Sailing Canoes

A Brief History

together with an outline of

Types, Classes, Designs
Specifications and Rules

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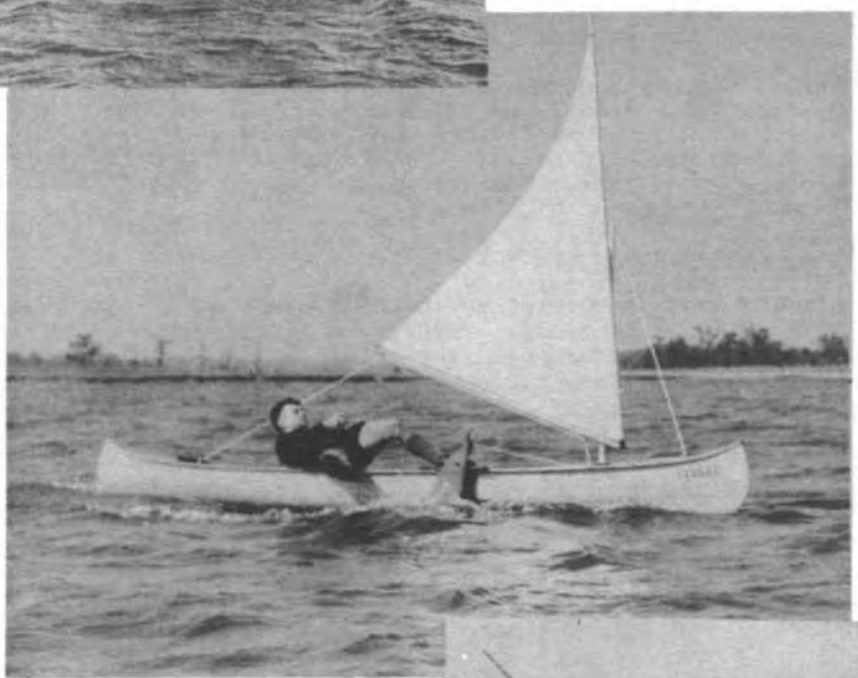


Sailing canoes in action. The three types of sailing canoes recognized by the American Canoe Association. At top, Decked; in center, Open Cruising; at bottom, Canvas

HISTORY

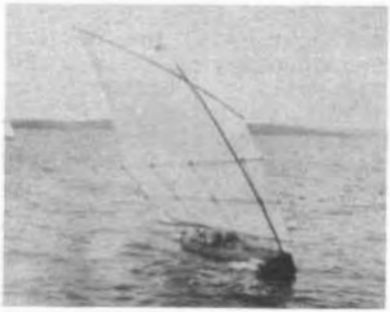
Canoe sailing has undoubtedly been practiced ever since the conception of the original canoe by the aborigines.

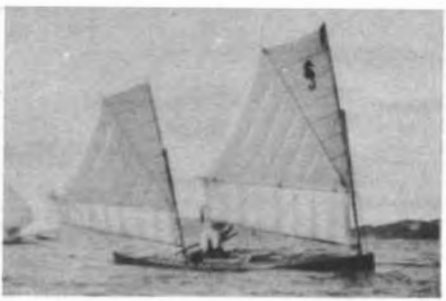
The first canoe was developed from the floating log, burned out or hollowed out by crude tools, and sharpened at both ends. Then frames were covered with skin and tree bark, leading to the better types of easy riding kayaks of the Eskimo and the beautiful light weight birch-bark canoes of the Indians. Finally came the modern canvas covered canoe and the wooden canoe built of cedar, basswood or mahogany.

Sails, too, have developed from skin, bark and woven reeds; followed later by crude square sail and lug rigs made from Hudson Bay "Point" blankets, ponchos, and odd pieces of cast-off canvas. But today we find a light, closely woven sail cloth accurately cut to well fitting lateen, jib-headed and sloop rigs.

The open wooden canoe was developed by Stevenson of Peterborough, Canada, about 1856. This was a thin planked craft very similar to the present modern Canadian type of cruising canoe. These were first sailed about 1898 and have always been recognized and fostered by the American Canoe Association. Because of the desire to have the sail merely as an auxiliary, a simple lateen sail that is readily raised, lowered and stowed has been generally used. During the past five years a few experiments have been made in sails, spar and rig by the use of curved masts, flat booms and a change in sail shape, but the lateen rig still predominates. Leeboards are used, sometimes folding but always readily adjustable and removable. All steering is done by paddle. Thus the canoe is not spoiled for all-round use such as pleasure paddling and cruising purposes. These canoes are almost entirely stock models and the better types are still built at Peterborough, Canada.

The open canvas canoe was first built in Maine in the early nineties. It was merely an advancement in substituting painted or varnished canvas for birch bark. These canoes were seldom regularly sailed in competition until a very few years ago when the sport was advanced and organized in 1931 by the Associated Canoe Clubs of Sheepshead Bay. In January, 1934, the American Canoe Association approved and officially adopted these canoes for regular competition. They have, therefore, not followed the trend of the open wooden canoe toward an auxiliary racing craft with lateen sails, but have developed Marconi rigs and with some of the most up-to-date equipment found in small boat sailing. Leeboards are used, but steering is done with a rudder and tiller gear. These canoes are entirely stock models and are built by several manufacturers located throughout the United States.





Prominent sailing canoes of earlier days - - many past trophy winners.

The decked sailing canoe probably was born when John McGregor built his Rob Roy canoe in 1865. Unlike the two open types, this canoe was developed almost entirely for sailing. Although first used for pleasure cruising, like most types of sailing craft it was soon redesigned for faster sailing and racing competition. A few attempts have been made to standardize stock model designs of these canoes, but they have for the most part followed trends in new designing to meet individual owner's desires for speed and handling. Thus this type of canoe, unlike the others, has not been commercialized or cataloged by manufacturers, nor has its history in any way followed the pioneering development and exploration of the country. In fact, since 1880 it has been closely identified with the American Canoe Association, recognized by it and fostered by those of its members who were especially interested in this form of sailing sport.

In 1868 several Englishmen, among whom were W. Baden-Powell, Walter Stewart and E. B. Tredwen, became interested in better sailing qualities than commonly found in existing models and were responsible for bringing out the Nautilus No. 2 design which had such improvements as well-crowned decks and two sails. In this country, in 1874 Nathaniel Bishop had his canoe, "Maria Theresa", of a somewhat similar English Nautilus type built by E. Waters & Sons of Troy, N. Y. In 1882, Dr. Chas. A. Neide had a Princess Model, the "Aurora" built by J. H. Rushton of Canton, N. Y. In 1870 the lines of the Nautilus No. 4 were brought to the United States from England and sailing canoes of this type were built by James Everson of Williamsburg, N. Y. and William Jarvis of Ithaca, N. Y. Most of these English types were deep with heavy keels and center-boards, and carried ballast.

The Americans soon turned more toward lighter craft with higher rigs and the use of live-ballast only, leaning well out to windward. In 1886 E. H. Barney of Springfield, Mass., designed and built one of the lightest decked canoes yet in existence and which probably carried the first standing rig. In 1887 Paul Butler started designing his own canoes, led W. F. Stevens into their building, and undoubtedly still stands as the one most responsible for their developments. Through Butler came increased sail areas, bulkheads, the self-bailing cockpit, the sliding seat the Norwegian type tiller gear hollow spars, clutch cleats, etc. Under Butler's guidance W. F. Stevens moved to Maine in 1898 and he was for many years closely associated with both the design and construction of the better types of these canoes, practically all of which followed closely the "16x30" size (i.e., 16 feet long and 30 inches beam) and used the main and mizzen rig. Also around this time various other developments were tried, such as jib and mainsail rigs, sharpie (or cheese-box) type of hulls, etc. But the American trend continued toward a light-weight round bottom hull, unballasted, with sliding seat, light centerboard and yawl type rig.

About 1913 a special class of decked canoes which permitted lengths to 17 feet and beams to 42 inches were admitted to competition. Then in 1917 this special class was discontinued as such and all decked canoes sailed together regardless of size, but on a handicapped sail area basis. The maximum length was increased to 18 feet, the maximum beam to 43 inches, the minimum length was unlimited and the minimum beam limited to 30 inches. A basic sail area of 90 square feet was set for the 16 foot by 30 inch hull while 3 additional square feet of sail area was allowed for each inch increase of beam and 1/2 square foot deducted for each inch increase in length. This change led to the building of a number of canoes of 17 feet, or longer, and several of these proved very successful in competition against the smaller craft.

In 1933 an English team of two decked canoes challenged the United States and won the International Cup in a larger type of canoe and of radically different design than popular in this country. They were seventeen feet in length but wider than our common practice, without self-bailing cockpits, with much heavier and deeper center boards, and using a very ingenious mainsail and jib rig with the jib stayed on a separate leaning spar (or mast) so as to still fall within the American rules regarding the amount of sail area on each mast. This competition led to the friendliest of relations between the English and American canoeists and a new enthusiasm toward international racing. As a result both American and English rules and regulations were changed to develop a definite type of International Decked Canoe that would put competition on a more uniform basis. These changes were completed late in 1934 and limited maximum length to 17 feet 3/4 inch (5.20 meters) and sail area to 107.64 square feet (10 meters). It is hoped and expected they will lead to the design and building of a new craft of a better and faster type.

Also in 1934 and 1935 a one-design class decked canoe was proposed and discussions started based on designs submitted by L. Francis Herreshoff of Marblehead, Mass. These were of the semi, or modified sharpie type and were originated to provide strictly one-design racing, to introduce a cheaper canoe than the usual round bottom construction, and to make popular a decked canoe that could be comfortably sailed by a crew of either one or two - - the latter to permit the better and quicker training of novices. It is hoped that this class will go far toward increasing the number of canoeists interested in the sport and the number of canoes in competition.

Today, canoe sailing, in all types, is far more popular in the United States than for many years past. The sport is also increasing in England, Sweden, Germany and other foreign countries. Racing is regularly being held in many sections and competition is keener than ever before.

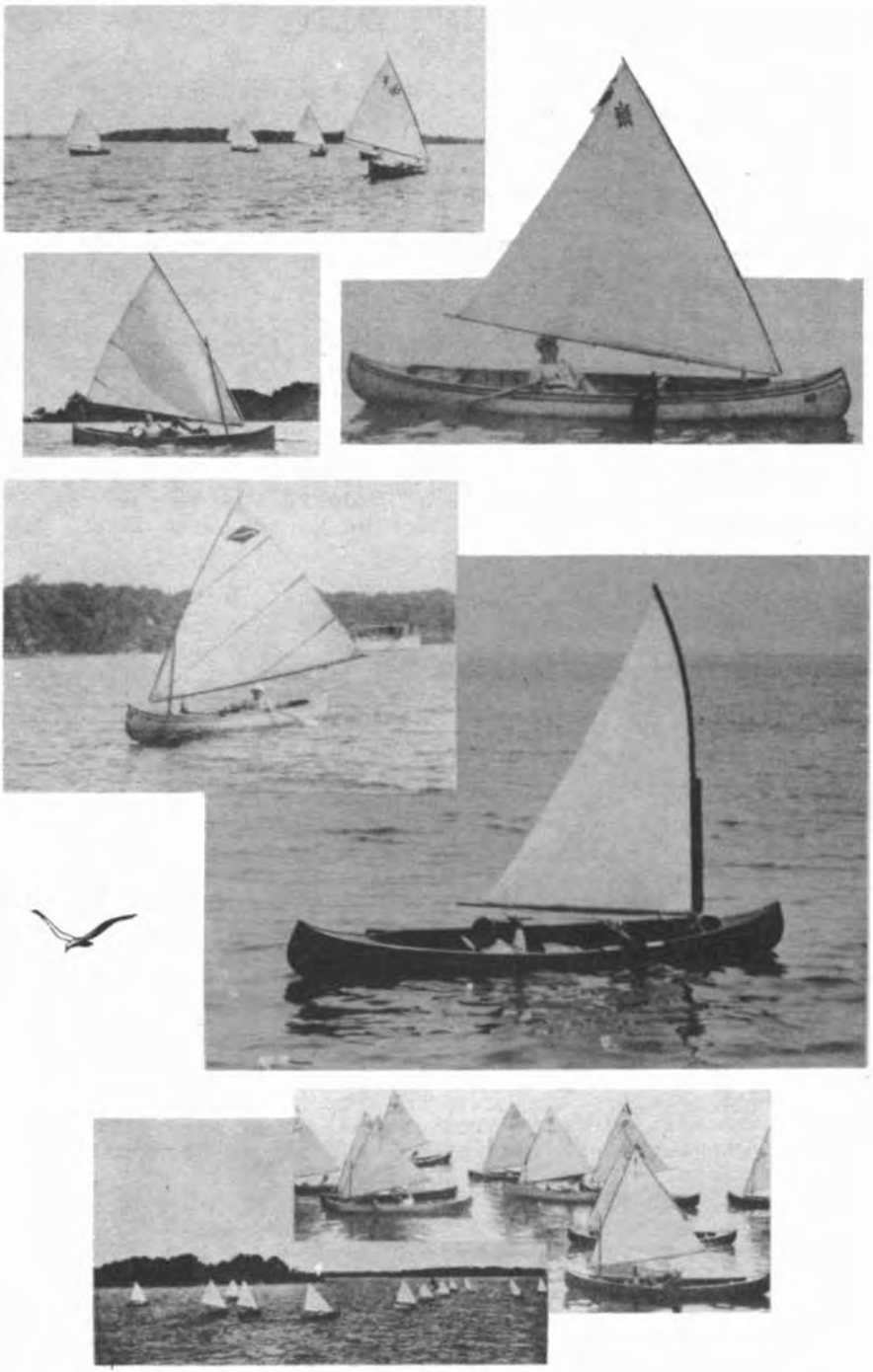
ORGANIZATION

Canoe sailing in North America is organized and governed by the American Canoe Association, which was founded in 1880. Under its auspices regular racing is carried on, interest in canoe sailing competition developed, rules and regulations changed and improved to meet changing conditions, and the sport supervised for fairness in competition and good fellowship.

There are three types of sailing canoes recognized by the American Canoe Association and these are divided into six classes. All are covered by rules and regulations relative to main features of design, dimension, weight, sail area and equipment. In the first type, sailing cruising canoes (the open wooden canoe) there is one class; in the second type, sailing canvas canoes (the open canvas canoe) there are three classes; and in the third type, decked sailing canoes, there are two classes.

On the following pages these types and classes are fully covered as to specifications and such information as is available is given on designers, builders, manufacturers of equipment and prices. Before being eligible for American Canoe Association competition one must not only decide what type or class of canoe to sail but must make certain that the selection completely falls within requirements for its particular class. Also, before actually entering Association races it is necessary to have both canoe and sails approved by the Official Measurer.

For more detailed information on racing rules and regulations, on races and their distances and conditions, on trophys and prizes for Association competition and on past records in canoe sailing, the Secretary of the American Canoe Association (address: I. Sumner Merritt, 38 Brownell Street, Worcester, Mass.) will furnish the "Year Book" of the Association, a pamphlet entitled "Racing Rules and Regulations", and other material. The Association also has a General Sailing Committee, with sub-divisions for each type of sailing canoe, and these bodies are active in promoting the sport both in North America and foreign countries. They will always gladly co-operate in furnishing such information and help as is possible. Because of changes from year to year in Administrative Officers and Chairmanships of Committee, it is suggested that the Secretary be written for initial information relative to proper parties to contact on each class.



Open Cruising Canoes under sail.

SAILING CRUISING CANOES

General Regulations

One class.

Hull - - sharp at both ends as seen from above without counter-stern or transom.

Method of measuring hull - - length taken between perpendiculars at fore end of stem and after end of stern; beam taken at widest part wherever found but not including outwales; depth taken at deepest part wherever found from inside planking, or garboard, next to hull to the level of gunwales; length of deck taken from plumb of stem and stern, respectively, to the cockpit opening, along the center line and from these points can extend toward gunwales at an angle of not less than 45 degrees with the center line, and width of side decks taken from outside of planking to cockpit opening.

Method of measuring sail area - - actual area exclusive of roach along spars when sail is stretched taut with tension of 5 pounds (2.27 kilos.) on a spring balance; area of roach of leach taken as 2/3 of chord times greatest width of segment.

Leeboards - - permitted and unlimited as to size, design, weight and position.

Keel - - not to project more than 1-1/2 inch below garboard.

Decks - - at either end not to exceed 3/16 length of canoe. At side not to exceed 3 inches.

Paddle - - not less than 4-1/2 feet required. No special appliance of any kind permitted for holding paddle for steering.

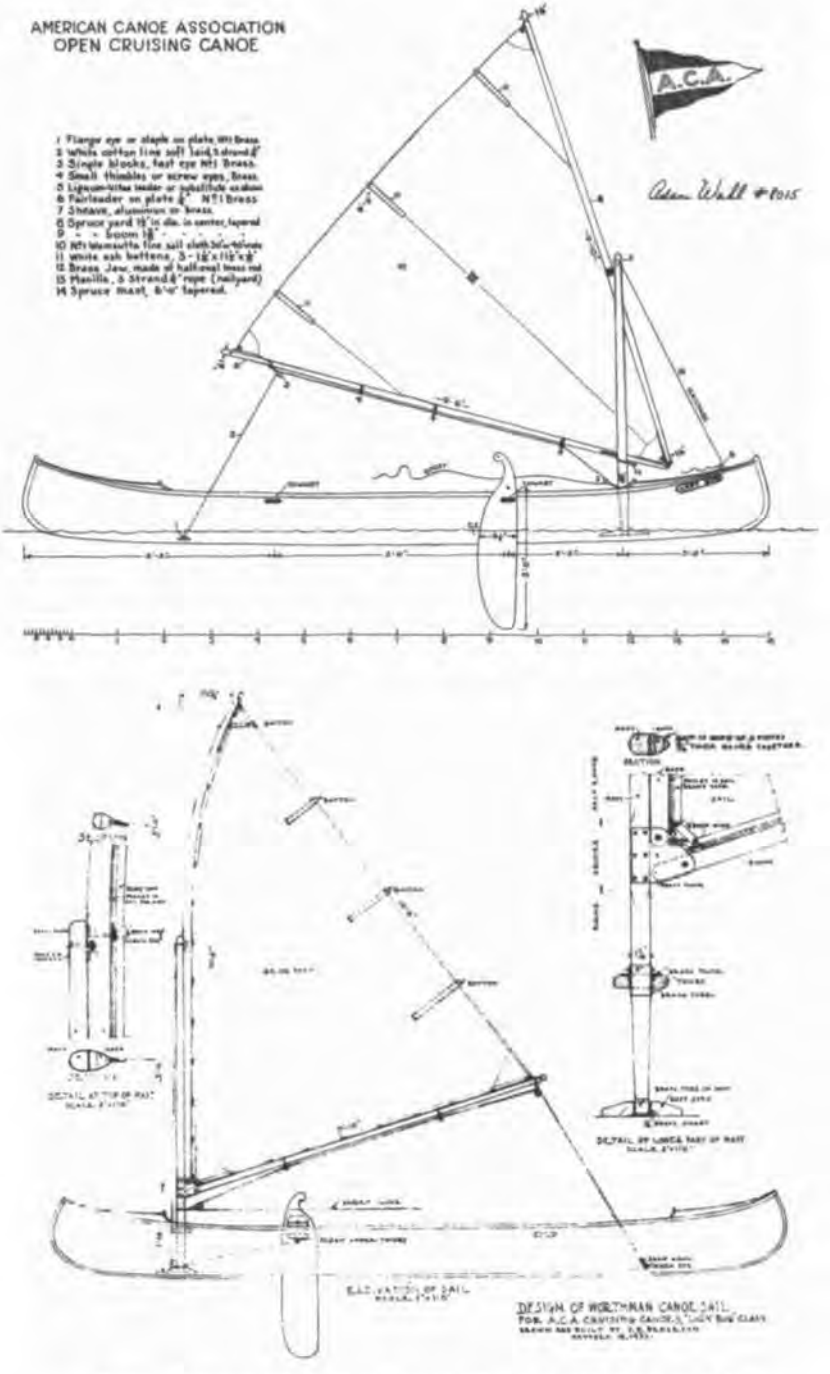
Unrestricted - - design, construction and material of hull. Design, construction and material of spars and rigging. Design and type of sail.

Restricted - - no rudder permitted. No centerboard permitted. No seat that extends beyond side of canoe permitted. No side stays permitted.

Specific Classification

Length - - maximum length 18 feet.

Beam - - minimum beam 30 inches.



Open Cruising Canoes: at top, standard lateen rig; at bottom, special curved-mast rig.

Beam never less than 5/32, or more than 1/5 length.
Beam 4" above inside of garboard, next to keel, measured horizontally, not less than 88% of greatest beam wherever found.

Depth - - minimum depth amidships not less than 5-1/2% of length.

Weight - - maximum in pounds not less than length (in inches) multiplied by beam (in inches) divided by 90.

Sail area - -
40 square feet for 16 feet length and 30 inches beam.
2 square feet additional for each additional inch of beam.
1/3 square foot less for each additional inch of length.

Where to obtain canoe

These canoes are usually stock models. The most popular and fastest types for sailing are:
Model No. 16 built by the Canadian Canoe Company, Ltd., Peterborough, Ontario, Canada.
Model No. 64 built by the Peterborough Canoe Company, Peterborough, Ontario, Canada.

These two model numbers designate cedar canoes built of rib and batten construction, but these manufacturers also furnish an identical model in both basswood rib and batten, and in longitudinal cedar strip construction. Lengths of all models are 16 feet, beam is 31 inches, depth amidships is 12 inches and weight is approximately 75 pounds. These canoes are usually ordered direct from the manufacturer, but can be obtained through any reliable sporting goods store or marine supply house -- though seldom carried in stock. Two paddles are usually supplied with each canoe. There are other manufacturers of wooden canoes in both the United States and Canada, some specializing on standard stock models, others making custom-built wooden canoes to order. Any of these that meet the requirements of this class as to measurement, weight, etc., should be satisfactory for sailing use - - although as stated above the two made in Peterborough are by far the most popular and the fastest to date.

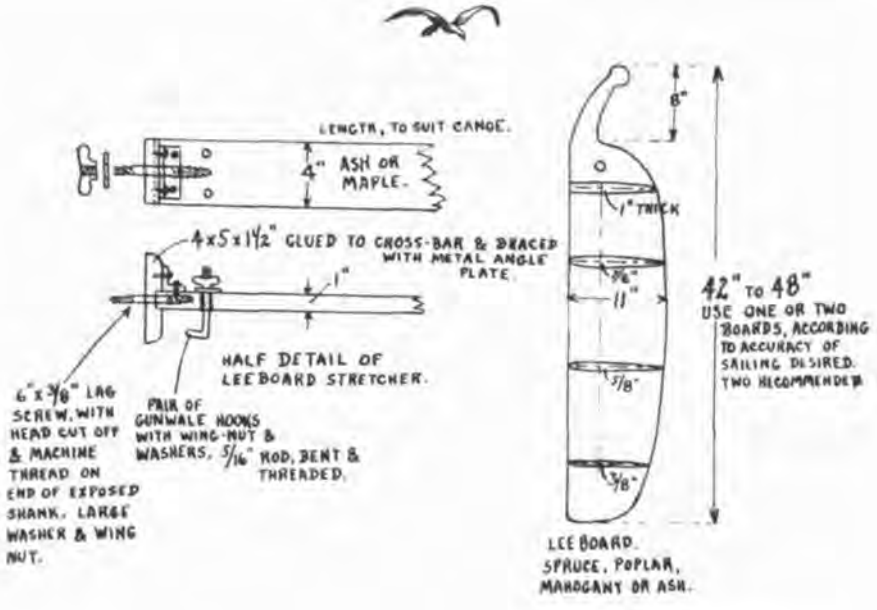
Where to obtain equipment

Spars, sails and leeboards are built by both manufacturers named above but their stock pro-

duction is not always acceptable to many racing men. Spars and leeboards of the most approved designs have been produced for years by Von Dohln Brothers, Edgewater, N. J., and Ray Andres, Gananoque, Ontario, Canada. Most local boat builders can make both spars and leeboards and some have detailed designs on hand; although many canoe owners prefer to make their own spars from airplane or ladder spruce. Spars for these canoes have also been produced by the Pigeon Hollow Spar Company, East Boston, Mass., The Montagne Spar & Paddle Company, Foxboro, Mass., and the New York Boat Oar Company, New York City. Sails of proper design and size are carried in stock by William H. Griffin, Brooklyn, N. Y., and George R. Burrows, New York City; but Ratsey & Lapthorn, City Island, New York; Louis J. Larsen, New York City; Wilson & Silsby Inc., Boston, Mass.; William E. Thomas & Company, New York City; and many other prominent sail makers have turned out these sails. Wamsutta sail cloth made by Wamsutta Mills, New Bedford, Mass., is highly recommended for sails and has been used for years in most of the successful rigs. Such rigging, blocks and other equipment as desired can be purchased at almost any marine hardware supply house.

Approximate cost

Canoe: $90.00
Spars, leeboards, sail and rigging: $60.00



SAILING CANVAS CANOES

General Regulations

Three classes - - A, B and C.

Hull - - double ended, canvas covered, stock model of standard design, same lines fore and aft.

Method of measuring hull - - same as for sailing cruising canoes.

Method of measuring sail area - - same as for sailing cruising canoes.

Method of measuring sail heights - - measured on canoes rigged for racing as vertical distance from topmost point of sail to inside of ribs, or garboard, next to keel.

Leeboards - - permitted and unlimited as to size, design and position but must not be weighted.

Keel - - not to project more than 1-1/2 inches below garboard, and not weighted.

Decks - - any type permitted, but 1/3 overall length from gunwale to gunwale must be open.

Spars - - face areas of plank booms, boom pockets, and other accessories shall be added to, and counted as a part of, the areas of the respective sails to which they are attached.

Watertight air chambers - - permitted up to two cubic feet.

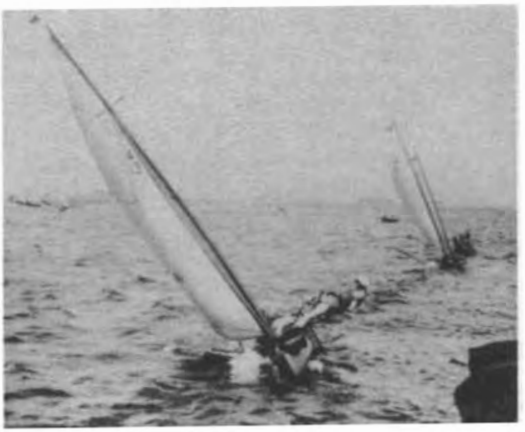
Unrestricted - - design or type of rudder. Number or size of paddles carried. Number or size of sliding, or hikeing, seats. Design, construction and material of spars and rigging, or method of staying. Design and type of sail.

Restricted - - no centerboard permitted.

Specific Classifications

Class A

Length - - not less than 18-1/2 feet, not more 21 feet.
Beam - - not less than 35 inches.
Sail area - - not more than 135 square feet.
Sail height - - not more than 20 feet.
Mast - - maximum dimensions at any cross section not more than 5 inches.



Canvas Canoes of different classes under sail.

Crew - - three must be carried.

Class B

Length - - not less than 17 feet, not more than 18-1/2 feet.
Beam - - not less than 33 inches.
Sail area - - not more than 105 square feet.
Sail height - - not more than 18 feet.
Mast - - maximum dimension at any cross section not more than 4 inches.
Crew - - minimum crew of two.

Class C

Length - - not less than 17 feet, not more than 18-1/2 feet.
Beam - - not less than 33 inches.
Sail area - - not more than 55 square feet.
Sail height - - not more than 16 feet.
Mast - - maximum dimension at any cross section not more than 4 inches.
Crew - - crew of one.

Where to obtain canoe

Since any stock model canoe meeting rather wide dimensional limits is allowed, the choice of builder is theoretically very wide. The makes most commonly seen, however, are those purchased from:

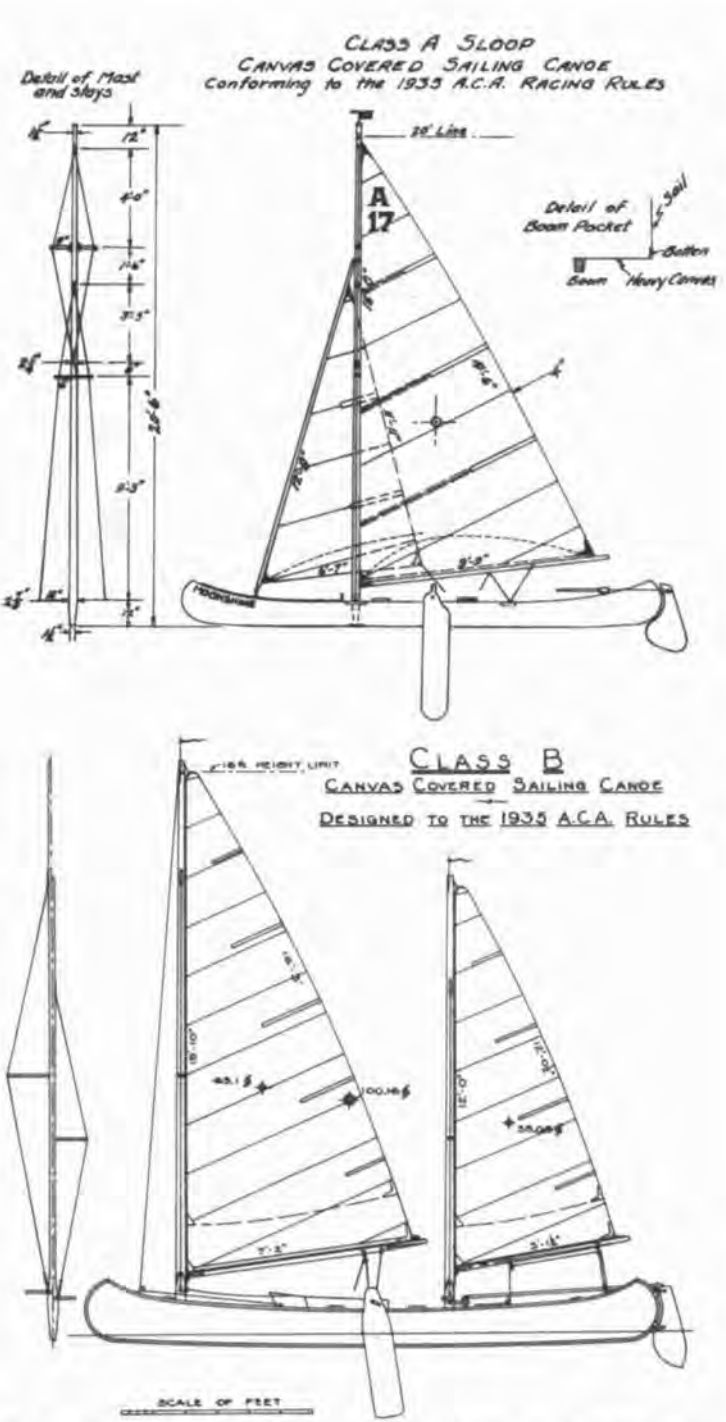
The Old Town Canoe Company, Old Town, Maine.
The White Canoe Company, Old Town, Maine.
The Skowhegan Boat and Canoe Co., Skowhegan, Me.
The Kennebec Canoe Co., Waterville, Maine.
The Chestnut Canoe Co., Ltd., Fredericton, N.B., Can.
The Peterborough Canoe Co., Ltd., Peterborough, Ontario, Canada.

There are also other local builders of canvas canoes. In fact the growth and popularity of this class is due in no small measure to the availability of such craft, since most sporting goods and department stores carry them in stock.

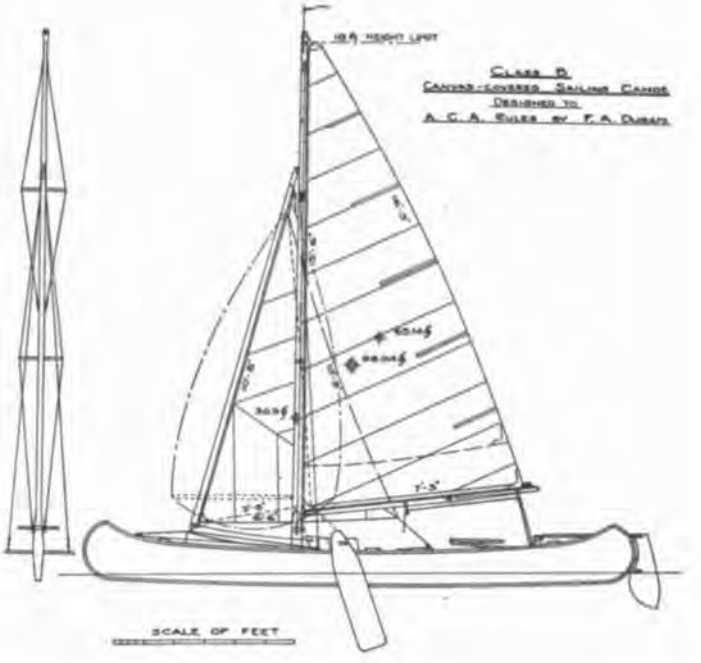
Where to obtain equipment

Light spars and stub masts can usually be purchased from the canoe builders or distributors. More sizable sticks are obtainable from any spar maker or shipbuilder. Satisfactory masts for canoes have been purchased from:

The Pigeon Hollow Spar Co., East Boston, Mass.
The Montague Spar and Paddle Company (Ted Shea), Foxboro, Mass.
The New York Boat Oar Co., New York, N. Y.



At top: Class A Canvas Canoe, sloop rigged. At bottom: Class B Canvas Canoe, yawl rigged.



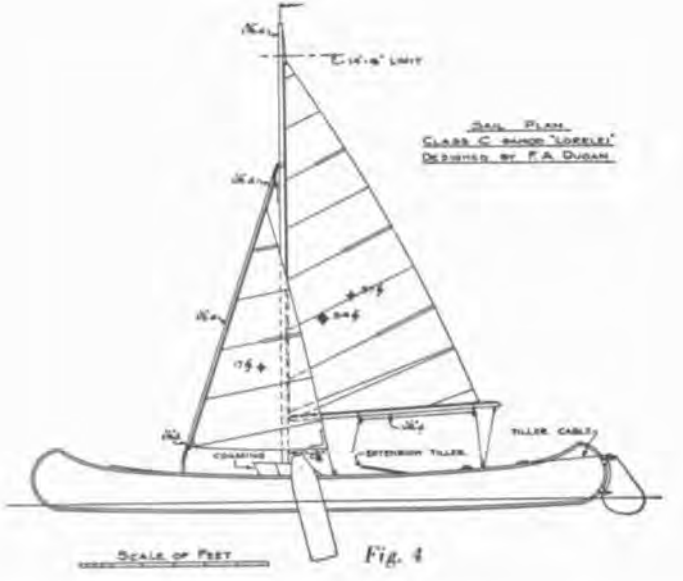


Fig. 4

At top: Class B Canvas Canoe, sloop rigged. At bottom: Class C Canvas Canoe.

In addition many masts and spars for the canvas classes are designed and built by the sailor-owners themselves from locally purchased airplane or ladder spruce.

The most satisfactory fittings such as rudders, leeboards, mast steps and toes, and boom-to-mast attachments are constructed by the sailors themselves or from special designs furnished to millwork or boat building shops. However, parts suitable for some classes can be purchased from The Old Town Canoe Company, Old Town, Maine; from many local dealers, including Armstrong and Galbraith, New York, N. Y.; Dewey Kantro, Sheepshead Bay, N. Y.; Von Dohln Brothers, Edgewater, N. J.; and most other boat builders can readily manufacture to any special design. Also for those canvas canoeists who desire rigs, or parts of rigs, designed for their particular purposes or needs, reference may be made to Dugan and Schwab, designers and riggers, Sheepshead Bay, Brooklyn, N. Y.

Sails can be purchased, of course, from any sailmaker; those best known in the East are:

George R. Burrows, New York, N. Y.
William Fuller, Inc., City Island, N. Y.
William H. Griffin, Brooklyn, N. Y.
Louis J. Larsen, New York, N. Y.
Ratsey and Lapthorn, Inc., City Island, N.Y.
William E. Thomas & Co., New York, N. Y.

Wamsutta sail cloth is recommended and is of the proper weight and texture for best results for well-fitting sails.

The Associated Canoe Clubs of Sheepshead Bay have inaugurated a service for canvas canoe sailing enthusiasts consisting of drawings of most of the fittings, sails and rigs, which have been found to be well suited for these canoes. Dimensions and details are given so that the average canoeist can readily construct his own leeboards, leeboard angles, masts, rudders, etc., as well as including suggestions as to what materials to use. These may be procured for a nominal sum through this Association.

Approximate Cost

Canoe: Class A, $125.00.
Class B, $110.00.
Class C, $ 95.00.
Spars, leeboards, sails and rigging:
Class A, $250.00.
Class B, $225.00.
Class C, $190.00.

DECKED SAILING CANOES

General Regulations

Two classes - - International and
One-Design (proposed).

Hull - - sharp at both ends as seen from above without counter-stern or transom.

Method of measuring hull - - length taken between perpendiculars at fore end of stem and after end of stern; beam taken at widest part wherever found but not including outwales; depth taken amidships from under surface of garboard strake adjacent to keel, to the level of gunwale.

Method of measuring sail area - - same as sailing cruising canoes.

Method of measuring sail height - - measured on canoes rigged for racing as vertical distance from topmost point of sail to top of deck.

Paddle - - not less than 39-3/8 inches (1 metre) in length carried in all races.

Tow line - - a substantial painter at least 9 feet, 10-1/8 inches (3 metres) permanently fastened to bow in a manner to be readily accessible for towing.

Specific Classification

International Class

Hull - - sharp at each end and the curve of a line along the outside of the gunwale or along the line of greatest beam wherever found shall be a fair curve. The angle of bow and stern as seen from above shall not exceed 90 degrees. The outline of any cross section from gunwale to keel shall not be less than a radius of 3 inches. Sheer to be a continuous concave curve.

Length - - maximum 17 feet 3/4 inch (5.20 metres), minimum 16 feet (4.87 metres).

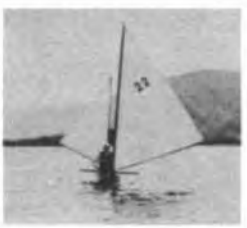
Beam - - maximum 43-1/4 inches (1.10 metres), minimum 37-3/8 inches (.95 metres). Greatest beam at waterline with 150 pounds (68 kilos.) load aboard and in sailing trim shall not be less than 88% of greatest beam wherever found.

Depth - - not less than 5.5% of length overall.















Modern Decked Canoes under sail, showing American present American yawl-rig practice.

Weight - - minimum stripped hull weight shall not be less than length overall times beam times k. Where length overall and beam are in feet and decimals and the weight in pounds, k equals 2.4. Where length overall and beam are in metres and the weight in kilograms k equals 11.72. Stripped hull means the hull of the canoe without centerboard, plate tackle or winch, rudder, rudder frame, post or tiller, masts, spars, sails, standing and running rigging, winches, deck seat, bottom boards, hatch covers and other loose equipment; but may include cleats, stayplates, fairleads, horse, tabernacle, stem, stern and keel bands and small permanent fittings. Where doubt exists as to the proper inclusion or exclusion of any fitting or attachment the decision of the Official Measurer shall be final.

Construction - - aluminum or its alloys shall not be used in the construction of the hull, but may be used for fittings.

Centerboard - - must be capable of being raised so as not to project below the keel. It shall not project more than 3 feet 3-3/8 inches (1 metre) below the body of the canoe when lowered. It shall be easily detachable. The combined weight of centerboard and rudder (blade) shall not exceed one-half of the allowable minimum stripped hull weight.

Sliding seat - - shall not extend beyond four feet (1.22 metres) from side of canoe and shall not be ballasted.

Buoyancy - - shall be equipped in racing trim with means to provide positive buoyancy of at least 100 pounds (45.36 kilos.).

Sail area - - not to exceed 107.64 square feet (10 square metres).

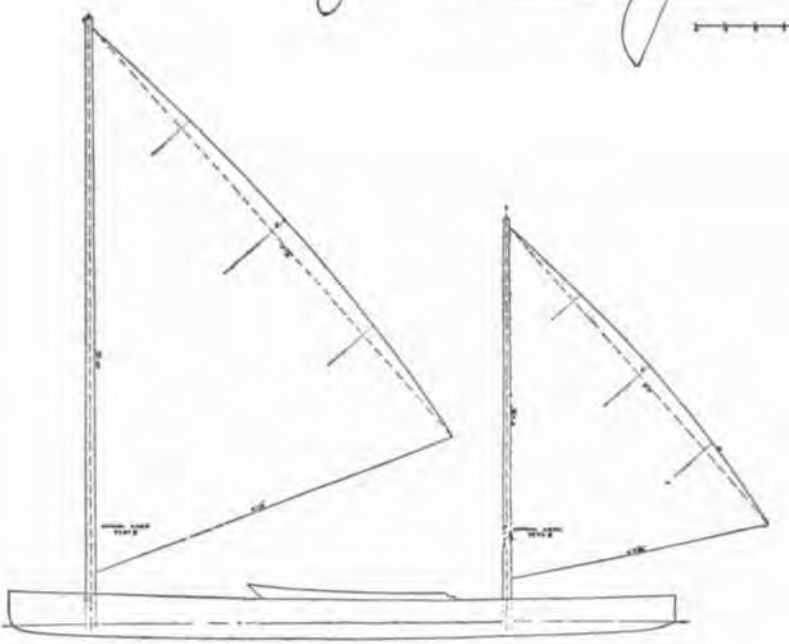
Sail height - - for any sail not to exceed 19 feet (5.8 metres); for fore triangle not to exceed 14 feet (4.27 metres).

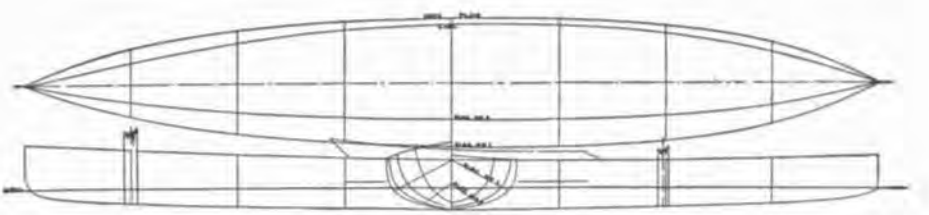
Mast - - curved or rotating not permitted.

The above measurements and limitations shall not apply to the hull of any canoe built prior to February 5th, 1935, and all canoe hulls eligible at that time shall so continue. Such hulls must, however, carry equipment and rigging to conform to the above rules and sail areas must be within the following limitation:- On a canoe of 16 feet length and 30 inches beam, sail area allowed

Top at right:
Sail Plan - - -
17 ft. decked
canoe by
Froling.

Bottom:
Sail Plan and
Lines - - 16 ft.
decked canoe
"Mermaid" by
W. F. Stevens.





is 92 square feet. For each inch that beam is increased sail area may be increased 3 square feet. For each inch that length is increased sail area must be decreased by 1/2 square foot. But, in no case shall the maximum allowable sail area for any hull exceed 107.64 square feet (10 square metres).

One-Design Class (proposed)

All data required for building and racing under this class are to be furnished with a complete set of designs and builders' specifications, which must be obtained before building and adhered to throughout. Those parts, such as scantlings, hull, spars, sails, etc., that are strictly limited as to material, construction, shape and weight, will be definitely specified; as will those parts, such as fittings, etc., that are subject to owner's choice. However, these latter must not in any way conflict with American Canoe Association rules and regulations. The builder, if a recognized boat builder, must furnish a signed statement in writing that his work has been within the limits set. The builder, if not a recognized boat builder, must furnish a similar statement in writing duly sworn to before a notary.

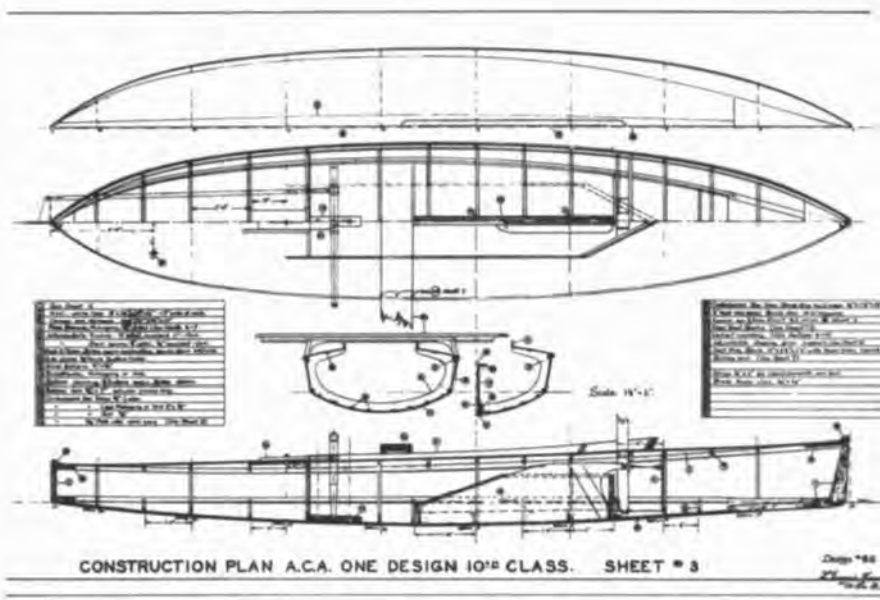
Where to obtain canoes and equipment

Decked sailing canoes such as now eligible under the International Rules and for competition for the International Challenge Cup must be of round bottom construction; V bottom, or sharpie type, are eligible under American Canoe Association Rules for all National and Divisional racing competition, but not for International Racing. By far the larger number of successful decked canoes now in use are of the smooth-skin round bottom type. However, a few sharpie type canoes are being used, have proven quite successful and are cheaper to build. Nevertheless, the decision of the American Canoe Association in 1934 to accept the new International Rules undoubtedly points to most future canoes of the more expensive construction being built to a strictly International type; with the sharpie type used only by those who desire a cheaper canoe, or for sailing to a one-design class of the Association.

There are no standard designs, or no one-design class, of the International Decked Sailing Canoe type, as each is individually designed and built to the owner's or designer's ideas. To acquire a new canoe of this type one must either get in touch with the desired designer or builder, or procure the lines and specifications of canoes already built for present owners. A great many decked-canoe sailors have their own ideas as to proper design and have, at least partially, been instrumental in the development of their own canoes.

It must be understood that in a small racing-machine


A One-design decked
canoe: submitted
and designed by
L. Francis Herreshoff.
No. 60
SAIL PLAN A.C.A. ONE DESIGN 10^12 CLASS


CONSTRUCTION PLAN A.C.A. ONE DESIGN 10^12 CLASS. SHEET # 3

type of craft such as a decked sailing canoe of light weight and lightly rigged, sailed and handled by one man frequently on the end of a sliding seat, a great part of the skill shown depends on the sailor's individual ideas as to design, type and position of cleats, blocks and other fittings. As a result few of these parts are of standard type or sufficiently in demand as standard parts to warrant their being carried in stock by marine outfitters. It is always possible, and usually better, for the prospective purchaser to obtain suggestions, advice and designs from existing decked canoe designers, builders or owners.

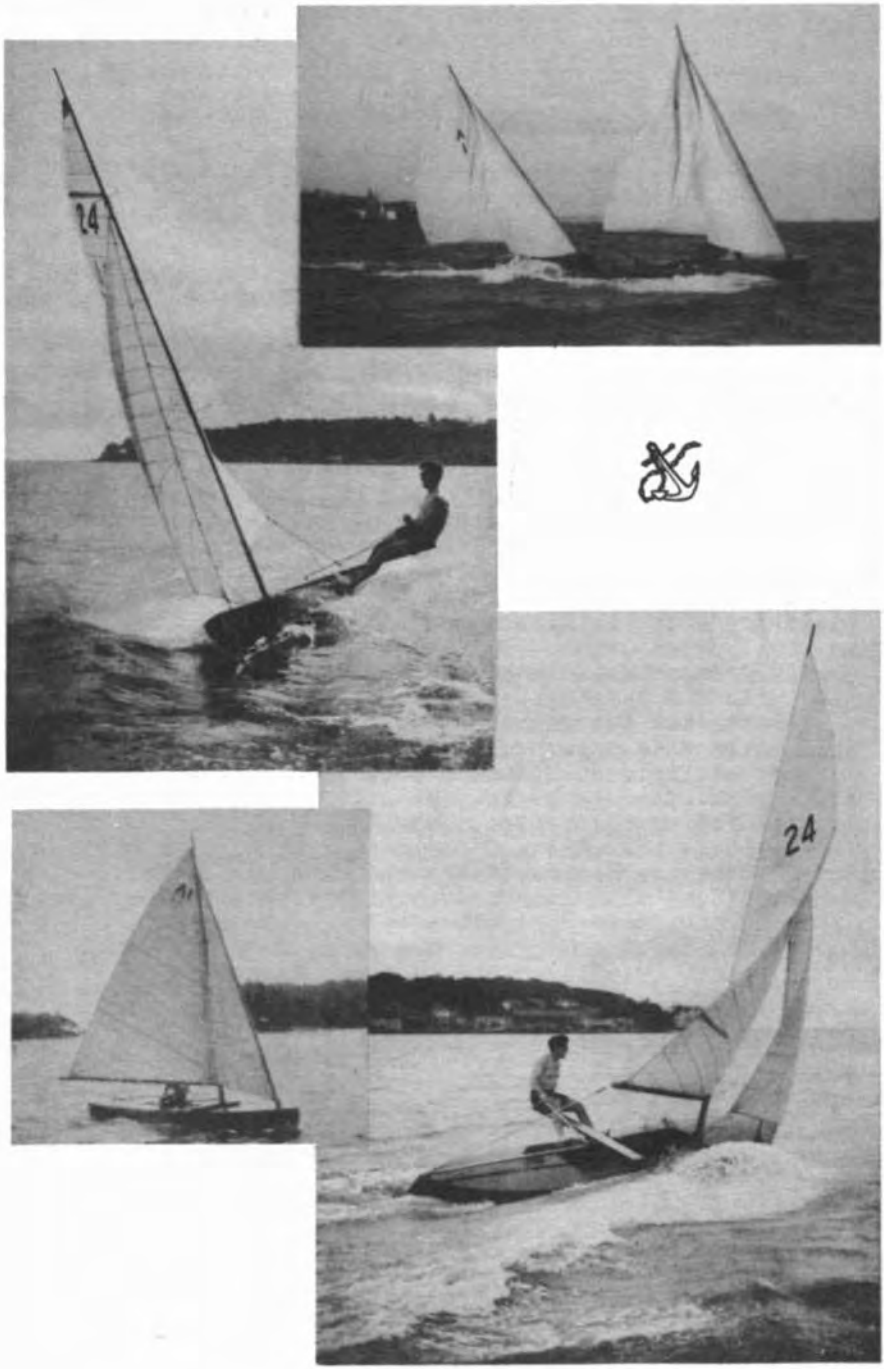
The proposed one-design modified sharpie type of decked sailing canoe will undoubtedly meet all International type specifications except as to its sharpie hull construction. Its designs will be the property of the American Canoe Association and a complete set of plans together with builder's specifications and instructions can be procured for a small fee. No other design can be used in this class and construction of many parts such as hull, centerboard, rudder, sliding seat and spars will be strictly limited to definite specifications. Plans will be complete with builder's suggestions and with all specifications attached and with the material purchased by the Association it will be possible for the amateur to turn out a very creditable job. All the builders, sailmakers and others capable of turning out the round-bottom International type, can also build this type. However, certain builders have already estimated on these canoes in quantity production and anyone interested will do well to write the Association for advice before ordering.

Some of the leading designers who have turned out decked canoe designs that have proven highly satisfactory are:

W. Starling Burgess, New York, N. Y.
Frank Crowningshield, Boston, Mass.
Jerry Daniels, address unknown.
Frederick A. Fenger, Cohasset, Mass.
Uffa Fox, Isle of Wight, England
Hilding Froling, Arlington, N. J.
L. Francis Herreshoff, Marblehead, Mass.
C. A. Nedwidek, New York, N. Y.
Dwight Simpson and John G. Alden (Associated), Boston, Mass.
W. F. Stevens, Boothbay Harbor, Me. (deceased)
W. P. Stephens, Bayside Long Island
Olin J. Stephens, City Island, N. Y.

There are undoubtedly many other designers of small sailing craft, racing dinghys, etc. who are capable of designing decked canoes and among these should be mentioned:

Harry Curtis Hall, New Rochelle, N. Y.
John Lane, Bronxville, N. Y.



English decked canoes, showing their sloop-rig practice.

Charles E. Nicholson, Gosport, England
Frank Paine, Boston, Mass.
Nicholas Potter, Greenwich, N. Y.
Philip L. Rhodes, New York, N. Y.
Winthrop L. Warner, Middletown, Conn.

The following builders have had experience in the construction of decked sailing canoes and have turned out craft that have been highly satisfactory in every way:

Floyd Clayton, Edgewater, N. J.
Fred Gilbert, Brockville, Canada
Merrill Gilbert, Brockville, Canada
John Mallette, Gananoque, Canada
Peterborough Canoe Company, Peterborough, Canada
John R. Robertson, Auburndale, Mass.
W. F. Stevens, Boothbay Harbor, Maine (deceased)
Victor Slocum, Brooklyn, N. Y.

There are also a number of other builders who have specialized in the construction of smooth skin and lap streak craft such as smaller sail boats, sailing dinghys, rowing shells, wooden canoes and kayaks, etc. These should be well equipped and fully capable of building decked sailing canoes. A few of these are:

Arnolds Boat Works, Waltham, Mass.
John Buckmann, City Island, N. Y.
William Dyer, Providence, R. I.
Essex Boat Works, Essex, Conn.
Fairfield Boat Works, Greenwich, Conn.
Herreshoff Mfg. Co., Bristol, R. I.
Kretzer Boat Works, City Island, N. Y.
Louis Mickilsen, City Island, N. Y.
Henry B. Nevins, City Island, N. Y.
O'Connell Boat Works, Neponsit, Mass.
Skaneateles Boat & Canoe Co., Skaneateles, N.Y.

Most of the builders named above also make spars but there are certain specialists in spar construction who have had experience with canoe spars such as The Pigeon Hollow Spar Company, East Boston, Mass., and The Montague Spar and Paddle Company, Foxboro, Mass. Fittings and rigging for decked sailing canoes are usually specified by the designer and procured by the builder. Much of the rigging is readily obtainable from leading marine hardware concerns; but most of the fittings are special and have to be individually made.

Designs of jam cleats, tiller gear fittings, etc. can usually be procured from existing designs, or sketched from present boats, and the usual practice has been to have a machine shop handle their construction as a special contract job. However, there are two sources where these fittings have been made and where good designs are available: Hilding Froling, Arlington, N.J. and Edward Blessington, 529 Eighth St., Brooklyn, N. Y.

Sails for these canoes can be obtained from almost any well known maker of sails for small sailing craft. Among those who have turned out such sails are:

George R. Burrows, New York, N. Y.
Cousens & Pratt, Boston, Mass.
William Fuller Inc., City Island, N. Y.
Louis J. Larsen, New York, N. Y.
Ratsey & Lapthorn, Inc., City Island, N. Y.
Wilson & Silsby, Inc., Boston, Mass.

It is important that decked-canoe sails set right and hold their shape. After years of experience it has been found that Wamsutta cloth, manufactured by Wamsutta Mills, New Bedford, Mass., gives best results. This material has been used by most of the decked-canoe champions - - as well as on most of America's racing yachts including the large cup defenders.

Approximate Cost

International Class, complete: $600.00
One-Design Class, complete: $250.00 (estimated)

INTERNATIONAL CHALLENGE CUP.
Perpetual challenge trophy for decked canoes. Successfully defended by the United States in 1886, 1888, 1890, 1891, 1892, 1895, 1913 and 1914. Won by England in 1934.

RACES AND TROPHYS

The American Canoe Association holds a series of sailing races each year at their Annual Camp and Meet, usually at Sugar Island, near Gananoque, Canada.

Certain of the national races of the Association are for permanent Trophys, many of which have been in competition for years. Other special races are held for which cups, medals and prizes are given. A list of the permanent trophys competed for annually is given below.

In addition to this racing, each of the six Divisions of the Association hold regular races in their respective waters. Many of the Divisions have beautiful permanent trophys for competition and present cups, medals, flags and other prizes to those winning second and third places and for special races.

Any member of the Association can compete for the sailing prizes in his own Division, or in other Divisions also if races are so opened; and can enter the national races at the Annual Camp and Meet.

American Canoe Association Trophy Races

(1) Open cruising sailing canoes

(a) Championship Sailing Trophy
3 heats: 2 heats on 3 mile triangular course
1 heat on 3 mile windward and leeward course.

(b) Gardner Trophy
3 miles on triangular course.

(c) All Outdoors Trophy
twice around Sugar Island.

(2) Open Canvas Sailing Canoes

(a) Central Division Challenge Trophy
3 heats: 2 heats on 3 mile triangular course
1 heat 3 mile windward and leeward course.

(3) Decked Sailing Canoes

(a) Championship Trophy (A.C.A. Challenge Cup)
3 heats: 2 heats in 6 mile triangular course
1 heat on windward and leeward course.

(b) David Crane Trophy
6 mile triangular course.

MERMAID SAILING TROPHY
Decked canoes.

DAVID CRANE SAILING TROPHY
Decked canoes

MAB SAILING TROPHY
Decked canoes.

CHAMPIONSHIP SAILING TROPHY
Open cruising canoes

CHAMPIONSHIP SAILING TROPHY
Decked canoes

CHAMPIONSHIP SAILING TROPHY
Open canvas canoes

PAUL BUTLER SAILING TROPHY
Decked canoes.

GARDNER SAILING TROPHY
Open cruising canoes

FOGGY DEW TROPHY
All classes of canoes.

ALL OUTDOORS SAILING TROPHY
Open cruising canoes.

(c) Mermaid Trophy
6 miles triangular course.

(d) Paul Butler Trophy
6 mile triangular course.

(e) Mab Trophy
6 mile triangular course.

(4) Special Trophys

(a) Admiralty Trophy
open to both decked and open canoes.
3 heats: Record combined paddling and sailing
4-1/2 mile triangular course.
Record sailing
4-1/2 mile triangular course.
Record paddling
1/2 mile straight course.

(b) Foggy Dew Trophy
To person entering and completing the most races at National Meet.

(c) International Challenge Cup
Presented in 1885 by New York Canoe Club and competed for under the auspices of the American Canoe Association. Can be challenged for by any recognized Canoe Club in the world, three representatives or less to sail for each Club. Best of three heats of not less than 8 miles each, or more than 10 miles.

The American Canoe Association was organized in 1880 and incorporated in 1901, and its membership includes canoeists throughout the United States and Canada.

The Association fosters cruising, camping and paddling racing as well as sailing, and has active Cruising and Paddling Committees with a large number of Trophys for competition at National meets.

The Association owns "Sugar Island", a thirty-four acre island in Canadian waters in the Thousand Islands of the St. Lawrence River, where the Annual Camp and Meet is usually held, and which is always open to the use of members.

There are six organized Divisions of the Association located in five districts of the United States and one in Canada. Two of these divisions own islands for camping and meets, and all have Division Trophys for regular competition in all branches of canoeing.

For further information relative to the Association address: I. Sumner Merritt, Secretary, American Canoe Association, 203 Summer St., Worcester, Mass.

Wind Proof Clothing

To meet the demand for a light weight wind proof material, Wamsutta Mills has developed and is manufacturing three special fabrics - - Wamsutta Colored Sailcloth, Wamsutta Parka Cloth and Wamsutta Ski Fabric.

Wamsutta Colored Sailcloth is a development of the light weight sailcloth, first used extensively for sails on small boats. Garments made from this fabric are now obtainable in the Seascape garments manufactured by B. F. Moore & Co., Newport, Vermont. Practically wind proof and water resistant, it makes up into colorful attractive garments moderately priced. Colors obtainable are Natural, Jade Green, Yellow, Terra Cotta, Sky Blue, Royal Blue, Brittany Red, Scarlet and Orange. An ensemble to match your colored Wamsutta Sails.

Wamsutta Parka Cloth is one of the finest fabrics ever produced. Choice Egyptian cotton, carefully combed, spun and closely woven resulting in an unusually tough and long wearing fabric.

The wind proof quality is eloquently testified to by the scientists on top of Mt. Washington who have worn Parkas made from Wamsutta Parka Cloth for the last three years and on April 13, 1934, crawled over the snow and rocks on their mile-high observatory in the record wind velocity of 231 miles per hour.

Garments made from Wamsutta Parka Cloth are luxurious in appearance and feel, are light in weight, keep out the wind and snow, and help to retain normal body warmth.

Colors are Navy and Beige.

Wamsutta Ski Fabric is another of Wamsutta's developments in fabrics suitable for outdoor garments made of choice Egyptian cotton and combed yarns.

Garments made from this fabric are light weight and splendid as a windbreaker.

Colors are Navy, Beige and Scarlet.

For information as to garments of Wamsutta Parka Cloth and Ski Fabric write to White Mountain Manufacturing Co., Plymouth, N. H., or

Wamsutta Mills,
New Bedford, Mass.

Advertisement

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