

Rushton

ALL-WOOD
ROWBOATS
CANOES
FITTINGS

J·H·Rushton Inc.

Canton·N·Y.

Rushton

BOATS
and
CANOES

THE ORIGINAL RUSHTON LINE

The First water craft built
in the RUSHTON way, was
launched in 1873.

J. H. Rushton Inc.
Canton, N. Y.

We also build a complete line of canvas covered canoes,
at all prices. Each grade is the best procurable at its
price. All are up to the high RUSHTON standard.

If interested, write for our special Catalog of Indian Girl Canoes.

HUNGERFORD-HOLBROOK CO.,
WATERTOWN, N. Y.

SINCE 1873 we have been building high-grade, light-weight, durable rowboats and canoes. The first *Rushton* water-craft was launched to meet requirements set forth by its builder---a boat that would carry a man---and that the same man could carry.

Now it happened that this man was small of stature. Nature did not provide strength to carry a heavy boat. And so, the boat was built light.

At the time the boats in use in this (St. Lawrence County, New York) locality, were on the small ponds well in the Adirondacks---and were used for hunting. They were the old dug-out type---heavy, slow under paddle, easily tipped over.

But the new boat was of the "clap-board" type, as it was then called. It was a light lap-streak canoe 12' long. It would carry two---one could carry it.

Since 1873 we have built the same type of boat, with changes in model as the times required.

If you want a good boat---one that will give years of service---one that rows or paddles easily---one that is perfectly safe---one that has true lines, and appeals to the eye---send us your order.

J. H. RUSHTON.

RUSHTON WOOD BOATS AND CANOES

The system we use in constructing our wood boats and canoes is unique. If we could take you through our factory, we could show you clearly not only how the work is done, but why. Not being able to do this, we will have to depend upon cuts from photographs and drawings. We will try to make it clear, but, failing to do so, we will appreciate it if you inquire particularly about the points you do not understand.

The only objection that can possibly be raised to this system of construction is the expense. It requires more material and more time--it requires more skill from the workmen, which means not only greater ability, but longer training.

The construction is commonly referred to as "ship-lap" or "clap-board." Our own names for these two are "smooth-skin" and "lap-streak". The result in either case is the same, so far as the strength of the finished boat is concerned. In the former method, the outside as well as the inside is smooth. In the latter method, the surface is not smooth, but the joints are made in a similar manner.

In the smooth skin construction both boards are beveled to a feather edge their whole length, and joined as shown in the illustration.



will notice, the joint is nailed from both sides with the head of the tack in the thin edge and the clinch further from the edge in the thicker timber. The tacks used from the inside are of lighter weight than the others, their chief object being to prevent the feather edge from curling.

In the lap-streak construction there is at least one-eighth inch of timber left. This leaves the board stiff enough so there is no danger of its turning back, hence, nailing on the outside only is necessary.

Fig. 1

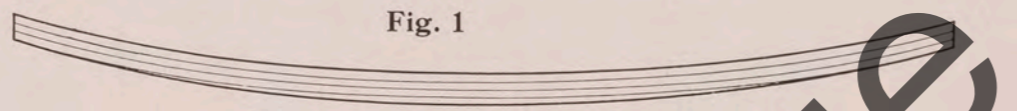
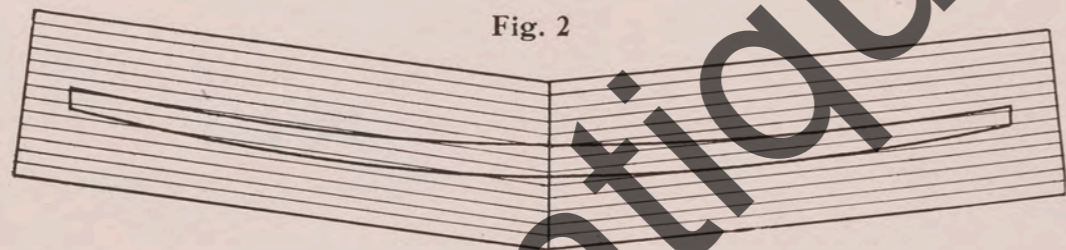


Fig. 2



With either system of construction, the boards used are of peculiar shape. When laid on the bench they appear in shape like Fig. 1, but with the grain running through them as in Fig. 2. When on the boat the shape is such

that they fit, the first one to the keel, and succeeding ones to the last one, by simply bending and without the ends being either raised or lowered. For this reason, there is no strain on the shell. The planks nailed on, with keel and stems in place, the shell is a solid and comparatively rigid unit.

The weight of the boards has been utilized, not only to keep the water out, but as a partial frame work. This enables us to use a much lighter weight rib or timber. The object of this timber is not to hold the joints together, but to stiffen the boat. The shape of these timbers, which are half round, gives maximum strength for minimum weight.

The timbers, or "ribs", as we term them, are put in place after the shell is built. They are steamed until they are soft and pliable and then bent into the shell itself and fastened before they are dry. When dry they are very hard and stiff, preventing to a large extent any give and take of the shell.

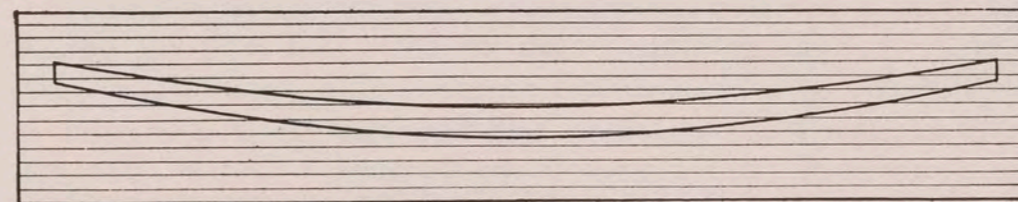
There are two important results obtained by this method. The planking is lighter in weight than could otherwise be used. The timbers being smaller are also lighter. The result is a boat 10% to 50% lighter than can be built in any other manner, but at the same time no less strong.

Besides this important feature of light weight, added durability is gained. In the case of a boat with butted joints, that is, with square seams without a lap, the timbers alone hold the shell in place. In case of any damage to the timbers, there is nothing to prevent the joints springing apart at this place with a resultant leak. In case any damage occurs to a timber in a *Rushton* boat, the lapped joints hold the planking together and no leak occurs.

As a demonstration of this and the ultimate value to you of this method of construction we need mention only the fact that it is not at all unusual for a *Rushton* boat to last upwards of 20 years. We have several times in the last few years had boats returned to us for repairs after over 20 years of service. As an illustration of their durability we may mention that in most cases the only repairs necessary are the replacing of such parts of boards as have been damaged by gouges or checks from heavy blows, and the average cost of repairs of this sort is between \$5.00 and \$10.00 for each boat returned.

Occasionally prospective customers, seeing that the boards in a *Rushton* boat do not extend the full length, write us and express the opinion that for this reason the boat is inferior. This idea is not borne out by the facts, which we state here.

Fig. 3

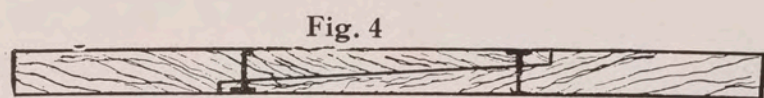


If the individual boards were to be cut full length from the plank the end would cross the grain of the board as shown in Fig. 3. It is at the ends of the board that the most strain comes and the most wear. If, therefore, the grain were to run across the board in a few inches, as would be neces-

sary in such case, there would be practically no strength of timber, and tim-bering both excessive in weight and clumsy would be absolutely essential to keep the boat in shape and prevent splitting of boards.

On the other hand, when the boards are spliced as shown in Fig. 2, the grain as you will notice is practically with the board at the ends. A great deal more strength is thus obtained.

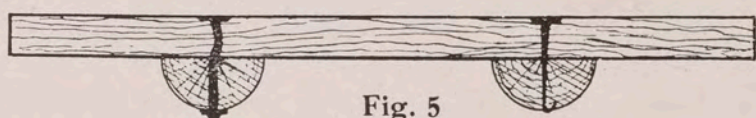
Much of the success of this method can be attributed to the fact that the splices of centers would mean not only less leaks, but durability of splices, strength of board and immunity from leak. The cross-section of the splice appears as in Fig. 4.



The two parts of the board are cut on a special machine to make them absolutely alike. When fastened together and nailed from both sides, this splice is fully as strong as any other part of the board, if not stronger. There is a lap of two inches at each splice.

It is, of course, out of the question to cut the boards out straight and then bend and twist them into place. This is only possible with very narrow boards. The worst objection to this is the large number of joints below the water-line.

Clinch fastening is much more satisfactory with boats built of cedar than rivet fastening. Fig. 5 shows this clearly.



Cedar boards are comparatively soft. By virtue of the peculiar grain and nature of the wood, it will stand more hard usage, and endure longer under water, and in-and-out of the water, than will any other. At the same time it is soft. Not so with pine, cypress, or other woods used sometimes in the construction of boat hulls. They are firmer, though they will not stand the action of wind-and-water, as well as will cedar.

When we try to rivet-fasten the ribs of a cedar boat, the result is seldom satisfactory. The reason is easily found. The cedar is so soft that the rivet will "upset" in the plank before it will "head over." The sketch above shows this plainly.

On the other hand, with the clinch fastening the slender point of the nail will curve back into the wood before the shank will upset. The annealed copper is not weakened by such a clinch, and it is our experience that such a fastening will last as long as the wood.

DECKING

Much of the beauty of the *Rushton* boats may be attributed to the style of decking.

On all boats and canoes, unless otherwise ordered, we use the closed style of inwale. Ribs are pocketed in the under side, and, as they extend to within about $\frac{1}{2}$ in. of the top, no strength is lost. They are also nailed into the gun-wales, adding much to the strength of the boat, but very little to its weight.

When ordered, we can supply the "open" type of inwale. This consists of a thin strip of suitable wood, nailed over the ribs. It does not look as well as the closed type. Some prefer it, however, as there is no question but that it adds a trifle to the ease with which the boat may be cleaned out.

Decks are made in four styles, designated A, B, C and D. Rowboats are supplied regularly in Style B only. Combination Row and Sail Boats are Style C. Canoes are finished in all styles of decking, as listed under the heads of the several models.

Style A Decks consist of a solid piece of wood, about 12 in. to 15 in. long---depending on the length of the boat---and finished with light coaming at the in-board end. Some of the smaller canoes do not have this coaming.

Style B Decks are made of suitable wood, about $\frac{3}{8} \times \frac{1}{2}$, blind-nailed to cedar timbers, beaded. They are 24 in. to 32 in. in length. For illustration see page 10. A low coaming at the inboard end of deck completes the finish. The center joint is covered by a batten of suitable size.

Style C Decks are made in the same manner as Style B. They are 24 in. long at the ends, and the side decks, which are 2 in. wide, are supported by knees. A coaming extends all the way around the cockpit, and is one inch high above the deck. For illustration see page 12.

Style D Decks are similar to Style C except they enclose exactly one-half of the length of the canoe, and leave cockpit from 18 to 20 inches wide. As these decks are put in to order only, exact size may be varied to suit the ideas of the customer, and at very little, if any, additional cost. The cockpit is oval at both ends.

PLEASURE BOATS—GRADES

GRADE A—Built to Order Only

MATERIAL—Selected oak keelson; stem and stern post, bent oak; planking, selected Northern White cedar, except sheer streak, that of Spanish cedar or mahogany; ribs, red elm; gunwales, inwales and coamings, cherry; decks and battens, mahogany or Spanish cedar; stern seat of cherry or other fine wood; other seats caned, unless otherwise stated in description of individual boat; inside floor of basswood or other suitable material. All fastenings of copper or brass. Nickel plated fittings.

CONSTRUCTION—Hull, smooth-skin.

FINISH—One coat of linseed oil and two of best spar varnish, (on a hurry order, two coats best white shellac are used in place of the first coat of varnish).

We also build this boat with Spanish cedar throughout and with cherry grating. Price and description on application.

GRADE B

MATERIAL—Hull same as Grade A. Various kinds of wood are of a trifle lower grade. All fittings Polished Brass.

CONSTRUCTION—Lap streak, clinch fastened, otherwise like Grade A.

FINISH—The same as Grade A.

GRADE C

MATERIAL—Keelson and stems, oak; planking sound Northern White cedar; ribs, red elm; gunwales, ash; inwales, seats, decks, battens, coamings and floor, of any suitable wood. All fastenings of copper or brass. Brass stem bands reaching to above water line. Polished brass fittings.

CONSTRUCTION—Lap streak, clinch fastened; seats, plain wood.

FINISH—Same as Grade A.

This is a thoroughly well made, well finished, up-to-date, every day, all around boat, one that we guarantee in every respect. It is well suited to livery use, and to any other purpose where only a moderate outlay is desired.

TERMS

Prices in this catalog are strictly net. We have made them as low as possible, consistent with proper workmanship and the use of proper materials.

Bill of Lading and C. O. D.—We will ship any boat or canoe, or fittings to the value of not less than \$5.00, by freight with Sight Draft attached to Bill of Lading, or by Express, C. O. D., but order must be accompanied by at least 25% of the value of the goods. In all cases, consignees pay the expense of return of money.

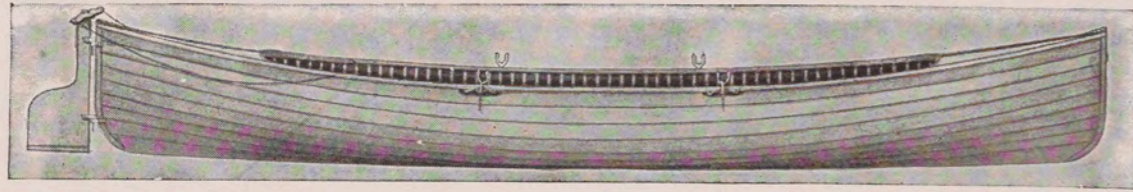
All goods are F. O. B. Canton.

We recommend that boats and canoes be shipped by freight, and fittings by express. The American is the only express line that reaches us. Shipments will be made by mail only when the amount of postage is included in the remittance.

Packing—All boats and canoes are packed in Burlap and Excelsior for shipping and delivered on board cars without extra charge. The shipping weight of 10½ foot canoes is about 60 lbs., of 16 foot canoes, 100 lbs. and of rowboats, from 135 lbs. to 175 lbs., according to size. Crating adds about 50% to these weights, and does not lower the classification (rate per 100 lbs.). Extra charge for crating is from \$2.00 up, depending on the size of the boat or canoe.

Safe Delivery is guaranteed, as the Transportation Companies give us clean receipts for the goods, and so become responsible for safe delivery.

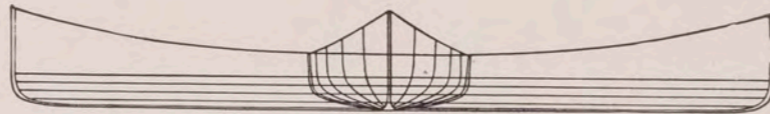
PLEASURE ROW BOAT—FLORIDA



This boat is built in three lengths, 15 ft., 16 ft. and 17 ft. The beam of all is 42 in.; depth at ends 25 1/2 in.; depth amidship 15 3/4 in. The 17 ft. boat has planking 5/16 in. thick, the other two 1/4 inch thick. The 17 ft. boat has four seats and is fitted to be rowed from the center two seats. The 15 ft. and 16 ft. boats have three seats, the bow and center seats being used for rowing.

The FLORIDA ROW BOAT is our most popular model. It has all the good qualities of the St. Lawrence River skiff, but is by no means as heavy although stronger. Plumb stems and flatter floor give longer waterline, more floating capacity, and greater safety, while the easy lines give a perfect running boat.

This boat can be depended upon anywhere, for all usage. It is a nice fishing boat, one in which the fisherman can be comfortable, and the rower also. Fish boxes, lined or unlined, can be fitted under any of the seats.



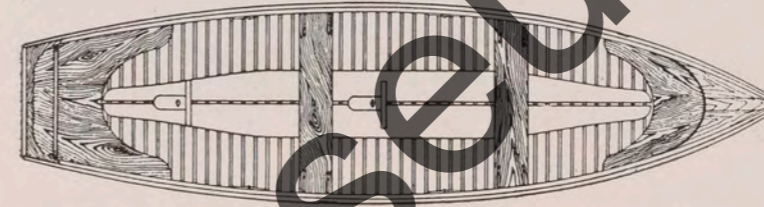
Fittings supplied regularly with the Grade B boats of this model are: Two pairs spoon blade oars, leathered, tipped and varnished; 2 pairs No. 1 polished brass rowlocks; 2 foot braces; 6 (8 with No. 105) polished brass seat braces; 1 rudder with No. 58 braces; 1 No. 2 chair seat.

Fittings supplied regularly with the Grade C boat of this model are: Two pairs straight blade oars, leathered, tipped and varnished; 2 pairs No. 1 polished brass rowlocks; 2 foot braces; 6 (8 with the No. 105) polished brass seat braces; one rudder with No. 58 braces.

Number	Length	Weight	Price Grade B	Price Grade C
107	15 ft.	95 lbs.	\$ 95.00	\$77.00
106	16 ft.	105 lbs.	100.00	80.00
105	17 ft.	115 lbs.	105.00	84.00

PLEASURE ROW BOAT—LIVERY

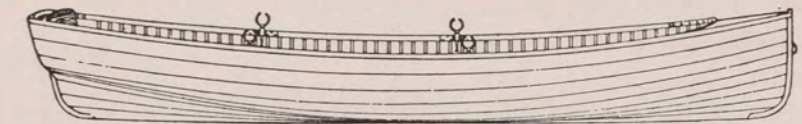
The Livery boat is our heavy row boat. It is built in one length only, 15 ft. 3 in., and in two styles, double end and square stern, as illustrated. The boat weighs from 125 lbs. to 140 lbs. It is built throughout in the usual Grade C style of construction. The planking is 5-16 inches thick, and the ribs spaced about 3 inches. The beam of this boat is 46 inches; depth at ends 25 inches; amid-ships 18 inches.



This boat is an ideal livery boat. It has ample carrying capacity, is perfectly safe, and is

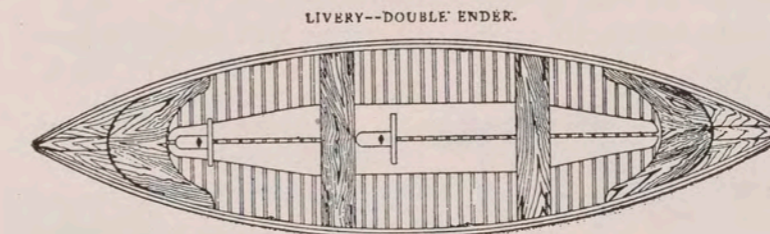
strong enough to with-stand all ordinary and most extraordinary usage.

This is an excellent boat for small children. You may set them adrift in it and know that they cannot tip it over. It is good for them to be on the water, and good for the mother's peace of mind, for them to be out in such a boat as this.



Its high bow makes it dry and sea-worthy. Its high sides and flat floor give it stability and carrying capacity. If interested, write us, advising about what you want, and we will be glad to quote price.

Although only a limited quantity of fittings is supplied with this boat at catalogue price, another set of oars, rudder, etc., may be added at prices given in back of catalogue.



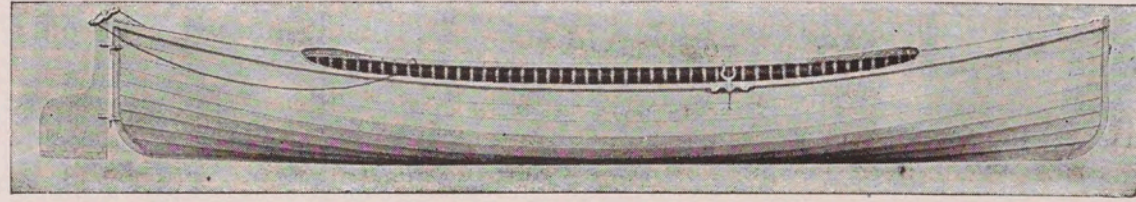
Fish boxes can be supplied with this boat, or sailing outfit. With these additions, the boat is ready to be used anywhere.

Fittings supplied regularly with the Double End or Square Stern Livery are: One pair straight blade oars, leathered, tipped and varnished; one pair rowlocks, No. 1 oarlocks with No. 4 sockets; one foot brace; eight seat braces.

	Length	Price
Livery Double End.....	15 1/4 feet	\$70.00
Livery Square Stern.....	15 1/4 feet	\$76.00

All Fittings Polished Brass.

PLEASURE ROW BOAT—IOWA



The **Iowa** rowboat is built for a small, light, fast rowing skiff. It is built in three lengths, 13 ft., 14 ft. and 15 ft. The uniform beam is 36 inches; depth at ends 23 inches; depth amidships 14 inches; planking $\frac{1}{4}$ in. thick; ribs spaced $2\frac{1}{2}$ in. centers.

This craft is well suited to the use of ladies and children who have obtained some proficiency on the water. It is reasonably safe---no one expects a 36 inch beam boat to be as steady as one of 42 or 46 inch beam. Its flat floor gives carrying capacity for as many as can find seating room.

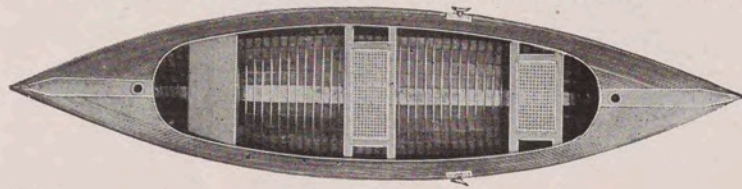
For those who wish a fast row boat for exercise, we can recommend the 15 foot boat of this model with two sets of oars.



As a fast fishing boat, this model cannot be surpassed. It is large enough for three with all supplies for a day's fishing, and light and fast enough so that long trips may be taken without exhausting the oarsmen.

This boat is also decked along the sides for sailing, as shown below. It is regularly fitted with small sails and in this way it comes up to the **Rushton** standard of safety.

These boats are fitted with three seats unless otherwise ordered. The bow seat is the rowing seat.



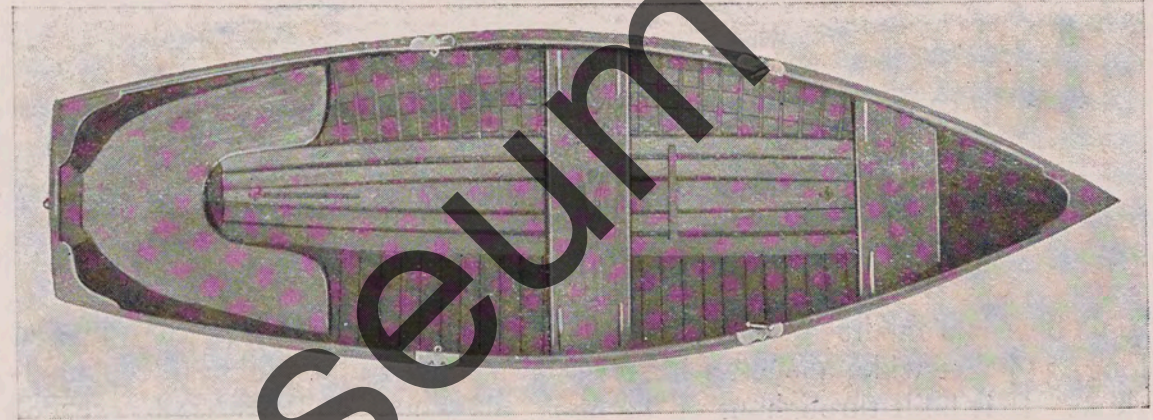
Fittings supplied regularly with the Grade B boat of this model are: One pair spoon blade oars, leathered, tipped and varnished; one pair No. 1 rowlocks; one foot brace; six seat braces; one rudder with No. 58 braces; one No. 2 chair seat.

Fittings supplied regularly with the Grade C boat of this model are: One pair straight blade oars, leathered, tipped and varnished; one pair No. 1 rowlocks; one foot brace; six seat braces; one rudder with No. 58 braces.

Number	Length	Price Grade B	Price Grade C
112	13 feet	\$74.00	\$63.00
109	14 feet	\$79.00	\$68.00
108	15 feet	\$84.00	\$73.00

All Fittings Polished Brass

PLEASURE ROW BOAT—DINGHY



Our **DINGHIES** are standard size, model and equipment.

DINGHIES are built in five sizes, in length 9, $10\frac{1}{2}$, 12, $13\frac{1}{2}$ and 15 feet. Beam of these boats is one-third their length. Of these we list only the first three, although we are prepared to build the others. Planking for these boats is $\frac{1}{4}$ inch thick. According to size, the depth at bow is from 21 to 23 inches, with depth amidships and a stern proportionate.

These boats are usually fitted with three seats, provision being made to row from either bow or center seat. They may be fitted with davit rings, as they are strong enough to stand being hauled out of the water in this manner.

These boats, with their flat floors, are exceptionally safe and will carry large loads. Capacity of the $10\frac{1}{2}$ foot size is six persons—more than can be comfortable.

While not exceptionally speedy, its great carrying capacity, perfect safety, and the ease with which it may be stored make it a great favorite.

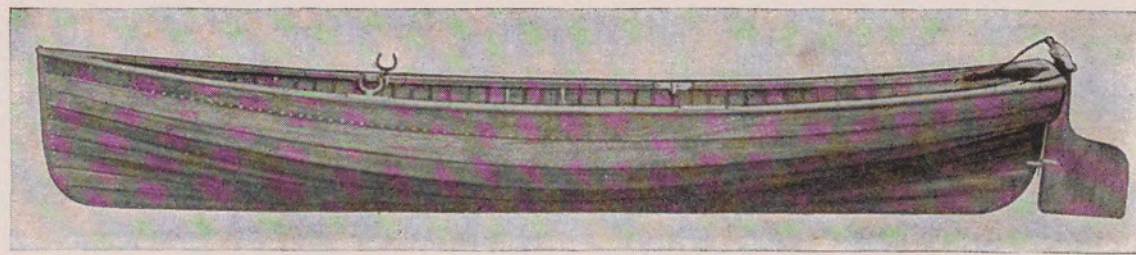
This model combines the properties of a good dinghy or yacht tender, with a safe fishing boat. It is just the craft to tow behind a launch or large sail boat as it can be used for any purpose.

Fittings supplied regularly with the Grade B boats of this model are: One pair spoon blade oars, leathered, tipped and varnished; two pairs No. 5 sockets with one pair oarlocks; 1 foot brace; 6 polished brass seat braces; 1 rudder with No. 59 braces.

Fittings supplied regularly with the Grade C boats of this model are: One pair straight blade oars, leathered, tipped and varnished; two pairs No. 5 sockets with 1 pair oarlocks; 1 foot brace; 6 polished brass seat braces; 1 rudder with No. 59 braces.

Number	Length	Weight	Price, Grade B	Price, Grade C
185	9 ft.	54 lbs.	\$65.00	\$53.00
190	$10\frac{1}{2}$ ft.	72 lbs.	70.00	60.00
195	12 ft.	100 lbs.	80.00	70.00

DINGHY NO. 203



This boat is a modification of our regular 10½ foot Dinghy. It is 14 feet long, 3½ feet wide, about 23 inches deep at bow and 14 inches deep amidships. It is built throughout of ¼ inch planking, and with ribs spaced about 2½ inches center to center. To make this boat easier to clean we have omitted the inwale, putting in its place an inside top streak of white cedar.

It is regularly fitted with three seats, provision being made as in the regular dinghy, to row from either bow or center seat. Back-board for stern seat adds to the comfort of the user.

This is an excellent fishing boat, preferred to other models by many on account of being built square stern. It has great carrying capacity, about the same as a 15 foot Florida.

This boat is not used for sailing, but there is no reason why it could not be adapted for it in the usual manner.

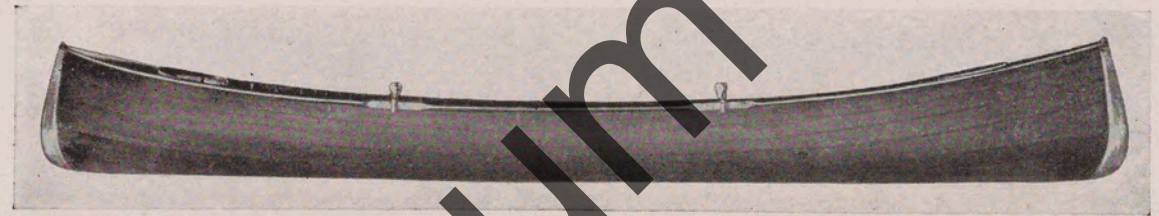
Fittings supplied regularly with this boat are: One pair straight blade oars, leathered, tipped and varnished; one pair No. 4 sockets with No. 1 oarlocks; 1 foot brace; 6 polished brass seat braces; 1 rudder with No. 59 braces.

Price complete \$70.00.



FLORIDA No. 107

PLEASURE ROW BOAT, SARANAC LAKER

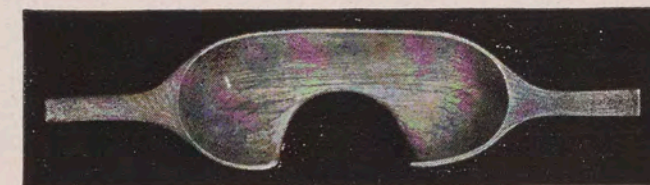


This boat is 16 feet long, 37 inches wide, about 24 inches deep at ends, and 13 inches deep amidships. It is smooth skin with our regular smooth lap joint, although the boat is built up on sawed knees of natural crook spruce. These knees, which are ¾ x ¾ inches, are spaced about 4 inches apart. The boat is finished in cherry in the finest possible manner. Inwales are omitted to decrease weight and to make cleaning easier.

This is a very light craft, weighing only about 60 pounds stripped. It has fine lines, and, being so light, is exceptionally speedy. It will carry quite heavy loads. The regular 16 foot length is considered large enough for one guide, a hunter, and complete outfit for both.

Although this model cannot be highly recommended as a boat for ladies and children, it is not unusual to see them out in it.

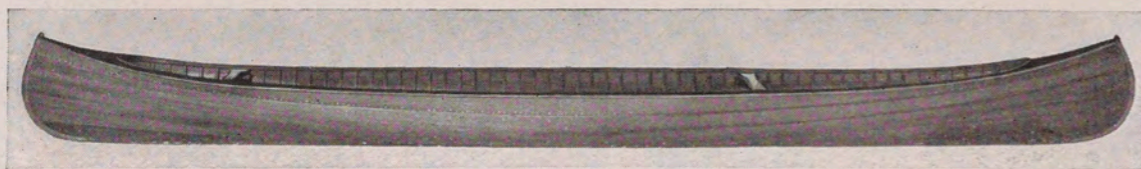
This model cannot be equipped for sailing.



Fittings supplied regularly with this boat are: One pair 8 foot square loom, hand-made maple oars; 1 single blade paddle; 1 set No. 4 polished brass rowlocks; 1 cane back for stern seat; one cane back with straps and hinges; 1 carrying yoke.

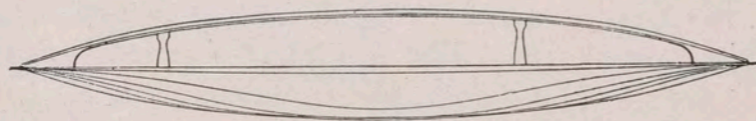
Price complete \$105.00.

Canadian Model Light Paddling Canoes ARKANSAW TRAVELER



These canoes are uniformly 18 inches deep at bow and stern, and 10 inches amidships. The planking is $\frac{1}{4}$ inch thick and ribs are spaced about $2\frac{1}{2}$ inches center to center. Gunwales are of the usual width, and the material and workmanship throughout are of the best.

This canoe is a modification of the well known Canadian canoe. It combines to a marked degree, fine lines, ease under paddle, safety and stiffness. It is somewhat lighter than the Ugo canoe. It rivals the birch bark in weight and speed, and is more staunch, seaworthy and durable.



This is a canoe that requires some care in handling except from expert canoeists. It is not built like a racing shell, but at the same time is fast enough to be in a class with them.

This canoe is ordinarily furnished with two thwarts instead of seats, as is shown. Average weights with Style A decks Grade A are from 51 lbs. to 65 lbs. according to size.



Two single blade paddles constitute outfit.

Number	Length	Beam	Weight	Grade	Style of Decking			
					A	B	C	D
4	17 ft.	28 ins.	65 lbs.	A	\$63.00	\$65.00	\$73.00	\$80.00
5	16 ft.	28 ins.	59 lbs.	A	61.00	63.00	71.00	78.00
6	15 ft.	28 ins.	55 lbs.	A	59.00	61.00	69.00	76.00
7	14 ft.	28 ins.	51 lbs.	A	57.00	59.00	67.00	74.00

Price of Grade C is \$10.00 lower than Grade A.

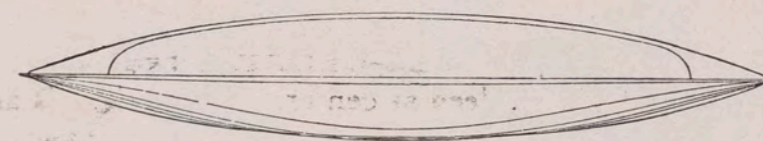
CANADIAN MODEL CANOES—UGO



These canoes are uniformly 18 inches deep at bow and stern and 11 inches deep amidships. The planking is $\frac{1}{4}$ inch thick and ribs are spaced about $2\frac{1}{2}$ inches center to center. Gunwales are the usual width, and the material and workmanship throughout are of the best.

This canoe is ordinarily furnished with Style B decks. The 14 and 15 foot lengths have two seats, and the 16 and 17 foot lengths have three seats.

This model has flatter floor than the Arkansaw Traveler and less dead-rise. It is so well designed, however, that it makes an excellent paddler where extreme speed is not essential. It is as safe as any canoe of its size possibly can be.



This canoe is excellent for sailing, either open or partly decked. With Style C decks it conforms to the American Canoe Association Regulations of an open canoe, and is very fast. With Style D decks



it makes a fine cruiser. For modifications of this model see also page 24.

Number	Length	Beam	Weight	Grade	Style of Decking			
					A	B	C	D
4	17 ft.	30 ins.	82 lbs.	A	\$68.00	\$70.00	\$78.00	\$86.00
5	16 ft.	30 ins.	75 lbs.	A	66.00	68.00	76.00	84.00
6	15 ft.	30 ins.	68 lbs.	A	64.00	66.00	74.00	82.00
7	14 ft.	30 ins.	62 lbs.	A	62.00	64.00	72.00	80.00

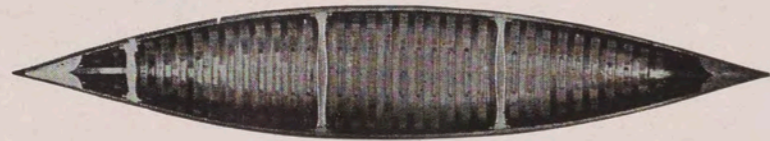
Price of the Grade C is \$10.00 lower than the Grade A.

Two single blade paddles constitute outfit.

INDIAN ALL-CEDAR.

The All-Cedar Canoes are built over solid mould with ribs put in place before the planking. Two models are furnished. The 15 ft. INDIAN, and the 16 ft. INDIAN GIRL. The INDIAN canoe is shown below. The INDIAN GIRL is practically the same, except with a trifle finer lines.

The ribs of these canoes are of white cedar $5/16$ in. thick, about 2 inches wide at keel and $1\frac{1}{4}$ in. wide at gunwale, spaced 4 in., center to center. The bottom of this boat is protected by inside floor, as shown. These boats are fitted with white cedar decks and three white cedar thwarts. Seats may be supplied as per price-list. We make no charge for installing seats.



The INDIAN ALL-CEDAR is 15 ft. long, 32 in. wide, 24 in. deep at ends and 12 in. deep at center. The weight is about 47 lbs.

The INDIAN GIRL model is 16 ft. long, 32 in. wide, 21 in. deep at ends, 12 in. deep at center. The weight is about 47 lbs.



These canoes make fine, light, open paddlers. They appeal to the eye, having very marked beauty. They are entirely safe, notwithstanding their light weight, as the model shows a flat floor. They are very popular with those who do not object to the price, but who are looking for an exceptionally fine light canoe.

Model	Length	Beam	Depth at Ends	Depth at Center	Weight	Price
INDIAN GIRL.....	16 ft.	32 ins.	21 ins.	12 ins.	47 lbs.	\$65.00
INDIAN.....	15 ft.	32 ins.	24 ins.	12 ins.	47 lbs.	60.00

Two single blade paddles constitute outfit.

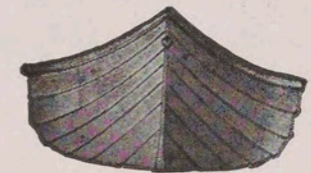
PADDLING CANOE—HURON



These canoes are uniformly 18 inches deep at bow and stern, and 10 inches deep amidships. The planking is $1/4$ inches thick and ribs are spaced about $2\frac{1}{2}$ inches, center to center. The usual construction is Grade C. Plain wood seats are furnished, two in number in all sizes.

For some localities and for cruising in rough water, this model with its long raking stems has been found very serviceable. Some convert it into a light skiff by adding oars. It has been used to advantage with Style D decks in the rough waters that are found in Maryland.

Two single blade paddles constitute outfit.

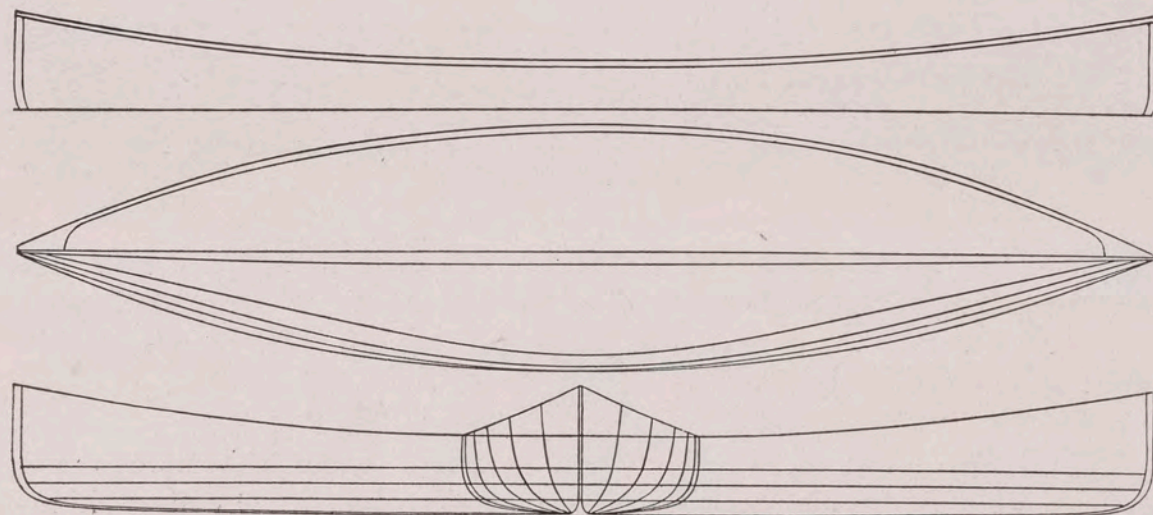


Number	Length	Beams	Depth at Ends	Depth at Center	Weight	Grade	Style of Decking	
							A	B
7	14 ft.	30 ins.	18 ins.	11 ins.	56 lbs.	C	\$40.00	\$42.00
6	15 ft.	30 ins.	18 ins.	11 ins.	62 lbs.	C	42.00	44.00
5	16 ft.	30 ins.	18 ins.	11 ins.	72 lbs.	C	44.00	46.00



An examination of the cut will show the relative shape and position of the boards on a lap-streak boat or canoe. Each board supports the other, and greatly strengthens the whole craft. As the seams or joints practically follow the water-line of the boat there is practically very little added resistance. The canoe shown above is finished in this style.

PADDLING CANOE—ST. REGIS



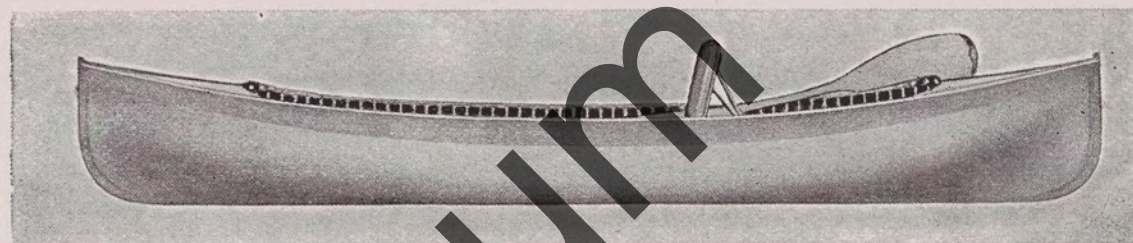
This canoe is 12 feet long, 30 inches wide, 18 inches at bow and stern, and 11 inches deep amidships. It is built of $\frac{1}{4}$ inch cedar planking throughout, with ribs spaced $2\frac{1}{2}$ inches, center to center. Construction is the usual Grade C, with Style A decks. Its weight is about 45 pounds and carrying capacity one or two persons.

This is our medium sized canoe, chosen by those who wish a canoe for reasonable carrying capacity, but who feel that a 15 foot canoe is longer than they can use. To make these canoes more safe we do not equip them with a regular seat fastened on cleats, but with a folding seat so that paddler can sit on the bottom. A single blade paddle is out of the question under the circumstances, so the double blade paddle with the drip cups is furnished.

Price—Grade B, \$40.00; Grade C, \$37.00.

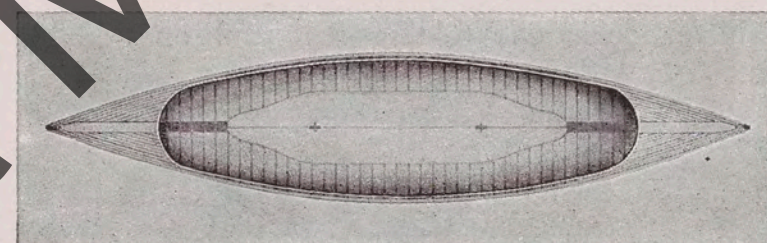


PADDLING CANOE—VAUX & VAUX, JR.



The VAUX canoe is $10\frac{1}{2}$ feet long, 26 inches wide, with depth at ends of 16 inches and at center $10\frac{1}{2}$ inches. It is built throughout of $\frac{1}{4}$ inch planking, the usual Grade A construction, and with ribs spaced $2\frac{1}{2}$ inches center to center. The average weight, with Style B decks, is about 35 pounds.

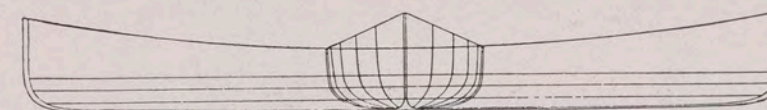
The VAUX, JR. canoe is built over the same moulds as the Vaux, but is one foot longer. The additional length increases the weight about four or five pounds and increases the carrying capacity somewhat.



These canoes are listed in Grade A only, although they can be built in Grade AA. They are usually carried in stock in Style B decks.

These canoes are for one-man paddling, but will carry two in quiet water. The flat floor makes them as safe as any craft and an addition to any one's boat house. It is sometimes used as a tender for a small launch. With Style D decking it makes an excellent single cruiser.

The Grade C of this model has been, heretofore, listed as the Bucktail in Grades B and C. As it happens these two boats are identical in lines, and we are listing them together. The Bucktail canoe, as you will note, we carry in stock with Style A decks only.



	Length	Grade	Style of Decking			
			A	B	C	D
Vaux	$10\frac{1}{2}$ ft.	A	\$42.00	\$44.00	\$52.00	\$57.00
Vaux	$10\frac{1}{2}$ ft.	C	31.50	-----	-----	-----
Vaux, Jr.	$11\frac{1}{2}$ ft.	A	46.00	48.00	56.00	61.00

FEATHER-WEIGHT CANOE—NESSMUK

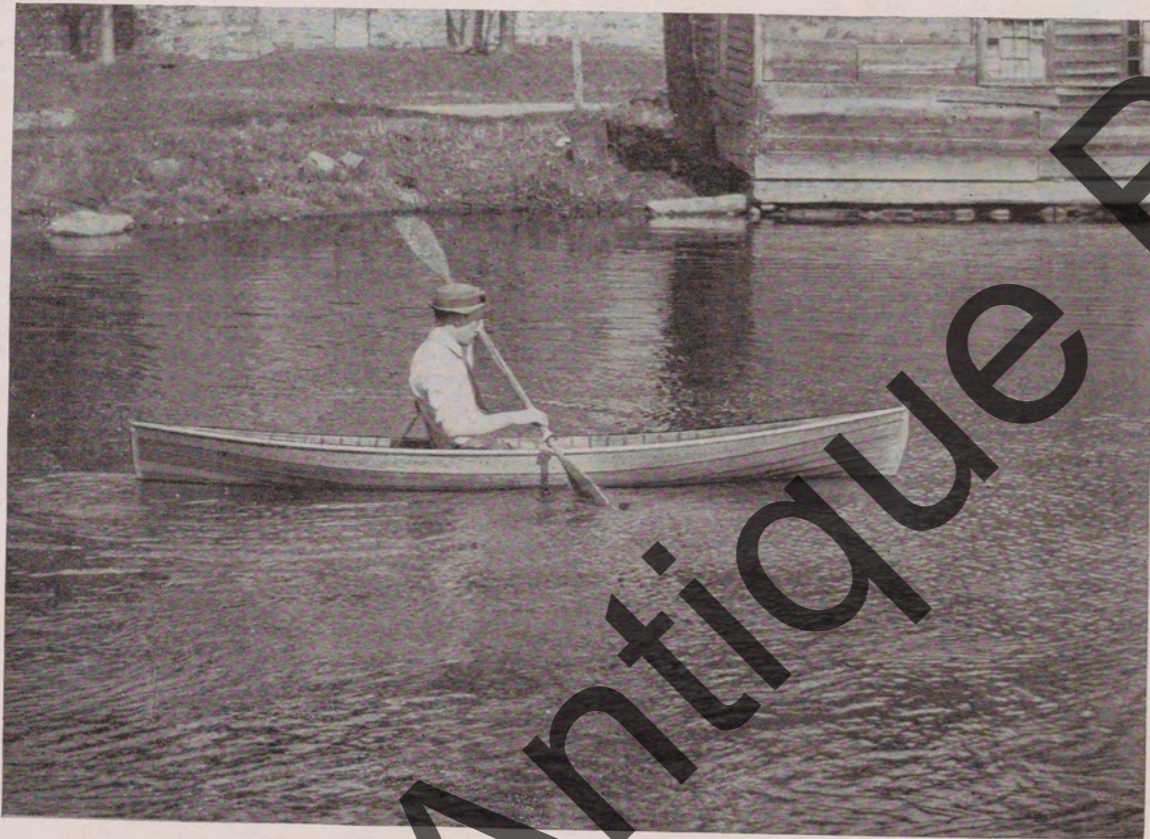


This feather-weight canoe is $10\frac{1}{2}$ feet long, 26 inches wide, about 14 inches deep at ends and 9 inches deep amidships. The planking is white cedar, $\frac{3}{16}$ inches thick. Ribs are spaced three inches, center to center. The canoe has no inwale, but a stiff spruce gunwale. Weight is about 22 pounds. It is very popular among those who want the lightest canoe that will carry them; and stand ordinary usage.

It is used for cruising through the woods, where the hunter has to carry his boat, his tent, and food for a week or more. Careful handling makes it as safe as a larger craft.

The equipment with this canoe is one folding seat and one double blade paddle with drip cups.

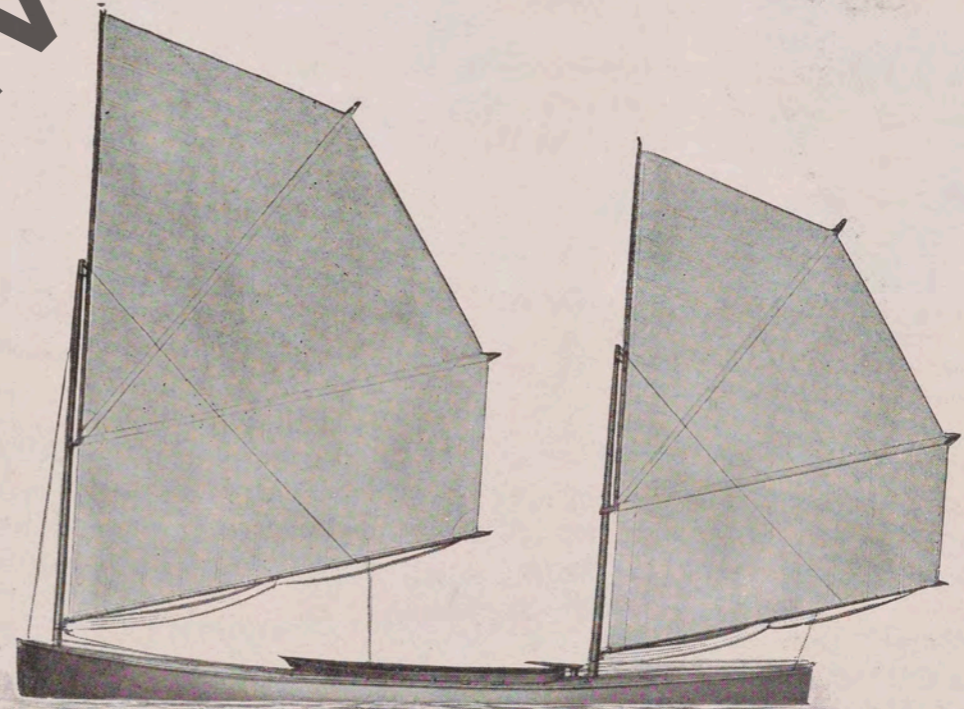
Price, \$30.00.



DECKED SAILING CANOES

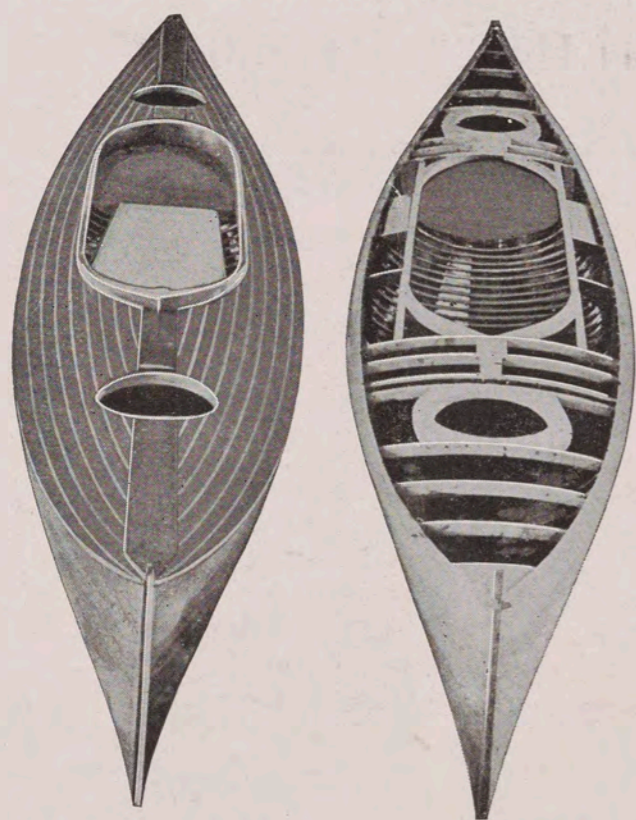
The several cuts in this part of the catalog show not only the finished canoes and their lines, but also the details of construction including timbering for the decks.

These canoes are very carefully constructed, no pains, time or expense being spared to make them perfect.



SAILING AND PADDLING CANOE NOMAD

"Hull of Ugo, 16 feet long, 30 inches beam, smooth white cedar. Strip deck of white cedar, as thin as is consistent with strength (about $\frac{1}{2}$ inch), brass nailed; mahogany battens and deck hatches; no cockpit hatches, cherry gunwales and coaming; gunwales broad (the same shape as regular Ugo);



coaming pointed forward (like Vesper); opening five feet six inches (5 ft. 6 in.) clear; after end flush with after bulkhead, constructed of light weight material. Hatch fastenings on sides instead of on center line, and to consist of two thumb-screws to engage in slots of brass straps to open toward the bow; pneumatic rings on hatches. Floor boards low and flat, jointed in center and held there by a small button, each end held under a batten made fast to bulkhead. Space between floor boards and deck to be eleven (11) inches. Forward compartment to be five (5) feet, after compartment four feet six inches (4 ft. 6 in.), space between bulkheads six feet six inches (6 ft. 6 in.). Painter eye or ring bolt in bow. Mast

tubes two inches (2 in.) inside diameter, with round mast plates; forward tube close to bow, after tube inside the compartment and close to after bulkhead. Ribs spaced three inches (3 in.) instead of two inches. One-fourth in ($\frac{1}{4}$ in.) hole through each knee (supporting coaming) for tie cords."

Brass stem bands and the usual oil and varnish finish completes the canoe.



Price of NOMAD model canoe as per description, including one pair mast plates and tubes, hatches for dry stowage compartments with clamps and packing, \$90.00.

A complete sailing outfit for either the NOMAD or VESPER canoe is, No. 1 Radix centerboard, drop rudder, 4 cleats, rigs No. 42 and 40 (106 sq. ft.); 9 ft. double blade paddle with drip cups; folding cushions of corduroy, hair filled; 30 in. sliding deck seat, and steering gear No. 61. Price, \$77.00.

CRUISING SAILING CANOE



Vesper Model—Length, 16 feet; beam, 30 inches; depth at bow, 19 inches; at center, 11 inches; at stern, 16 inches.

MATERIAL—Oak keel; hackmatack or spruce stem and stern post, natural crook; $\frac{1}{4}$ inch white cedar planking, except sheer streak; sheer streak, deck and hatches, mahogany; ribs, red elm; coaming, cherry; gunwales, oak or cherry; bulkheads and deck timbers, cedar; inside floor, basswood; all metal work, copper or brass; finish, oil and best spar varnish.

CONSTRUCTION—Smooth lap, clinch fastened hull, ribs spaced $2\frac{1}{2}$ inches, deck timbers spaced 6 inches; bulkheads $6\frac{1}{2}$ feet apart, cockpit about $5\frac{1}{2}$ feet as shown. Dry stowage fore and aft, with hatches, and mast tubes fore and aft as shown. Hatches fasten at sides with metal straps and thumb screws, with rubber tube ring packing between hatch and deck. No hatches over cockpit. Floor raised to be level with top of No. 1 Radix centerboard trunk. No air tanks, the dry stowage compartments serving instead. Air tanks and hatches for cockpit can be made for canoes built to order at an extra cost to purchaser of \$7.50 for air tanks and \$10.00 for hatches.

MEASUREMENTS—All lengths and beam, over all. All depths from base line, of level of lowest part of keelson, to top of gunwale.

This canoe is an excellent sailing craft and is capable of great speed in skillful hands.



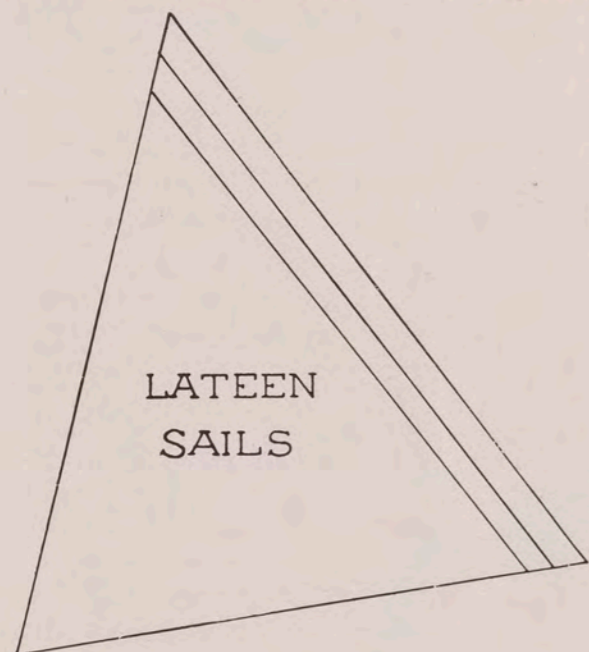
It is not built for a racing machine, but for a sailing cruiser. The cockpit is long enough to be slept in and there is ample stowage capacity under the forward and aft decks.

Price of VESPER model canoe as per description, including one pair mast plates and tubes, hatches for dry stowage compartments with clamps and packing, \$100.00. For price of outfit see page 24.

DESCRIPTION OF RIGS

LATEEN RIGS.

The LATEEN is a handy and effective rig in small sizes but on account of the long spars required, it is seldom made larger than 50 sq. ft. It is used occasionally as the mizzen on Combination Row and Sail Boats. It is very popular on open canoes, having been found the most effective and easiest to manage. This sail is rigged in two different manners, but the Style B rig is recommended where the sail is to be used on an open canoe.



LATEEN
SAILS

STYLE A—A very short mast with metal pin in top; a small ring lashed to the yard, about two-fifths the distance from connecting ring to peak, which hooks over the pin when sail is in position. A single jaw (No. 24) is attached to side of boom, a few inches aft of connecting ring, which engages the mast and holds the sail in position. The sheet rope completes the rig.

STYLE B—Has mast headgear (No. 11), foot gear (No. 12), boom fastener (No. 16), and hoists with a halliard.

Number	Length on Boom	Length on Yard	Length on Leach	Area, Sq. Feet	Price of Sail Only	Price of Rig Style A	Price of Rig Style B
1	5 ft. 1½ in.	5 ft. 9 in.	6 ft. 0 in.	13	\$1.60	\$5.35	\$ 8.85
2	5 ft. 10½ in.	6 ft. 6 in.	6 ft. 10 in.	17	2.10	6.00	9.00
3	6 ft. 9 in.	7 ft. 8 in.	7 ft. 10 in.	23	2.65	6.85	10.40
4	7 ft. 7 in.	8 ft. 6 in.	9 ft. 0 in.	30	3.20	7.85	11.30
5	8 ft. 3 in.	9 ft. 3 in.	9 ft. 6 in.	35	3.60	8.85	12.40
6	9 ft. 3 in.	10 ft. 6 in.	11 ft. 0 in.	45	4.50	10.25	14.00

LEG O' MUTTON.

The Leg o' Mutton or Mutton Leg rig is a very old one, and though not so much used as formerly, is still a favorite with many, the only objection to it being that it requires a very long mast for the area. This sail will be rigged in three ways—Call them A, B and C.

STYLE A—Sail lashed to mast, and sheet rope fastened to the clew.

STYLE B—Sail lashed to the mast and boom; boom connected to mast by boom fastener (No. 17); sheet rope.

STYLE C—Sheave in head of mast; mast rings; boom fastener (No. 17); sail hoists with halliard. Reef points on Style C only, to order.

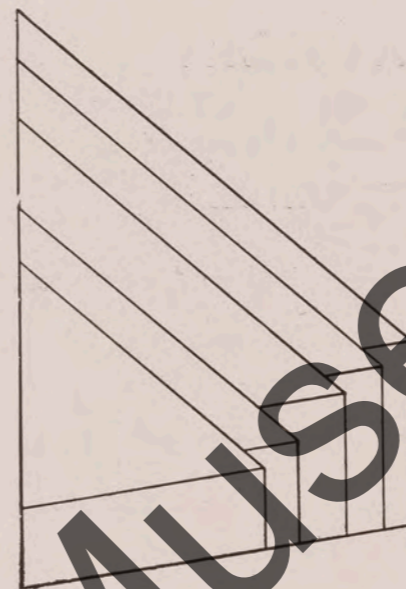
Number	Length on Boom	Length on Mast	Length on Leach	Area, Sq. Feet	Price of Sail Only	Price of Rig Style A	Price of Rig Style B	Price of Rig Style C
7	4 ft. 5¾ in.	6 ft. 8¾ in.	7 ft. 5¾ in.	15	\$1.80	\$4.00	\$6.00	\$8.40
8	5 ft. 2 in.	7 ft. 9 in.	8 ft. 5 in.	20	2.40	4.90	6.90	9.30
9	5 ft. 9¼ in.	8 ft. 7¾ in.	9 ft. 5 in.	25	3.00	5.75	7.75	10.15
10	6 ft. 10 in.	10 ft. 3 in.	11 ft. 8 in.	35	3.60	6.60	8.25	11.00
11	8 ft. 2 in.	12 ft. 3 in.	13 ft. 8 in.	50	4.80	7.80	10.05	13.05

DESCRIPTION OF RIGS

THE BAILEY RIG.

We have so called it because we first made it to drawings furnished by Mr. Reade W. Bailey. It is a decidedly popular rig among racers. By using our double head and spar gear, with double halliards, we bring the yard perpendicular against the mast. The sail sets very smoothly, and the center of effort being low down, it is very effective. No. 38 and 39 have two battens. Reefs at lower batten unless otherwise ordered.

Spar Gear No. 13, Head Gear No. 14, Foot Gear No. 15, with a double block on plate attached to the deck forward of mast are used on this rig. All spars and battens are of equal length.



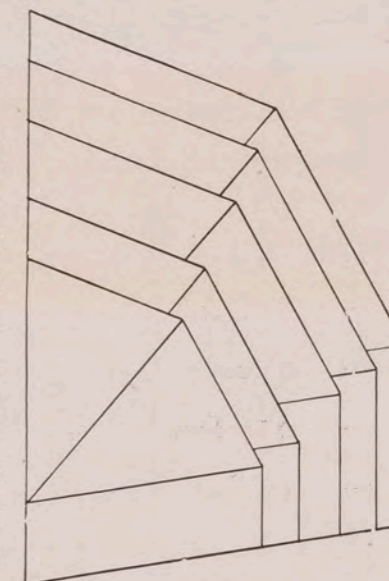
Number	Dimensions on Spars	Area	Price, Sail Only	Price Complete Double Halliard	Price Complete Single Halliard
35	6 ft. 0 in.	30	\$3.60	\$15.80	\$12.40
36	6 ft. 10 in.	40	4.50	16.85	14.60
37	8 ft. 0 in.	60	6.00	18.20	15.90
38	8 ft. 11 in.	75	7.80	21.00	17.15
39	9 ft. 8 in.	90	9.00	22.75	19.50

IMPROVED BAILEY RIG

This is like the Bailey Rigs No. 35-39, except in the shape of the leach between batten and peak, and the use of another batten as shown. This change of shape increases the area on the same length of spars. It is, without doubt, the most effective and popular sail in use at the present date. This sail measures the same on all spars and battens. (See also cut of Vesper, page 23).

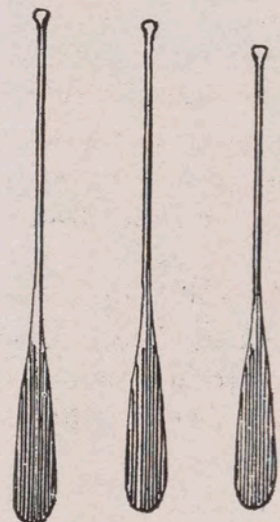
The single halliard Bailey and Improved Bailey Rigs are identical with the double halliard rigs of the same name and size except as to mast head and spar gears. In place of the head gear the sheave in mast head is used, and the halliard is lashed to the yard, replacing the spar gear.

The sail is also cut a trifle along the head to allow the yard to sag from the mast as is unavoidable with a single halliard.



Number	Dimensions on Spars	Area	Price, Sail Only	Price, Complete Double Halliard	Price, Complete Single Halliard
40	6 ft. 0 in.	36	\$4.20	\$16.85	\$13.35
41	6 ft. 10 in.	47	5.10	18.00	14.75
42	8 ft. 0 in.	70	6.90	21.00	17.65
43	8 ft. 11 in.	87	9.00	23.85	20.60
44	9 ft. 8 in.	103	10.80	26.20	22.90

DESCRIPTION OF PADDLES



SINGLE BLADE PADDLES

Hand made from choice maple, oiled and varnished.
Very fine.

Length 4 1/2, 4 3/4, 5, 5 1/4, 5 1/2 ft., Price, each, \$1.50

Length, 5 3/4, 6 ft. Price, each, 1.75

Other lengths or special patterns made to order at proper advance for special work.

DOUBLE BLADE PADDLES

Made from clear spruce, friction joint, copper machine locked tips, oiled and varnished, without drip cups.

Length, 7, 7 1/2, 8 ft.	-	Price, each, \$3.25
" 8 1/2 feet	- -	" " 3.50
" 9 feet	- - -	" " 3.75
" 9 1/2 feet	- - -	" " 4.00
" 10 feet	- - -	" " 4.50

Square point double blades, made to order 25 cents extra. Spoon blades, square pointed, 75 cents extra.

RUBBER DRIP CUPS

For Double Blade Paddles, per pair - \$.75



DESCRIPTION OF OARS

SPRUCE OARS, SPOON BLADE

	Per Pair
7 ft., copper tipped and varnished	- \$3.50
7 1/2 ft., " " "	- 3.75
8 ft., " " "	- 4.00
8 1/2 ft., " " "	- 4.25
9 ft., " " "	- 4.50

Leathered, per pair, extra, \$.50.

The spoon oars are hand made from the very best of stock, and finely finished, oiled, varnished and copper tipped.

SPRUCE OARS, STRAIGHT BLADE

	Per Pair
7 ft., copper tipped and varnished	- \$2.00
7 1/2 & 8 ft., copper tipped and varnished	2.25
8 1/2 & 9 ft., " " "	2.50

Leathered, extra, per pair, \$.50.

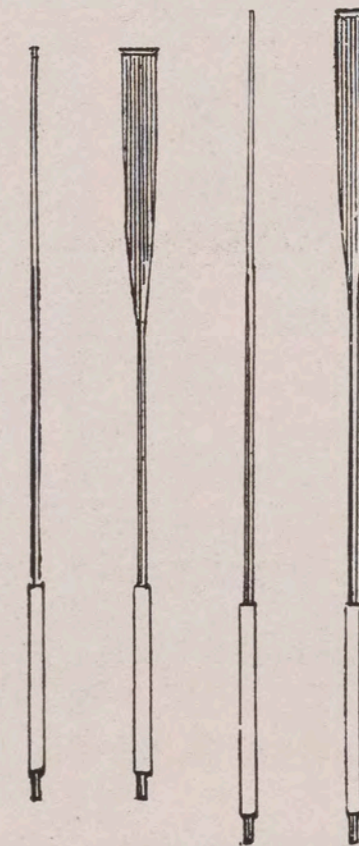


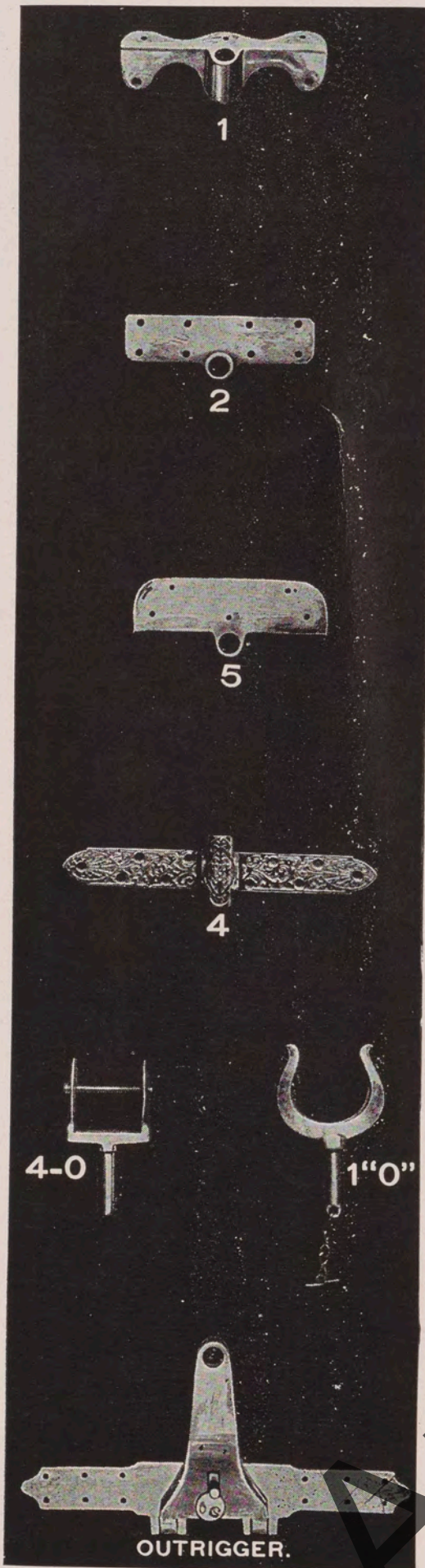
SPRUCE OARS, STRAIGHT BLADE SQUARE LOOM

	Per Pair
7 ft., copper tipped and varnished	- \$2.50
7 1/2 & 8 ft., copper tipped and varnished	2.75
8 1/2 & 9 ft., " " "	3.00

MAPLE OARS, STRAIGHT BLADE, SQUARE LOOM

	Per Pair
7 1/2 feet, varnished	- - - \$3.25
8 " " " " "	- - - 3.50
8 1/2 " " " " "	- - - 3.75
9 " " " " "	- - - 4.00





ROWLOCKS

These fittings are made of cast brass highly polished.

All pins 9-16 in. in diameter.

Please order by catalog number.

The part that goes on the boat is called the SOCKET; the other part, the OARLOCK; together, the ROWLOCK.

PRICE LIST.

Socket No.	SOCKET ONLY		WITH NO. 1 OARLOCKS	
	Nickel Plated	Polished Brass	Nickel Plated	Polished Brass
1	\$1.40	\$1.30	\$2.75	\$2.50
2	1.40	1.30	2.75	2.50
4	1.40	1.30	2.75	2.50
5	1.40	1.30	2.75	2.50
Outrig'er	4.60	4.30	6.00	5.50

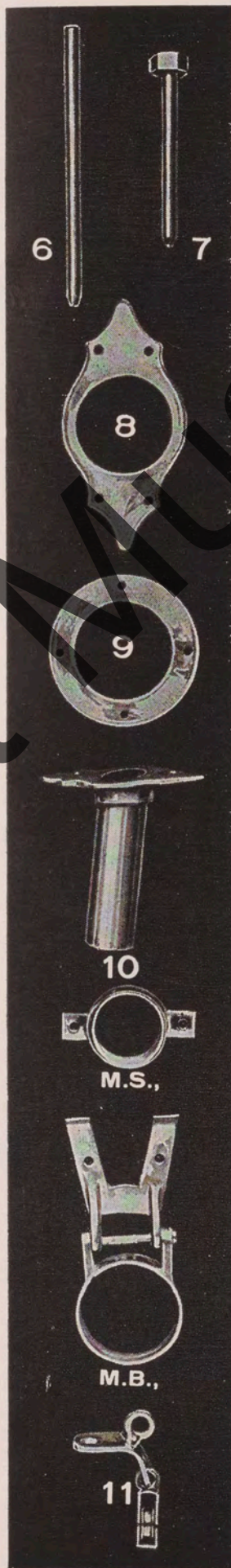
No. 4 Oarlocks, 25c. per pair extra.

No. 4 Oarlocks { \$1.65 per pair Nickel Plated.
Only { 1.55 " " Polished Brass.

No. 1 Oarlocks { \$1.40 per pair Nickel Plated.
Only { 1.30 " " Polished Brass.

No. 4 Oarlocks carried in stock for 1½, 1¾ or 2 in. oars. When ordering be sure to state which size you want.

The above fittings carried in stock.



CANOE FITTINGS

Mast Pin (No. 6).....\$.25

" " (No. 7)..... .30

Mast Plate (No. 8)..... .35

" " (No. 9)..... .30

This is for 2 in. stick. Other sizes, 1½ to 4 in., can be furnished.

Flag Tubes (No. 10).....\$.75

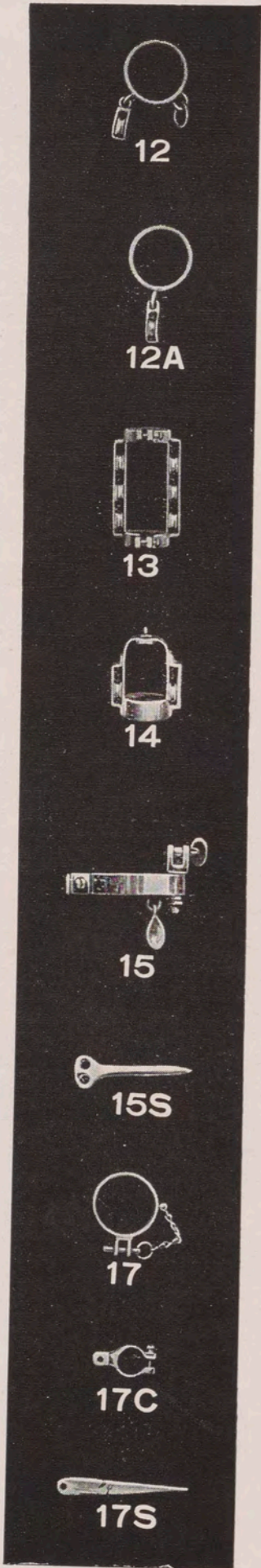
Mast Step (No. MS)..... .50

Mast Band (No. MB)..... 1.00

These two fittings in Polished Brass only. Used for stepping sails in open canoe.

Mast Head Gear (No. 11)..... \$.75

All fittings (except MS and MB) regularly carried in stock in nickle plated brass. Polished brass can be furnished at same price.

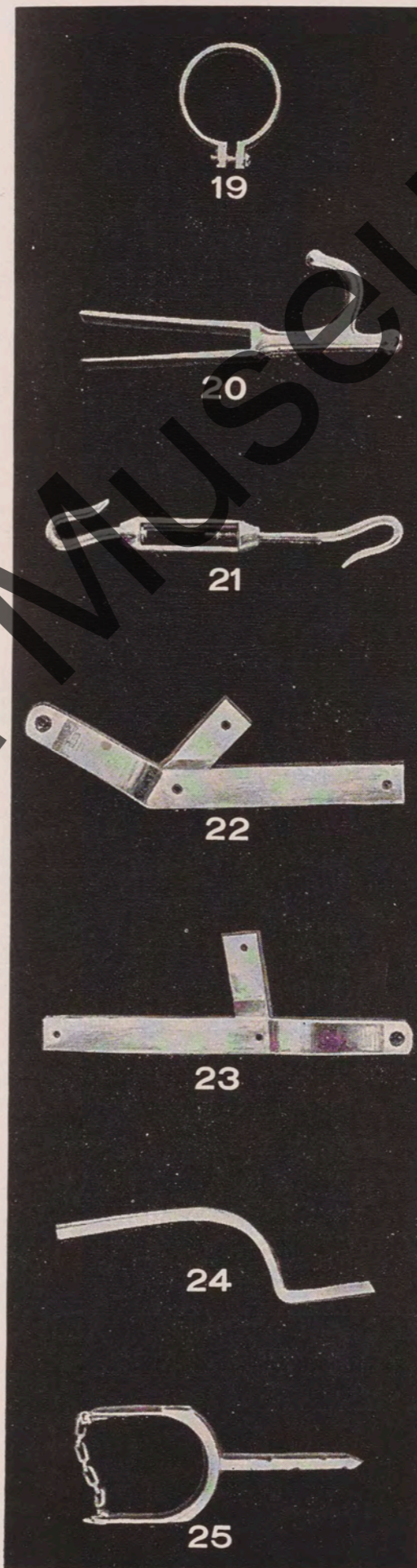


CANOE FITTINGS

Mast Foot Gear [No. 12 or 12A].....	\$.75
Spar Gear [No. 13] for 1, 1½, 1¼, 1¾ or 1½ stick.....	2.75
Mast Head Gear [No. 14].....	2.00
Mast Foot Gear [No. 15].....	2.60
Spike, only for No. 15 [No 15S].....	.25
Mast Foot Gear [No. 17]	
Complete with No. 17C.....	.75
" " No. 17S.....	.60

At prices quoted Mast Foot Gear in 2 in. size only.
Other sizes from 1½ in. to 4 in. can be furnished.

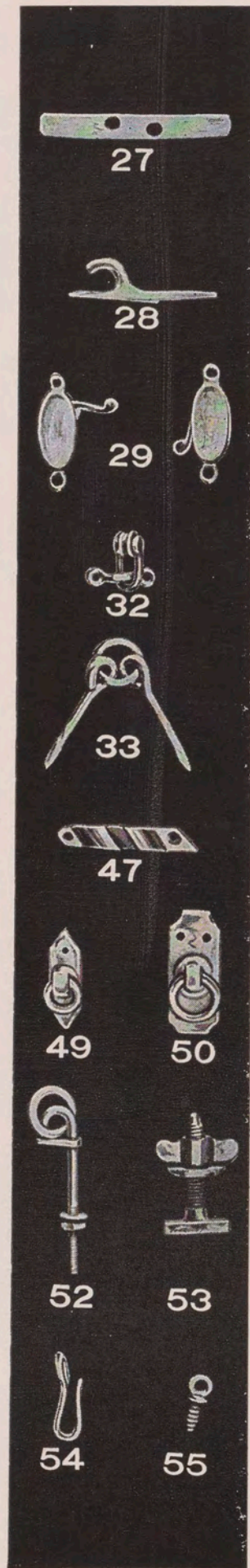
All fittings regularly carried in stock in nickel plated
brass. Polished brass can be furnished at same price.



CANOE FITTINGS

Mast Clamps [No. 19] 2 in. size per set of 3.....	\$.90
Other sizes to order.	
Boat Hook, Improved Pattern [No. 20], Metal Head only.....	1.00
Complete with 8-foot pole.....	1.50
Turnbuckles [No. 21] per pair ...	1.25
Double Jaws, [Nos. 22 or 23] 2 in. size, per pair.....	1.20
Other sizes to order.	
Single (Lateen) Jaw [No. 24] 2 in. size .....	.40
Double Jaws [No. 25] 2 in. size... ..	.75
Other sizes to order.	

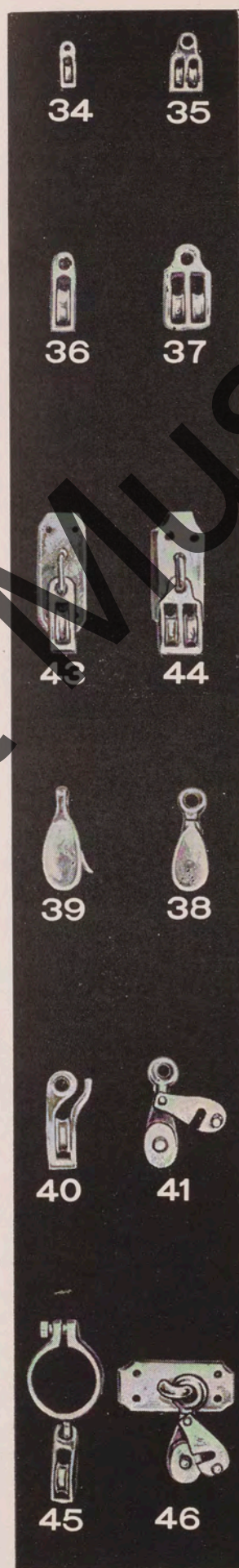
All fittings regularly carried in stock in
nickel plated brass. Polished brass
can be furnished at same price.



CANOE FITTINGS

Cleats, Jam [No. 27]	
2 in.....	\$.12
3 in.....	.20
4 in.....	.30
5 in.....	.40
Cleats, Butler, [No. 28]..... .30	
Cleats, Clutch [No. 29] per pair..... .70	
Dandy Fairleaders [No. 32]..... .30	
Connecting Rings [No. 33]..... .30	
Chocks—Straight and Beveled [No. 47]	
Canoe size, about 3 in., either style, per pair	.80
Large size, about 4½ in., “ “	1.20
Sheet Rings, small [No. 49]..... .40	
Sheet Rings, large [No. 50]..... .50	
Ring Bolts, for rowboats [No. 52]..... .35	
Tee Bolts, for foot braces [No. 53]..... .50	
Spring Hooks, small [No. 54]..... .10	
“ “ large “	.12
Screw Eyes, Cast Brass [No. 55]..... .10	

All fittings regularly carried in stock in nickel plated brass. Polished brass can be furnished at same price.



BLOCKS

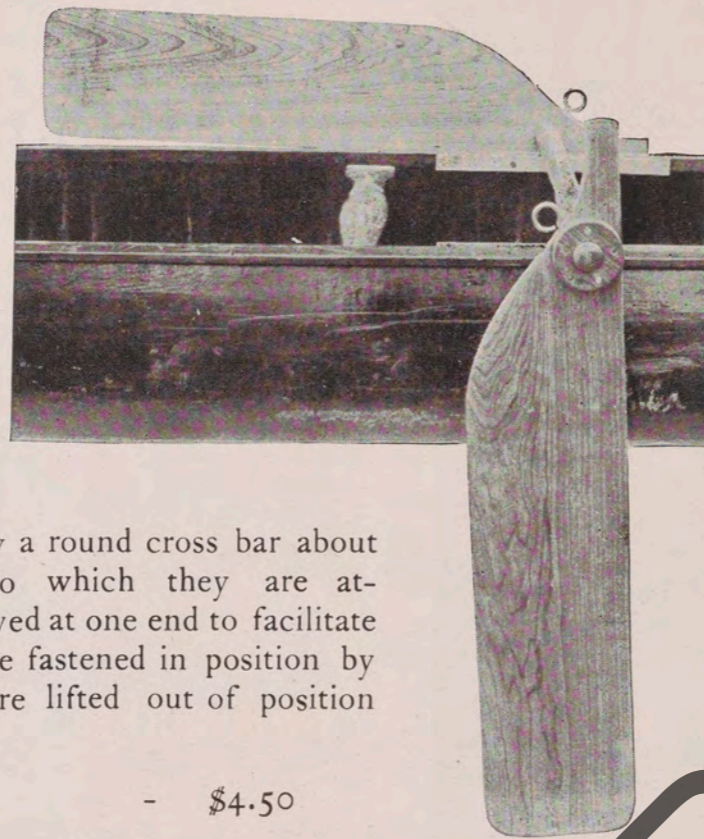
STYLE	PRICE
34-35 Reef or 1/8 inch rope, Single	\$.20
“ “ “ “ “ Double .....	.35
36-37 Regular Rigging 1/4 inch Rope, Single .....	.30
“ “ “ “ “ Double .....	.40
“ “ “ “ 3/8 inch Rope, Single .....	.35
“ “ “ “ “ Double .....	.50
“ “ “ “ 1/2 inch Rope, Single .....	.50
“ “ “ “ “ Double .....	.80
38 Swivel, add to price of 36-37. Single .....	.10
“ “ “ “ “ Double .....	.15
39 Cam Blocks, 1/4 inch Rope, Single .....	.50
40 Snatch Blocks, 1/4 inch or 3/8 inch Rope .....	.40
41 “ “ “ “ “ Single .....	.75
“ “ “ “ “ Double	1.00
43-44 Blocks on Plate, like 36-37, 1/4 inch Rope, Single ..	.80
“ “ “ “ “ “ “ Double ..	1.10
“ “ “ “ “ 38, 1/4 inch Rope, Single ..	.90
“ “ “ “ “ “ “ Double ..	1.20
45 Block on Clamp—any block shown can be put on clamp, extra cost for 1 1/4 and 1 1/2 in. Clamp	1.00
45 For 1 3/4 and 2 inch Clamp, Single or Double	1.25

Special sizes or combinations made to order.
(Nickel Plated only in stock).

LEE-BOARDS, LETTERS, ETC.

Owing to the increased popularity of the Open Sailing Canoes, we have had frequent calls for fittings suitable to equip them. The Lee-boards and mast fastenings have been given careful and severe tests and have been found satisfactory in every respect. They are not experiments but the result of careful thought.

The cut herewith illustrates the *Rushton* Lee-boards attached by chocks to the thwart of a Grade A canvas covered canoe. The Lee-boards are made of cherry $\frac{3}{4}$ in. thick. The blades are about 38 in. long by 8 in. wide at the widest point. The forward edges are straight except at the point where they meet the aft edge.



The blades are connected by a round cross bar about $1\frac{1}{2}$ inches in diameter, to which they are attached by means of pins curved at one end to facilitate withdrawal. The boards are fastened in position by lashing to the thwart, and are lifted out of position by the hand.

Price, without chocks - \$4.50

CAST BRASS, POLISHED AND NICKEL PLATED LETTERS

NICKEL PLATED		POLISHED BRASS	
1 inch, each	-.10	1 inch, each,	.10
1 $\frac{1}{4}$ " " - -	.12	1 $\frac{1}{4}$ " " - -	.12
1 $\frac{1}{2}$ " " - -	.14	1 $\frac{1}{2}$ " " - -	.14
2 " " - -	.16	2 " " - -	.16
2 $\frac{1}{2}$ " " - -	.20	2 $\frac{1}{2}$ " " - -	.20
3 " " - -	.35	3 " " - -	.35

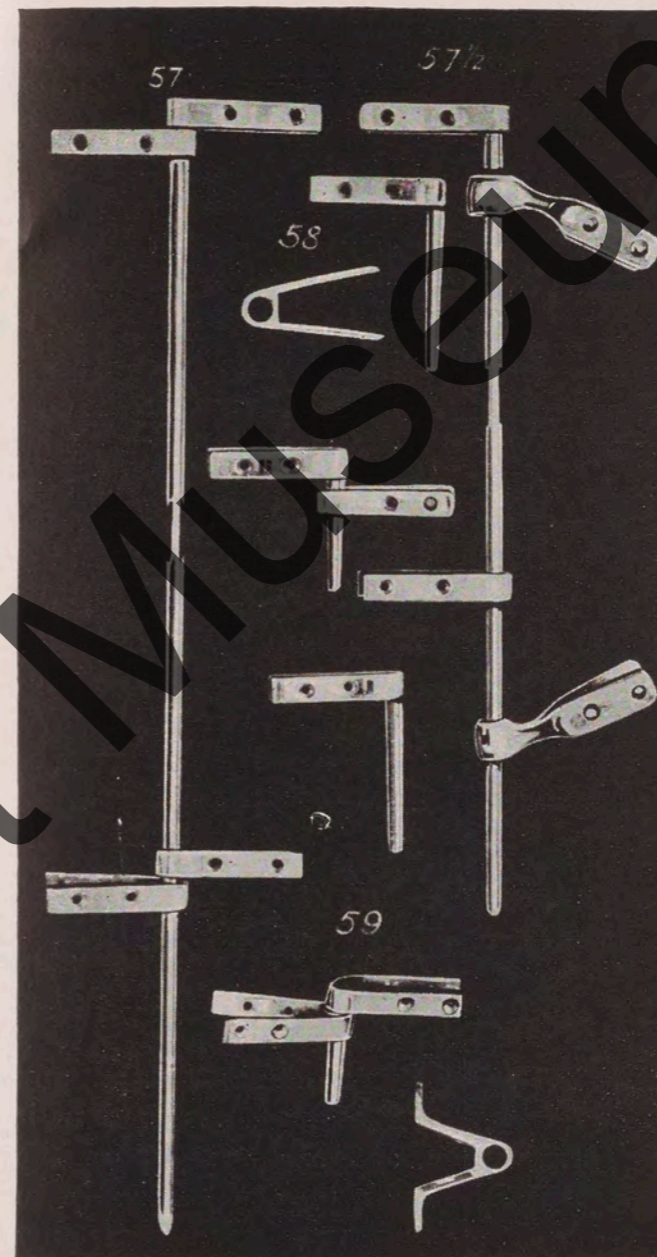
The prices of letters include screws.

Stock—We only carry in stock the nickel plated letters in 1, $1\frac{1}{4}$ and $1\frac{1}{2}$ inches. Other sizes furnished promptly.

HATCH FASTENINGS

Hatch fastenings for dry stowage	\$1.50
RUBBER PACKING for hatch	1.00

RUDDER BRACES



Style No. 57

This style is used on the best grade of boats. It is the best rudder brace known. Its design is such that the rudder cannot be removed from the boat until it is raised so that the lower end of the rod clears the lower brace, and the rudder is turned at right angles to the keel of boat. There is a slot in the upper brace through which the other portion of the rod passes.

Style No. 57 $\frac{1}{2}$

Is adapted from the regular Style No. 57. The braces shown are designed for the INDIAN GIRL canoe. The same style is also furnished with the curved braces, a trifle different shape to adapt them to the curve of the stern post on the Canadian canoe. When ordering this style of brace be sure to specify the type of canoe you have.

Style No. 58

Is the regular rudder brace such as is used on the ordinary row-boats and canoes.

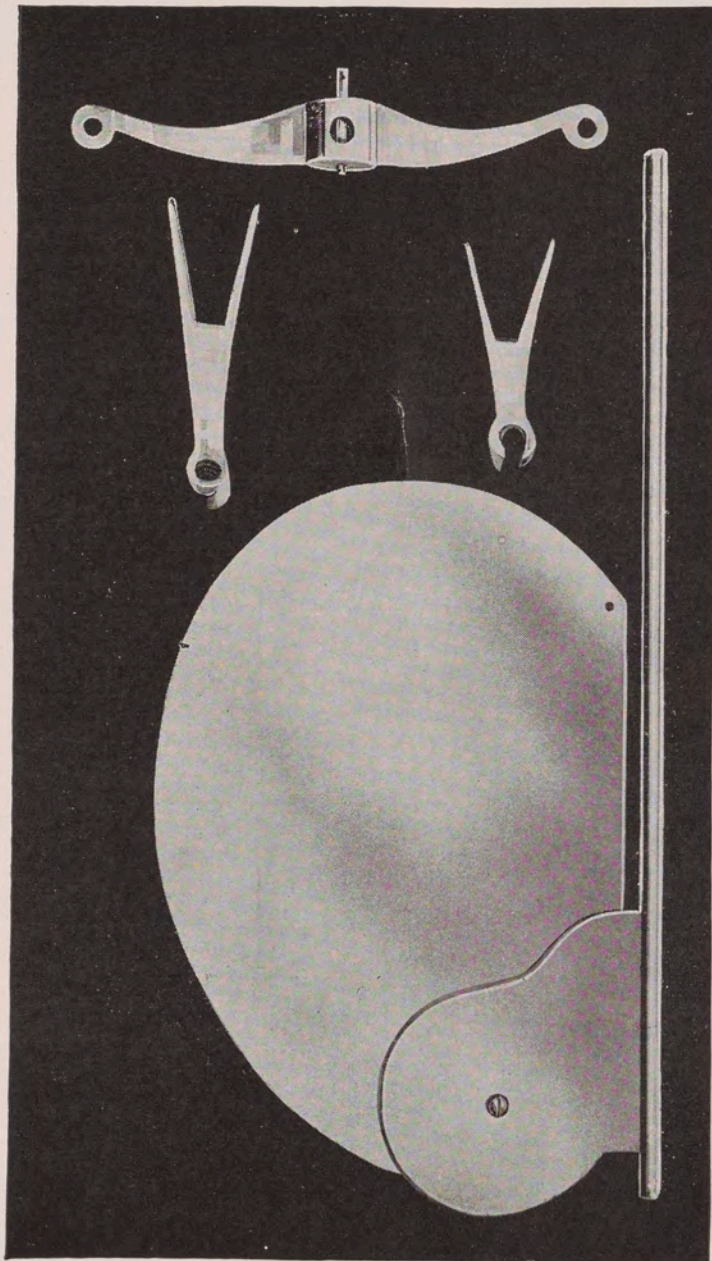
Style No. 59

Is adapted from Style No. 58 and is the same, except one part of casting is "V" shaped to fasten to transom to fit over stern stem.

PRICE LIST

No. 57 Polished Brass or Nickel Plated	\$1.50
No. 57 $\frac{1}{2}$ Polished Brass or Nickel Plated	\$1.50
No. 58 or 59 Polished Brass	\$.90
No. 58 or 59 Nickel Plated	\$.80

METAL AND WOOD RUDDERS



DROP RUDDERS

MATERIAL—Hard brass, nickel plated.

CONSTRUCTION — The post is a $\frac{7}{16}$ inch rod, slotted for a distance of about 5 inches near one end to receive a plate $\frac{1}{12}$ inch thick. This plate is riveted securely in the post and projects about a $\frac{1}{4}$ in. at one side. To this projecting part are riveted the cheek pieces $\frac{1}{16}$ inch in thickness. The blade, or drop part, is pivoted between the cheek pieces as shown.

The usual yoke may be used or a 4-inch wheel with a concave rim. Either is fastened to the post by a taper pin.

ATTACHMENT TO THE CANOE—If the canoe has a straight stern post a tube of suitable size and strength is fastened to it and is cut away on the after side sufficiently to allow all necessary swing of the rudder. If for a canoe with a curved stern

post, special curved braces are required. Price, \$1.50. In construction it seems very strong and simple. Price, with yoke, \$8.00; with wheel, \$8.50.

The sample rudder was furnished by Mr. Perry D. Frazer, of the K. C. C., of New York.

WOOD RUDDERS

Size for row boats and canoes, including braces and cross heads.

Cherry or Maple, with No. 57 braces - - - - - \$2.50
 Cherry or Maple with Nos. 58 or 59 braces - - - - - 2.00
 Spruce, natural crook, according to size and braces - \$2.50 to \$5.00

DECK STEERING GEAR

DECK STEERING GEAR, No. 60

Fitted with oak or maple stick.

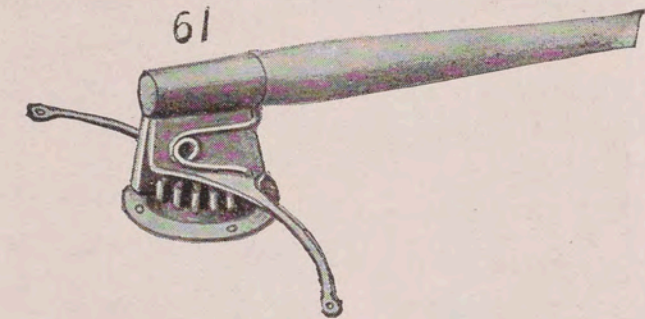


Gear and handle only - - - - - \$3.25
 Including Safety Chain, Hooks and Tighteners - - - - - 5.50

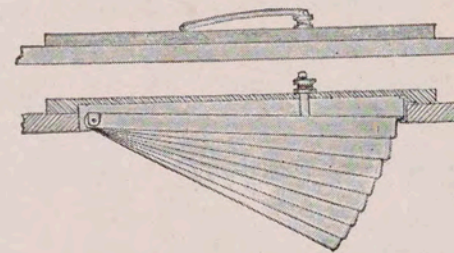
SELF-LOCKING DECK STEERING GEAR, No. 61.

PATENTED

The spring locks, and the natural pressure of the hand upon the end of the tiller releases, when it can be turned as freely as the other gear.



Gear and handle only - - - - - \$5.50
 Including Safety Chain, Hooks and Tighteners - - - - - 7.75



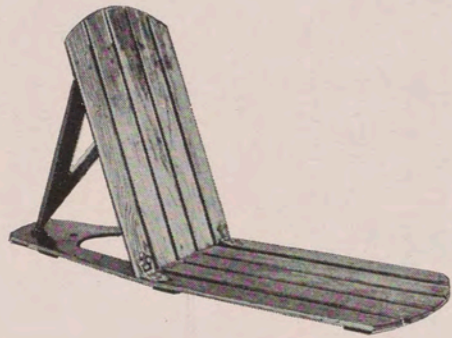
FOLDING CENTERBOARD RADIX PATENT FOLDING CENTERBOARD

CENTERBOARD PRICE LIST

Size	Weight	Area	Width of Slot	Price
15 x 30 in.	9 lbs.	1 $\frac{5}{8}$ sq. ft.	1 $\frac{5}{16}$ req'd in keel	\$13.25
18 x 36 in.	12 lbs.	2 $\frac{1}{4}$ sq. ft.	1 $\frac{5}{16}$ " "	16.25
24 x 37 in.	15 lbs.	4 sq. ft.	1 $\frac{1}{4}$ " "	21.25

FOLDING SEATS, BACKS, ETC.

Folding seats are made in three grades of construction--two styles as shown.



Style BS is made of butternut strips carefully shaped, clinch fastened, with brass hinges. This is a very substantial seat.

Style CS is the same pattern, but made of cherry strips, screwed together with brass screws.

Style CC is shown in the second cut. It has a heavy, substantial cherry frame, all joints dowelled and glued; hand-caned.

All seats are carefully oiled, shellaced, and varnished before being sent out.



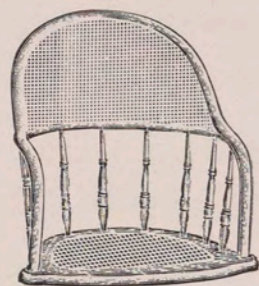
Style BS	- - - - -	\$1.50
Style CS	- - - - -	2.50
Style CC	- - - - -	4.00

BACKS ONLY.

Price BSB, construction BS back only (both ends of back curved to fit bottom of canoe)	- - - - -	\$.75
CSB, same construction as seat CS	- - - - -	1.25

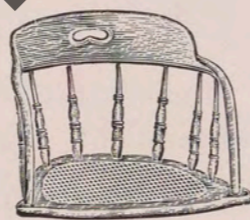
CHAIR SEATS.

Made of carefully finished oak, cane inserts as shown.



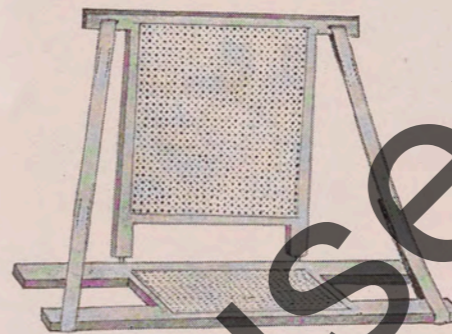
No. 1

Style No. 1	- - - - -	\$4.00
Style No. 2	- - - - -	3.00



No. 2

BOAT SEATS AND BACKS, CUSHIONS AND FOOT BRACES.



Seats for canoes	- - -	\$1.50
Seats for row boats	- - -	1.75

These prices are for hand-made doweled frames, ash or cherry to match boat or canoe; hand caned. Price includes fitting to boat when ordered with boat.

Backs only as shown, width 10, 12 and 14 inches	- - -	\$1.25
Taper, for stern seat	- - - - -	1.25
Straps only, russet leather with buckle	- - -	1.75
Hinges only, nickel-plated or polished brass	- - -	.75

CUSHIONS.

Gray Corduroy, stuffed with best curled hair.

Folding cushions, each part 12 x 15 inches	- - -	\$4.00
Single cushions, 12 x 15 inches	- - - - -	2.00

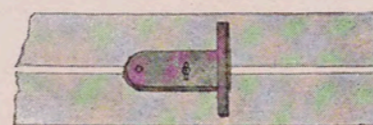
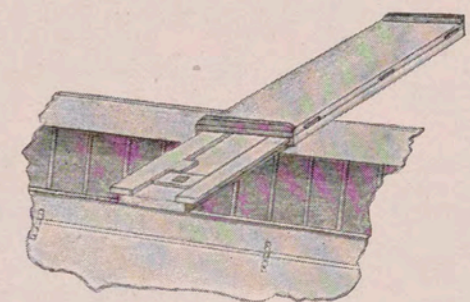
Special sizes and shapes to order.

All cushions made two inches thick and reversible, unless otherwise ordered.

SLIDING DECK SEAT

30 inches for sailing canoes - \$5.25

The base of the seat rests on the coaming and is held firmly in place by a clamp underneath, held by two nickel plated brass bolts with thumb nuts.



FOOT BRACES

Including brass T bolt	-	\$1.00
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SUNDRY FITTINGS

AIR TANKS

Our Air Tanks are separable air compartments, are made of very thin sheet copper over a light frame work of wood. Each pair is made to fit the individual boat for which it is intended. We do not guarantee to fit except when the tanks are fitted to the boat.

For canoes under 31 inch beam per pair	-	-	\$ 7.50
For boats 32 to 36 " " "	-	-	8.00
" " 37 to 42 " " "	-	-	8.50
" " 43 to 48 " " "	-	-	10.00
" " 49 to 54 " " "	-	-	12.00
" " 55 to 60 " " "	-	-	14.00

For Square Stern boats add 25 per cent to above prices.

AWNINGS, CARPETS, CANVAS, ETC.

Awning tubes and plates, per pair	-	-	\$4.00
Awning, with cross sticks and poles, per foot length of boat	-	-	1.25

All awnings are made 6 feet shorter than the boat with which they are to go unless ordered otherwise.

Carpet, Body Brussels	-	-	Price on application
Canvas, painted for floor instead of carpet	-	-	Per running foot, 50c.

Note—This price includes cutting to shape of floor, binding ends and painting.

BANG IRONS OR STEM BANDS

Are made from sheet brass about $\frac{1}{8}$ inch thick. They are one inch wide at keel, tapering to the width of stem at the deck. They are furnished in brass only, both nickel plated and buffed.

Nickeled, 30, 38 and 42 inches, each	-	-	\$1.00
Polished, 30, 38 and 42 inches, each	-	-	.90
Polished, 19 inches, each	-	-	.45

Special sizes or patterns extra.

CARRYING YOKES

These Yokes are hand made from a solid block of basswood or white wood and are for use with a canoe or light skiff. For illustration see page 15.

Price for yoke only	-	-	\$2.50
Price, including chocks to screw to inwales of boat or canoe	-	-	3.00

FERRULES

$\frac{3}{8}$ to $\frac{7}{8}$ inch, nickel plated	-	-	-	-	\$.06
1 to $1\frac{1}{2}$ inch, " "	-	-	-	-	.10
$1\frac{3}{4}$ to $2\frac{1}{2}$ inch, " "	-	-	-	-	.15

FRICTION JOINTS

For Spars, Masts, Paddles, Etc.

Length over all 6 inches. Outside diameters given.

$\frac{3}{4}$, $\frac{7}{8}$, $1-\frac{1}{8}$ and $1-\frac{1}{16}$ inches	-	-	-	-	\$.30
$1-\frac{1}{4}$ and $1-\frac{3}{16}$ inches	-	-	-	-	.50
$1-\frac{3}{8}$ and $1-\frac{1}{2}$ inches	-	-	-	-	.60

Note—Sizes marked (†) are for double blade spruce paddles.

METAL RAILING

Nickel plated brass, per set	-	-	-	-	\$16.00
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A set consists of 16 stanchions about 3 inches high and 4 pieces of tubing, each $\frac{3}{8}$ x 48 inches, with ornamental button on each end of tubing.

RINGS—SOLID CAST BRASS, NICKEL PLATED

We carry in stock or can obtain on short notice $\frac{1}{2}$ inch to $4\frac{1}{2}$ inch inside diameter. Price on application.

SAFETY CHAIN

Either buffed or nickel plated, for use with steering gear, price per ft., \$.10

SEAT BRACES

Brass, fancy pattern, nickel plated, each	-	-	-	-	\$.35
Brass, nickeled, each	-	-	-	-	.25
Brass, polished, each	-	-	-	-	.20
Galvanized Iron, each	-	-	-	-	.10

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