2	6 3/4	25 1/2

SPARE LENSES clear Fig. 106. \$2.50 each.

COLORED LENSES can be supplied. Colors are red, green, blue or amber. Add \$1.75 for each lens.

SPARE GUARDS Cast Bronze. \$3.50 each.

SPARE SOCKETS Phenolic, U. S. Navy drawing 9-S-4836-L, \$.80 each.

TAPPING Fig. 540 with one 1/2 inch pipe tap, add \$.50, with two 1/2 inch pipe taps, add \$1.00. Box will accommodate 3/4 inch pipe tap, if such tapping required, price on application.

Figs. 541 and 542 with 3/4 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



Fig. 1163

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.

Extreme Height Inches	Size Red Lens Inches	Size Clear Lens Inches	Wt. Lbs.
17 1/8	5 x 3 1/2	5 1/2 x 5 1/4	18

Each	Tubular Bulbs Each	Spare Sockets Each
\$63.00	\$.80	\$.55

Spare clear lenses fig. 261, \$6.50 each.

Spare red lens fig. 106, \$4.25 each.

Portable Staff Light

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

Size Lens Inches	Height Less 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
\$21.50	\$5.00

With red, green or blue lens, add \$2.25 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	\$14.00	\$20.00
8	16.25	23.50
10	29.00	39.50



Fig. 44

With red, green, blue or frosted globe, add \$3.00 each. Electric only, same prices as above.

Comb. oil and electric 6 and 8 inch, add \$1.65 each.

Comb. oil and electric 10 inch, add \$2.50 each.

Hinged bottom furnished with 8 inch size only.

SPARE PARTS

Size	Globes	Burners	Oil Founts	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.

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	\$21.00	\$22.00	1 medium screw socket
2	24.25	25.75	1 medium screw socket
2-B	30.00	31.50	6 light candelabra unit
2-C	27.50	29.00	1 mogul 3 wire socket
3	34.50	40.00	1 medium screw socket
3-A	39.00	44.50	4 medium screw sockets
3-C	40.00	46.00	6 light candelabra unit
3-D	37.50	43.00	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, \$.50 each.

120 volt 25 watt T-10 clear for No. 3-A, \$.80 each.

120 volt 50/50 watt P-25 clear for No. 2-C, 3-D, \$5.50 each.

120 Volt, 15 Watt, T-7 clear with candelabra Base for Nos. 2-B and 3-C. \$.95 each.

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
\$26.50	4 3/8	2 3/4	2 3/8	4

Interior complete with Condenser, each \$11.00.



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	\$79.00	\$97.00	6¾	11	7¼ x 7¼	18	65 to 150
2	104.00	122.00	7½	13½	9½ x 9½	30	over 150
3	180.00	204.00	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 Pounds Each
1	\$39.50	\$48.50	6¾	11	7½ x 7¾	8½	10
2	52.00	61.00	7½	13½	9 x 10	10¾	15
3	90.00	102.00	8½	15¼	10¾ x 11¼	12¾	21

With red or green lens (special purpose) add \$9.00 each.
With amber lens in Sizes No. 1 and 2 only, add \$9.00 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 Pounds Each
1	\$39.50	\$48.50	6¾	11	7 x 7½	8½	9
2	52.00	61.00	7½	13½	9 x 10	10¾	12
3	90.00	102.00	8½	15¼	10½ x 10¾	12¼	15

With red or green lens (special purpose) add \$9.00 each.
With 45 degree red lens (for suction dredges) add \$12.00 each.
With amber lens in Sizes No. 1 and 2 only, add \$9.00 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 Pounds Each
1	\$38.50	\$47.50	6¾	10½	7¾	11
2	51.00	60.00	7½	12¾	9¾	16
3	89.00	101.00	8½	14¾	10¾	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 Pounds Each
1	\$43.50	\$52.50	6¾	10½	7¾	11
2	56.00	65.00	7½	12¾	9¾	16
3	96.00	108.00	8½	14¾	10¾	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 \$5.50 each.
With Medium Screw Phenolic Sockets fig. 346, deduct \$1.00 each.
Spare cast bronze watertight caps with gasket, \$5.50 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	\$76.00	\$94.00	5½	13¾	6¾ x 6¾	14	65 to 90
1	79.00	97.00	6¾	14¾	7¾ x 7¾	18	90 to 150
2	104.00	122.00	7½	18	9½ x 9½	29	over 150
3	180.00	204.00	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	\$38.00	\$47.00	5½	13¾	7 x 7¾	8½	7
1	39.50	48.50	6¾	14¾	7½ x 7¾	8¾	9
2	52.00	61.00	7½	18	9 x 10	10¾	15
3	90.00	102.00	8½	19¾	10¾ x 11¼	12¾	21

With red or green lens, (special purpose) add \$9.00 each.
With amber lens Sizes No. 0, 1 and 2 only, add \$9.00 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	\$38.00	\$47.00	5½	13¾	7 x 7¾	8½	6
1	39.50	48.50	6¾	14¾	7 x 7½	8¾	8
2	52.00	61.00	7½	18	9 x 10	10¾	13
3	90.00	102.00	8½	19¾	10½ x 10¾	12¾	16

With red or green lens, (special purpose) add \$9.00 each.
With 45 degree red lens (for suction dredges) add \$12.00 each.
With amber lens Sizes No. 0, 1 and 2 only, add \$9.00 each.

Fig. 1157

Anchor Lights, Fig. 1158

360 DEGREE CLEAR 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	\$37.00	\$45.50	5½	13	7¾	10
1	38.50	47.50	6¾	14	7¾	11
2	51.00	60.00	7½	17¼	9¾	17
3	89.00	101.00	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	\$42.00	\$50.50	5½	13	7¾	10
1	43.50	52.50	6¾	14	7¾	11
2	56.00	65.00	7½	17¼	9¾	17
3	96.00	108.00	8½	18¾	10½	23



Fig. 1158
Fig. 1159



Oil Lamp used in Lights on this page

No.	Each
0-1 Comp.	\$4.40
2-3 Comp.	\$5.50

ELECTRIC ONLY

With Fig. 288 Medium Screw Adapter, use above price.
With Fig. 289 Medium Screw Adapter, add \$2.20 each.
With Fig. 1082 3 Wire Mogul Adapter, add \$2.45 each.

COMBINATION OIL AND ELECTRIC

With Fig. 288 Medium Screw Adapter, add \$3.30 each.
With Fig. 289 Medium Screw Adapter, add \$5.50 each.
With Fig. 1082 3 Wire Mogul Adapter, add \$5.75 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



Fig. 30

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	\$56.00	\$74.00	5½	10½	6½ x 6½	12	65 to 90
1	60.00	79.00	6¾	11	7½ x 7½	14	90 to 150
2	80.00	102.00	7½	13½	9½ x 9½	24	over 150

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	\$28.00	\$37.00	5½	10½	7 x 7	8½	6
1	30.00	39.50	6¾	11	7 x 7	8¾	8
2	40.00	51.00	7½	13½	9 x 9½	10¾	12½

With red or green lens (special purpose) add \$9.00 each.
 With amber lens, add \$9.00 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	\$28.00	\$37.00	5½	10½	7 x 7	8½	5½
1	30.00	39.50	6¾	11	7 x 7	8¾	7
2	40.00	51.00	7½	13½	9 x 9½	10¾	9½

With red or green lens (special purpose) add \$9.00 each.
 With 45 degree red lens (for suction dredges) add \$12.00 each.
 With amber lens, add \$9.00 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	\$27.00	\$36.00	5½	9¾	7½	8
1	29.00	38.50	6¾	10¾	7½	9
2	39.00	50.00	7½	12¾	9¾	13

Breakdown Lights, Fig. 84

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
0	\$32.00	\$41.00	5½	9¾	7½	8
1	34.00	43.50	6¾	10¾	7½	9
2	44.00	55.00	7½	12¾	9¾	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 \$2.20 each.
 With 3 wire mogul adapter fig. 1082 for double filament bulb, add \$2.45 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	\$56.00	\$74.00	5½	14	6½ x 6½	13	65 to 90
10	60.00	79.00	6¾	15	7½ x 7½	15	90 to 150
11	80.00	102.00	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	\$28.00	\$37.00	5½	14	7 x 7	8½	7½
1	30.00	39.50	6¾	15	7 x 7	8%	9½
2	40.00	51.00	7½	18¾	9 x 9½	10%	14

With red or green lens (special purpose) add \$9.00 each.
 With amber lens, add \$9.00 each.



Fig. 982



Fig. 985

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 C of Lugs Inches	Weight Each Pounds
0	\$28.00	\$37.00	5½	14	7 x 7	8½	6
1	30.00	39.50	6¾	15	7 x 7	8%	7½
2	40.00	51.00	7½	18¾	9 x 9½	10%	10½

With red or green lens (special purpose) add \$9.00 each.
 With 45 degree red lens (for suction dredges) add \$12.00 each.
 With amber lens, add \$9.00 each.

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	\$27.00	\$36.00	5½	13%	7½	8½
22½	29.00	38.50	6¾	14½	7½	10
23	39.00	50.00	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	\$32.00	\$41.00	5½	13%	7½	8½
22½	34.00	43.50	6¾	14½	7½	10
23	44.00	55.00	7½	17¾	9¾	14



Fig. 23 or Fig. 129

ELECTRIC ONLY

COMBINATION OIL AND ELECTRIC

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

With Fig. 288 Medium Screw Adapter, add \$3.30 each.

With Fig. 289 Medium Screw Adapter, installed only in Sizes No. 2, 11 and 23, add \$2.20 each.

With Fig. 289 Medium Screw Adapter, installed only in Sizes No. 2, 11 and 23, add \$5.50 each.

With Fig. 1082 3 Wire Mogul Adapter, add \$2.45 each.

With Fig. 1082 3 Wire Mogul Adapter, add \$5.75 each.

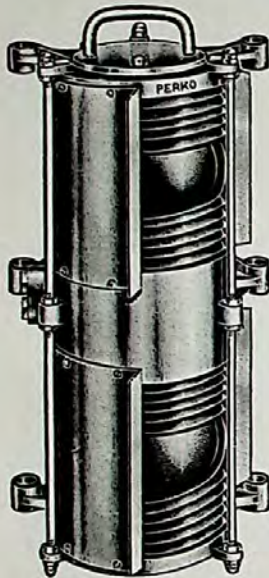
COPPER LIGHTS MADE TO ORDER—PRICE ON APPLICATION



NEW TYPE TWO LENS NAVIGATION LIGHTS FOR SHIPS

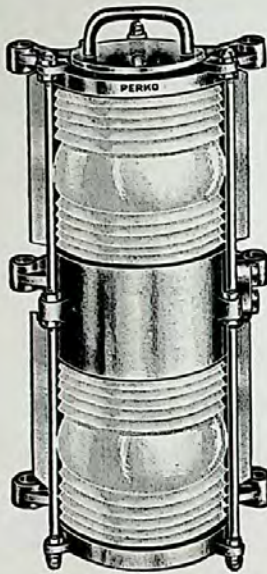
PER A.I.E.E. SPECIFICATION NO. 45 SECTION 34 PARAGRAPH 34.01
 WATERTIGHT—ELECTRIC ONLY—CAST BRONZE
 U.S. COAST GUARD APPROVED

SIDE LIGHTS



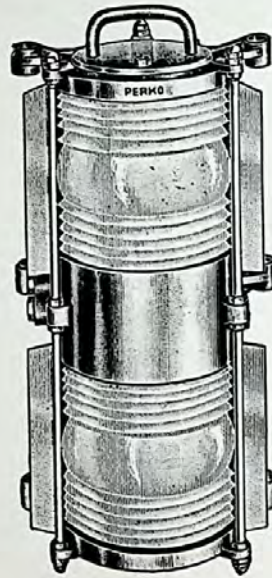
10 point-112½°
Fig. 1164

MASTHEAD—RANGE & TOWING LIGHTS



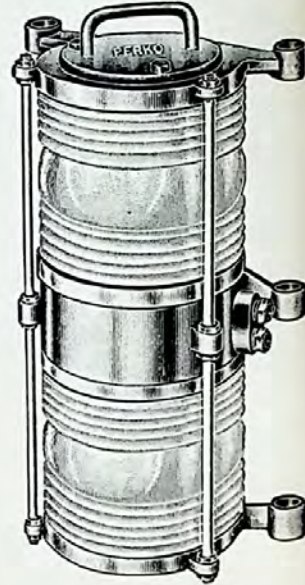
20 Point-225°
Fig. 1165

STERN LIGHTS



12point-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 \$220.00
1165	MASTHEAD, RANGE OR TOWING LIGHTS, with clear lenses	Each 105.00
1166	STERN LIGHTS, with clear lenses	Each 105.00
1167	ANCHOR LIGHTS, with clear lenses	Each 102.00
1168	BREAKDOWN LIGHTS, with red lenses	Each 107.00

FIG'S 1165 OR 1166 WITH COLORED LENSES, RED OR GREEN, ADD EACH \$5.00

Clear	Colored	Spare Sockets	Spare Rubber	Height	Centers of	Height	Weight
Each	Each	Fig. 346 No. 2	Lens Gaskets	Less Handle	Mounting Lugs	Lens	Each
		Each	Each	Inches	Inches	Inches	Pounds
\$10.50	\$15.75	\$.55	\$2.50	18%	8%	6%	30



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	Fig. 1170	Height	Centers of	Height	Weight
Each	Each	Less Handle	Mounting Lugs	Lens	Each
		Inches	Inches	Inches	Pounds
\$70.00	\$72.50	9	8%	6%	15 1/2

With shield for reduced light angles, (give degrees of light required) add each \$9.00

NOTE—OIL BURNING LIGHTS INTERCHANGEABLE WITH ABOVE, SEE OPPOSITE PAGE.



OIL BURNING NAVIGATION LIGHTS FOR SHIPS

SPECIAL SIZE—TO INTERCHANGE WITH A.I.E.E. ELECTRIC LIGHTS ON PAGE 26
 HINGED TOP—BOTTOM OPENING—WITH FOUNT, BURNER, CHIMNEY AND WICK

SIDE LIGHTS

MASTHEAD—RANGE
& TOWING LIGHTS

STERN LIGHTS

ANCHOR OR
BREAKDOWN LIGHTS



10 Point-112½°
Red and Green
Fig. 1182



20 Point-225°
Clear
Fig. 1183



12 Point-135°
Clear
Fig. 1184



32 Point-360°
Fig. 1185-Clear
Fig. 1186-Red

Fig.	Galvanized Steel	Polished Brass	Height Lens Inches	Height Less Handle Inches	Size Base Inches	Centers of Mounting Lugs Inches	Weight Each Pounds
1182. Per Pair	\$94.00	\$112.00	6¾	15	7½ x 7½		8
1183 Each	47.00	56.00	6¾	15	7¾ x 7½	8½	9¼
1184 Each	47.00	56.00	6¾	15	7¾ x 7½	8½	8
1185 Each	46.00	55.00	6¾	14	7¾	8½	10
1186 Each	51.00	60.00	6¾	14	7¾	8½	10

OIL EQUIPMENT

FOUNT, FIG. 282 NO. 1—BURNER, FIG. 242 NO. 2
 CHIMNEY, FIG. 267 NO. 2—WICK, FIG. 302 NO. 2

ELECTRIC ONLY

With Fig. 288 Medium Screw Adapter, use above prices.
 With Fig. 1082 3 Wire Mogul Adapter, add each \$2.50.

COMBINATION OIL AND ELECTRIC

With Fig. 288 Medium Screw Adapter, add each \$3.30.
 With Fig. 1082 3 Wire Mogul Adapter, add each \$5.75.

COPPER LIGHTS MADE TO ORDER — PRICE ON APPLICATION



Fig. 46

Bulkhead Lantern WITH REMOVABLE GLASSES OIL BURNING

Galvanized Each	Polished Brass Each	Glasses Only Each	Size Body		Height Overall Inches
			Front Inches	Side Inches	
\$25.50	\$34.50	\$1.10	9 x 13	7¾ x 13	16

Supplied for electric only with medium screw socket to order, add \$3.00 each.

- Spare brass founts only, \$4.50 each.
- Spare burners, Fig. 242 No. 2, \$1.50 each.
- Spare chimneys Fig. 267 No. 2 \$1.00 each.
- Spare reflectors, \$4.00 each.



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	\$79.00	\$52.00	\$61.00	\$52.00	\$61.00	1001	6¾	11	7¼ x 7¼	18
Pol. Brass	97.00	61.00	70.00	61.00	70.00	1002	7½	13½	9 x 10	15
Spare Lenses	19.00	12.50	21.50	9.00	14.50	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. \$.40 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

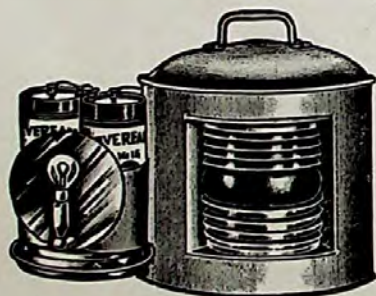


Fig. 1008

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	\$68.00	\$50.00	\$59.00	\$50.00	\$59.00	1008	6¾	11	7½ x 7½	15
Spare Lenses	18.50	12.50	21.50	9.00	14.50	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. \$1.40 each.

Battery containers as illustrated, complete with reflector, socket, bulb and switch. Without batteries, \$26.00 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	\$29.50	\$34.00	4¼ x 4	15	6¾	5½
2	43.00	47.00	5½ x 5¼	16½	6¾	8½

No. 1 red, green, blue or amber lens, add \$2.20 each.

No. 2 red, green, blue or amber lens, add \$5.00 each.

Light shielded to 112½, 135 or 225 degrees, add \$8.00 each.

Prices include bulb. With batteries, add \$6.00 per set.

Spare bulbs, 6 volt .04 amp. miniature base, \$.40 each.

Spare lenses, see fig. 261. Spare switches, see fig. 745.

Spare sockets, \$.50 each.

Spare battery containers, galv., \$10.00 each. Copper, \$12.00 each.

New Self Contained Flashing Light

360 DEGREE FRESNEL LENS
WATERTIGHT
WITH ELECTRONIC FLASHING TIMER,
RHEOSTAT AND WATERTIGHT SWITCH
60 DAYS CONTINUOUS OPERATION
5 MILE VISIBILITY

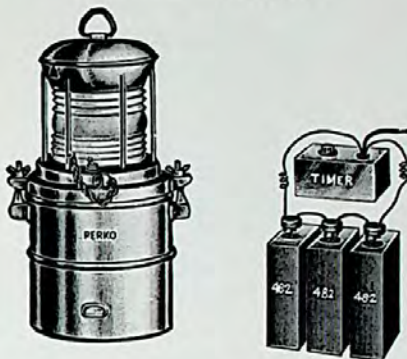


Fig. 495

This is a portable self contained battery operated flashing light or beacon which can be carried to any location and left without attention for the life of the batteries.

Operated by three 45 volt B batteries wired in series and through an electronic flashing mechanism or timer.

The speed of flashing can be controlled by the rheostat which is an integral part of the timer container. Range of Flashes per minute, minimum 25, maximum 150.

The on-and-off toggle switch is placed on the outside of the light housing and covered by a brass screw type watertight cover.

At a speed of 30 flashes per minute one set of No. 482 batteries or their equivalent will operate 24 hours per day for about 60 days with a 6 watt bulb.

Light is supplied complete with bulb, a set of No. 482 batteries, timer and rheostat, all wired ready for operation.

No.	Galv. Each	Polished Copper Each	Size Lens Inches	Height Overall Inches	Diam. Base Inches	Weight Pounds
1	\$82.00	\$87.00	4¼ x 4	16½	6½	12
2	98.00	102.00	5½ x 5¼	18	6½	15

No. 1 with red, green, blue or amber lens, add \$2.20 each.

No. 2 with red, green, blue or amber lens, add \$5.00 each.

Spare bulbs, fig. 337, 110 volt 6 watt double contact base, \$.60 each.

Spare batteries, Eveready No. 482 or Burgess No. M-30 or Bright Star No. 30-33 available in all radio supply stores.

Spare timer with rheostat, \$44.00 each.

Spare lenses, see fig. 261.

Spare switches, see fig. 745.

Spare battery containers, Galv., \$10.00 each. Copper, \$12.00 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 Inches	Capacity Fount Pints	Weight Pounds
\$82.00	7½	22	10	6	20

With red, green or blue lens, add \$5.75 each.

Fount complete with burner and gears, \$36.00 each.

Light only, without Fount, \$55.00 each.

Zenith burner only, \$2.00 each.

Zenith burner with gears, \$5.50 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 Less Ring Inches	Height Lenses Inches	Weight Pounds
\$30.00	\$3.50	8½	5¾	3½

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

With ventilated top for oil burning add \$5.00 each. For oil and electric, add \$5.75 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		Centers of Lugs Inches	Height Lenses Inches	Weight Fig. 407 Pounds
		Less Handle Fig. 407 Inches	Fig. 408 Inches			
\$62.00	\$5.50	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 \$3.30 each.

Day Signals

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



Fig. 169



Ball Folded



Fig. 172

Fig.	No.		Height Inches	Weight Lbs.	Each
169	5	Black ball	24	2½	\$11.00
170R	3	Red ball	24	2½	16.00
170W	3	All white ball	24	2½	16.00
171	4	Black and white ball	24	2½	19.50
172	1	Black and white frustrum	48	5	54.00
173R	2	Red frustrum	48	5	54.00
173W	2	All white frustrum	48	5	54.00
175	6	Clear towing light, oil	13¾	8½	27.00
176	7	Red towing light, oil	13¾	8½	32.00

Lights are Figs. 23 and 129 Size No. 22 Galvanized, see page 25.

RULES IN EFFECT ON DAY SIGNALS

RULE NO. 1—For vessels having submerged objects in tow, shall display in daytime one No. 1 shape and one No. 2 shape, and in the night, in addition to regulation lights, two Red No. 7 and two White No. 6 Towing Lights.

RULE NO. 2—For all style vessels fastened alongside of wrecks, or moored over a wreck, two of our No. 2 shapes are required during the day, and at night two of our No. 6 White and two of our No. 7 Red Towing Lights.

RULE NO. 3—Dredges in stationary positions require two of our No. 3 Red Balls during the day, and at night several of our No. 6 White Towing Lights and two of our No. 7 Red Towing Lights.

RULE NO. 4—For Self-Propelling Suction Dredges under way with their suction on the bottom, require during the day two of our No. 5 Black Balls, and during the night, in addition to regulation lights, two Red Mast Head Lights and two special Four Point Lights. See Figs. 982 and 985.

RULE NO. 5—For vessels which are moored or engaged in laying pipe on submarine construction during the day, one No. 4 Black and White Ball and one No. 3 Red Ball, and during the night three of our No. 7 Red Towing Lights.

RULE NO. 6—Vessels of more than 300 gross tons propelled by machinery when moored or anchored in a fairway or channel shall display one No. 5 shape.

ARTICLE 4-A INTERNATIONAL RULES—A vessel which from any accident is not under command shall carry by day two No. 5 shapes.

ARTICLE 4-B INTERNATIONAL RULES—A vessel employed in laying or in picking up telegraph cable shall carry by day two No. 3 Red shapes and one No. 1 shape all White in color.



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 1/4 x 1 1/2	1 1/2

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	\$9.75	\$1.20	25	13 1/2	4
2	10.25	1.55	60	15 1/2	6

Calcium Water Light

SELF LIGHTING—COPPER CASE



Fig. 843

Lights automatically and immediately on striking the water, gives a 250 candle power white light and burns for 45 minutes.

Each	Size Overall Inches	Weight Pounds
\$13.20	5x8	3

Watertight Distress Outfits

APPROVED—COPPER CASE—BRASS CAP



Fig. 844

Consists of twelve red signals, each capable of burning two minutes with an intense brilliancy, clearly discernible for over five miles at sea.

Per Outfit, complete	\$19.00
Cans Only — Each	10.50

Case is 10 1/2 inches high.

Hand Flares

U.S.C.G. APPROVED



Fig. 281

Will burn for not less than 2 minutes giving a brilliant flare of not less than 500 candle-power.

No.	Color	Per Dozen
1	Red	\$ 8.50
2	Blue	10.50
3	White	10.50
4	Orange Smoke	17.00
5	Red Hand Flares for Pleasure Boats, not commercial type	6.75

Ditty Bags

COMPLETE



Fig. 85

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

Complete, Each	\$6.25
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"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, 1949 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

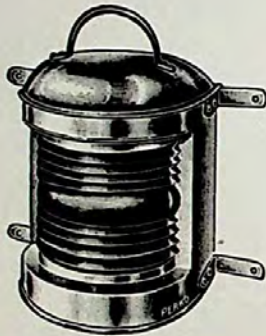


Fig. 29

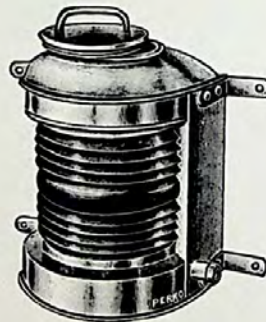


Fig. 31



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, Electric 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	\$56.00	\$66.00	7 $\frac{3}{8}$	13 $\frac{1}{4}$	14 $\frac{1}{2}$	9 $\frac{7}{8}$ x 9 $\frac{1}{8}$	9
31 Electric only	62.00	72.00	7 $\frac{3}{8}$	13 $\frac{1}{4}$	14 $\frac{1}{2}$	9 $\frac{7}{8}$ x 9 $\frac{1}{8}$	11
59 Oil or Electric	56.00	66.00	7 $\frac{3}{8}$	18	14 $\frac{1}{2}$	9 $\frac{7}{8}$ x 9 $\frac{1}{8}$	13
59 Oil and Electric	59.50	69.50	7 $\frac{3}{8}$	18	14 $\frac{1}{2}$	9 $\frac{7}{8}$ x 9 $\frac{1}{8}$	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

Fresnel Lenses	each	\$16.00	Oil Fount	each	\$3.30
Mounting Brackets	each	1.10	Oil Burner	each	1.50
Electric Socket	each	.55	Oil Wicks	each	.08
Electric Adapter	each	3.30	Chimneys	each	1.00



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

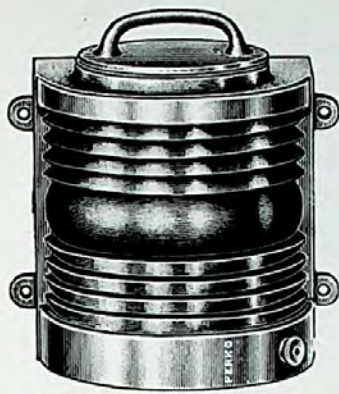


Fig. 1005

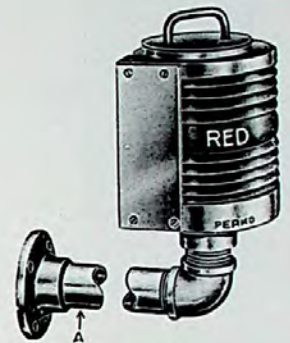


Fig. 1010

- 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 \$10.00 each.
 FIG. 1010—This is fig. 1005 mounted on 2 inch brass pipe and fittings. Standard length of pipe at "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	\$ 80.00	\$ 80.00	7 $\frac{3}{8}$	9 $\frac{1}{4}$	**9 $\frac{1}{4}$	8 $\frac{3}{8}$ x 7 $\frac{3}{8}$	18	12
125	99.00	90.00	7 $\frac{3}{8}$	19	8 $\frac{1}{4}$	5	24	18
1010	130.00	130.00	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.
\$90.00	\$90.00	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

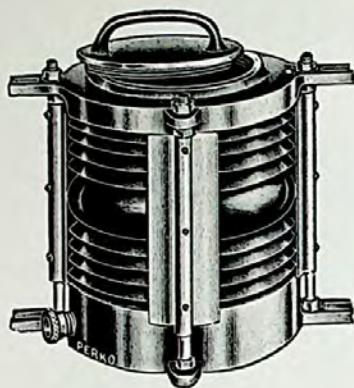


Fig. 39



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	\$73.50	\$83.50			\$8.25	7 3/8	13 1/4	12 1/2	13 1/2	
39 Elec. only			96.00	96.00	8.25	7 3/8	10	12	22	15
50 Oil or Elec.	61.50	71.50			8.25	7 3/8	18	12 1/2	14	
50 Oil and Elec	64.80	74.80			8.25	7 3/8	18	12 1/2	14 1/2	

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.	\$82.00		\$11.50	\$3.60
63	Oil and Elec.	87.50		11.50	3.60
1007	Elec. only		158.00	11.50	3.60

Spare oil fount for Fig. 63, each \$9.50

Spare electric adapter for Fig. 63, each \$8.50.

FIG.	Height Lens Inches	Height Less Handle Inches	Width Overall Inches	Dimensions of Panels Inches	Weight Pounds
63	7 3/8	18	11 1/4	9 1/2 x 10 3/4	18
1007	7 3/8	12	12 1/2	9 x 9	48

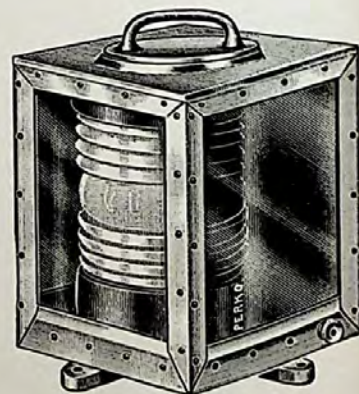


Fig. 1007

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, 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 brass electric adapter for electricity, both supplied for "oil and electric".

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	\$44.00	\$55.00			7 $\frac{3}{4}$	14 $\frac{1}{2}$	9 $\frac{1}{2}$	13	
1006	Electric only			\$80.00	\$80.00	7 $\frac{3}{4}$	9 $\frac{1}{2}$	11 $\frac{3}{4}$	21	14
80	Oil or Elec.	56.00	65.00			7 $\frac{3}{4}$	18	9 $\frac{3}{4}$	17	
80	Oil and Elec.	59.50	68.50			7 $\frac{3}{4}$	18	9 $\frac{3}{4}$	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

This is Fig. 1006 with pivot mounting allowing light to be seen beneath the bridge yet can be swung to the upper level for rebulbing or cleaning. Entrance is through cast threaded cap in bottom of light body. Pipe is brass, 2 inch size. Standard length at "A" and "B" is 2 inches. Flanges and other fittings are cast bronze.

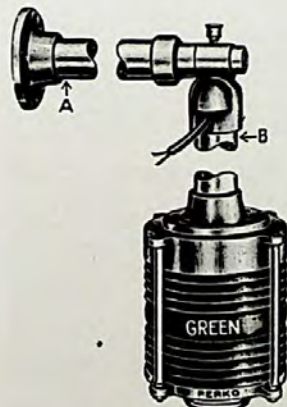


Fig. 1011

	Cast Bronze Each	Cast Aluminum Each	Height Overall Lens Inches	*Height Overall Inches	Width Overall Inches	Weight Pounds	
						Bronze	Aluminum
	\$150.00	\$150.00	7 $\frac{3}{4}$	20 $\frac{3}{4}$	11 $\frac{1}{2}$	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

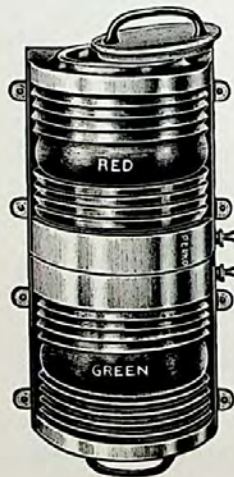


Fig. 127



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 $4\frac{1}{2}$ 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 $\frac{3}{8}$ 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	\$250.00	\$250.00	30 $\frac{1}{2}$	7 $\frac{3}{4}$	8 $\frac{1}{2}$	6 $\frac{1}{4}$ x 6 $\frac{1}{4}$	54	42
127	170.00	170.00	18 $\frac{1}{2}$	7 $\frac{3}{4}$	**9 $\frac{1}{4}$		36	24
1012	260.00	260.00	32	7 $\frac{3}{4}$	8 $\frac{1}{2}$	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 \$11.50 each, Colored \$16.00 each
360 DEGREE LENSES —For figs. 68-80-126-1006-1011	Clear \$11.50 each, Colored \$17.25 each
WATERTIGHT CAPS —Cast Bronze—For figs. 22-31-35-39-125-126-127-1005-1006-1007-1010-1011-1012	\$ 6.00 each
RUBBER GASKETS —For caps.....	\$.30 each
RUBBER GASKETS —For 360 degree lenses.....	\$ 3.00 each
ELECTRIC SOCKETS —Medium screw—For all lights.....	\$.55 each
SOCKET SUPPORTS —Brass—For all watertight electric lights.....	\$ 1.00 each
ELECTRIC ADAPTERS —For figs. 29-50-59-68-80	\$ 3.30 each
OIL FOUNTS —Brass—For figs. 50-59-80	\$ 3.30 each
OIL BURNERS —Brass—For above founts.....	\$ 1.50 each
OIL WICKS —For above burners.....	\$.08 each
CHIMNEYS —For above burners.....	\$ 1.00 each

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



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 2½ inches.

No.	Polished Brass Each	Chrome Plated Each	Height Inches	Extension Inches	Capacity Fount Pints	Burner Number
1	\$11.00	\$14.50	10½	5½	1	1
2	12.50	16.00	12½	6	1½	2

No.	Each
1 Spare burners Fig. 231	\$.55
1 Spare Chimneys Fig. 230	.55
2 Spare Burners Fig. 242 No. 2	1.50
2 Spare Chimneys Fig. 267 No. 2	1.00

Universal Wall Lamp

HEAVY TIN PLATE



Fig. 312

Constructed of heavy tin plate, black Japanned fount, polished tin reflector, handle for carrying. Furnished complete with No. 2 burner, Fig. No. 248, wick, and No 2 Eagle chimney, Fig. No. 268. Hole in reflector for hanging on wall.

Complete Each	Spare Chimneys Each	Spare Burners Each	Height of Back Inches	Diam. of Fount Inches	Weight Each .Lbs.
\$5.50	\$1.00	\$.75	9	5	1½

Philadelphia Cabin Lamp

DOUBLE SWING—WEIGHTED BASE
REMOVABLE FOUNT—ALL BRASS



Fig. 137

With 2½ inch diameter wall plate, hinge burner fig. 242 No. 2 and 6 inch chimney fig. 267 No. 2.

No.	Polished Each	Chrome Plated Each	Height Inches	Extension Inches	Capacity Fount Pints
4	\$15.50	\$19.00	14	8½	1½

Maine Cabin Lamp

STIFF BRACKET—NON SWING
REMOVABLE FOUNT—ALL BRASS



Fig. 136

With cast bronze bracket, hinge burner fig. 242 No. 2 and 6 inch chimney fig. 267 No. 2.

No.	Polished Each	Chrome Plated Each	Height Inches	Extension Inches	Capacity Fount Pints	Wall Plate Inches
3	\$13.00	\$16.50	12	8	1½	3x1½

Smoke Bell and Arm

ALL BRASS



Fig. 128

No.	Polished Brass Each	Chromium Plated Each	Diam. Bell Inches	Extension to Center Inches	Weight Ounces
1	\$2.75	\$3.85	4	3¾	4
2	2.75	3.85	4	4	4
3	2.75	3.85	6¼	5¾	6½
4	2.75	3.85	6¼	6½	7

No. 1 and 2 sizes are for lamp Fig. 141.
No. 3 size is for lamp Fig. 136.
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

WITH TURN SWITCH—SPUN BRASS



Fig. 308

Polished Brass Each	Chromium Plated Each	Diam. Base Inches	Drop less Lamp Inches	Projection less Lamp Inches	Weight Ounces
\$3.00	\$4.00	2½	2½	3	6

Spare socket with switch, \$.90 each.

Upright Pattern

WITH TURN SWITCH—CHROMIUM PLATED



Fig. 225

Chromium Plated Each	Size Base Inches	Length Overall Inches	Projection less Lamp Inches	Weight Ounces
\$3.00	3½ x 2½	5¾	2¾	10

Spare sockets with switch, \$.90 each.

Square Base Pattern

WITH TOGGLE SWITCH—CAST BRONZE



Fig. 450

Polished Bronze Each	Chromium Plated Each	Size Base Inches	Drop less Lamp Inches	Projection less Lamp Inches	Weight Ounces
\$4.50	\$5.50	2x2	2	2½	12

Spare interiors only, \$.30 each.
Spare toggle switch, see Fig. 745.

Upright Pattern

WITH TOGGLE SWITCH—CAST BRONZE

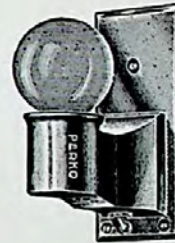


Fig. 304

Polished Bronze Each	Chromium Plated Each	Size Plate Inches	Projection Less Lamp Inches
\$6.75	\$8.75	4½x2½	2¾

Spare interiors only, \$.30 each.
Spare toggle switch, see Fig. 745.

Streamline Pattern

CHROMIUM PLATED
BAKELITE MEDIUM SCREW SOCKET—
TURN SWITCH



Fig. 217

Chromium Plated Each	Size Base Inches	Drop Less Lamp Inches	Depth Less Lamp Inches	Weight Ounces
\$3.50	2½ x 2¼	2¼	2½	8

Spare sockets with switch, \$.90 each.

Junior Fixtures

WITH DOUBLE CONTACT SOCKET
TOGGLE SWITCH—CAST BRONZE



Fig. 605

Polished Bronze Each	Chromium Plated Each	Size Base Inches	Drop Less Lamp Inches	Projection less Lamp Inches
\$4.00	\$5.00	1¾ x 1¾	2	2

Spare toggle switch, see Fig. 745.

PRICES ON THIS PAGE DO NOT INCLUDE BULBS. WHEN ORDERING BULBS, SPECIFY VOLTAGE AND CANDLEPOWER, FROSTED OR CLEAR. ABOVE FIXTURES ARE SUPPLIED, NOT WIRED.
NOTE—ATTRACTIVE SHADES AND SHIELDS FOR ABOVE FIXTURES ARE SHOWN ON PAGE 40.

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
\$8.25	\$10.00	3 1/2 x 2	2 5/8

"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
\$5.00	\$1.00	\$0.75	\$0.50	5 x 3	1 7/8	11

Spare Switches, \$.85 each.
Spare Gaskets, \$.15 each.

New "Masterpiece" Cabin Fixtures

WITH FIBRE GLASS SHADE
COLORS—CHAMPAGNE OR SURF WHITE



Fig. 210



Fig. 212

Two exciting decorator designs to beautify the cabin interior. Every square inch of the unique shade is utilized for lighting.

The fixture is aluminum with medium screw socket and single turn switch. Will accommodate a bulb up to 100 watts.

The shade is practically indestructible.

Each	Dimensions of Wall Plate Inches	Height of Shade		Weight Ounces
		Fig. 210 Inches	Fig. 212 Inches	
\$4.00	7 x 2 5/8	8 3/4	9 3/4	5

Specify color of shade, champagne supplied unless otherwise specified.

With convenience outlet to order, add \$1.25 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, yacht club or marine room.

Metal clip is for a bulb up to 60 watts.

Painted Each	Plain Each	Width Inches	Depth Inches	Weight Ounces
\$2.00	\$1.80	4	3 3/4	1 1/2

Molded Plastic Shades

WHITE—IVORY—TAN



Fig. 174

Suitable for bulbs up to 60 watts.

Each	Height Inches	Diam. Inches	Weight Ounces
\$.60	3 1/2	4 1/4	2 1/2

Please specify color when ordering. Ivory shipped unless otherwise specified.

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	\$5.25	\$7.00	4 1/4	2	6
4	6.25	8.00	5 1/2	2 1/4	9
5	7.00	8.75	6 1/2	2 1/2	15
6	9.00	10.75	7 1/2	2 3/4	20

Spare sockets, see fig. 747, No. 4.

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	\$5.25	\$7.00	4 1/4	1 7/8	5 1/2
4	6.25	8.00	5 1/2	1 7/8	8 1/2
5	7.00	8.75	6 1/2	2	12
6	9.00	10.75	7 1/2	2 1/8	15

Spare sockets, see fig. 747, No.4.

Dome Lights

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



Fig. 385

With Fig. 747 No. 4 Double Contact Socket

No.	Polished Brass Each	Chromium Plated Each	Diam. Base Inches	Diam. Globe Inches	Depth Inches	Weight Ounces
7	\$6.75	\$8.50	6	4 1/4	2 3/8	12
8	9.00	10.75	7	5 3/8	2 3/8	15

With Fig. 346 Medium Screw Socket

9	9.50	11.25	7	5 3/8	2 3/8	16
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Bulb with medium screw base for this light, see Fig. 8. Spare globes, see Fig. 133.

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	\$12.00	\$14.25	4	5 1/2	1 7/8	1 3/4
2	16.50	19.25	6	7 7/8	3 1/8	3 3/4

Watertight Dome Light

CAST BRONZE—DOUBLE CONTACT SOCKET
WITH THREADED DIFFUSING GLOBE

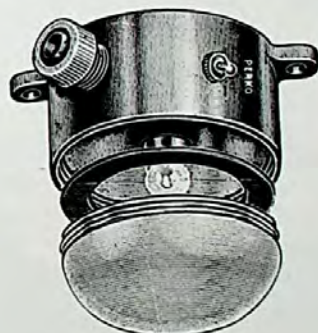


Fig. 1266

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	Extreme Diameter Inches	Diameter Globe Inches	Extreme Depth Inches	Weight Pounds
\$10.50	\$11.75	3 1/2	3 1/4	2 3/4	1 3/4

Chromium plated finish, add \$2.00 to polished price.

Spare Sockets fig. 76, \$.75 each.

Spare Globes, \$1.00 each.

Extra Packing Glands installed, \$1.75 each gland.

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

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	\$1.40	2 3/4	4	01-04-05-08-09
588	2.20	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, \$.90 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	\$1.40	3 5/8	3 1/8	2 1/2	06-17-18-19-20-49-408 No. 0 and 44, 8 inch size
291	2.20	3 5/8	3 1/8	3	06-12-17-18-19-20
292	2.20	3 5/8	3 1/8	3 1/2	06-12-17-18-19-20-49-408 No. 0 and 44, 8 inch size
733 oil only	1.40	3 1/2	2 5/8	2	1
733 O. and E.	3.30	3 1/2	2 5/8	3 3/4	1
736	3.30	3 5/8	3 1/8	4 1/2	06-17-18-19-20

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	\$2.20	4 1/2	4	4	02-11-69 and 44, 6 inch size
287	1.40	4 1/2	4	3	02-69 and 44, 6 inch size
293	2.20	4 1/2	4	4	02-11-69 and 44, 6 inch size
735	3.30	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. 288 Each	Fig. 289 Each	Fig. 1082 Each
0	2 7/8	4 3/4	3 3/4	\$2.20	\$4.40	\$3.30		\$5.75
1	3 1/2	4 3/4	3 3/4	2.20	4.40	3.30		5.75
2	4 1/2	5 3/4	4 3/4	3.30	5.50	3.30	\$5.50	5.75

*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	\$.75	1 1/2	4 7/8
2	1.10	2	6 3/4

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.

Mounting Brackets

FOR NAVIGATION LIGHTS
GALVANIZED MALL. IRON



Fig. 135

Each	Height Overall Inches	Width Overall Inches	Width Bracket Inches
2.25	7 1/2	5 3/8	2 1/2

For large side lights, sizes 2, 3 and 11.

Electric Adapter

BRASS—DOUBLE CONTACT
FOR ROYAL LIGHTS FIGS. 89 to 92 Inc.



Fig. 138

Each	Diam. Overall Inches	Opening in Light Inches	Weight Ounces
\$1.25	2 3/16	1 7/8	1 1/2

Specify whether for Class 1, 2 or 3.

Mounting Sockets

GALVANIZED IRON OR BRASS



Fig. 25

Galv. Each	Brass Each	Chrome Plated Each	Inside Width Inches
\$.55	\$.85	\$1.30	1 1/4

For mounting Royal Lights Fig. 89 to 92 inclusive.

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	Chrome Each
\$1.10	\$1.40	\$1.90

Fresnel Ball Globes

1½ INCH DIAMETER

For pole lights, Figs. 404, 551, 600, 601, 603, 609, 625, 846, 1145.



Fig. 604

Outside diameter	1½ in.
Height overall	1½ in.
Diameter of opening	1¾ in.
Net weight, each	1¾ oz.

Clear Each	Red Each	Green Each	Blue Each
\$1.10	\$1.60	\$1.60	\$1.60

2½ INCH DIAMETER

With threaded base as illustrated, for pole lights, Figs. 329, 362, 422, 484, 491, 492, 506, 531.



Fig. 250

Outside diameter	2½ in.
Height overall	2½ in.
Diameter of opening	1½ in.
Diameter of thread	2 in.
Net weight, each	6 oz.

Clear Each	Red Each	Green Each	Blue Each
\$1.65	\$2.15	\$2.15	\$2.15

3 INCH DIAMETER

With threaded base as illustrated, for pole lights, Figs. 330, 362, 422, 484, 491, 492, 506, 531.



Fig. 251

Outside diameter	3 in.
Height overall	3 in.
Diameter of opening	1½ in.
Diameter of thread	2 in.
Net weight, each	7 oz.

Clear Each	Red Each	Green Each	Blue Each
\$1.65	\$2.15	\$2.15	\$2.15

3 INCH DIAMETER

With threaded base. For mast lights, Figs. 103, 104.



Fig. 249

Outside diameter	3 in.
Height overall	3¾ in.
Diameter of opening	2¼ in.
Diameter of thread	2¼ in.
Net weight, each	10 oz.

Clear Each	Red Each	Green Each	Blue Each
\$1.80	\$2.80	\$2.80	\$2.80

3½ INCH DIAMETER

With threaded base for mast and stern lights, Figs. 83-112-113-145-309-1163.



Fig. 106

Outside diameter	3½ in.
Height overall	5 in.
Diameter of opening	2¼ in.
Diameter of thread	3¼ in.
Net weight, each	1¼ lbs.

Clear Each	Red Each	Green Each	Blue Each	Amber Each
\$2.50	\$4.25	\$4.25	\$4.25	\$4.25

Special Mast Light Globe

2¾ INCH DIAMETER



Fig. 77

With threaded base as illustrated for mast lights Figs. 488-489.

Outside Diameter Inches	2¾	Height Overall Inches	5½	Diameter Opening Inches	1¾	Diameter Thread Inches	2½	Weight Ounces	13
Clear Each	\$1.65	Red Each	\$2.50	Green Each	\$2.50	Blue Each	\$2.50		

Ribbed Diffusing Dome Glasses

SHALLOW



Fig. 257

For Dome Lights Figs. 294-555-1147.

Trade Size Inches	Each	Diam. Overall Inches	Depth Inches
3	\$1.10	2¾	¾
4	1.40	4	¾
5	1.80	5	1 1/8
6	2.75	6	1 1/2

Frosted Dome Glasses

SHALLOW



Fig. 132

For Dome Lights Figs. 296-753-1147.

Trade Size Inches	Each	Diam. Overall Inches	Depth Inches
3	\$1.10	2¾	¾
4	1.40	4	¾
5	1.80	5	¾
6	2.75	6	¾
8	3.60	7¾	¾

Ribbed Opal Dome Globes



Fig. 133

For Dome Lights, Fig. 385.

Outside Diam. Inches	Each	Extreme Depth Inches
4¼	\$2.50	1 1/8
5¾	3.75	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

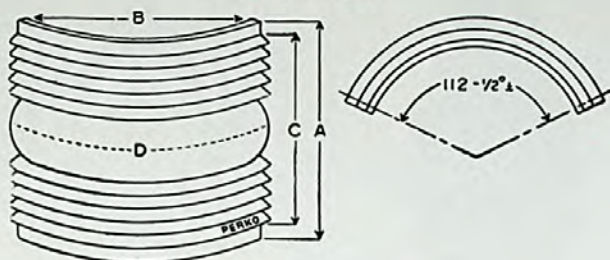


Fig. 259

For Motor Boats	A In.	B In.	C In.	D In.	Clear Each	Red or Green Each	Amber Each
Class A	2 ⁹ / ₁₆	1 ³ / ₄	2 ¹ / ₂	3		\$1.10	
Class 1	3 ⁷ / ₁₆	2 ⁹ / ₁₆	2 ⁷ / ₈	3 ⁵ / ₈	1.65	1.65	2.00
Class 2	4 ¹ / ₄	3 ³ / ₁₆	3 ¹¹ / ₁₆	4 ³ / ₄	2.30	2.30	2.75
Class 3	5 ³ / ₁₆	3 ¹¹ / ₁₆	4 ³ / ₈	5 ⁹ / ₁₆	2.85	2.85	

For Vessels
Over 65 ft.

No. 8	5 ¹ / ₂	4 ¹ / ₁₆	4 ¹³ / ₁₆	5 ⁷ / ₈		4.75	
No. 0 or 9	5 ¹ / ₂	5 ³ / ₄	5	8 ⁷ / ₁₆	6.50	6.50	
No. 1 or 10	6 ³ / ₄	6	6	8 ⁵ / ₈		9.25	
No. 1½	6 ³ / ₄	7 ¹ / ₄	6	9 ⁷ / ₈		11.50	
No. 2 or 11	7 ¹ / ₂	8 ¹ / ₂	6 ⁷ / ₈	11 ³ / ₈		13.00	
No. 3	8 ¹ / ₂	9 ³ / ₄	7 ³ / ₄	13		14.50	

FOR ANCHOR LIGHTS—360 DEGREES

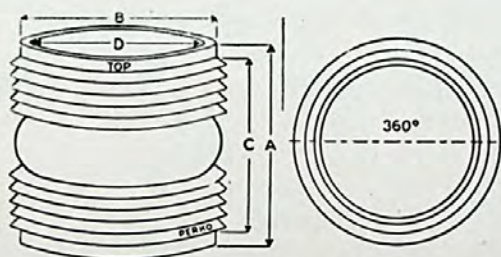


Fig. 261

For Motor Boats	A In.	B In.	C In.	D In.	Clear Each	Colored Each
Junior	3 ⁵ / ₁₆	3 ³ / ₁₆	2 ⁷ / ₈	2 ³ / ₄	\$1.65	\$2.20
Senior	4 ¹ / ₄	4	3 ⁹ / ₁₆	3 ⁷ / ₁₀	2.20	3.30

For Vessels over 65 ft.

No. 0 or 22	5 ¹ / ₂	5 ¹ / ₄	5	4 ³ / ₈	6.50	11.50
No. 1 or 22½	6 ³ / ₄	5 ³ / ₄	6 ¹ / ₈	4 ¹ / ₂	9.50	14.50
No. 1½	6 ³ / ₄	6	6	5 ⁷ / ₁₆	10.50	15.75
No. 2 or 23	7 ¹ / ₂	7 ¹ / ₂	6 ³ / ₄	6 ¹ / ₂	11.50	17.25
No. 3	8 ¹ / ₂	8 ¹ / ₂	7 ³ / ₄	7 ³ / ₄	14.25	23.00

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

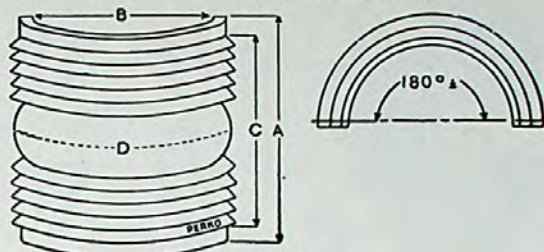


Fig. 260

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 ³ / ₈	\$2.20	\$3.65
Class 2	4 ¹ / ₄	3 ³ / ₄	3 ⁵ / ₈	6 ³ / ₈	2.30	3.75
Class 3	5 ³ / ₁₆	3 ⁷ / ₈	4 ⁹ / ₁₆	7 ¹³ / ₁₆	2.85	4.75
Mld. 59	7 ⁷ / ₈	6 ⁷ / ₈	6 ³ / ₈	12 ⁵ / ₈	11.50	16.00

Colors are red, green, blue or amber.

Size Class 3 not available in amber.

Size Mld. 59 not available in blue.

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

FOR MASTHEAD LIGHTS—225 DEGREES

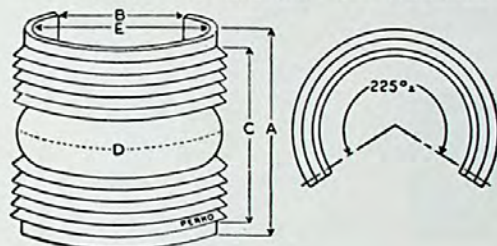


Fig. 256

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 / ₂	4 ³ / ₈	\$ 8.00	\$16.50
No. 1	6 ³ / ₄	4	6	12 ¹ / ₂	4 ¹ / ₂	10.25	18.50
No. 1½	6 ³ / ₄	4 ³ / ₄	6	13	5 ³ / ₈	11.50	
No. 2	7 ¹ / ₂	5 ⁷ / ₈	6 ³ / ₄	16 ³ / ₈	6 ¹ / ₂	12.50	21.50
No. 3	8 ¹ / ₂	6 ⁷ / ₈	7 ⁵ / ₈	18 ⁵ / ₈	7 ³ / ₄	15.00	24.50

Colors are red, green or amber.

Size No. 3 not available in amber.

FOR STERN LIGHTS—135 DEGREES

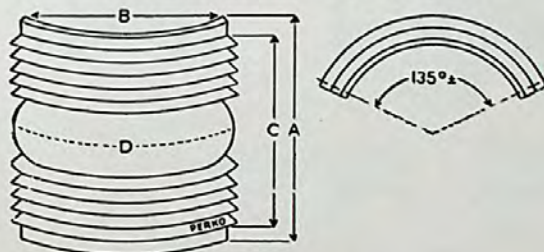


Fig. 269

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	\$ 6.50	\$ 9.00
No. 1	6 ³ / ₄	4 ³ / ₈	6 ¹ / ₈	7 ¹ / ₂	7.25	9.75
No. 1½	6 ³ / ₄	5 ¹ / ₈	6	8	8.25	
No. 2	7 ¹ / ₂	6 ³ / ₈	6 ³ / ₄	10	9.00	14.50
No. 3	8 ¹ / ₂	7 ¹ / ₂	7 ³ / ₄	11 ¹ / ₄	11.00	16.50

Colors are red, green, blue or amber.

Size No. 0 not available in blue.

Size No. 3 not available in blue or amber.



Marcy Hinge Burners

ALL BRASS—HEAVY PATTERN



Fig. 242

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

No.	Per Dozen	Diam. Thread Inch	Wick Inch
2	\$18.00	1 1/4	7/8
2-A	18.00	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
1	\$10.80	6	1 5/8
2	12.00	5	2 1/16
2	12.00	5 1/2	2 1/16
2	12.00	6	2 1/16
2-A	12.00	6	2 1/16

Specify height of chimney when ordering.

Brass Burners



Fig. 246

No.	Per Dozen	Diam. Thread Inches	Width Wick Inches
0	\$3.36	7/8	1/2
1	3.96	7/8	5/8
2	5.76	1 1/4	7/8

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

No. 2 used in larger lights.

Hornet Chimney and Burner

CLEAR CHIMNEY—ALL BRASS BURNER

Used on Cabin Lamp Fig. 141 Size 1

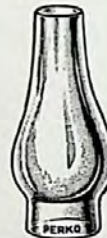


Fig. 230



Fig. 231

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

Chimneys Per Dozen	Burners Per Dozen	Chimney Size Inches	Burner Thread Inches
\$6.60	\$6.60	4 5/8 x 1 1/2	7/8

Flat Wicks

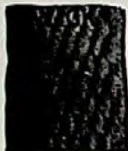


Fig. 302

Flat Wicks, No. 0.	1/2 inch wide	Per Dozen \$.60
Flat Wicks, No. 1. <td>3/8 inch wide</td> <td>.72</td> <td></td>	3/8 inch wide	.72	
Flat Wicks, No. 2. <td>7/8 inch wide</td> <td>.96</td> <td></td>	7/8 inch wide	.96	

Long Time Burner and Chimney

HEAVY 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
\$24.00	\$10.00	\$2.40	1 1/4	1 1/2

Navy Lantern Globes



Fig. 262

This globe is standard equipment in Navy lantern, Fig. No. 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.
\$10.50	\$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	\$2.75	\$6.00	3 3/8	3 3/8	6 3/16
8	5.00	8.25	4	4	7 1/2
10	7.75	11.50	5 3/8	5 3/8	10 3/8

NOTE—6 inch size not available in green.



MAZDA LIGHTING BULBS

Miniature Screw or Bayonet Base



Bulb No.	Diam. Inches	Length Overall Inches
13	1/8	2 3/8
131	1/8	2 3/8
518	3/4	1 1/8
1483	7/16	1 1/8
14	9/16	1 15/16
G- 4 1/2	3/4	1 1/8
G- 6	3/4	1 1/8
S- 6	3/4	1 3/4
T- 7	7/8	2 3/4
G- 8	1	1 3/8
S- 8	1	2
RP-11	1 3/8	2 1/8

Fig. 337



Fig. 340

Medium Screw Base

Bulb No.	Diam. Inches	Length Overall Inches
T-10	1 1/4	5 3/8
S-14	1 3/4	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	.25
1.3	.1 amp.	351	Min. Bayonet	.25
2.5	.15 amp.	S-8	D. C.	1.40
2.5	.3 amp.	14	Min. Screw	.22
3.8	.3 amp.	13	Min. Screw	.25
4.0	.55 amp.	518	Min. Screw	.40
6	.04 amp.	1483	Min. Screw	.40
6	1	51	Min. Bayonet	.22
6	1 1/2	G-4 1/2	Min. Bayonet	.16
6-8	3	G-6	D. C.	.16
6-8	6	G-6	D. C.	.18
6-8	15	S-8	D. C.	.33
6-8	21	S-8	D. C.	.36
12	1 1/2	G-4 1/2	Min. Bayonet	.30
12-16	3	G-6	D. C.	.18
12-16	6	G-6	D. C.	.22
12-16	15	S-8	D. C.	.35
12-16	21	S-8	D. C.	.40
32	3	G-6	D. C.	.70
32	6	G-8	D. C.	.80
32	15	S-8	D. C.	.90
32	21	RP-11	D. C.	1.10
110	6 watt	S-6	D. C.	.60
120	10 watt	C-7	D. C.	.50
120	15 watt	T-7	Candelabra	.95

Packed, 10 bulbs to a box.
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	S-11	21 Medium \$.90
12-16	16	S-11	21 Medium 1.00
32	32	S-11	15 Medium 1.50
120	120	S-11	15 Medium 1.25

Packed, 6 bulbs to a box.

Double Filament Bulb

MOGUL BASE FOR THREE WIRE SYSTEM
120 VOLTS



Fig. 532

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	\$5.50	5	3 3/8
100-100	6.00	5	3 3/8

Mazda Searchlight Bulbs Fig. 24

Volts	Watts	Candle Power	No.	Base	Diameter Inches	Length Overall Inches	Each
0-8		32	RP-11	D. C.	1 1/4	2 3/8	\$.40
6-8		50	RP-11	D. C.	1 3/8	2 3/8	.45
6-8		100	G-16 1/2	D. C.	2 1/8	3	2.00
6-8	108	18 amp	P-25	Medium	3 1/8	4 3/4	4.75
12 16		32	RP-11	D. C.	1 1/4	2 3/8	.45
12 16		50	RP-11	D. C.	1 3/8	2 3/8	.70
12-16		100	G-16 1/2	D. C.	2 1/8	3	2.00
12-16	216	18 amp.	P-25	Medium	3 1/8	4 3/4	5.50
32		32	RP-11	D. C.	1 1/4	2 3/8	1.25
32		50	RP-11	D. C.	1 3/8	2 3/8	1.75
32		100	G-16 1/2	D. C.	2 1/8	3	2.25
32	2 amp	150	G-16 1/2	D. C.	2 1/8	3	2.75
32	3.5 amp	256	P-25	Medium	3 1/8	4 3/4	5.50
32		500	G-16 1/2	D. C.	2 1/8	3	2.25
120	100		T-10	Medium	1 1/4	5 1/2	7.00
120	250		T-20	Medium	2 1/2	5 1/2	6.00
120	500		T-20	Medium	2 1/2	5 1/2	10.00
120	1000						



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

Stock single panels are for, "Running Lights," "Anchor Light," "Searchlight," "Blower," "Wiper," "Cabin Lights," "Dome Lights," and "Bilge Pump." All others supplied to order.

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.

With Fuse Holders Each	Without Fuse Holders Each	With Fuse Holders Size Inches	Without Fuse Holders Size Inches
\$17.25	\$12.75	6 1/2 x 4 1/4	6 1/2 x 3 3/4

SPARE PARTS

Ignition Switches, see Fig. 316.
Toggle switches, see Fig. 745.

Fuse Holders, \$.75 each.
Starter Switches, see Fig. 255.

Switch Name Plates

BLACK BAKELITE—ENGRAVED WHITE LETTERING



Fig. 519

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

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

HORN SIREN FUEL PUMP DECK LIGHTS PILOT PANEL LIGHTS CHOKE IGNITION	STARTER FAN MASTER HEATER ON OFF LIGHTS	MASTHEAD LIGHT PORT LIGHT STBD. LIGHT RANGE LIGHT FLOOD LIGHTS TOWING LIGHTS SPREADER LIGHT
---	---	---

Per Dozen	Length Inches	Width Inches	Per Dozen Weight Ounces
\$7.20	1 1/2	1/2	1/2

Packed one dozen each name per box.
Less than one dozen each name \$.80 each.
Special name plates, price on application.

Lighting Switches

FOR ALL VOLTAGES FROM 6 TO 120
TOGGLE TYPE

ALL BRASS—BAKELITE INSULATION

With 2 lock nuts and 6" wire leads.

Each	Length Neck Inches	Diam. Neck Inches
\$.80	7/16	7/16
Maximum	between lock nuts	3/16"

With watertight cap and chain, add \$1.00 each.
Nickel plated, add \$.20 each.



Fig. 745

TOGGLE TYPE WITH FACE PLATE
BRASS—BAKELITE INSULATION

Chromium Plated Each	Size Face Plate Inches
\$1.00	1 x 1 3/8

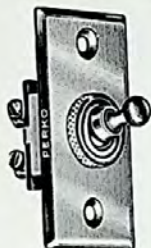


Fig. 718

Push and Pull Switch

ALL BRASS THROUGHOUT

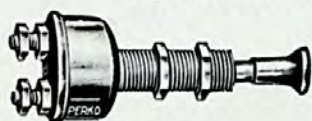


Fig. 105

Diam. Neck In.	Lgth. Neck In.	Lgth. Overall In.
3/8	1	2 3/4

Chromium Plated Each \$1.00

Push and Pull Switch with Face Plate

ALL BRASS THROUGHOUT

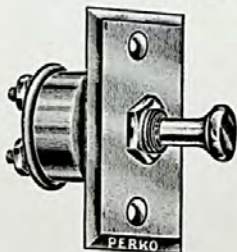


Fig. 216

Diam. Neck Inches	Diam. Body Inches	Dimensions Face Plate Inches
3/8	1 1/16	1 x 1 3/8

Chromium Plated Each \$1.20

Push and Pull Switch

HEAVY DUTY—WITH IVORY KNOB
STEEL OR BRASS

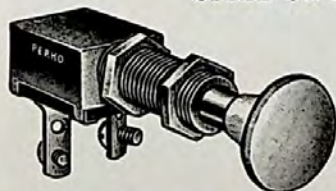


Fig. 94

Heavy duty 2 point 2 terminal with ivory tenite knob.
Neck for 7/8 inch wood, 3/8 inch hole.

No. 1—Steel, cadmium plated, each\$1.00
No. 2—All brass, each 1.15

Momentary Starter Switch

OR DASHBOARD HORN BUTTON
PUSH BUTTON TYPE



Fig. 255

2 point 2 terminal spring action switch with chromium plated button.

Neck for 7/8 in wood, 5/8 in. hole.

No. 1—Steel box with brass parts, each\$1.45
No. 2—All brass, each 2.00

Momentary Starter Switch

PULL TYPE—ALL BRASS

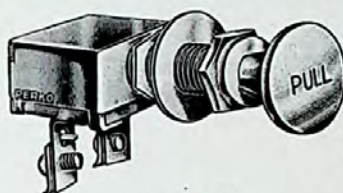


Fig. 142

Also for operation of horn, siren, etc. Rated 20 amps at 6 volts.

2 point, 2 terminal spring action with chrome plated knob imprinted "Pull".

For 7/8 inch wood, 3/8 inch hole.

Each\$1.75

Ignition Lock Switch

2 TERMINAL—2 KEYS

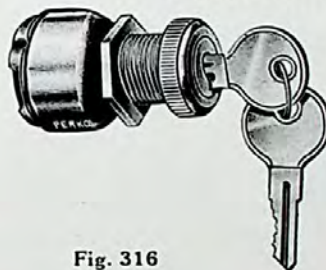


Fig. 316

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

Neck for 3/4 inch wood, 3/8 inch hole.

Each\$1.95

Knife or Battery Switches

FIBRE BASE—SINGLE POLE—30 AMP.



Fig. 70

Single Throw Each	Double Throw Each
\$2.00	\$2.40

FLAT TYPE



Fig. 74

Single Throw Each	Double Throw Each
\$.90	\$1.10



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	\$1.95	2 $\frac{5}{16}$	1 $\frac{1}{8}$	4
3 wire	2.65	2 $\frac{3}{16}$	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.

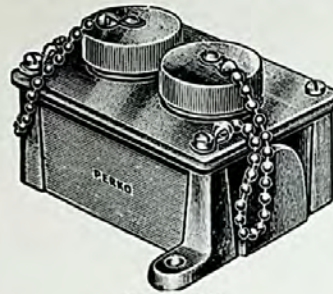


Fig. 1265

GANG TYPE
2 wire only

Gang	Size Inches	Weight Pounds	Each
2 gang	4 $\frac{1}{8}$ x3x2	3	\$ 8.80
3 gang	6 $\frac{1}{4}$ x3x2	3 $\frac{3}{4}$	12.25
4 gang	8 x3x2	5 $\frac{1}{4}$	17.00

Receptacles

FURNISHED UNTAPPED UNLESS SPECIFIED
 MAXIMUM I. P. S. THREAD $\frac{3}{4}$ INCH



Fig. 1262

SURFACE TYPE
2 wire only

Each	Diam. Inches	Height Inches	Weight Pounds
\$5.50	3	1 $\frac{5}{8}$	2 $\frac{1}{4}$

Single Switch and Receptacle

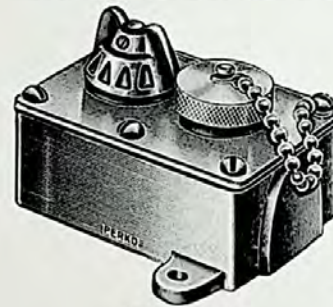


Fig. 1267

Each
\$9.75

Size Inches	Weight Pounds
4 $\frac{1}{8}$ x3x2	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	Depth Inches	Weight Pounds
\$9.00	3	4	1 $\frac{7}{8}$	2 $\frac{1}{2}$

Watertight Connection Box
 CAST BRONZE—SURFACE TYPE

With 4 wire phenolic connection block and rubber gasket.

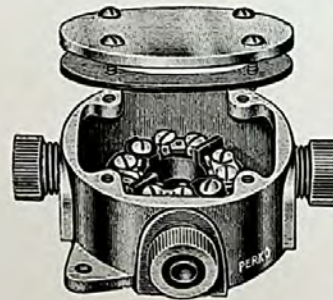


Fig. 1252

Complete Each	Spare Blocks Each	Inside Diam. Inches	Inside Depth Inches	Weight Pounds
\$6.25	\$1.80	3	1 $\frac{3}{8}$	1 $\frac{3}{4}$

Price does not include packing glands in illustration.

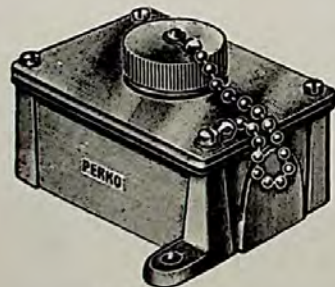


Fig. 1264

RECTANGULAR TYPE

2 and 3 wire

Each	Size Box Inches	Weight Pounds
\$6.40	4 $\frac{1}{8}$ x3x2	3
7.50		

Watertight Fuse Box
 CAST BRONZE—SURFACE TYPE

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

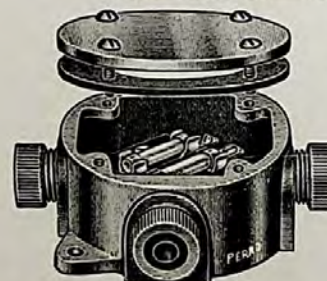


Fig. 1255

Complete Each	Spare Fuse Blocks Each	Inside Diam. Inches	Inside Depth Inches	Weight Pounds
\$7.50	\$3.00	3	1 $\frac{3}{8}$	1 $\frac{3}{4}$

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 \$1.65 FOR EACH GLAND. STATE NUMBER AND POSITION. TAPPING ONLY, ADD \$.35 PER HOLE.

YACHT SIZE RECEPTACLES AND PLUGS

WATERTIGHT — CAST BRONZE BOXES — VOLTAGE 6 TO 125

SMALL AND COMPACT AS PRACTICABLE FOR INSTALLATION WHERE SPACE IS LIMITED

FLUSH TYPE WITHOUT BOX

5 AMP.—2 WIRE

HEAVY DUTY TYPE—10 AMP.—2 WIRE
DOUBLE



Complete With Plug Each	Plug Only Each	Diam. Plate Inches	Depth Inches
\$8.25	\$3.65	2 1/4	3/4



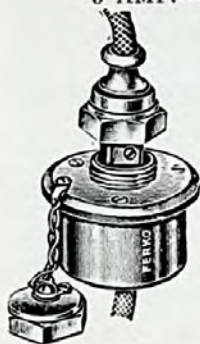
Complete With Plugs Each	Plugs Only Each	Length Inches	Width Inches	Depth Inches
\$16.35	\$3.65	4 1/2	2 1/2	2

Fig. 972

Fig. 968

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

HEAVY DUTY TYPE—10 AMP.—2 WIRE
WITH TURN SWITCH



Complete With Plug Each	Plug Only Each	Diam. Plate Inches	Diam. Box Inches	Depth Box Inches
\$9.65	\$3.65	2 1/4	1 5/8	1 1/4



Complete With Plug Each	Plug Only Each	Length Inches	Width Inches	Depth Inches
\$16.00	\$3.65	4 1/2	2 1/2	2

Fig. 973

Fig. 969

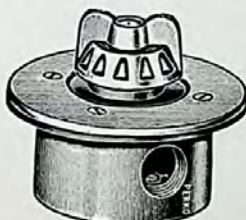
HEAVY DUTY TYPE—10 AMP.—2 WIRE



Watertight Snap Switch

FLUSH TYPE OR SURFACE TYPE—10 AMP.
2 WIRE

Ratchet under knob to prevent turning in wrong direction.



	Diam. Plate Inches	Diam. Box Inches	Depth Box Inches
Flush Type	4	3	1 1/2
Surface Type		3	1 1/2

	Flush Type	Surface Type
Single Pole Switch	\$11.85	\$ 9.65
Double Pole Switch	12.40	10.70

Fig. 974

Single Pole Switch
Double Pole Switch

Fig. 970 Complete Each \$12.00

Fig. 971 Complete Each \$11.00

Plug Only Each \$3.65

Diam. Plate Fig. 970 Inches 3 1/2
Diam. Box Fig. 971 Inches 2 3/4

Figs. 970 and 971 can be supplied for 3 wire circuit, add \$10.25 each.
3 wire plugs only, \$7.25 each.

Watertight Push Buttons CAST BRONZE



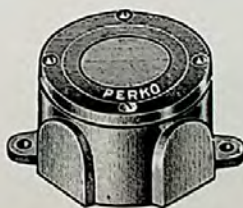
With nickel silver springs, platinum contacts, rubber gaskets and pig skin cap over button, with screws.

Polished Bronze Each	Chromium Plated Each	Diam. Base Inches
\$5.40	\$6.75	2 5/8

Fig. 978

Watertight Junction Boxes CAST BRONZE—SURFACE TYPE

With rubber gasket.
For 4 way tapping.



No.	Each	Inside Diam. Inches	Weight Pounds
1	\$4.00	2 1/4	1
2	4.85	3	1 1/4

No.	Inside Depth Inches	Weight Pounds
1	1 3/8	1
2	1 3/8	1 1/4

Fig. 1257

Note — Above are only tapped to order, add \$.35 for each hole. Figs. 968 and 969 are for 5/16 inch O. D. cable, heavy duty type are for 1/2 inch 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	\$1.80	\$2.80	1 1/2 x 1 3/8
Plug Only	1.80	2.80	1 1/2 x 1

Spare electric sockets only, see fig. 747, No. 3.

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
	\$3.30	\$4.40	\$.55	1 1/2 x 1 1/4

Watertight Cable Outlet
BRASS—FOR 1/16 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
	\$1.10	\$2.00	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. thread.

No.	Each	Size Thread Inches
1	\$.55	1/8
2	.55	3/8

No.	Height Inches	Extreme Diameter Inches	Weight Doz Pours
1	1 7/8	1 3/8	1
2	1 7/8	1 3/8	1

Mogul 3 Wire Socket

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

For use with double flame bulb Fig. 532.



Fig. 270

	Each	Height Inches	Weight Ounce
	\$3.50	2 3/16	6

Outside Diam. Inches	C to C of Mounting Holes Inches	Weight Ounce
2 1/8	1 3/8	6

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

Socket Supports

BRASS—3/8 INCH I. P. S. THREAD

Used in Fig. 1150 series Navigation Lights 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	\$1.00	1	7/8 x 2 1/2
2	1.30	2 1/4	7/8 x 2 1/2

No.	C to C of Holes Inches	Weight Ounce
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	\$.60	2 1/4
2	.80	2 1/4

Width Inches	Thickness Inches	Length Fuse Inches
1	1/8	1 1/4
1 3/8	1/8	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	\$.70	\$.10	1 5/8	2 x 1 1/4	1 1/2
2	1.00	.10	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 Socket

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	\$.70	1 3/8	7
1	.70	1 5/8	8
2	.70	2	11
3	.70	2 3/8	14

Socket Support

BRASS—FOR FIG. 276 SOCKET



Fig. 277

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

Each	Height Inches	Size Base Inches	Weight Dozen Ounces
\$.65	3/8	5/8 x 1 1/2	6

Bayonet Double Contact Socket

BRASS CASE—HARD RUBBER INSULATION



Fig. 747

No.	Each	Length Inches	Diam. Inches	Weight Dozen Ounces
1	\$.40	7/8	1 1/16	5
2	.40	1	1 1/16	5
3	.40	1 1/4	1 1/16	6
4	.40	1 1/4	1 1/16	6
5	.40	1 1/4	1 1/16	6

- No. 1 Wires enter side, screws in bottom.
- No. 2 Wires enter bottom, screws in opposite sides.
- No. 3 Wires enter bottom, screws in opposite sides.
- No. 4 Wires enter bottom, screws in same side.
- No. 5 Wires enter side, screws in bottom.

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

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	\$.60	1 3/8	1 x 1 1/2	12
76	.75	1 3/8	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	\$.75	Double contact	1	1 3/8	9
21	.75	Single contact			



Double Contact Plug and Socket



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.
\$1.10	1 1/8 x 1 1/2	1 1/16	1 3/8	14

Fig. 399

Bayonet Double Contact Socket

FLANGED TYPE—BRASS AND HARD RUBBER



Each	Length Inches	Diam. Inches	Weight Dozen Ounces
\$.60	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

Fig. 377

Bayonet Double Contact Adapter

ALL BRASS



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.....\$1.60

Fig. 548

Bayonet Double Contact Adapter

BRASS AND HARD RUBBER



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
\$.75	1 1/4	7/8	8

Fig. 355

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
\$.60	\$.40	1 1/2	3/4	1 1/16	8

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
\$.90	9/16 x 1 3/8	6

Brass Dagger Connectors

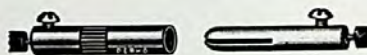


Fig. 283

These are very handy "pull apart" connectors for many uses. Dimensions 1 1/2 x 3/16 inches.

Each Set (as illustrated)\$.30

Ship to Shore

Heavy Duty Connector

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

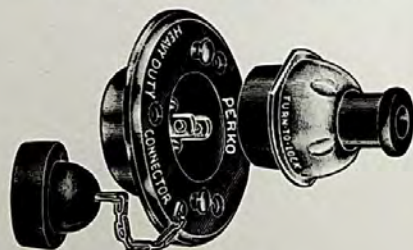


Fig. 72

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

Each	Diam. Base Overall Inches	Depth of Base Inches	Diam. Hole Required Inches	Weight Ounces
\$2.65	3 3/8	3/4	1 3/4	5

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		Shade Only Each	Height Inches	Diam. Base Inches	Size of Shade Inches	Size of Globe Inches	Weight Pounds
	Polished Brass Each	Less Chromium Plated Each						
1210-A	\$29.50	\$36.00	\$5.75	19	4 1/4	9x15x 9	6	3
1210-B	34.00	41.50	8.00	21 1/2	5 3/4	10x18x10 1/2	8	4
1211	18.50	21.25	4.25	14	4 1/4	6x10x 6 1/2	3 5/16x3 3/16	2
1212-A	22.50	26.00	6.00	18 3/4	5 3/4	10x14x 9	4 1/4 x 4	3
1212-B	28.00	32.00	8.00	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 with colored globe (red, green, or blue) add \$3.50 each.

Fig. 1211 with colored lens (red, green, blue or amber) add \$.75 each.

Fig. 1212-A with colored lens (red, green, blue or amber) add \$1.50 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

“Skipper”



Fig. 1216

“Trade-Wind”



Fig. 1217

Fig.	Lamp Only Less Shade		Shade Only Each	Height Inches	Diam. Base Inches	Size of Shade Inches	*Diameter Wheel Inches	Weight Pounds
	Pollished Brass Each	Chromium Plated Each						
1213	\$19.50	\$22.00	\$4.25	15	5½	5x 9x6½	4%	2¾
1214	17.50	20.00	**3.00	15	5½	5x 9x6½		2½
1215	17.50	20.00	4.25	15	5½	5x 9x6½		2¾
1216	30.00	36.50	6.00	20½	5¾	10x14x9	8½	4¾
1217	24.00	30.00	6.00	20½	5¾	10x14x9		5

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.

"Sea-Gull"



Fig. 1218

A small colorful lamp ideally suited for children's room or night table.

Has two marine fresnel lenses, one red, the other green. Creates an attractive night light which does not disturb slumber.

Has sockets in top and bottom with three-way switch and a hand painted nautical shade.

Lamp Only		Shade Only Each	Height Inches	Diam. Base Inches	Size Shade Inches	Weight Pounds
Polished Brass Each	Chromium Plated Each					
\$15.50	\$18.00	\$3.25	12½	4½	4x8x6	1¼

"Lighthouse"

CAST ALUMINUM—STEEL GRAY FINISH



Fig. 868

A pair of these on the fireplace mantle of a yacht club, marine room or den creates an attractive nautical effect. A practical trophy for a boat race or regatta.

Complete with toggle switch in base, a 110 volt bulb and candelabra screw socket.

Each	Height Overall Inches	Diameter Base Inches	Weight Pounds
\$19.50	11¾	6¾	3½

Nautical Table

ALL PHILIPPINE MAHOGANY WITH WHITE HOLLY INLAY
¼ INCH PLATE GLASS TOP



Fig. 870

A very attractive table with all the atmosphere of the sea, the wheel is an authentic ships wheel set on pedestal and base to create a cocktail or coffee table for those nautically minded. The plate glass is set in flush with the wood rim. Color is natural with three coats of spar varnish.

Each	Diameter Overall Inches	Height Overall Inches	Size Base Inches	Weight Pounds
\$125.00	36	18¼	16½x16½	42

Cased or crated for shipment \$3.00 net extra. Supplied with hand rubbed satin finish to order. Special sizes can be supplied to order.

Plain Shades

FOR TABLE LAMPS
PAPER PARCHMENT



Fig. 1220

For those who prefer to paint or mount their own designs, photos, decals, etc.

No.	Each	Diameter Top Inches	Diameter Bottom Inches	Height Inches	Weight Ounces
1	\$2.50	5	9	6½	6
2	4.00	10	14	9	10

Size No. 1 has spring clip for bulb and is suitable for lamps Fig. 1211, 1213, 1214, 1215.

Size No. 2 has washer for mounting on harp and is suitable for lamps Fig. 1212, 1216, 1217.



“PERKO” MARINE HOUSE FIXTURES

These are not imitations of marine lamps, they are the real thing, with authentic fresnel lenses and solid brass metal parts. The same 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.

Exceptionally desirable for homes along the waterways, yacht clubs, establishments with marine motif or nautical atmosphere, marine rooms or dens, etc.

All complete with Coast Guard approved medium screw electric socket in the upper section and a hinged dome bottom with diffusing globe for illumination below the fixture. NOT WIRED.

Marine Pattern WITH CLEAR FRESNEL LENS



Ring in Top
Fig. 853



Wall Type
Fig. 856



Ceiling Type
Fig. 858

No.	Fig. 853		Fig. 856		Fig. 858		Height Lamp Inches	Diam. Lamp Inches	Size Lens Inches	Diam. Wall Plate Inches	Diam. Ceiling Canopy Inches	Approx. Weight Pounds
	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each						
1	\$13.00	\$16.00	\$17.00	\$21.00	\$15.25	\$19.25	8 5/8	4 1/2	3 5/16 x 3 3/16	4 1/2	4 1/2	3
2	15.00	18.00	18.75	22.75	17.25	21.25	11 3/4	5 5/8	4 1/4 x 4	4 1/2	4 1/2	4

Sou'wester Pattern WITH CLEAR FRESNEL LENS



Ring in Top
Fig. 845



Wall Type
Fig. 862



Ceiling Type
Fig. 863

No.	Fig. 845		Fig. 862		Fig. 863		Height Lamp Inches	Diam. Lamp Inches	Size Lens Inches	Diam. Wall Plate Inches	Diam. Ceiling Canopy Inches	Approx. Weight Pounds
	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each						
1	\$12.75	\$14.00	\$14.75	\$18.75	\$14.75	\$17.00	8 1/2	4 3/8	3 5/16 x 3 3/16	4 1/2	4 1/2	2 1/2
2	14.75	16.00	16.75	20.75	16.75	19.00	11	5 3/4	4 1/4 x 4	4 1/2	4 1/2	3 1/2
3	23.00	25.50	25.00	31.00	25.00	28.50	13	7	5 1/2 x 5 1/4	4 1/2	4 1/2	6

NOTE—ALL ABOVE LIGHTS WITH COLORED LENS (RED, GREEN, BLUE OR AMBER) SIZE NO. 1 ADD \$1.00 EACH. SIZE NO. 2 ADD \$1.00 EACH. SIZE NO. 3 ADD \$4.50 EACH. WITH OPEN BOTTOM (No Hinged Dome) DEDUCT \$1.00 EACH.

Whaler Pattern

WITH CLEAR TRANSPARENT GLOBE—NOT WIRED

Centuries ago this style was a whale oil burning lamp used aboard ship for navigational and illuminating purposes, and is still used today for signalling.



Ring in Top
Fig. 833



Wall Type
Fig. 866



Ceiling Type
Fig. 867

No.	Fig. 833		Fig. 866		Fig. 867		Height Lamp Inches	Diam. Globe Inches	Diam. Wall Plate Inches	Diam. Ceiling Canopy Inches	Approx. Weight Pounds
	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each					
1	\$22.00	\$26.50	\$26.00	\$32.00	\$24.00	\$29.50	11	6	4 1/2	4 1/2	2 3/4
2	24.75	29.50	29.50	38.00	26.75	32.50	14	8	4 1/2	4 1/2	4 1/4
3	49.00	55.50	53.00	63.00	51.00	58.50	16 1/2	10	4 1/2	4 1/2	6 1/2

With frosted or colored globe (red, green or blue), Sizes 1 or 2, add \$3.00 each. Size No. 3 add \$4.00 each.

Size No. 1 not available with green globe.

With open bottom (no hinged door) deduct \$1.00 each.

Brass Cable Straps

FOR CABLE, TUBING, CONTROL WIRE, ETC.



Fig. 121

Inside Diam. Inches	Per 100	Length Inches	Width Inches
1/8	\$2.25	1 7/16	1/2
3/16	2.50	1 3/8	1/2
1/4	2.75	1 9/16	1/2
5/16	2.75	1 3/16	1/2
3/8	3.00	1 5/8	1/2
7/16	3.25	1 5/8	1/2
1/2	3.50	1 1/2	1/2
5/8	4.25	1 3/4	1/2
3/4	4.50	1 7/8	1/2

FOR LEAD COVERED CABLE



Fig. 1076

Per 100	Size Inside Inches	Length Inches	Width Inches
\$4.50	7/32 x 7/16	1 1/2	1/2

Line Support Clips

ALUMINUM

WITH SYNTHETIC RUBBER CUSHION

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



Fig. 163



Fig. 164



Fig. 165

SINGLE LINE

For O.D. Line Inches	Per 100	Width Inches
3/16	\$ 6.00	3/8
1/4	6.50	3/8
5/16	8.00	1/2
3/8	8.50	1/2
1/2	9.25	1/2

DOUBLE LINE

For O.D. Line Inches	Per 100	Width Inches
3/16	\$13.00	3/8
1/4	13.50	3/8
5/16	14.00	1/2
3/8	14.50	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	18.50	1/2
3/8	19.00	1/2
1/2	21.00	1/2



“PERKO” SEALED BEAM SEARCHLIGHTS

POLISHED BRASS OR CHROMIUM PLATED

WITH CLEAR LENS — NOT FLUTED

SIZE NO. 1 — 6 VOLT ONLY — 30 WATT — RANGE ABOUT 1/4 MILE — 50,000 BEAM CANDLEPOWER

SIZE NO. 2 — 6 AND 12 VOLT — 40 WATT — RANGE ABOUT 1/3 MILE — 115,000 BEAM CANDLEPOWER

SIZE NO. 3 — 6 AND 12 VOLT — 100 WATT — RANGE ABOUT 1/2 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 thru pilot house roof.

Deck Control

WITH TOGGLE SWITCH IN HEAD
WIRING NOT VISIBLE



Fig. 436

No.	6 Volt		Diam. Lens Inches	Diam. Base Inches	Height Above Deck Inches	Weight Pounds
	Polished Brass Each	Chromium Plated Each				
1	\$18.00	\$19.75	4½	4	9	2
2	21.50	23.50	6	4	10½	2½
3	24.50	27.50	7	6¼	13	4

12 volt, sizes No. 2 and 3 only, add \$1.75 each.

Pilot House Control

WIRING NOT VISIBLE

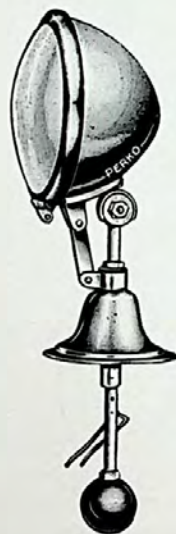


Fig. 437

Length of control below base, 8 inches.

No.	6 Volt		Diam. Lens Inches	Diam. Base Inches	Height Above Deck Inches	Weight Pounds
	Polished Brass Each	Chromium Plated Each				
1	\$29.50	\$32.00	4½	4½	8¾	2½
2	32.00	34.50	6	4½	10¼	3
3	36.00	40.00	7	6¼	13½	5

12 volt, sizes No. 2 and 3 only, add \$1.75 each.

Deck Control

WITH TOGGLE SWITCH IN HEAD
RUBBER COVERED WIRING VISIBLE



Fig. 454

No.	6 Volt		Diam. Lens Inches	Diam. Base Inches	Height Above Deck Inches	Weight Pounds
	Polished Brass Each	Chromium Plated Each				
1	\$14.75	\$16.50	4½	4	9	2
2	18.00	20.00	6	4	10½	2½
3	21.50	23.00	7	6¼	13	4

12 volt, sizes No. 2 and 3 only, add \$1.75 each.

NOTE—Size No. 3 is equipped with lever type control shown below instead of ball.



Lever type control supplied with Fig. 437 Size No. 3 only at prices shown above.

New Telescoping Searchlights

BRASS—CHROMIUM PLATED
FOR MOUNTING AFT OF WINDSHIELD
SEALED BEAM—6 OR 12 VOLTS



Fig. 240

Completely adjustable in height and angle, to permit mounting on any type and size of runabout regardless of height or angle of windshield.

Height can be increased to 15 inches below the head or reduced to 8 inches if desired.

Complete with toggle switch in head.

No.	6 Volt Each	12 Volt Each	Diam. Lens Inches	Dimensions Base Inches	Weight Pounds
1	\$29.00		4 1/2	3 x 1 1/2	3
2	29.50	\$31.25	6	3 x 1 1/2	3 1/4

Combination Light and Searchlight

POLISHED BRASS OR CHROMIUM PLATED
SEALED BEAM SEARCHLIGHT
6 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.

Polished Brass Each	Chromium Plated Each	Height Overall Inches	Size Base Inches	Weight Pounds
\$26.00	\$30.00	9	3 3/4 x 6 1/4	2 1/4

New Remote Control Searchlights

FOR OPERATION FROM DASH
SEALED BEAM—6 OR 12 VOLTS

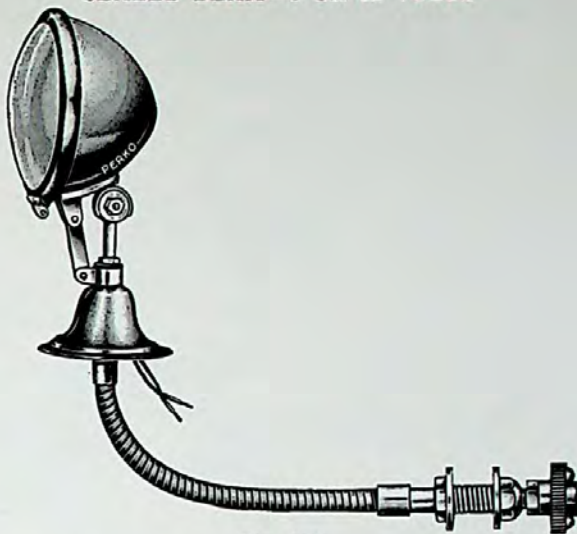


Fig. 241

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.

Electric cable is not exposed, it passes through controls and exits under the base.

No.	Diam. Lens Inches	Height Above Deck Inches	Diam. Base Inches	Weight Pounds
1	4 1/2	10 1/2	5 1/4	2 1/2
2	6	12	5 1/4	3

No.	6 Volts		12 Volts	
	With 30 Inch Control—Polished Brass Each	With 40 Inch Control—Chromium Plated Each	With 30 Inch Control—Polished Brass Each	With 40 Inch Control—Chromium Plated Each
1	\$42.50	\$48.00	\$44.00	\$49.50
2	43.50	49.00	45.00	50.50

12 volt, Size No. 2 only, add \$1.75 each.

With special length of control—price on application.

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		4 1/2	30	50M	1/4 mile
2	2.50	\$3.25	6	40	115M	1/3 mile
3	5.50	5.50	7	100	200M	1/2 mile

New 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 6 volt sealed beam spotlight unit, range about ¼ mile, supplied with or without chrome plated wire stand illustrated.

Without Stand Each	With Stand Each	Diameter Lens Inches	Weight Pounds
\$16.50	\$18.00	4 ½	2

Supplied with cigar lighter plug unless otherwise specified.

Bracket Type Searchlights

WITH SEALED BEAM SPOTLIGHT UNIT
POLISHED BRASS OR CHROMIUM PLATED



Fig. 438
Clamp Bracket



Fig. 439
Permanent Bracket

Supplied complete with toggle switch in head, brackets are cast bronze.

Clamp bracket will fit mounting up to 1 ½ inches in diameter.

Permanent bracket is 2 ½ x ¾ inches.

Supplied for right or left side mounting, right supplied unless otherwise specified.

No.	6 Volt		Diam. Lens Inches	Range About	Watts	Weight Pounds
	Polished Brass Each	Chromium Plated Each				
1	\$21.00	\$23.50	4 ½	¼ mile	30	2
2	22.00	24.50	6	⅓ mile	40	2 ½

12 volt, size No. 2 only, add \$1.75 each.

"Sunbeam" Searchlights

WITH CHROMIUM PLATED REFLECTOR
6 OR 12 VOLT—50 CANDLEPOWER
BAYONET DOUBLE CONTACT SOCKET
ENCASED WIRING—FOCUSING DEVICE
WATERTIGHT GLANDS AT CABLE
AND CONTROL ROD ENTRANCES
RANGE—ABOUT ½ MILE
For higher power see notes below.

Pilot House Control



Fig. 306

No.	Polished Brass Each	Chromium Plated Each	Diam. Reflector Inches	Diam. Reflector Inches	Height Above Deck Inches	Diam. Base Inches
3	\$77.00	\$ 91.00	8	7 ¾	14	5 ½
4	98.50	112.50	8	7	14	5 ½

Length control rod below base, 10 inches.

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. Reflector Inches	Diam. Reflector Inches	Height Above Deck Inches	Diam. Base Inches
3	\$53.00	\$63.00	8	7 ¾	14	5 ½
4	63.00	73.00	8	7	14	5 ½

No. 4 has mangin mirror reflector and 100 C. P. bulb.
Note — Figs. 305 and 306 with 6 or 12 Volt 100 C. P. bulb, add \$1.75 each. With 32 Volt 50 C. P. bulb, add \$1.75 each. 32 Volt 100 C. P. bulb, add \$2.50 each. Spare lenses, reflectors, bulbs, etc., see pages 47 and 6



“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.

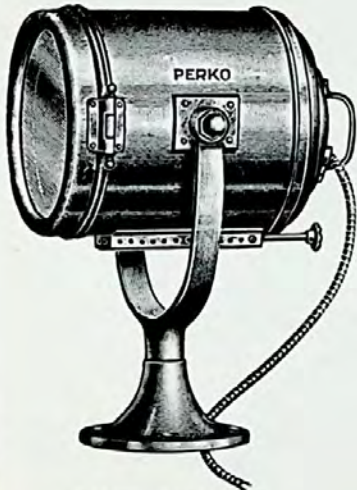
REFLECTORS—a glass mirror reflector, which projects a highly concentrated beam of light a great distance.

FOCUSING DEVICE—of patented design, containing no wires to twist or break; very easy to control.

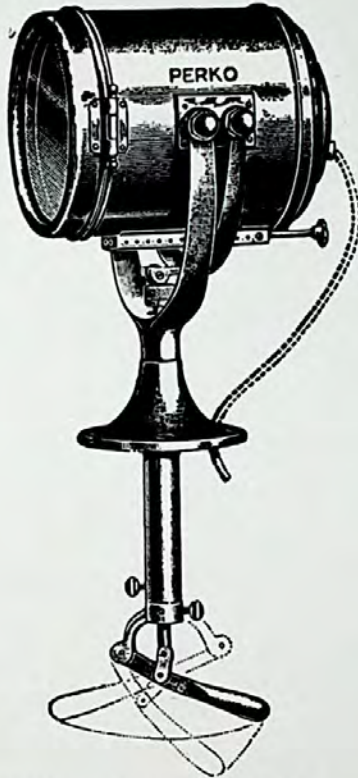
PILOT HOUSE CONTROLS—are of the wheel or lever type, both having their distinct advantages.

WIRING—enclosed in flexible metal hose, fully protected from weather.

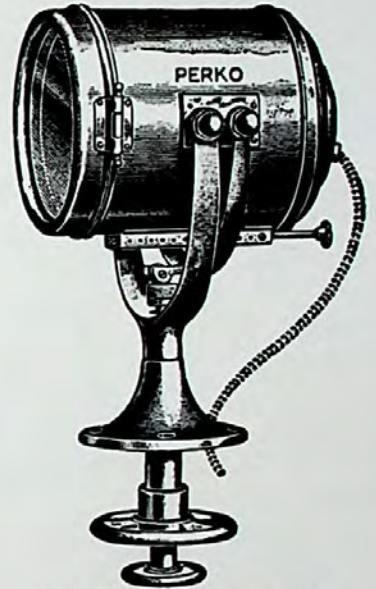
BULBS—Bulbs furnished as standard equipment in various voltages are as follows—6 volts, 18 amps.; 12 volts, 18 amps.; 32 volts, 8 amps.; 120 volts, 500 watt. Can also furnish 120 volts, 250 or 1000 watt bulbs for additional price. See notes below.



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	12 ¾	7 ¾	19	30	6 ¾
10	10	up to 1 mile	590,000	14 ¾	9 ½	21	34	6 ¾
12	12	up to 1 ½ miles	700,000	17	11 ¾	24	41	6 ¾
14	14	up to 2 miles	850,000	19	13 ½	26	56	8 ½

Fig. 480

Size Inches	Polished Brass Each	Chromium Plated Each
8	\$160.00	\$180.00
10	180.00	205.00
12	225.00	255.00
14	280.00	310.00

Fig. 297

Size Inches	Polished Brass Each	Chromium Plated Each
8	\$180.00	\$210.00
10	205.00	235.00
12	250.00	285.00
14	305.00	340.00

Fig. 529

Size Inches	Polished Brass Each	Chromium Plated Each
8	\$200.00	\$230.00
10	225.00	255.00
12	270.00	305.00
14	325.00	360.00

NOTES

With 120 volt 250 watt bulb, add \$2.00 each.
 With 120 volt 1000 watt bulb (special construction) in 12 or 14 inch sizes only, add \$55.00 each.
 Spare bulbs, reflectors, lenses, etc. See pages 47 and 65.

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, 6 ½ in. Special length of pilot house control on Fig. 297 only to order, price on application.
 Spare medium screw sockets, \$1.00 each.

Floodlights

ENCLOSED — WEATHERPROOF

An economically priced line with choice of types to fill most requirements.

CLAMP TYPE
with Mogul Socket

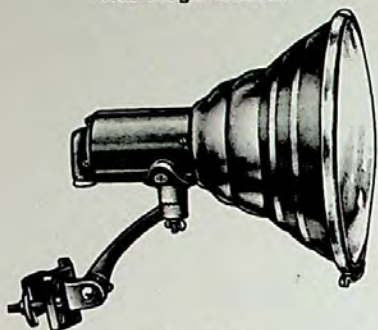


Fig. 227

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
\$24.00	\$7.00	\$4.00	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

Spreader Floodlight

ALL BRASS—CHROMIUM PLATED
DOUBLE CONTACT BAYONET SOCKET
WITH 6, 12 or 32 VOLT—15 C.P. BULB



Fig. 254

Each	Diam. Reflector Inches	Projection From Spreader Inches	Size Mounting Plate Inches	Weight Ounces
\$9.75	4¾	3½	6 x 1	8

Please specify voltage. 6 volt supplied unless otherwise specified.

Cargo Reflectors

HEAVY GAUGE SPUN ALUMINUM
HINGED GUARDS WITH LOCKING DEVICE

Heavy duty portable lights for lighting holds, docks, piers, decks, etc.

The guard ring encircles the beaded rim of the reflector acting as a bumper protecting reflector and lamps from damage.

The cluster type permits continuous operation in event of individual lamp failure. Clusters are easily removable for wiring. Approved waterproof glass and gasketed clusters make these units weatherproof. Guards are galvanized.

SINGLE LAMP TYPE
MOGUL SOCKET

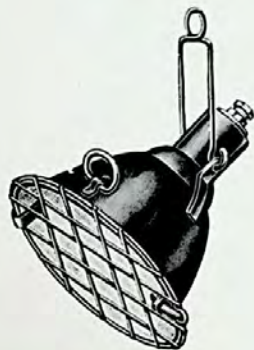


Fig. 36

No.	Each	Diam. Reflector Inches	Watts	Weight Pounds
1	\$21.00	14	300-750	6½

CLUSTER TYPE
MEDIUM SCREW SOCKETS



Fig. 37

No.	Each	No. Lamps	Diam. Reflector Inches	Watts	Weight Pounds
2	\$24.00	4	16	60-100	
3	26.00	5	16	60-100	

NOTE—Above reflectors with 50 feet of rubber covered No. 16 wire and plug, add \$16.50 each.

For illumination of sails and rigging when unrolled way at night, or for flood-lighting decks, anchorages, docks, etc.

For attachment to narrow spreader. An additional reflector around neck of bulb makes fixture waterproof.

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	\$10.00	Mangin	305-306 No. 4
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

Extreme Diam. Inches	Each	For Searchlights Fig. and Size
7	\$7.25	Old 1022-1023
7 7/8	8.00	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	\$2.00	Convex	Old 1022-1023
7 3/4	2.25	Convex	305-306 Nos. 3 & 4
8 3/8	2.50	Flat	297-480-529—8 inch
10 1/4	2.85	Flat	297-480-529—10 inch
12 1/4	3.60	Flat	297-480-529—12 inch
14 1/4	4.75	Flat	297-480-529—14 inch

Cruiser Binnacle

WROUGHT BRASS—TWO PIECE



Fig. 401

Removable head allows easy access to compass. Furnished complete with double contact electric fixture for illuminating compass at night. Head is held fast to base by internal catch.

For Size Compass Inches	Height Overall Inches	Inside Diam. Inches	Diam. Base Inches	Between Compass Supports Inches	Weight Less Compass Pounds
4	7 1/2	6 1/2	9	6	1 1/2
5	8 3/4	7 7/8	10	7 3/8	2 3/4

For Size Compass Inches	Without Compass		With Oil Compass	
	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each
4	\$29.00	\$35.00	\$54.00	\$60.00
5	34.00	41.00	66.00	73.00

Skylight Binnacle BRASS



Fig. 534



Night Hood

Extra heavy brass throughout. Complete with night hood and double contact electric fixture.

No.	For Size Compass Inches	Height Overall Inches	Inside Diam. Inches	Diam. Base Inches	Between Compass Supports Inches
1	4	11	6 1/2	10	6

No.	Without Compass		With Oil Compass	
	Polished Brass Each	Chromium Plated Each	Polished Brass Each	Chromium Plated Each
1	\$36.00	\$42.00	\$61.00	\$67.00

NOTE—Compass supplied with above Binnacles is Fig. 487. With other types, price on application.



New "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
\$35.00	4 7/8	5 1/4	3

Supplied with Flush Shelf Mounting if desired, add \$4.50 each.

THE "GUIDARE" SAILBOAT MODEL

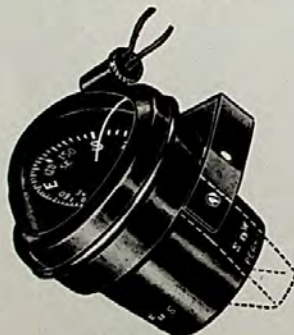


Fig. 562

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
\$55.00	4 7/8	5 1/4	3

Supplied with Flush Shelf Mounting if desired, add \$4.50 each.

New "Star" Spherical Compass The "Guidare" In Semi-binnacle

POLISHED BRASS OR CHROMIUM PLATED

The "Guidare" compasses Figures 448 or 562 illustrated on this page are available in semi-binnacle deck or shelf mounting on cruiser or sailboat.



Fig. 560

With Fig. 448 Polished Brass Each	With Fig. 562 Polished Brass Each	With Chrom. Plated Each	Binnacle only Polished Brass Each	Chrom. Plated Each	
\$47.00	\$50.00	\$67.00	\$12.00	\$15.00	
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 3/8	1 1/2

"Star" Spherical Dome Oil Compass

WITH REDUCED BLACK DIAL—MAGNIFIED COMPLETE WITH MAHOGANY BOX



Fig. 463

The "Star" Spherical Dome Oil Compass gives to the marine field an inexpensive compass embodying many practical features not found in more expensive types.

The small diameter magnified card assures steady under all sailing conditions, reduced surface friction and liquid drag. It is easy to read at 15 foot distance in a standing or sitting position within a range of 15 degrees.

Diameter Dial Inches	With Box Each	Outside Diam. Gimbal Inches	Outside Meas. Inches
3	\$36.00	4 3/4	6 1/8 x 6
4	43.00	6	7 1/8 x 6
5	52.00	6 7/8	8 1/2 x 6



"Star" Oil Compasses

WITH DIAMOND POLISHED 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.

Trade Size Inches	Exact Diam. Card Inches	With Box Each	Outside Diam. Gimbals Inches	Outside Meas. Box Inches
2	2 1/16	\$13.35	3 3/8	4 1/4 Diam.
2 1/2	2 9/16	15.25	4 1/4	5 3/8 x 5 3/8
3	3 1/16	20.60	4 3/4	6 1/8 x 6 1/8
4	4	26.60	6	7 1/8 x 7 1/8
5	4 3/4	34.40	6 7/8	8 1/2 x 8 1/2
6	5 1/4	45.50	7 7/8	9 3/8 x 9 3/8

"Star" Pathfinder Compasses

INDIRECT ILLUMINATION
MAGNIFIED DIAL

Designed for small boats, cruisers runabouts etc. These compasses are not toys or gadgets but are carefully made for boat use and for mounting where it would be inconvenient for the regular type of box compass.

BULKHEAD TYPE
WITH MAGNETIC COMPENSATORS



Fig. 33

Each	Diam. Face Inches	Depth Inches	Diam. Mounting Inches	Weight Ounces
\$16.00	2 1/4	2 3/4	3 1/8	13

UNIVERSAL TYPE
WITH MAGNETIC COMPENSATORS

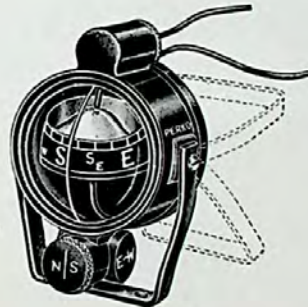


Fig. 34

Each	Diam. Face Inches	Depth Inches	Height Overall Inches	Weight Ounces
\$16.00	2 1/4	2 1/4	4	12

FLUSH TYPE FOR DASHBOARD
WITHOUT COMPENSATORS



Fig. 447

Each	Diam. Face Inches	Diam. Plate Inches	Diam. Hole in Dashboard Inches	Weight Ounces
\$16.00	2 1/4	3 1/2	3	10

"Ritchie" Spirit Compasses
REGULAR FLAT TOP—WITHOUT BOX



Fig. 987

Marked to 360 degree with cardinal and inter-cardinal points.

Trade Size Inches	Exact Diam. Card Inches	Regular Type Each	Under-lighted Type Each	With Mahogany Box Add Each	Diam. Gimbals Ring Inches
4	4	\$49.00	\$70.00	\$12.75	6
5	4 1/2	56.50	84.50	16.50	6 7/8
6	5 1/4	65.50	95.00	22.00	8 3/8

Electric Compass Light



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.

Polished Brass Each	Chromium Plated Each	Height Overall Inches
\$3.60	\$4.25	8

NOTE — Shield will accommodate a G-6 bayonet D.C. bulb 6, 12 or 32 volt.

Fig. 707



New Lucite Parallel Rules

TRANSPARENT
WITH BRASS, CHROMIUM PLATED BARS

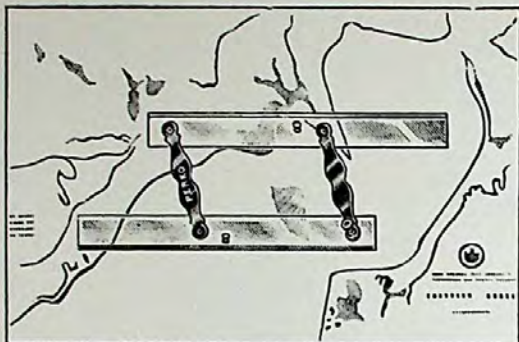


Fig. 630

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	\$6.25	2 1/2	5
15	7.50	2 1/2	6 1/2

Parallel Rules

EBONY FINISH—BRASS, NICKEL PLATED PARTS



Fig. 686

Length Closed Inches	Each	Width Closed Inches	Weight Ounces
12	\$3.75	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.	Description	Price
1	Length, 5 1/2 inches, each	\$2.20
2	Length, 7 inches, each	4.00

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	\$7.50	\$14.00
4	36	9.00	16.50

Improved Course Protractor

INDICATES COURSE AND REVERSE COURSE
TRANSPARENT

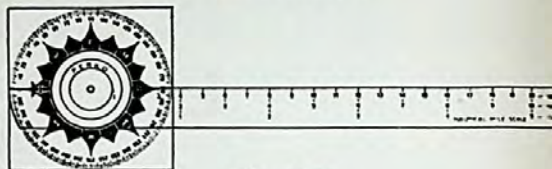


Fig. 706

Arm has various mileage scales used on all coast and harbor charts.

Arm extended on short end to show reverse course.

A precision instrument, accurate in detail. Position, 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

Straightedge

MAPLE BLADE—TRANSPARENT PLASTIC EDGE

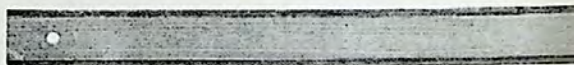


Fig. 712

No.	Each	Length Inches	Width Inches
1	\$5.50	30	2 1/2
2	6.25	36	2 1/2
3	7.25	42	2 1/2

Yacht Log Books

100 PAGES—NEAT PRINTING

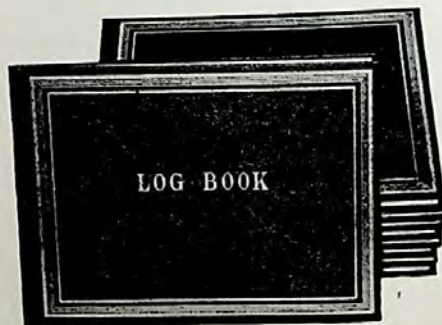


Fig. 708

In addition to pages for log data, these books contain useful information such as extracts from Bowditch's Practical Navigator on symbols for weather, state of sea, cloud formations, force of wind, etc.

No. 1	Binding: Imitation leather, pebble finish, board green color, gold letters, without border. Each	\$3.00
No. 2	Binding: Imitation leather, pebble finish, blue color, gold letters and gold border. Each	\$4.00

Automatic Boat Drainers

BRASS TUBING—CAST BRONZE FITTINGS
BALL TYPE—STREAMLINE

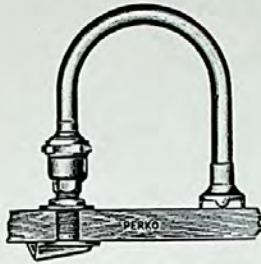


Fig. 397

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	¾	up to 1½	2
2	18.00	15½	1½	up to 2¼	4

SPARE RUBBER BALLS

Size No. 1, 1¼ inch diameter, per dozen	\$1.50
Size No. 2, 1¾ inch diameter, per dozen	3.00

Small Boat Drainer

CAST BRONZE—PLAIN



Fig. 386

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 ¾ inch or thicker but may be used with thinner hulls by cutting away necessary portion of neck.

Depth of mouth below hull is ¾ inch.

Each	Height Inside Boat Inches	Width Overall Inches	Weight Pounds
\$5.25	2¾	2½	1¼

New Garboard Drain Plugs

CAST BRONZE—PLAIN



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	¾	2¾	¾	11

Garboard Drain Plugs

CAST BRONZE—PLAIN



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.	Plain Bronze Each	Pipe Size Inches	Diam. Flange Inches	Depth Inches	Weight Ounces
714	\$1.50	½	2	¾	3
124	3.00	1	3¾	1	10

Fig. 124 is furnished complete with galvanized wrench.

Automatic Boat Drain

CAST BRONZE—PLAIN



Fig. 213

For use in life boats. Made of heavy cast bronze, with sponge rubber ball valve. Cast bronze cover with chain attached, threaded 1¼ inches, No. 14 thread.

Complete Each	Caps Only With Chain Each	Balls Only Per Dozen	Diam. Opening Inches	Diam. Flange Inches	Diam. Ball Inches
\$5.25	\$1.65	\$3.00	1¼	3¾	1½



"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
\$21.75	24	2 3/4	1 1/4	1 1/2	1/2

Fig. 147—Weighted leather valve only, each\$1.20
Fig. 151—Flax packed plunger only, each 2.25



Fig. 151
Flax Packed Plunger



Fig. 147
Weighted Leather Valve

"Super" Navy Bilge Pump

FOR HOSE OR PIPE
WITH WEIGHTED LEATHER VALVE

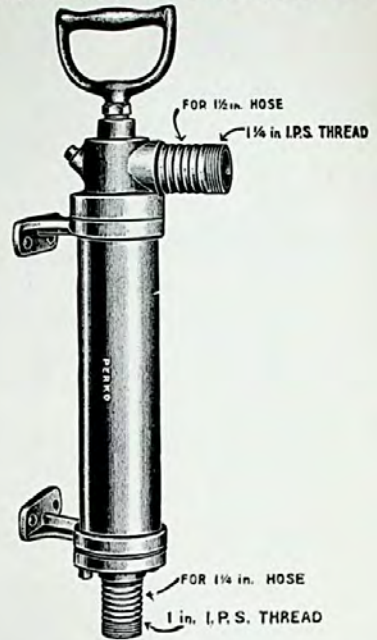


Fig. 701

This is our very popular "Champion" Pump improved by cast bronze integral fittings at inlet and outlet for connecting hose or pipe.

Each	Extreme Length Inches	Inlet Sizes		Outlet Sizes	
		Pipe Inches	Hose Inches	Pipe Inches	Hose Inches
\$24.00	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
\$20.25	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 Fig's 702 and 1018, \$7.50 each, No. 2 for Fig's 701 and 1016, \$8.00 each.

"Midget" Navy Bilge Pump

FOR HOSE OR PIPE
WITH WEIGHTED LEATHER VALVE

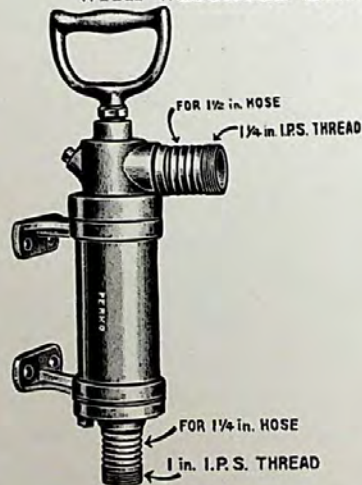


Fig. 702

Our Fig. 701 pump reduced in length for boat requiring a large capacity pump to be installed where space is limited.

Each	Extreme Length Inches	Diam. Cylinder Inches	Inlet Sizes		Outlet Pipe Inches
			Pipe Inches	Hose Inches	
\$22.50	18 1/4	2 3/4	1	1 1/4	1 1/4



Fig. 108



Brass Bilge Pumps
DOUBLE ACTION

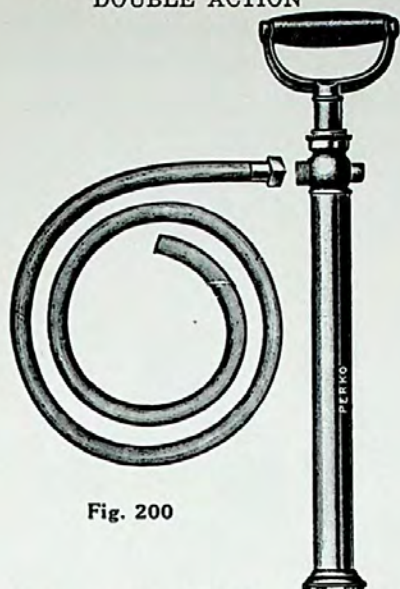


Fig. 200

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	\$ 9.25	17 $\frac{3}{8}$	1 $\frac{1}{2}$	6	2 $\frac{1}{4}$
2	11.75	20	1 $\frac{1}{2}$	12	3 $\frac{1}{4}$
4	15.00	29	1 $\frac{1}{2}$	16 $\frac{1}{2}$	4

Without hose, deduct \$.50 each.

Brass Bilge Pumps
DOUBLE ACTION

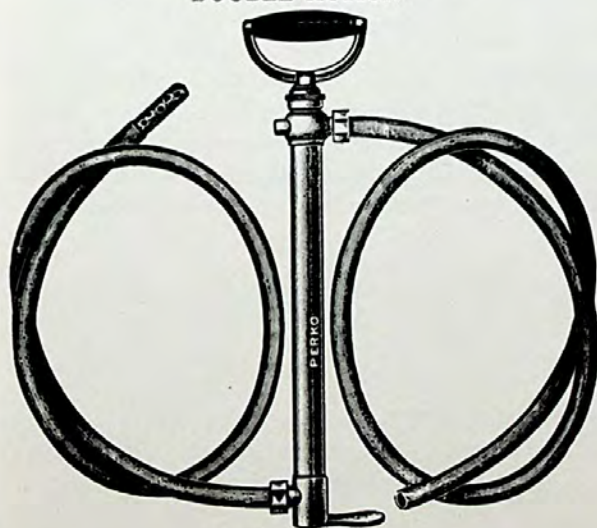


Fig. 202

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	\$12.50	18 $\frac{3}{8}$	1 $\frac{1}{2}$	6	3
6	15.90	21	1 $\frac{1}{2}$	12	4
8	19.50	30	1 $\frac{1}{2}$	16 $\frac{1}{2}$	5

Without hose, deduct \$.50 for each hose.

Brass Bilge Pump
SINGLE ACTION

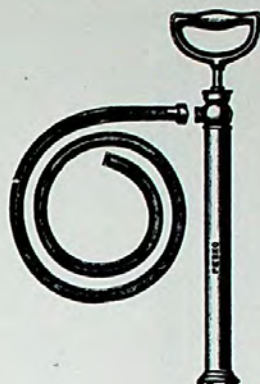


Fig. 723

Complete with 5 feet of rubber hose.

Has moulded neoprene rubber plunger producing excellent capacity.

Capacity—2 $\frac{1}{2}$ gallons per minute with normal operating speed.

With Hose Each	Without Hose Each	Diameter Inches	Extreme Length Inches	Weight Pounds
\$8.25	\$7.75	1 $\frac{1}{8}$	17 $\frac{3}{8}$	2

New Outboard Bilge Pump

ALL BRASS—WITH 3 FT. RUBBER HOSE
BRASS BRACKETS FOR MOUNTING

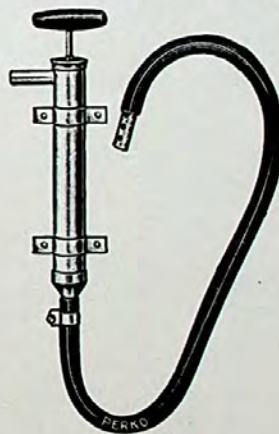


Fig. 201

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
\$7.50	11	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{4}$

NOTE—Spare Parts for above Pumps, See Page 74.

New 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	1 1/2	1	2 1/2

Galvanized Steel Bilge Pumps

WITH LEATHER PLUNGER AND VALVE
WOOD ROD AND FUNNEL TOP



Length Overall Feet	Diameter, Inches		
	2 Each	3 Each	4 Each
3	\$ 6.75	\$ 8.00	\$ 9.75
4	6.75	8.00	9.75
5	6.75	8.00	9.75
6	8.25	9.60	11.70
7		11.20	13.65
8		12.80	15.60
9		14.40	17.55
10		16.00	19.50

Longer lengths to order, price on application.

Crating Charge—\$5.00 net per crate regardless of quantity of pumps it contains.

Spare plungers, Fig. 239 — Spare Valves Fig. 237.

Fig. 156

“Perko” Wing Pumps

DOUBLE ACTION—ALL BRONZE
FOR MARINE, INDUSTRIAL AND DOMESTIC
IMPROVED VALVES HOLD PRIME

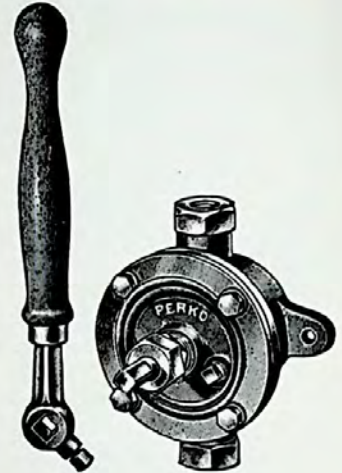


Fig. 681

Constructed entirely of cast bronze, principally 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 groove 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 FEET
EFFORTLESS OPERATION—HARDWOOD HANDLE

No.	Each	Size Pipe Connection Inches	Overall Diameter of Body Inches	Capacity Per Minute Gallons	Weight Pounds
0	\$45.00	1/2	5 1/8	5	11 1/2
1	50.00	3/4	5 3/8	7	14
2	59.00	1	6 3/8	9 1/4	19 1/2

Spare handles, complete, \$6.00 each. Wood handles \$1.00 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	\$16.00	\$17.80	1 1/2	21	3
4	18.50	20.30	1 1/2	31	4

Spare Parts, See Page 74.

With tail piece supplied if not 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—ALL BRASS

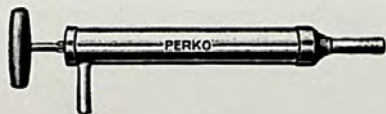


Fig. 335

Inlet and outlet tubes will fit 3/8 inch rubber hose or tubing, so equipped, this pump may also be used as a bilge pump for small boats.

Each	Length Body Inches	Diam. Body Inches	Weight Pounds
\$4.50	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
\$9.50	\$3.50	17 1/2	12 1/2	1 1/2	2 1/2

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
\$7.25	\$2.85	1 1/2	12	15 1/2	2

Spare Neoprene plungers, \$.30 each.

Crank Case Pump

WITH FLEXIBLE METAL INTAKE HOSE
SINGLE ACTION—STEEL OR BRASS

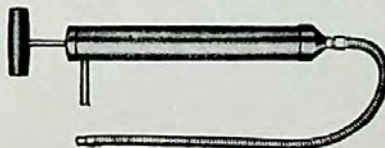


Fig. 336

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, 3/8 inch outside diameter.

Steel Each	Brass Each	Length Body Inches	Diam. Body Inches	Weight Pounds
\$3.85	\$5.85	11	1 1/2	1 1/2

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. Page 71
No. 2 for numbers 2, 4, 6 and 8 bilge pumps.

		Outside Diam. Inches	Each
	Flange Washer { No. 1	1 1/16	\$.40
	Fig. 203 { No. 2	1 1/16	.45
	Cup Washer { No. 1	1 1/16	\$.40
	Fig. 204 { No. 2	1 3/8	.45
	Split Washer { No. 1	1 3/16	\$.11
	Fig. 205 { No. 2	1 3/16	.17
	Hollow Ball { No. 1	1/2	\$.55
	Fig. 206 { No. 2	7/8	.70
	Valve Fitting { No. 1		\$1.00
	For Plunger Fig. 456 { No. 2		1.10
	Packing Nut { No. 1		\$1.10
	Fig. 457 { No. 2		1.40

NOTE—The above parts are also used in Fig. 345 bilge pumps, and Fig. 146 crank case pump.

Bottom Valves

FOR BRASS BILGE PUMPS—CAST BRONZE



Fig. 549 For Fig. 200 Single Hose Pump



Fig. 550 For Fig. 202 Double Hose Pump

Furnished complete with hollow brass ball and strainer.

Fig. 549		Fig. 550	
For Pump Size No.	Each	For Pump Size No.	Each
0	\$2.00	5	\$3.25
1	2.20	6	3.85
2	3.00	8	3.85
4	3.00		

Fig. 549 for pump size No. 0 fits special bilge pump, Fig. 723.

Rubber Hose and Strainer

FOR FIGS. 200, 202 and 723 BRASS BILGE PUMPS

Heavy moulded rubber hose, durable and lasting. 3/8 inch inside diameter.



Standard 5 ft. length Cast Bronze Strainer Each \$1.20 .80

Other lengths of hose can be furnished. Price on application.

Fig. 208 Fig. 209

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.	\$6.00	\$7.50	\$8.50	\$10.25

Leather Plungers

OAK LEATHER

Riveted together, strong and durable



Fig. 239

For Diam. Pump Inches	Per Dozen	Weight Per Dozen Lbs.
2	\$5.40	3/4
2 1/2	6.00	1 1/4
3	6.60	1 1/2
4	7.80	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	\$2.75	1	1 1/4	7	2 3/4	2
705	2.75	1	1 1/4	4 3/4	2 3/4	1
721	2.75	1 1/4		5	2 3/4	1
722	2.75	1 1/4		4 3/4	2 3/4	1

New 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
\$1.90	4	1 1/4	6



Perko Improved "Rotoflex" Pumps

SYNTHETIC NEOPRENE COMPOUND ROTOR—NEOPRENE U-CUP SEALS—LEAKPROOF ALL BRONZE BODY—MONEL SHAFT—BRASS GREASE CUPS—GRAY WRINKLE PAINTED FINISH

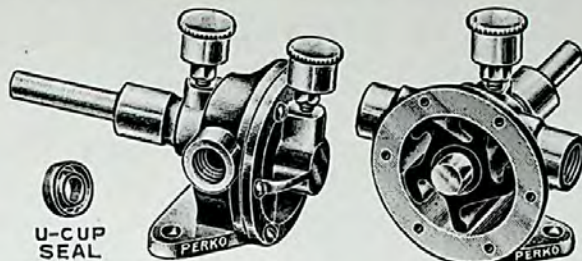


Fig. 696

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	\$14.75	\$1.65	3/8	1/2	3 1/2	3 1/2	6 1/4	3 x 1 3/4	4.1	4.9	6.4	2 7/8
3	19.50	2.50	1/2	5/8	3 3/4	4	6 7/8	3 5/8 x 2 1/8	7.1	8.5	11.0	3 3/4
4	23.75	3.25	3/4	5/8	4	4 1/2	8 3/8	4 x 3	13.0	16.5	22.0	5 3/4
5	28.50	3.25	1	5/8	4	5	8 7/8	4 1/8 x 3	15.7	19.2	26.0	6
6	51.00	7.25	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 Rotoflex" Pump with V Belt Pulley

SHAFT SEAL—BALL BEARING PULLEY

Side pull absorbed by ball bearing and body, not by shaft. A large, double shielded, grease packed, lifetime ball bearing is mounted inside the pulley and on the pump body. Only torque is applied to the shaft. All sizes are supplied with double packed shaft seals which minimize shaft leakage and avoid necessity of tightening stuffing box. Supplied with brass grease cups.

No.	Each	Diameter Pulley Inches	No.	Each	Diameter Pulley Inches
2	\$26.50	4	5	\$40.00	6
3	32.00	6	6	61.00	6
4	35.50	6			

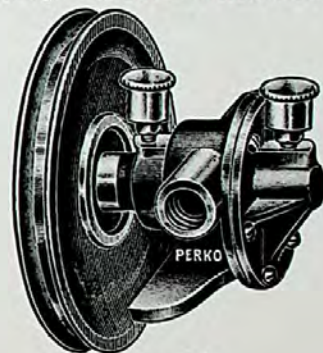


Fig. 703

For dimensions, capacity and other data, see Fig. 696 above.

"Perko" Ford Gear Pumps

ALL BRONZE
FOR MODEL A FORD MOTOR CONVERSIONS

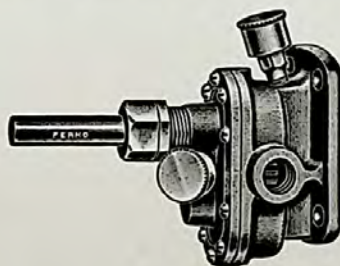


Fig. 530

With Spur Gears Each	Size Pipe Connections Inches	Diam. Shaft Inches	Weight Pounds
\$18.75	3/8	1/2	4 1/2

"Perko" Star Gear Pump

ALL BRONZE
FOR STAR MARINE MOTOR CONVERSIONS

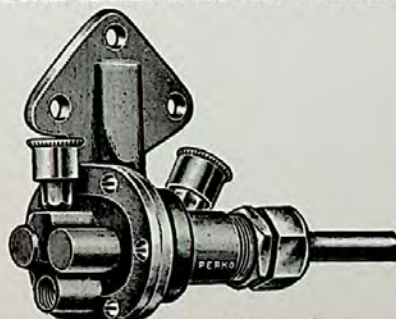


Fig. 804

With Spur Gears Each	Size Pipe Connections Inches	Diameter Drive Shaft Inches	Weight Pounds
\$18.75	3/8	1/2	4

"PERKO" BRONZE GEAR TYPE PUMPS

NON CORROSIVE BRONZE THROUGHOUT WITH TOBIN BRONZE SHAFTS AND GEARS
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

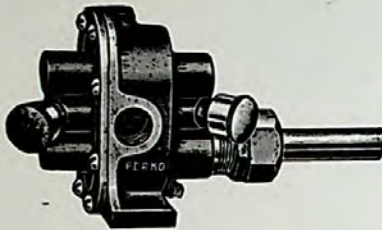


Fig. 684

Pump No.	With Spur Gears Each	Size Pipe Connection Inches	Size Drive Shaft Inches	Approximate Weight Each Pounds
2	\$15.25	1/4	1/2	3 3/4
3	17.75	3/8	5/8	5 1/2
4	19.50	1/2	3/4	6
7	25.75	3/4	5/8	9
9	27.00	1	3/4	9 1/2

Single Upper Drive Shaft

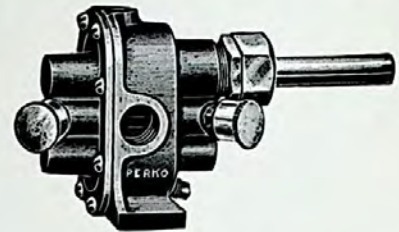


Fig. 682

Pump No.	With Spur Gears Each	Size Pipe Connection Inches	Size Drive Shaft Inches	Approximate Weight Each Pounds
2	\$15.25	1/4	1/2	3 3/4
3	17.75	3/8	5/8	5 1/2
4	19.50	1/2	3/4	6
7	25.75	3/4	5/8	9
9	27.00	1	3/4	9 1/2

Double Lower Drive Shaft

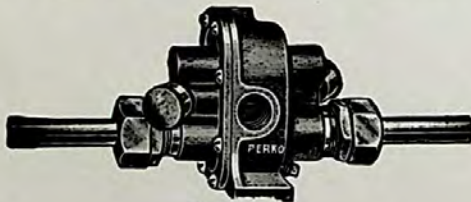


Fig. 685

Pump No.	With Spur Gears Each	Size Pipe Connection Inches	Size Drive Shaft Inches	Approximate Weight Each Pounds
2	\$18.50	1/4	1/2	4 1/2
3	21.50	3/8	5/8	6 1/4
4	23.25	1/2	3/4	6 3/4
7	30.00	3/4	5/8	9 1/2
9	32.00	1	3/4	9 3/4

Double Upper Drive Shaft

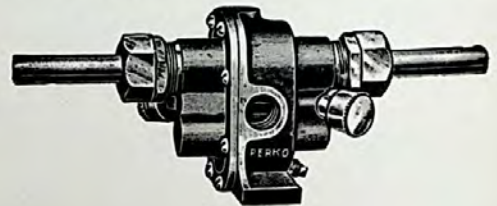


Fig. 683

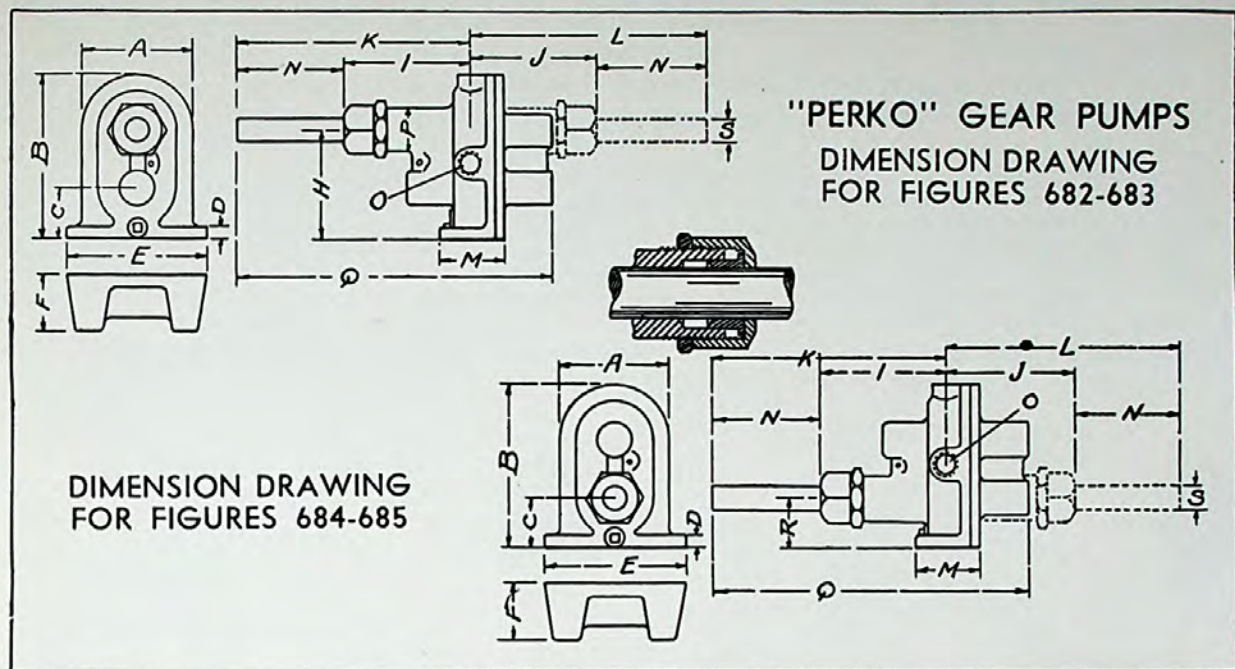
Pump No.	With Spur Gears Each	Size Pipe Connection Inches	Size Drive Shaft Inches	Approximate Weight Each Pounds
2	\$18.50	1/4	1/2	4 1/2
3	21.50	3/8	5/8	6 1/4
4	23.25	1/2	3/4	6 3/4
7	30.00	3/4	5/8	9 1/2
9	32.00	1	3/4	9 3/4

NOTE—Figs. 682 and 684 in all sizes except 1 inch are reversible. That is, any person, dealer, user, etc., 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.

"Perko" Bronze Gear Pump Parts

Pump No.	Size Pipe Connection Inches	Cover Each	Spur Gear Each	Body Each	Drive Shaft Each	Metal Pack Gland Each	Lock Nut Each	Pack Nut Each	Idle Shaft Each
2	1/4	\$3.45	\$2.50	\$5.75	\$1.75	\$1.15	\$.60	\$1.20	\$1.15
3	3/8	3.80	2.80	6.00	2.00	1.45	.75	1.25	1.60
4	1/2	4.50	3.25	7.00	2.00	1.45	.75	1.25	1.60
7	3/4	5.20	5.00	8.60	2.00	1.45	.75	1.25	1.60
9	1	7.00	6.00	9.00	2.00	1.45	.75	1.25	1.60



DIMENSION TABLE FOR "PERKO" GEAR PUMPS

Pump No.	A	B	C	D	E	F	H	I*	J*	K*	L*	M	N	O†	P	Q	R	S
2	2 3/8	3 1/2	1 1/32	3/16	2 7/8	1 7/32	2 3/8	2 1/16	2 1/16	4 1/16	4 1/16	1 7/32	2 1/8	1/4	1 1/8	6 7/16	1 1/16	1/2
3	2 3/4	3 3/8	1 7/8	1/4	3 3/8	1 1/32	2 3/4	2 7/8	2 7/8	5 3/8	5 3/8	1 15/32	2 1/2	3/8	1 1/4	7 3/8	1 3/16	5/8
4	2 3/4	3 3/8	1 7/8	1/4	3 3/8	1 3/8	2 3/4	3 1/16	3 1/16	5 9/16	5 9/16	1 9/16	2 1/2	1/2	1 1/4	7 3/8	1 3/16	5/8
7	3 1/4	5 7/16	2 9/16	1/4	4 1/16	1 9/16	3 9/16	3 1/16	3 1/16	5 9/16	5 9/16	1 11/16	2 1/2	3/4	1 3/8	7 1/2	1 9/16	5/8
9	3 1/4	5 7/16	2 9/16	1/4	4 3/16	1 9/16	3 9/16	3 3/16	3 3/16	5 11/16	5 11/16	1 15/16	2 1/2	1	1 3/8	7 1/2	1 9/16	5/8

Dimension in inches—Standard Pumps. *From center line of gear. †Briggs standard pipe tap.

CAPACITY TABLE FOR "PERKO" GEAR PUMPS

1200 REVOLUTIONS PER MINUTE

Pump No.	P R E S S U R E									
	0 lb.		20 lb.		40 lb.		60 lb.		80 lb.	
	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
2	3.	1/8	2.62	1/8	2.25	1/4	1.8	1/4	1.45	1/2
3	5.	1/8	4.25	1/4	3.7	1/3	3.2	1/2	2.8	3/4
4	7.5	1/4	6.3	1/2	5.4	1/2	4.6	3/4	3.8	1
7	13.5	1/2	11.5	1/2	9.9	3/4	8.75	1	7.7	1 1/2
9	17.	1/2	15.5	3/4	14.1	1 1/4	12.7	1 1/4	11.2	1 3/4

1800 REVOLUTIONS PER MINUTE

Pump No.	P R E S S U R E									
	0 lb.		20 lb.		40 lb.		60 lb.		80 lb.	
	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
2	4.5	1/4	4.2	1/4	3.85	1/8	3.45	1/2	3.1	1 1/2
3	7.5	1/2	6.75	1/2	6.1	3/4	5.6	1	5.25	1
4	11.	1/2	10.	3/4	9.	3/4	8.2	1	7.3	1 1/2
7	16.*	1 1/2	15.*	1*	13.3*	1*	12.*	1 1/2*	10.8*	1 1/2*
9	20.*	1 3/4	18.75*	1*	17.7*	1 1/2*	16.5*	2*	15.3*	2*

*At 1500 R.P.M.

Gallons per minute flow of clean water—63° F.—no pipe friction.

Motor recommended shown by H. P. indicated.

Head in feet = 2.3 x lbs. pressure.

Perko "Flexo-Shaft" Electric Bilge Pumps

Patent Pending

WITH FLEXIBLE PHOSPHOR BRONZE DRIVE SHAFT AND CASING
ALL BRONZE EXCEPT MOTOR—GRAY WRINKLE PAINTED 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.

CAPACITY — 500 gallons per hour at 1 foot, MAXIMUM HEAD — 7 feet, with 3 foot shaft.
MOTOR IS LOW AMPERAGE 1/40th H.P. AT 2500 R.P.M.

WITH DIRECT DRIVE

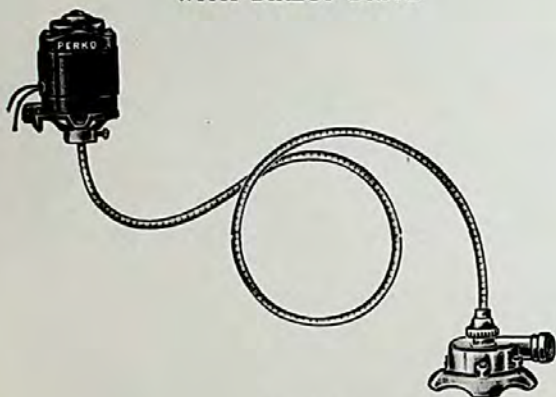


Fig. 666

Height Pump Inches	Diam. Base Inches	Weight Pounds
4 1/4	4 3/8	7

	6 Volt Each	12 Volt Each	32 Volt Each	110 D.C. Volts Each
With 3 ft. shaft	\$33.00	\$36.25	\$47.25	\$47.25
With 6 ft. shaft	35.50	38.75	49.75	49.75
Motors only	11.50	14.75	23.00	23.00

WITH ANGLE DRIVE

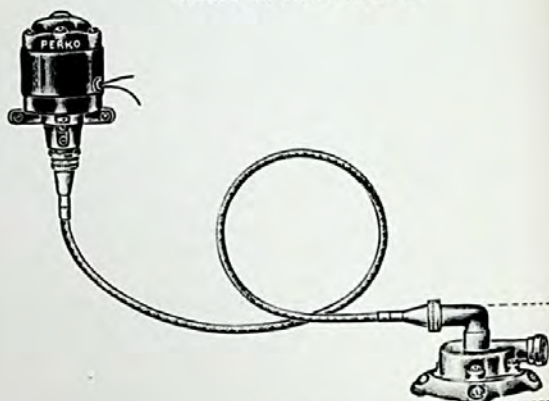


Fig. 689

Height at "A" Inches	Diam. Base Inches	Weight Pounds
3 1/8	4 3/8	7 1/2

	6 Volt Each	12 Volt Each	32 Volt Each	110 D.C. Volts Each
With 3 ft. shaft	\$37.50	\$40.75	\$51.75	\$51.75
With 6 ft. shaft	40.00	43.25	54.25	54.25
Motors only	11.50	14.75	23.00	23.00

SPARE PARTS

3 Foot shafts only	\$ 5.50 Each	Fig. 689 Mitre Gears only	\$1.10 Per
6 Foot shafts only	7.75 Each	Fig. 689 Mitre Gears with shaft	2.00 Per
Fig. 666 Complete Pump Unit only	14.25 Each	Fig. 689 Angle Elbow Less Gears	3.30 Each
Fig. 689 Complete Pump Unit only	18.75 Each	Motor Bulkhead Bracket only	3.50 Each
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 1/8 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.

Painted Gray Complete Each	Spare Switch Each	Spare Diaphragm Each	Height Inches	Diam. Base Inches	Weight Pounds
\$12.50	\$2.50	\$1.00	2 1/4	4 1/4	2



Fig. 662



New Perko "Flexo-Shaft" Automatic Electric Bilge Pumps

Patent Pending

FLEXIBLE PHOSPHOR BRONZE DRIVE SHAFT AND CASING

PRESSURE OPERATED DIAPHRAGM TYPE AUTOMATIC SWITCH—THREE WAY DASHBOARD SWITCH
 ALL BRONZE EXCEPT MOTOR—6-12-32 AND 110 VOLTS—GRAY WRINKLE PAINTED FINISH
 WATERTIGHT—OPERATES WITH PUMP AND SWITCH HOUSING SUBMERGED

FEATURES — See write up on Fig's. 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 — 500 gallons per hour at 1 foot head — maximum head 7 feet, with 3 foot shaft.

MOTOR — Low amperage 1/40th H.P. at 2500 R.P.M.

WITH DIRECT DRIVE

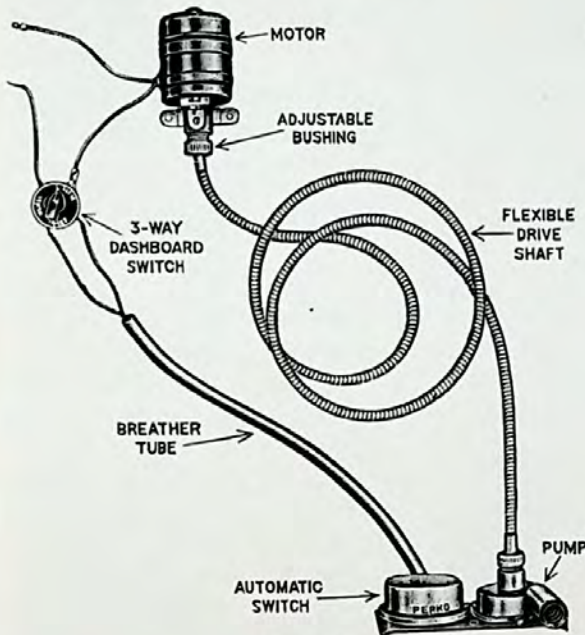


Fig. 742

WITH ANGLE DRIVE

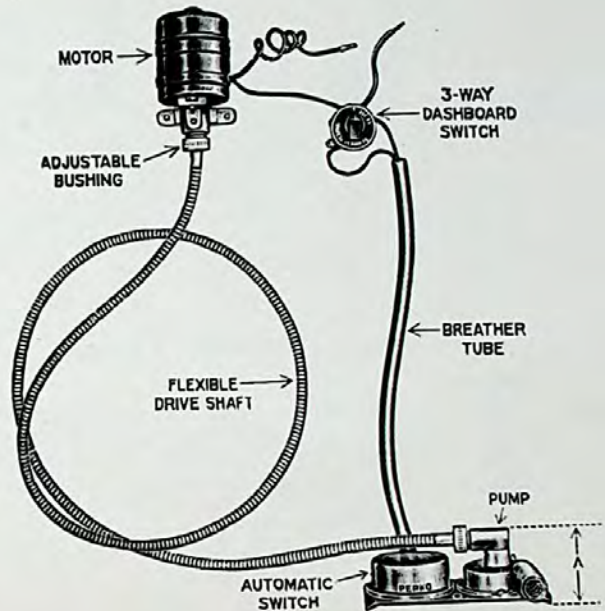


Fig. 743

	Fig. 742				Fig. 743				Fig. 742	Fig. 743	Size	Weight
	6 Volt	12 Volt	32 Volt	110 D.C.	6 Volt	12 Volt	32 Volt	110 D.C.	Height	Height	Base	Weight
	Each	Each	Each	Each	Each	Each	Each	Each	Pump	at "A"	Inches	Pounds
									Inches	Inches		
With 3 foot shaft	\$47.50	\$50.75	\$59.75	\$61.50	\$52.00	\$55.25	\$64.25	\$66.00	2 1/2	2 3/4	7x4	8
With 6 foot shaft	50.00	53.25	62.25	64.00	54.50	57.75	66.75	68.50	2 1/2	2 3/4	7x4	8

Spare pump unit, complete except motor and shaft, Fig. 742, \$30.00 each, Fig. 743, \$34.50 each.
 Spare 3 way dashboard switches, \$2.50 each.
 Other spare parts, see page 78.

NEW PERKO "FLEXO-SHAFT" WATER SYSTEM PUMP

WITH PIPE INLET AND OUTLET—1/2 INCH
 CAST BRONZE—GRAY WRINKLE FINISH

Supplied complete with Flexible Drive Shaft and Motor per Fig. 666 Page 78.
 See Page 80 for diagram of installation. Capacity same as Fig. 666.

	6 Volt	12 Volt	32 Volt	110 D.C.	Height	Weight
	Each	Each	Each	Each	Pump	Pump only
					Inches	Pounds
With 3 foot shaft	\$35.00	\$38.25	\$47.25	\$49.00	3 1/4	2
With 6 foot shaft	37.50	40.75	49.75	51.50	3 1/4	2

Pump only as illustrated, no shaft or motor, \$12.00 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.

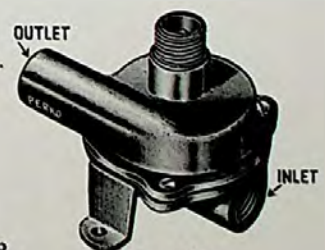


Fig. 748

"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 new 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

Fig.	Polished Brass Each	Chromium Plated Each	Height Above Drain Board Inches	Length Below Drain Board Inches	Weight Pounds
727	\$26.50	\$29.50	8 1/4	5 1/2	2 1/2
728	26.00	29.00	3 3/8	5 1/2	2 1/4

FOR FOOT SWITCH



High Spout
Fig. 729



Low Spout
Fig. 730

Fig.	Polished Brass Each	Chromium Plated Each	Height Above Drain Board Inches	Length Tail Piece Inches	Weight Pounds
729	\$17.50	\$20.50	8 1/4	2 1/4	1 1/2
730	17.00	20.00	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.

Each	Ht. Above Drain Board Inches	Spout Projects Inches	Weight Pounds
\$18.00	3 3/8	2 3/8	2 1/2

Foot Switch

CAST BRONZE—WATERTITE FOR USE WITH FAUCETS, FIGS. 729 AND 730

For convenient location in galley or lavatory.

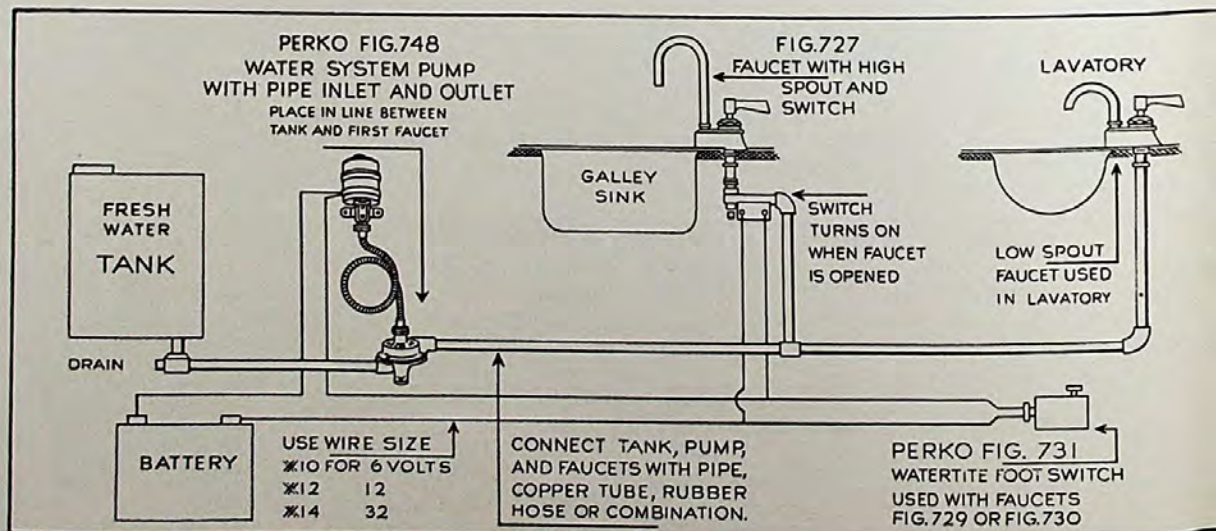
A spring type switch requiring very slight pressure. May also be operated by knee or hand.

Size Box, inches, 3 1/8 x 2 3/4 x 1 1/2



Fig. 731

Polished Bronze Each	Chromium Plated Each	Weight Pounds
\$9.00	\$10.50	1 1/2



Improved Galley and Lavatory Pumps

IMPROVED INLET VALVE TO HOLD PRIME—WITH LEAKPROOF NEOPRENE U-CUP SEALS
POLISHED BRONZE OR CHROMIUM PLATED

All Metal Handle
High Spout



Fig. 467
Straight Base

Mahogany Handle
High Spout

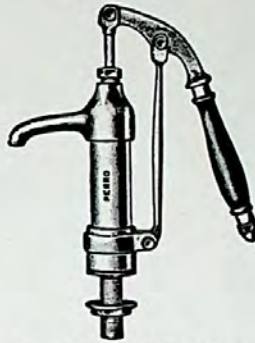


Fig. 473 Straight Base
Fig. 478 Flared Base

Mahogany Handle
Low Spout

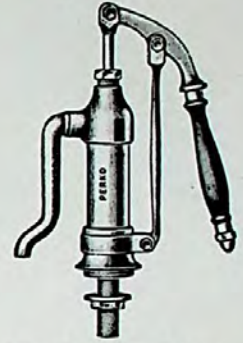


Fig. 474 Flared Base
Fig. 479 Straight Base

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 a neoprene u-cup seal around the plunger rod instead of packing glands that always require attention. The handles cannot pinch the hand.

Fig.	Polished Bronze Each	Chromium Plated Each	Polished Bronze Handle Only 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	\$19.25	\$23.00	\$2.50	\$3.60		1 1/2	6 1/2	2 1/2	1/2	13 1/2	3 1/2
473-478	21.75	25.30	3.30	4.50	\$.85	1 1/2	6	2 1/2	1/2	14	3 1/2
474-479	24.25	28.00	3.30	4.50	.85	1 1/2	6	2 1/2	1/2	14	3 1/2

NOTE—Fig. 467 supplied with flared base if desired, at same price.

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.

Polished Bronze Each	Chromium Plated Each	Inlet Pipe Size Inches	Spout Projection Inches	Height Flange to Spout Inches	Weight Pounds
\$14.00	\$17.50	3/8	4	4 1/4	2 1/4

The "Ezy-Flo" ALL BRASS—CHROMIUM PLATED

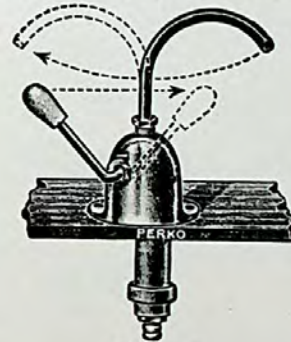


Fig. 177

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 5/8" rubber hose or 3/8" pipe.
Capacity—20 strokes per quart.

Each	Extreme Height Above Drain Board Inches	Dimensions Mounting Base Inches	Weight Pounds
\$18.00	8	4 x 1 1/8	2 1/4

Repair Kit, each—\$4.50

REPAIR PARTS—Due to several changes and improvements on all above except Fig. 177, we suggest that old parts needing replacement should be returned or accurately described.



Galley and Lavatory Pumps

POLISHED BRONZE OR CHROMIUM PLATED
NEW 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		Repair Kits Each
	Polished Bronze Each	Chromium Plated Each	
144	\$15.00	\$17.00	\$2.00
1040	16.00	18.00	2.00

Repair Parts—See bottom of page 81.

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.

No.	Complete Each	Size Inside Inches	Size Outside Inches	Depth Inches	Wt. Lbs.
2	\$9.00	10 1/2 x 16	12 3/4 x 18	4 3/4	4

Spare Drain Fittings only, each \$2.50

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
\$1.35	1/2	1 7/8	3 1/2

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 all stainless steel, with 1 inch tail piece used with size No's 1 to 4 inclusive.

No.	Sink Only Each	Strainer Only Each	Size Inside Inches	Size Outside Inches	Depth Inside Inches
1	\$17.50	\$5.50	9 7/8 x 13 7/8	11 3/4 x 15 3/8	5
2	21.00	5.50	11 1/2 x 16 3/4	13 1/4 x 18 1/2	6
3	32.00	5.50	11 3/8 x 19 5/8	13 3/4 x 21 1/8	7
4	43.00	5.50	16 x 20 1/8	17 1/2 x 21 3/8	8 1/2
OVAL BOWL—20 gauge					
5	18.50	2.50	10 5/8 x 13 3/4	12 x 15	5
ROUND BOWL—20 gauge					
6	14.00	2.50	10	11 1/8	5
7	23.00	2.50	13	14 1/4	6

Size Nos. 5, 6 and 7 have 2 inch drain hole for fitting as supplied with Fig. 402.

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 vitreous china and will perform all the functions same while providing light weight and lower cost.

Will accommodate regular faucets or our va lavatory pumps.

Supplied complete with 1 1/4 inch tail piece for

Fig.	Each	Size Inches	Size Basin Inches	Height Back Inches
823	\$19.00	13 x 13	12 x 9	1 1/2
825	18.00	14 x 12	12 x 7 1/2	1 1/2

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	\$29.00	\$36.00	12x12	10	2½
2	35.50	42.50	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
\$29.00	\$36.00	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
\$25.00	\$32.00	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.

Improved Folding Lavatory

WITH DRAIN AND ALUMINUM SPLASH GUARD
WHITE PORCELAIN ENAMEL BOWL
POLISHED ALUMINUM CASTINGS



Open

Fig. 342

Closed

For drainage, the lavatory bowl is tilted back, and the water runs down the drain.

Automatically locks in closed or open position.

A funnel which is an integral part of the splash guard directs the water through an orifice when emptying the bowl.

All castings have been improved and made more substantial.

Drain tapped for $\frac{1}{2}$ inch pipe. Bowl capacity 1 gallon.

Each	Diam. Bowl Inches	Width Mounting Plate Inches	Height Closed Inches	Extension Open Inches	Wt. lbs.
\$15.40	12	8¾	15	13¾	4½

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 and of latest design to eliminate loose pipe connections where supply pipe is needed to it.

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 a 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 formatter or quick draining when hauling out.

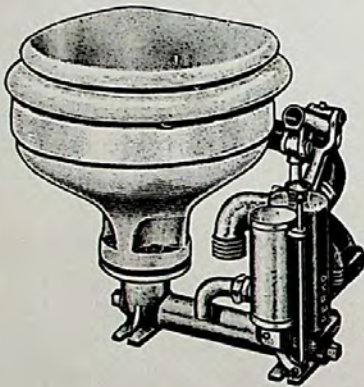
OUTLET is 1½ inches I. P. S. with tail piece for lead pipe or hose connection.

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, 15 inches, base 10½ x 4¾ inches. Weight 46 pounds. Dimensions and weight include seat and cover.

The Boatman

With Hand Operated Supply Valve



Horizontal Handle

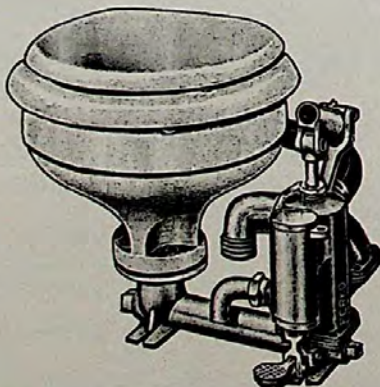


Vertical Handle

Fig. 828-C-H with Horizontal HandleEach \$83.00
 Fig. 828-C-V with Vertical HandleEach 84.00

The Yachtsman

With Foot Operated Supply Valve



Horizontal Handle



Vertical Handle

Fig. 829-C-H with Horizontal HandleEach \$85.00
 Fig. 829-C-V with Vertical HandleEach 86.00

NOTE—All furnished with pump on right or left side. Right hand facing supplied unless otherwise specified.
 Spare and Repair Parts, see next page.

The Guardsman

3½ INCH PUMP—CAST BRONZE—WHITE FINISH—FELT PACKED PISTON
VERTICAL HANDLE AND FOOT VALVE—WHITE SEAT AND COVER

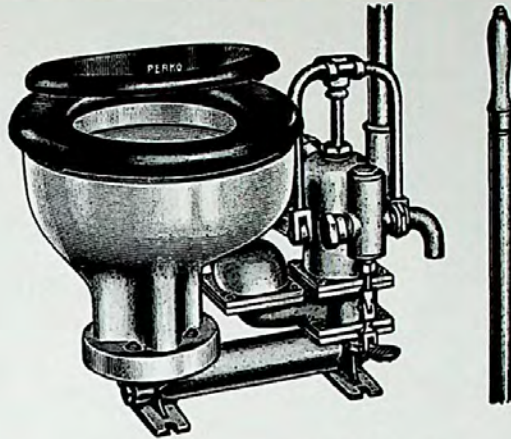


Fig. 1122 Each \$140.00

REPAIR KITS—consisting of all necessary gaskets, washers, packing, clack valves, etc. Each. \$9.25.

BOWL ONLY—Height 12 inches, diameter base 7 inches, diameter top 12½ inches. Each. \$24.00.

DIMENSIONS OVERALL—Side to side, 20¼ inches; front to back, 16½ inches; height, 17 inches; base, 16x7 inches.

CONNECTIONS—Outlet, 2 inches; inlet, 1 inch, I.P.S.

WASTE ARM—Has ¾ inch pipe size clean-out openings in both ends.

BORE—3½ inches; stroke, 3½ inches.

HANDLE—is chromium plated heavy brass tubing.

WEIGHT—72 pounds.

Furnished with pump on right side facing unless otherwise specified.

Spare Parts and Repair Kits

FOR FIGS. 828-C AND 829-C

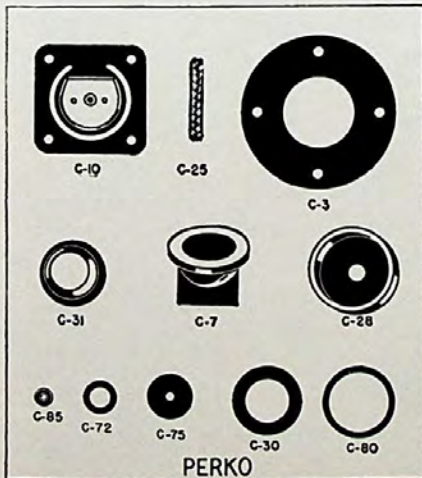


Fig. 909

White Seat and Cover complete	Each	\$12.00
White Vitreous Bowl only	Each	20.00
Flush Tube (Rubber Hose)	Each	1.25

REPAIR KITS

Repair Kits complete, consisting of the following parts and quantity in each kit Each \$7.50

Part No.	Each	Description	Quantity Per Closet
C-3	\$1.10	Bowl Flange Gasket	1
C-7	1.40	Neoprene Joker Valve	1
C-10	1.30	Neoprene Clack Valve	2
C-25	.20	Flax Piston Rod Packing	2
C-28	.80	Cup Leathers for Piston	2
C-30	.20	Bowl Spud Friction Washer	2
C-31	.15	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
	.02	Brass Cotter Pins ¼x1"	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	\$ 12.00	\$ 11.85	\$.70	3 1/2	\$1.45
1	17.25	16.70	.70	3 3/4	1.95
1 1/4	21.85	21.35	1.00	4 1/4	2.85
1 1/2	25.15	24.50	1.55	5	3.40
2	41.40	40.50	1.80	6	5.50
2 1/2		140.00	4.00	8	7.50

Water Outlet
CAST BRONZE



Fig. 332

No.	Size Pipe Inches	Diam. Flange Inches	Length of Pipe Inches	Weight
1	3/4	2 3/4	2 1/4	12 oz.
2	1	3	3 1/4	1 lb.
No.	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Weight
1	\$3.15	\$4.00	\$5.00	
2	3.75	4.80	5.80	

Speedboat Strainers

CAST BRONZE—ONE PIECE

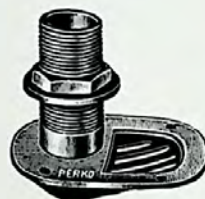


Fig. 65

Designed to prevent clogging. Will admit full supply of water at all speeds.

Pipe Size Inches	Each	Length Pipe Inches	Size Strainer Inches	Weight Pounds
1/2	\$2.50	2 1/4	2 1/2 x 3 1/2	5/8
3/4	2.90	2 9/16	3 x 4	7/8
1	3.75	3	3 1/2 x 4 1/4	1 1/8
1 1/4	5.15	3 5/8	3 3/8 x 4 1/2	1 3/4
1 1/2	6.60	3 5/8	3 1/2 x 5	2

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	Fig. 67 Each	Fig. 78 Each
1/4	.60	
3/8	.65	
1/2	.70	
3/4	\$1.00	\$1.20
1	1.30	1.70
1 1/4	1.70	2.20
1 1/2	2.10	2.70
2	3.00	3.95
2 1/2	5.75	

Thru-Hull Connections
CAST BRONZE—WITH LOCKNUT
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.
1/4	\$1.85	\$1.20	1 3/4	3/8	1 1/4	1/8	1/8
3/8	1.95	1.30	2 3/8	1/2	1 3/8	1/8	1/4
1/2	2.20	1.50	2 3/8	1/2	1 3/8	3/8	1/4
3/4	2.90	1.90	2 3/8	3/4	2	1	1/2
1	3.80	2.50	2 3/8	1	2 1/4	1 1/4	3/4
1 1/4	5.45	3.75	3 3/8	1 1/4	2 3/8	1 3/4	1
1 1/2	6.60	4.50	3 3/8	1 1/2	3	2 1/4	1 1/4
2	9.95	6.95	4	2	3 1/2	3 1/2	2
2 1/2		10.60	4		4 1/2		2 3/4

Scoop Strainers

CAST BRONZE



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 1/2 inches. No. 4 up to 2 inches.

No.	Each	Outside Dimension Inches	Weight Each
1	\$.55	3 1/2 x 2 1/2	4 oz.
2	.80	5 x 3 1/4	7 oz.
3	1.35	6 1/4 x 4 1/4	1 lb.
4	3.00	8 1/4 x 5 1/4	2 lbs.

Round Strainers

PLAIN CAST BRONZE



Fig. 86

Outside Diam. Inches	Each	Inside Diam. Inches	Weight Each
2 1/2	\$.45	1 3/4	2 oz.
3	.50	2	4 oz.
3 1/2	.70	2 5/8	5 oz.
4 1/4	1.00	3	6 oz.
5	1.55	3 3/4	12 oz.
6	1.80	4 1/2	1 lb.
8	4.00	6	2 lbs.
10	6.50	8 1/4	3 lbs.



NEW "PERKO" BOTTLED GAS STOVES

FOR USE PROPANE OR BUTANE L. P. GAS
 2 OR 3 BURNERS—WITH REMOVABLE TRAY
 GALVANIZED SHEET STEEL BODY—NATURAL FINISH
 COLD FORGED ALUMINUM CENTER SIMMER BURNERS
 BLACK PLASTIC CONTROL KNOBS

Supplied in galvanized finish for maximum reduction in price and to enable the owner to paint or finish as desired to match decorative scheme of galley.

THE BURNER is especially unique, in fact it's two burners in one. The outer rim is a high speed cooking burner for quick boiling, 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.

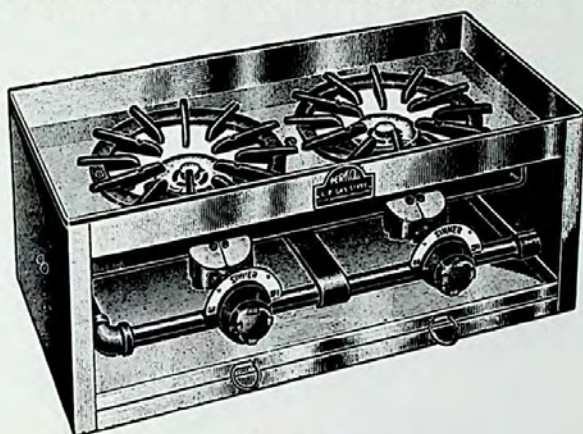


Fig. 300

	Complete Each	Length Body Inches	Width Body Inches	Extreme Height Inches	Weight Pounds
2 Burner	\$42.50	20 3/4	10 1/2	8 5/8	20
3 Burner	62.00	31	10 1/2	8 5/8	30

Note—Monel metal stoves temporarily discontinued due to Government restrictions.

BOTTLED GAS STOVE EQUIPMENT

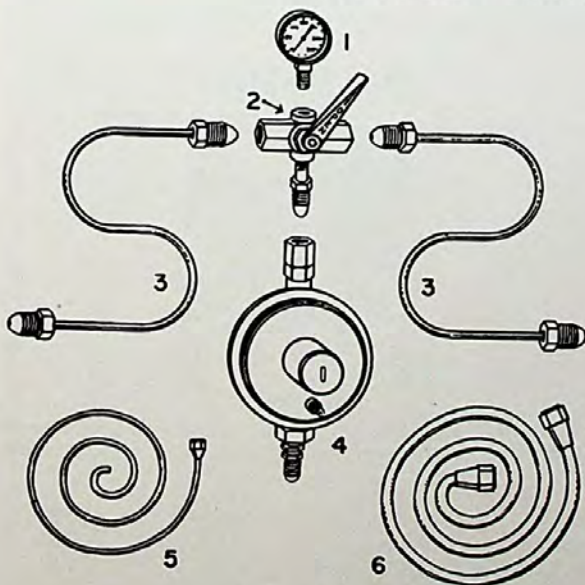


Fig. 374

No.	Description	Each
1	Polished Brass Pressure Gauge	\$ 3.75
2	Forged Bronze Two Way Valve Manifold with Indicating Handle	11.00
3	Pigtails (Tank Connections)	2.5
4	Pressure Regulator with Relief Valve and Mounting Brackets	9.00
5	1/4 inch Copper 10 Foot Vent Line with One Fitting	2.50
6	1/2 inch Copper 20 Foot Fuel Supply Line with Two Fittings	9.50
7	Plugs for Manifold	1.50

Note — The above Manifold item No. 2 and Regulator item No. 4 is listed by the Underwriters' Laboratories.



"PERKO" ALCOHOL STOVES

2 OR 3 BURNERS—PRESSURE TYPE—WITH REMOVABLE TRAY
 GALVANIZED SHEET STEEL BODY—NATURAL FINISH
 CAST BRONZE BURNERS—BLACK PLASTIC CONTROL KNOBS

CONSTRUCTION — Of galvanized sheet steel to permit finishing as desired.

BURNERS — Cast bronze with slotted manifold producing intense heat.

TRAYS — Readily removable for cleaning but will not rattle and cannot slide out when boat is heeled.

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.

FUEL TANK — One half gallon capacity, cylindrical shape and insulated from heat of burners. The 3 burner stove has two tanks spaced evenly between the burners.

FUEL CONSUMPTION — Using a good grade of 'Burning Alcohol,' the 2 burner stove will operate continuously seven hours on one filling of fuel and one pound of air pressure.

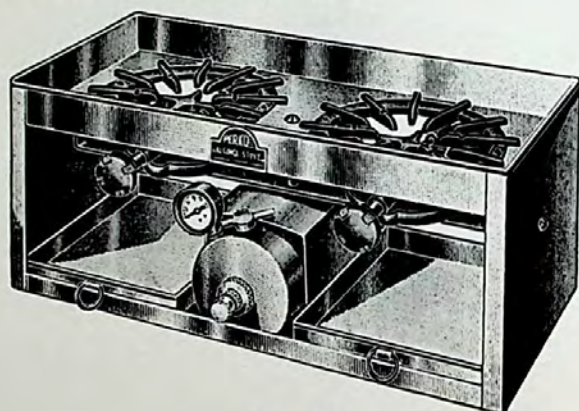


Fig. 400

	Complete Each	Length Body Inches	Width Body Inches	Extreme Height Inches	Weight Pounds
2 Burner	\$54.00	20 3/4	10 1/2	8 5/8	20
3 Burner	83.00	31	10 1/2	8 5/8	30

Note—Monel metal stoves temporarily discontinued due to Government restrictions.

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.

Each	Capacity Ounces	Diam. Mouth Inches	Diam. Spout Inches	Weight Ounces
\$2.00	3	3	3/8	2

Pot Holders

ALL BRASS—CHROMIUM PLATED

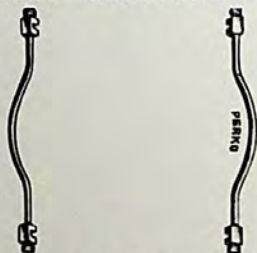


Fig. 369

Made for attachment to our alcohol or gas stoves. Adjustable on the stove for various sizes of pots, etc.

No.	Per Pair	Length Centers of Rail Inches	Weight Per Pair Ounces
1	\$3.00	9 3/8	7 1/2
2	3.00	10 1/2	8

Size No. 1 is for older models of stove.

"Perko" Alcohol Burner

CAST BRONZE



Fig. 367

Each

Burner with Needle Valve and Control Handle, no. Fittings, Filter or Priming Pan.....	\$10.00
Wire Brush Filters Only.....	1.65
Priming Pan Only.....	1.10
Packing Nut for Valve Stem.....	.30
Grates only for Stove.....	1.65

Alcohol Stove Parts

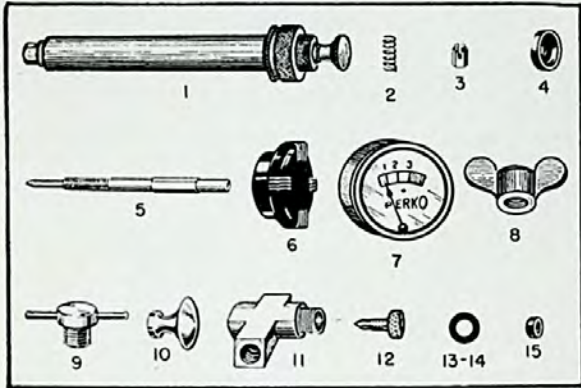


Fig. 368

No.	Each
1 Fuel Tank Air Pump complete.....	\$2.75
2 Pump Check Valve Spring.....	.30
3 Pump Check Valve.....	.45
4 Leather Plunger for Pump.....	.30
5 Needle Valve Stem.....	.55
6 Plastic Control Knob.....	.85
7 Air Pressure Gauge.....	2.75
8 Wing Nut for Filter Entrance.....	.55
9 Filler Cap for Fuel Tank.....	.85
10 Knob for Removable Tray.....	.55
11 Fitting for Fuel Supply Line.....	.90
12 Screw for Air Escape Valve.....	.30
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	\$2.40	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	6.00	4 3/8	9 1/4	6 1/4
4 1/2	6.50	4 7/8	10	8
5	8.00	5 3/8	10 1/2	9
5 1/2	8.00	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
6-12-32 AND 110 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	\$24.00	1.5	8 1/2	7	9 1/2
12	26.00	.75	8 1/2	7 1/4	9 3/4
32	31.00	.28	8 1/2	7 3/4	10 1/4
110 D.C.	35.00	.08	8 1/2	8	11

The 110 volt heater furnished for D.C. current only
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	\$10.00	\$11.50	4 1/4	3 1/4	1 3/4	1 3/4
155	9.00	10.50	3 3/8	.....	1 3/4	1 1/2



Marine Exhaust Blowers

CAST ALUMINUM HOUSING
6-12-32 OR 110 VOLTS

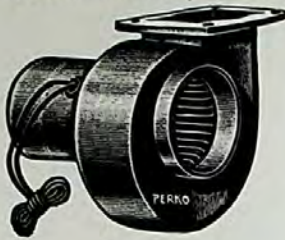


Fig. 778

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	
			7 1/2 x 6 x 6	8 1/2 x 8 x 8		90	186	3 1/2 x 3 1/2	4 1/2 x 4 1/2
1	3	2 1/2					
2	4	4					
Volts	No. 1 Each	No. 2 Each	Amperes No. 1 No. 2		Horsepower No. 1 No. 2		
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	25.50	43.00	1.0	1.3	1/75	1/40	
110 D.C.	32.50	43.00	.30	.32	1/40	1/60	

A caution plate is furnished with every Blower.

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	Size Flange Inches	
			7 1/2 x 6 x 6	8 1/2 x 8 x 8		90	186	3 1/2 x 3 1/2	4 1/2 x 4 1/2
1	3	2 1/2					
2	4	4					
Volts	No. 1 Each	No. 2 Each	Amperes No. 1 No. 2		Horsepower No. 1 No. 2		
6	\$24.00	\$37.00	5.5	7.0	1/75	1/40	
12	26.00	40.00	2.7	4.0	1/75	1/40	
32	29.50	48.00	1.0	1.3	1/75	1/40	
110 D.C.	36.50	48.00	.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

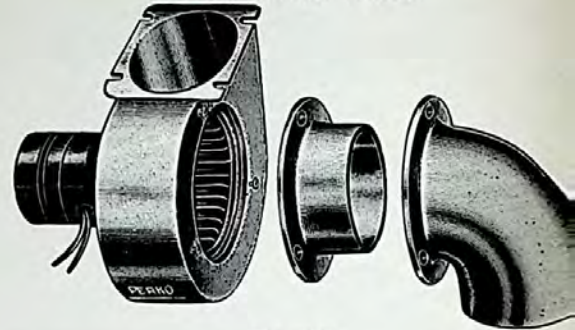


Fig. 795

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 preferred.

The neck of the straight fitting is 1 1/2 inches long allowing better fit of duct. The 90° fitting can be used at three different angles and eliminates the use of elbow in the duct.

Volts	3 Inch Inlet		4 Inch Inlet	
	With Straight Inlet Each	With 90° Inlet Each	With Straight Inlet Each	With 90° Inlet Each
6	\$22.00	\$23.50	\$34.00	\$36.50
12	24.00	25.50	37.00	39.50
32	27.50	29.00	45.00	47.50
110 D.C.	32.50	34.00	45.00	47.50

All other dimensions and data, same as Fig. 778. Specify type of inlet required.

Turbine Ventilators

FOR MARINE USE
IMPROVED BEARING RUNNING IN OIL
GALVANIZED STEEL OR COPPER



Fig. 744

For removing gasoline fumes from engine room or bilge, cooking odors from the galley, ventilation of 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.	Gal. Weigh. Pounds
4	\$12.00	\$20.00	10	7	140	2
5	12.25	20.50	12	8 1/2	152	3
6	12.50	21.00	13	9 1/2	196	4
7	14.75	25.00	15	11	243	6
8	15.75	26.50	16	12 1/2	285	7
10	19.25	32.50	18 1/2	15	445	10
12	22.00	36.00	20	17 1/2	650	12

With reinforcing band around bottom of neck supplied to order, price on application. Galvanized vents are painted aluminum.

Cowl Ventilators

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	\$14.85	\$20.50	\$26.00	4	5½	1¾
2½	16.00	21.75	27.50	5	6½	1¾
3	17.25	23.00	29.00	6	8	2½
4	21.25	26.50	33.00	8	11	4
5	35.00	40.75	49.00	10	13	6
6	47.00	53.00	63.00	12	16	9
8	88.00	105.00	130.00	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	\$19.50	\$25.25	\$31.50	6	8	2
4	25.25	31.00	38.75	8	12	3¾
5	37.00	43.50	54.00	10	13½	4¾
6	49.00	56.00	70.00	12	17½	7½
8	73.00	90.00	112.50	16	20½	11½
10	126.50			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.

Polished copper vents supplied to order, price on application.

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	\$26.00	\$33.00	6	7¾	4½
4	32.50	42.00	8	9¾	8½

Oval Mouth Ventilators

CAST BRONZE

SCREW TYPE

SWIVEL TYPE

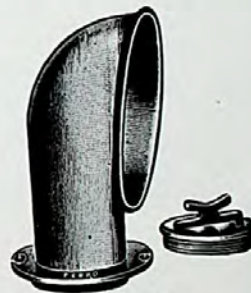


Fig. 509



Fig. 515

Swivel type Fig. 515 is supplied with cover for use when ventilator is removed.

Deck Plate Size Inches	Size Mouth Inches	Height Above Deck Fig. 509 Inches	Height Above Deck Fig. 515 Inches	Weight Pounds
3	6¼ x 4	8½	9½	6
4	6½ x 4¾	8½	9½	8

Deck Plate Size Inches	Fig. 509		Fig. 515	
	Pol. Bronze Each	Chrom. Plated Each	Pol. Bronze Each	Chrom. Plated Each
3	\$27.00	\$35.00	\$32.00	\$40.00
4	36.00	46.00	41.00	51.00

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.

Covers for swivel deck plates, for use when cowl is removed, price on application.

New Streamlined 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 Brass Per Pair	Chromium Plated Per Pair	Extreme Length Inches	Extreme Height Inches	Dimensions Mouth Inches	Weight Per Pair Pounds
\$11.50	\$14.50	9 3/4	4 1/2	4 x 1 3/4	3 1/8

Midget Ventilators

CAST BRONZE—OVAL MOUTH

BRONZE SWIVEL DECK PLATE AND COVER



Fig. 634

Polished Bronze Each	Chromium Plated Each	Diam. Bottom Opening Inches	Extreme Height Inches	Size of Mouth Inches
\$15.00	\$21.00	2	6 1/8	2 1/4 x 4 1/2

Transom Ventilators

CAST BRONZE



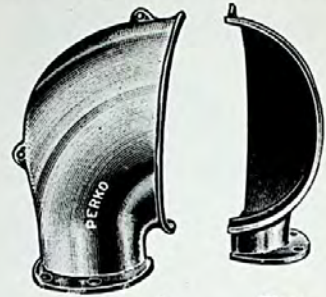
Fig. 1069

Plain Bronze Each	Pol. Bronze Each	Chrom. Plated Each	Size Flange Inches	Depth Collar Inches	Weight Pounds
\$1.65	\$2.75	\$3.85	6 3/4 x 2 1/4	3/4	3/4

With bronze screen soldered in, add \$.80 each.

Space Saver Ventilators

CAST BRONZE—IMPROVED



Starboard Port
Fig. 782

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	Inside Measurements at Mouth Inches	Extreme Height 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.	Plain Bronze Per Pair	Polished Bronze Per Pair	Chrome Plated Per Pair
1	\$11.00	\$16.00	\$20.50
2	15.50	21.00	25.50

Note—When ordering a half pair, please mention whether for port or starboard side.

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 splash or rain from entering ventilator. A bronze screen permanently installed to keep insects out of cabin.

Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Size Base Inches	Height Overall Inches	Weight Pounds
\$16.50	\$21.00	\$23.50	7 x 7	3 1/2	4 3/4



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	11
5	3 1/2	2	4 x 3 3/8	14
	Plain Bronze Each		Polished Bronze Each	Chromium Plated Each
No.				
4	\$1.90	\$2.30	\$3.40	
5	2.30	2.70	3.60	

Ice Box Ventilators CAST BRONZE



Fig. 783

No.	Polished Bronze Each	Chromium Plated Each	Diam. of Opening Inches	Size Plate Inches	Weight Pounds
1	\$5.75	\$8.25	1 5/8	2 1/2 x 2 1/2	3/2
2	6.00	8.60	2 1/2	3 1/4 x 3 1/4	1
3	7.40	10.25	3	4 1/8 x 4 1/8	1 1/2
4	9.25	12.25	3 3/8	4 7/8 x 4 7/8	1 3/4

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 1/2	1 5/8	3 5/8 x 4 3/8	12
	Plain Bronze Each		Polished Bronze Each	Chromium Plated Each
No.				
2	\$1.90	\$2.30	\$3.40	
3	2.30	2.70	3.60	

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	\$ 5.80	\$ 6.40	\$ 8.25	3 5/8	3/4
2 1/2	6.50	7.25	9.25	4 1/2	1
3	7.60	8.70	10.70	4 7/8	1 1/4
3 1/2	9.50	10.70	13.00	5 1/2	1 3/4
4	11.20	12.70	15.00	5 3/4	2 1/4
5	16.50	18.50	21.00	7 1/16	3 3/4
6	21.00	23.25	26.00	8 1/4	4 1/2
8	48.00	52.00	57.00	10 1/4	7 1/2

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	\$6.00	\$7.15	3 1/2	2 3/4	5x6	1
7	7.60	9.00	4 3/8	3 1/4	6x7	2
8	10.00	12.00	5 3/4	3 1/2	7x8	2 1/2

Swivel Deck Plates CAST BRONZE—FOR COWL VENTILATORS

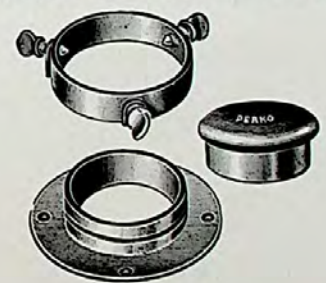


Fig. 419

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	\$10.25	8	7	\$30.00
4	3 1/2	15.50	10	9 1/2	50.00
5	4 1/2	19.25	12	11 1/4	61.00
6	5	23.00			

New Streamline Ventilator CAST BRONZE

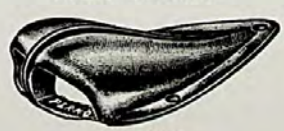


Fig. 310

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
\$5.50	\$7.25	3x1	7 1/2 x 4	1 1/2

Price does not include cap, if cap is desired add 25% to above prices.

Round Portlights

CAST BRONZE

NEW STYLE—IMPROVED

GLASS AREA IS SAME DIAMETER AS OPENING



Fig. 317

Deck Lights

CAST BRONZE—FOR WOOD DECKS



Fig. 838

Diam. Opening Inches	Plain Bronze Each	Diam. Glass in Clear Inches	Outside Diam. Frame Inches	Thickness of Glass Inches	Weight Pounds
4	\$ 7.85	4	7 3/8	1/4	2 3/4
5	9.35	5	8 3/4	1/4	4 3/8
6	11.55	6	9 3/4	1/4	5 5/16
7	15.95	7	10 7/8	3/8	8
8	18.00	8	12 1/4	3/8	9 7/8
10	35.25	10	15 3/8	1/2	19 1/2
12	60.00	12	17 3/8	1/2	24

Diameter Clear Glass Inches	Plain Bronze Each	Polished Bronze Each	Thickness Glass Inches	Outside Diam. Frame Inches	Weight Pounds
3 1/2	\$6.25	\$8.20	1/4	5 3/4	1 3/4
4	6.60	9.00	1/4	6 1/2	2
5	7.75	10.60	3/8	7 1/2	3 3/8
6	9.50	12.50	3/8	8 1/2	3 3/8
7	14.00	17.50	1/2	9 1/2	6 3/4
8	16.50	20.50	1/2	11	7 1/4

All sizes except 12 inch have Removable Hinge Pin.

10 inch has Two Fastenings.

12 inch has Three Fastenings.

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

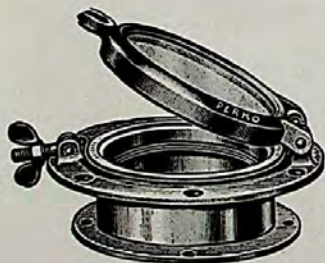
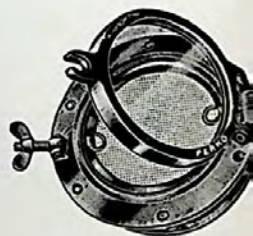


Fig. 157

Showing Screen in Place



Opening Inches	For Thickness of Wood				Outside Diameter Frame Inches	Thickness Glass Inches	Weight 1 1/2 Inch Spigot In Pounds
	1 1/2 Inch Plain Bronze Each	3 Inch Plain Bronze Each	4 1/2 Inch Plain Bronze Each	6 Inch Plain Bronze Each			
4	\$ 9.75	\$11.00	\$13.00	\$14.00	6 7/8	1/4	4 1/2
5	11.50	12.75	14.85	16.20	7 3/4	1/4	6
6	13.75	15.00	16.65	18.30	8 7/8	1/4	7 3/4
7	19.50	21.50	24.25	25.80	10 1/2	3/8	11
8	22.25	24.50	27.25	30.60	11 1/2	3/8	14 1/2
9	29.50	32.00	35.75	38.50	13 1/4	1/2	18 1/2
10	39.75	44.50	48.50	54.25	14 1/4	1/2	20
12	49.00	55.00	61.00	69.00	17	1/2	32 1/2

For 1 inch wood, use 1 1/2 inch price. For 2 or 2 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:

Plain	4 Inch	5 Inch	6 Inch	7 Inch	8 Inch	9 Inch	10 Inch	12 Inch
	\$.55	\$.65	\$.80	\$1.00	\$1.20	\$1.90	\$2.50	\$3.00

Note — Screens for all portlights above see Fig. 442.



Marine Windows

WITH SPIGOT
PLAIN BRONZE OR ALUMINUM
WATERTIGHT—TWO FASTENINGS

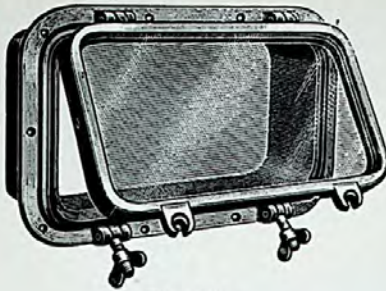


Fig. 796

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 Each	Size Glass in Clear Inches
1	5x12	\$25.50	\$23.00	\$1.65	5x12
2	7x16	31.00	27.50	2.00	7x16

No.	Dimensions Outside of Frame Inches	Length Spigot Inches	Thickness Glass Inches	Bronze Weight Pounds	Aluminum Weight Pounds
1	7 3/4 x 14 3/4	2	1/4	16	7
2	10 x 19 1/4	2	1/4	22	10

Marine Windows

WITHOUT SPIGOT
PLAIN BRONZE OR ALUMINUM
WATERTIGHT—TWO FASTENINGS

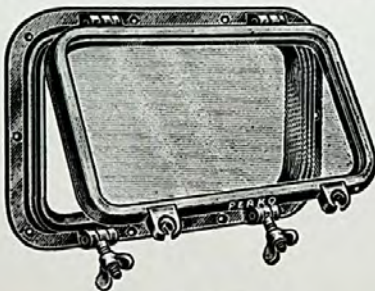


Fig. 803

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	\$24.00	\$21.50	11 1/2	5
4	7x16	29.50	26.00	16	7

SPECIAL FINISHING FRAMES FOR FIG. 803

	Size	Plain Bronze	Plain Aluminum	Bronze Weight	Aluminum Weight
3	5x12	\$ 4.00	\$ 3.75	2 1/2	1
4	7x16	5.25	5.00	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—\$4.50 each. Size 7x16 inches—\$5.25 each.

Oval Inside Portlights

PLAIN BRONZE OR ALUMINUM
WITH OUTSIDE FINISHING RING AND
REMOVABLE HINGE PIN

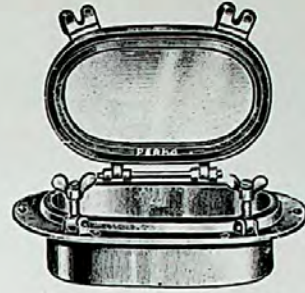


Fig. 897

Size of Opening Inches	Bronze		Aluminum	
	For Wood Thickness 1 1/2 Inches	For Wood Thickness 2 Inches	For Wood Thickness 1 1/2 Inches	For Wood Thickness 2 Inches
4x7	\$19.25	\$19.95	\$15.10	\$16.35
5x9	23.35	23.90	18.20	19.40

Without Outside Finishing Ring,
Deduct from Above Prices the Following.

Size Inches	Bronze Each	Aluminum Each
4x7	\$.65	\$.65
5x9	1.00	1.00

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.

Air Scoops for Portlights

GALVANIZED OR POLISHED BRASS
WITH OR WITHOUT SCREENS



Fig. 153

Opening of Portlight Inches	Galvanized		Polished Brass	
	Without Screen Each	With Screen Each	Without Screen Each	With Screen Each
3	\$5.20	\$7.25	\$7.25	\$9.25
4	6.25	7.90	8.00	9.75
5	6.75	8.80	8.75	10.75
6	7.75	9.75	10.00	12.00
7	8.50	10.50	11.00	13.00
8	9.50	11.50	11.75	13.75

These are all made to order and are not returnable, larger sizes price on application.

Screens are soldered into scoops.



Round Frames For Glass

CAST BRONZE



Fig. 444

Size No.	Plain Each	Polished Each	Chromium Plated Each	Inside Diameter Inches	Outside Diameter Inches	Weight Each in Lbs.
1	\$1.25	\$2.00	\$3.00	3 3/8	5 3/4	1/2
2	1.35	2.10	3.10	4 3/8	6 1/4	5/8
3	1.45	2.30	3.40	4 7/8	6 3/4	11/16
4	1.50	2.60	3.75	5 1/4	7 1/4	3/4
5	2.10	3.30	4.50	5 3/4	8	7/8
6	2.50	3.75	5.25	6 1/4	8 1/2	1
7	3.00	4.40	6.00	7 1/4	9 3/4	1 3/8
8	4.25	6.00	8.00	8 1/4	11 1/4	1 7/8
9	4.95	7.25	9.75	9 1/4	12 1/4	2
10	6.00	8.10	10.75	10 1/4	13 1/4	2 3/4

Round Finishing Rings For Inside Portlights

CAST BRONZE—PLAIN

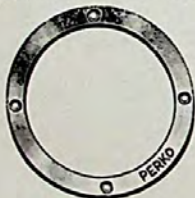


Fig. 455

Size No.	Plain Each	For Size Portlight Inches	Inside Diam. Inches	Outside Diam. Inches	Weight Pounds
1	\$1.10	4	4 9/16	5 9/16	1/2
2	1.30	5	5 5/16	6 5/16	1/2
3	1.60	6	6 5/16	7 9/16	5/8
4	2.65	7	7 5/16	9 1/16	1
5	2.75	8	8 5/16	10 1/4	1 3/4
6	3.75	9	9 5/16	11 1/2	2 3/4
7	4.75	10	10 3/8	13	2 3/4
8	6.75	12	12 3/8	15 1/8	3 3/4

Portlight Chains

POLISHED BRONZE



Fig. 441

Each	Length Inches	Size Plate Inches	Weight Ounces
\$1.50	8	1 1/4 x 1	3

Round Portlight Screens

BRONZE—SPRING TYPE

FOR FIGS. 157 AND 317 PORTLIGHTS



Fig. 442

For Size Opening Inches	Bronze Each	Dull Chrome Plate Each	For Size Opening Inches	Bronze Each	Dull Chrome Plate Each
4	\$2.65	\$4.30	8	\$4.35	\$6.50
5	3.00	4.75	9	4.65	7.25
6	3.35	5.50	10	5.75	8.25
7	3.95	6.00	12	6.60	9.50

Oval Portlight Screens

BRONZE—SPRING TYPE

FOR FIG. 897 PORTLIGHT



Fig. 443

For Size Opening Inches	Bronze Each	Dull Chrome Plate Each
4 x 7	\$3.85	\$6.50
5 x 9	4.50	7.00

Round Portlight Screens

BRASS FRAME—COPPER SCREENING

FRICITION 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	\$2.50	8 1/16	8	\$4.20
5 1/16	5	2.85	9 1/16	9	4.40
6 1/16	6	3.20	10 1/16	10	5.50
7 1/16	7	3.80	11 1/16	12	6.25

Larger sizes made to order—Price on Application.



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

Quarter Round Rubber Moulding BLACK



Fig. 471

Generally used as trim or moulding around cabin windows and windshields.

Size 3/8 x 3/8 inches
Per Foot — \$.20

Quarter Round Lead Beading VIRGIN LEAD—FLEXIBLE AND PLIABLE



Fig. 481

A moulding ideal for angle joints especially where curves or bends are involved. Can be painted. Supplied in coils.

Size — 5/16 x 5/16 inches
Per Foot — \$.55

Glass Run Window Channel WITH STAINLESS STEEL BEAD

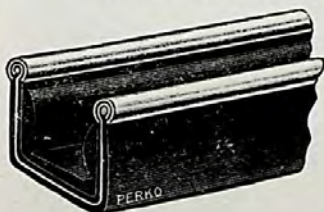
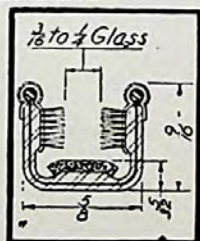


Fig. 482



Vulcanized rubber covered, mohair lined. The highest quality channel of its type.

Supplied only 8 foot lengths.

Per Length	Outside Width Inches	Height Inches	For Glass Inches	Weight Per Length Pounds
\$5.50	5/8	3/16	3/16 - 1/4	1 1/4

Swinging Ash Trays in Gimbals

ALL BRASS—CHROMIUM PLATED
WEIGHTED BASE—DETACHABLE

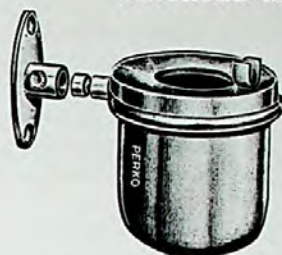


Fig. 653



Fig. 698

Always upright regardless of boat's action. Complete with cigarette clip.

Fig.	Each	Size Mounting Plate Inches	Diam. Tray Inches	Height Tray Inches	Weight Pounds
653	\$6.25	2 1/4 x 1	2 3/4	3	5/8
698	7.00	1 3/4 x 1 1/4	2 3/4	3	1 1/8

Swinging Glass Holders in Gimbals

ALL BRASS—CHROMIUM PLATED
DETACHABLE

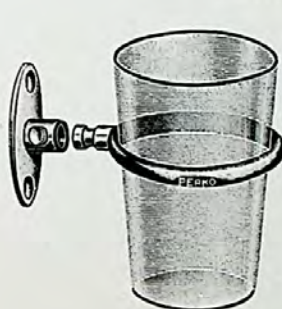


Fig. 654



Fig. 699

Glass is always upright regardless of boat's action. Will accommodate an average tumbler or highball glass.

Fig.	Each	Size Mounting Plate Inches	Inside Diam. Ring Inches	Weight Ounces
654	\$3.25	2 1/4 x 1	2 1/2	3
699	4.75	1 3/4 x 1 1/4	2 1/2	6

Non-Swinging Ash Trays and Glass Holders

ALL BRASS—CHROMIUM PLATED

Same type bracket, same appearance and same dimensions as Figs. 653 and 654 above. Ash tray is not weighted. Holder is not detachable.

Fig. 687 Ash Tray complete, each	\$5.50
Fig. 688 Glass Holder complete, each	2.75



NEW IMPROVED "PERKO" DASHBOARD STEERERS WITH CREAM COLORED WHEEL

15 INCH WHEEL—HARD RUBBER, STEEL CORE
POLISHED ALUMINUM CASTINGS—DOUBLE DRUM TYPE—FOR TILLER ROPE

These new steerers have definite improvements over older models, both in looks and practicability.

THE WHEEL — Has an attractive glossy cream color, baked on by a new process that is resistant to wear, scratches and weather.

THE THROTTLE CONTROL — Of pleasing modern automotive design, it is located below the wheel as illustrated; thus located it is more readily available to the operator while out of the way of clothing and accident operation. It also provides more direct and positive operation of the throttle with less effort than the old center-wheel type.

THE SHAFTS — Are all keyed at both ends, into the wheel and the drum. No pins used.

THE ALUMINUM HOUSING — Is mortised into hub of wheel for more rigid construction and better appearance.

Adjustable Bracket Type

WITH UNDER-DECK SUPPORTS
WITH BRASS SHAFT

The dash bracket is adjustable to various angles of dashboard, also up or down the shaft to increase or decrease the length. The under-deck supports are individually hinged for any problem of installation.

WITHOUT THROTTLE CONTROL

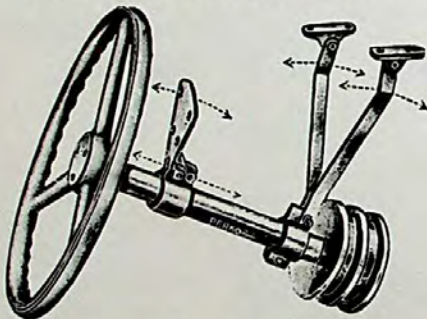


Fig. 535

With Brass Shaft Each	Length Overall Inches	Diam. Drum Inches	Length Supports Inches	Weight Pounds
\$28.00	16	3 1/2	11	7

Non-Adjustable Type

WITH FIXED DASH BRACKET
22 DEGREES

SHAFT EITHER

CADMIUM PLATED STEEL OR BRASS

The dash bracket is at a fixed angle but past experience shows that 22 degrees is about correct for the majority of outboard runabout hulls.

WITHOUT THROTTLE CONTROL

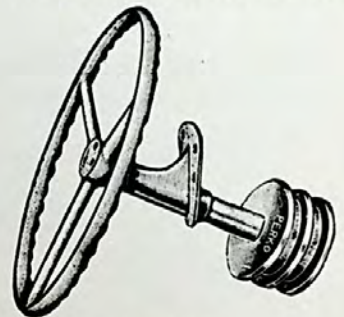


Fig. 537

With Steel Shaft Each	With Brass Shaft Each	Length Overall Inches	Diam. Drum Inches	Length Dash to Wheel Inches	Weight Pounds
\$16.50	\$19.00	13	3 1/2	6	5

WITH THROTTLE CONTROL

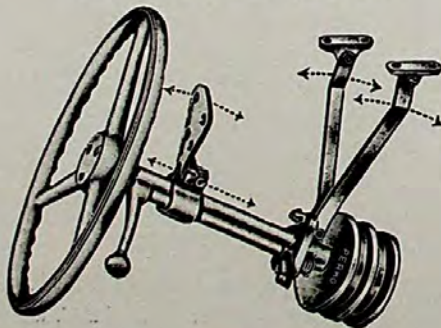


Fig. 536

With Brass Shaft Each	Length Overall Inches	Diam. Drum Inches	Length Supports Inches	Length Control Handle Inches	Weight Pounds
\$34.00	16	3 1/2	11	6	8

WITH THROTTLE CONTROL

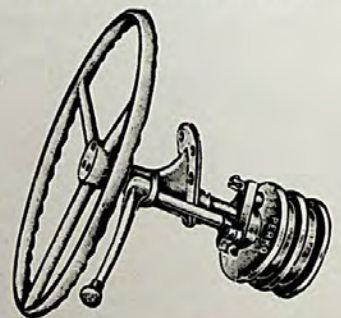


Fig. 538

With Steel Shaft Each	With Brass Shaft Each	Length Overall Inches	Diam. Drum Inches	Length Dash to Wheel Inches	Length Control Handle Inches	Weight Pounds
\$24.50	\$26.50	13	3 1/2	6	6	6

Racing Outboard Steerers

WITHOUT CONTROLS
CREAM COLORED WHEEL
DOUBLE DRUM TYPE



Fig. 737

All metal parts are aluminum alloy castings for light weight. Wheel is 3 spoke hard rubber in glossy cream finish with steel core.

Each	Diam. Wheel Inches	Diam. Base Inches	Overall Height Inches	Diam. Drum Inches	Weight Pounds
\$16.00	15	6 1/4	6	3 1/2	6 1/2

Drum Steerers

GALVANIZED MALL. IRON OR CAST BRONZE FOR TILLER ROPE



Fig. 661

Overall Diam. Inches	Galv. Each	Polished Bronze Each	Size Base Inches	Diam. Drum Inches	Length Drum Inches
12	\$ 8.25	\$11.00	3 3/8 x 3 3/8	2 3/8	3
16	11.25	18.50	4 x 4	2 5/8	3 3/8
20	19.50	31.00	5 1/8 x 5 1/8	3 3/8	4 5/8
25	36.00		5 3/4 x 5 3/4	4	6

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
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.

Handles and Bolts FOR STEERING WHEELS



Fig. 553

Length Inches	Handles Only Each
3	\$.25
3 1/2	.30
4	.40



Fig. 554

Size Inches	Galvanized Bolts Only		Bronze Bolts Only	
	Each	Each	Each	Each
3/8 x 3 1/2	\$.25		3/8 x 3 1/4	\$.40
7/16 x 4		.35	7/16 x 4	.50
			7/16 x 4 1/2	.60

Worm Geared Steerers

ALL BRONZE THROUGHOUT—PLAIN FINISH OR CAST IRON WITH STEEL GEARS AND SHAFT—PAINTED FINISH
MODEL A-1—FOR WHEEL BOX MOUNTING

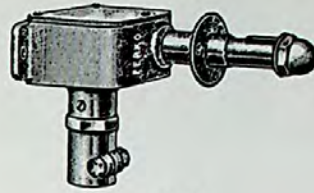


Fig. 512

Steering ratio, 10 1/2 to 1. 1 1/4 turns equals 45 degree rudder angle.

For rudder of 4 square foot area.
For 1 inch vertical shaft.

All Bronze Each	Iron and Steel Each	Diam. Wheel Shaft Inches	*Length Wheel Shaft Inches	Length For Hub Inches	Size Box Overall Inches
\$60.00	\$36.00	1	4	2 1/8	7 x 2 1/2

Weight, all Bronze—13 3/4 pounds.

MODEL E—All bronze only, with reversed shaft for thru - bulkhead mounting at above all bronze price. Please specify.

*Length between box and wheel.

WITH WHEEL AND FITTINGS
ALL BRONZE OR IRON AND STEEL
WITHOUT VERTICAL SHAFT

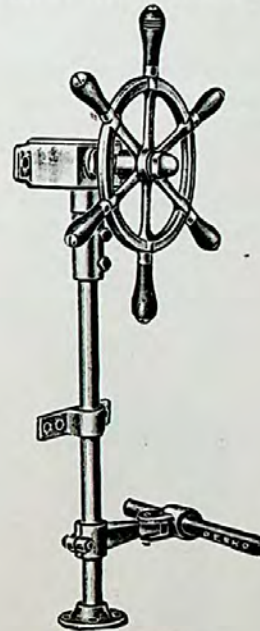


Fig. 820

ALL BRONZE WITH BRONZE FITTINGS

No.	Description	Each
1	Complete with 16 inch bronze wheel	\$94.00
2	Complete with 20 inch bronze wheel	97.00
3	Complete with 24 inch bronze wheel	112.00

IRON AND STEEL WITH BRONZE FITTINGS

4	Complete with 16 inch bronze wheel	\$70.00
5	Complete with 20 inch bronze wheel	73.00
6	Complete with 24 inch bronze wheel	88.00

Spare parts, see Fig. 976 sizes 4, 5 and 6.
Fig. 865 Nos. 1, 5, 6 and 8.

Chain Type Steerers

ALL BRONZE—WITH ROLLER CHAIN
FOR WHEEL BOX MOUNTING

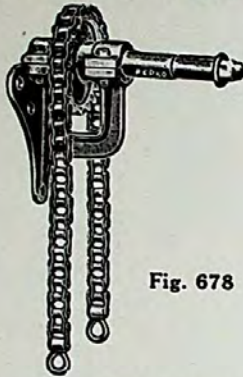


Fig. 678

Sprocket, 4 3/8 inch diameter, 21 teeth.
Chain, 36 inches long, 3/8 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
3/8	\$44.00	2 7/8	6x5 1/2	11
1	44.00	2 7/8	6x5 1/2	11 1/2

*Length between bracket and wheel.

Chain only, without Shackles, per foot	\$4.10
Chain Shackles, each	.75
Acorn Nuts, each	1.10
Sprocket only, each	6.50

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

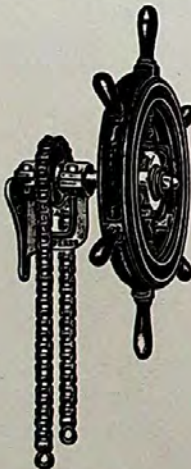


Fig. 676

Diameter Wheel Inches	Each	Wheel End of Shaft Inches
20	\$91.00	3/8
24	97.50	1
28	110.00	1

Supplied for wheel box or thru-bulkhead mounting at same price, please specify.

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.

FOR WHEEL BOX MOUNTING

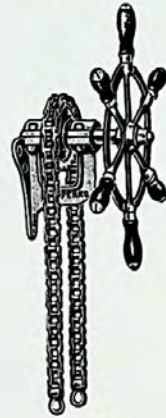


Fig. 674

Outside Diameter Wheel Inches	Polished Bronze Each	Chromium Plated Each	Machined Wheel End of Shaft Inches	Diam Shaft Inches
16	\$55.00	\$63.00	3/8	1
20	63.00	72.00	3/8	1
24	74.00	84.00	1	1

Wheel, shaft and nut only are polished or plated, balance of steerer is plain bronze.

FOR THRU-BULKHEAD MOUNTING

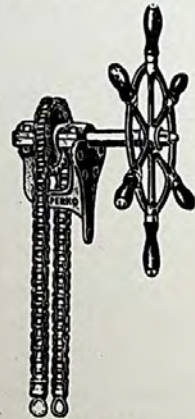


Fig. 675

Outside Diameter Wheel Inches	Polished Bronze Each	Chromium Plated Each	Machined Wheel End of Shaft Inches	Diam Shaft Inches
16	\$55.00	\$63.00	3/8	1
20	63.00	72.00	3/8	1
24	74.00	84.00	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 on Page 101. For price, add the difference between Figs. 976 and 914, sizes No. 1, 2 or

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	\$17.00	\$21.50	7/8	1	4
2	20	19.75	26.00	7/8	1	6 3/4
3	24	33.50	40.00	1	1 1/4	10 3/4

With Long Hub for steerers Figs. 512 and 678

No.	Overall Diam. Inches	Polished Bronze Each	Chromium Plated Each	For Shaft Inches	Length Hub Inches	Wt. Lbs.
4	16	\$20.00	\$24.50	3/4, 7/8 or 1	2 1/8	4 1/4
5	20	23.75	30.00	3/4, 7/8 or 1	2 1/8	7 3/4
6	24	38.50	45.00	1	2 1/8	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	\$22.00	\$26.50	7/8	1	4 1/4
2	20	25.50	31.75	7/8	1	5 1/4
3	24	31.50	38.00	1	1 1/4	6 3/4

With Long Hub for steerers Figs. 512 and 678

No.	Overall Diam. Inches	Polished Brass Each	Chromium Plated Each	For Shaft Inches	Length Hub Inches	Wt. Lbs.
4	16	\$25.50	\$30.00	3/4, 7/8 or 1	2 1/8	4 3/4
5	20	29.50	35.75	3/4, 7/8 or 1	2 1/8	6 1/4
6	24	36.50	43.00	1	2 1/8	7

Aluminum Steering Wheel

CAST ALUMINUM—NON MAGNETIC
2 SPOKE TYPE
EMERY FINISH

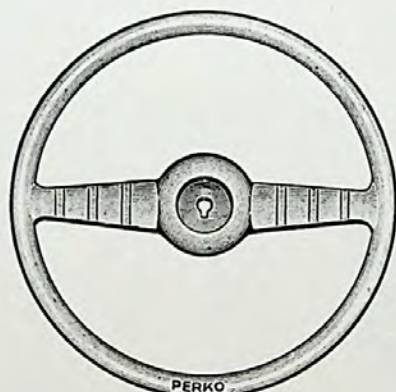


Fig. 539

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 satin finish, chromium plate is available, each \$3.00.

Mahogany Steering Wheels

WITH PLUGGED OR INLAID RIM
CAST BRONZE HUB—POLISHED

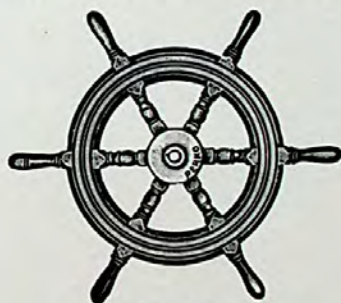


Fig. 657

Diam. Overall Inches	Plugged Each	Inlaid Each	For Shaft Inches	Size Keyway Inches	Thickness of Hub Inches	Number 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	106.00	117.00	1 1/4	3/8	2 1/2	8
42	122.00	134.00	1 1/4	3/8	2 1/2	8
48	137.00	150.00	1 3/8	3/8	3	8
54	172.00	185.00	1 3/8	3/8	3 1/4	8
60	191.00	204.00	1 3/8	3/8	3 1/4	10

Chromium plated hub supplied to order sizes up to 28 inches inclusive, add \$5.50 each. 30 to 36 inches inclusive, add \$7.50 each.

NOTE—Shaft sizes above are stock bores, special boring supplied to order, price on application.

Cruiser Rudders

CAST MANGANESE BRONZE



Fig. 816

Blade Size Inches	Each	Blade Thickness Inches	Diam. of Stock Inches	Total Length of Stock Inches	Longer Stocks Per Inch	Weight Pounds
12x12	\$26.50	1/4	1	12	.33	18
13x13	28.75	1/4	1	12	.33	21
14x14	34.75	1/4	1	12	.33	22
15x15	39.50	1/4	1	12	.33	25
16x16	44.25	1/4	1	12	.33	30
18x16	46.25	1/4	1	12	.33	33
18x18	50.00	1/4	1	12	.33	35
20x18	60.00	1/4	1 1/4	18	.52	37
20x20	66.00	1/4	1 1/4	18	.52	40
22x18	68.50	1/4	1 1/4	18	.52	43
22x20	86.00	3/8	1 1/4	18	.52	56
22x22	88.00	3/8	1 1/4	18	.52	61
24x20	88.00	3/8	1 1/4	18	.52	69
24x22	90.00	3/8	1 1/4	18	.52	77
24x24	92.50	3/8	1 1/4	18	.52	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 Top Inches	Width of Blade Bottom Inches	Height of Blade Inches	Thickness of Blade Inches	Diam. of Shaft Inches
1	\$14.50	8	7	7	1/8	3/4
2	20.00	9	8	8	3/16	1

Weight No. 1, 4 pounds; No. 2, 7 1/4 pounds.

Speed Boat Rudders

CAST MANGANESE BRONZE

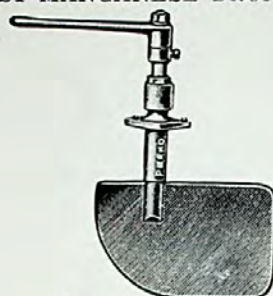


Fig. 813

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	\$55.50	\$28.75	9x14	1	12	13
2	62.00	35.50	10x16	1	12	14
3	75.00	39.50	11x18	1 1/8	14	22
4	98.50	51.00	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

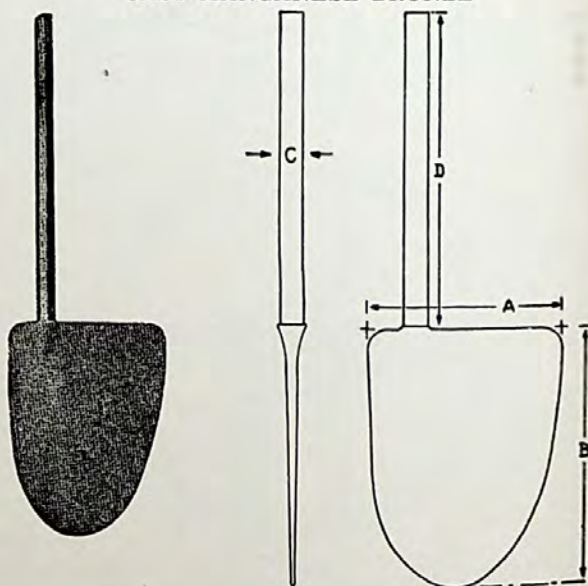


Fig. 818

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	\$30.75	.33	9	12	1	16	12 1/2
2	37.50	.39	10 1/2	14	1 1/8	18	15
3	39.50	.52	12	16	1 1/4	18	20
4	52.75	.59	13 1/2	18	1 3/8	24	30
5	74.50	.65	15	20	1 1/2	24	46
6	110.00	.85	16 1/2	22	1 3/4	30	69
7	149.00	1.10	18	24	2	36	84
8	202.00	1.30	20	26	2 1/4	40	120
9	315.60	1.45	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 Each Pounds
00	\$ 6.25	6x 8x 1/16	5/8	25	3/4	3
0	11.50	12x 12x 1/8	5/8	40	3/4	11
1	13.75	14x 14x 1/8	5/8	42	3/4	13
2	20.50	16x 16x 3/16	3/4	48	1	25
3	25.00	18x 18x 3/16	3/4	52	1	35

Rudder Skags

DROP FORGED STEEL OR BRONZE

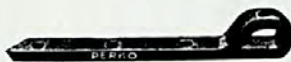


Fig. 649

Size No.	Galv. Each	Plain Bronze Each	Dimensions Inches	For Rudder Post Inches	Weight Pounds
0	\$ 4.25	\$ 9.00	24x 1 1/2 x 3/8	3/4	4 1/2
1	6.25	14.50	30x 1 3/4 x 1/2	3/4	9
2	11.50	27.75	42x 2 x 5/8	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 Each (Iron) Pounds
8	\$2.85	\$ 5.30	5/8 x 5/8	1
10	3.20	5.85	5/8 x 5/8	1 3/4
12	4.80	6.35	3/4 x 3/4	2 1/2
15	6.00	11.50	7/8 x 7/8	3 1/2

Bronze Tillers

CAST BRONZE

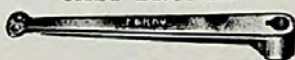


Fig. 810

For round stock rudders Figs. 813, 816 818.

No.	Each	Length Inches	For Rudder Stock Inches	Size Keyway Inches	Weight Pounds	Radius Inches	Galv. Each	Max. Diam. Rope Inches	Square Hole Adjustable Inches	Weight Pounds
						7	\$ 8.00	3/8	9/16 to 3/4	3
1	\$ 6.35	8	3/4 or 1	3/16 or 1/4	1 1/2	10	13.00	3/8	9/16 to 1	5 1/4
2	7.50	10	1	1/4	2	12	16.00	3/8	3/4 to 1 1/4	8 1/2
3	8.80	12	1	1/4	3 1/4	15	29.00	1/2	3/4 to 1 1/4	13
4	15.75	14	1 1/8	1/4	4 1/2	18	40.00	5/8	1 to 1 3/8	27
5	25.00	16	1 1/4	5/16	7	24	79.00	3/4	1 1/2 to 1 3/4	46

Rudder Ports with Stuffing Box

CAST BRONZE—PLAIN WITH BRASS GREASE CUPS



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
3/4	\$ 9.60	4 x 2	5 1/8	5/16	3
7/8	9.85	4 1/4 x 2 1/4	5 3/8	3/8	3 1/4
1	10.25	4 1/4 x 2 1/2	5 1/4	3/8	3 1/2
1 1/8	11.20	5 x 2 5/8	5 1/4	1/2	3 3/4
1 1/4	13.50	5 3/4 x 3	6 3/8	1/2	5 1/2
1 3/8	15.00	6 1/4 x 3 1/4	6 3/4	1/2	6 1/2
1 1/2	16.50	6 1/2 x 3 1/2	6 3/4	1/2	6 3/4

Bronze Rudder Collars



Fig. 815

For Diam. Stock Inches	Each	Outside Diameter Inches	Thickness Inches	Weight Ounces
3/4	\$1.80	1 1/8	13/16	2 1/4
1	2.40	1 3/4	15/16	7
1 1/8	2.40	1 3/4	15/16	6 1/2
1 1/4	3.25	2 1/8	15/16	11
1 3/8	4.00	2 1/2	1 1/8	19
1 1/2	4.25	2 1/2	1 1/8	19

Quadrant Tillers

GALVANIZED MALLEABLE IRON



Fig. 651

Rudder Brace Pintles

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 1071

Size No.	Galv. Each	Plain Bronze Each	Between Straps Inches	Length Straps Inches	Width Straps Inches	Galv. Weight Ounces
00	\$.65	\$.65	5/8	2 7/8	3/4	8
0	.70	.70	3/4	3 1/2	7/8	9
1	1.00	1.05	7/8	4 1/4	7/8	10
2	1.20	1.30	1	4 1/2	1	11
3	1.60	1.60	1 1/4	4 3/4	1	13
4	2.10	2.30	1 1/2	5 1/2	1 1/4	22

Rudder Brace Gudgeons

GALVANIZED MALLEABLE IRON OR BRONZE
STRAP TYPE



Fig. 1070

Size No.	Galv. Each	Plain Bronze Each	Between Straps Inches	Length Straps Inches	I. D. Hole Minimum Inches	Galv. Weight Ounces
00	\$.46	\$.52	5/8	2	1/2	4
0	.52	.60	3/4	2 1/2	1/2	5
1	.65	.70	7/8	3	1/2	6 1/2
2	.80	.95	1	3	9/16	7
3	.95	1.05	1 1/4	3 1/4	5/8	8
4	1.20	1.50	1 1/2	3 3/4	3/4	15

NARROW PLATE TYPE



Fig. 1072

Size No.	Galv. Each	Plain Bronze Each	Length Plate Inches	Width Plate Inches	I. D. Hole Minimum Inches	Galv. Weight Ounces
00	\$.52	\$.58	2	1	1/2	2 1/2
0	.58	.65	2	1	1/2	2 1/2
1	.65	.70	2 1/4	1 1/8	1/2	4
2	.80		2 3/8	1 1/4	9/16	4

WIDE PLATE TYPE



Fig. 1073

Size No.	Galv. Each	Plain Bronze Each	Length Plate Inches	Width Plate Inches	I. D. Hole Minimum Inches	Weight Ounces
00	\$.52	\$.58	3 1/2	1 1/2	1/2	3
0	.58	.65	3 1/2	7/8	1/2	3
1	.65	.70	3 3/8	7/8	1/2	4
2	.80	.85	4 1/8	1	5/8	6
3	1.00	1.15	4 3/8	1 1/8	5/8	8
4	1.15	1.25	4 3/8	1 1/4	1 1/16	9

Rudder Brace Gudgeons

GALVANIZED MALLEABLE IRON OR BRONZE
SCREW TYPE

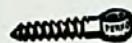


Fig. 1074

Size No.	Galv. Each	Plain Bronze Each	Diam. Shank Inches	I. D. Hole Minimum Inches	Weight Ounces
00	\$.22	\$.22	3/8	1/2	1
0	.28	.28	3/8	1/2	1 1/2
1	.40	.40	7/16	1/2	2
2	.50		1/2	9/16	2

Sliding Rudder Fittings

CAST BRONZE



Fig. 552

For use on dinghys and small sail boats. The rudder slides on a cast bronze track which has a stop at the bottom.

Between Straps Inches	Width Track Inches	Length Track Inches	Wt. Per Set Lbs.
7/8	1	18	4

Complete Per Set \$12.50
Track Only Each \$5.50

Length inside short strap 5 1/2", long strap 10".

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
\$14.00	\$17.50	20	16	4 3/4 x 2 1/2	3 1/2

Spare clevises, see Fig. 865 Part No. 2

NOTE—Dimensions and weight of Figs. 1070 to 1074 inclusive apply to bronze.

"Perko" Reverse Gear Controls

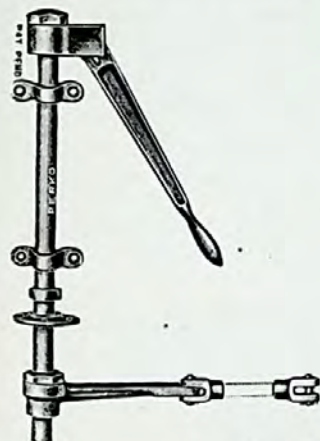
HEAVY CAST BRONZE—POLISHED
FOR 1 INCH OR 1 1/8 INCH SHAFT

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.

A simple arrangement holds the control handle horizontally and when not in use can be placed in a vertical position by a slight movement of the hand.



Interior view of tapered fastening device.

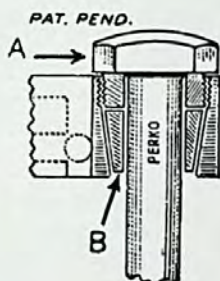


Fig. 663

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.....\$40.00
Handle complete with tapered bushing and nut..... 22.50
Lever complete with tapered bushing and nut..... 18.00

Chromium plated, add 40% to above prices.

Do not fail to specify size of shaft when ordering; parts for 1 1/8 inch shaft supplied unless otherwise specified.

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.

Furnished with two sockets threaded for 3/4 inch rod. Deck flange is 5 x 2 1/2 inches. Length of throw is 8 1/2 inches.

Polished Bronze Each	Chromium Plated Each	Length Handle Inches	Length Lever Inches
\$35.00	\$42.00	25	8



Fig. 720

"Perko" Reverse Gear Controls

HEAVY CAST BRONZE—POLISHED
FOR 1 INCH OR 1 1/8 INCH SHAFT

Same tapered bushing device as Fig. 663 in upper and lower levers, no machining of shaft necessary.

Control handle is hinged so that it hangs in vertical position out of way when not in use.

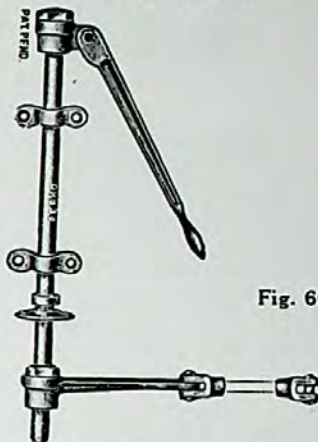


Fig. 664

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.....\$31.50
Handle complete with tapered bushing and nut..... 18.50
Lever complete with tapered bushing and nut..... 18.00

Chromium plated, add 40% to above prices.

Specify size of shaft when ordering; parts for 1 inch shaft supplied unless otherwise specified.

Clutch Control

CAST BRONZE—FOR 1 INCH SHAFT

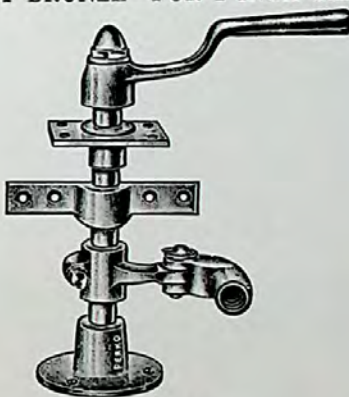


Fig. 822

Supplied with bulkhead bracket or shelf plate (please specify). Shaft is not included.

With 8" Handle—Polished Bronze Per Set	With 10" Handle—Chromium Plated Per Set	With 12" Handle—Polished Bronze Per Set	With 12" Handle—Chromium Plated Per Set
\$32.00	\$40.00	\$33.50	\$41.50
		\$35.00	\$43.50

SPARE PARTS

	Polished Bronze Each	Chromium Plated Each
8 inch handle	\$ 9.00	\$12.50
10 inch handle	10.00	13.50
12 inch handle	11.50	15.00
Acorn nuts	2.25	2.75
Balance of parts, see Fig. 865, Nos. 3, 4, 6, 9, 11.		

NOTE—Spare parts for Figs. 663 and 664 see Fig. 865, Nos. 2, 7, 10, 12.



Throttle Control
RATCHET TYPE—CAST BRONZE
FOR CONTROL ROD OR BOWDEN WIRE

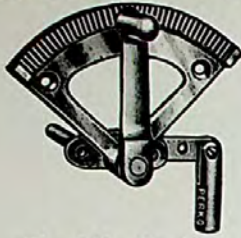


Fig. 690—For Rod
Fig. 690-A—For Wire

For bulkhead up to 2 inches thick.
Length of throw, 3 inches.
Rod socket is for $\frac{1}{4}$, $\frac{5}{16}$ or $\frac{3}{8}$ inch rod.
Supplied for $\frac{1}{4}$ inch rod unless otherwise specified.

Polished Bronze Each	Chromium Plated Each	Size Frame Inches	Weight Pounds
\$4.50	\$6.50	$4\frac{1}{4} \times 3\frac{1}{2}$	$\frac{5}{8}$

Spark and Throttle Control
RATCHET TYPE—CAST BRONZE
FOR CONTROL ROD OR BOWDEN WIRE



Fig. 691—For Rod
Fig. 691-A—For Wire

For bulkhead up to 2 inches thick.
Length of throw, 3 inches.
Rod sockets are for $\frac{1}{4}$, $\frac{5}{16}$ or $\frac{3}{8}$ inch rod.
Supplied for $\frac{1}{4}$ inch rod unless otherwise specified.

Polished Bronze Each	Chromium Plated Each	Size Frame Inches	Weight Pounds
\$8.50	\$12.50	6x3	$1\frac{3}{4}$

Spark and Throttle Control
RATCHET TYPE—FOR CONTROL WIRE
CAST BRONZE

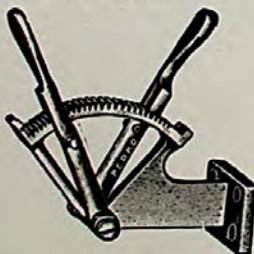


Fig. 409

Length of throw is 3 inches.

	Polished Bronze Each	Chrom- Plated Each	Length Arc Inches	Extreme Projec- tion Inches	Mounting Plate Inches	Weight Pounds
Single	\$6.25	\$ 9.25	2 $\frac{3}{8}$	5	$1\frac{7}{8} \times 1\frac{3}{8}$	$\frac{3}{4}$
Double	9.00	12.50	2 $\frac{3}{8}$	5	$1\frac{7}{8} \times 1\frac{3}{8}$	1

“Sea-Husky”
Spark and Throttle Control
RATCHET TYPE—FOR CONTROL ROD
CAST BRONZE

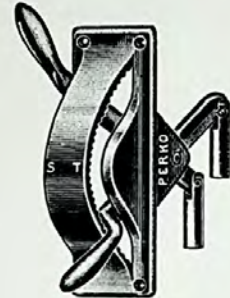


Fig. 331

Length of throw is 3 inches.
Rod sockets are for $\frac{1}{4}$, $\frac{5}{16}$ or $\frac{3}{8}$ inch rod.

Polished Bronze Each	Chromium Plated Each	Length Plate Inches	Width Plate Inches	Weight Pounds
\$14.50	\$17.00	6	2 $\frac{1}{2}$	2 $\frac{3}{4}$

Supplied for $\frac{5}{16}$ inch rod unless otherwise specified.

Spark and Throttle Control
RATCHET TYPE—FOR CONTROL ROD
CAST BRONZE—ADJUSTABLE



Fig. 904

Position can be changed by loosening one screw.
Sockets are for $\frac{1}{4}$, $\frac{5}{16}$ or $\frac{3}{8}$ inch rod.

Length of throw is 2 $\frac{3}{4}$ inches.

	Polished Bronze Each	Chromium Plated Each	Dimensions of Base Inches	Dimensions of Frame Inches	Weight Ounces
Single	\$4.40	\$7.25	2x $\frac{7}{8}$	4 $\frac{1}{2}$ x3 $\frac{3}{4}$	10
Double	6.75	9.75	2x $\frac{7}{8}$	4 $\frac{1}{2}$ x3 $\frac{3}{4}$	13

Supplied for $\frac{1}{4}$ inch rod unless otherwise specified.

Control Levers
CAST BRONZE—PLAIN



Fig. 354

No.	Each	Length Overall Inches	For Shaft Inches	For Clevis Pin Inches	Weight Ounces
1	\$.80	2 $\frac{1}{2}$	$\frac{5}{16}$	$\frac{7}{32}$	1
2	1.25	3 $\frac{3}{4}$	$\frac{5}{16}$	$\frac{7}{32}$	1 $\frac{1}{2}$

Throttle Control

RATCHET TYPE—CAST BRONZE
FOR BOWDEN WIRE



Fig. 715

Knob is black bakelite.
Length of throw, 3 inches.

Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Length Plate Inches	Width Plate Inches	Weight Pounds
\$10.75	\$13.50	\$15.50	6	2 3/8	2

Throttle Control

RATCHET TYPE—CAST BRONZE
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.

Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Length Plate Inches	Width Plate Inches	Weight Pounds
\$10.75	\$13.50	\$15.50	6	2 3/8	2

Supplied for 1/4 inch rod unless otherwise specified.

Control Cranks

PLAIN CAST BRONZE—FOR CONTROL ROD
SIDE TYPE

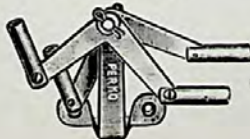


Fig. 636

Length Arms Inches	Height Overall Inches	Size Base Inches	Weight Single Ounces	Weight Double Ounces
2	2 3/8	2 1/4 x 5/8	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.

"Sea-Way" Throttle Control

RATCHET TYPE—FOR 3/8 INCH ROD
CAST BRONZE

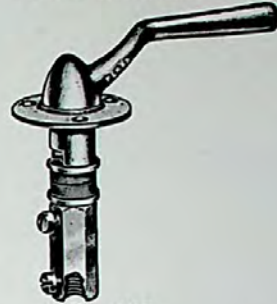


Fig. 847

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 Inches	Diam. Flange Inches	Weight Pounds
\$9.50	\$10.50	4 1/2	3/8	2 5/8	1

"Sea-Prince" Throttle Control

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.

Polished Bronze Each	Chromium Plated Each	Length Handle Inches	Length Lever Arm Inches	Diam. Flange Inches	Weight Pounds
\$10.50	\$11.50	4 1/2	3 1/2	2 5/8	1

Supplied for 5/16 inch rod unless otherwise specified.

Control Cranks

PLAIN CAST BRONZE—FOR CONTROL ROD
UPRIGHT TYPE

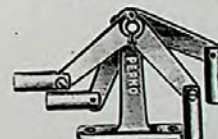


Fig. 637

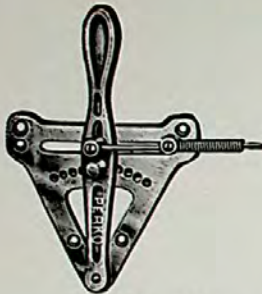
Length Arms Inches	Height Overall Inches	Size Base Inches	Weight Single Ounces	Weight Double Ounces
2	2 3/8	2 1/4 x 5/8	5	7
For Rod Inches	Single Complete Each	Double Complete Each	Cranks Only Each	Brackets Only Each
1/4	\$1.75	\$2.90	\$.60	\$.65
5/16	1.85	3.00	.60	.65
3/8	2.00	3.15	.60	.65

Supplied for 1/4 inch rod unless otherwise specified.



Improved Throttle Controls

RATCHET TYPE—FOR CONTROL WIRE
FORGED BRONZE



Side Mounting
Fig. 350



Floor Mounting
Fig. 351

A decided improvement over the old style controls. A straight push and pull of the control wire gives smooth action and no kinks.

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	\$3.50	\$5.80	\$6.80	4½x4	6½	12
351	3.75	6.25	7.25	4½x3¾	6½	13

Safety or Racing Control

CAST ALUMINUM—EMERY FINISH
INSTANT SHUT-OFF OF MOTOR
WHEN RELEASED

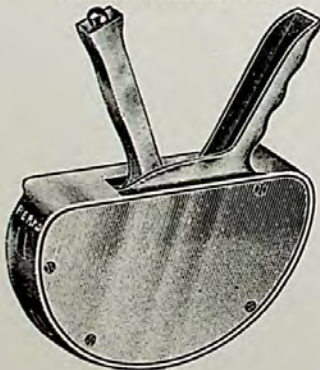


Fig. 247

A must for racing boats and a type that should be used on all fast boats whether used for racing or pleasure.

The control handle is under strong spring tension which snaps it back to the off position as soon as the operator's grip is released, yet it can be set at a desired position by pressing the ratchet control button on top of handle.

This control has simple idling adjustment that can be reached from outside.

Control wire has two positions on lever for pushing or pulling.

Each	Dimensions of Housing Inches	Length Handle Inches	Weight Pounds
\$12.00	7½x4¼	4	1½

Dashboard Choke Controls

POLISHED BRASS CONTROL HANDLE

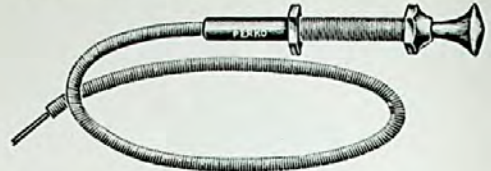


Fig. 371

WITH STEEL CASING AND WIRE

5 Ft. Lengths Per Set	7 Ft. Lengths Per Set	10 Ft. Lengths Per Set	15 Ft. Lengths Per Set
\$3.00	\$3.30	\$3.60	\$4.40

WITH BRASS CASING AND WIRE

5 Ft. Lengths Per Set	7 Ft. Lengths Per Set	10 Ft. Lengths Per Set	15 Ft. Lengths Per Set
\$3.70	\$4.20	\$5.00	\$6.60

With chromium plated handle, add \$.30 per set.

Bowden Wire and Casing

BETHANIZED STEEL OR BRASS—FLEXIBLE
¼ INCH O.D. CASING—LEFT HAND LAY
WIRE DIAMETER .072 INCHES



Fig. 353

Stock Lengths in Feet	Steel, Per Length			Brass, Per Length		
	Complete	Casing Only	Wire Only	Complete	Casing Only	Wire Only
5	\$.80	\$.60	\$.22	\$ 1.50	\$ 1.30	\$.25
7	1.05	.85	.25	2.05	1.75	.35
10	1.45	1.15	.35	2.85	2.40	.50
15	2.00	1.60	.50	3.95	3.50	.60
25	3.30	2.60	.80	6.60	5.75	1.00
50	6.60	5.25	1.60	13.20	11.50	2.00

Improved Control Wire Handles

FOR CASING WITH RIGHT OR LEFT HAND LAY
ALL BRASS



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 bulkhead up to 2 inches thick.

Polished Brass Each	Chromium Plated Each	Length Overall Closed Inches	Outside Diam. Stem Inches	Weight Ounces
\$1.95	\$2.20	4½	¾	3

Left hand thread supplied unless otherwise specified

Bowden Casing Clamp

FORGED BRONZE—SWIVEL TYPE—PLAIN



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	2¼x1	3

Fig. 352

Control Rod Sockets

PLAIN BRASS

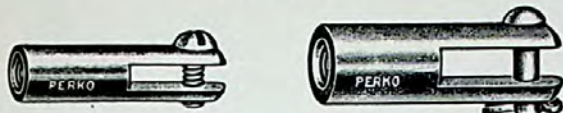


Fig. 328

Standard Fig. 328

No.	Each	Tapped For Rod Inches	Outside Diam. Inches	Overall Length Inches	Between Jaws Inches	Length Jaws Inches
1	\$.30	1/4 - 20	7/16	1 3/8	3/16	9/16
2	.30	5/16 - 18	7/16	1 5/8	3/16	9/16
3	.40	3/8 - 16	1/2	1 7/8	1/4	3/4
Heavy Duty Fig. 295						
4	.40	1/4 - 20	1/2	1 5/8	1/4	3/4
5	.40	5/16 - 18	1/2	1 3/4	1/4	3/4
6	.50	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	\$.50	1/4 - 20	7/16	1 3/8	1/4	7/16
8	.50	5/16 - 18	7/16	1 7/16	1/4	7/16
9	.60	3/8 - 16	7/16	1 7/16	1/4	7/16

Length jaws measured to center of pin.

Control Wire Sockets

PLAIN BRASS

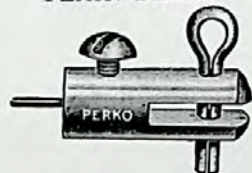


Fig. 679

Complete with brass cotter pin and brass set screws.

Each	Length Inches	Diameter Inches	Jaws Inches	Between Jaws Inches	Length Jaws Inches	Weight Ounces
\$.40	1	3/8	1/8	1/2	1/2	1/2

Length jaws measured to center of cotter pin.

Brass Ball Joints

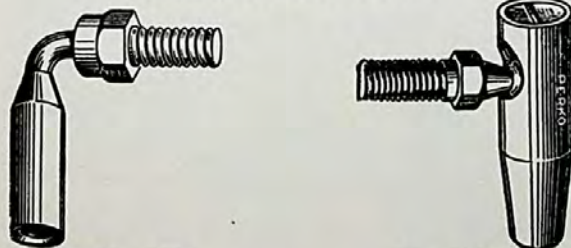


Fig. 792

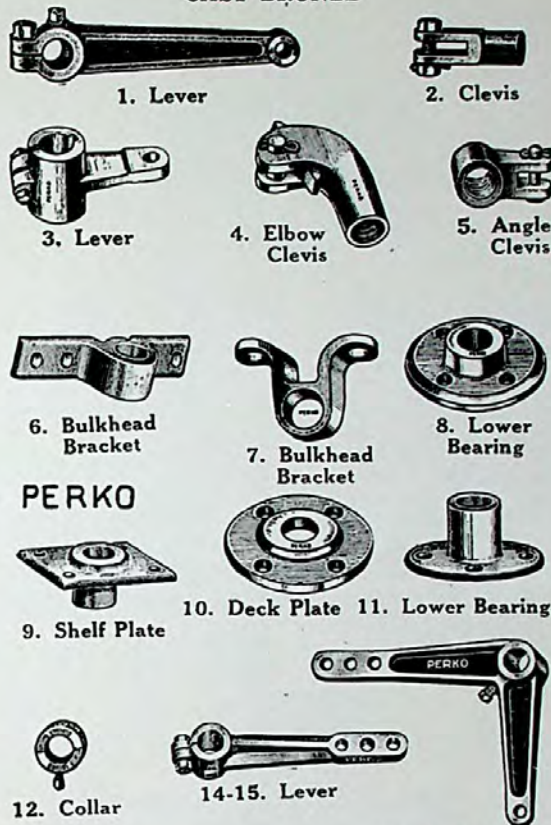
Fig. 793

Fig. 793 is adjustable for wear. Spring tension around ball with screw for adjusting.

No.	Each	Fig. 792 Each	Fig. 793 Each	Thread Inches	Length Thread Inches	O. D. Female End Inches	Weight Ounces
1	\$.40	\$.60	\$.60	1/4 - 20	1/2	5/16	1/2
2	.50	.70	.70	5/16 - 18	1/2	7/16	1

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 Shaft Inches	Bored for Shaft Inches	Weight Pounds
1	\$7.50	8				1	1 1/8
2	2.50	2 3/4		3/4	1/2		3/4
*2A	3.25	4		1	3/4		1 1/4
3	6.75	4 1/2	2 3/4			1	1 1/4
4	5.00	3 1/2		1	3/4		1 1/4
5	3.60	3	1 3/4	1	3/4		3/4
13	8.50	**	**			1	1 1/8
†14	6.50	8	5-6			3/4	1
‡15	7.25	9	5-6-7			1	1 1/4

No.	Each	Length Overall Inches	Width Overall Inches	Outside Diam. Inches	Bored for Shaft Inches	To Center of Bore Inches	Weight Pounds
6	\$4.90	7	1		1	1 1/8	1/2
7	4.90	4 1/2	1		1 or 1 1/8	2	3/4
8	4.50			3 3/4	1		5/8
9	4.50	4	3 1/4		1		1 1/8
10	4.50			4	1 or 1 1/8		1/2
11	4.25			4	1		1
12	1.90			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.

Items Nos. 6, 7, 9, 10 and 12 are polished. All others are in plain finish.

Items Nos. 1, 2, 3, 4, 5, 13, 14, 15 are bored for 1/2 inch bolt.

Items Nos. 2, 2A, 4 and 5 have 1/2 inch jaws.

Item No. 11 is 2 1/8 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	\$4.25	3 3/8 x 1 3/4	5/16	2 5/8	2 1/8	1 1/8
3/4	4.30	4 x 1 3/4	3/8	2 5/8	2 1/8	1 1/8
7/8	4.55	4 1/8 x 1 7/8	7/16	3	2 5/8	1 1/2
1	5.50	4 1/4 x 2 1/8	7/16	3	2 5/8	1 3/4
1 1/8	6.20	4 7/8 x 2 1/2	1/2	3 5/8	2 7/8	2 1/4
1 1/4	7.35	5 3/4 x 2 3/8	1/2	4 5/16	2 7/8	3
1 3/8	8.65	6 1/4 x 3	1/2	4 3/4	3	3 1/4
1 1/2	9.85	6 1/2 x 3	1/2	5	3	3 1/2
1 3/4	15.00	7 x 3 3/4	5/8	5 1/2	4	5 3/4

Stuffing Boxes and Stern Bearings

CAST BRONZE—HEAVY

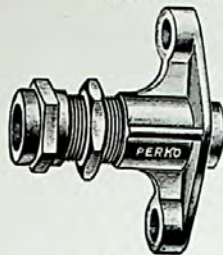


Fig. 631



Fig. 632

Shaft Size Inches	Fig. 631 Each	Fig. 632 Each	Size Flange Inches	For Diam. Bolt Inches	C. to C. Bolt Holes Inches	Lgth. Bearing Inches	Fig. 631 Weight Pounds
1	\$10.50	\$ 5.50	5 3/4 x 3	1/2	4 5/8	4 1/2	4 1/2
1 1/8	11.00	6.20	6 3/8 x 3 1/4	1/2	5 1/4	4 1/2	5
1 1/4	12.50	7.50	7 x 3 1/2	5/8	5 5/8	4 3/4	6 1/2
1 3/8	14.00	9.40	7 7/8 x 3 3/4	5/8	6 1/4	5 1/4	7 1/2
1 1/2	16.90	11.00	8 x 4	5/8	6 1/2	5 7/8	9
1 3/4	24.00	15.40	9 1/8 x 4	3/4	7 1/2	7	11 1/2
2	27.50	19.80	10 1/8 x 4 1/2	3/4	8 5/8	7 5/8	12

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	\$2.10	3 3/8 x 1 3/4	5/16	2 5/8	2 1/8	3/4
3/4	2.35	4 x 1 3/4	3/8	2 5/8	2 1/8	3/4
7/8	2.60	4 1/8 x 1 7/8	7/16	3	2 5/8	1
1	2.90	4 1/4 x 2 1/8	7/16	3	2 5/8	1 1/4
1 1/8	3.50	4 7/8 x 2 1/2	1/2	3 5/8	2 7/8	1 1/2
1 1/4	4.40	5 3/4 x 2 3/8	1/2	4 5/16	2 7/8	2
1 3/8	5.50	6 1/4 x 3	1/2	4 3/4	3	2 1/4
1 1/2	6.00	6 1/2 x 3	1/2	5	3	2 1/2
1 3/4	8.75	7 x 3 3/4	5/8	5 1/2	4	3 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	\$12.25	5 x 3	1/2	3 3/4 x 1 3/4	4	5 1/2
1 1/8	13.25	5 1/2 x 3 3/8	1/2	4 1/4 x 2 1/4	4 1/4	6 1/2
1 1/4	14.00	5 5/8 x 3 5/8	1/2	4 3/8 x 2 1/4	4 3/4	7
1 3/8	15.00	6 x 4	1/2	4 7/16 x 2 1/2	5	9
1 1/2	18.80	6 x 4 3/8	1/2	4 1/2 x 3	5 1/2	10
1 3/4	26.75	6 1/2 x 4 1/2	5/8	5 1/8 x 3 1/4	7	13 1/2
2	31.40	7 3/4 x 5	5/8	5 5/8 x 3 3/8	7 3/8	15 1/2

Packing Nuts and Locknuts

FOR STUFFING BOXES—CAST BRONZE



Fig. 73



Fig. 79

Shaft Size Inches	For Fig. 320		For Fig. 631		For Fig. 819	
	Fig. 73 Each	Fig. 79 Each	Fig. 73 Each	Fig. 79 Each	Fig. 73 Each	Fig. 79 Each
5/8	\$1.80	\$.70				
3/4	1.85	.75				
7/8	2.00	.80				
1	2.10	.90	3.60	1.50	4.25	1.80
1 1/8	2.15	1.00	3.85	1.55	4.60	1.85
1 1/4	2.45	1.10	4.20	1.80	4.85	2.00
1 3/8	2.90	1.30	4.50	1.80	5.50	2.15
1 1/2	3.85	1.50	5.25	1.80	6.00	2.15
1 3/4	4.65	2.00	5.90	2.40	7.25	2.75
2			7.00	2.75	7.85	3.00

Extra Heavy Stern Bearings

RECTANGULAR FLANGE—CAST BRONZE



Fig. 906

For Shaft Diameter Inches	Plain Each	Weight Pounds
1	\$ 7.50	4
1 1/8	8.25	5
1 1/4	9.00	5 1/2
1 3/8	11.00	6 3/4
1 1/2	13.00	8
1 3/4	18.00	10 1/2
2	23.00	12

All other dimensions same as fig. 819 above.

NOTE—LENGTH BEARING SHOWN DOES NOT INCLUDE PACKING NUT OR SPACE FOR PACKING.



Self Aligning Stuffing Boxes
CAST BRONZE—RECTANGULAR FLANGE

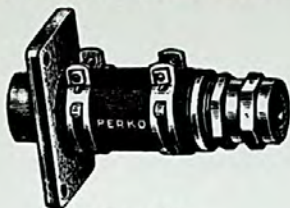


Fig. 734

No.	Each	For Shaft Inches	Size Flange Inches	Length from Flange to End of Box Inches	Weight Pounds
1	\$ 9.60	3/4	5x3 1/4	6 1/2	5
2	10.20	7/8	5x3 1/4	6 1/2	5
3	10.60	1	5x3 1/4	6 3/4	5
4	13.25	1 1/8	6x4 1/4	7 3/4	9
5	13.50	1 1/4	6x4 1/4	7 3/4	9 1/2
6	20.00	1 3/8	7x4 1/2	8	12 1/2
7	21.00	1 1/2	7x4 1/2	8 1/4	13

Iron Shaft Couplings
CAST IRON

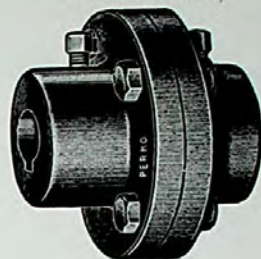


Fig. 327

No.	Each	For Diameter Shaft Inches	Diam. Flange Inches	Lgth. Overall Inches	Wt. Lbs.
0	\$ 5.00	5/8, 3/4	3	2 5/8	2 1/2
1	6.50	5/8, 3/4, 7/8, 1, 1 1/8	4	3 1/2	5 1/2
2	8.25	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 special boring, not listed, add \$2.25 each.
For 1/2 coupling add \$.55 to half of above prices. No bolts furnished.

Flax Packed Stuffing Boxes and Stern Bearings
WITH RECTANGULAR FLANGE

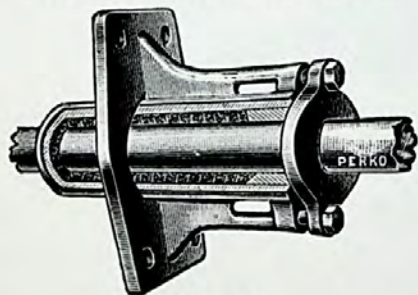


Fig. 811

Shaft Size Inches	Each	Size Flange Inches	Length Bearing Inches
1	\$13.20	5 3/4 x 3	5 1/4
1 1/8	16.50	6 x 3	5 1/2
1 1/4	19.80	6 3/4 x 3 1/2	5 3/4
1 3/8	21.00	7 x 3 3/8	5 3/4
1 1/2	28.60	7 1/2 x 4 1/4	6 1/2
1 3/4	39.60	8 1/2 x 4 3/4	6 1/2
2	51.00	9 1/2 x 5 1/4	8 1/8
2 1/4	77.00	12 x 6	11 1/8
2 1/2	95.75	13 1/4 x 6 5/8	12 1/4

SIZE OF KEYWAY IN SHAFT COUPLINGS

Size Shaft Inches	Keyway Inches
5/8 - 3/4 - 7/8	3/16
1 - 1 1/8	1/4
1 1/4	3/8
1 3/8 - 1 1/2	5/16

Bronze Shaft Couplings
CAST BRONZE



Fig. 389

Set screws, bolts and washers are all bronze.

Each	For Diameter Shaft Inches	Keyway Inches	Diam. Flange Inches	Lgth. Overall Inches	Wt. Lbs.
\$8.25	5/8, 3/4, 7/8, 1	3/16	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.

Bronze Universal Joints
CAST BRONZE—PLAIN



Fig. 93

No.	Bored Each	Tapped Each	Bored for Rod Inches	Tapped for Pipe Inches	Extreme Length Inches	Weight Pounds
1	\$7.00	\$ 7.50	3/4	1/2	4 1/2	1
2	9.50	10.00	1	3/4	6	2 1/4

PLEASE SPECIFY WHETHER FOR ROD OR PIPE

Sleeve Type Shaft Couplings
CAST BRONZE



Fig. 378

No.	Each	For Diam. Shaft Inches	Length Inches	Keyway Inches	Weight Pounds
1	\$3.75	3/4	3	3/16	3/4
2	3.75	7/8	3	3/16	3/4
3	3.75	1	3	1/4	7/8

Midget Self Aligning Shaft Log

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	\$9.25	5/8	9 3/8 x 2 1/2	15	10	3 3/4
1	9.25	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	\$25.00	3/4	17 3/4	14	3 5/8	11
2	25.00	7/8	17 3/4	14	3 5/8	11
3	25.00	1	17 3/4	14	3 3/8	11
4	40.00	1 1/8	25	20	4 1/2	21
5	41.00	1 1/4	25	20	4 1/2	21
6	63.00	1 3/8	28 1/2	23	5 1/4	28
7	64.00	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	\$96.00	1 1/4	28	5 1/2	57
9	98.00	2	28	5 1/2	57

Self Aligning Shaft Logs

CAST BRONZE
WITH STAINLESS STEEL HOSE CLAMPS
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.

Furnished without screw or bolt holes to allow drilling as required.

No.	Each	For Size Shaft Inches	Size Base Inches	Length Overall Inches	Degrees of Pitch	Wt. Lbs.
0	\$10.50	5/8	9x4	10	14	3 1/2
1	11.50	3/4	11x5	12 1/4	14	6
2	12.00	7/8	11x5	12 1/4	14	6
3	12.25	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	Angle in Degrees	Wt. Lbs.
1	\$11.50	3/4	12x3 1/2	18	11	7
2	12.00	7/8	12x3 1/2	18	11	7
3	13.00	1	12x3 1/2	18	11	7
4	20.50	1 1/8	17x4 1/4	23 1/2	11	12
5	24.00	1 1/4	17x4 1/4	23 1/2	11	12
6	33.00	1 3/8	19x5	28	11	20
7	36.00	1 1/2	19x5	28	11	20

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	\$3.85	\$.80	\$.90	1 1/4	1 3/4	3 1/4
1	3/4	4.85	1.15	1.30	1 3/4	2 1/4	4
2	7/8	5.00	1.15	1.30	1 3/4	2 1/4	4
3	1	5.40	1.15	1.30	1 3/4	2 1/4	4
4	1 1/8	6.60	2.25	1.90	2 3/8	3 1/8	5
5	1 1/4	7.80	2.25	1.90	2 3/8	3 1/8	5
6	1 3/8	9.60	4.00	2.90	2 5/8	3 1/2	5
7	1 1/2	10.75	4.00	2.90	2 5/8	3 1/2	5

*Size 0 also supplied for 3/4 inch shaft; same is used on Shaft Log Fig. 695.

Adjustable Struts

WITH MARINE BABBITT BEARING
ALL CAST BRONZE

Side View

End View

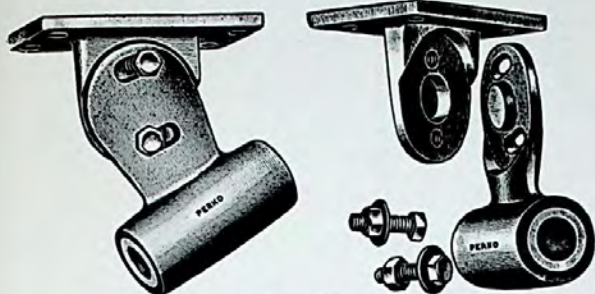


Fig. 628

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	\$22.75	\$22.75	\$22.75	\$22.75			
6	23.50	23.50	23.50	23.50	\$34.75	\$34.75	\$34.75
7	24.25	24.25	24.25	24.25	35.50	35.50	35.50
8	25.00	25.00	25.00	25.00	36.25	36.25	36.25
9	25.75	25.75	25.75	25.75	37.00	37.00	37.00
10	27.00	27.00	27.00	27.00	38.25	38.25	38.25
11	28.25	28.25	28.25	28.25	39.50	39.50	39.50
12					41.25	41.25	41.25

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 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	\$22.25	\$22.75	\$23.25	\$23.75			
6	23.00	23.50	24.00	24.50	\$33.25	\$34.25	\$35.25
7	23.75	24.25	24.75	25.25	34.00	35.00	36.00
8	24.50	25.00	25.50	26.00	34.75	35.75	36.75
9			26.25	26.75	35.50	36.50	37.50
10			27.50	28.00	36.75	37.25	38.25
11					38.75	39.25	40.25
12					40.75	41.25	42.25

Specify size of shaft and length of drop, when ordering.

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
\$6.00	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.

Each	Length Inches	Width Inches	Depth Inches	Weight Pounds
\$2.00	5 1/4	2 3/8	1	1 1/2

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	\$3.70	4 x 1 1/8	3 1/8	1/4	1
3/4	3.70	4 1/4 x 1 3/16	3 1/2	5/16	1 1/8
7/8	4.00	4 1/4 x 1 1/4	3 3/8	5/16	1 1/4
1	4.00	4 7/8 x 1 1/2	3 3/4	3/8	1 1/2
1 1/8	4.75	5 1/4 x 1 5/8	4 1/4	3/8	2 1/2
1 1/4	4.75	5 1/2 x 1 3/4	4 1/4	3/8	2 5/8
1 3/8	6.00	5 7/8 x 1 7/8	4 5/8	3/8	3 1/2
1 1/2	6.00	6 1/4 x 2	4 7/8	7/16	4 1/4
1 3/4	7.40	6 7/8 x 2 1/4	5 3/8	1/2	6
2	9.25	7 1/2 x 2 1/2	5 3/4	1/2	7 1/4

Larger and intermediate sizes supplied to order.

Thrust Ball Bearings

Flat Race
Bronze Retainers



Fig. 786

Diameter Shaft Inches	Fig. 786 Each	Fig. 942 Each
5/8	\$2.90	\$1.90
3/4	3.50	
7/8	3.65	2.20
1	3.75	2.35
1 1/8	4.00	
1 1/4	4.10	2.60
1 3/8	4.75	
1 1/2	5.15	3.50
1 5/8	5.35	3.95
1 3/4	6.00	4.20
2	7.50	
2 1/4	9.00	
2 1/2	11.00	

Grooved Race
Steel Retainers



Fig. 942

Outside Diameter Inches	Thickness Inches
1 1/4	9/16
1 15/32	9/16
1 27/32	5/8
1 31/32	5/8
2 3/32	5/8
2 11/32	5/8
2 15/32	5/8
2 19/32	5/8
2 23/32	13/16
3 3/32	13/16
3 11/32	13/16
3 25/32	13/16
3 31/32	13/16

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	\$5.50	4 1/2 x 2	3 5/16	5/16	1 1/2
7/8	5.50	4 1/2 x 2	3 5/16	5/16	1 1/2
1	5.50	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
5/8	\$1.00	1 1/4
3/4	1.00	1 15/32
7/8	1.40	1 27/32
1	1.40	1 31/32
1 1/8	1.50	2 3/32
1 1/4	2.15	2 11/32
1 3/8	2.35	2 15/32
1 1/2	2.50	2 19/32
1 5/8	4.75	2 23/32
1 3/4	5.00	3 3/32
2	5.75	3 11/32
2 1/4	9.50	2 25/32
2 1/2	11.00	3 31/32

Intermediate Shaft Bearings

BALL BEARING TYPE—SELF ALIGNING
WITH GREASE RETAINING SEAL
STANDARD DUTY

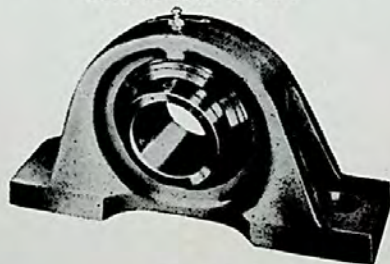


Fig. 790

For Shaft Size Inches	Each	Dimensions of Base Inches	C. to C. Bolt Holes Inches	Diam. Bolt Holes Inches	Weight Pounds
7/8	\$13.60	7 x 2	5 3/8	1/2	3 1/2
1	13.60	7 x 2	5 3/8	1/2	3 1/2
1 1/8	16.50	7 1/2 x 2	5 3/4	1/2	5
1 1/4	19.50	8 1/4 x 2 1/4	6 1/4	5/8	6 1/2
1 3/8	19.50	8 1/4 x 2 1/4	6 1/4	5/8	6 1/2
1 1/2	21.50	8 1/2 x 2 3/8	6 1/2	5/8	7 1/2
1 3/4	23.00	8 3/4 x 2 3/8	6 1/2	5/8	8
2	36.00	11 1/4 x 2 3/4	8 1/2	5/8	15

Safety Shaft Collars

CAST SEMI STEEL—MACHINED



Fig. 787

Shaft Size Inches	Each	Outside Diameter Inches	Width Inches	Weight Ounces
5/8	\$.40	1 3/32	1 1/2	1 1/2
3/4	.45	1 1/4	1 1/2	2
7/8	.55	1 1/2	1 3/4	3
1	.65	1 5/8	1 3/4	3 1/2
1 1/8	.80	1 3/4	1 3/4	4
1 1/4	.90	2	1 11/16	5 1/2
1 3/8	1.10	2 1/8	1 3/4	6 1/2
1 1/2	1.20	2 1/4	1 3/4	7
1 3/4	2.60	2 3/4	1 3/4	13
2	2.85	3	1 3/4	15



Exhaust Pipe Flanges

CAST BRONZE



Fig. 214

For Pipe Inches	Inside Diameter Inches	Outside Diameter Inches	Weight Pounds
2	2 3/8	4	1/3
2 1/2	2 7/8	4 1/2	1/2
3	3 1/2	5 1/2	3/4
3 1/2	4	6	1
Size	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
2	\$1.80	\$3.00	\$3.75
2 1/2	2.25	3.50	4.25
3	2.65	4.00	5.00
3 1/2	2.85	4.25	5.25

Gy-A-Liner Engine Aligners

U. S. PATENT NO'S 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.

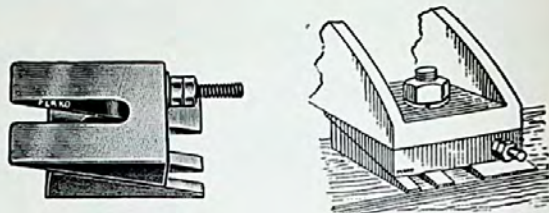


Fig. 1097—Style 1

For use under motors having only single corner bearing 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 1/16	4	1/3
2 1/2	2 9/16	4 1/2	1/2
3	3 1/16	5 1/2	5/8
3 1/2	3 9/16	5 1/2	3/4
4	4 1/16	6	7/8
Size	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
2	\$1.35	\$2.50	\$3.25
2 1/2	1.80	3.00	3.75
3	2.25	3.60	4.50
3 1/2	2.65	4.00	5.00
4	2.85	4.35	5.35



Fig. 1097—Style 2

Provides both horizontal and vertical adjustment and can be used in place of style 1 when desired.



Fig. 1097

Style 3—For use when engine hanger brackets have two or more holes spaced from 2 1/2 to 3 inches apart.

Style 4—When holes are from 3 to 5 inches apart.

Brass Grease Cups



Fig. 961

No.	Each	Height Closed Inches	Outside Diam. Inches	Pine Thread Inches	Capacity Ounces
1	\$.45	1 1/16	7/8	1/8	1/4
2	.55	1 3/4	1 3/16	1/8	1/2
3	.80	2	1 7/16	1/8	3/4

Style	Each	Size Base Inches	Minimum Height Inches	Maximum Height Inches	For Engine Bolt Inches	Weight Pounds
1	\$1.90	2 1/2 x 2 1/2	5/8	1 3/16	1/2	3/4
*2	7.00	4 3/4 x 2	1 11/16	2	3/8	2 3/8
3	5.75	5 3/4 x 1 1/16	1 3/16	1 15/32	1/2	2
4	6.75	8 x 1 3/4	1 3/16	1 15/32	1/2	2 1/2

*Side adjustment span 3/16 inches. Diameter engine hanger bracket bolt 1/2 inch.

Be sure to specify style when ordering.

Maxim Silencers

WET TYPE—MODEL M3
CAST IRON



Fig. 334

Size No.	Each	For Exhaust Pipe or Tubing Inches	Diameter Inches	Length Overall Inches	Weight Pounds
2½	\$ 20.00	1¼	4¾	13½	15
3	20.00	1½	4¾	13½	15
4	23.00	2	6¼	15	25
5	30.00	2½	7¾	16½	42
6	35.00	3	9½	18	60
7	47.00	3½	11	19½	80
8	55.00	4	12½	20	110
10	155.00	5	14	28½	180
12	180.00	6	14½	33	235

The flanges are tapped and are for use with pipe or tubing.

Used with equal success on Diesel as well as gasoline engines.

Designed to take all the cooling water discharge from the engine making unnecessary any other water discharge through the hull. Can be installed practically anywhere in the exhaust line that is convenient, either near the engine or near the stern, however a two foot tail pipe at the silencer outlet will give best results.

Maxim silencers are available for dry exhausts of gasoline and Diesel engines. Give bore, number of cylinders, R. P. M. and exhaust size.

Maxim Silencers

CAST IRON—WET TYPE—MODEL M-4

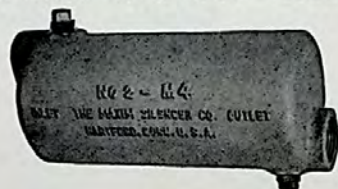


Fig. 755

Admirably suited to the line of small engines being presented to the field at the present time for the propulsion of small boats and for use with generating units in larger vessels.

Similar in construction to model M-3 and installed in like fashion.

Size No.	Each	For Exhaust Pipe Inches	Diameter Inches	Length Overall Inches	Weight Pounds
1	\$ 7.00	½	3¼	7¾	4
1½	8.00	¾	3½	8¾	5
2	9.50	1	3¾	9	6
2½	10.50	1¼	4¼	9½	10

Maxim Silencers

MODEL TR—FOR EXHAUSTS WHERE ENGINE IS BELOW WATER LINE
CAST IRON



Fig. 347

For use where it is necessary to have a wet exhaust and at the same time provide the maximum possible trapping effect to prevent water from running back into the engine.

For gasoline and diesel engine exhausts.

Offers practically complete elimination of the exhaust noise without imposing back pressure to the flow of the engine.

Size No.	Each	For Exhaust Pipe Inches	Overall Height Inches	Length to Center of Inlet Inches	Water Inlet I. P. S. Inches	Weight Pounds
3	\$58.00	1½	13	7½	¾	40
4	87.00	2	17¾	8¾	¾	60
5	95.00	2½	20¾	9¼	1	75
6	129.00	3	24	9¾	1	122
7	147.00	3½	27¼	10¼	1¼	162
8	160.00	4	31	11	1¼	180
10	250.00	5	33	14¾	1½	300
12	261.00	6	35½	19½	2	350

“Perko” Zinc Marine Oilers

SPRING BRASS BOTTOM



Fig. 326

Heavy gauge zinc with spring brass bottom, cut threads. Spouts are interchangeable.

No.	Complete Per Gross	Extra Spouts Per Gross	Capacity Ounces	Diam. Inches	Length Spout Inches	Weight Per Gross Pounds
3	\$105.00	\$33.00	8	4	4	40
4	138.00	36.00	12	4½	6	48



Improved Gasoline Strainers

WITH "KWICK KLEAN" FILTER ELEMENTS
CAST BRONZE HOUSING

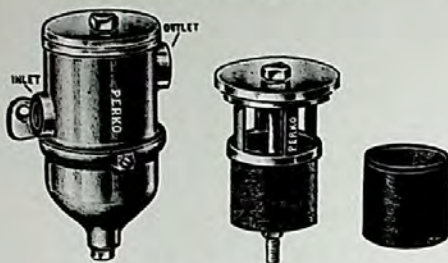


Fig. 299

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	\$10.50	\$.90	5 1/2	2 3/8	1/4 or 3/8	3 3/4
1 1/2	11.50	1.00	6 1/4	3 1/8	3/8 or 1/2	6
2	15.75	1.25	7 3/4	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.

"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	\$3.75	\$.85	1/8	4 1/4	2 1/2	9 1/2
2	3.75	.85	1/4	4 1/4	2 1/2	9 1/2

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.

No.	Each	Inside Diam. Inches	Dimensions of Top Inches	Overall Height Inches
C-175-11A	\$5.30	1 1/4	2 13/16 x 2 1/16	2
B-175-14	7.15	2 1/16	4 1/8 x 2 11/16	2 7/16
B-175-12A	8.00	2 5/16	5 1/8 x 2 15/16	2 19/16
B-175-12	8.00	2 3/8	5 1/8 x 2 15/16	2 19/16
B-175-16	8.00	2 5/8	5 1/8 x 2 15/16	2 19/16
B-175-13	9.30	3	5 7/8 x 3 9/16	2 19/16
B-175-13A	9.30	3 5/16	5 7/8 x 3 9/16	2 19/16

Safety Drip Collectors

FOR ANY MAKE OF CARBURETOR
WORKS AUTOMATICALLY—HELPS STARTING

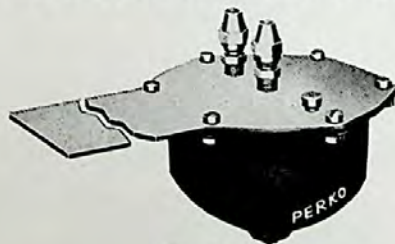


Fig. 465

When a gasoline engine stops, the fuel trapped in the intake manifold condenses and drains back to the carburetor. Carburetors without automatic drain features do not, as a rule, have sumps of sufficient capacity to hold the condensed fuel, consequently it drains out.

The Safety Drip Collector provides protection against the danger of normal carburetor drainage by collecting it from the carburetor.

Supplied complete with all necessary parts and connections for installation.

		With Steel Bowl	Each
No.			
C-13-42	For Engines with one carburetor		\$13.50
C-13-43	For Engines with two carburetors		14.90
		With Brass Bowl	
C-13-53	For engines with one carburetor		16.85
C-13-54	For engines with two carburetors		18.55

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	\$19.00	\$ 4.50	\$.30	\$ 2.00
2	30.00	6.00	.40	3.00
3	31.00	6.50	.40	3.25
4	32.00	7.00	.40	3.50
5	42.00	11.00	.80	5.00
6	81.00	22.00	.80	14.00

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 3/4	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 strainer.

No.	Each	Diam. Top Inches	Height Inches	Capacity Quarts	Weight Ounces
1	\$2.25	6 5/8	7	1	6
2	2.50	8	8 1/2	2	8 1/2

The "Engine Saver" Combination Intake Water Strainer and Rust Preventer

CAST BRONZE
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.

Gaskets are of neoprene and cork. Castings are carefully machined against leakage.

Supplied complete with drain plug.

No.	Complete Each	Spare Cylinders Each	Spare Gaskets Each	Spare Strainers Each
1	\$32.00	\$ 9.00	\$.30	\$3.00
2	47.00	12.75	.40	4.75
3	49.00	13.25	.40	5.00
4	51.00	13.75	.40	5.25
5	70.00	19.50	.80	7.50

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	9
2	3/4	4 1/2 x 11	14	5 1/2	13 1/2
3	1	4 1/2 x 12	15	5 1/2	15 1/2
4	1 1/4	4 1/2 x 13	16	5 1/2	17
5	1 1/2	6 x 15	18 1/2	7	27

Height does not include top nut or drain plug.

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

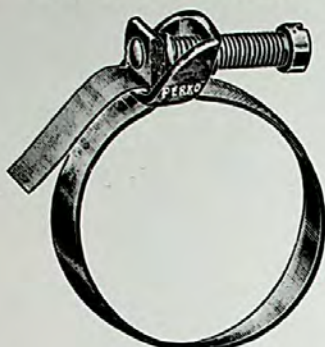


Fig. 499

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 join-
ing 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	1/2	5/32	1 1/2
2	.70		18	1/2	9/32	2

"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	1/2	3/4	7/8	1 1/4
20	.35	1	1 1/4	1 3/8	1 3/4
28	.36	1 1/2	1 3/4	1 7/8	2 1/4
36	.38	2	2 1/4	2 3/8	2 3/4
48	.41	2 1/2	3	2 7/8	3 1/2

Packed 10 Clamps Per Package.

An attractive counter display box containing 50 as-
sorted "Snaplock" clamps is available.

Per box \$18.00

Nylon Covered Tiller Rope

STEEL CENTER—VERY FLEXIBLE



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 abra-
sion and protects them against oils, detergents, alkalis
and oxidizing acids.

The glass smooth surface is pleasant and smooth to
handle.

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	3/16	4200	7.5

Supplied in 250 foot reels.

Braided Tiller Rope

MAHOGANY COLOR—WITH WIRE CENTER



Fig. 761

We supply the above rope with bronze wire center
whenever it is available otherwise galvanized center
will be shipped.

No.	Outside Diam. Inches	Per 100 Feet
6	3/16	\$12.00
8	1/4	15.00
10	5/16	20.00
12	3/8	22.50

Supplied only in 500 foot coils.

Braided Starter Cord

MAHOGANY COLOR—GALVANIZED CENTER

VERY FLEXIBLE—FOR OUTBOARD MOTORS



Fig. 763

No.	Outside Diameter Inches	Per 100 Feet
5	5/32	\$14.00
6	3/16	15.00

Supplied only in 500 foot coils.



Fog Horns

GALVANIZED STEEL OR BRASS



Fig. 162

Length Overall Inches		Galv. Steel Per Doz.	Pol. Brass Per Doz.
18	Without Bell	\$24.00	\$36.00
20	With Bell, as illustrated	28.00	43.00

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	\$4.85	\$5.75	\$7.75	4	1
8	7.00	8.00	10.00	5	2 1/2
Wall Plate only	.85	1.00	1.40	1 7/8	1/16
Arm only	1.55	1.75	2.40	4 1/4	1/8
Clapper only —	1.20	1.50	2.25		
Eye Bolt only —	.50	.60	.90		

Triplex Motor Boat Whistle

PLASTIC—ORANGE COLOR



Fig. 167

Per Dozen	Length Overall Inches	Width Overall Inches	Weight Per Dozen Pounds
\$4.50	6	1 3/4	1

Police or Signal Whistle

BRASS—NICKEL PLATED



Fig. 349

Per Dozen	Length Inches	Width Inches	Weight Per Doz. Ounces
\$9.00	2	3/4	17

Cast Bronze Fog Bells

LIGHTWEIGHT—WITH REMOVABLE BRACKET



Fig. 581

Diam. Inches	Plain Each	Polished Each	Chromium Plated Each	Height Overall Inches	Weight Pounds
6	\$ 9.50	\$11.00	\$14.50	4 1/8	3
8	13.00	15.00	19.00	5 1/4	5
Wall Plate only	.90	1.20	1.80	2	1/8

Cast Bronze Fog Bell

HEAVY WEIGHT—WITH REMOVABLE BRACKET



Fig. 150

Diameter Inches	Plain Each	Polished Each	Chrome Plated Each	Height Overall Inches	Weight Pounds
8	\$31.50	\$36.50	\$45.00	8	10
10	63.00	70.00	81.00	10 1/2	22
12	86.00	94.00	108.00	12	38

WALL PLATE ONLY

8	1.75	2.25	3.00
10	3.00	3.75	5.00
12	3.50	4.50	5.75

Cast Bronze Fog Bell

MEDIUM WEIGHT—WITH REMOVABLE BRACKET



Fig. 420

Diameter Inches	Plain Each	Polished Each	Chrome Plated Each	Height Overall Inches	Weight Pounds
6	\$12.50	\$14.50	\$19.00	5	4
8	19.50	22.00	27.00	6 1/8	8

WALL PLATE ONLY

6	1.40	1.75	2.25
8	1.75	2.25	3.00

"Sea Echo" Horn

BRASS COVER AND PROJECTOR
BRASS SCREEN—CAST BRASS BASE
6 OR 12 VOLTS—CHROMIUM PLATED

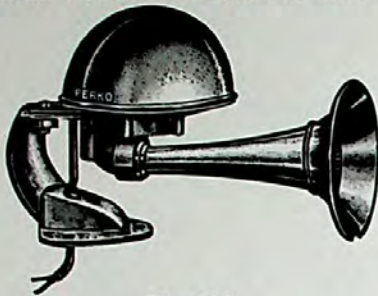


Fig. 590

A new 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	\$28.25	10¾	7¼	4¼
12	30.00	10¾	7¼	4¼

"Sea-Tone" Horn

ALL BRASS—CHROMIUM PLATED—WATER TIGHT—WEATHERPROOF—RESONATING VOLTAGES 6—12—32—110 D.C. RANGE—2 MILES

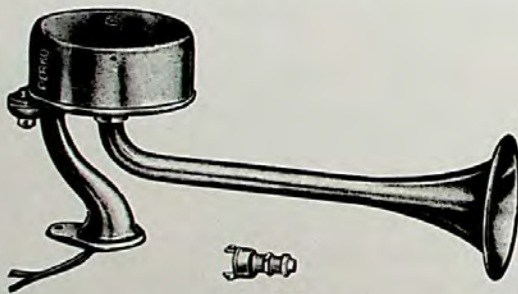


Fig. 576

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	\$56.50	19	8½	6½
12	59.00	19	8½	6½
32	59.00	19	8½	6½
110 D.C.	77.00	19	8½	6½
110 A.C. supplied to order, price on application.				
Packed in individual cartons.				

Brass Electric Horns

VIBRATORY TYPE—6, 12 OR 32 VOLTS
WATERTIGHT AND SPLASH PROOF
POLISHED OR CHROMIUM PLATED
COAST GUARD MODEL

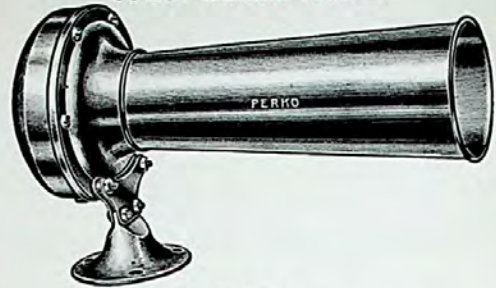


Fig. 75

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	Chrom. Plated Each				
1	\$18.50	\$20.15	13	7¼	3¾	4
2	25.75	28.75	15¾	8½	3¾	6

For 12 volt add \$2.00.

For 32 volt add \$3.50.

Size No. 2 meets U. S. Coast Guard specification No. CR-23075.

Blaster Horn

WITH PUSH BUTTON, CABLE AND RELAY

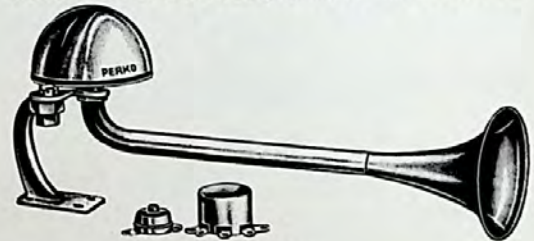


Fig. 989

No.	6 Volt		Length Inches	Width Inches	Height Inches	Wt. Lbs.
	Pol. Brass Each	Chrom. Plated Each				
1	\$23.00	\$25.75	22	5½	9	7

For 12 volt add \$2.00.
For 32 volt add \$3.50.

Super-Blaster Twin Horns

WITH PUSH BUTTON, CABLE AND RELAY

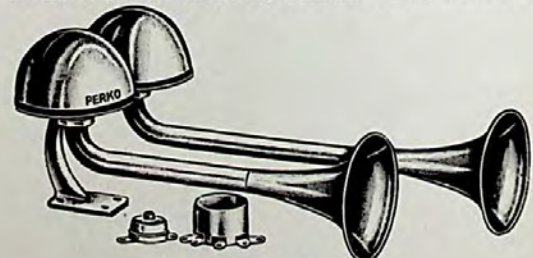


Fig. 990

No.	6 Volt		Length Inches	Width Inches	Height Inches	Wt. Lbs.
	Pol. Brass Per Pair	Chrom. Plated Per Pair				
1	\$37.35	\$40.25	22	11	9	11

For 12 Volt, add \$4.00—For 32 Volt, add \$7.00

NOTE—PLEASE SPECIFY VOLTAGE, 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

Owners of runabouts and small cruisers have been searching for a horn of this design and size for years; here it is.

This horn has exceptional tone quality for its size and is ideally suited for the above types of boats.

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
\$28.25	\$30.00	7	6	4 1/2	4 1/4

For 32 volt, add \$3.50

Specify voltage when ordering.

Remote Control Relays

CHROMIUM PLATED—6-12-32 VOLTS
FOR HORNS, SEARCHLIGHTS, ETC.



Fig. 273

Very necessary on low voltage battery hook-ups to horns, searchlights, motors, etc., especially where the unit is some distance from battery. A relay eliminates line loss in such cases.

6 Volts Each	12 Volts Each	32 Volts Each	Height Inches	Width Inches	Weight Ounces
\$2.20	\$2.95	\$3.75	1 5/8	3 1/4	4 1/2

Marine Sirens

DIE CAST WHITE METAL
CHROMIUM PLATED—6 OR 12 VOLTS
THE SEA-MITE

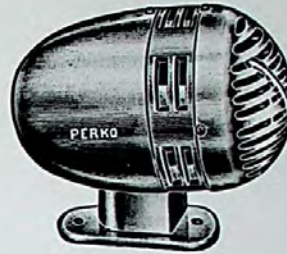


Fig. 1117

A siren of fine tone quality, dependability and performance.

Furnished complete with 10 ft. cable and heavy duty push button.

Volts	Each	Length Inches	Height Inches	Diam. Inches	Weight Pounds
6	\$31.00	7	6	4 1/2	4 1/4
12	\$33.50	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

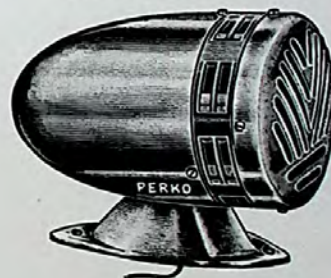


Fig. 1118

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
\$56.50	\$59.00	\$64.50	10 1/8	7 1/2	5 3/4	10

NOTE — PLEASE SPECIFY VOLTAGE, OTHERWISE 6 VOLT WILL BE SUPPLIED.

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	\$.22	\$.35			3/16
4	.24	.42	See Figure		1/4
5	.36	.55	544 A		3/8
6	.44	.70			1/2
8	.80	1.35	\$ 2.60	\$ 3.45	1 1/4
10	1.70	2.20	3.75	5.50	2 1/4
12	2.40	3.00	5.50	7.15	3 3/4
14	3.40	5.50			6 1/4
18	5.75	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 a 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	\$.70	\$.80	\$ 1.30	8	2 1/2
4	.90	1.05	1.50	10	4
5	1.10	1.30	1.70	14	5 1/2
6	1.40	1.60	2.20	14	8

Sturdy Cleats
CAST BRONZE—HEAVY DUTY



Fig. 384

Length Inches	Polished Bronze Each	Chromium Plated Each	For Rope Inches	Weight Pounds
4	\$ 1.75	\$ 3.00	1/4	1/2
5	2.20	3.30	3/8	3/4
6	2.95	4.30	7/16	1
8	5.60	7.60	9/16	1 3/4

New Flag Pole or Fender Cleat
BRASS



Fig. 564

An all brass cleat designed for small flag halyards but it will also serve for hanging small fenders. Drilled for No. 5 round head screws.

Burnished Brass Each	Chromium Plated Each	Length Inches	Weight Ounces
\$.28	\$.40	1 3/8	1/8

Brass Shipped Unless Otherwise Specified.

Streamline Fender Cleat
DIE CAST, 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

Fender Cleats
DROP FORGED BRONZE



Fig. 583

Length Inches	Dull Finish Each	Polished Each	Chromium Plated Each	Size Base Inches	Weight Ounces
2 1/4	\$.55	\$.75	\$ 1.15	1 3/8 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	\$ 2.10	\$ 2.75	1 1/2
5 1/2	2.20	2.90	5/8
6 1/2	2.40	3.25	3/4
8	3.35	4.35	1 1/4
10	6.00	7.25	2
12	8.00	9.90	3

Awning Cleats

GALVANIZED MALLEABLE IRON



Fig. 927

Length Inches	Per 100 Pieces	Wt. Per 100 in Lbs.
4 1/2	\$11.00	4 3/8
6	16.00	8 3/4
8	25.00	13 3/4

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	\$.45	\$1.60	\$ 1.90	\$ 3.20	5/8	1/2	1/4
4	.50	1.90	2.25	4.00	3/4	5/8	1/2
5	.90	2.90	3.30	5.45	7/8	7/8	1
6	1.60		5.50	8.50	1	1	1 1/2
8	2.40		9.00	12.50	1 1/4	1 1/8	3
10	4.00		15.00	22.00	1 3/4	1 1/4	5 3/4
12	9.75		24.00	29.00	2	1 1/2	11 3/4
15	22.00				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	\$.30	\$1.10	\$ 1.25	\$ 2.15	7/8	3/4	1/4
5	.45	1.50	1.70	2.90	1	7/8	1/2
6	.70		2.60	4.20	1 1/8	1	3/4
8	1.45		4.60	6.60	1 1/2	1 1/8	1 1/2
10	1.75		7.60	10.25	1 3/4	1 1/2	2 3/4
12	4.00		12.75	16.00	2 5/8	1 3/4	7 1/2
15	8.75				3 3/8	1 3/4	20
18	13.00				3 1/2	2	31

NOTE—4 and 5 inch sizes are forged bronze.
Balance of sizes are cast bronze.

Ship Cleats

CAST IRON—HEAVY



Fig. 511

Length Inches	Galv. Each	Size of Base Inches	Holes for Diam. Bolts Inches	Weight Each Pounds
8	\$ 1.70	4 1/4 x 2 3/16	7/16	3
10	2.80	4 3/4 x 2 1/2	1/2	5 3/4
12	4.50	6 7/8 x 3	5/8	10
15	6.20	7 1/4 x 3 1/2	3/4	14
18	9.00	7 1/2 x 4	3/4	20 1/4
24	22.75	8 1/2 x 4 3/8	7/8	35
30	35.00	10 3/4 x 5 1/2	1	73
36	58.00	13 x 7 1/4	1 1/4	117

Skene Bow Chocks

CAST BRONZE



Fig. 160

Size No.	Polished Bronze Per Pair	Chromium Plated Per Pair	Length Inches	Width Inches	Opening Inches	Weight Pair Pounds
1	\$ 3.60	\$ 5.50	4 1/2	3/4	5/8	3/4
2	5.25	7.50	5 1/2	1 1/8	7/8	1 1/2
3	9.00	11.75	7 1/4	1 1/2	1	4
4	13.00	16.00	8	1 1/2	1 1/8	5 1/2
5	19.50	23.50	10	1 3/4	1 5/8	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	\$ 1.60	\$ 2.35	4	7/8	3/4	1/2
12	2.85	3.90	5 3/4	1 1/4	1	1
13	5.50	7.00	7	1 3/8	1 3/4	2
14	10.50	13.00	9	2 1/8	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	Thick-ness of Rail Inches	Height Inches	Weight Per Pair Pounds
6	\$10.00	\$14.75	1	1 1/4	2 3/4	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	Thick-ness of Rail Inches	Height Inches	Weight Each Pounds
6	\$7.50	\$10.20	1 1/4	1 1/2	2 3/4	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

Bulwark Bow Chocks

CAST BRONZE

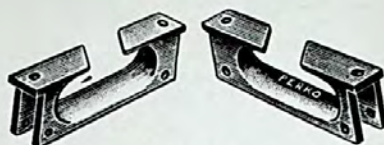


Fig. 768

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 1/2	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

New Dock Line Spring

STEEL—ZINC PLATED
FOR 3/4 INCH ROPE

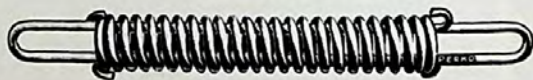


Fig. 759

A very strong compression spring for dock and mooring lines. It cushions the strain and contributes greatly to the life of the line.

The end loops will accommodate a 3/4 inch thimble and may be readily disassembled for attachment of other fittings.

We recommend the application of zinc chromate paint under a marine paint to thoroughly protect the spring against corrosion.

Each	Length Overall Inches	Diameter Spring Inches	Diameter Metal Inches	Compression Inches	Weight Pounds
\$5.50	18	2	1/4	8	2 3/4

Mooring Bitt

CAST BRONZE
ROUND POST—ROUND BASE
POST TAPERED TO HOLD LINE AT BOTTOM—
ROUND TO PREVENT WEAR ON LINE

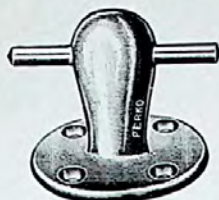


Fig. 597

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 3/8	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	5.80	6 3/4	5 x 5	1/2	6
1 1/2	8.25	8 1/4	5 1/2 x 5 1/2	5/8	9
2	12.60	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
\$1.80	3/8	2 x 1/2	7 1/2	4 1/2	1 1/4

Mooring Bitts

CAST BRONZE

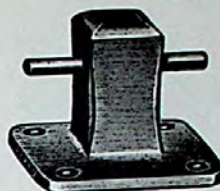


Fig. 608

No.	Polished Bronze Each	Chromium Plated Each	Size Base Inches	Height Inches	Weight Lbs.
1	\$ 5.75	\$ 7.95	3 x 3	2 1/2	7/8
2	7.15	8.50	4 1/4 x 4 1/4	3 1/2	1 1/2
3	14.30	17.00	6 x 6	5	4 1/2
4	23.00	25.80	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
1	\$ 8.75	\$10.25	4 1/2 x 4 1/2	3 1/2	3/4
2	16.50	18.50	6 x 6	5	1

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	Galvanized Each	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
1	3/4 & 1	1 3/8	3 3/8	1 7/8	\$2.75	\$6.00	\$ 7.70	\$11.50
2	1 1/4	2 1/8	4 3/8	2	4.40	8.25	12.00	15.00

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	\$.80	\$.55	\$.35	1 3/4	1 1/8
1	.85	.60	.35	2	1 1/4
2	1.20	.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	\$1.25	\$.95	\$.40	1 3/4	1 1/8
1	1.25	.95	.40	2	1 1/4
2	1.90	1.50	.60	2 1/4	1 3/4
3	2.95	2.30	.85	2 1/2	2 5/8

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	\$2.40				1 3/4	2
1	2.45	\$3.60	\$6.40	\$8.80	2	2
2	3.60				2 1/4	2 3/4

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.	\$1.65	\$1.35	\$.40	2 1/8	1 1/2
644 Galv.	2.05	1.35	.85	2 1/8	1 1/2
643 Pl. Bronze	2.35	1.75	.75	2 1/8	1 1/2
644 Pl. Bronze	2.90	1.75	1.35	2 1/8	1 1/2
643 Pol. Bronze	4.50	3.20	1.35	2 1/8	1 1/2
644 Pol. Bronze	5.15	3.15	2.10	2 1/8	1 1/2
643 Chrom. Pltd.	6.40	4.50	2.10	2 1/8	1 1/2
644 Chrom. Pltd.	7.00	4.50	2.75	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.	\$2.50	\$1.35	\$1.25	2 1/8	1 1/2
1 Pl. Bronze	3.50	1.90	1.75	2 1/8	1 1/2
1 Pol. Bronze	6.25	3.45	2.80	2 1/8	1 1/2
1 Chrome Pltd.	8.75	5.00	4.00	2 1/8	1 1/2

Davis Pattern North River Rowlocks

CAST BRONZE



Fig. 524

The oars are pinned into the lock and may be folded down inside the boat when not in use.

No.	Plain Bronze Per Pair	Polished Bronze Per Pair	Chromium Plated Per Pair	Opening Inches	Weight Per Pair Pounds
1	\$4.40	\$7.25	\$9.75	2	2 1/4

NOTE—BRASS SAFETY CHAIN FOR ROWLOCKS, \$.35 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.	\$1.95	\$.95	\$1.15	1 3/4	1 1/4
1 Galv.	1.95	.95	1.15	2	1 1/2
0 Pl. Bronze	3.40	1.85	1.70	1 3/4	1 1/4
1 Pl. Bronze	3.50	1.90	1.75	2	1 1/2
0 Pol. Bronze	5.30	2.75	2.85	1 3/4	1 1/4
1 Pol. Bronze	5.50	2.80	2.90	2	1 1/2
0 Chrome Pltd.	7.60	4.00	3.95	1 3/4	1 1/4
1 Chrome Pltd.	7.80	4.05	4.00	2	1 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.	\$1.25	\$1.05	\$.35	2	1 1/2
1 Galv.	1.30	1.10	.40	2 1/4	1 1/2
2 Galv.	2.00	1.45	.65	2 1/2	1 1/2
1 Pl. Bronze	2.65	1.90	.75	2 1/4	1 1/4
1 Pol. Bronze	4.50	3.35	1.35	2 1/4	1 1/4
1 Chrome Pltd.	6.75	4.85	2.00	2 1/4	1 1/4

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.	\$1.70	\$.95	\$.95	1 3/4	1 3/8
1 Galv.	1.70	.95	.95	2	1 3/4
1 Pl. Bronze	3.90	2.40	1.55	2	1 3/4
1 Pol. Bronze	5.65	3.50	2.25	2	1 3/4
1 Chrome Pltd.	8.00	5.00	3.25	2	1 3/4

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.	\$1.25	\$.95	\$.40	1 3/4	7/8
1 Galv.	1.25	.95	.40	2	1
0 Pl. Bronze	2.45	1.85	.90	1 3/4	7/8
1 Pl. Bronze	2.50	1.90	.90	2	1
0 Pol. Bronze	4.30	2.70	1.65	1 3/4	7/8
1 Pol. Bronze	4.40	2.80	1.65	2	1
0 Chrome Pltd.	6.30	4.00	2.40	1 3/4	7/8
1 Chrome Pltd.	6.40	4.10	2.40	2	1

Oar Leathers and Buttons

RUSSET LEATHER

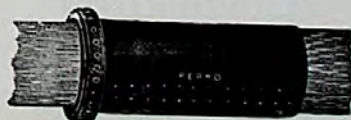


Fig. 233

A high grade russet leather and button.

Copper Oar and Paddle Tips



Fig. 794



Fig. 788

Fig. 794 Oar Tips—per Pair	\$.45
Fig. 788 Paddle Tips—Each	.30

	Per Pair
Complete, Leathers and Buttons	\$1.60
Leathers Only—7x6 1/2 Inches	1.30
Buttons Only—1/2 x 1 3/4 Inches	.35

Bow Plates

CAST BRONZE



Fig. 181

	Polished Bronze Each	Chromium Plated Each	Size Plate Inches	Diam. Eye Inches	Weight Ounces
1	\$2.30	\$3.30	4 1/4 x 4 3/8	3/4	10

Ring on Plate

GALVANIZED DROP FORGED STEEL



Fig. 607

No.	Galvanized Each	Size Ring Inches	Size Plate Inches	Weight Per 100 Pounds
1	\$1.00	5/16 x 1 1/2	2 x 2 x 1/4	33
2	1.35	3/8 x 2	2 1/4 x 2 1/4 x 1/4	50

Combination Bow Plates

CAST BRONZE



Fig. 543

No.	Polished Bronze Each	Chromium Plated Each	Length Inches	Width Inches	Diam. Rope Inches	Weight Ounces
1	\$4.85	\$6.00	3 1/4	4 1/4	Up to 5/8	12
2	5.50	6.90	3 3/4	4 3/4	Up to 1	15

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	\$1.65	\$2.30	2 3/4	1 1/2	3/16 x 1 1/4	2 3/4
2	2.15	2.85	3 1/4	1 7/8	7/32 x 1 1/2	3 1/2

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 1/4	3	3/4	3 1/2
2	7/16	2 1/8	3 3/8	7/8	5

No.	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
1	\$.75	\$1.20	\$1.80
2	.95	1.55	2.20

Ring and Deck Strap

CAST BRONZE



Fig. 183

	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Size Ring Inches	Length Strap Inches	Width Strap Inches	Weight Ounces
	\$.90	\$1.70	\$2.00	7/32 x 1 1/2	3 1/2	5/8	1 1/2

Straps only, see Fig. 882.

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.

Plain Bronze Each	Pol. Bronze Each	Chrom. Plated Each	I. D. Eye Inches	Lgth. Shank Inches	Diam. Shank Inches	Wt. Ozs.
\$1.05	\$1.65	\$2.10	1	3 1/8	3/8	7

Rings with Straps

GALVANIZED MALLEABLE IRON
OR CAST BRONZE—HEAVY PATTERN



Fig. 1020

Size No.	Galv. Each	Plain Bronze Each	Pol. Bronze Each	Chrom. Plated Each	Size Ring Inches	Size Strap Inches
1	\$.75	\$.90	\$1.70	\$2.00	7/32 x 1 1/2	4 1/8 x 3/8
2	.85				7/16 x 1 3/4	4 1/8 x 3/8

Weight No. 1, 2 1/2 ounces, No. 2, 3 1/2 ounces.



Bow Lifting Handle
CAST BRONZE OR ALUMINUM



Fig. 363

A strong good looking handle for small boats, with integral stem band for appearance and additional lifting ability.

Polished Bronze Each	Chromium Plated Each	Polished Aluminum Each	Length Overall Inches	Height Above Deck Inches	Bronze Wt. Ozs.
\$2.50	\$3.50	\$2.50	6½	2	9

Streamline Hatch Handle

CAST BRONZE
WITH MACHINE SCREWS AND WASHERS



Fig. 360

Designed for the hatch cover of a good looking run-about. Note that it is fastened through the under side of the hatch.

Polished Bronze Each	Chrom. Plated Each	Length Overall Inches	Height Overall Inches	Size Opening Inches	Weight Ounces
\$2.25	\$3.00	5½	1½	3¾ x 1	5½

Hatch or Lifting Handle
GALV. MALL. IRON OR CAST BRONZE



Fig. 361

A strong sturdy handle at a moderate price.

Galv. Each	Plain Bronze Each	Polished Bronze Each	Chrom. Plated Each	Length Overall Inches	Size Opening Inches	Weight Ounces
\$.75	\$1.10	\$1.70	\$2.50	6½	3¼ x 1¼	8

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.
6¾	2	1¼	3¾ x 1½	12

Polished Bronze Each	Chromium Plated Each	Polished Aluminum Each
2.50	\$3.25	\$2.50

Outboard Motor Transom Plates
FORGED BRONZE—WITH LEATHER PADS



Fig. 814

These new plates are flat on one edge to permit mounting higher up on transom. An advantage when using a small motor.

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	1¾	7

Lifting Handles
FOR TRANSOM
CAST BRONZE

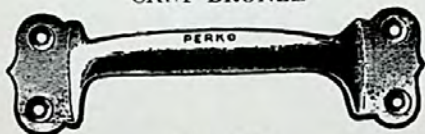


Fig. 775

No.	Polished Bronze Each	Chromium Plated Each	Length Overall Inches	Length Inside Inches	Weight Ounces
1	\$.80	\$1.00	4¾	2¾	2
2	1.35	1.75	5¾	3¾	4

Size No. 2 is U. S. Govt. Type No. 1274.

New Transom Plate
FOR OUTBOARD MOTORS
CAST ALUMINUM—PLAIN

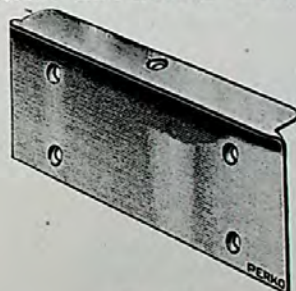


Fig. 739

Has angle flange to protect top of transom and lip on inboard side to keep motor from jumping off if clamps become loose.

Polished Bronze Each	Chrom. Plated Each	Length Overall Inches	Height Overall Inches	Size Opening Inches	Weight Ounces	Dimensions of Plate Inches	Angle Flange Inches	Weight Ounces
\$1.75	\$2.50	5	1¾	3¼ x ¾	6	8¼ x 3¾	¾	9

Improved Lifting Ring

WITH LOOSE DECK FLANGE
CAST BRONZE—FOR 3/8 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.

Polished Bronze Each	Chromium Plated Each	I. D. Eye Inches	Stock in Eye Inches	Diam. Flange Inches	Weight Ounces
\$4.25	\$5.25	1 3/8	7/16	2	10

Standard Lifting Ring

WITH INTEGRAL DECK FLANGE
CAST BRONZE—FOR 3/8 INCH ROD



Fig. 415

Polished Bronze Each	Chromium Plated Each	I. D. Eye Inches	Stock in Eye Inches	Size Flange Inches	Weight Ounces
\$3.85	\$4.85	1 3/8	1/2	3x2 1/4	12 1/2

Keel Plates

FOR ABOVE LIFTING RINGS
CAST BRONZE—FOR 3/8 INCH ROD



Fig. 446

Plain 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 underside 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
\$5.40	10 1/2	7 3/4	2 3/4	2 1/4

Boat Cover Sockets

CAST ALUMINUM—POLISHED



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 3/4 inches wide. Cut the lattice a few inches longer than the boat's width to obtain a low arch under the cover.

Plain Bronze Each	Size Base Inches	Weight Ounces	Length Overall Inches	Per Pair	Size Opening Inches	Width Overall Inches	Weight Pair Ounces
\$1.75	3x1 3/8	7	3 1/2	\$1.25	1 7/8 x 7/16	7/8	2



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	\$1.00	1	7 1/4	8
1	1.10	1 1/4	8 1/4	12
2	1.55	1 1/2	9 5/8	16
3	3.00	2	9 3/4	28

BALL POINTS

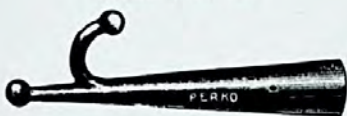


Fig. 224

Size No.	Galvanized Each	Polished Bronze Each	Chromium Plated Each	For Diam. Pole Inches	Extreme Length Inches	Wt. Ozs.
3 1/2	\$1.20	\$2.40	\$4.10	1	7 3/8	9
4	1.55	2.65	4.45	1 1/4	8 1/4	12
5	1.80	3.60	5.25	1 1/2	9 3/8	18
6	3.25			2	9 1/2	28

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	\$.28	\$.45	\$.65	\$1.00	5/16	1 5/8 x 1 1/4
2	.75	.85	1.20	1.70	1/2	2 1/4 x 1 3/4

NOTE—Bronze fender hooks in both sizes are forged bronze, not cast.

Aluminum Racing Fin

CAST SILICON ALUMINUM



Fig. 189

Supplied, plain, not drilled or drilled and countersunk (6 holes) as illustrated.

Undrilled Each	Drilled Each	Length Overall Inches	Depth Blade Inches	Size Flange Inches	Weight Lbs.
\$2.50	\$3.25	9 1/4	5	2 3/8 x 9 1/4	1

Drilled fin supplied unless otherwise specified.

"Holdall" Spring Clamps

ALL BRASS—CHROMIUM PLATED

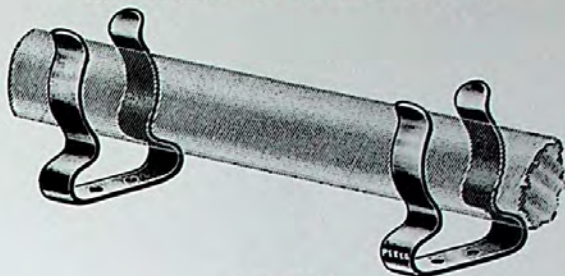


Fig. 502

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 hook, 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	\$1.40	5/8 to 1 1/4	1 1/2	1/2	2
2	1.80	1 to 1 3/4	2 1/4	5/8	2 1/2

Packed—1 Pair Per Box—25 Boxes Per Packages

Boat Hook Holders

SPRING BRASS

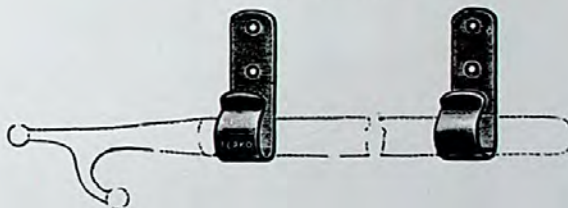


Fig. 490

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 Ounces
\$.90	\$1.25	3 1/2	1	1 1/2

Ring Buoy Holders

CAST BRONZE



Fig. 1017

Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Width Mounting Plate Inches	Height Overall Inches	Weight Pounds
\$1.50	\$2.75	\$3.50	3	4 1/2	1/2

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	Chrome Plated Each	Inside Diam. Inches	Extreme Length Inches	Size Plate Inches	Weight Pounds
1	\$13.75	\$16.50	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—BRONZE BRACKETS



Fig. 1100

No.	Polished Brass Each	Chrome Plated Each	Inside Diam. Inches	Extreme Length Inches	Width Bracket Inches	Wt. Lbs.
1	\$ 9.75	\$12.00	1 7/8	9 1/2	3 3/8	1 1/2
2	12.75	15.00	2 3/8	11 3/4	4	3

Swivel Outrigger Pole Holders

IMPROVED TYPE—WITH ADJUSTING EYES
HEAVY BRASS TUBING, BRONZE CASTINGS



Fig. 414

Pole can be set at any desired angle, has swivel base plate and hinged socket.

Diameter of base is 3 inches. Weight of each is 3 lbs.

Without Adjusting Eyes		With Adjusting Eyes		Length Socket Inches	Inside Diam. Socket Inches
Plain Each	Chromium Plated Each	Plain Each	Chromium Plated Each		
\$12.25	\$18.00	\$16.50	\$22.00	10	1 7/8

Flush Flag Pole Socket

GALVANIZED CAST IRON—CAST BRONZE

Bow



Fig. 218

Stern



Fig. 219

Inside Diam. Inches	Galv. Each	Polished Bronze Each	Chrome Plated Each	Diam. Flange Inches	Depth Socket Inches	Wt. Ozs.
3/4	\$.65	\$1.25	\$1.80	2	1 1/2	4 1/2
1	.70	1.35	2.10	2 3/8	1 3/4	6
1 1/4	1.00	1.70	2.50	2 5/8	2	10
1 1/2	1.60	2.50	3.25	3 1/8	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	\$1.70	\$2.40	2 1/8	1 3/4	7
1	2.40	3.10	2 1/2	2	8 1/2
1 1/4	2.90	3.60	2 3/4	2 1/8	11
1 1/2	3.90	4.80	3	3	16

Upright Flag Pole Socket

GALVANIZED CAST IRON
SQUARE BASE

Bow



Fig. 570

Stern



Fig. 571

Inside Diam. Inches	Galv. Each	Height Inches	Size Base Inches	Weight Ounces
3/4	\$.45	1 3/4	2 x 2	5 1/2
1	.65	2 1/4	2 1/4 x 2 1/4	11
1 1/4	.90	2 3/4	2 3/4 x 2 3/4	13
1 1/2	1.65	3 1/2	3 x 4	24



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
\$3.30	\$4.60	2 1/4	3x2	10

Please specify whether center or end required.

BRASS TUBING, 1 INCH O.D. FOR ABOVE

6 foot lengths or less	Polished Per Foot	Chrome Plated Per Foot
.....	\$1.70	\$2.20

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	\$6.60	\$8.75	\$7.25	\$9.50
12	7.50	9.75	8.00	10.25
18	8.25	10.50	8.75	11.00

Longer Lengths

Add per foot or fraction thereof.

Polished Brass	Chromium Plated
\$1.70	\$2.20

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	\$2.75	\$4.00	2 1/2	3 3/8	1 or 1 1/8	5/8
2	5.50	7.00	3	3 1/2	1 1/4	1 3/4

Specify whether for center or end.

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	\$1.75	\$3.00	2	1 5/8	5/8" Rod
1 1/2	.65	1.75	3.00	2	1 5/8	1/4" Pipe
2	.85	2.00	3.25	2 1/2	1 5/8	5/8" Rod
2 1/2	.85	2.00	3.25	2 1/2	1 5/8	1/4" Pipe
3	1.00	2.25	3.50	3	1 3/4	5/8" Rod
3 1/2	1.00	2.25	3.50	3	1 3/4	3/8" Pipe
5	2.00	4.00	5.50	4	2 5/8	3/4" Rod
5 1/2	2.00	4.00	5.50	4	2 5/8	1/2" 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 Rail Diam. Inches	Height Overall Inches	Size of Base Inches	Weight Ounces
1	\$2.75	\$3.50	1	1 3/4	3 1/2 x 5/8	5
2	3.50	4.25	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	\$8.50	\$10.00	1 1/2 x 2 1/2	5	1 7/8
2	8.50	10.00	1 3/8 x 3	3 3/8	1 3/4

Fig. 123

No.	Polished Bronze Per Set	Chromium Plated Per Set	Size Rail Inches	Length Inches	Weight Pounds
1	\$9.00	\$10.50	1 1/2 x 2 1/2	5	1 7/8
2	9.00	10.50	1 3/8 x 3	3 3/8	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

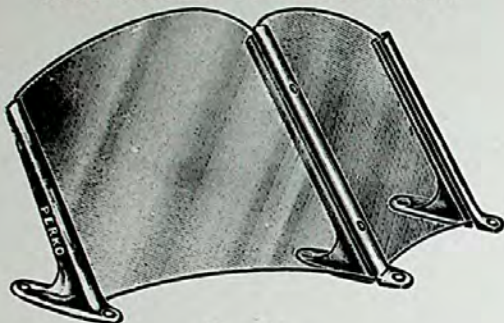


Fig. 665

Polished Bronze Per Set	Chromium Plated Per Set	Height Center Bracket Inches	Height End Brackets Inches	Length Center Base Inches	Wt. Per Set Lbs.
\$18.00	\$22.50	8 3/4	7	6	4 1/2

Price includes rubber for brackets, no glass supplied.

CAST ALUMINUM—50 DEGREE ANGLE

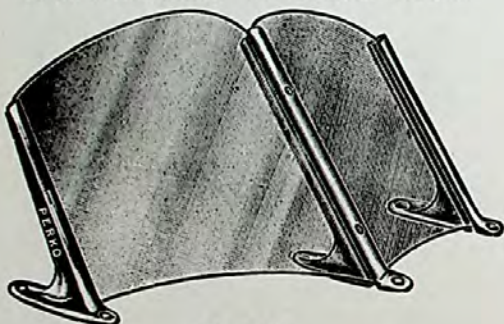


Fig. 750

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	4

Price includes rubber for brackets, no glass supplied.

CAST BRONZE—60 DEGREE ANGLE

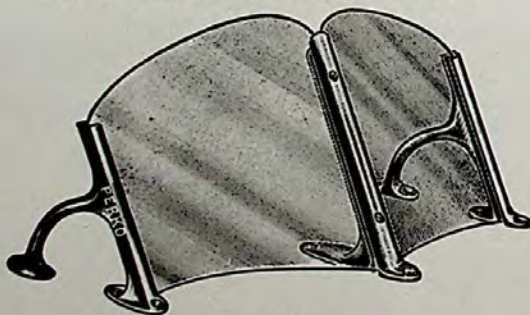


Fig. 930

Polished Bronze Per Set	Chromium Plated Per Set	Height Center Bracket Inches	Height End Brackets Inches	Length Side Base Inches	Weight Per Set Pounds
\$18.75	\$23.25	9 3/4	6 3/4	10	5

Price includes rubber for brackets, no glass supplied.

Improved Windshield Cleaners

ELECTRIC—6 OR 12 VOLTS
BRASS MOTOR COVER—STAINLESS STEEL
ARM AND SHAFT—CHROMIUM PLATED



Fig. 395

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 3/4
6 Volt Each		12 Volt Each	
\$15.00		\$17.00	

Supplied for outside mounting to order. Prices same as above.

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 3/4	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 Adjusters

CAST BRONZE



Port Side
Fig. 82

No.	Polished Bronze Per Pair	Chromium Plated Per Pair	Length Overall Inches	Length Adjustment Inches
1	\$ 9.50	\$12.50	6½	5
2	12.00	15.70	9	7
3	17.25	21.50	12	9½

Note—When ordering ½ pair, specify whether for port or starboard side.

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	\$5.75	\$6.00	\$4.75	8½ x 3½	¾
2	7.75	8.00	6.25	11½ x 5½	1¾

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	\$1.00	\$1.25	8	2½	5/16	3¼
2	1.50	1.75	11	5	5/16	8¼

Black supplied unless otherwise specified.

Rubber Insulation for Windshields



Fig. 667



Fig. 668

Live moulded rubber for glass ¼ inch thick.

Fig. 667—For bottom of windshields—per foot.....\$.25

Fig. 668—For windshield brackets—per foot15

Fig. 667—Supplied only in 11 ft. lengths.

Fig. 668—Supplied in lengths of 20 feet or longer.

Utility Rubber Step Plates

HEAVY CORRUGATED BLACK RUBBER WITH
BRASS, CHROMIUM PLATED FRAME
WITH OR WITHOUT NAME OF BOAT



Fig. 1039—Name Inlaid



Fig. 1044—Plain

No.	Fig. 1044 Complete Each	Fig. 1039 Complete Each	Extreme Dimensions Inches	Thickness Inches	Weight Pounds
3	\$4.20	\$ 5.25	8½ x 3½	¼	½
4	5.25	7.35	10 x 4	¼	¾
5	5.85	8.00	13 x 5	¼	1
6	6.30	8.40	17 x 6	¼	1½
7	7.35	9.50	18 x 8	¼	2
8	8.40	11.00	20 x 9	¼	2½
9	10.00	12.60	24 x 9	¼	3

Note—Fig. 1039 has name of white rubber inlaid in black pad. Each letter requires 2 inches of space, i.e. size No. 4 can accommodate a word of 5 letters or less.

Fig. 1044 with white rubber— add 10% to above.
Fig. 1039 with white rubber pad and black name inlay—add 10% to above.

Windshield Keeper and Plate

CAST BRONZE



Fig. 697

Locks the windshield, preventing rattles and assisting in keeping same watertight.

Plain Per Set	Polished Per Set	Chrome Plated Per Set	Base of Keeper Inches	Base of Plate Inches	Weight Ounces
\$2.00	\$3.25	\$3.75	1½ x 5/8	1¼ x 7/8	3½

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

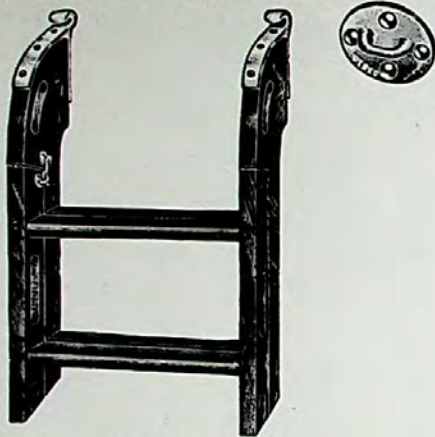


Fig. 557

With Polished Bronze Fittings Each	With Chromium Plated Fittings Each	Overall Length Open Inches	Overall Length Closed Inches	Overall Width Inches	Weight Pounds
\$48.50	\$53.50	36	21½	15	9½

CLOSED 3 STEPS—OPEN 6 STEPS

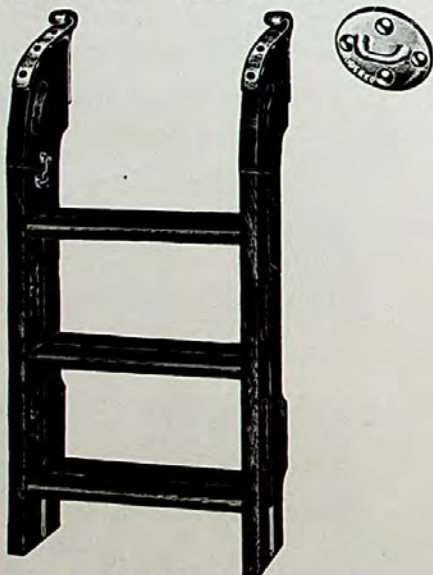


Fig. 558

With Polished Bronze Fittings Each	With Chromium Plated Fittings Each	Overall Length Open Inches	Overall Length Closed Inches	Overall Width Inches	Weight Pounds
\$51.00	\$56.00	51	30	15	12½

SPARE PARTS

Hooks and Hanging Plates, See Fig. 717, Page 139

Hinges, See Fig. 556, Page 153

Cabin Door Hooks, See Fig. 956, Page 149

DELUXE LADDERS

With black rubber matting and chromium plated moulding on step made to order. Fig. 557 add \$13.00 each. Fig. 558 add \$19.50 each.

Ladder

FOR COCKPIT OR COMPANIONWAY
SOLID MAHOGANY—SPAR VARNISHED
WHITE RUBBER STEPS PADS

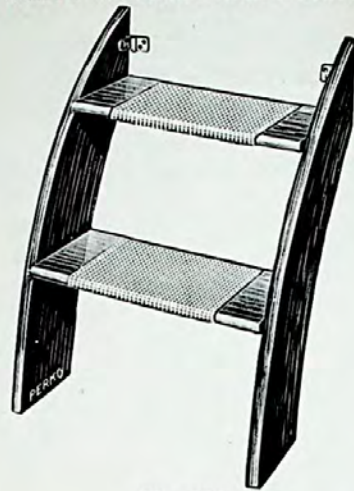


Fig. 601

May be instantly installed or removed. Supplied complete with a set of our Fig. 669 chromium plated ladder locks.

Each	Height Overall Inches	Width Overall Inches	Height Top Step Inches	Projection Inches	Weight Pounds
\$33.00	28½	19	22½	15	15

Folding Step

FOR COCKPIT OR COMPANIONWAY
SOLID MAHOGANY—SPAR VARNISHED
WHITE RUBBER STEP PAD

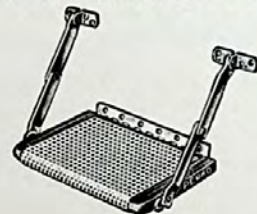


Fig. 602

Supplied complete with hinge and strong folding brackets, all brass, chromium plated.

Each	Dimensions Step Inches	Thickness Step Inches	Weight Pounds
\$28.00	13¾ x 9	¾	5½

Rope Ladder Hook

CAST BRONZE



Fig. 817

Plain Per Pair	Polished Chrome Per Pair	Length Overall Inches	Projection Overall Inches	Weight Per Pair Pounds
\$4.00	\$6.50	3	1¾	1½



Rope Swimming Ladders

WITH ROUND RUNGS OR FLAT STEPS
MANILA ROPE
RUNGS OR STEPS 12 INCHES APART
WITH ROUND RUNGS



Fig. 991

Rungs are hickory, oil treated, size 1 1/4 x 16 inches. Ends for fastening on board are 5 feet long.

Length	Each	Length	Each
2 Rung	\$ 6.75	5 Rung	\$11.50
3 Rung	8.00	6 Rung	13.25
4 Rung	9.75		

Additional rungs, add \$2.00 each.

WITH FLAT STEPS



Fig. 992

Steps are hard wood, varnished, size 5/8 x 3 1/2 x 20 inches. Ends for fastening on board are 5 feet long. Steps are cut out for hand hold and have white rubber bumpers.

Length	Each	Length	Each
2 Step	\$11.25	5 Step	\$20.25
3 Step	14.25	6 Step	23.25
4 Step	17.25		

Additional steps, add \$3.25 each.

Ladder Locks

FOR COMPANIONWAY OR UPPER BERTH
CAST BRONZE



Fig. 669

Height Inches	Complete		Length Socket Inches	Length Bracket Inches	Weight Ounces Per Set
	Plain Bronze Per Set	Polished Bronze Per Set			
1 1/4	\$3.00	\$4.50	1	1 3/4	12

Spare Sockets Only		
Plain Bronze Per Pair	Polished Bronze Per Pair	Chromium Plated Per Pair
\$2.00	\$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	Complete		
				Plain Bronze Per Set	Polished Bronze Per Set	Chromium Plated Per Set
12	4	2 1/2 x 3 1/4	4	\$10.00	\$16.00	\$22.00

Plates Only		
Plain Bronze Per Pair	Polished Bronze Per Pair	Chromium Plated Per Pair
\$4.25	\$5.50	\$7.25

Ladder Hooks for Folding Boarding Ladder

CAST BRONZE

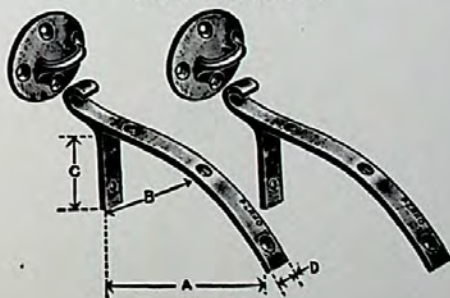


Fig. 717

Used on our Figs. 557 and 558 folding boarding ladders. Designed for wide woodwork.

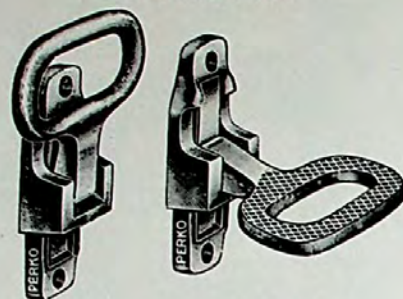
A Inches	B Inches	C Inches	D Inches	Length Curved Arm Inches	Size Plate Inches	Weight Per Set Pounds	Complete		
							Plain Bronze Per Set	Polished Bronze Per Set	Chromium Plated Per Set
6 1/8	4	2 1/2	7/8	7	2 1/2 x 3 1/4	2 1/2	\$10.00	\$14.50	\$19.00

Plates Only		
Plain Bronze Per Pair	Polished Bronze Per Pair	Chromium Plated Per Pair
\$4.25	\$5.50	\$7.25



Folding Step

CAST 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.

Polished Bronze Each	Chromium Plated Each	Size Step Inches	Size Base Inches	Extends Folded Inches	Weight Pounds
\$5.50	\$6.50	4x2	4 1/4 x 1 3/4	7/8	1 1/2

Streamlined Mast

PHILIPPINE MAHOGANY—VARNISHED



Fig. 584

Height Feet	Without Light Each	With Brass Light Each	With Chrome Light Each	Width Cross Arm Inches	Size Base Inches	Weight Pounds
4	\$33.00	\$37.00	\$38.00	26	9x5 1/4	6
6	40.00	44.00	45.00	33	9x5 1/4	8

Hinged masts are available to order add \$15.00 each.

Swivel Fishing Chair

MAHOGANY WITH CAST BRONZE FITTINGS
DEMOUNTABLE—WITH COVER FOR DECK PLATE

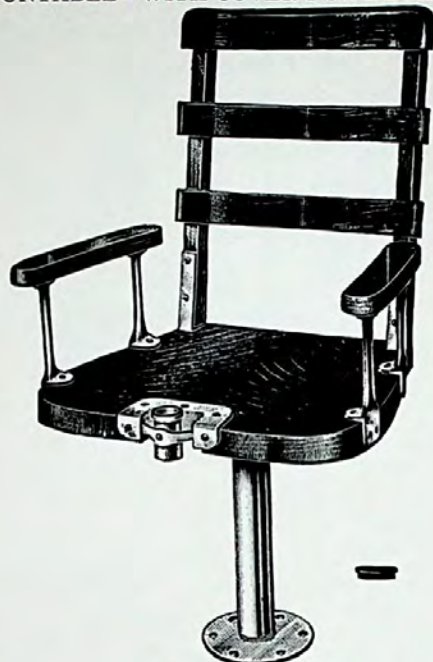


Fig. 559

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
\$120.00	\$135.00	18	19x22	7	45

SPARE PARTS

No.	No. Per Chair	Polished Bronze Each	Chromium Plated Each
1 Rod Socket Complete	1	\$11.00	\$14.00
2 Seat Flange, Plain	1	7.00	
3 Pedestal	1	10.00	13.00
4 Deck Flange Complete	1	12.00	15.00
5 Arm Supports	4	3.50	4.50
6 Back Rest Sockets	2	3.50	4.50
7 Back Rest Brace	1	8.00	10.50

Folding Stools

VARNISHED SEAT—CAST BRONZE BRACKET

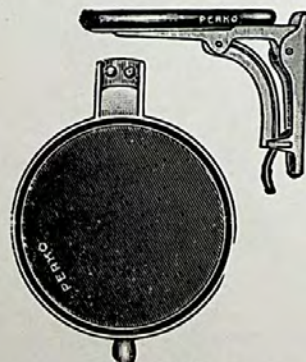


Fig. 1009

All metal parts are painted gray, wrinkle finish. Seat is mahogany stained.

No.	Each	Diam. Seat Inches	Projection Inches	Length Bulkhead Bracket Inches	Weight Pounds
1	\$13.50	12	12 1/2	8 3/4	5 1/4
2	14.50	14	14 1/2	11 1/4	8



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	\$ 1.65	\$ 2.00	\$ 3.25	\$.25	2 1/2
1 1/2	2.15	2.55	3.90	.30	3 1/4
2	3.30	3.85	4.95	.30	3 3/8
2 1/2	3.80	4.50	5.65	.45	4 1/2
3	4.20	5.20	6.15	.50	4 7/8
3 1/2	5.50	6.60	7.75	.60	5 1/2
4	6.45	8.00	9.20	.65	5 3/4
5	9.65	11.80	13.50	.80	7 1/16
6	12.65	14.50	17.25	1.40	8 1/4
8	33.00	37.50	44.00	2.00	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	\$ 2.00	\$ 2.30	\$ 3.65	\$.25	2 5/8
1	2.25	2.65	4.15	.25	2 7/8
1 1/4	2.75	3.30	4.85	.30	3 5/16
1 1/2	3.10	3.75	5.40	.30	3 3/4
2	3.95	5.00	6.50	.45	4 1/4
2 1/2	4.75	5.75	7.50	.45	4 5/8
3	6.45	7.75	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 \$.50
 All other sizes add each \$.65

Deck Plate Key

CAST BRONZE
 ADJUSTABLE TO ALL SIZES OF DECK PLATES
 IMPROVED UNBREAKABLE PINS



Fig. 826

Will fit all sizes of deck plates up to 10 inch diameter, making it unnecessary to have separate keys for each plate.

Each	Length Overall Inches	Weight Pounds
\$2.00	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.	Polished Bronze Each	Chromium Plated Each	Threaded for Pipe Inches	Height Overall Inches	Diam. Deck Flange Inches	Weight Pounds
1	\$4.90	\$5.75	1 1/2	1 3/8	3 1/4	1
2	5.50	6.25	2	1 3/8	4	1 1/4

Gas Tank Vents

CAST BRONZE—PLAIN
 WITH FLANGED ELBOW

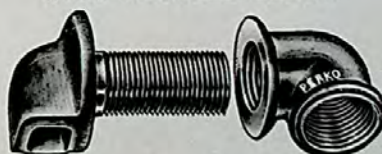


Fig. 503

A fitting designed for leading the gas tank vent out-board per recommendations of insurance underwriters.

No.	Each	Pipe Size Inches	For Wood Inches	For Tanks Up To	Weight Ounces
1	\$2.75	3/8	1 1/8	100 Gals.	8
2	2.75	1/2	1 1/8	100 Gals.	8

Sail Makers Needles

FORGED CAST STEEL—POLISHED
LONG SQUARE



Fig. 410

No.	Per 100	Length Inches	No.	Per 100	Length Inches
17	\$5.00	2	12	\$ 8.75	3 1/4
16	5.50	2 1/4	11	11.50	3 1/2
15	5.75	2 1/4	10	13.50	3 3/4
14 1/2	6.00	2 1/2	9	16.50	4
14	6.30	2 3/4			
13	7.50	3			

Packed 25 needles per package—only furnished in full packages.

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

Sail Makers Palms

HIDE MOUNTED



Fig. 411

	Right Hand r Doz.	Left Hand Per Doz.
	4.50	\$15.00
6 Rc	22.00	22.50
7 Se	19.50	20.00
	37.00	37.50

"Right" unless otherwise specified.

Letters and Figures

CAST BRONZE
REGULAR PATTERN

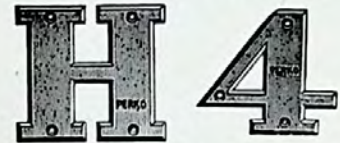


Fig. 348

Height Inches	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Weight Per 100 in Lbs.
2	\$.50	\$1.00	\$1.25	6 1/2
3	.50	1.00	1.25	24 1/4
4	1.00	1.50	2.00	36

GOTHIC PATTERN



Fig. 313

Height Inches	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each	Weight Per 100 in Lbs.
3	\$.50	\$1.00	\$1.25	18

Sword Fish Darts

PLAIN CAST BRONZE
POINT GROUND AND SHARPENED



Fig. 805

Each	Length Inches	Weight Ounces
\$.75	5	5

Solid Brass Rings

POLISHED



Fig. 417

Inside Diam. Inches	Thick- ness Inches	Per Dozen	Inside Diam. Inches	Thick- ness 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

Dart Shanks

IRON SHANK—CAST BRONZE SOCKET



Fig. 655

Length overall, 24 inches; Weight, 1 1/4 pounds.

Each \$2.75

Continuous Hinge

WROUGHT BRASS—BRASS PIN



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	Chromium Plated Each	Thickness Inches
1 1/16	60	\$3.50	\$4.80	.045
1 1/4	60	3.65	5.00	.040
1 1/4	72	4.35	6.00	.040
1 1/2	60	3.80	5.00	.040
1 1/2	72	4.50	6.00	.040
2	60	4.00	5.25	.040
2	72	5.00	6.25	.040

Special widths and lengths made to order. Price on application.

Flat Hatch Trim

WROUGHT BRASS—DRILLED



Fig. 243

For finishing around edges of hatch. Drilled and countersunk off center for No. 6 flat head screws.

Width Inches	Length Inches	Polished Brass Each	Chromium Plated Each	Thickness Inches
1 1/16	60	\$3.20	\$3.75	.045
1 1/4	60	3.35	3.90	.040
1 1/4	72	4.00	4.70	.040
1 1/2	60	3.50	4.10	.040
1 1/2	72	4.20	4.85	.040

Supplied in special lengths to order, price on application.

Supplied undrilled and unpolished, price on application.

Hatch Moulding

EXTRUDED BRASS—PLAIN FINISH



End View Full Size

Fig. 232

This type moulding insures a smooth and neat surface, as it is fastened to hatch on side, screw heads are invisible when hatch is closed.

Per Foot	Width Surface Inches	Depth Inches	Weight Per Foot Ounces
\$1.20	3/4	1 1/16	10

Supplied only in standard lengths of 12 feet.

Rubber Fender Moulding

HALF ROUND—WHITE



Fig. 158

A good looking white moulding, easy to keep clean. Excellent for gunwale of small boats. Apply with rubber cement or escutcheon pins.

Per Foot	Width Inches	Thickness Inches	Weight Per 100 Ft. Pounds
\$.25	1	1/2	25

Fender Moulding

STAINLESS STEEL .045" THICK POLISHED

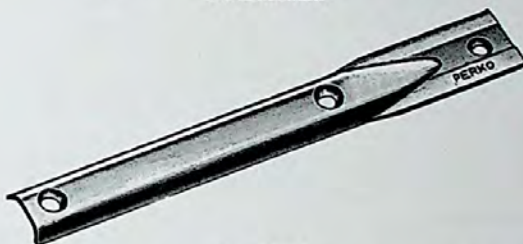


Fig. 110

For all classes of boats. A strong moulding with ends formed as illustrated. 6 foot lengths have both ends formed; 12 foot lengths have one end formed, the other end cut for splicing. All punched and countersunk for No. 7 oval head wood screws, 8 inch centers.

6 Foot Lengths Each	12 Foot Lengths Each	Width Outside Inches	Width Inside Inches	Weight Per Ft. Ounces
\$3.60	\$7.20	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
\$1.40	2 3/8	1 5/16	3/4	1 1/2

Moulding Couplings

CAST BRONZE—PLAIN



Fig. 38

For inside of Fig. 110 moulding at joint. Each \$3.35



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 1/2" No. 7.

Complete Sets, Figs. 995-996-997 Figs. 998-996-997 Fig. 995 Only..... Fig. 996 Only..... Fig. 997 Only..... Fig. 998 Only.....	Brass Finish		Chromium Plated	
	Single Per 100	Double Per 100	Single Per 100	Double Per 100
Figs. 995-996-997	\$22.00	\$27.75	\$28.75	\$39.00
Figs. 998-996-997	24.25	30.25	33.00	42.75
Fig. 995 Only.....	18.75	20.80	21.50	24.40
Fig. 996 Only.....	2.50	2.50	4.30	4.30
Fig. 997 Only.....	1.25	1.25	3.30	3.30
Fig. 998 Only.....	21.00	23.50	25.80	28.20

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	\$13.75		\$15.25	
Figs. 61-62-117-118		\$28.75		\$31.50
Figs. 114-116-118 ..	12.75		14.00	
Figs. 115-117-118 ..		24.75		27.25
Fig. 60 Only	4.80		5.30	
Fig. 61 Only		8.00		8.80
Fig. 62 Only	1.20	1.20	1.35	1.35
Fig. 114 Only.....	5.00		5.50	
Fig. 115 Only		6.25		6.90
Fig. 116 Only	6.90		7.60	
Fig. 117 Only		8.20		9.00
Fig. 118 Only	1.20	1.20	1.35	1.35

Note—Double fasteners, when ordered complete are supplied with two double sockets and two clinch plates for each stud.

"Durable Dot" Fasteners

BRASS



Button
Fig. 896



Socket
Fig. 898



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.

	Brass Finish Per 100	Chromium Plated Per 100
Complete Sets,		
Figs. 896-898-901-907	\$5.50	\$12.60
Figs. 896-898-900	7.25	12.60
Fig. 896 Only	2.20	4.00
Fig. 898 Only	1.60	3.40
Fig. 900 Only	3.75	5.50
Fig. 901 Only	1.00	2.75
Fig. 907 Only	1.00	2.75

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

Curtain or Grommet Hooks

CAST BRASS



Fig. 1000

Plain
Brass
Per Dozen
\$2.30

Diam.
Flange
Inches
5/8

Length
Screw
Inches
1/2

Grommet Hole Cutters

FORGED STEEL



Fig. 903

No.	Each	Diam. Hole Inches	No.	Each	Diam. Hole Inches
0	\$1.60	1/4	5	\$4.20	5/8
1	1.60	9/32	6	4.50	3/4
2	1.80	11/32	7	4.80	7/8
3	1.90	3/8	8	5.40	1 1/16
4	2.30	1/2			

Senior Grommet Dies

FORGED STEEL

Style B for inserting Spur Grommets

Style C for inserting Washer and Teeth Grommets

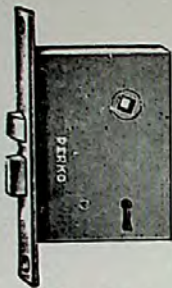


Fig. 902

Size No.	Style B Each	Style C Each	Weight Each Lbs.
0	\$ 5.30	\$ 5.30	1 1/4
1	6.10	6.10	1 3/8
2	6.20	6.20	1 3/8
3	6.40	6.40	1 7/16
4	7.00	7.00	2 3/8
5	7.40	7.40	2 5/8
6	11.40	11.40	3 1/2
7	16.80		3 3/4
8	16.80		5

Use a wooden mallet with above dies.

Mortise Locks
CAST BRONZE



Cast bronze case with reversible latch bolt. Furnished with polished striking plate and one brass bit key.

Fig. 944

No.	Pol. Bronze Each	Chrome Plated Each	Case Inches	Facing Inches	Back-set Inches	Spindle Hub Inches
1	\$7.50	\$10.00	2 3/4 x 2 1/4 x 1/2	4 1/8 x 3/4	1 1/2	5/16
2	9.25	12.00	3 1/2 x 3 x 5/8	5 x 3/4	2 3/16	7/16

Rim Locks
CAST BRONZE



All bronze, with reversible latch bolt for right and left hand doors.

Furnished with polished bronze nosings and one brass bit key.

Fig. 1045

No.	Pol. Bronze Each	Chrome Plated Each	Size Case Inches	Spindle Inches	Backset Inches
1	\$ 8.80	\$11.40	2 1/2 x 2 x 1/2	5/16	1 7/16
2	10.00	12.60	3 3/4 x 2 1/2 x 5/8	5/16	1 1/2

Mortise Lock Sets
CAST BRONZE

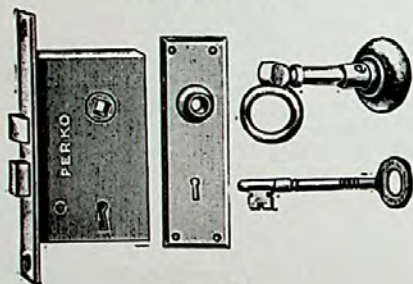


Fig. 945

The following shows mortise lock Fig. 944 numbers 1 and 2 made up in various sets.

SET A

With Combination Escutcheons, Round Knob and Drop Handle

Size No.	Price Per Set	Pol. Bronze	Chrom. Plated
1		\$12.75	\$15.60
2		14.25	17.60

SET B

With Shield Escutcheons, Round Knob and Drop Handle

Size No.	Price Per Set	Pol. Bronze	Chrom. Plated
1		\$11.00	\$14.00
2		12.50	16.00

SET C

With Shield Escutcheons and Two Round Knobs

Size No.	Price Per Set	Pol. Bronze	Chrom. Plated
1		\$11.25	\$14.25
2		12.75	16.25

SET D

With Combination Escutcheons and Two Round Knobs

Size No.	Price Per Set	Pol. Bronze	Chrom. Plated
1		\$12.90	\$15.75
2		14.50	18.00

For Set No.	Combination Escutcheon Inches	Diameter Round Knob Inches	Shield Escutcheon Inches
1	4 1/2 x 1 3/8	1 3/4	1 1/2
2	4 1/2 x 1 3/8	1 3/4	1 1/2

Rim Lock Sets
CAST BRONZE

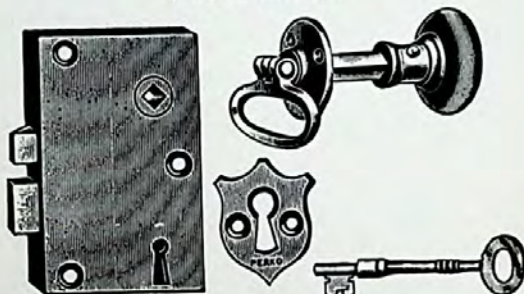


Fig. 1046

The following shows Rim Lock Fig. 1045, Numbers 1 and 2 made up in various sets.

SET A

With Combination Escutcheons, Round Knob and Drop Handle

Size No.	Price Per Set	Pol. Bronze	Chrom. Plated
1		\$13.90	\$16.75
2		15.00	18.50

SET B

With Shield Escutcheons, Round Knob and Drop Handle

Size No.	Price Per Set	Pol. Bronze	Chrom. Plated
1		\$12.20	\$15.00
2		12.90	16.75

SET C

With Shield Escutcheons and Two Round Knobs

Size No.	Price Per Set	Pol. Bronze	Chrom. Plated
1		\$12.35	\$15.25
2		13.45	16.80

SET D

With Combination Escutcheons and Two Round Knobs

Size No.	Price Per Set	Pol. Bronze	Chrom. Plated
1		\$14.00	\$16.80
2		15.00	18.50

For Set No.	Combination Escutcheon Inches	Diameter Round Knob Inches	Shield Escutcheon Inches
1	4 1/2 x 1 3/8	1 3/4	1 1/2
2	4 1/2 x 1 3/8	1 3/4	1 1/2

All of the above sets can be furnished with oval knobs if desired—Price on application.

Extra keys for above locks furnished to order.



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
\$4.30	\$6.80	7/8 to 1 3/8	4 3/8 x 1 5/8	1 3/4	1 3/8

Door Knobs

CAST BRASS

Solid cast brass round knobs and rosettes. Wrought brass spindles.

Two Round Knobs



Fig. 1048

Diam. Knob Inches	Polished Brass Per Set	Chromium Plated Per Set	Size Spindle Inches
1 3/4	\$5.00	\$6.25	5/16

Round Knob and Drop Handle



Fig. 1049

Diam. Knob Inches	Polished Brass Per Set	Chromium Plated Per Set	Size Spindle Inches
1 3/4	\$4.75	\$6.00	5/16

Knobs for Rim Locks have One Rosette
Knobs for Mortise Locks have Two Rosettes

Anti-Rattle Door Fastener

CAST BRASS

Has 1/4 inch hole in lever for padlock.

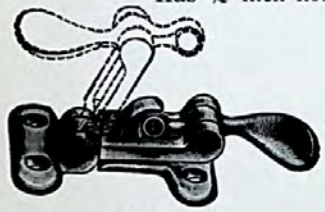


Fig. 1108

Size Base Inches	Weight Ounces	Polished Brass Each	Chromium Plated Each
3x2	6	\$2.45	\$3.30

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	\$5.50	\$2.00	\$9.00	\$3.60
2	1 3/4	6.25	2.50	9.75	4.25
3	2	7.75	3.20	11.40	4.75

Elbow Catches

CAST BRASS

Small spiral brass spring in catch lever. For light cupboard doors, etc.



Fig. 1056

Size Base Inches	Plain Brass Each	Polished Brass Each	Chromium Plated Each	Weight Ounces
1 5/16 x 5/8	\$.50	\$.70	\$1.00	1

Table Leg Fasteners

CAST BRASS

For fastening table leg to deck.



Fig. 719

Length Angle Inches	Width Angle Inches	Weight Ounces	Plain Brass Each	Polished Brass Each	Chromium Plated Each
1 3/4	7/8	4	\$1.70	\$2.10	\$3.40

Friction Catches

ALL BRASS—ADJUSTABLE TENSION

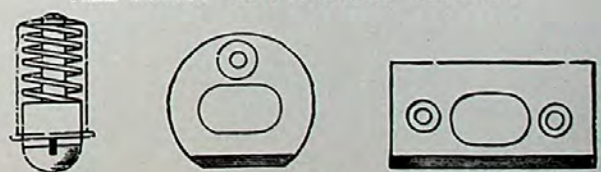


Fig. 178

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	\$1.80	\$2.35	1 1/2 x 1 1/2	1 1/2
2	1.80	2.35	1 1/2 x 1 1/2	1 3/4

No. 2 has 3/8 inch offset.

Cupboard Bolt
CAST BRASS

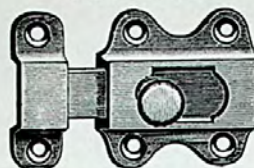


Fig. 1101

Emery Finish Each	Polished Brass Each	Chromium Plated Each	Without Strike Inches	Weight Per Dozen Pounds
\$1.25	\$1.50	\$2.00	1 3/4 x 1 5/8	1 1/2

Cupboard Turns
WROUGHT BRONZE

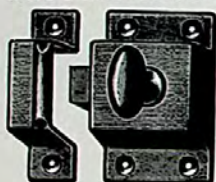


Fig. 1105

Furnished complete with screws.

Polished Brass Each	Chromium Plated Each	Without Strike Inches	Weight Per Dozen Pounds
\$1.60	\$2.10	2 1/4 x 1 1/2	3

Flush Ring Catch
CAST BRASS



Fig. 1051

Size Inches	Polished Brass Each	Chromium Plated Each	Weight Ounces
1 5/8 x 1 1/4	\$1.45	\$1.85	1 1/2

Flush Ring Pulls
CAST BRASS



Fig. 841

No.	Polished Brass Each	Chromium Plated Each	Size Plate Inches	Weight Ounces
1	\$.75	\$1.10	1 1/4 x 1 1/2	1
2	1.00	1.35	1 1/2 x 1 5/8	1 1/2

Cupboard Turns
CAST BRASS

U.S. GOVT. TYPE NO. 1082-1083

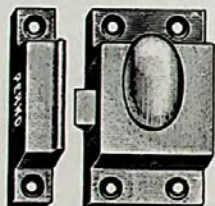


Fig. 949

No.	Emery Finish Each	Polished Brass Each	Chromium Plated Each	Without Strike Inches	Weight Per Dozen Pounds
1	\$1.75	\$2.00	\$2.40	1 3/4 x 1 1/8	2 1/2
2	2.00	2.25	2.85	2 1/4 x 1 5/8	3 3/4

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	\$1.20	\$1.30	\$1.75	1 1/2 x 1	1 1/4	1	\$.95	\$1.40	1 1/4 x 1 1/2	1 1/4
2	1.35	1.45	1.90	1 1/2 x 1 1/4	2	2	1.20	1.65	1 7/8 x 2 1/2	2 3/4
3	1.45	1.55	2.05	1 1/2 x 1 1/2	2 1/4	2	1.80	2.40	2 x 2 3/4	3 1/4
4	1.55	1.70	2.20	1 1/2 x 1 3/4	2 1/2	3				

Barrel Bolts
CAST BRASS



Fig. 947

No.	Pol. Brass Each	Chrom. Plated Each	Length Rod Inches	Size Base Without Strike Inches	Weight Per Dozen Pounds
1	\$1.15	\$1.85	2 1/4	2 x 1	1 1/2
2	1.60	2.30	3	3 x 1 1/8	2
3	1.85	2.70	4	3 1/2 x 1 1/4	3

Cabin Door Hooks
CAST BRASS



Fig. 956

Lgth. Hook In.	Pol. Brass Each	Chrom. Plated Each	Wt. Ozs.	Lgth. Hook In.	Pol. Brass Each	Chrom. Plated Each	Wt. Ozs.
1 1/2	\$.75	\$1.10	1	3 1/2	\$1.10	\$1.50	2 1/2
2	.80	1.15	1 1/2	4	1.25	1.65	3
2 1/2	.85	1.25	1 3/4	5	1.30	1.90	3 1/2
3	.95	1.35	2	6	1.45	2.20	4

Flush Bolts
CAST BRASS—POLISHED



Fig. 1052

No.	Each	Size Inches	Weight Ounces
1	\$1.75	5/8 x 2 1/2	1 1/2
2	1.75	5/8 x 3	2

Cabin Door Hooks
DOUBLE JOINTED
CAST BRASS



Fig. 957

Length Overall Inches	Pol. Brass Each	Chromium Plated Each	Length Overall Inches	Polished Brass Each	Chrom. Plated Each
2	\$1.60	\$2.10	4	\$2.40	\$3.10
2 1/2	1.65	2.15	5	2.80	3.50
3	1.70	2.25	6	3.20	4.00

Ship Bolts
CAST BRASS



Fig. 1053

No.	Polished Brass Each	Chromium Plated Each	Size Without Strike Inches
1	\$1.30	\$1.60	2 5/8 x 1 1/8
2	1.85	2.35	3 5/8 x 1 3/8
3	2.60	3.35	4 3/4 x 1 5/8

Cabinet Latches
CAST BRASS



Fig. 1064

With flush striking plate and brass pin, spring closing. Made either right or left hand.

Pol. Brass Each	Chromium Plated Each	Length Overall Inches	Length Lever Inches
\$1.20	\$1.45	2 1/2	2

Square Neck Bolts
CAST BRASS



Fig. 1054

No.	Polished Brass Each	Chromium Plated Each	Size Inches
1	\$1.80	\$2.35	3 x 1 1/4
2	2.10	2.75	4 x 1 1/16

Refrigerator Fasteners
CAST BRASS



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.	Pol. Brass Each	Chromium Plated Each	Lgth. Overall In.	Size Lever In.
1	\$3.00	\$3.80	5	4

Window Bolts
CAST BRONZE
SPRING TYPE

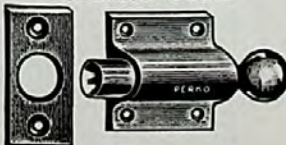


Fig. 1055

Base Inches	Polished Bronze Each	Chromium Plated Each
1 1/8 x 1 1/4	\$1.35	\$1.85

Cupboard Door Holder
BRASS PLATED



Fig. 1178

A useful little friction catch for use on cabinets, closets, cupboards and all small doors, size overall— $1\frac{1}{2} \times 1\frac{1}{8}$ inches.

Per Dozen \$1.20

Door Holders
SIDE PATTERN
CAST BRONZE

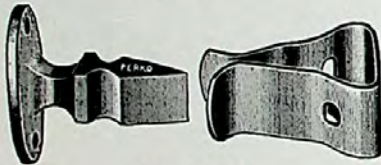


Fig. 1065

Polished Bronze Per Set	Chromium Plated Per Set	Base of Holder Inches	Base of Clip Inches	Projection Inches
\$1.85	\$2.35	$1\frac{5}{8} \times \frac{3}{4}$	$2\frac{1}{8} \times \frac{3}{4}$	2

FLOOR PATTERN

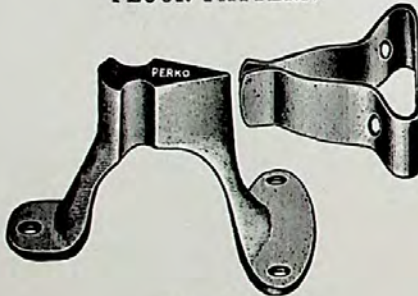


Fig. 1066

Polished Bronze Per Set	Chromium Plated Per Set	Height Holder Inches	Base of Holder Inches	Base of Clip Inches
\$2.25	\$2.85	$1\frac{3}{4}$	$2\frac{5}{8} \times 1\frac{3}{4}$	$2\frac{1}{8} \times \frac{3}{4}$

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
\$1.65	\$2.00	2	$1\frac{1}{8}$	4

New Security Hinged Hasp
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
$2\frac{7}{8}$	\$.65	\$1.15	1	$1\frac{1}{4}$

Security Hinged Hasps
CAST BRONZE

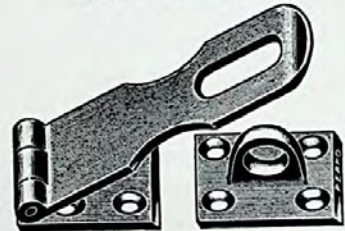


Fig. 955

Length Closed Inches	Emery Finish Each	Pol. Bronze Each	Chromium Plated Each	Width Inches	Weight Ounces
2	\$1.05	\$1.30	\$1.75	1	$1\frac{1}{2}$
3	1.20	1.50	1.90	1	$2\frac{1}{2}$
$3\frac{3}{4}$	1.50	1.85	2.30	$1\frac{1}{8}$	$4\frac{1}{2}$

Safety Hasps

EXTRA HEAVY CAST BRONZE



Fig. 1060

Emery Finish Each	Polished Bronze Each	Chromium Plated Each	Length Inches	Width Inches	Weight Ounces
\$2.90	\$3.40	\$4.50	$4\frac{1}{2}$	$1\frac{3}{4}$	13

Boston Hasp Hinges

GALVANIZED MALLEABLE IRON OR BRONZE

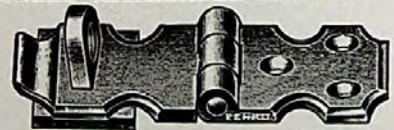


Fig. 954

Length Opened Inches	Galv. Each	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
4	\$1.10	\$1.20	\$1.50	\$2.50
6	1.40	2.00	2.50	3.50

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	Chrome Plated Per Pair	Weight Per Pair Pounds
4	\$1.05	\$1.75	\$3.50	\$4.25	$\frac{5}{16}$
6	1.70	2.10	4.00	5.10	$\frac{3}{8}$
8	2.40	3.00	5.40	6.50	$\frac{7}{8}$
10	2.90	4.50	6.50	7.80	$1\frac{1}{8}$
12	4.40	6.00	9.00	10.85	$1\frac{5}{8}$

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	Chrome Plated Per Pair	Weight Per Pair Pounds
4	\$1.70	\$2.40	\$4.25	\$5.50	$\frac{1}{2}$
6	2.15	3.30	6.00	7.00	$\frac{7}{8}$
8	4.00	5.25	8.90	10.25	$1\frac{1}{2}$
10	5.80	7.00	12.00	13.50	2
12	7.70	9.30	15.00	17.00	$2\frac{5}{8}$

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
$2\frac{7}{8}$	$1\frac{1}{8}$	\$11.50	\$17.50

Packed one dozen pairs per box.

Cuddy Door Hinges

CAST BRASS

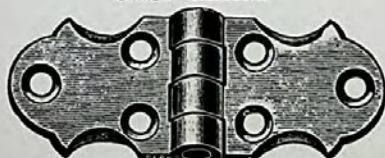


Fig. 951

Length Open Inches	Plain Brass Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair
3	\$1.50	\$2.25	\$3.00
$3\frac{1}{2}$	1.75	2.50	3.25
4	2.00	3.00	4.00
5	2.60	3.60	4.75

Fast Pin Butt Hinges

CAST BRASS—BRASS PINS



Fig. 952

Size Open Inches	Emery Finish Per Dz. Pairs	Pol. Chrom. Plated Per Dz. Pairs	Size Open Inches	Emery Finish Per Dz. Pairs	Pol. Chrome Plated Per Dz. Pairs
$1\frac{1}{2} \times 1\frac{1}{4}$	\$13.80	\$27.00	$2\frac{1}{2} \times 2\frac{1}{2}$	\$27.60	\$51.00
$1\frac{1}{2} \times 1\frac{1}{2}$	13.80	27.00	3 x 2	30.60	54.60
2 x $1\frac{1}{4}$	15.60	31.80	3 x $2\frac{1}{2}$	34.20	60.00
2 x $1\frac{1}{2}$	15.60	31.80	3 x 3	37.80	66.00
2 x $1\frac{3}{4}$	17.40	34.20	$3\frac{1}{2} \times 3$	45.00	79.80
2 x 2	18.00	36.00	$3\frac{1}{2} \times 3\frac{1}{2}$	50.40	88.80
$2\frac{1}{2} \times 1\frac{3}{4}$	24.00	44.40	4 x 3	59.20	96.00
$2\frac{1}{2} \times 2$	25.20	46.80	4 x 4	70.60	116.40

Polished Brass, Price on Application
Other Sizes Furnished to Order

Loose Pin Butt Hinges

BRASS WITH BRASS PINS



Fig. 953

Size Open Inches	Pol. Brass Per Pair	Chrom. Plated Per Pair	Size Open Inches	Pol. Brass Per Pair	Chrom. Plated Per Pair
$1\frac{1}{2} \times 1\frac{1}{2}$	\$ 2.50	\$ 3.35	3 x $2\frac{1}{2}$	\$ 4.70	\$ 6.20
2 x $1\frac{1}{2}$	2.90	3.90	3 x 3	5.25	7.00
2 x 2	3.40	4.50	$3\frac{1}{2} \times 3$	6.00	8.00
$2\frac{1}{2} \times 2$	3.85	5.25	$3\frac{1}{2} \times 3\frac{1}{2}$	6.70	9.00
$2\frac{1}{2} \times 2\frac{1}{2}$	4.25	5.70	4 x $3\frac{1}{2}$	7.00	9.25
3 x 2	4.40	5.80	4 x 4	8.00	10.65

Emery Finish Brass, Price on Application.

Flush Surface Hinges

CAST BRASS

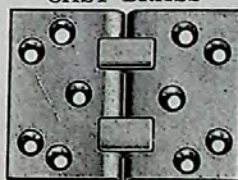


Fig. 928

Length Open Inches	Extreme Width Inches	Polished Brass Per Pair	Chromium Plated Per Pair
$2\frac{1}{2}$	2	\$5.50	\$ 6.50
3	$1\frac{1}{4}$	4.85	5.85
4	3	9.00	11.00

Packed $\frac{1}{2}$ doz. pairs per box.

New Invisible Hinges

HEAVY GAUGE WROUGHT BRASS
WITH BRASS LINKS AND PINS

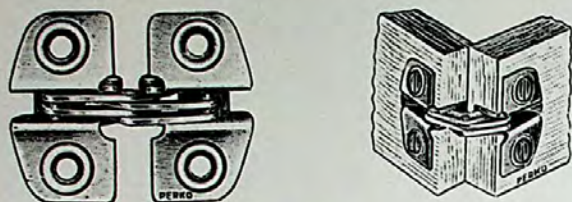


Fig. 1104

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 Each	Size Flap Inches	Depth of Mortise Inches	Weight Each Ounces
\$.65	1 7/8 x 1	5/8	2

Cabinet Hinges

BRASS—POLISHED OR CHROMIUM PLATED
FLUSH OR OFFSET

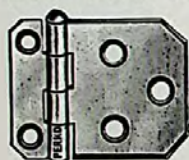


Fig. 772

Packed one dozen pairs per box, complete with screws. Offset is 3/8 inch.

Polished Brass Per Doz. Pairs	Chrom. Plated Per Doz. Pairs	Size Open Inches	Gauge	Weight Per Pair Ounces
\$12.75	\$16.80	2 x 1 1/2	14	2

Flush or offset, same price, please specify.

Skylight or Hatch Hinges

CAST BRASS



Fig. 376

Length Between Joints Inches	Plain Brass Per Pair	Polished Brass Per Pair	Chromium Plated Per Pair	Length Open Inches
2	\$4.90	\$ 8.00	\$ 9.75	11 1/4
3	5.60	9.00	10.75	12 1/4
4	6.10	9.50	11.25	13
5	8.75	13.50	15.50	16 1/4
6	9.50	14.50	16.50	17

Butterfly Hinges

WROUGHT BRASS—PLAIN



Fig. 1058

No.	Plain Per Pair	Polished Per Pair	Chromium Plated Per Pair
1	\$.25	\$.35	\$.50
2	.35	.45	.70

No.	Length Open Inches	Width at Pin Inches	Weight Per Pair Ounces	Thickness Inches
1	2 1/4	3/4	1 1/2	.040
2	3 3/8	1 1/16	1 1/2	.045

Spring Hinges

WROUGHT BRASS—PLAIN

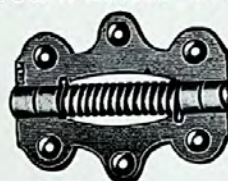


Fig. 1059

No.	Per Pair	Length Inches	Width Open Inches	Weight Per Pair Ounces
1	\$.90	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
\$6.20	\$8.00	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
\$8.00	\$10.00	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 1/4 x 1 1/16	7	7/8

No.	Polished Bronze Per Set	Chromium Plated Per Set
1	\$2.75	\$4.25
2	3.25	4.75

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

Length Open Inches	Extreme Width Inches	Polished Brass Per Pair	Chromium Plated Per Pair
2	7/8	\$.55	\$.95

Flap Hinges

CAST BRASS—FAST PIN



Fig. 984

No.	Emery Finish Per Pair	Polished Per Pair	Chromium Plated Per Pair	Size Open Inches	Weight Pair Ounces
1	\$.70	\$1.05	\$1.45	1/2 x 2 3/4	1 1/2
2	1.00	1.35	1.75	5/8 x 2 3/4	2
3	1.80	2.30	2.75	3/4 x 4 1/2	2 1/2

Wardrobe Hooks

CAST BRASS



Fig. 1106

Burnished Brass Each	Polished Brass Each	Chromium Plated Each	Width Inches	Projection Inches	Weight Ounces
\$.55	\$.65	\$.85	2 3/4	7/8	1 1/4

Wardrobe Hooks

CAST BRASS



Fig. 635

Polished Brass Each	Chromium Plated Each	Projection Inches	Width Inches	Weight Ounces
\$.55	\$.70	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
\$.60	\$.80	2 1/2	1 1/2	1 3/4

Coat and Hat Hook

CAST BRASS
U. S. GOVT. TYPE NO. 1172

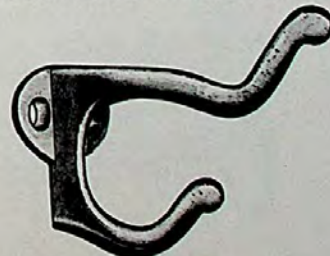


Fig. 994

Burnished Brass Each	Polished Brass Each	Chromium Plated Each	Projection Inches	Width Base Inches	Weight Ounces
\$.65	\$.80	\$.95	3	1 1/4	2 1/4

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	\$.45	\$.70	1/2
2	3/4 x 1 7/16	.50	.75	3/4

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	\$4.25	3 x 2 1/4	1 3/4 x 1	6

Drawer Pulls

CAST BRASS



Fig. 958

No.	Width Overall Inches	Polished Brass Each	Chromium Plated Each	Width Inside Inches	Weight Ounces
1	3 5/8	\$.55	\$.80	2 1/2	2
2	4	.70	1.00	2 7/8	3

Flush Drop Handles

CAST BRASS

RECESSED TYPE—FOR CHESTS, HATCHES, ETC.

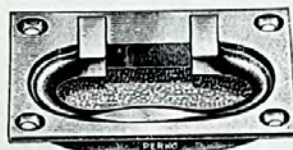


Fig. 1111

No.	Emery Finish Each	Polished Brass Each	Chromium Plated Each	Size Plate Inches	Width Inside Handle Inches	Weight Ounces
1	\$2.00	\$2.50	\$3.25	3 x 2 1/4	1 7/8	4
2	2.20	2.70	3.50	3 1/2 x 2 1/2	2 3/8	6 1/2
3	4.50	5.40	6.40	4 3/4 x 4	2 3/4	19

Flush Pulls

CAST BRASS

FOR DRAWERS, SASH OR SLIDING DOORS

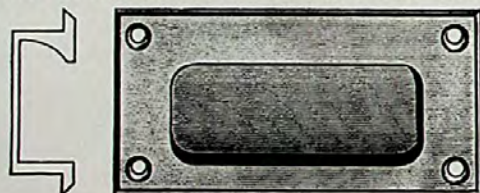


Fig. 1110

Inside recessed for finger grip as illustrated.

Emery Finish Each	Polished Brass Each	Chromium Plated Each	Dimensions Inches	Mortise Depth Inches	Weight Ounces
\$1.30	\$1.50	\$1.85	3 1/2 x 1 3/4	1/2	4

Surface Drop Handles

CAST BRASS

SWINGS HALF WAY ONLY

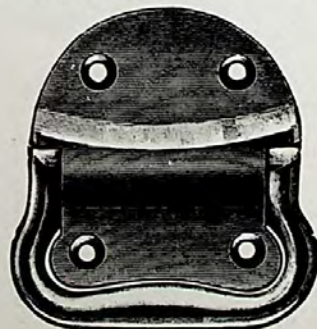


Fig. 1115

No.	Emery Finish Each	Polished Brass Each	Chromium Plated Each	Dimensions Inches	Width Inside Handle Inches	Weight Ounces
1	\$1.50	\$2.00	\$2.75	2 3/4 x 2 5/8	2 1/4	4 1/2
2	1.90	2.75	3.50	3 3/8 x 3 3/8	2 5/8	8
3	2.25	3.75	4.75	3 3/4 x 3 3/4	3 1/8	10

Drawer Knobs

BRASS—FOR DRAWERS UP TO 1 3/8" THICK



Fig. 925

No.	Polished Brass Per Dozen	Chromium Plated Per Dozen	Diameter Inches	Weight Per Dozen Ounces
1	\$5.50	\$ 7.50	1	12
2	9.00	11.50	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	\$3.80	\$4.75	5	12
10	4.30	5.50	6	12
12	4.90	6.25	6	12
14	5.50	7.00	6	6
18	7.00	9.25	6	6

Skylight Quadrants

CAST BRONZE



Fig. 449

No.	Polished Bronze Per Pair	Chromium Plated Per Pair	Length Overall Inches	Length Adjustment Inches	Weight Per Pair Pounds
2	12.75	16.00	8	6½	1½
3	15.40	18.00	10¼	8½	2½
4	16.75	21.00	12	10½	2½

Hatch Adjusters

CAST BRONZE

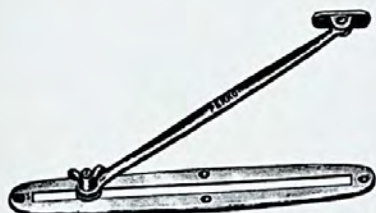


Fig. 797

Polished Bronze Each	Chromium Plated Each	Length Arm Inches	Length Adjustment Inches	Length Plate Inches	Weight Ounces
\$5.10	\$6.50	10	9½	10¾	13

Sash Anti Rattlers

CAST BRONZE

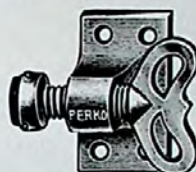


Fig. 839

Furnished with leather tip to prevent defacing of woodwork. Size of base 1½" x 1".

Polished Bronze, Each	\$2.10
Chromium Plated, Each	2.80

Casement Adjuster

ALL BRASS—HEAVY PATTERN

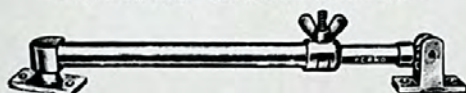


Fig. 1179

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	\$7.25	10	17	½	9
2	7.50	12	20	½	11

Sash or Skylight Fastener

CAST BRONZE



Fig. 770

Size Inches	Emery Finish Each	Polished Bronze Each	Chromium Plated Each
¾ x 4	\$3.35	\$3.85	\$4.95

Sash Fasteners

LEFT OR RIGHT HAND
CAST BRONZE



Fig. 777

No.	Polished Bronze Each	Chromium Plated Each	Size Mounting Plate Inches	Weight Ounces
1	\$1.10	\$1.45	1¼ x 1	1½

Please specify left or right hand

Casement or Windshield Adjusters

CAST BRASS



Fig. 1116

No.	Machine Polished Each	Chromium Plated Each	Length Inches	Diam. Rod Inches	Weight Ounces
1	\$4.20	\$5.60	8	¾	11
2	4.40	5.80	10	¾	12
3	4.80	6.20	12	¾	13



Paint Scraper Set

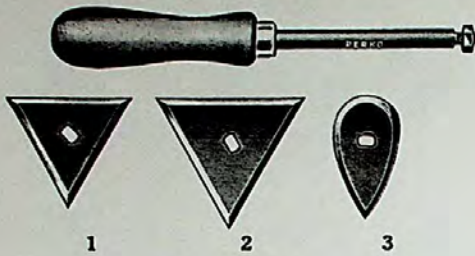


Fig. 1015

Per Set—\$2.80

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
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
\$4.65	\$2.10	\$3.25	4 1/2 x 3 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
\$15.50	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
\$11.75	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	\$40.00	6
10	43.00	10
12	46.50	12 3/4
14	62.00	16 1/2
16	72.00	25
18	83.00	30

FOR MANILA ROPE



Fig. 922

Length Inches	Per Dozen	Approx. Weight Per Dozen in Pounds
6	\$25.50	5 3/4
8	25.50	7 1/2
10	28.50	12
12	35.50	17
14	43.50	23 1/2
16	61.00	27
18	75.00	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 Inches
0	\$10.00	12 x 1 3/4
1	12.00	14 x 1 3/4
2	13.50	16 x 2
3	15.50	18 x 2
4	23.00	20 x 2 1/4
5	40.00	24 x 3

Caulking Irons

MALLEABLE IRON



Fig. 307

Per Dozen	Approx. Width Inches	Approx. Thickness Inches	Approx. Width Blade Inches	Approx. Weight Per Dozen Pounds	Size No.	Per Dozen	Thickness Inches	Length Inches	Width Blade Inches	Weight Per Doz. in Lbs.
\$15.50	1 1/4	3/16	1 3/4	17	00	\$18.00	1/32	5	2	3 1/2
					0	18.00	1/16	5 5/8	2 1/2	4 1/2
					1	20.00	1/8	5 7/8	2 1/4	5 1/4

"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.

Length Fathoms	Each	Length Fathoms	Each
7	\$ 5.50	50	\$24.50
10	6.60	60	26.50
15	8.80	75	33.00
20	10.45	100	60.50
25	12.65	120	68.20
30	14.85	150	82.50
40	19.80		

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 IE, 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.....	\$.70
15 to 50 Pounds.....	.69
Larger Sizes .....	.68

Lead Sinkers

FOR SOUNDING MACHINES
WITH STEEL ROD
WEIGHT 25 POUNDS



Fig. 966

The bottom of the lead sinker is hollow to allow for "arming" with hard yellow soap.

Each	Length Overall Inches	Diameter Rod Inches	Inside Diameter of Eye Inches
\$19.50	46	1/2	1 1/4

Lead Hammers

WITH STEEL HANDLE



Fig. 967

Used by metal workers on steel hulls, bulkheads, etc.

Weight Pounds	Each	Length Overall Inches	Diameter Head Inches
3 1/2	\$3.25	10	1 3/8
5 1/2	4.25	11 1/2	1 7/8
8 1/2	6.25	14 1/2	2

Lead Thimbles

Fig. 977

For fastening sinker to sounding equipment. Has 1/2-inch inside diameter hole for shackle pin and a score large enough for 3/16-inch wire.

Weight of thimble 7 ounces.

EACH \$.60



ANCHOR SHACKLES

GALVANIZED DROP FORGED STEEL OR BRONZE

SCREW PIN

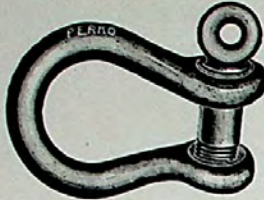


Fig. 314

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	\$.65	7/8	7/16	1/4	7	3000
1/4	.55	.75	1 1/16	7/16	5/16	12	4005
5/16	.62	1.15	1 1/4	9/16	3/8	20	6165
3/8	.68	1.70	1 1/2	5/8	7/16	31	7920
7/16	.88	2.05	1 3/4	3/4	1/2	47	11925
1/2	1.05	3.15	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.

3/16 inch size supplied only with screw pin Fig. 314.

CHAIN SHACKLES

GALVANIZED DROP FORGED STEEL

SCREW PIN

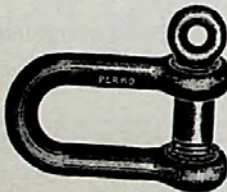


Fig. 338

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 1/16	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 3/8	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 3/8	1 1/4	7/8	212	41600
7/8	3.00	2 7/8	1 3/8	1	300	56000
1	4.30	3 1/4	1 5/8	1 1/8	470	68800

NEW 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
5/32	\$.45	1 1/16	3/8	5/32	2 1/2	500

Wire Rope Thimbles

GALVANIZED FORGED STEEL

FORGED BRONZE AND STAINLESS STEEL



Fig. 466

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	\$ 7.70	\$ 1.50	\$ 1.80	1 3/4	5/8	2 5/8
3/16	7.70	1.50	1.80	1 3/4	1 1/16	2 5/8
1/4	7.70	1.70	2.15	2	3/4	4 3/8
5/16	9.55	2.50	2.75	2 1/8	1 3/16	5 1/2
3/8	11.55	4.20	4.40	2 3/8	1 5/16	10 5/8
1/2	15.40	6.50		2 7/8	1 1/2	15 1/2
5/8	23.00	9.50		3 3/8	1 7/16	27 1/2
3/4	27.50	12.40		3 7/8	1 1/2	40
7/8	55.00			5 1/8	1 7/8	84
1	77.00			6 1/4	2 1/4	106
1 1/8	104.00			6 3/4	2 1/2	125
1 1/4	160.00			7	2 3/4	138
1 1/2	260.00			7 1/2	3	250
1 3/4	530.00			10	3 1/2	512
2	550.00			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.
3/16	\$ 12.00	3/8	3/4	1 1/2
3/8	12.00	1/2	7/8	2
7/16	14.80	5/8	1	3
1/2	15.40	3/4	1 1/4	5 1/2
5/8	18.30	7/8	1 1/2	9
3/4	21.40	1	1 3/4	17
7/8	28.60	1 1/16	2	25 1/2
1	35.20	1 3/8	2 1/4	34
1 1/8	38.50	1 7/16	2 1/2	38
1 1/4	57.20	1 1/2	2 3/4	48
1 3/8	77.00	2	3	70
1 1/2	96.00	2 3/8	3 1/2	108
1 3/4	240.00	2 7/8	4	150
2	435.00	2 3/4	5	180

Wire Rope Clips

MALLEABLE IRON SADDLE
STEEL U-BOLT AND NUTS
GALVANIZED



Fig. 333

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	\$ 16.00	8 1/2	7/8	\$ 98.00	149
1/4	18.50	16 1/2	1	118.00	190
5/16	21.00	19	1 1/8	187.00	310
3/8	28.50	25	1 1/4	220.00	375
7/16	32.00	32	1 3/8	392.00	560
1/2	36.50	40	1 1/2	422.00	645
5/8	48.00	62	1 3/4	875.00	1085
3/4	69.00	101	2	1150.00	1620

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		\$.70	1/8	1/4	1/32
5/8		.95	3/16	3/8	1/16
3/4	\$1.00	1.15	1/4	1/2	1/4
1	1.20	1.75	5/16	5/8	3/8
1 1/4	1.65	3.15	5/16	3/4	5/8
1 1/2	2.10	4.65	3/8	1	7/8
1 3/4	2.65	5.25	7/16	1 1/4	1 1/8
2	3.10	6.00	1/2	1 1/2	1 1/2
2 1/4	4.20		5/8	1 5/8	2
2 1/2	5.35		3/4	1 3/4	2 3/4
2 3/4	6.60		3/4	2	3
3	7.70		3/4	2 1/4	4 1/4

*Size is from edge to edge across hole.

Tiller Rope Clamps

GALVANIZED IRON AND CAST BRONZE



Fig. 358

For Rope Diameter Inches	Galv. Each	Plain Bronze Each	Width Inches	Length Inches	Weight Ounces
1/8	\$.22	\$.30	3/4	1 5/8	1 3/4
3/16	.24	.32	3/4	1 3/4	2
1/4	.30	.44	1	1 3/4	3
5/16	.40	.55	1	2	3 1/2
3/8	.50	.85	1 1/8	2 1/4	5

OPEN TURNBUCKLES

DROP FORGED STEEL—HOT GALVANIZED

HOOK AND EYE



Fig. 390

EYE AND EYE



Fig. 391

HOOK AND HOOK

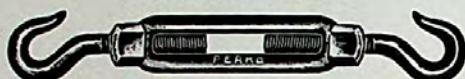


Fig. 392

JAW AND EYE

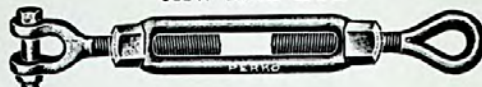


Fig. 393

JAW AND JAW

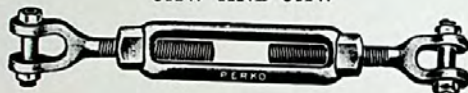


Fig. 394

Diameter and Thread 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	\$.86	\$.86	\$.86	\$ 1.10	\$ 1.30	8	3/8	1/2 x 5/8	5/16 x 3/8	1/8
* 5/16 x 4 1/2	1.00	1.00	1.00	1.30	1.50	9 1/4	1/2	1/2 x 11/16	1/2 x 3/4	1/2
* 3/8 x 6	1.30	1.30	1.30	1.70	1.90	11 3/4	9/16	3/4 x 1	1/2 x 13/16	3/4
* 1/2 x 6	1.90	1.90	1.90	2.20	2.60	13	1 1/16	3/4 x 1 1/8	5/8 x 1	1 1/2
1/2 x 9	2.70	2.70	2.70	3.20	3.50	16		3/4 x 1 1/8	5/8 x 1	2
1/2 x 12	3.30	3.30	3.30	3.80	4.30	19		3/4 x 1 1/8	5/8 x 1	2 1/2
* 5/8 x 6	2.30	2.30	2.30	2.74	3.10	14	3/4	1 x 1 3/8	13/16 x 1 3/8	3
5/8 x 9	3.20	3.20	3.20	3.80	4.40	17		1 x 1 3/8	13/16 x 1 3/8	3 3/4
5/8 x 12	3.80	3.80	3.80	4.30	4.90	20		1 x 1 3/8	13/16 x 1 3/8	4 1/2
5/8 x 18		5.10		6.00	6.70	26		1 x 1 3/8	13/16 x 1 3/8	6
3/4 x 6	3.30	3.30	3.30	4.10	4.60	15 1/2	15/16	1 1/8 x 1 1/2	7/8 x 1 1/2	3 1/2
* 3/4 x 9	4.20	4.20	4.20	4.90	5.40	18 1/2		1 1/8 x 1 1/2	7/8 x 1 1/2	4 1/4
3/4 x 12	4.90	4.90	4.90	5.60	6.30	21 1/2		1 1/8 x 1 1/2	7/8 x 1 1/2	5 1/4
3/4 x 18		6.50		7.50	8.50	27 1/2		1 1/8 x 1 1/2	7/8 x 1 1/2	6 3/4
* 7/8 x 12	6.50	6.50	6.50	7.20	8.70	23 3/4	1 1/16	1 5/16 x 1 13/16	1 1/8 x 1 3/4	7 3/4
7/8 x 18		7.50		8.70	10.00	29 3/4		1 5/16 x 1 13/16	1 1/8 x 1 3/4	10
1 x 6		6.50		7.50	8.50	19		1 7/16 x 2	1 1/4 x 2	8 1/2
* 1 x 12	7.30	7.30	7.30	8.30	9.50	25	1 3/16	1 7/16 x 2	1 1/4 x 2	11 1/4
1 x 18		9.50		11.30	12.50	31		1 7/16 x 2	1 1/4 x 2	13 3/4
1 x 24		11.60		13.90	15.00	37		1 7/16 x 2	1 1/4 x 2	16 1/4
* 1 1/4 x 12		12.50		15.60	19.00	30		1 13/16 x 2 5/8	1 5/8 x 2	17 3/4
1 1/4 x 18		15.50		19.00	22.50	36		1 13/16 x 2 5/8	1 5/8 x 2	22 3/4
1 1/4 x 24		20.00		22.50	26.00	42		1 13/16 x 2 5/8	1 5/8 x 2	27 3/4
1 1/2 x 12		19.00		22.50	26.00	32		1 7/8 x 2 3/8	2 x 2 3/8	30
* 1 1/2 x 18		23.30		27.20	31.00	38		1 7/8 x 2 3/8	2 x 2 3/8	35
1 1/2 x 24		29.40		34.50	39.80	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 can be supplied with pin and cotter instead of bolt and nut to order.



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	\$ 2.25	\$ 2.00	5 1/2	47 1/2
5/16	1.30	2.60	2.30	5 3/4	62 1/2
3/8		2.90	2.70	6	102
1/2	2.30	4.15	3.75	8	178
5/8	3.30	5.75	5.25	10 1/2	369
3/4	4.40	7.65	7.20	10 1/2	500
7/8	5.75	11.00	10.00	13	775
1	7.75	14.00	12.50	14 3/8	1025
1 1/4		22.00	20.00	16	2050
1 1/2		40.25	36.20	21	3200

Petite Turnbuckles

CAST BRONZE—S.A.E. THREADS

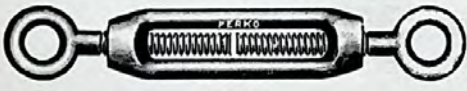


Fig. 396

No.	Burnished Per Dozen	Diam. Ends Inches	Length Extended Inches	Takeup Inches	Weight Per 100 in Lbs.
1	\$3.60	3/8	3	3/4	3
2	4.10	5/16	4	1 1/8	6 1/4
3	6.25	3/16	5	1 1/2	11 1/2
4	6.60	1/4	5 3/4	1 7/8	15
5	9.45	5/16	6 7/8	2 1/4	24 1/2

Note—Nos. 1, 2 and 3 have wire eyes Nos. 4 and 5 have cast solid eyes.

Swivels

DROP FORGED STEEL.



Fig. 622

Size Inches	Galv. Each	Length Inches	Width Inside Inches	Weight Each in Lbs.
1/4	\$1.50	3 3/8	3/4	1/4
5/16	1.90	3 3/4	7/8	3/8
3/8	2.00	5 1/4	1 3/8	3/4
1/2	3.10	6	1 1/2	1 1/4
5/8	5.20	7 1/4	1 3/4	2 1/4
3/4	7.40	8 1/2	2	3 1/2
7/8	9.40	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 Bail Inches	Weight Each in Lbs.
1/4	\$ 2.00	4	1/2	1 1/8 x 1 1/4	3/8
5/16	2.40	4 1/8	1/2	1 1/4 x 1 3/8	1/2
3/8	2.60	5	5/8	1 1/4 x 1 3/8	3/4
1/2	4.20	6	3/4	1 3/8 x 1 1/2	1 3/8
5/8	5.90	7 3/8	1 1/8	1 3/2 x 1 3/4	2 5/8
3/4	8.20	8 1/2	1 3/8	1 3/4 x 2	4 1/4
7/8	10.40	9	1 3/8	2 x 2 3/8	7 3/4

Lacing Eyes

GALV. MALLEABLE IRON OR CAST BRASS



Without shoulder Fig. 766

With shoulder Fig. 767

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	\$.19	\$.42	3/16	5/16	3/8	1 3/4	4
2	.27	.60	1/4	3/8	7/16	2 1/8	7 1/2
3	.42	.72	1/4	7/16	1/2	2 1/2	10
4	.60	1.00	5/16	1/2	9/16	3 1/4	19 1/2
5	.80	1.25	3/8	5/8	3/4	3 1/2	24 1/2
6	1.10	1.50	7/16	3/4	1	4 5/8	41

Size 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	\$ 7.75	\$1.10	\$ 3.30	5/16	1	2 1/2
2	11.75	1.45	3.90	3/8	1 1/4	4 1/2
3	13.00	1.87	8.75	1/2	1 1/2	8
4	21.00	2.40	12.00	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	\$.26	\$.26	\$.52	1/2	6
5/16 x 2 1/4	.30	.30	.80	5/8	9
3/8 x 2 1/2	.35	.35	1.00	3/4	16
1/2 x 3 1/4	.50	.50	2.00	1	35
5/8 x 4	.90	.90		1 1/4	67
3/4 x 4 1/2	1.50	1.50		1 1/2	106
7/8 x 5		1.50		1 3/4	220

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	\$.60	\$.60	1 3/4	15
5/16 x 2 1/4	.65	.65	2	25
3/8 x 2 1/2	.80	.80	2	38
1/2 x 3 1/4	1.20	1.20	2 1/2	85
5/8 x 4	1.85	1.85	2 3/4	160
3/4 x 4 1/2	2.95	2.95	3	245
1 x 6	4.35	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	\$.30	\$.30	\$.60	1/2	7
1/4 x 4	.40	.40	.90	1/2	10
5/16 x 2 1/4	.34	.34	.85	5/8	13
5/16 x 4 1/4	.52	.52	1.30	5/8	17
3/8 x 2 1/2	.38	.38	1.25	3/4	21
3/8 x 4 1/2	.56	.56	1.70	3/4	27
3/8 x 6	.68			3/4	32
1/2 x 3 1/4	.58	.58	2.15	1	45
1/2 x 6	.85	.85	2.75	1	65
1/2 x 8	1.00			1	75
1/2 x 10	1.10			1	85
5/8 x 4	.95	.95		1 1/4	85
5/8 x 6	1.20	1.20	4.35	1 1/4	110
5/8 x 8	1.35			1 1/4	135
5/8 x 10	1.55			1 1/4	160
5/8 x 12	1.75			1 1/4	185
3/4 x 4 1/2	1.50	1.50		1 1/2	132
3/4 x 6	1.85	1.85		1 1/2	160
3/4 x 8	2.10			1 1/2	184
3/4 x 10	2.20			1 1/2	208
3/4 x 12	2.40			1 1/2	232
3/4 x 15	2.70			1 1/2	268
7/8 x 5	2.20	2.20		1 3/4	215
7/8 x 8	2.80	2.80		1 3/4	265
7/8 x 12	3.30			1 3/4	339
1 x 6	3.10	3.10		2	340
1 x 9	3.90	3.90		2	400
1 x 12	4.20			2	463
1 x 18	5.00			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	\$.70	\$.70	\$ 1.15	1 3/4	15
1/4 x 4	.80	.80		1 3/4	19
5/16 x 2 1/4	.80	.80	1.50	2	28
5/16 x 4 1/4	.90	.90		2	33
3/8 x 2 1/2	.90	.90	1.95	2	42
3/8 x 4 1/2	1.20	1.20		2	48
3/8 x 6	1.30			2	52
1/2 x 3 1/4	1.30	1.30		2 1/2	94
1/2 x 6	1.65	1.65		2 1/2	115
1/2 x 8	1.75			2 1/2	131
1/2 x 10	1.90			2 1/2	147
5/8 x 4	2.00	2.00		2 3/4	175
5/8 x 6	2.40	2.40		2 3/4	190
5/8 x 8	2.55			2 3/4	205
5/8 x 10	2.70			2 3/4	220
5/8 x 12	2.80			2 3/4	235
3/4 x 4 1/2	3.25	3.25		3	275
3/4 x 6	3.85	3.85		3	300
3/4 x 8	4.00			3	334
3/4 x 10	4.20			3	368
3/4 x 12	4.40			3	400
7/8 x 5	4.80	4.80		3 1/4	415
7/8 x 8	5.60			3 1/4	465
7/8 x 12	6.20			3 1/4	531
1 x 6	6.90	6.90		3 3/4	630
1 x 9	7.90			3 3/4	710
1 x 12	8.30			3 3/4	790

Jib Snaps

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 765

Size No.	Galv. Each	Plain Bronze Each	Extreme Length Inches	For Dia. Stay Inches	Weight Per 100 in Lbs.
0	\$.50	\$.55	1 5/8	3/4	4 3/8
1	.55	.60	2	5/16	10
2	.70	.75	2 3/8	3/8	12 1/2
3	.80	.90	2 3/4	1/2	21
4	1.20	1.70	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 Dia. Eye Inches	Extreme Length Inches	Weight Per 100 Pounds
0	\$.55	\$.60	\$1.05	3/8	2	5
1	.65	.70	1.15	5/8	2 3/4	10
2	.70	.80	1.40	3/4	3 1/4	13 1/8
3	.85	1.05	1.80	3/4	3 7/8	26 1/4
4	1.10	1.70		1	4 1/8	27 1/2
5	1.45	2.05		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 Dia. Eye Inches	Extreme Length Inches	Weight Per 100 Pounds
1	\$.90	\$1.00	\$1.50	5/8	3 1/4	11
2	1.05	1.15	1.65	3/4	3 3/4	16 1/4
3	1.35	1.45	2.30	7/8	4 3/4	32
4	1.60	1.75		1	5 1/4	37
5	1.95	2.10		1 1/8	6	60

Swivel Eye Snap

MALLEABLE IRON OR BRONZE



Fig. 659

Cadmium Plated Each	Plain Bronze Each	Extreme Length Inches	Inside Eye Inches	Inside Hook Inches	Weight Ounces
\$.50	\$.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	Nickel Plated Each	Brass Each	Length Inches
3/8	\$.27	\$.35	2 5/8

Safety Mooring Hook

DROP FORGED STEEL—HEAT TREATED
STAINLESS STEEL SPRING AND RIVET



Fig. 606

This hook although light in design has exceptional strength. A recommended working load of 750 pounds.

Galvanized Each	I. D. of Eye Inches	Length Overall Inches	Throat Opening Inches	Weight Per 100 in Lbs.
\$.80	3/4	4	3/4	25

Double Snaps

MALLEABLE IRON—CADMIUM PLATED



Fig. 872

Each	Extreme Length Inches	Inside Hook Inches	Weight Ounces
\$.50	4 1/4	7/16	2 1/2



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	\$.45	2 7/8	3/4	1/2	1230	12
1/2	.50	3 3/8	7/8	5/8	2620	30
5/8	.75	5 1/8	1 1/4	7/8	3810	62 1/2
3/4	1.00	5 1/2	1 1/2	1	5710	87 1/2
7/8	1.40	6 1/2	1 5/8	1 1/8	9100	135
1	1.80	6 7/8	1 3/4	1 7/16	9700	212

Connecting or Missing Links

DROP FORGED STEEL WITH INTERLOCKING LUGS

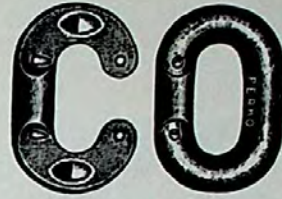


Fig. 319

Size Inches	Galv. Per Dozen	Overall Dimensions Inches	Weight Per Doz. Pounds
3/16	\$ 2.90	1 3/16 x 3/4	3 3/8
1/4	2.90	1 1/2 x 1	3 3/4
5/16	3.20	1 3/4 x 1 3/16	1 3/8
3/8	4.20	2 1/8 x 1 3/8	2 1/8
7/16	5.00	2 3/8 x 1 1/2	3 1/8
1/2	6.00	2 5/8 x 1 3/4	4 1/2
5/8	9.50	3 3/8 x 2 1/8	8
3/4	12.50	3 7/8 x 2 1/2	14 1/4
7/8	17.50	4 1/2 x 3	22
1	26.50	5 x 3 3/8	32

Screw Hooks

STEEL—GALVANIZED



Fig. 779

Size Inches	Galvanized Per Doz.	Length Overall Inches	Weight Per Doz. Pounds
1/4	\$1.50	3 1/2	3 1/2
5/16	2.00	4	1
3/8	2.50	4 3/4	2 1/8
1/2	5.15	5 5/8	4 3/4

Swing Links

MALLEABLE IRON—WITH BRONZE RIVETS AND INTERLOCKING LUGS



Fig. 784

Size Inches	Galv. Per Dozen	Overall Length Inches	Diam. Eye Inches	Weight Per Dozen Pounds
3/16	\$ 3.20	1 3/4	5/16	7 1/2
1/4	3.40	2	3/8	1
5/16	3.85	2 1/4	7/16	1 3/4
3/8	4.85	2 5/8	1/2	2 3/4
7/16	7.45	3 1/4	5/8	4 1/2
1/2	9.90	3 5/8	3/4	6
5/8	17.50	4 3/8	7/8	11
3/4	23.50	5 1/4	1	17 1/2

"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
5/16	1.98	2 1/2	1
3/8	2.40	3	1 3/4
1/2	5.64	3 3/4	5

Lap Links

GALVANIZED WROUGHT STEEL



Fig. 785

Size Inches	Per Doz.	Inside Dimensions of Link Inches	Weight Per Doz. Pounds	Inside Dimensions of Link Inches
3/16	\$.85	1 x 1/2		1 9/16 x 1 3/16
1/4	1.00	1 1/2 x 1/2		2 x 1
5/16	2.00	1 1/2 x 3/4		
			\$2.80	
			4.30	

Non-Fouling Kedge Anchors

GALVANIZED DROP FORGED STEEL

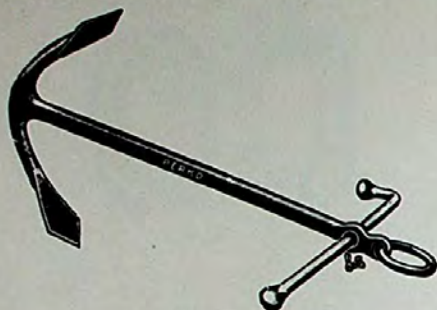


Fig. 236

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	\$ 9.50	21	13
10	12.50	26	15 3/4
15	14.50	29	18
20	17.25	32	19
25	20.00	36	20
30	23.60	36	20
35	25.25	40	22
42	30.50	40	22
50	36.50	43	24 1/2
60	43.50	44 1/2	27 1/2
75	51.00	46	29
100	71.50	50	32
125	88.00	52 1/2	32
150	101.00	59	34 1/2
200	148.00	65	34 1/2
250	203.00	62 1/2	43 1/2

Grappels

GALVANIZED DROP FORGED STEEL
FIVE PRONG



Fig. 207

Weight Pounds	Galvanized Each	Weight Pounds	Galvanized Each
4	\$ 6.70	15	\$15.00
7	8.25	20	20.00
10	10.20		

Larger sizes—prices on application.

Weight Pounds	Set Colored Each	Galvanized Each	Diam. Inches	Height Inches
7	\$2.35	\$3.25	6	8
11	3.30	4.65	7	9
15	4.30	6.25	8	10

Navy Type Anchors

DROP FORGED SHANK—GALVANIZED



Fig. 45

Weight Pounds	Each	Weight Pounds	Each
5	\$ 3.30	50	\$ 25.80
10	5.50	60	32.40
15	7.70	80	44.00
20	9.40	100	58.30
25	12.70	125	70.40
30	14.80	150	81.40
35	18.30	200	105.00
40	20.50		

Folding Anchors

GALVANIZED MALLEABLE IRON

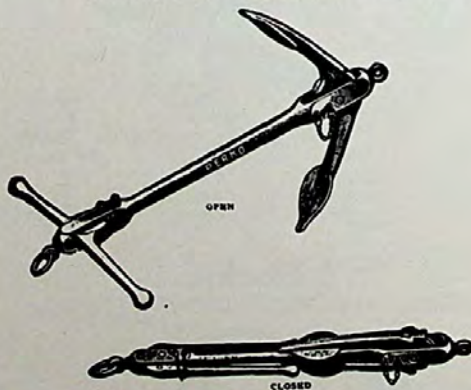


Fig. 226

Weight Pounds	Each	Length Inches	Weight Pounds	Each	Length Inches
6	\$ 8.00	19	30	\$35.00	34
8	11.00	22	35	41.00	36
10	13.25	23	45	53.00	38
12	15.75	25	55	65.00	41
15	19.25	28	76	85.00	44
20	24.75	30			
25	30.00	33			

"Danforth" Anchors

GALVANIZED STEEL

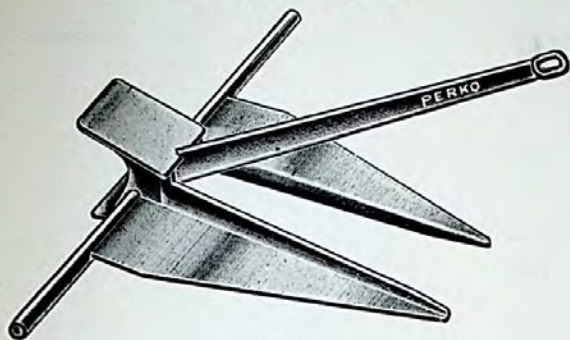


Fig. 700

"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	176.00

Larger sizes, price on application.

"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

Suggested Danforth Anchor Sizes

This table is a general guide; the correct Danforth anchor for your boat may be smaller or larger, depending upon your boat's weight and design, type of holding ground, length of scope possible, harbor exposure, etc.

Maximum Length of Boat	"STANDARD"		"HI-TENSILE"		
	Working Anchor	Storm Anchor	Lunch Hook	Working Anchor	Storm Anchor
12 ft.	2½	4	.....	.....	5
16 ft.	4	8	.....	.....	12
20 ft.	8	13	4 (Std.)	5	18
30 ft.	13	22	5	12	28
40 ft.	40	65	12	18	60
60 ft.	65	85	18	28	90
80 ft.	85	180	28	60	.....
100 ft.	180	200	60	90	.....
125 ft.	200	300	90	.....	.....
150 ft.	300	500	.....	.....	.....
200 ft.	500	750	.....	.....	.....

Northhill Utility Anchors

HEAT TREATED DUCTILON—GALVANIZED
NORTHILL HOLDING POWER AT LOW PRICE

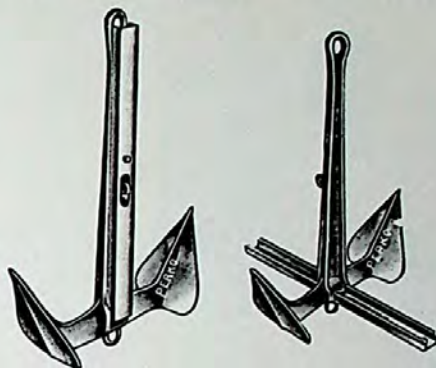


Fig. 1067

Has removable stock for compact stowage. These anchors have tremendous structural strength and the same proven scientific advantages as the original Northhill folding anchors.

Type No.	Galv. Each	Weight Pounds	Comparative Weight Kedge Type Pounds	Comparative Weight Navy Type Pounds
3R	\$ 11.50	6	30	50
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

Northhill Rowboat Anchor

GALVANIZED HEAVY GAUGE STEEL
FOR SMALL SAILBOATS, OUTBOARDS
AND ROWBOATS

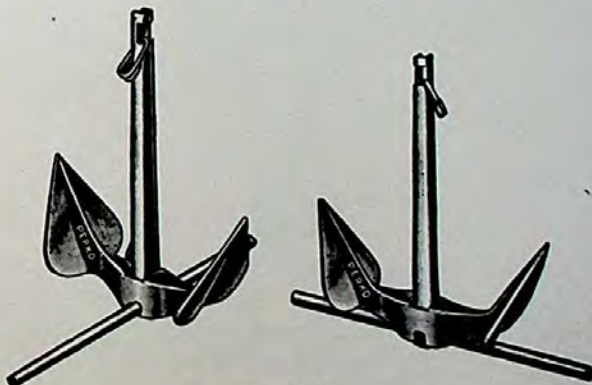


Fig. 548

The arm and fluke assembly pivot on the shank for stowage or to open for use.

Each	Weight Pounds	Length Inches	Width Flukes Inches
\$4.85	3	12	10

ANCHOR CHOCKS

CAST BRONZE—PLAIN

FOR NAVY TYPE ANCHORS

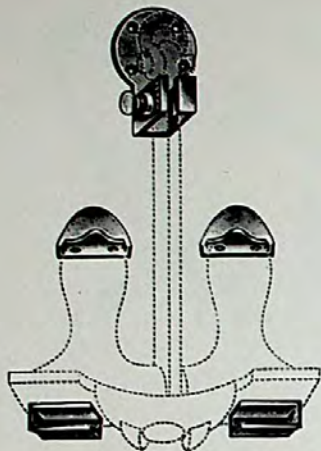


Fig. 938

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

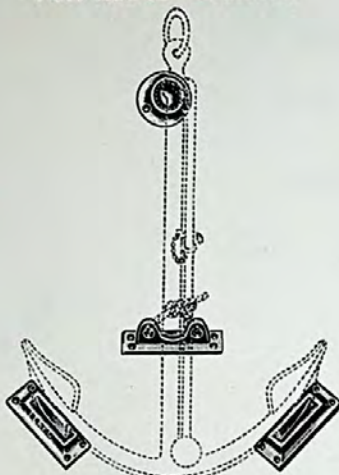


Fig. 939

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	\$8.25
Shank support only, each	2.20
Lashing fitting only, each	2.20
Fluke supports only, per pair ..	4.40

FOR NORTHILL ANCHORS

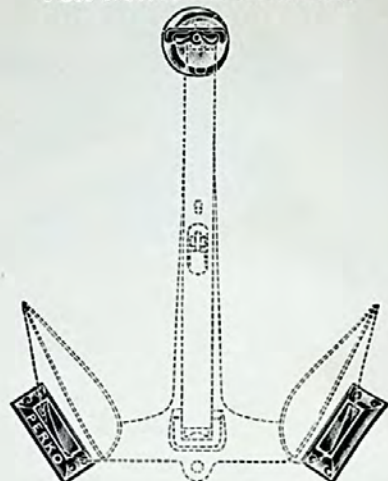


Fig. 941

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 3/4 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

Pick Up Buoys

GALVANIZED SHEET IRON



Fig. 234



Fig. 235

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.

Fig. 234

No.	Each	Diam. Inches	Length Inches	Weight Pounds
1	\$ 9.85	9	14	4
2	11.50	12	18	5

Fig. 235

0	6.50	7	11	3
1	8.50	13	22	5
2	10.25	16	24	6 1/2

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, dead weight.

Each	Diameter Rod Inches	Size Inside Swivel Inches	Weight Pounds
\$35.00	5/8	3 1/2 x 2	17

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	\$16.00	12	15

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	\$25.00	13	22	33 1/2	3	15
2	34.00	17	27	38 1/2	3	24

Cone Mooring Buoy

GALVANIZED SHEET IRON WITH RUBBER BUMPER



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	\$38.50	16x24	35
2	48.00	20x30	60
3	58.00	24x36	90
4	69.00	30x36	115

Size does not include swivel or eye.

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	Pol. Bronze Each Fig. 43	For Rope Diam. Inches	Size Sheaves Inches	Wt. Each Lbs.
1	\$.26	\$.30	\$.35	\$.74	3/16	3/4 x 5/16	3/32
3	.32	.40	.46	1.03	1/4	1 x 3/8	3/16
5	.41	.50	.74	1.46	5/16	1 1/4 x 7/16	1/4
7	.62	.70	.85	1.65	3/8	1 1/2 x 1/2	3/8
9	.82	.90	1.70		7/16	1 3/4 x 9/16	1/2
11	1.35	1.50	2.05		1/2	2 x 3/8	5/8
13	2.22	2.90			5/8	2 1/2 x 3/4	1 1/16
15	3.05	4.25			3/4	3 x 3/8	1 5/8

NOTE—Blocks with becket supplied only in galvanized.

Loose Hook Blocks

GALVANIZED MALLEABLE IRON BODY
FORGED STEEL HOOKS
SINGLE

Without Becket



Fig. 52

With Becket



Fig. 56

Size No.	Galv. Each Fig. 52	Galv. Each Fig. 56	Length of Shell Inches	For Rope Diameter Inches	Weight Each Pounds
1	\$1.80	\$1.90	1 1/2	3/16	3/16
3	1.90	2.00	1 5/8	1/4	1/4
5	2.00	2.10	2	5/16	5/16
7	2.30	2.45	2 3/8	3/8	9/16
9	3.00	3.20	3	7/16	5/8
11	4.00	4.30	3 1/4	1/2	1
13	5.00	5.50	4	5/8	2 1/4
15	7.50	8.00	4 3/8	3/4	2 1/2

Size of Sheave same as Fig. 43.

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	Pol. Bronze Each Fig. 51	For Rope Diam. Inches	Size Sheaves Inches	Wt. Each Lbs.
2	\$.37	\$.50	\$.60	\$1.45	3/16	3/4 x 3/16	3/16
4	.46	.75	.90	2.00	1/4	1 x 3/8	1/4
6	.82	1.25	1.50	3.00	5/16	1 1/4 x 7/16	3/8
8	.97	1.50	1.87	4.00	3/8	1 1/2 x 1/2	5/8
10	1.28	1.90			7/16	1 3/4 x 9/16	3/4
12	1.65	2.50			1/2	2 x 3/8	1 1/4
14	2.94	4.00			5/8	2 1/2 x 3/4	2 1/16
16	5.25	5.50			3/4	3 x 3/8	2 3/4

NOTE—Blocks with becket supplied only in galvanized.

Loose Hook Blocks

GALVANIZED MALLEABLE IRON
DOUBLE

Without Becket



Fig. 53

With Becket



Fig. 58

Size No.	Galv. Each Fig. 53	Galv. Each Fig. 58	Length of Shell Inches	For Rope Diameter Inches	Weight Each Pounds
2	\$2.00	\$2.15	1 1/2	3/16	1/4
4	2.30	2.45	1 5/8	1/4	3/8
6	2.65	2.85	2	5/16	1/2
8	2.90	3.00	2 3/8	3/8	7/8
10	3.75	4.00	3	7/16	1
12	4.95	5.20	3 1/4	1/2	1 1/2
14	6.75	7.00	4	5/8	2 1/2
16	9.40	10.00	4 3/8	3/4	3 3/4

Size of Sheave same as Fig. 51.

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	3/16	1	1/2	1 1/2
1	3/16	1 1/4	3/4	1 1/4
3	1/4	1 3/4	1	2
5	5/16	2	1 1/4	2 7/8
7	3/8	2 1/4	1 1/2	4 7/8

Size No.	Galvanized Iron Each	Plain Bronze Each	Polished Bronze Each
0	\$.35	\$1.20	\$2.00
1	.41	1.25	2.05
3	.58	1.65	2.30
5	.89	2.00	2.90
7	1.00	2.30	3.75

Heavy Steering Rope Pulleys

CAST BRONZE—PLAIN FOR WIRE ROPE

The sturdy construction answers the demand for a larger and stronger tiller rope pulley. The sheave pin is 3/4 inch diameter bronze rod.

SIDE PATTERN



Fig. 962

Plain Bronze Each	For Wire Rope Diameter Inches	Diameter Sheave Inches	Length of Plate Inches	Weight Pounds
\$15.40	5/8	6	9	5 1/2

UPRIGHT PATTERN

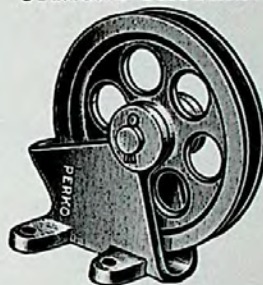


Fig. 963

Plain Bronze Each	For Wire Rope Diameter Inches	Diameter Sheave Inches	Height Overall Inches	Weight Pounds
\$15.40	5/8	6	7 1/2	5 1/2

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	3/16	1	1/2	1 1/16
2	3/16	1 1/4	3/4	2 1/4
4	1/4	1 3/4	1	3 3/8
6	5/16	2	1 1/4	4 1/2
8	3/8	2 1/4	1 1/2	7

Size No.	Galvanized Iron Each	Plain Bronze Each	Polished Bronze Each
00	\$.80	\$1.65	\$2.30
2	.85	1.80	2.50
4	1.10	2.30	3.25
6	1.30	4.60	5.50
8	2.25	6.00	7.50

Side Pulleys

GALVANIZED CAST IRON OR BRONZE



Fig. 97

Size No.	Galv. Each	Pol. Bronze Each	Size Base Inches	Diam. Rope Inches	Weight Per Doz. in Lbs.
1	\$.35	\$1.10	3/4 x 2 3/16	1/4	1 3/8
2	.55	1.20	7/8 x 2 11/16	5/16	2
3	.70	1.45	1 x 3 3/8	3/8	3 1/4

Blocks on Plates

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 107

Size No.	Galv. Each	Plain Bronze Each	Pol. Bronze Each	For Rope Diam. Inches	Style Block	Weight Per 100 in Lbs.
3	\$1.15	\$2.75	\$4.20	1/4	Swivel Eye	20
5	1.30	3.25	4.75	5/16	Swivel Eye	35
7	1.85	3.75	5.50	3/8	Swivel Eye	66
9	2.85			7/16	Fast Eye	72

Deck Blocks

OPEN PATTERN
GALVANIZED IRON OR BRONZE
SINGLE

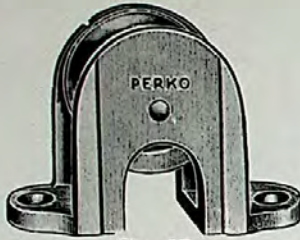


Fig. 87

Size No.	Mall. Iron Each	Cast Iron Each	Plain Brass Each	For Rope Diameter Inches	Size of Sheave Inches	Weight Pounds
0	\$.65	\$.35	\$.90	$\frac{5}{16}$	$1\frac{1}{4} \times \frac{3}{8}$	$\frac{3}{16}$
1	.90	.45	1.10	$\frac{3}{8}$	$1\frac{1}{2} \times \frac{1}{2}$	$\frac{3}{8}$
3	1.60	.80	2.25	$\frac{1}{2}$	$2 \times \frac{5}{8}$	$\frac{13}{16}$
5	2.65	1.50	4.40	$\frac{5}{8}$	$2\frac{1}{2} \times \frac{3}{4}$	$\frac{19}{16}$
7	3.90	2.50	5.50	$\frac{3}{4}$	$3 \times \frac{7}{8}$	$2\frac{3}{16}$

Cast iron furnished unless otherwise specified.

Deck Blocks

OPEN PATTERN
GALVANIZED IRON OR BRONZE
DOUBLE

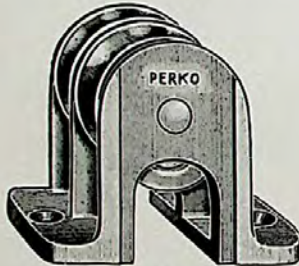


Fig. 88

Size No.	Mall. Iron Each	Cast Iron Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches
2	\$1.55	\$.70	\$1.90	$\frac{3}{8}$	$1\frac{1}{2} \times \frac{1}{2}$
4	2.90	1.60	4.15	$\frac{1}{2}$	$2 \times \frac{5}{8}$
6	5.00	3.00		$\frac{5}{8}$	$2\frac{1}{2} \times \frac{3}{4}$
8	6.90	4.25		$\frac{3}{4}$	$3 \times \frac{7}{8}$

Cast iron furnished unless otherwise specified.

Cheek Blocks

GALVANIZED MALLEABLE IRON OR BRONZE
SINGLE



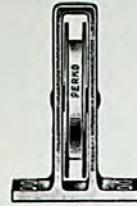
Fig. 95

Size No.	Galv. Mall. Iron Each	Galv. Iron Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
0	\$.55	\$.85	\$.90	$\frac{1}{4}$	$1 \times \frac{3}{8}$	$\frac{3}{16}$
1	.60	1.00	1.10	$\frac{5}{16}$	$1\frac{3}{8} \times \frac{1}{16}$	$\frac{1}{4}$
2	.65	1.20	1.30	$\frac{3}{8}$	$1\frac{1}{2} \times \frac{1}{2}$	$\frac{3}{8}$
3	.90	2.25	2.30	$\frac{1}{2}$	$2 \times \frac{5}{8}$	$\frac{3}{4}$
4	1.75	2.95	3.00	$\frac{5}{8}$	$2\frac{1}{2} \times \frac{3}{4}$	$1\frac{1}{4}$
5	2.85	4.75		$\frac{3}{4}$	$3 \times \frac{7}{8}$	2
6	4.80	8.25		$\frac{7}{8}$	$3\frac{1}{2} \times 1$	4

Note—Galvanized malleable blocks shipped unless otherwise specified.

Bell Chain Leaders

CAST BRONZE—PLAIN



Upright Type—
Fig. 912

Diam. Sheave Inches	Width of Groove Inches	Single Sheave Each
2	$\frac{5}{16}$	\$2.50
$3\frac{1}{2}$	$\frac{7}{16}$	4.80

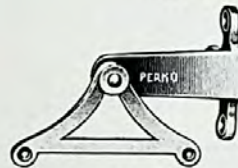


Flat Type—
Fig. 913

Double Sheave Each	Triple Sheave Each
\$4.50	\$6.00
8.00	8.00

Bell Cranks

CAST BRONZE—PLAIN



Upright Type—
Fig. 910

No.	Upright Type Each
1	\$2.15
2	2.85
3	3.50



Side Type—
Fig. 911

Side Type Each	Length of Crank Inches
\$2.00	3
2.60	$3\frac{1}{4}$
3.25	$3\frac{3}{4}$

Brass Telegraph or Bell Chain

Links are stamped from heavy gauge brass, fastened together by brass rivets, which are finished flush with side of link. Furnished in any continuous length desired, complete with end links both ends.

Made to comply with U. S. Navy Specifications.



Fig. 275

Per Foot	Length of Links Inches	Thickness Overall Inches	Pitch Inches	Weight per Foot Ounces
\$1.00	$\frac{3}{4}$	$\frac{7}{32}$	$\frac{3}{8}$	$3\frac{1}{2}$

Cheek Blocks

GALVANIZED MALLEABLE IRON OR BRONZE
DOUBLE



Fig. 96

Size No.	Galv. Iron Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
11	\$1.80	\$2.20	$\frac{5}{16}$	$1\frac{3}{8} \times \frac{1}{16}$	$\frac{1}{2}$
12	2.15	3.30	$\frac{3}{8}$	$1\frac{1}{2} \times \frac{1}{2}$	$1\frac{1}{16}$
13	3.00	5.25	$\frac{1}{2}$	$2 \times \frac{5}{8}$	$1\frac{1}{2}$

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	\$1.20	\$1.50	1/4 - 5/16	1 7/8 x 7/16	5/8
2	1.90	3.00	3/8	3 x 9/16	1 3/8
3	3.85	5.75	7/16	4 x 5/8	3
3 1/2	5.25		1/2	4 1/2 x 3/4	4 1/4
4	7.00		5/8	5 x 7/8	5 1/4
5	9.80		3/4	6 x 1	8 1/2

Cheek Blocks

FOR WIRE ROPE

GALVANIZED CAST IRON OR BRONZE



Fig. 140

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
1	\$.90	\$1.50	1/4 - 5/16	1 7/8 x 7/16	5/8
2	1.50	2.75	3/8	3 x 9/16	1 3/8
3	2.75	6.00	7/16	4 x 5/8	2 3/4
3 1/2	3.90		1/2	4 1/2 x 3/4	4 1/4
4	4.60		5/8	4 x 7/8	5 1/4
5	7.85		3/4	6 x 1	11

Wire Rope Pulleys

GALVANIZED MALLEABLE IRON OR BRONZE

SINGLE—SIDE PATTERN



Fig. 194

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
1	\$1.80	\$2.75	3/16	2 1/2 x 3/8	1/2
2	2.10	3.00	1/4	3 1/4 x 1/2	1 1/4
3	3.50	5.20	5/16 - 3/8	4 1/2 x 9/16	2 3/8

Wire Rope Pulleys

GALVANIZED MALLEABLE IRON OR BRONZE

DOUBLE—SIDE PATTERN



Fig. 195

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
11	\$2.70	\$4.50	3/16	2 1/2 x 3/8	1 1/8
12	3.25	4.80	1/4	3 1/4 x 1/2	2
13	5.25	8.20	5/16 - 3/8	4 1/2 x 9/16	4 1/4

Wire Rope Pulleys

GALVANIZED MALLEABLE IRON OR BRONZE

SINGLE—UPRIGHT PATTERN



Fig. 279

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
10	\$1.80	\$2.75	3/16	2 1/2 x 3/8	5/8
20	2.10	3.00	1/4	3 1/4 x 1/2	1 1/2
30	3.50	5.20	5/16 - 3/8	4 1/2 x 9/16	2 1/2

Wire Rope Pulleys

GALVANIZED MALLEABLE IRON OR BRONZE

DOUBLE—UPRIGHT PATTERN



Fig. 280

Size No.	Galv. Each	Plain Bronze Each	For Diam. Rope Inches	Size Sheave Inches	Weight Pounds
110	\$2.70	\$4.50	3/16	2 1/2 x 3/8	1 1/8
120	3.25	4.80	1/4	3 1/4 x 1/2	2
130	5.25	8.20	5/16 - 3/8	4 1/2 x 9/16	4 1/4

Improved Tiller Rope Pulley

FORGED BRONZE
WITH LAMINATED PLASTIC SHEAVE
SWIVEL TYPE—WITH STRAP



PATENTED

Fig. 585

Light in weight but very strong, the plastic sheave is well known for its ability to withstand shock and is impervious to salt water. The swivel eye is free turning and patented.

Dull Bronze Each	For Diam. Rope Inches	Length Overall Inches	Diam. Sheave Inches	Length Strap Inches	Weight Ounces
\$2.10	5/16	3 3/8	1 3/4	1 7/8	3

Note: Supplied with bronze sheave if desired, add \$.30 each. Please specify.

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. Ozs.
0	\$1.80	1/4	2	1 1/4 x 3/8	1 7/8	1 3/4
1	2.25	5/16	2 3/4	1 3/4 x 7/16	2 1/4	3

Tiller Rope Pulley
LAMINATED PLASTIC SHEAVE
WITH STRAP — FORGED BRONZE



Fig. 579

For Rope Diam. Inches	Length Pulley Inches	Size Sheave Inches	Length Strap Inches	Weight Ounces
1/4	1 7/8	1 1/8 x 3/8	7/8	1 3/4
	Dull Bronze Each	Polished Bronze Each		
	\$1.35	\$1.90		

Lightweight Tiller Rope Pulley

WROUGHT BRASS BODY
FORGED BRONZE STRAP
LAMINATED PLASTIC SHEAVE
SWIVEL TYPE



Fig. 592

Dull Brass Each	For Diam. Rope Inches	Length Overall Inches	Diam. Sheave Inches	Length Strap Inches	Weight Ounces
\$2.00	5/16	3 3/8	1 3/4	1 7/8	3

Tiller Rope Pulley with Snap

HEAVY WROUGHT BRASS STRAP
LAMINATED PLASTIC SHEAVE
GALVANIZED OR BRONZE SNAP



Fig. 586

- Type A — With Galvanized Fast Eye Snap
- Type B — With Galvanized Swivel Eye Snap
- Type C — With Bronze Swivel Eye Snap

Type	Each	Diameter Sheave Inches	For Diam. Rope Inches	Length Overall Inches	Weight Ounces
A	\$1.55	1 3/4	5/16	5 1/2	2 3/4
B	1.75	1 3/4	5/16	5 3/4	3 3/4
C	1.90	1 3/4	5/16	5 1/2	4

Type A supplied unless otherwise specified.

New Tiller Rope Pulley

With Swivel Snap

ALL BRASS
WITH LAMINATED PLASTIC SHEAVE



Fig. 616

Each	For Diam. Rope Inches	Snap Throat Opening Inches	Diam. Sheave Inches	Length Overall Inches	Weight Ounces
\$2.00	1/4 or 5/16	1/2	1 3/4	4 1/2	4

Tiller Rope Pulley with Pin

HEAVY—WROUGHT BRASS STRAPS
LAMINATED PLASTIC SHEAVE
¼-INCH BRASS PIN



Fig. 587

Each	Diameter Sheave Inches	For Diam. Rope Inches	Length Overall Inches	Weight Ounces
\$1.35	1 ¾	¾	3 ¾	1 ¾

Tiller Rope Guides

FORGED BRONZE



Upright Fig. 593

Fig.	Dull Bronze Each	Pol. Bronze Each
593	\$1.20	\$1.35
594	1.15	1.30



Side Fig. 594

Fig.	Chrom. Plated Each	For Rope Diam. Inches	Size Base Inches	Wt. Ozs.
593	\$2.10	5/16	7/8 x 1 1/2	2
594	2.05	5/16	3/4 x 2	1 1/2

Tiller Rope Guides

BRONZE



Fig. 359

No.	Plain Bronze Each	Polished Bronze Each	Chrom. Plated Each	Size Hole Inches	Size Base Inches	Weight Ounces
1	\$.36	\$.65	\$1.20	3/8	1 3/8 x 3/4	3/4
2	.45	.75	1.40	1/2	1 1/2 x 7/8	1 1/2
3	.55	.85	1.60	5/8	1 3/4 x 1 1/4	2

No. 1 size is forged bronze.

New Coaming or Thru-Deck Pulleys

CAST ALUMINUM OR BRONZE
WITH 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	Diameter Sheave Inches	Weight In Bronze Ounces
3 5/8 x 1 3/8	1/4 or 5/16	1 3/4	4

Polished Aluminum Each	Plain Bronze Each	Polished Bronze Each	Chromium Plated Each
\$2.00	\$2.00	\$2.50	\$3.25

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	\$.36	\$.65	\$1.20	3/8	1 3/8 x 7/8
2	.25	.42	.75	1.40	1/2	1 1/2 x 7/8
3	.30	.50	.85	1.60	5/8	1 3/4 x 1 1/4

No. 1 size is forged bronze.

Tiller Rope Guides

GALVANIZED CAST IRON OR BRONZE



Fig. 102

No.	Galv. Iron Each	Plain Bronze Each	Polished Bronze Each	Chrom. Plated Each	For Diam. Rope Inches	Diam. Base Inches
1	\$.30	\$.60	\$1.05	\$1.80	1/4	1 3/8
2	.40	.70	1.25	2.00	5/16	1 11/16
3	.60	1.00	1.55	2.70	3/8	1 3/4

New Tiller Rope Guides

BRASS SPRING WIRE



Fig. 229

A low priced but sturdy guide made of heavy gauge brass spring wire.

Brass Each	Chromium Plated Each	Size Hole Inches	Length Inches	Weight Ounces
\$.15	\$.25	3/8	1 7/16	1 1/3

Brass Shipped Unless Otherwise Specified.

BRONZE BLOCKS FOR SAIL BOATS

FORGED BRONZE SHELLS AND SHEAVES—PLAIN BUSHED—INTERCHANGEABLE FITTINGS

Forged bronze shells and sheaves give great tensile strength, light weight, free turning sheaves and fine smooth finish in plain or polished, free from sand holes or rough inside surfaces.

Block Only With Removable Screw Pin



Fig. 850

NO FITTINGS

Size No.	Complete		For Diam. Rope Inches
	Plain Each	Polished Each	
0	\$1.95	\$2.25	$\frac{1}{4}$ - $\frac{5}{16}$
1	2.40	2.85	$\frac{3}{8}$
2	2.65	3.25	$\frac{7}{16}$

Size No.	Length Overall Inches	Size of Sheave Inches	Weight Ounces
1	2 $\frac{3}{8}$	1 $\frac{3}{8}$ x $\frac{1}{2}$	4 $\frac{1}{2}$
2	3 $\frac{1}{4}$	1 $\frac{7}{8}$ x $\frac{5}{8}$	10

Upset Front Shackle Block

SINGLE ONLY



Fig. 852

Size No.	Complete		Shackle with Link	
	Plain Each	Polished Each	Plain Each	Polished Each
0	\$3.00	\$3.60	\$1.35	\$1.60
1	3.50	4.15	1.60	1.80
2	3.75	4.50	1.85	2.20

For dimensions and other data, see Fig. 350.

For shackles only, see Fig. 893.

Front Shackle Block

SINGLE ONLY



Fig. 851

Size No.	Complete		Shackle with Link	
	Plain Each	Polished Each	Plain Each	Polished Each
0	\$3.00	\$3.60	\$1.35	\$1.60
1	3.50	4.15	1.60	1.80
2	3.75	4.50	1.85	2.20

For dimensions and other data, see Fig. 850.

For shackles only, see Fig. 893.

Upset Side Shackle Block

SINGLE ONLY



Fig. 855

Size No.	Complete		Shackle with Link	
	Plain Each	Polished Each	Plain Each	Polished Each
0	\$3.00	\$3.60	\$1.35	\$1.60
1	3.50	4.15	1.60	1.80
2	3.75	4.50	1.85	2.20

For dimensions and other data, see Fig. 850.

For shackles only, see Fig. 893.

Side Shackle Block

SINGLE ONLY



Fig. 854

Size No.	Complete		Shackle with Link	
	Plain Each	Polished Each	Plain Each	Polished Each
0	\$3.00	\$3.60	\$1.35	\$1.60
1	3.50	4.15	1.60	1.80
2	3.75	4.50	1.85	2.20

For dimensions and other data, see Fig. 850.

For shackles only, see Fig. 893.

Side Snap Shackle Block

SINGLE ONLY



Fig. 857

Size No.	Complete		Polished Shackle with Link Each
	Plain Each	Polished Each	
0	\$6.00	\$7.25	\$4.20
1	7.25	8.50	5.20

For dimensions and other data, see Fig. 850.

Block With Eye Strap

SINGLE ONLY



Fig. 861

Size No.	Complete		Strap with Link	
	Plain Each	Polished Each	Plain Each	Polished Each
0	\$3.00	\$3.60	\$1.35	\$1.60
1	3.50	4.15	1.60	1.80
2	3.75	4.50	1.85	2.20

For dimensions and other data, see Fig. 850.

For straps only, see Fig. 881.

Swivel Deck Leader

SINGLE ONLY

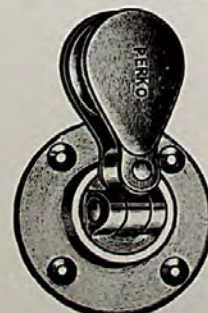


Fig. 864

Size No.	Complete		Base with Link	
	Plain Each	Polished Each	Plain Each	Polished Each
0	\$5.25	\$6.60	\$4.50	\$5.00
1	6.35	7.70	4.85	5.50
2	7.25	8.50	5.00	5.75

Size No.	Diam. Base Inches	Weight Pounds
0	2 $\frac{1}{4}$	$\frac{1}{2}$
1	2 $\frac{3}{4}$	$\frac{3}{4}$
2	3 $\frac{1}{4}$	1 $\frac{1}{2}$

LIGHTWEIGHT BLOCKS FOR SAILBOATS

BRASS OR ALUMINUM

14 B & S GAUGE SHELL—LAMINATED PLASTIC SHEAVES

SHACKLES, STRAPS AND SWIVEL EYE ARE DROP FORGED BRONZE FOR STRENGTH
 FITTINGS FOR ALUMINUM BLOCKS ARE NICKEL PLATED TO MATCH ALUMINUM COLOR
 ALL FITTINGS ARE INTERCHANGEABLE

Block Only WITHOUT FITTINGS



Fig. 801

No.	For Rope Inches	Length Overall Inches	Size of Sheave Inches	Weight Brass Ounces	Weight Aluminum Ounces
0	1/4	2	1 1/4 x 3/8	1 1/2	3/8
1	5/16	2 1/2	1 3/4 x 7/16	2 1/2	1 1/4

No.	Bright Brass Each	Polished Brass Each	Bright Aluminum Each	Polished Aluminum Each
0	\$1.65	\$1.75	\$1.55	\$1.65
1	2.10	2.20	2.00	2.10

Block With Eye Strap



Fig. 808

For sizes etc., see Fig. 801.

No.	Bright Brass Each	Polished Brass Each	Bright Aluminum Each	Polished Aluminum Each
0	\$1.80	\$2.15	\$1.80	\$2.05
1	2.25	2.60	2.25	2.55

Block With Shackle



Front Shackle
Fig. 802



Side Shackle
Fig. 806

For sizes etc., see Fig. 801.

No.	Bright Brass Each	Polished Brass Each	Bright Aluminum Each	Polished Aluminum Each
0	\$2.05	\$2.15	\$1.95	\$2.05
1	2.50	2.60	2.45	2.55

Block With Upset Shackle



Front Shackle
Fig. 812



Side Shackle
Fig. 821

For sizes etc., see Fig. 801.

No.	Bright Brass Each	Polished Brass Each	Bright Aluminum Each	Polished Aluminum Each
0	\$2.35	\$2.50	\$2.35	\$2.45
1	2.85	2.95	2.85	3.00

Swivel Eye Fittings

FOR ATTACHMENT TO FIG. 801 BLOCK



Fig. 807

This fitting attached to a Fig. 801 block creates a swivel eye block of smooth action and adequate strength.

No.	Bright Brass Each	Nickel Plated Each	I. D. Eye Inches	Diam. Pin Inches	Weight Ounces
0	\$1.40	\$1.50	1/2	3/16	5/8
1	1.55	1.65	1/2	1/4	3/4

Spare Parts

	Bright Brass Each	Nickel Plated Each
Shackles Fig. 893 No. 0	\$.65	\$.75
Shackles Fig. 893 No. 1 (Special).....	.85	.95
Straps Fig. 881 No. 0 (Special) .....	.40	.50
Straps Fig. 881 No. 1 (Special) .....	.50	.60

NOTES

Finish—Bright finish is not polished but very attractive and practicable. Polished blocks have bright finished fittings.

Special—The above "Special" Shackles are milled to fit the blocks. Straps are shaped for the same purpose.

Lightweight Block
WITH FRONT OR SIDE SHACKLE
WITH LAMINATED PLASTIC SHEAVE



Fig. 432

No.	Plain Brass Each	Plain Aluminum Each	For Diam. Rope Inches	Size Sheave Inches	Weight Brass Ounces
0	\$2.05	\$1.95	¼	1 ¼ x ¾	2
1	2.50	2.45	⅝	1 ¾ x 7/16	3 ½

Swivel Eye Bullet Blocks
FORGED BRONZE



Fig. 934

With unique patented swivel arrangement, no wear on rope.
For jib sheets or halyards on small sail boats.

Dull Finish Each	Polished Each	Length Shell Inches	Size Sheave Inches	For Diam. Rope Inches	Weight Ounces
\$1.65	\$2.20	1 ⅝	¾ x ¾	⅝	2 ½

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	\$1.10	\$1.40	¼	¾ x 7/16	2
1	1.20	1.75	⅜	7/8 x ½	2 ½
2	1.70	2.25	7/16	1 ⅛ x ⅝	5

Swivel Eye Block on Plate
FORGED BRONZE

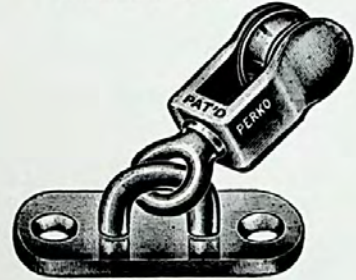


Fig. 935

This is our swivel eye bullet block mounted on brass plate, for deck leads.

Plain Each	Length Plate Inches	Width Plate Inches	Weight Complete Ounces
\$2.45	2 ¼	¾	3 ½

Jib Halyard Blocks on Strap
FORGED BRONZE BLOCK—CAST BRONZE STRAP



Fig. 899

No.	Plain Each	For Rope Diam. Inches	Size Sheave Inches	Length Strap Inches	Weight Ounces
0	\$1.70	¼	¾ x 7/16	2 ½	3 ½
1	2.10	⅜	7/8 x ½	2 ½	4

Swivel Eye Block on Slide
FORGED BRONZE

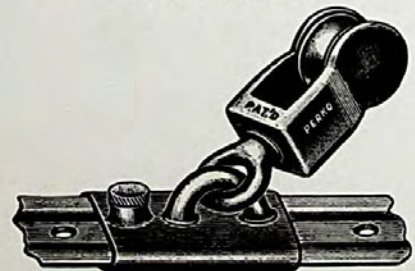


Fig. 936

Our swivel eye bullet block mounted on cast bronze slide for quick and easy adjustment of jib sheet lead. Slide has large head thumb screw for fastening in position with fingers.

Furnished complete with 24 inches of ⅝ inch nickel silver track.

Plain Each	Length Slide Inches	Width Slide Inches	Weight Complete Ounces
\$3.00	1 ¾	1	7 ½

Without track, deduct \$.50 each.

Centerboard Blocks

GALVANIZED CAST IRON OR BRONZE



Fig. 827

No.	Galv. Each	Plain Bronze Each	Size Rope Inches	Size Sheave Inches	Weight Pounds
1	\$1.10	\$1.90	3/8	1 1/2 x 1/2	3/4
2	1.90	3.30	1/2	2 x 3/8	1 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	\$3.25	1/4	3/8	9/16	5/8	2
1	3.50	5/16-3/8	1/2	3/4	11/16	4
2	4.50	7/16-1/2	5/8	13/16	7/8	7

Outhaul Cheek Blocks

CAST BRONZE—BURNISHED FOR ROPE OR WIRE



Fig. 885



Fig. 886

Fig.	Each	For Rope Size Inches	Size Sheave Inches	Weight Ounces
885	\$.75	1/4 Rope	3/4 x 9/16	3 1/2
886	1.25	1/8 Wire	1 1/4 x 9/32	5

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	\$4.25	1/4	3/8	1 1/16	9/16	3
1	5.20	5/16-3/8	5/8	3/4	1 1/16	6
2	6.00	7/16-1/2	1 1/16	1 1/4	1	8

Block Shackles

FORGED BRONZE

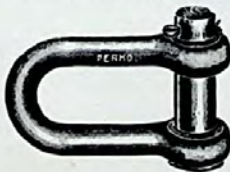


Fig. 893

No.	Size Inches	Plain Each	Pol. Each	Length Inside Inches	Width Inside Inches	Diam. Pin Inches	Wt. Ozs.
0	3/16	\$.60	\$.90	3/8	7/16	3/16	1/2
1	1/4	.70	1.00	7/8	7/16	1/4	1
2	5/16	.90	1.30	1 1/16	5/8	5/16	1 1/2

Plain shipped unless otherwise specified.

Headboard Snap Shackles

CAST BRONZE—BURNISHED



Fig. 875

No.	Each	Length Inside Inches	Width Inside Inches	O. D. Pin Housing Inches	Wt. Ozs.
2	\$2.00	1 3/8	1 3/16	5/8	6 1/2

Halyard Shackles

CAST MANGANESE BRONZE—BURNISHED



Fig. 887

Size Inches	Each	Diam. Pin Inches	Length Inside Inches	Width Inside Inches	Weight Ounces
1/4	\$1.25	5/16	1 5/8	5/8	2 1/2

Improved Headboard Snap Shackles

CAST BRONZE—BURNISHED



Fig. 876

No.	Each	I. D. Eye Inches	Length Inside Inches	Width Inside Inches	O. D. Pin Housing Inches	Wt. Ozs.
1	\$3.25	1/2	7/8	5/8	1 1/2	3
2	4.20	3/4	1	1 3/16	5/8	3

Eye Plates
CAST BRONZE



Fig. 880

No.	Plain Each	Length Plate Inches	Opening of Eye Inches	Stock in Eye Inches	Weight Ounces
1	\$.90	3 1/8	7/16 x 3/4	5/16	4
2	1.50	3 1/2	1/2 x 7/8	11/32	6

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	\$.50	1 1/2	1/4	3/16	1/4
0	.25	.50	.75	1 3/8	5/16	1/4	1/2
1	.35	.60	.85	2 1/4	3/8	9/32	3/4
2	.40	.85	1.15	2 3/4	1/2	5/16	1 1/2
3	.65	1.15	1.60	3 1/8	7/8	7/16	2 1/2

Size No. 3 is cast bronze.

Deck Straps
CAST BRONZE



Fig. 882

No.	Plain Each	Polished Each	Chrome Plated Each	Length Inches	Size Eye Inches	Stock in Eye Inches	Wt. Ozs.
1	\$.55	\$1.00	\$1.35	3 1/2	1/2	5/16	1 1/2
2	.80	1.40	1.80	4 1/4	9/16	3/8	2 1/2
3	1.10	1.85	2.35	4 3/4	5/8	7/16	4 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 5/16	1
2	.55	.90	1.35	3/4	2 1/4 x 1 3/16	2

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 3/8	1 1/2

Halyard Fairleaders
CAST BRONZE



Fig. 580

Designed for main halyards on small boats this fitting has many other uses. Will not chafe rope.

Emery Finish Each	Length Inches	Width Inches	For Diam. Rope Inches	Weight Ounces
\$.85	2 1/4	3/4	3/8	2 1/2

Single Flare Lip Leaders
CAST BRONZE



Fig. 764

No.	Plain Each	Small Opening Inches	Weight Ounces
1	\$.25	1/2	1 1/2
2	.40	3/8	3

Double Flare Lip Leaders
CAST BRONZE



Fig. 889

No.	Plain Each	Opening Inches	Weight Ounces
0	\$.35	3/8	3/4
1	.45	1/2	1
2	.60	5/8	1 3/4

Adjustable Jib Sheet Leaders
CAST BRONZE—PLAIN



Fig. 1114

One solid casting with large head thumb screw for fastening with fingers. Furnished with 24 inches of 5/8 inch nickel silver track, if required.

Without Track Each	With Track Each	Length Inches	Size Eye Inches Complete	Complete Weight Ounces
\$1.15	\$1.85	1 7/8	3/4 x 3/8	6

Automatic Jam Cleats

CAST BRONZE—POLISHED



Fig. 895

No.	Each	For Rope Inches	Size Base Inches	Wt. Ozs.
1	\$6.60	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

Improved Jam Cleat

CAST BRONZE



Fig. 1190

Something new in a jam cleat that really jams and holds.

Polished Each	Length Inches	For Rope Inches up to 1/4	Weight Ounces
\$2.00	4		4

Racing Jam Cleats

CAST BRONZE



Fig. 762

No.	Polished Each	Length Inches	For Size Rope Inches	Weight Ounces
1	\$3.60	3 1/2	1/4	5
2	3.85	4	3/8	8
3	4.15	6	1/2	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	1.50	5	5/8	5 1/2

Roller Jam Cleats

CAST BRONZE



Fig. 894

No.	Polished Each	For Diam. Rope Inches	Extreme Length Inches	Weight Ounces
1	\$2.50	1/8 to 1/4	4	4
2	3.30	1/4 to 3/8	5 1/4	8

New — 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	\$6.00	2 1/8	1 1/8	2	7
01	7.25	9.50	7.00	2 3/4	2 1/8	2	9

Note—Aluminum not recommended for use on salt water.

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 Inches	Diam. Height Inches	Diam. Base Inches	Wt. Lbs.
1	\$26.25	\$6.00	3/8	2 3/4	3 1/2	3
2	33.75	7.25	1/2	3	4 1/4	6

Snipe Travelers

GALVANIZED IRON OR BRASS



Fig. 271

No.	Galv. Each	Plain Brass Each	Size Inches	Height Above Deck Inches	Weight Pounds
	\$2.75	\$3.50	3/8 x 18	6	1 1/2

Bronze Goosenecks

CAST BRONZE—PLAIN



Fig. 883

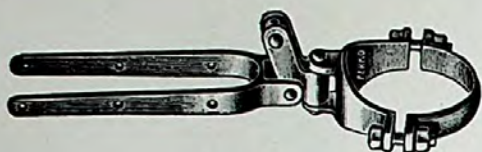


Fig. 884

Boom straps are measured from outside to outside of straps, as they are mortised into the side of the boom so as to be flush with the boom surface.

No.	Fig. 883 Each	Fig. 884 Each	Diam. Mast Inches	Diam. Boom End Inches	Fig. 883 Weight Pounds
1	\$10.00	\$12.00	3 to 3 1/2	1 3/4	2 3/4
2	10.50		4 to 4 1/2	2 1/4	3 1/2

Bronze Goosenecks

WITH FLAT PLATE FOR SQUARE MASTS
CAST BRONZE—PLAIN

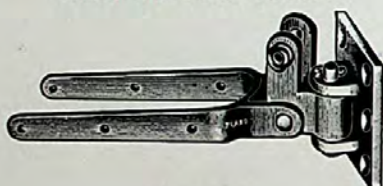


Fig. 1034

The trend in design for masts is changing from the old style round mast to the modern square, rectangular or T shaped mast, hence a gooseneck with a flat plate is necessary.

No.	Each	Width Plate Inches	Length Plate Inches	Diameter Boom end Inches	Weight Pounds
1	\$10.00	2	3	1 3/4	2 3/4
2	10.50	3	4	2 1/4	3 1/2

"Snipe" Goosenecks

BRASS STRAPS—BRONZE MAST PLATE



With Plate for Square Mast
Fig. 888

Plain Brass Each	Plain Plates Only Each
\$3.60	\$1.65

With Plate for Round Mast
Fig. 890

Width Plate Inches	For Boom Inches	Weight Each Pounds
1 1/2	1 to 1 1/2	1

When ordering, specify whether for square or round mast.

Sliding Adjustable Gooseneck

CAST MANGANESE BRONZE

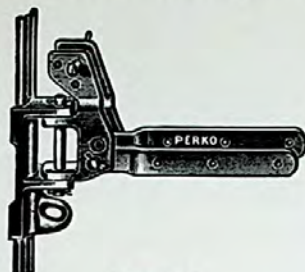


Fig. 915

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
\$5.00	5/8	3/4 or 7/8	4 3/4	12

Sliding Gooseneck

NATIONAL ONE DESIGN CLASS
BRONZE

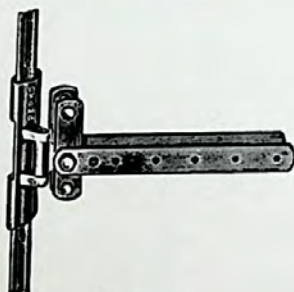


Fig. 452

Furnished without track.

Slide is cast bronze, boom straps are wrought brass. This fitting is as light in weight as possible while retaining all necessary strength.

Plain Each	Width Between Straps Inches	Length Inside Straps Inches	For Mast Track Inches	Weight Pounds
\$3.50	3/4	6	5/8	3/4

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	Wt. Ozs.
\$3.25	5/8	up to 1 1/2	3 1/2	8

Whisker Pole Fittings

CAST BRONZE—PLAIN



Fig. 836

Designed for quick action in poling out jibs, light in weight but strong. A set consists of three parts illustrated.

Per Set	For Diam. Pole Inches	Size Eye Plate Inches	Weight Per Set Ounces
\$3.60	1 or 1 1/8	1 1/2 x 1 3/4	10

Clew Outhaul

CAST BRONZE—PLAIN

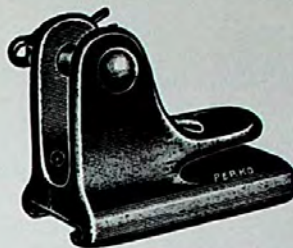


Fig. 1047

Each	For Track Inches	Jaw Opening Inches	Length Inches	Height Inches	Weight Ounces
\$1.75	5/8	3/8	1 3/4	1 1/2	3 1/2

Boom Travelers

CAST BRONZE—PLAIN

FOR MAIN SHEET BLOCKS ON BOOMS



Fig. 1112

For Wide Booms



Fig. 1113
For T Booms

Fig.	Each	For Boom Thickness Inches	Weight Ounces
1112	\$. 65	1 1/2 to 1 3/4	2 1/2
1113	.60	3/4 to 1	1 1/2

Snap Action Clew Outhauls

CAST BRONZE—PLAIN



Fig. 871

Has snap action bolt for clew of sail. Track not included.

No.	Each	For Sail Area Sq. Feet	For Track Inches	Length Overall Inches	Weight Ounces
0	\$3.95	75	5/8	2	4
1	4.50	125	3/4	3	8

Snipe Centerboards

GALVANIZED IRON



Fig. 134

Diam. Boom Inches	Plain Each	Width of Plate Inches	Weight Ounces	Each	Height Inches	Width Inches	Thickness Inches	Weight Pounds
2	\$1.65	1 1/4	3	\$18.75	36	21	3/16	36
2 1/2	1.65	1 1/2	4					
3	1.65	1 3/4	7					

Boom Travelers

CAST BRONZE—FOR ROUND BOOMS



Fig. 878



Bronze Rigging Turnbuckles

S. A. E. THREADS—HEXAGON BODY
LIGHTWEIGHT—STRONG



Fig. 917

The use of 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	\$2.20	7 1/2	5 1/8	3/16	5/32	3 1/2
5/16	3.25	9 1/2	6	1/4	1/4	5

With check nuts, add \$.30 to each turnbuckle.

Bronze Rigging Turnbuckles

DROP FORGED—WELDLESS
S. A. E. THREADS

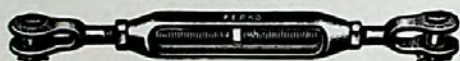


Fig. 459

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	\$ 2.20	\$.30	1/8	3/8
5/16	3.55	.30	3/16	1/2
3/8	5.20	.35	5/16	3/4
1/2	7.70	.50	3/8	1 1/2
5/8	10.00	.50	1/2	2 5/8

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 5/8	6 1/2	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

GALV. FORGED STEEL OR CAST BRONZE



Fig. 568

Length Under Eye Inches	Galv. Each	Plain Bronze Each	Size Plate Inches	Inside Diam. Eye Inches	Diam. Metal in Eye Inches	Weight Pounds
4	.90	\$2.00	7/8 x 3/16	5/8	1/4	3/8
5	1.00	2.35	1 x 1/4	3/4	5/16	1/2
6	1.20	2.75	1 x 1/4	7/8	9/16	3/4
8	1.60		1 1/4 x 5/16	1	3/8	1
10	2.40		1 1/2 x 3/8	1 1/8	7/16	1 1/2

Small Boat Chain Plates

CAST BRONZE



Fig. 629

Plain Each	Length Inches	Thickness Inches	Weight Ounces
\$1.50	6	1/4	7

"Snipe" Chain Plates

BRASS



Fig. 143

No.	Plain Brass Each	Polished Brass Each	Dimensions Inches	Diameter Pin Hole Inches	Weight Ounces
1	\$.70	\$1.05	7 x 1 x 1/8	3/8	4
2	1.10	1.65	10 1/2 x 1 x 1/8	3/8	6

Finishing Plates

CAST BRONZE—FOR FIG. 143 CHAIN PLATE



Fig. 252

Plain Bronze Each	Polished Bronze Each	Length Inches	Width Inches	Weight Ounces
\$.35	\$.55	2	1 1/8	1

Chain Plates

GALVANIZED FORGED STEEL OR CAST BRONZE



Fig. 569

Length Under Eye Inches	Galv. Each	Plain Bronze Each	Size of Plate Inches	Weight Galv. Pounds
4	\$.55	\$2.30	3/4 x 3/16	1/4
6	.70	2.85	1 x 5/16	1/2
8	.90	3.50	1 1/8 x 1/4	3/4
10	1.80		1 5/16 x 5/16	1
12	2.10		1 7/16 x 5/16	1 1/4
14	2.50		1 9/16 x 5/16	2 1/8
18	3.85		1 13/16 x 5/16	3

Mast Shroud Tangs

CAST BRONZE—PLAIN



Fig. 387

For the mast shroud of small sail boats. Drilled for fastening by rivet and screws.

Each	For Wire Inches	Length Inches	Width Inches	Weight Ounces
\$.75	$\frac{1}{8}$ - $\frac{3}{16}$	4	$\frac{7}{8}$	2 $\frac{1}{2}$

Bronze Eye Bands

CAST BRONZE—4 EYE



Fig. 253

Inside Diam. Inches	Plain Bronze Each	Width Inches	Diam. Holes Inches	Weight Pounds
1 $\frac{1}{2}$	\$2.35	$\frac{3}{4}$	$\frac{1}{4}$	$\frac{1}{2}$
1 $\frac{3}{4}$	2.40	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{5}{8}$
2	2.50	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{3}{4}$
2 $\frac{1}{4}$	2.75	$\frac{3}{4}$	$\frac{3}{8}$	$\frac{7}{8}$
2 $\frac{1}{2}$	2.90	$\frac{3}{4}$	$\frac{3}{8}$	1

"Snipe" Stay Tangs

BRASS



SINGLE

Fig. 47



DOUBLE

Fig. 57

Commonly used for attaching standing rigging to mast on snipe and similar classes of sail boats.

Fig. No.	Plain Brass Each	For Diam. Rope Inches	Size Straps Inches	Diam. Bolt Inches	For Wood Thick-ness Inches	Weight Lbs.
47	\$1.05	$\frac{3}{16}$	$\frac{3}{4}$ x 4	$\frac{1}{4}$	2	$\frac{1}{8}$
57	1.65	$\frac{3}{16}$	$\frac{3}{4}$ x 4	$\frac{1}{4}$	2 $\frac{1}{8}$	$\frac{1}{4}$

Galvanized Eye Bands

FORGED STEEL—HOT GALVANIZED



Fig. 426

All sizes have bands $1\frac{1}{4}$ " wide, all eyes are of $\frac{3}{8}$ " stock with $1\frac{1}{16}$ " inside diameter.

Inside Diam. Inches	1 Eye Each	2 Eye Each	3 Eye Each	4 Eye Each
1 $\frac{1}{4}$	\$1.95	\$2.30	\$2.65	\$3.00
1 $\frac{1}{2}$	2.00	2.40	2.75	3.10
1 $\frac{3}{4}$	2.30	2.65	3.00	3.40
2	2.40	2.75	3.10	3.50
2 $\frac{1}{4}$	2.55	2.85	3.20	3.55
2 $\frac{1}{2}$	2.65	3.00	3.40	3.75
3	2.85	3.20	3.55	3.90
3 $\frac{1}{2}$	3.55	3.90	4.25	4.65
4	3.90	4.25	4.65	5.00
4 $\frac{1}{2}$	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.

Rigging Cleats

CAST BRONZE—PLAIN



Fig. 879

For Diam. Mast Inches	Each	Size Overall Inches	Weight Ounces
2 $\frac{1}{2}$	\$1.00	2 $\frac{1}{2}$ x 1 $\frac{1}{4}$	2 $\frac{1}{2}$
3	1.20	3 $\frac{3}{8}$ x 1 $\frac{5}{8}$	4
4	1.35	4 x 1 $\frac{3}{8}$	5

Marconi Headboards

ALUMINUM ALLOY



Fig. 462

Headboards improve the set of the sail and are almost indispensable on Marconi Rigs.

No.	Each	Measurements Inches	Weight Ounces	For Class Boat
0	\$2.75	3 $\frac{7}{8}$ x 3 $\frac{3}{8}$	3	Star
1	3.25	4 $\frac{1}{4}$ x 3 $\frac{7}{8}$	5	Atlantic
2	4.00	5 $\frac{1}{2}$ x 5 $\frac{1}{4}$	7	6 Meter



Mast Track and Slides

NICKEL SILVER



Fig. 98

Fig. 99

Slides Fig. 98			Track Fig. 99		
For Track Inches	Each	Weight Per 100 in Lbs.	Size Inches	Per Foot	Weight 100 Feet in Lbs.
5/8	\$.13	2 1/4	5/8	\$.55	14 1/2
7/8	.24	2 3/4	7/8	.78	23

Slides will fit any make of track of corresponding design and size.

Stock lengths of track are 8, 10 and 12 feet. All orders will be filled with lengths available to make up total number of feet ordered, unless specified otherwise.

Mast Hoops and Jib Rings

GALVANIZED WROUGHT STEEL



Fig. 849

MAST HOOPS

JIB RINGS

Size Inches	Per 100	Size Inches	Per 100	Size Inches	Per 100
1/4 x 2	\$12.00	5/16 x 1 1/2	\$16.50	3/8 x 3 1/2	\$39.00
1/4 x 2 1/2	16.00	3/16 x 2	17.50	1/2 x 3	58.00
1/4 x 3	16.00	5/16 x 2 1/2	23.00	1/2 x 3 1/2	60.00
1/4 x 3 1/2	22.00	3/8 x 2	23.00	1/2 x 4	77.00
1/4 x 4	26.50	3/8 x 2 1/2	28.50	1/2 x 5	85.00
		3/8 x 3	35.00	1/2 x 6	91.00

Sizes are thickness of metal and inside diameter.

New Masthead Sheaves

LAMINATED PLASTIC
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.

No.	Each	Diam. Inches	For Diam. Rope Inches	Thickness Inches	Diam. Bearing Inches	Weight Ounces
23	\$.45	1 1/8	3/4	3/8	1/4	1 1/2
24	.50	1 1/4	3/4	3/8	3/16	1 1/2
25	.50	1 3/4	5/16	7/16	1/4	3/4

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	\$.75	5/16	3/8	1/4	2 1/2
2	.95	5/16	7/16	5/16	3 1/2
2 1/4	1.10	3/8	1/2	3/8	5 1/2

Bronze Wire Rope Sockets

CAST BRONZE

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.	Plain Bronze Each	Diam. Wire Inches	Width Inside Inches	Length Overall Inches	Weight Ounces	No.	Plain Bronze Each	Diam. Wire Inches	Jaw Opening Inches	Diam. Pin Inches	Length Overall Inches	Weight Ounces
00	\$.60	1/16	3/8	1 3/4	1	9	\$.90	1/16	1/4	1/4	1 3/4	1
0	.60	3/32	3/8	1 3/4	1	10	.90	3/32	1/4	1/4	1 3/4	1
1	.60	1/8	3/8	1 3/4	1	11	.90	1/8	1/4	1/4	1 3/4	1
2	.70	3/16	1/2	2 1/4	2	12	1.10	3/16	5/16	5/16	2 1/4	2 1/2
3	.90	1/4	5/8	2 3/4	3	13	1.20	1/4	3/8	3/8	2 3/4	3 1/2
4	1.40	5/16	3/4	3	4 1/2	14	1.65	5/16	1/2	1/2	3 1/4	5
5	1.60	3/8	1	3 3/4	8	15	2.75	3/8	3/4	3/4	3 1/2	9

Stemhead Plate

CAST BRONZE—STREAMLINED



Fig. 343

Angle is 70 degrees.

Length Straps Inches	Extreme Width Inches	Diam. Center Hole Inches	Diam. Forward Hole Inches	Weight Ounces
3 5/8	1	5/16	3/4	8
Plain Bronze Each		Polished Bronze Each		Chromium Plated Each
\$1.95		\$3.40		\$4.50

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" Hole

No.	Each	Size of Pennant Inches	Height Overall Inches	Weight Ounces
1	\$3.60	6 1/2 x 3	6 1/2	2 1/2
2	4.00	9 1/2 x 4 1/2	7 3/4	4

Head and Jibstay Fittings

CAST BRONZE—PLAIN



Fig. 1032

No.	Without Shackle Each	With Shackle Each	Length Inches	Width Inches	Number of Holes	Wt. Ozs.
1	\$2.20	\$3.00	5	1 1/2	5	12
2	3.50	4.30	7 3/4	1 3/4	8	28

Bob Stay Straps

CAST BRONZE



Fig. 303

No.	Plain Bronze Each	Pol. Bronze Each	Chrom. Plated Each	Metal in Eye Inches	Length Straps Inches	I. D. Eye Inches	Wt. Ozs.
1	\$.75	\$1.20	\$1.80	3/8	1 3/4	3/4	3 1/2
2	.95	1.55	2.20	7/16	2 5/8	7/8	5

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	\$4.25	6 1/2 x 3	6 1/2	3
6	4.75	9 1/4 x 4 1/2	7 3/4	5

Belaying Pins

GALVANIZED MALLEABLE IRON OR BRONZE



Fig. 366

Diam. Shank Inches	Galv. Each	Polished Bronze Each	Length Head Inches	Extreme Length Inches	Weight Each Pounds
3/8	\$.95	\$3.30	3	8	3/8
1/2	1.50	4.15	3 5/8	9 1/2	3/4
5/8	1.80	5.50	3 3/4	10 1/4	1
3/4	2.20	7.15	4 1/4	11	1 3/4



EXTRACTS FROM LATEST REGULATIONS ON LIGHTING OF BRIDGES

"Aids To Navigation" C.G.-208, January 1, 1949

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. 5, 35 Stat. 162; 33 U. S. C. 760.)

§ 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. 8, 38 Stat. 928; 33 U. S. C. 762.)

§ 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. 8, 38 Stat. 928, Sec. 6, 35 Stat. 162; 33 U. S. C. 761, 762.)

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 production 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. (See 14 CFR, Ch. II.)

§ 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 no less than 60° nor more than 180°, and shall be mounted so that $\frac{1}{2}$ 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 for 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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