

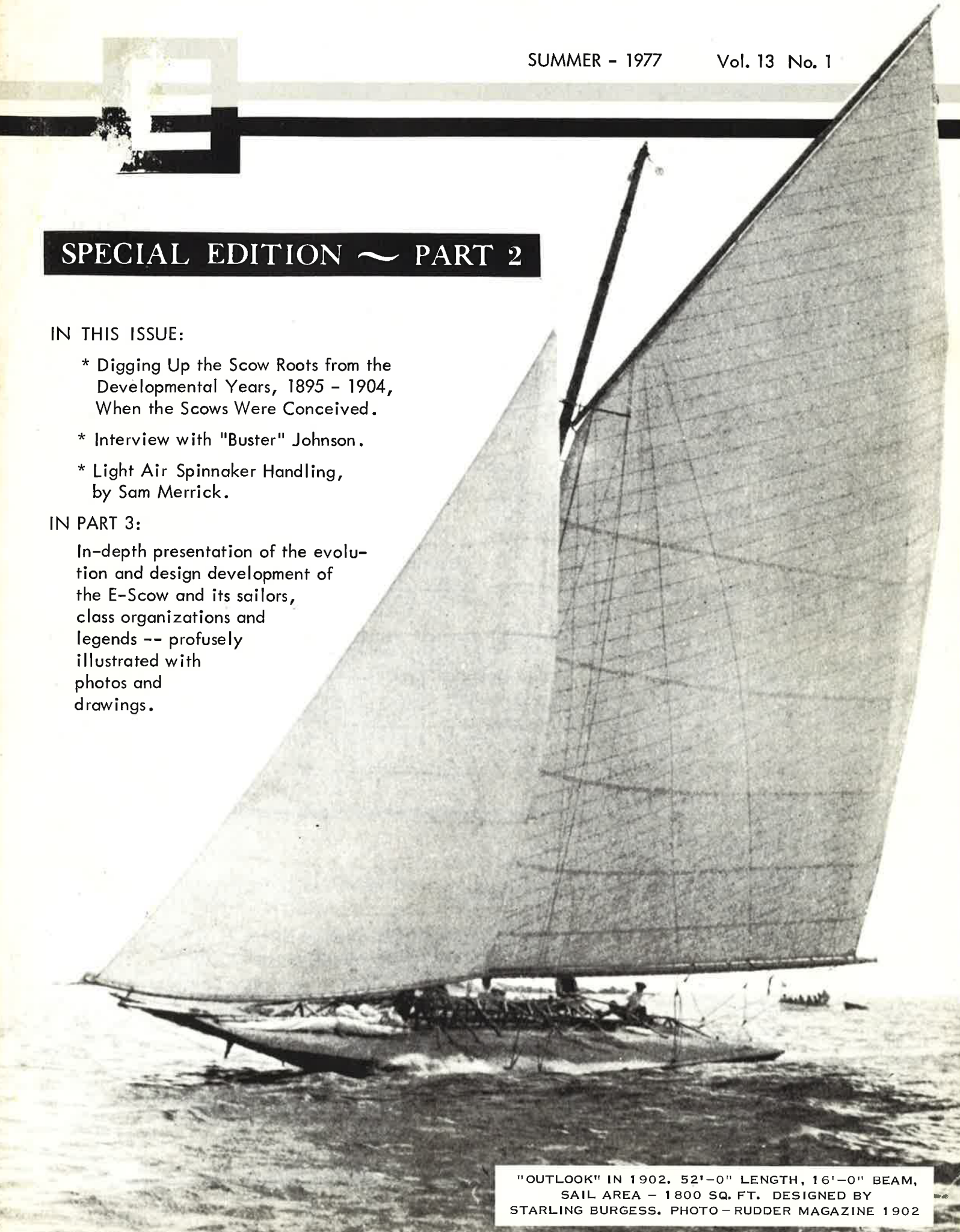
## SPECIAL EDITION ~ PART 2

### IN THIS ISSUE:

- \* Digging Up the Scow Roots from the Developmental Years, 1895 - 1904, When the Scows Were Conceived.
- \* Interview with "Buster" Johnson.
- \* Light Air Spinnaker Handling, by Sam Merrick.

### IN PART 3:

In-depth presentation of the evolution and design development of the E-Scow and its sailors, class organizations and legends -- profusely illustrated with photos and drawings.



"OUTLOOK" IN 1902. 52'-0" LENGTH, 16'-0" BEAM,  
SAIL AREA - 1800 SQ. FT. DESIGNED BY  
STARLING BURGESS. PHOTO - RUDDER MAGAZINE 1902



## THE COMMODORE COMMENTS:

E-Scow owners may wonder how their favorite boats got that way -- how the currents of naval architecture and plain ingenuity by builders and sailors produced such a wonderful boat to sail. If they have thought about it enough to read the scattered material available, they are sure to be confused by conflicting claims and unexplained events.

This issue of the Reporter is aimed at outlining the story. It will take more space, research time and resources to do the job completely -- to pull together the wealth of material in the bound volumes of yachting publications, the histories written with the support of various yacht clubs and the books or articles written by eminent authorities.

As one who has spent some time "in the books" on this subject, I can report the experience is rich and rewarding. The pictures and plans of the milestone designs in the course of scow development are always interesting and sometimes

mind-boggling. The incentives and restrictions under which the "next steps" were taken make understandable how year-by-year incremental improvements have produced the present Class E Scow.

This Reporter is an appropriate vehicle for a proposal which will take money: might now Scow addicts of all varieties band together for a publishing effort with enough resources to reprint the significant materials? The job should be ambitious enough to produce good photography and large enough to be comprehensive. Correspondence will be necessary for getting copyright approvals, but the principal task will be turning pages and extricating the lodes of hidden knowledge -- I hope the project can be undertaken.

Sam Merrick  
Commodore NCESA

### ED. NOTE :

WHAT STARTED OUT TO BE A SINGLE "SPECIAL" ISSUE OF THE REPORTER HAS NOW GROWN TO THREE SEPERATE ISSUES -- WHAT WE HAD PLANNED FOR ISSUE NO. 2 NOW BECOMES ISSUE NO. 3 AND, HOPEFULLY, WILL BE PUBLISHED IN THE LATE FALL OF 1977. IT IS HOPED THAT THIS RECENTLY CONCEIVED "RE-SEARCH" ISSUE WILL BE OF AS MUCH INTEREST TO THE MEMBERSHIP AS IT IS TO US. COMMODORE SAM MERRICK SPENT LONELY HOURS DEEP IN THE CONFINES OF THE LIBRARY OF CONGRESS IN WASHINGTON TO SHED SOME LIGHT ON WHERE OUR SCOWS CAME FROM AND IS TO BE COMMENDED ON HIS EVALUATION, ORGANIZATION AND EDITING OF SOME OF THE ELEMENTS OF A MYRIAD OF DIS-ORGANIZED LORE.

### DIRECTORS

ILYA AREA (ILYA E Boat Committee)

Joe Norton  
Jay Ecklund  
Jim Klauser  
Don Gunderson  
Lon Schoor

### EASTERN AREA

Don Crabbe  
Norm Johnson

### W. MICHIGAN AREA

Paul Wickland, Jr.  
Mike Huck, Sr.

### OFFICERS

Commodore: Sam Merrick  
Vice Commodore: Stu Wells  
Rear Commodore: Jack Brereton

### NCESA REPORTER STAFF

Ted Brennan, Editor  
Kay Larkin, Business Manager  
Mike Meyer, Chief Assistant

Production/Printing/Mailing: Bud Appel, Graphic Printing Corp.

### MEASURER

Ed Malone

### SECRETARY-TREASURER

James R. Klauser  
N 30 W 29401 Hillcrest Drive  
Pewaukee, Wisconsin 53025





## PROLOGUE

Prior to 1896 in the United States there had been a half century of sailboat racing as a form of recreation by American "yachtsmen". They started by using the workboats of the day. Getting to market early often meant better prices, and there were no doubt canny commercial captains who had learned how to get more speed out of their craft. But it took yachtsmen, with extra money, to study and evolve the elements which produced speed. Expensive materials, for example, lead instead of space-taking iron, costlier light construction necessitating skilled craftsmanship, sail area that needed more engineered support than a work boat required, all these improvements and many more were introduced as one yachtsman tried to beat his fellows in formal racing. Often they placed wagers on the outcome in the style of horse racing, where owners hired captains and crews and bet money on the outcome while they enjoyed the luxury of steam yachts, drank refreshing thirst quenchers amid female company protected from the sun by veils and parasols.

There were two schools of thought on going fast (any many in between choices). One depended upon keels for ballast; the other upon centerboards and movable ballast in the form of sandbags. The keel boats tended to be narrow and deep, the centerboarders broad. Keels and centerboards each had a set of adherents not only in the yachting circles of Long Island Sound and Massachusetts Bay, but on the inland lakes of Wisconsin and Minnesota as well. To some degree they lined up between those who were in favor of "seaworthy, safe and healthy" types and those who believed in speed. In the east where yachting was most developed, one group earned the epithet "cutter cranks"; the other "sailors of skimming dishes," and the lines of battle were tightly drawn.

Handicap racing based upon the elapsed time from starting across the starting line (anytime within 10 minutes of a signal), to the finish line but then computed with a rating based upon one or more measurements was the order of the day and it permitted the advocates of both types of boats to race together.

### The Seawanhaka International Challenge Cup

#### —Midwife to the Scow—

Speed on water in its liquid form dependent on the power of wind alone - it is what sailboat racing scow fashion is all about.

The limits of speed are bounded by such factors as the perceived requirements for seaworthiness, the materials and methods of construction, the size and shape of the "sail" and the force of the righting moment (ballast, the lever action of the crew, their weight, their distance from the center of buoyancy). It is the function of the designer to produce a hull that will go faster than its competitors within the parameters and restrictions of these elements. Given complete freedom to design, there's no telling what kind of a vessel might be produced. But the story of sailboat design is a story of restrictions on excess — excess money, excess size of one or more elements of the whole product.

The crucial input of the Inland Lake Yachting Association is the extraordinary amount of wisdom used in developing these limitations for the purpose of fostering a type of high performance sailboat racing within the financial reach of many. However, it is the theme of this story that while the ILYA family (builders, sailors, clubs and officials) may take satisfaction for having perfected the scow and promoted its racing classes, much of the basic design work was done by others between 1895 and 1905 — especially a Canadian bridge engineer named Herrick Duggan and another engineer, lately from England, who was known for his abilities to use a slide rule, named Fred Shearwood. Duggan's energies in this period were directed to winning races for the Seawanhaka Cup. It was under the forced draft of the Cup's measurement formula that drew him year by year to design the scow in substantially its present form. That ten-year span, in which the ILYA itself was founded, started with active handicap sailboat racing all over the inland lake area sponsored by the many yacht clubs which mushroomed after the Civil War. It ended with the ILYA firmly controlling two large classes of scows raced boat for boat.



Thanks to its pre-eminence in the yachting world, the Seawanhaka-Corinthian Y.C. of Oyster Bay, Long Island, in 1833 came up with a formula which measured the waterline, added the square root of the sail area and then divided the result by 2:

Thus if you had a 20 foot waterline and put 625 square feet of sail, you had a measurement rating of 22.5. On Massachusetts Bay ratings were based upon waterline lengths alone with sail area not counted.

On Lake Geneva, the handicap was based upon the length of the waterline plus one-third the length of the overhangs. Apparently Lake Geneva felt nervous about basing handicaps on waterline alone, even though up to that time overhangs tended not to be more than a few feet in either direction. Like Massachusetts Bay however, Lake Geneva ignored sail area, so that the latest designs from the East under the Seawanhaka Rule were easy to beat.

As the development of sailboats became more the object of designers encouraged by well-off yachtsmen, more effort went into probing advantages that could be taken of the Seawanhaka Rule and its local variants. It was Nathaniel Herreshoff who led the attack with a succession of boats that measured short on the waterline (to get a big handicap) and long overall. So when such boats were heeled on their sailing lines, the waterline stretched. Since long boats are faster than short ones, the advantages of designing in this manner to take advantage of the Seawanhaka Rule were clear enough. Herreshoff typically equipped such boats with deep fin keels for the required righting moment.

As designers worked on this formula, overhangs (the length of a boat extending forward and aft of the actual waterline) became increasingly long, and construction became lighter so the short waterline could support more length. Ballast whether in the form of keels or otherwise was undesirable because it was heavy.

The longer overhangs became, the more difficult it became to measure waterlines, the basic element of the Seawanhaka Handicap Rule. Inland lake yacht clubs wrestled with this problem. The Lake Geneva history describes an addendum to its rules in 1895 which required the waterline to

be measured **after** a race with ballast and crew aboard so that the handicap could be accurately computed. Chop or waves from steam launches added to the difficulty. Some yacht clubs built special tanks to measure the waterline rather than attempting the job dockside with the measurer hanging upside down with his tape. As we shall see, the ILYA belled this cat in 1902 by measuring length overall and eliminating waterline measurement entirely. In the East, baby and bath were disposed of together with the abolition of the Seawanhaka Rule.

The Seawanhaka Rule could be used as a basis for level racing without handicaps. Thus if it was agreed that a rating of 15 was the maximum allowed for a given "class" then a 12.5 foot waterline boat with a 306 sq. foot sail area could race boat for boat against a 15 foot boat with a 225 square foot sail area. This was the rating used in 1895 when the first contest was held for the so called Seawanhaka Cup.

The deed of gift for "The Seawanhaka International Challenge Cup for Small Yachts", the formal name for this famous trophy reads as follows: "Yachts shall be propelled by sails only, whose racing measurement or size shall not exceed the maximum limit of the so called twenty-five feet racing length class or fall below the minimum limit of the so called fifteen foot racing length class of the Seawanhaka Club as such classification exists at the date of this instrument" (1895). It was the incentives let loose upon the yachting world by this trophy that in ten years produced the scow — an outcome viewed with misgivings and finally widespread contempt by the yachting oligarchs of the club whose name the trophy bears.

The 1895 contest was precipitated by a British challenge received from a canoe racing enthusiast and amateur designer named Brand who brought over SPRUCE IV — a 15'9" waterline (23'3" overall) with heavy fittings and a heavy bamboo mast. ETHELWYN, the American boat chosen among a field of seven which were built for the trials, measured 15'8" on the waterline with only 196 sq. ft. of sail — 20.5 less than she was allowed. She was skillfully rigged and had hollow spars. Such spars were relatively new -- the product of a craftsman in New Haven who had a secret glue. W. P. Stevens, the designer, expressed some satisfaction that she did **not** gain sailing length when heeled. ETHELWYN easily won this first challenge, but it was the last time an American boat did so until 1905. It is interesting to note that one of the boats ETHELWYN beat in the trials was QUESTION — flat sided, square chines, a "barn door" boat without cockpit, a derivative of the so called New Haven sharpie in some respects the real forerunner of the scow. The sharpie had been developed over the years as a work boat by Long Island oystermen.

#### 1896

Late in 1895, the Royal St. Lawrence Yacht Club of Montreal challenged the Seawanhaka Club for the second contest, again under the fifteen foot rating class and, of course, using the Seawanhaka formula. As a tribute to the impact of the Cup's influence, an incredible twenty-seven boats were designed by the most prestigious naval architects of the eastern yachting establishment including Nathaniel Herreshoff, himself, Starling Burgess, Charles Mower and Clinton Crane. The latter's design, named EL HIERE, was selected. She had 240 sq. feet of sail and measured just under 15 feet waterline. In the Cup races themselves, EL HIERE was soundly beaten in three straight races by the Canadian GLENCAIRN, the sixth boat designed, one after another in preparation for the challenge, by Duggan.



HALF-RATE "ETHELWYN" DESIGNED AND SAILED BY WILLIAM P. STEVENS. (PHOTO ROSENFELD)

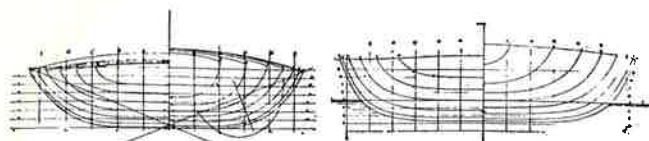
A comparison of the final two designs is instructive. No. 5 of the series (called SO THIS) had a SA of 285 with an upright waterline of 13, an inclined 18 deg. waterline of 15 feet 2". She went fast, but No. 6 turned out faster. GLENCAIRN had an upright WL of 12 ft. 4 in., a sail area of 300 with an effective WL of 15. The floor was flat, the top sides flat carried to a round bilge. GLENCAIRN when sailed presented a long narrow hull, 24 feet long and only 3 ft. 11 in. wide when heeled.



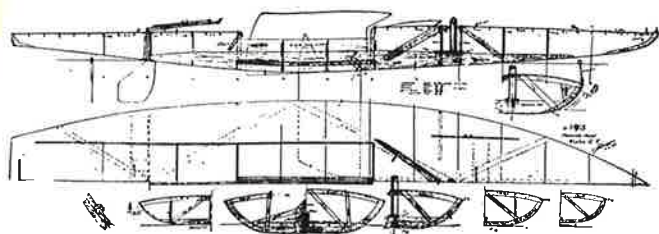
"EL HIERE" DESIGNED AND SAILED BY CLINTON CRANE (PHOTO ~ ROSENFELD)

The Seawanhaka-Corinthian Y.C. history, which was written by W.P. Stevens, the designer of ETHELWYN, describes the product thus: "The end in view was the creation of a form which, when inclined to a normal sailing angle, would show a load waterline plane reasonably symmetrical about an axis nearly parallel to the centerline of the vessel; that this plane should show the greatest possible





LINES OF MR. DUGGAN'S SCOW, GLENCAIRN II



GLENCAIRN—CONSTRUCTION PLAN

gain of length over the upright plane, as measured under the rule; and that the center of buoyancy should shift well to leeward, giving a long lever, similar to the sliding seat of a canoe, for the crew on the weather rail."

Duggan's feat of designing a boat that beat the efforts of the rising crop of American designers received widespread and no doubt grudging acclaim even at this early stage of the Cup's competition. But wait!

1897

Immediately following the 1896 effort the Seawanhaka Club challenged for a return contest in the 25 foot class. After some discussion, it was agreed that the 20 foot racing length be selected with a limit of 500 sq. feet of sail. Although over 100 boats had been built by this time to the 15 foot rating, The Seawanhaka-Corinthian Club apparently was not pleased with its offspring which it was prepared to abandon for a larger boat. Says Stevens "The contests have produced a fleet of racing craft quite as extreme in design and construction as DEFENDER (America's CUP boat of 1895) herself and open to all the objections of extreme cost, fragile construction and limited utility ..." (Harper's Weekly 1897). Stevens was probably thinking about the kind of boat which would be produced with Duggan's approach using the larger size than the 15 foot class. He had expressed satisfaction with the transportability and cost of the smaller boats.

The 1897 races were held on Lake St. Louis, a broad and often shallow body of water, formed by the confluence of the Ottawa and St. Lawrence Rivers just about Montreal. This is the "home water" for the Royal St. Lawrence Yacht Club which, as the winner of the Cup until 1905, designated this site as the racing location.

The 1897 contest, between MOMO, designed by Clinton Crane, and GLENCAIRN II, was a repeat of the previous year. MOMO interestingly enough was sold after the races to a Mr. Dee Allen on Lake Pewaukee and did her share of winning races. It is odd that there is no record of Duggan's boats coming to the midwest, although many of the unsuccessful American boats did.

One sideline: The Canadians were incensed by new ballast wrinkles. It seemed that in heavy air, the American crew donned three heavy woolen sweaters and doused them with water. They also substituted heavy crew members for light ones. Such behavior was denounced as unsporting.



"MOMO", CRANE'S 20-FOOTER CHALLENGER.

Out in scow country on the many lakes a hodgepodge of boats were doing a lot of racing but they were not yet much like scows. Boat builders had already developed a capacity for excellent craftsmanship — a critical ingredient for the light weight construction needed for later scow development. John O. Johnson (the founder of the present Johnson Boat Works and grandfather of Skip) was already established on White Bear Lake. Johnson was later quoted as giving Herreshoff credit for instituting canoe construction in ALFREDA which he designed in 1897. This boat had ribs running across her full width and was built in the East for a White Bear owner named Milt Griggs. Other than Johnson, the most prominent of the builders at this early date were Gus Amundsen and F.W. Ramaley on White Bear, Andrew Petersen on Lake Minnetonka, the Palmer Boat Company, first located on Fox Lake, Illinois, then at Highland Park, then finally at Fontana at the western end of Lake Geneva. This list would be incomplete without Jones and LaBorde at Oshkosh of which Jimmy Jones was the leading figure. Jones was not only a builder but a talented helmsman and creative designer. He had been winning races on Lake Winnebago since 1876 and would play a prominent role in scow development until near his death in 1932.



J.O. JOHNSON AND GUS AMUNDSEN FLANK AN UNIDENTIFIED WINNER. [Photo: JOHNSON BOATCO]

There were a few "side walk" boats this early on White Bear Lake according to the pictures in the White Bear history. YANKEE, one of these, was designed by a New York designer, Charles Reed, who had already been involved in the Seawanhaka competition.

YANKEE was built by Ramaley, using the same canoe construction which Herreshoff had developed for ALFREDA. YANKEE was built for Lucius Ordway who, as we shall see, was one of the major figures in these early days of the scow's development. Johnson later described YANKEE as the first true scow he had seen. She was to become a test design against Duggan early in 1899.

In Wisconsin, the latest designs were short on the waterline, long over all but narrow of beam — hardly scows. They were dependent on ballast to carry their sail.

Perhaps the principal event of 1897 of interest to the scow family was the spadework done to form the Inland Lake Yachting Association at a meeting at White Bear Lake on August 24 with delegates from a number of lakes in Wisconsin and Minnesota.



1898

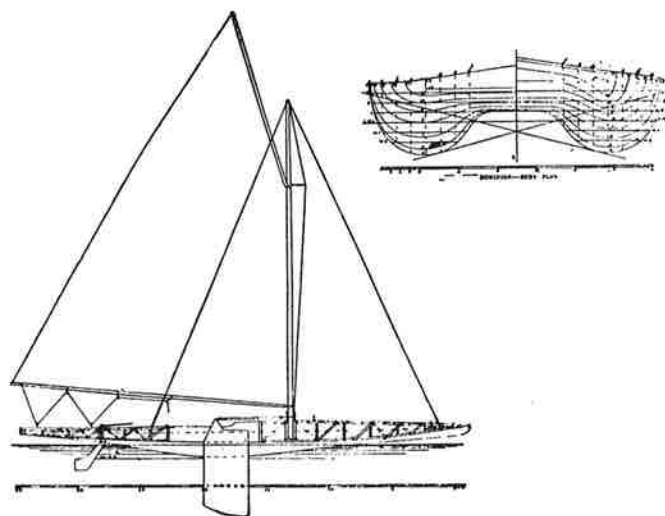
The ILYA was formally launched in Milwaukee on January 28 with representatives of nearly twenty yacht clubs from four states. It adopted two classes under the Seawanhaka rule for inter-lake competition without handicaps: 1) The 20 foot (racing length rating) class with maximum 500 square feet of sail and 600 lbs. maximum crew weight and 2) The 17 foot class with 350 sq. ft. of sail and 450 lbs. of crew. Since no ballast other than crew was to be allowed, it followed that the sidewalk boats were to be favored since beam was needed to permit the crew to carry the sail area. Bear in mind that if the maximum SA (you could go with less if you wanted) was to be carried by a boat built for the 20 foot class for example, the waterline might be short of 18 feet (because the square root of 500 is 22 plus). Since the overall length was unlimited and useful for more speed, there followed a period of intense building activity and experimentation for the purpose of making the boats lighter as well as longer. This process produced the boats known as "featherweights", and increased concern that limitations were necessary. But this gets ahead of our story.

The first ILYA Regatta was held on White Bear Lake. Each club was permitted one entry -- a subject of controversy for the following fifteen years, presumably to prevent local clubs from swamping visitors. MAHTO, a new boat built by Amundsen and looking very much like YANKEE, won the 20 foot class. Lucius Ordway was the skipper. Some evidence has it that in this same year, Johnson built WIERDLING for Frank Douglas, a White Bear helmsman. WIERDLING was

to be one of the new light weight boats. Johnson wanted to put (or perhaps actually did put) bilgeboards into WIERDLING, but Douglas thought she was radical enough already, (or so the story goes) and the boat appeared in public only with a centerboard. The Johnson claim for conceiving in 1898 what after 1902 became a scow characteristic will have to remain unsubstantiated until better evidence emerges from the shadows of history. As we shall see, Duggan came out with bilgeboards in TRIDENT as did Jimmy Jones with COMET in 1902.

But the big event of 1898 was Duggan's response to the Seawanhaka Club's second effort to get its trophy back from Canada. SEAWANHAKA designed by Clinton Crane and built by Canadian builders incorporated all the best of Duggan's thinking of previous years. SEAWANHAKA won the trials against AKABO (only two boats were built) designed by a talented proponent of the emerging scow type named Huntington. AKABO had a bow that appeared to be heading toward a normal point but sawed off, and a curious pancake-like stern. In the trials, SEAWANHAKA was so badly "beat up" and twisted out of shape that a new boat named CHALLENGER was using the same lines as SEAWANHAKA but built lighter.

Duggan designed four boats — three variations of the GLENCAIRN type but the fourth a radical craft that was superior to the others, named DOMINION. As the Seawanhaka Chronicler says, Duggan "had outdone even himself in beating the rule", an epithet which becomes a compliment when one's designer takes unsuspected advantages from the rule's soft spots. DOMINION was often called a catamaran (or worse, but she was only partway) — 17'6" waterline, 27 feet waterline length when sailing and 35 feet in overall length, with a tunnel down the middle 2½', above the waterline at the center but which curved upwards at either end. Although she almost had two separate hulls, DOMINION was fitted with a large steel centerboard and a single center-located rudder.



From Forest and Stream, 1898

SAIL PLAN AND LINES OF MR. DUGGAN'S YACHT, DOMINION

Duggan described DOMINION as carrying to a logical conclusion the principles of his two previous efforts - designing a boat to sail in the inclined position paying heed to the vertical position only as regards measurement. In any breeze DOMINION was a run away; and she trounced CHALLENGER but not before all the furies of outrage were



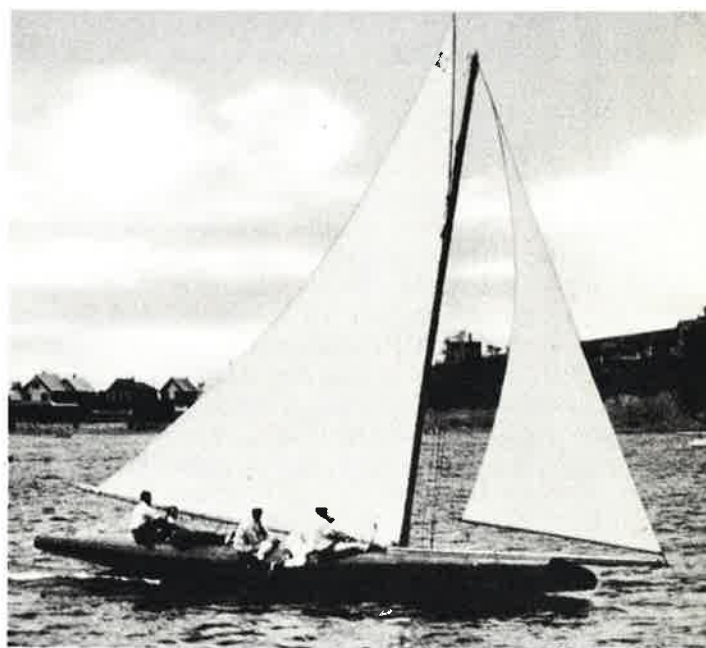
stirred up against her from the yachting establishment. DOMINION was not a beauty, for it would have to be reported DOMINION looked somewhat like a sled with runners poking out in front.

Writing in 1928, but reviewing what he had accomplished, Duggan said this: "It may be well to review the experience with the type as now developed. With the boats at a proper sailing angle, the ratio of midship section to effective waterline was so small that wave-making did not seem a serious factor, even at high speeds. At all events, divergent bow waves were not noticeable and the wave of displacement was very small compared to what one had been used to in the ballasted type with limited waterlines. Surface friction, therefore, seemed to be the largest retarding force, and effort was generally directed to getting a small surface or, at least, one of small transverse width. All of these boats with the flat floors were comparatively slow when not well inclined, probably due principally to the large area and poor form of the wetted surface and, in some measure, to wave-making by the short and steeper area curve. The hard bilge boat, with bilges closely approximating a sector of a circle, gave the smallest wetted surface and the best form when in the inclined position, but when sufficient inclination could not be obtained from the wind pressure, the crew to leeward, being little outside the centre of buoyancy, could not heel her sufficiently to develop her best performance and some flare was generally given to the sides." (from *Sailing Craft* - Edwin Schoettle, Editor)

All around Long Island Sound when the Seawanhaka rule was in effect came sounds of dissatisfaction and demands for change. Herreshoff, in a formal proposal to the Seawanhaka Club, suggested the use of displacement as a factor. The Seawanhaka Rule, they said, fathered a lot of "worthless boxes" "encouraging a type of craft more worthless and certainly as dangerous as the old gravel wagons" (i.e. sand baggers) which it had been the intention to replace because of their expense to run and hazard to sail.

At the end of the regatta, salvos of protests were filed and icy letters exchanged. The American crews found it necessary to attend the concluding dinner and hop in their private capacity.

Relations between the Canadians and the Seawanhaka, already bad over DOMINION'S rule beating shape became worse when the Inland Lake Yachting Association appeared to have the inside track for an 1899 challenge. A leading Seawanhaka Club member allowed himself to be quoted by a reporter to the effect "interest in the Cup would wither and die if it ever went to the lakes. No foreign country such as England would consider competing in that remote hinterland". Needless to say there must have been more than raised eyebrows over this example of Eastern myopia. Somehow the Canadians and the Seawanhaka Club were able to agree on the terms of still another contest but barring boats of the DOMINION type.



"WORTHLESS BOX" OOGROOK KITING ALONG  
[photo: ROSENFELD]



OLD GRAVEL WAGON "E. Z. SLOAT" IN 1896  
SIFTS ALONG WITH ABOUT 600 LBS. OF SAND  
[photo: ROSENFELD]



SANDBAGGER "BANSHEE" SPREADS IT ALL  
ON WHITE BEAR LAKE IN 1895  
[photo: Johnson Boat Co.]

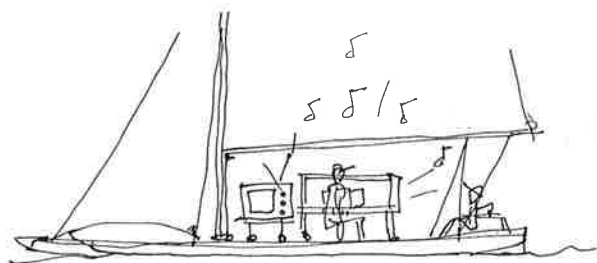
Since matters had been patched up for another Seawanhaka challenge thus depriving White Bear of the opportunity, a special contest was arranged as a kind of "High Noon" test between DOMINION and the best of the Inland Lake scows. The boat chosen for this purpose was YANKEE which to White Bear's satisfaction had proved her superiority over MAHTO, the ILYA champion of 1898. This contest was held in June and attracted a large crowd of spectators from ILYA country. DOMINION proved her clear superiority.

YANKEE, as we said, was designed by an Easterner and was considered by Johnson as the first racing scow he had seen. Duggan described her as an all out scow. YANKEE had a pointed bow, was 35 feet overall, 7'8" beam, 6" draft, 13" freeboard, 3" crown on deck, displaced 1300 pounds, oak ribs on 8" centers, planking of 5/16" cedar. She had a large steel centerboard.

Jimmy Jones was one of the midwestern spectators. It would have been instructive indeed to have been able to listen to the conversation which must have taken place between Jones and Duggan, the two amateur and leading designers of the then scow type. When Jones returned to Oshkosh with the benefit of his trip to Montreal, he set about building ARGO which two months later won the Inlands in the 20 foot class. The Neenah-Nodaway history recounts that Jones and "other experts" (one is tempted to read Duggan) agreed that the flat bottom of YANKEE and the long waterline of DOMINION underway could be exploited further; they discounted the double hull as a speed factor because one hull was always out of water.

In this same year ALGONQUIN designed by Crowninshield, a famous Boston navel architect was the first scow type to win Lake Geneva's famous Sheridan Cup. She had been bought immediately after she had lost to CONSTANCE in the Seawanhaka trials leading up to the Cup contest of that year. CONSTANCE in turn was beaten 3 races to 2 by Duggan's GLENCAIRN III in the Cup races on Lake St. Louis. In Duggan's view, CONSTANCE at least in heavy air was the faster boat.

At this point all three areas, Montreal, Long Island Sound and the midwest had approached a stage of near equality — the product of using the Seawanhaka Rule and a sail area limit of 500 square feet. Only Massachusetts Bay which rated on the basis of waterline measurement alone with a maximum crew weight was following a unique course with longer and lighter boats carrying ever increasing sail area. For example, there were HOSTESS designed by Keith for the 21 foot class with 40 feet OA, 11 feet maximum beam (6 feet at the bow and 8 feet at the stern) and CARTOON (a "cruising" scow with a cabin) designed by William Gardner, 48 feet long and 10 feet wide with a fin keel. The extremes were still to come!



CRANE'S "CONSTANCE" ALMOST GOT THE CUP BACK —



SCOW "GLENCAIRN III" TOOK "CONSTANCE" 3 to 2





SCOW "HOSTESS" DESIGNED BY ARTHUR KEITH IN 1899. 40 FT. LONG, 6' WIDE AT BOW, 11' EXTREME. S.A. OF 1023 sq. ft.

## 1900

In this year, White Bear Y.C. again challenged the Royal St. Lawrence Y.C. for the Seawanhaka Cup — this time not hindered by the Seawanhaka Club which had abandoned its effort to win back its now famous Cup. It was agreed to race under the 25 foot Racine Length Class, but with a limitation on the maximum sail area of 500 square feet. This was the same sail area used for the challenge the year before with the 20 foot class. The use of the 25 foot rating combined with the sail area limit, allowed a waterline length of 27'6", considered likely to encourage a less extreme form of hull.

At White Bear, two boats were built, MINNESOTA and MINNEZITKA. MINNESOTA was designed and built by Gus Amundsen and sailed by Lucius Ordway; MINNEZITKA by John Johnson and sailed by Milt Griggs. After extensive trials, MINNESOTA was chosen although speed seems to have been near equal.

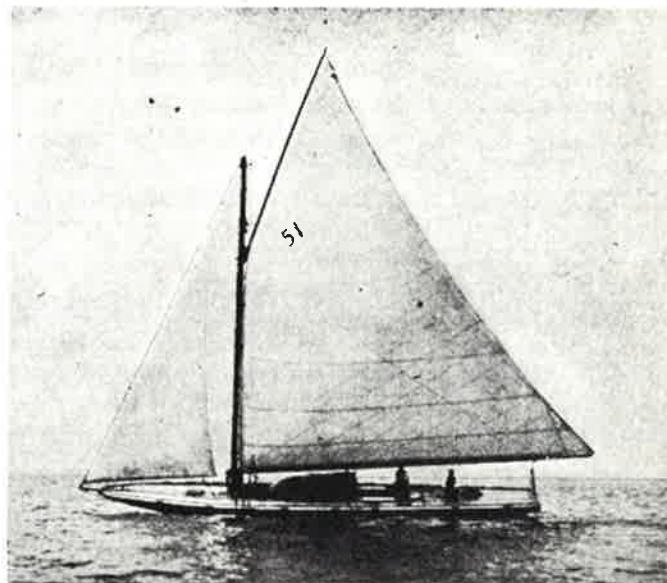
In Canada, Duggan designed four variations of the scow type represented by GLENCAIRN III and one of these, RED COAT, was picked because it was best all around boat.

A detailed description, together with photographs, of all six of these boats appears in a contemporary article in Rudder by C.D. Mower. Mower was a Boston naval architect who frequently covered scow racing for Rudder and designed many scows of the era.

A notable feature of the conditions for the 1900 contest was the specific scantling restrictions to prevent feather-weight construction. This was a step that resulted in the Canadian boats still being sailed 28 years later.

Unfortunately for the White Bear cause, RED COAT won three straight races and retained the Cup for Canada.

The ILYA Regatta of 1900 included a new boat designed by Will Davis with a tunnel hull — named CAROLINE. Davis was an amateur designer and able helmsman from Oshkosh with a long record of success. CAROLINE didn't win but she was fast enough to encourage the ILYA to adopt a rule requiring hulls to be no lower than their center point.



SCOW, "CARTOON" DESIGNED BY WILLIAM GARDNER. BUILT IN 1898 — 48 ft., 10' BEAM, FIN KEEL AND DISPLACEMENT OF 7168 lbs. NOTE CABIN.

## 1901

Shortly after the first of the year in 1901, ILYA held a kind of landmark meeting which was to establish patterns for racing for a long time. There were three issues over which opinions were deeply divided: the locale for holding regattas, participation of professionals in the racing, and the need for scantling restrictions to prevent the construction of feather-weight scows. The first issue was disposed of by agreeing to make Oshkosh in 1904 the permanent site after completing the round of yacht clubs already in process. Jimmy Jones' career as a helmsman was terminated by a rule barring from Inland racing all who received monetary gain from the sport.

On the construction problem, complete specifications were adopted covering the size and material of planing deck and ribs. Instead of using the Seawanhaka Rule, which incurred the troublesome problem of measuring waterlines, it was decided to designate two classes more or less equivalent to the two then sanctioned, but based upon an overall measurement. Thus, Class A would be 38 feet long with 500 square feet of sail area and replace the 20 foot class. Class B would be 32 feet overall with 350 square feet and replace the 17 foot class. It is a fair observation that Class A closely resembled the type of boat which had been built for the Seawanhaka Cup Races of the year before. The lightweight boats were "grandfathered" and remained competitive, but the scow type was so rapidly developing that new boats took over despite their additional weight.

Since the waterline no longer counted, the tendency to have ends higher in the water which had long earned the sobriquet "sow belly" was no longer necessary. The ends were thus to get closer to the water and thus make more effective the overall length when the boats were sailing in their proper inclined position.

It is worth speculating whether these sound decisions had they been adopted for small boats by the Seawanhaka Club or among the crazies in Massachusetts Bay might not have encouraged the scow type outside the midwest. It would have to be conceded that the heavy seas on Long Island Sound

might be too unfriendly, but the yachting establishment failed to adopt the ILYA'S sensible decisions in part at least out of the experience of being so soundly beaten in competition.

The Seawanhaka Cup competition of 1901 was not newsworthy. The races were held under the 25 foot rule (as in 1900). The challenge came from the Island Sailing Club of Cowes (England) which built 3 scows, the best of which GREYFRIAR, was brought over.

The Seawanhaka Club's chronicler, when viewing afar what manner of racing the Cup was promoting, fairly shivers with scorn at the necessity of having to keep "these skimming dishes on their feet" by getting on the windward rail and having to weigh the crew members "like jockeys before a horse race."

The 1901 Inland was conducted on Green Lake after an active period of boat construction under the new rules. In Class A, seven boats were entered that were built by Jones and LaBorde, three by Amundsen, and one by Johnson (his first), the two year old MINNEZITKA. The winner was a brand new Jones boat named EMANON. The detailed eight page description of each of these boats in a Rudder article by Mower is typical of the coverage the scow world was receiving in those days.

It was in 1901, parenthetically, that the nearest thing to a scow was built for America's Cup competition. INDEPENDENCE (141 feet long, 14,000 sq.ft. of sail, 24 ft. beam) was designed by Crowninshield. She turned out to be a brute to sail and was often unmanageable — therefore not selected.



CLASS B "JOLLY TAR" ON LAKE GENEVA

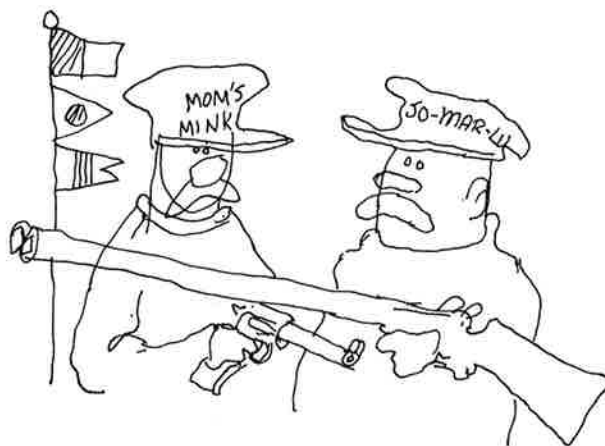
1902

The Inland sailors' thirst for winning the Seawanhaka Cup was not in the least frustrated by the fact that the Canadians accepted a challenge (again under the 25 ft. length) from the Bridgeport Y.C. (Connecticut - north side of Long Island Sound). Bridgeport announced it would hold trials open to all outsiders. The line-up was this:

BOAT NAME	CLUB	SKIPPER	DESIGNER
TECUMSEH	Bridgeport	Jimmy Jones	Jimmy Jones
MASSASOIT	Bridgeport	Unknown	Crowninshield
FRONTENAC	White Bear	Milt Griggs	Unknown
CRUSADER	White Bear	Lucius Ordway	C.D. Mower
SEERESS*	Manhasset Bay	C.D. Mower	C.D. Mower
MONSOON	Boston (area)	Unknown	Starling Burgess
FILIBUSTER	Boston (area)	Crowninshield	Unknown
NUTMEG	Bridgeport	Huntington	Huntington

\*She was to become Class A Champion at White Bear in 1903.

TECUMSEH won the privilege of going to Canada in trials conducted mostly in light air. She was clearly the fastest boat, in light air, but not until Jimmy Jones was brought as her skipper after earlier failures. Her choice, a Bridgeport syndicate boat by the Bridgeport Committee was critically viewed. This excerpt from Rudder's extensive coverage is glowing evidence of how skillful midwestern sailors had become: "It has been the custom to decry western yachting and to picture fresh watermen as a lot of lubbers. But though they may be guilty of breeches of etiquette, hoist two flags on one string, fire guns on Sunday and wear the names of their boats on their caps, when it comes to racing scows they know more about the game in one minute than we Eastern people do in a month. It will be a bitter dose for the Easterner to swallow to have to go to the West to learn what he fondly considers to be his own game, but if the West is to be beaten at scow racing, it can only be done by studying the fresh water-man's methods."



Jimmy Jones, by this time branded as a professional in the ILYA, and a crew from Oshkosh, plus one from Bridgeport to give additional color to the Bridgeport nature of the challenge, arrived on Lake St. Louis to find Duggan's last contribution to scow development in the form of TRIDENT equipped with bilge boards. Duggan had left the scow scene for Nova Scotia and other interests, but he had designed TRIDENT first. He wrote this: "TRIDENT was so named because she originally came out with a box for a centreboard and a box in each bilge inclined something over 19 degrees to the vertical. Experiments with DOMINION demonstrated that with a centreboard of 20% less width than GLENCAIRN her lateral plane was more effective, due no doubt to her small angle of heel. Early consideration was given to the introduction of bilge boards, the lee one of which would be practically vertical when sailing, but owing to the discussion

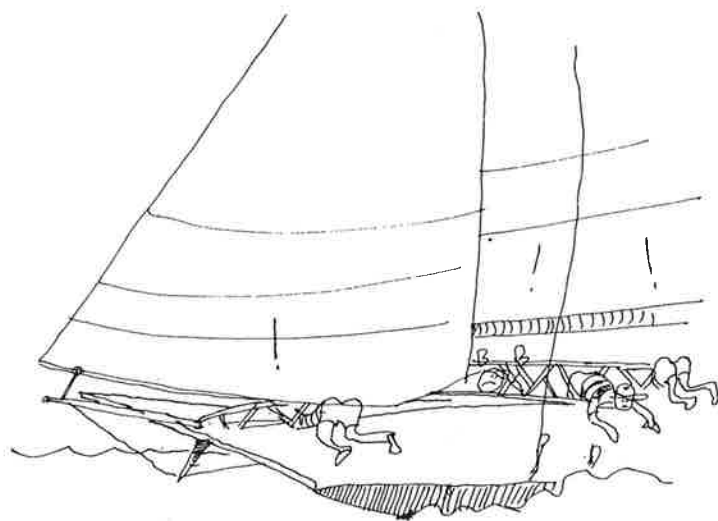


over DOMINION, it was not thought well to introduce them and it was not until 1902 that they were tried. TRIDENT was built with three boxes, now, as some suppose, because there was any doubt of the efficiency of the lee boards, but in case the use of bilge boards should be disputed as not being within the spirit of the rules."

Except for one race in light air, TRIDENT was markedly superior — thus proving again that Duggan was ahead of all his competition.

The credit for introducing bilgeboards must remain with Duggan and TRIDENT despite the appearance just before the Inlands of COMET designed and built by Jones and LaBorde. She was not allowed to compete because she had not been ready to participate in the qualifying races on her home lake. — Pewaukee. It stands to reason that Jimmy Jones put the bilgeboards into COMET **after** finding TRIDENT using them. Otherwise, he would have had this feature in TECUMSEH. Unfortunately we may never run this sequence of events down.

While the scow was undergoing healthy development elsewhere, it had been getting unbelievable in Massachusetts uninhibited by any limit on sail area. The Quincy Cup racing, started in 1898, was the force behind these ever larger, one-season racing machines. The Rudder of 1902 contains a full page picture of OUTLOOK, designed by Starling Burgess -- 52 feet long, 25 on the waterline, 16 feet beam, 1800 sq.ft. of sail. This improbable object was built around a central steel truss which extended well above the deck. Much of her deck surface was cloth so the crew had to be careful not to step in the wrong places. Tacking meant going through the truss or hurdling it. OUTLOOK beat FLASHLIGHT, another monster 55 feet long, for the Quincy Cup of that year. FLASHLIGHT sailed the series with a crumpled bow. Such were the products of a waterline measurement rule, a crew weight limit of 850 and otherwise no other limitation.



1903

In the next chapter of Seawanhaka competition, this time from the Boston area, Starling Burgess was the designer of KOLUTOO sailed by Dick Boardman. THORELLA II like

TRIDENT from the year before but with two small (9 x 12 in.) rudders as well as bilgeboards was the defender — designed by Duggan's long-time partner Fred Shearwood. Going to windward, her windward rudder was described as always out of water, wiggling in the air like the foot of a duck. KOLUTOO had a single board and rudder and she offered no competition. Her best performance was 12 minutes behind at the finish.

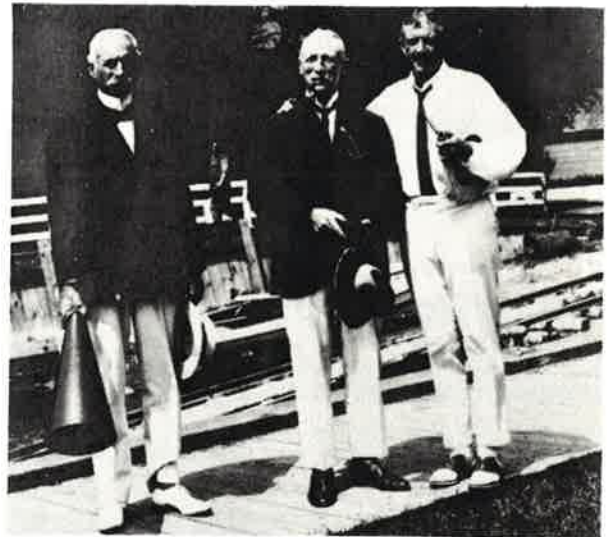
Back in scow country many more new boats were being built under the new class designations. All of them had bilgeboards. COMET II built in secret by Jones and LaBorde for Fred Pabst showed up at the Inlands with two rudders. This feature entitled her to be widely described as a freak — a freak which won the Regatta. Once again, we can speculate, and must, as to whether Jones or the Canadians first came up with this characteristic scow element.

The Inland meeting after the season again struggled over professionalism. It seemed to have turned on the nagging problem of scarce crew especially in view of the weight limits. Why not, it was asked, could not one employ his gardner or coachman at least for the purpose of local lake racing.

Rudder, as was its want, provided a capsule description of racing on Delavan with 30 to 40 active racers of which half were "modern scows", most built by the Palmer Boat Co. The biggest news, as the year 1903 ended, was White Bear's challenge for the Seawanhaka Cup being accepted by the Royal St. Lawrence Y.C. for the following season.

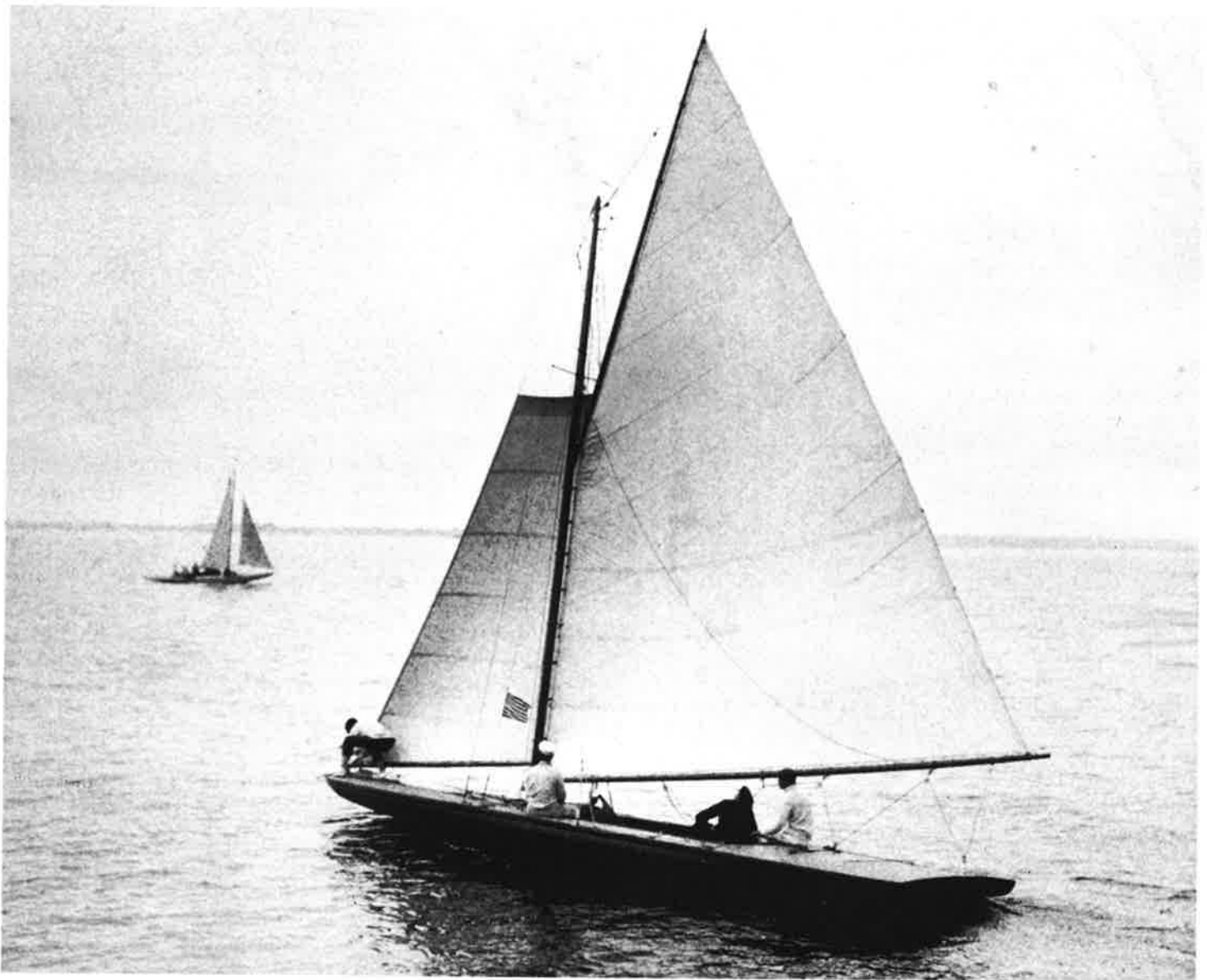
1904

Led by Lucius Ordway and Milt Griggs, invitations were sent to all Inland Clubs to send boats for trials in June to be conducted by a Special Committee. What ensued was the greatest effort by one club to return the Cup to the U.S. Six variations of the scow form were designed and built, five boats were financed by White Bear alone. Some had pointed bows, others had square ones.



LUCIUS ORDWAY WITH PIPE (CENTER)

**ALPHA** designed by C.D. Mower, built by Amundsen  
**BETA** designed by Crowninshield, built by Johnson  
**DELTA** designed by Crowninshield, built by Johnson  
**GAMMA** designed by Welch, built by Dingle  
**SIGMA** designed by Jimmy Jones, built by Jones & LaBorde  
**WIHUA** designed by (unknown), built by Andrew Petersen



CAREFUL SQUINTING THROUGH A MAGNIFYING GLASS ALMOST ESTABLISHED THE BIG, SINGLE RUDDER, CENTERBOARD SCOW AS EITHER "BETA" OR "DELTA" BUILT BY J.O. JOHNSON FOR THE TREMENDOUS EFFORT BY THE WHITE BEAR YACHT CLUB IN 1904 TO RETURN THE CUP TO THE U.S. [photo Johnson Boat Co.]

DELTA and SIGMA (the latter renamed WHITE BEAR) proved superior and were both sent by rail to Montreal, together with two crews in a private car. Lucious Ordway was the helmsman in the actual contest and his crew included Skipper Milt Griggs; so the first team was very much present. Shearwood's product was NOORNA, very much like THORELLA, but with a new wrinkle: curved boards built in two sections. The lower one telescoping out the top one. She also had wire halyards on a reel. Both devices were trouble causing. NOORNA was a scow with pointed bow. WHITE BEAR was nearly square. Both boats had double rudders and, of course, bilgeboards. The series went down to the wire with 2 wins for each. In the fifth and deciding race, WHITE BEAR had a solid lead going into the last beat, thanks to various extraneous factors. She was being overtaken, and probably for this reason, she split tacks. NOORNA won by nearly three minutes. To come so close and yet lose!

Mower had the satisfaction of seeing his ALPHA, left at home by the White Bear effort in Canada, win Class A in the Inlands against six Jones & LaBorde entries. The skipper was young Jack Ordway from White Bear.

For those who patriotic feelings are ill at ease from these descriptions of Canadian ingenuity and winning habits, let the record show that in 1905, MANCHESTER brought the Cup back "home" in three straight and convincing races. Pictures of MANCHESTER complete with three American ensigns show a gorgeous gaff-rigged A boat complete with bilgeboards and double rudders. Ned Boardman was designer and skipper. His success stumped the experts. Perhaps Duggan's departure had left the Canadians without the creative skill to stay ahead of scow developments.

What had been accomplished, of course, was more important than where the Cup rested. The mother of scows, the Inland Lakes, might have produced a different offspring without the parentage of Herrick Duggan and the Seawanhaka Cup as midwife.



# THE NORTH TRI-RADIAL AND RADIAL-- THE FASTEST CHUTES AROUND.

The NORTH TRI-RADIAL and RADIAL are "super fast" reaching spinnakers for Scows.

The original NORTH TRI was developed in 1974 in conjunction with Intrepid's preparation for the 1974 America's Cup Selection Trials. Even though Intrepid didn't make it to the Cup races, the NORTH TRI-RADIAL did and proved to be a major "go fast" weapon in the defense of the Cup. The sail was then modified for smaller ocean racing boats and one designs.

The major benefit of the radial head design is less bias distortion in the head. Because of the way the panels run, it is more difficult to build the desired shape into the head than a cross cut spinnaker. But with careful design and one at a time production NORTH is able to produce a sail with good shape in the head.

The TRI-RADIAL combines the radial head with radial clews which eliminate unwanted stretch. Because the bottom is radial, it has the same low stretch properties as the head, the foot stays flat, the leeches free and open on close reaches. Because the correct shape has been built into the sail, it lifts high and opens wide for broad reaches and runs. The result is a much faster, more versatile all purpose spinnaker that lasts longer.

Add the fastest chute around to your inventory.

TRI-RADIAL	A Scow, M-20	E Scow
RADIAL	M-20	

## LATEST RESULTS

W.Y.A. C SCOW REGIONAL June 25, 26  
1, 2, 3

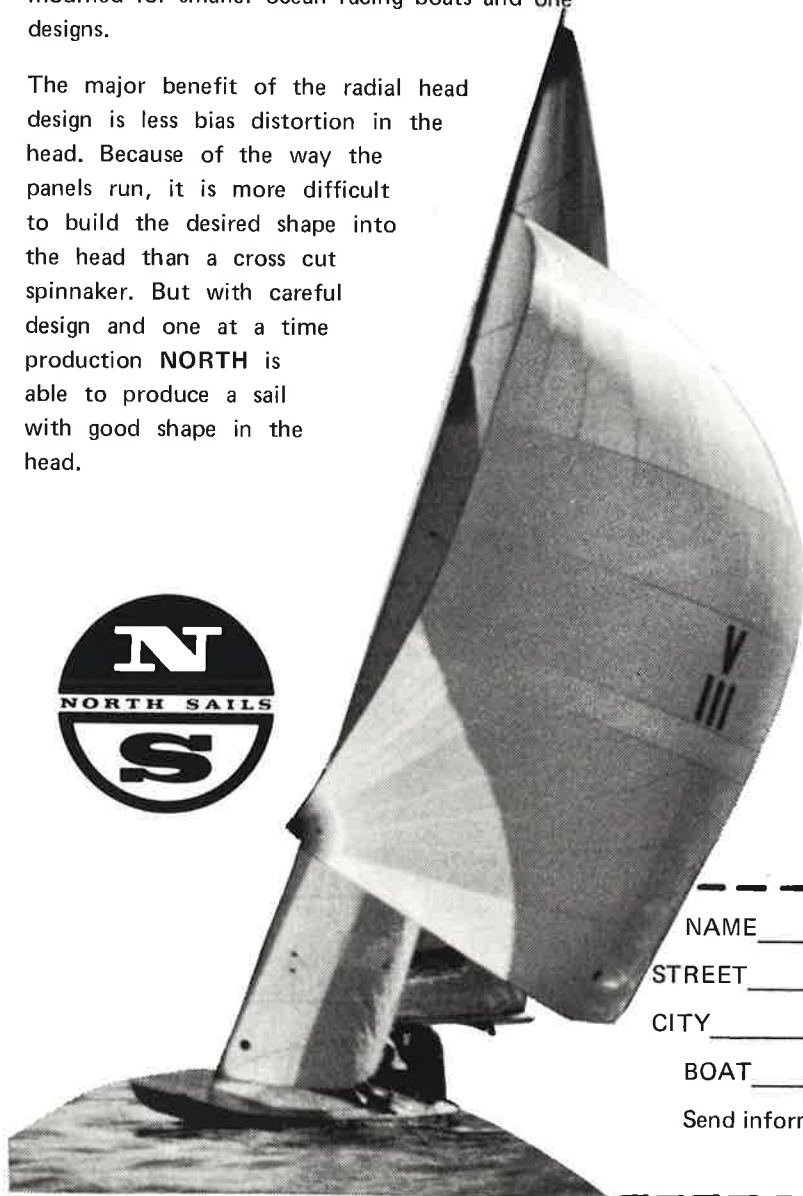
LAKE DELAVAN NO-TIE M-20 "BLOW-OUT"  
May 21, 22  
1, 2, 3, 4, 5, 6

CALL OR WRITE:

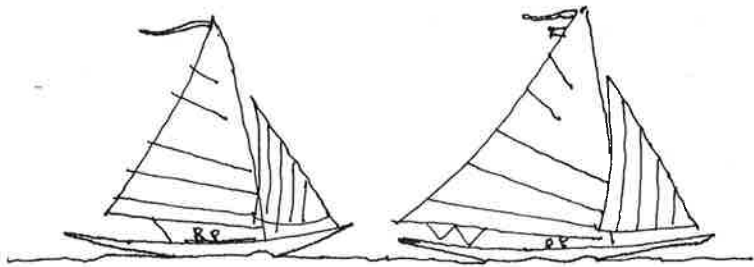
### North Sails Midwest Inc.

1253 East Wisconsin Avenue  
Pewaukee, Wisconsin 53072

(414) 691-3050



NAME \_\_\_\_\_  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
BOAT \_\_\_\_\_  
Send information on \_\_\_\_\_



Editor's 'note:

To help us "graphically amplify" Sam Merrick's fine research copy about the Seawanhaka Cup era, John Farwell (I-22) came up with "Clinton Crane's Yachting Memoirs" which not only contains pictures of his three U.S. challengers (1896, 1897 and 1899) but also his personal observation concerning that series and his 'one-to-one' involvement with his rival Canadian designer G. Herrick Duggan. At the risk of expanding this issue by another page or two, we feel that Crane's intimate comments concerning what was a near feud in prominent yachting circles should be of interest and convey a bit of the atmosphere current at the time (Clinton Crane's marine design career spanned from 1896 to the 1950's and included J.Boats, 12 meters, cruising boats, steam yachts, Harmsworth Cup speed boat defenders etc.)

In summer 1895 an international race took place at Seawanhaka Corinthian Y.C. between two small center boarders, called "half-raters" in England or "fifteen footers" in the U.S. this was the first for the now well-known Seawanhaka Cup and was won by the U.S.'s Ethelwynn designed by W.P. Stevens. In response to a Canadian Challenge for the cup, Clinton Crane worked evenings and Sundays on a possible challenger during the summer of '96. Despite familiarity only with keel boats he was certain that a light draft, crew-ballasted, center board boat would prove much the faster. His (first) finished design "EL HEIRIE" (named after Arabian racing camels because her deck had a pronounced humped crown.) was a 26 ft. overall, round-bilged, sharp bowed, vertical transom scow with a waterline of 15 ft. (In '95, Larry Huntington had produced a square bilged scow called QUESTION with great reaching speed but only in heavy air.) People watching EL HEIRIE under construction at Lawley's yard claimed she would never go to windward. She beat twenty eight other contenders at the trials which were attended by a multitude of press and spectators since the entries were designed and raced by an all-star cast including Hereshoff, Huntington, Stephens, Hoyt, etc. Crane reflected that having won from the cream of America's designers, his people felt "winning against an unknown Canadian would be easy."

"In preparation for the cup races, we wanted the smoothest possible bottom we could have and it seemed to me nothing was smoother than a grand piano. So I went to Steinway and arranged to have one of their piano finishers come to Oyster Bay and put a piano finish on EL HIERIE. She was built of double-planked mahogany and when the Steinway man was through she certainly shone. Our visiting boat was named GLENCAIRN. She came from Royal St. Lawrence Yacht Club and had been designed and sailed by G. Herrick Duggan, who was not only a great boat sailor but a fine engineer and had proved himself a wonderful designer. He had much more intelligence in sizing up the implications of the scow under the Seawanhaka rule. His boat was much shorter on the waterline and had much more sail than EL HIERIE. Moreover, the hull was lighter and the shape of sail much more modern.

GLENCAIRN won three straight races. The only point of sail where EL HIERIE showed any superiority was on a reach in a strong breeze. Looking back now, I think it was a good thing we did not win. Nothing in life can be more instructive than defeat. After the race, Seawanhaka naturally wished to challenge for the cup another year and I was asked by the club trustees to talk over with Mr. Duggan the sort of boat in which we would race. There was considerable feeling that racing would be better in a 20 footer than in a 15 footer.

I had another experience that was quite surprising. At the dinner which was given to the successful challenger, I was placed on the right side of a very charming lady at least seven years older than I was. In other words, she was 30. She invited me to dinner in her house in Locust Valley and I accepted, expecting a small dinner party. I arrived to find no one else there but my hostess, and the house lighted only with small candles, and not many of them. I do not know what was expected of me, but I am afraid I was a disappointment.

In arranging for the next race, we started on the course of restricted designing, which has by now pretty well extinguished all freedom of design in racing boats. I was invited by the Duggans to visit them at Dorval on Lake St. Louis, the home waters of the Royal St. Lawrence Yacht Club, and spent a very pleasant week going over the place where the races would be sailed and discussing with Duggan the type of restrictions that we should employ if we decided to increase the size of the class to 20 feet. Duggan generously showed me all that he had done in the way of building and designing in the class of 15 footers. GLENCAIRN was one of a half dozen designs which he had made and built. In Montreal at that time there were no good sailmakers; no place where you could buy yacht blocks or yacht fittings. In fact, everything which Duggan put in his boats - the blocks, the sails, the spars, the type of construction - were all his. The only real help he had was the skilled canoe builders whom he put to work on his hulls."

The 20-footers were selected for the '97 racing which made them about 17'6" on the waterline and about 500 square feet of sail.

Duggan designed four boats and Crane built two for the '97 series. (Crane visited often with W.P. Stephens whose Ethelwynn had won the first challenge in '95. Stephens did not approve of scows, he thought they just ought not to win races and was very annoyed that they did win).

"Duggan was a wonderful engineer and a past master of light construction, which means putting material in the places where it is needed and omitting all material from the places where it is not needed. In naval architecture, particularly, we inherit many habits from the past. My early racing boats, which were built by Lawley, all had keels because the conventional boat needed a keel. But when you look at the form of a scow, you can see that there is no need for a heavy oak member in the middle of the bottom. Duggan appreciated that from the first, and I am sure in our first two years of racing his boats were much lighter than ours."

Crane's two boats were MOMO and EL ANKA and the former finally won the series. In EL ANKA's last start in Boston, she was three minutes late but caught everyone but a boat called ROOSTER at the end of three miles. Crane observed that people in Boston realized for the first time how fast the scow hull was as EL ANKA planed by Rooster on the reach leg as if she had an engine.

In Canada MOMO won her first race in light air but from then on it was heavy air and the Canadians won three



straight races. Crane felt that under the conditions they had a better boat but the Americans had better sails.

For the '98 series Crane designed SEAWANHAKA which he said was influenced by what he had seen the previous year in Canada. Crew regulations were considerably changed. To avoid enlisting heavyweights and multiple wet sweaters a maximum weight of 600 lbs. was agreed upon. The trial series was a duel between Huntington's AKABO and SEAWANHAKA - the former was distinctly faster on reaches but one of her crew carelessly burned up her best main sail with a cigarette and she was a dead duck after that.

The hard sailing in the trial races put Seawausha badly out of shape. Her builders had recommended a strip type of planking, narrow strips with grooved edges nailed together. Unfortunately, modern types of glue were lacking then so she just fell apart. The new boat CHALLENGER was substituted.

"This series of races caused a most disagreeable controversy which highlighted to me one of the great dangers of international racing. Duggan had designed a double hulled boat called DOMINION. With the weather hull lifted out of the water entirely, she proved extremely fast. As catamarans had been barred from our own racing for years, we protested against the use of DOMINION during the trials and when the protest was disallowed by the Canadian Committee the trustees of Seawanhaka felt we should not go on with the race. In fact, Seawanhaka felt so strongly that they sent R. W. Gibson to Montreal with directions to refuse to race, but leaving the final decision to Mr. Gibson and me. I pointed out that the deed of gift, which had been drawn by Seawanhaka, gave the committee of the defending club full authority to decide all questions of dispute, and that it would be most unsportsmanlike, under these circumstances, not to race.

The race proceeded. In the light weather of the first race CHALLENGER won, but afterward, when the usual strong breezes began, DOMINION easily defeated CHALLENGER. That would have been all very well if newspapers and yachtsmen on both sides of the border had been prepared to accept the result without comment. But a most bitter controversy occurred, and unpleasant things were said on both sides. Duggan, who was a real sportsman, offered to

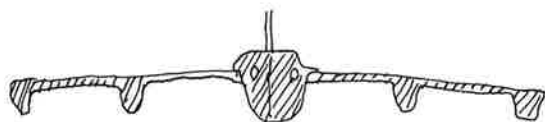
resail the match with one of his other boats, but the legal-minded people on both sides said that, under the terms of the deed of gift, this was not possible. I have always regretted very much the whole controversy and feel that people at home, when they send a representative abroad, should not meddle but should leave all matters to the man on the spot.

In 1899 I designed another challenger for the Seawanhaka Cup, built for a syndicate headed by Regis Post of Long Island, named CONSTANCE. The crew for these races was the same as in the '98 race except that Joe Thomas took the place of Lewis Stackpole.

As we had been regularly beaten by the Canadians in heavy breezes, we consented to a postponement of a day when the race was set, as a very heavy wind was blowing and the Canadians thought there might be damage. Had we realized that CONSTANCE was a faster heavy weather boat than their GLENCAIRN III, we would not have made this mistake.

CONSTANCE won so easily in the first two races, in heavy winds, that we all expected to ship the boat back to Long Island the following Tuesday, and made the great mistake of having our photographs taken. On Monday morning the wind was still blowing, and CONSTANCE went into the lead which she had usually taken. But before the race was half over the breeze dropped and the Canadian defender proved herself as much faster than CONSTANCE in light airs as CONSTANCE had been comparatively in a breeze. So this match ended in defeat for the American side, as light weather continued for three more days. This was my last crack at Herrick Duggan. I had raced against him four times and had been defeated each time.

ED. NOTE: MOST OF THE ABOVE MATERIAL WAS PARAPHRASED OR DIRECTLY QUOTED FROM CLINTON CRANE'S BOOK, "YACHTING MEMORIES," PUBLISHED BY D-VAN NOR-STRAND, INC. IN 1952.



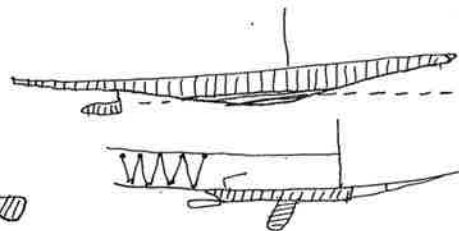
#### BIBLIOGRAPHY:

1. Yacht Club histories of the following ILYA member yacht clubs: Lake Geneva, Neenah, Nodaway, White Bear, Oshkosh and Pewaukee.
2. The boxed two volume history of the Seawanhaka - Corinthian Y.C. up to 1940.
3. The bound volumes of Rudder magazine - especially those from 1894 through 1905.
4. Article by Herrick Duggan in Sailing Craft edited by Edwin Schoettle (1929).

5. Various articles and books by Howard I. Chappelle.

6. Clinton Crane's Yachting Memories - Clinton Crane.

There is much additional material that would prove of great interest to the scow family in various parts of the country. Field & Stream had a "Yachting department" in the 80's and continued to cover yachting activities comprehensively for many years. Yachting started publication in 1907. These sources were scarcely considered.



#### CREDITS

##### THE REPORTER IS INDEBTED TO:

- Skip Johnson for the use of Iver Johnson's photo album which dates back to the 1890's and from which many of our pictures were selected. Skip also furnished sail plans of the early E Scow.
- Chris Goes and Goes Lithography for the use of prints previously developed for the Lake Geneva Y.C. 100th Anniversary Book (edited by Hal Hamlin). Chris also coaxed the fine print from a negative furnished by Sam Merrick of the cover shot of "Outlook".
- John V. Farwell IV for loan of "Clinton Crane's Yachting Memories".

# BEAUTY IS ONLY



## IS IT?

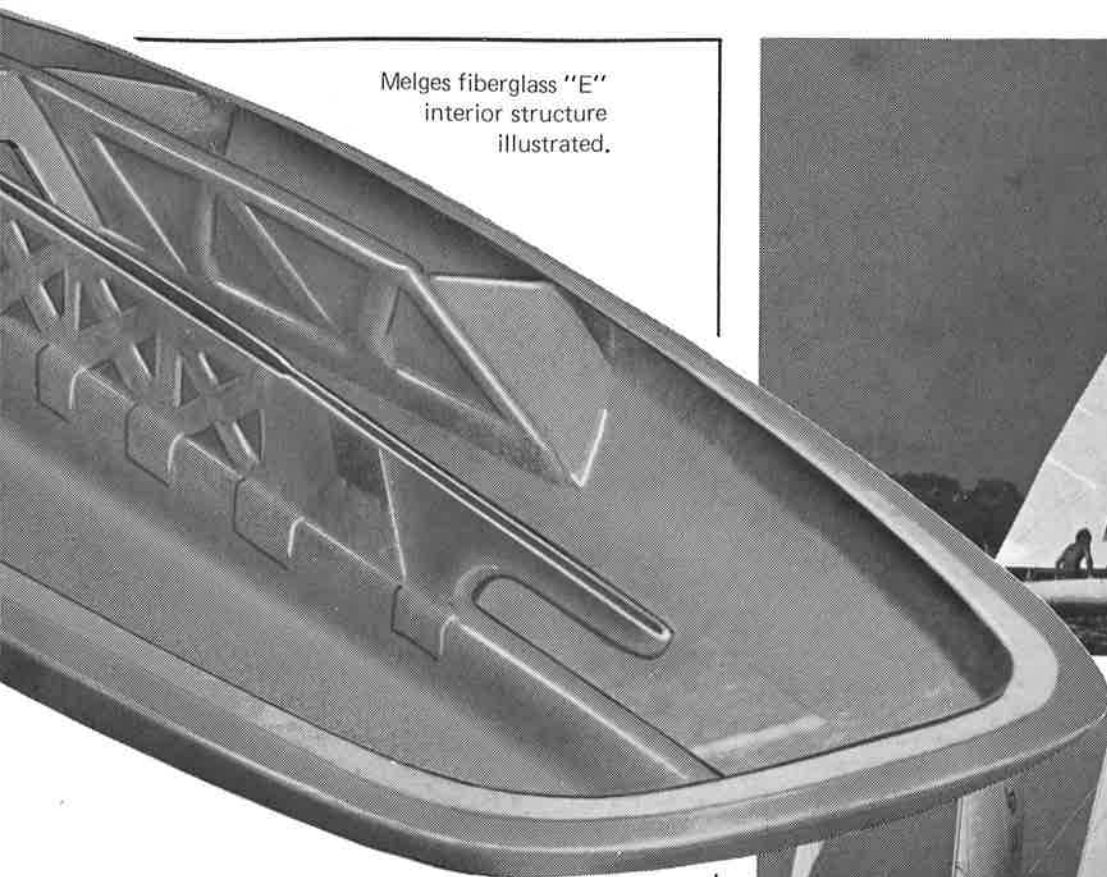
Second best is not good enough for us. While you knock yourself out on the race course, we're knocking ourselves out to design and build the best boats for you. After all beauty isn't only skin deep. Even though our boats may cost a bit more than the competition we give you more. When you're out there competing you'll know that you got a lot more for your money not only in design and construction but also in service. You'll be confident with the latest and most efficient hardware systems, incorporating ideas Bud Melges has formulated. We take the extra time to put fiberglass stringers, fiberglass truss systems, quarter tanks and bulkheads into your Melges scow to make it extremely stiff and long lasting. Our unique balsa core construction with the vacuum impregnated system is time consuming and costly but we feel it's important in giving you a boat that's better.

Don't just sail a beautiful boat this year . . . invest wisely and get a lot more for your money. At Melges Boat Works we give you beauty that isn't only skin deep. Call or write us Today!

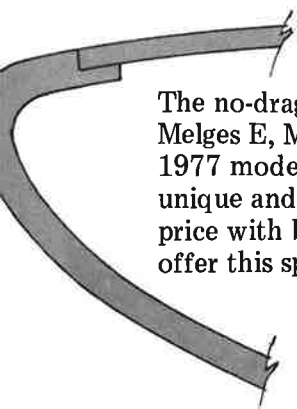
Melges Scows made an impressive showing this year in area regattas. Melges "E" scow sailors finished 1, 2, 4th and 5th at the "E" Invitational and swept the Inland with 1, 2, 3, 4, 5, 6, 7, 9 and 10th places. M-16 sailors topped the fleet at the Invitational with 2, 3, 4, 5, 6, 8, 9th and 10th place finishes . . . the Championship brought a 2, 3rd and 5th. An excellent showing was made by "C" scow sailors with a 1, 2, 3rd and 4th at the Eastern and a 1, 2nd and 5th in the Western. At the Inland the fiberglass "C" placed 2, 3, 4th and 5th. "X" boat sailors started the year at LaBelle with 1st through 4th place finishes. The Inland brought a 2nd and 5th in the Senior fleet and a 2nd and 6th in the Junior fleet. Blue Chip results were 1st and 3rd.



# SKIN DEEP!



Melges fiberglass "E"  
interior structure  
illustrated.



The no-drag rub rail makes the Melges E, M-16 and now the 1977 model C's aesthetically unique and is competitive in price with boats which do not offer this special feature.



**MELGES BOAT WORKS INC.**  
Zenda, wis. 53195 414-248-6621



BUSTER, IVER AND JOHN O. JOHNSON

ED. NOTE: A LOT OF SPECULATION WOULD BE RESOLVED IF THIS INTERVIEW COULD HAVE BEEN CONDUCTED WITH THE PRINCIPALS ABOVE AND THOSE MENTIONED BELOW.

### AN INTERVIEW WITH BUSTER JOHNSON —[SKIP JOHNSON'S UNCLE]

**Johnson:** My father, John O. Johnson, met Gus Amundsen in Norway and Gus told him he would give him work, so he came in the fall and was just sort of a busboy around the house, cooking a few meals, and I suppose he spent the rest of his time down in Gus' shop, I think he only worked for him about a year. Then there was another fellow between here and Amundsen's place by the name of Peterson. He worked for him. He also married Peterson's daughter — my mother.

**SM:** There was still another builder on White Bear Lake — Ramaley.

**Johnson:** He never worked for him. He was one of the old timers.

**SM:** He had a boatworks, too?

**Johnson:** Yes, he had one here and he had one in Concord. My dad worked for Peterson. I don't know if Peterson built much of anything. Amundsen was the builder and Peterson was renting boats at that time. He talked about putting two rowboats together and making a catamaran out of it. Maybe the first catamaran, who knows? He said it was pretty good, but he couldn't steer it.

**SM:** How did he get started - you say 1896 was when he first started building?

**Johnson:** He worked for Gus Amundsen for a while and then he worked for Peterson and during that time everything we had at White Bear were keel boats, displacement type boats although they had sails on rowboats and everything else. His theory was at the time, if he could only get a boat to go across the top of the water it would be a lot faster. There was an old fellow around the lake by the name of Milt Griggs who listened to the story a little bit and thought, well, maybe it's not just a bad idea. So he financed him and they built that first boat.

**SM:** Was that the boat called "Minezitka"?

(Note: this boat was built to sail in the Seawanhaka Cup races of 1900).

**Johnson:** Yes. He had a few ideas about that boat. He wanted to put double bilge boards in there too, but Griggs wouldn't go for that. He said we're radical as it is. Let's just stick with the center board and the single rudder. And, of course, when they built it, the rest is history. The boat got put to bed before the next boat got around the first mark.

**SM:** That Minezitka is 1900? Was that the first John

### Johnson boat?

**Johnson:** I guess the first Johnson boat that showed up in the Inlands was Minezitka.

**SM:** That was 1901. In that year there were 16 Class A boats in the Inland Lake Regatta held on Green Lake.

**Johnson:** Was that the first Inland?

**SM:** No, the first Inland was earlier, but the account of this was in Rudder magazine. Eight pages of description of each race and how each of these boats were built. There was one Johnson boat and there were seven Jones and LaBorde boats. Jimmy Jones — he must have been a genius.

**Johnson:** Right.

**SM:** Did you ever know him?

**Johnson:** Sure. He was pretty old when I was a kid. It would be around 1926 and 1927 that Jones was still around. And actually when the E Class was born, he built one of the very first ones. We built one here, too, with the pointed bows, single center board single rudder. You know the early scantling rules were pretty liberal. All you had was the length, the width and the depth. From there on you could go. You just had a box that was so wide and so deep and you could put any shape you wanted into it.

**SM:** The first Inland Lake regatta was in 1898. They sailed under the so-called "Seawanhaka Rule" which was the water line plus the square root of the sail area divided by two. It obviously was difficult to catch up to the water line. The measurers would have to lean over the docks and try to figure out where the water line was, especially with any waves, so that's when they ended up with the overall length.

**SM:** Your father wanted to put the bilge boards in Minezitka.

**Johnson:** He put them in afterwards. About a year or two later.

**SM:** The first twin bilge board boat actually was in racing competition in 1902, its name was the Comet, a Jones and LaBorde boat. I suspect that's when your father went back and put them in.

**Johnson:** I think the very next year he put them in. Everybody came in and laughed. Said it looked like a damn cement box and somebody called it a scow. But there has always been a controversy about who had the first scow. The Duggan supporters claim he had it and my dad claimed he had it and Jones and LaBorde had one about the same time. (Duggan was a Canadian from Montreal who designed The Defenders for the Seawanhaka Cup.) I remember back in about 1930 we sent some boats down to Barnegat Bay for someone who wanted to put anti-fouling paint below the water line. We didn't know where the water line was so we put one in the lake and let it sit to see if we could find where the water line was and paint it on afterwards.

**SM:** I don't remember seeing one with a water line. I'll take your word for it. There was a fleet of E boats on Lake George in New York State. Does that ring any bells? They had center boards.

**Johnson:** Yes, we built six of them. It was in the '30's and they had a high rig and they had a permanent backstay on the back but with a center board. They wanted some college-type boy to go down and teach these people how to sail the boats, but we couldn't find one. They tipped over half the time and didn't last too long. Some of them were reconverted. But there were six of them -- real tall, narrow rig with a little bronze casting on the back. I think the pattern for the fitting is still around.

**SM:** You have no idea of when that was?

**Johnson:** Must have been around '36. A little before WW II.



**SM:** Nothing like that was ever desired by the Inland, I mean the tall rig.

**Johnson:** No, it was some group down there that wanted that. The same thing happed on Grand Lake in Colorado, they wanted that tall rig, too. But this time I don't think we put it on.

**SM:** Small rig and center board. I don't know why they wanted a center board.

**Johnson:** They didn't want to be bothered with pulling the boards up on every tack. If I remember rightly, I think that's the one that had a little horse across the cockpit so they could tie the mainsheet. We told them you couldn't sail these boats with the mainsheet tied - you had to hold it.

**SM:** Lake George is up in the mountains - some place for tying the sheet.



**SM:** Tell me about spars —

**Johnson:** The idea was if he built this curved spar he'd have something to replace the high gaff and bring in the leech -- it wouldn't fall in like the old gaff rig. We really had a field day. We took everybody including Jimmy Jones. Then we went on from there and put a mast on a swivel. It didn't need a handle. We had a series of holes and dropped a pin to determine how far you wanted it to swing. We didn't have to turn it by hand, it would turn by itself. Before we had pear shaped spars, we built them perfectly round ... everybody was concerned about the air blowing through the slot between the sail and the spar. We laid deck material glued on the side of the masts to cover up that hole and then we found on the leeward side you could see where the vacuum was because the flap stuck straight out to leeward behind. That never worked out too well.

And then about that time ... I don't know whether the Canadians had it first, we took these same round spars and glued a piece of cedar on there, made them kind of pear shaped or streamlined on the same straight round spars that we had. That became our first pear shaped one and after that we made them all like that. Hollow spars weren't too difficult. Actually it went pretty fast. You take a big router on half your piece of lumber and dig it out. Then you do the other half and glue them up and square them. You use the skillsaw ... to knock off the four corners until you have eight

sides. At that point you have made it completely round. To get a pear shape you just take a bigger slice off so you have two corners. You work by hand with a hand plane. You couldn't do too much by machine for those big A boat spars. You had a hack them out with a hand axe. You laid them out on the floor with the right curve, then you glue up the pieces and finally they were hollowed out and glued together and you had this great big flat section ... chop, chop, chop, right down ... he didn't make one in a day I'll tell you.

The first curved A boat board was made out of 1/8 inch aluminum. Big sheets. We had this big wooden form where you could push it down for a curve and you laid pieces of wood in there and then a second sheet was put on top. These two 1/8 inch pieces were screwed and riveted all along the bottom and you put regular wood screws right straight through and you round off the other side and peened those over. They were beautiful.

**SM:** They'd fall apart instantly in salt water.

**Johnson:** Oh yes, but we had a lot of orders.

**SM:** You used to curve E boat boards but stopped that some time ago.

**Johnson:** Well, yes, that's when my hearing went bad hammering those damn boards of boiler plate steel.

**SM:** That's an interesting idea. Where did you hammer them?

**Johnson:** Right on that table back out there. You can move up off the leading edge, bang, bang all the way along. If you want a quarter inch curve in there or a half inch, you can get it in there. And after you get it all in there, the damn thing is perfect. Then you have to hammer it more to get the leading edge straight. Finally, we found an up-and-coming machine shop on the other side of the river in St. Paul ... in the bit press he could put in any curve you want.

**SM:** Did they stop you from putting a curve in?

**Johnson:** Yes, as the boards get thicker, you know. Originally, we had to have 3/16 boiler plate steel. The curves were hammered in. Then we got into aluminum boards and we were restricted as to how wide the slot should be. There wasn't any high tensile aluminum. We used 3/8 aluminum for a one-half inch slot so you didn't have room for a curve anymore, by shaping the back edge of the boards you get the effect of a curve -- so that's how that started.

**SM:** When did that happen?

**Johnson:** Oh, I'm not sure, but around 1939 probably. It might have been a little before that when Jule Hannaford was still sailing. Dick Ordway wasn't doing anything in the races and his father came over and said can't you do something for Dick. So anyway ... (sounds of laughter)

**SM:** He needs a little crutch.

**Johnson:** So we made up a set of aluminum boards in Dick's boat. The following week Jule got a set. The same thing happened in the C boats about 1936. The C boats had aluminum boards before E boats because they could have a bigger slot. One year Danny Hornig was a great big kid who wasn't doing well, so my Dad said let's hammer a little curve in that set of boards and see what happens. Danny started to win races. He couldn't keep still about it. We told everybody he had curved boards and they threw him out of all the races he won. He didn't win after all! And then for a while you couldn't put curved boards in E boats. Of course, now they're supposed to be straight.

**SM:** Aluminum must have been pretty well developed during WW I for it to become more available.

**Johnson:** The old A boats had aluminum boards for a long time. It was a while before we got the Eastern boys to go for



1930 "A" BOAT CREWMEN JULES HANNAFORD (L) AND BUSTER JOHNSON. [Photo: Johnson Boat Co.]

aluminum because of the salt water. We painted those doggone boards with everything you could think of. Nothing held up. We could paint aluminum just as well as steel. The first aluminum board went down there on that basis — they'll last as long as the steel if you paint them. And they sure work a lot better than those iron boards. Those steel boards were rough — they rusted and fell apart.

**SM:** In 1923, as I understand it, the Inland people wanted E boats, so a few of them were built in 1924 with a big heavy center steel board and single rudder. But when not very many people bought them they switched to bilge boards and double rudders.

**Johnson:** Yes, at first they had a single center board and they had the pointed bow. One mainsail, jib, one spinnaker, one pole, that was it. The story behind that was we had three classes - A, B, and C - and there wasn't much difference between the A and B. A was 36 feet, 38 feet long and the B was 32. Everything the A boat had in it, the B had. Pricewise there wasn't too much difference so they wanted a boat they could get the price down a little bit. The first one was built for \$750. They were \$850 - \$875 for a long time, with the sails.

LaBorde must have been long gone — Jones must have been running that by himself. I never saw LaBorde, but Jimmy Jones, he was a great favorite around Lake Winnebago. He did alot of work with the Buckstuffs.

**SM:** They came way out here from the East to get his ideas.

**Johnson:** Jones was a little fellow. He was always poking around. That last A boat he built for Johnny Buckstaff called Haywire, put together with baling wire, I guess. He built fast boats.

**SM:** And they were very different each year - terrible hardware on them; stuff that you'd put on porch screens, hinges and hooks and iron cleats. Unbelievable!

**Johnson:** The hardware was pretty crude in those days.

**SM:** I didn't know E boats came pointed.

**Johnson:** Yes, we had pointed ones for a long time. My dad liked them for some reason or another. It was quite a while before we ever swung on to round bowed E boats. I think Henry Myer got one of the first round bow ones down at Pewaukee. (1927)

**SM:** How much changing each year took place in the shape of your hull? Got any sense of that?

**Johnson:** Oh, yes, these first E boats -- there was a lot of fiddling around with them. Of course, everybody was experimenting with them. My dad was always one to have more of a flat bottom boat. Others like Palmer had different ideas.

The first ones were pretty easy bilge boats. As for the pointed bow, the first one came pretty much to a point. There wasn't much difference between the round bow and the pointed one. My dad kind of liked to keep that pointed bow because of the reverse curve. In other words, from the midship section going forward was a concave line ... sometimes a half inch. It looked like it was sagged in at the point, but it wasn't. E boats were too darned short for the reverse curve. So we put in pretty much a straight line ... almost a slight curve the other way, but usually straight.

**SM:** Most of the Barnegat Bay boats were Jones and LaBorde boats. The first ones we had out there were in 1925; they were all Jones and LaBorde boats except one Johnson boat. Those Jones-LaBorde boats varied each year. The 1926 one was the one I had. With very slack bilges it upset easily but were very easy to plane. The 1927 was an ugly one, it was square. In 1928, it was more like the 1926 one. Then the Johnson boats started arriving in 1929. After that, the boats looked very much the same.

**Johnson:** By that time we'd pretty much arrived at the approximate shape, made some little changes each year that didn't show much. In 1933, the Barnegat Bay Yachting Association decided that every boat we built had to go back to the 1933 plan, so we changed the mold back. We did that for a few years. Then we said to heck with them. If you want to take the new model ... outspoken Norwegian says to hell with them. So from about 1936 on, they took whatever we built.

**SM:** But after 1929, how much fiddling with the hull shape took place.

**Johnson:** Yes, it seemed like every year no matter what class we built, we shaped it. Very seldom we didn't.

Lots of times you'd be sailing along and the transom seemed to be dragging a little bit, so we narrowed the transom a bit. It doesn't show in the overall picture. Or you'd be going along and she'd heel over too much, so we hardened that bilge a little bit. A couple of years we had the Inlands at Lake Geneva which is a notoriously light air lake, especially in August. The Palmer boats were giving us fits — they were light air boats, real light short water line pot bellied, so we changed our boats mainly to keep up to them in the light air. And, of course, the minute somebody brought a Palmer boat up here, he couldn't get to first base here. We have more wind on the average all summer long than they have there. He was building the boat for a locality and we were building for a locality.

**SM:** The Palmer boats were always a little more expensive. Their hardware was more refined. They had a beautiful curved cockpit.

**Johnson:** Round both ends of the cockpit. They went in for lots of things. One year Palmer came out with rod rigging that was pear shaped and, of course, that rattled and shook and got tangled, so he didn't have that too long.

**SM:** I had rod rigging on my 1939 Johnson.

**Johnson:** But they were very innovating. He came out one year, too, with airplane fabric on their decks to lighten up his boat. Their boats would give a little so you'd see the canvas wrinkle up. He had some dope paint that he painted on the deck and then he'd stretch his airplane fabric on it so it wouldn't adhere to the wood deck. By doing that, the boat



could work all it wanted underneath that fabric. You could see it under sail, but when she stopped, the deck looked nice and smooth again.

**SM:** Palmer did not build boats after World War II.

**Johnson:** Palmer never had any sons to carry on. His daughter and her husband, I think, had a parting of the ways and that was the end of Palmer Boatworks.

**SM:** Didn't Harry Melges, Sr. start about then?

**Johnson:** Not then, but two of our fellows went down there to run this Lake Geneva Boatworks. In fact, I was offered the job at the time. My dad didn't think we were old enough to leave the fold so he said you'd better stay up here. So, anyway, Oscar and John went down there to run this boatworks.

**SM:** Oscar?

**Johnson:** Nystrom and John Arnteson. So anyway, they had this Lake Geneva boatworks. They had a lot of storage space and then they built some boats. They built some C boats which were just about identical to ours because they'd made those boats up here. He may have built an E boat, too. But after a few years, they didn't get along too well. Old John came back up here and Oscar didn't want to run it by himself, so he went to work for Harry Melges. They have done a pretty damn good job ever since.

**SM:** After WW II did you keep on changing the hull shape?

**Johnson:** Not such radical changes. One year, it was maybe '47 or '48, we made some changes — that boat was to the point that unless you really knew it, you couldn't sail it. And if you did, it would really go. So then we built this one in 1949. We widened out the bow and we changed everything back in the direction we came from. Made it more stable and easier to sail. Steve won the Inland about then. That was getting into the Nat Robbins era. And then we got fiddling around with Mike Myers. Mike had a bunch of good ideas. Then we went along where we probably shouldn't have. Those years we made some pretty drastic changes. From '49 on we streamlined her a bit, refinements, changed the keel line some.

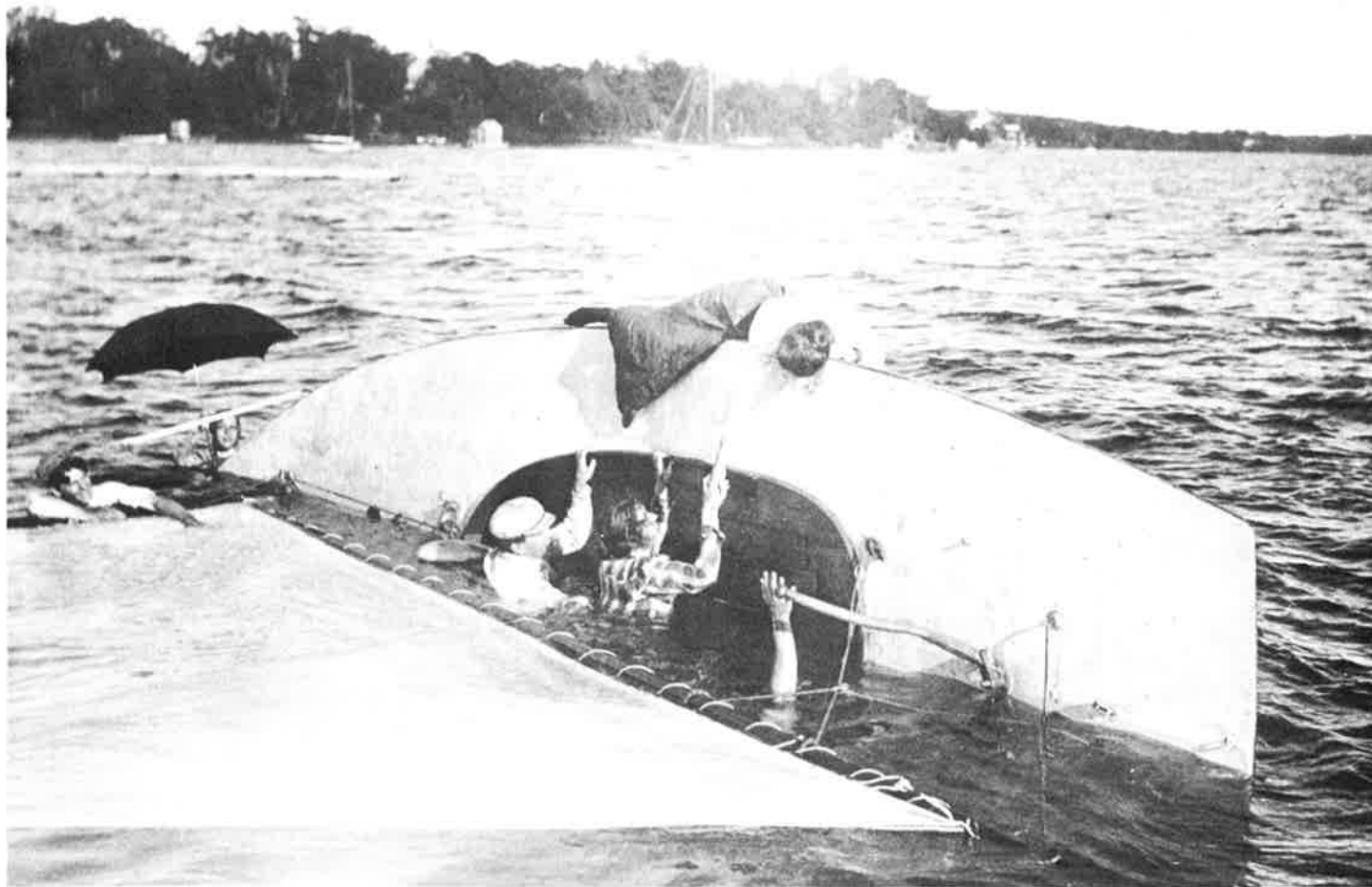
**SM:** Did you keep on changing it every year?

**Johnson:** About every two years. Then we finally got where we figured it was a pretty good boat.

**SM:** Of course, changing a boat now built in fibre glass is something else.

**Johnson:** Sure is, you have to build yourself another mold.

Fortunately, the way your rules are written now, you have a good boat.



THIS CAPSIZE "SELF-RIGHTING" PROCEEDURE AS PRACTISED ON WHITE BEAR LAKE IN THE '90's WOULD SURELY PUZZLE TODAY'S WATER SAFETY PATROLS, COAST GUARD, POLICE AND SAILING SCHOOL INSTRUCTORS.

[Photo: Johnson Boat Co]

# TRIM YOUR BOWERS SAILS AND WIN . . .



# CONSISTENTLY !

**When you want top results in your particular racing class, come to the successful sailmakers of the Northwest . . . Bowers of Minnetonka.**

**Our only business is producing and servicing winning sails. Bowers Sails consistently lead the field in the research and development of winning designs in each of the scow classes including A, E, C, M20, MC, M and X.**

*Witness the proof in the Bowers' first and second place in the recent 1976 E National Championships at Lake Minnetonka. Those top two places were won with a complete inventory of the Bowers main, two jibs, plus a soling and mini-max chute . . . (white Dynac, of course.)*

**The Bowers brothers and staff service their sails with on-the-spot tuning on your boat.**

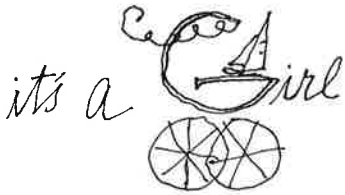
**They're interested in your performance whether you're a serious racer or casual competitor . . . and they'll take the time to prove it!**



**YOUR  
RACE  
IS  
IN  
OUR  
BAG**

*If you want to be out front, consistently, call or write the serious sailmakers, Bowers of Minnetonka. Ask for tips on how to go faster with Bowers Sails.*

**14916 MINNETONKA BLVD.  
MINNETONKA, MINNESOTA 55343  
(612) 933-6262**



## "THE NEW BABY"

The Pewaukee Y.C. history written by Mike and Deede Meyer contains this birth announcement: "On June 29, 1923 at a meeting of the ILYA Board of Directors at the University Club in Milwaukee, Dr. O.L. Schmidt (then Commodore) appointed a committee to investigate the possibility of a new class to fall in size between the Class A (38 feet) yachts and the cat-rigged Class C (20 feet). The new class was to be called "Class E" and hopefully would be a threeman boat of less cost than the "A", easier to staff with crew, and more easily managed. The committee appointed to perform this task were L.S. Gates of Oshkosh, H.H. Porter of Lake Geneva, Earl Savage of Mennetonka, James Friend of Pine; Arnold Meyer of Pewaukee. The committee formulated, set up the initial policy parameters and assigned Arnold Meyer the task of drawing up the scantlings. Arnold Meyer was one of four Meyer brothers - all addicts of scow racing - also the father of Mike, NCESA's first commodore.

Confirming this description Yachting magazine reported that a new class was being considered which was to have the "so-called marconi rig and centerboard. The underlying idea is to produce a sailboat with practical value (SIC) as well as a racing boat. The boats will be strongly built and with their relatively simple rig will be good for sailing in all kinds of weather" - Sounds as though it would be all things to all people!

The context in which this new venture was launched was composed of several elements: The B scow (32 feet long) had been becoming extinct since 1910; It was too much like the A - and why have two boats so much alike? The "A" was getting expensive as much as two thousand dollars, but besides it was a brute to sail and needed lots of strong and skilled crew.

The ILYA Rule Book for 1924 carried a supplement "in front" describing (presumably) the product of Henry Meyer's work and the committee's policy decisions. "It was a scow", says the Lake Geneva history, "halfway between A and C in length, with a marconi rig, a centerboard and a single rudder, both . . . of boiler plate (steel) . . . sturdy construction more specific than for the other classes . . . limited to one spinnaker which must be carried throughout the regatta."

Each of the builders (probably Johnson, Amundsen Ramaley, Jones and LaBorde, Palmer) were urged to build a boat to the announced plans. Several (maybe all) of the boats were raffled off on a number of lakes to get the class going. Pine and Pewaukee were early leaders. Success was not immediate. Although ILYA had a championship trophy ready at the Inland Regatta that year only one boat turned up and no races were held. Some say the boat attended the regatta to promote the class; it is uncertain whose boat or what it looked like. Presumably it was built to the 1924 supplement.

It seems clear that a consensus soon developed that bilgeboards and double rudders were the way to go. The cool reception and experience with the sailing qualities of the first

boats demonstrated the undesirability of ignoring scow developments which had proven out in the Seawauhaka Cup competition twenty years earlier. The Lake Geneva history reports that "in late 1924 the ILYA relented and allowed iron bilge boards and double rudders."

The ILYA 1925 rule book reflected the switch. It grandfathered the 1923 boats and permitted bilgeboards and double rudders. It provided for a separate set of scantling's - plank thickness, ribs, deck, etc., pretty much like the wooden boat permitted today under the NCESA rule book.

This decision unleashed rapid Class E growth among the established scow lakes. Even on Barnegat Bay in New Jersey nine boats were active for the 1925 season; hence the E scow history of that body of water is as old as that of any of the lakes.

E boats of these early years had a crew weight limit of 550 pounds. Spars were round and hollow. Some were rigged with spreaders, but most not. Johnson, Jones and LaBorde and Palmer soon became the principal builders. Johnson boats were best in heavy air (Minnesota has more wind they say, than lower Wisconsin) and soon established a reputation for lasting longer. The Jones boats were probably faster all around but were badly constructed - no doubt why Jones and LaBorde went out of business in 1929 (maybe late 1928). Palmer lavished more care on fittings and bright work and soon acquired the reputation of being best in light air. Early Johnson boats complete with sails cost 1750.00 - Palmer boats somewhat more.

The centerboard boats built under the 1923 rules were converted either by removing the center trunk or (as seen by Mel Jones) by simply adding bilgeboards. Most of the early Johnson boats at least until 1929 were built with pointed bows - a favorite of J.O. Johnson. The spoon bow, which allowed a longer inclined waterline was generally favored by the Wisconsin builders, although Jones and LaBorde built at least one pointed in 1926 and Palmer in the thirties. Jones and LaBorde went in for radical changes each year - so much so that the fifty year old memories can recall the quite different shapes of each year. Johnson and Palmer boats were changed each year, but it would take a practiced eye to tell one from the other. The changes were incremental - in the search for speed.

The requirement for low cost manifested itself in several ways: a single spinnaker pole (until 1929) steel bilgeboards and rudders (until aluminum got cheap in the thirties), round and straight spars (in contrast to the pear-shaped curved spars on A boats), single spinnakers at least in the first year. The mast was two feet shorter, and the boom two feet longer than now, but this gets ahead of our story -

WRITING HISTORY HAS ITS PERILS -  
THE HISTORIAN DOES HIS BEST WITH  
MATERIALS AVAILABLE TO HIM. HE  
INTERPRETS TO THE BEST OF HIS  
ABILITY. THOSE WHO READ OUR MA-  
TERIAL MAY HAVE RECOURSE TO  
FACTS WHICH ENRICH OR EVEN CON-  
TRADICT WHAT WE HAVE FOUND --  
LET'S HEAR FROM YOU.

EDITOR



# We're Back!



## 1<sup>ST</sup> EASTER E-SCOW REGATTA

Write or Call Collect  
**BILL ALLEN c/o MURPHY & NYE**  
2243 N. ELSTON AVE.  
CHICAGO, ILLINOIS 60614  
312-384-2828

## LIGHT AIR SPINNAKER TRIM

(By Special Eastern Correspondent)

As the spinnaker may not be usable on a tight reach in light air (the apparent shifted wind is further forward - boat speed relatively high compared to wind speed) and it may only be set on a broad reach or run, a full sail is desirable. The fuller the sail the more stable it becomes, and stability is the essential quality in light air. (Energy expended in re-expanding a spinnaker is energy lost.) The light air sheets should be rigged and, if an option exists, they should be led from leads 3-5 feet forward of the transom. The pole should be set low on the mast so that the luff will be full initially and the sail more inclined to fill as it is set.

The critical element in setting in light air (any air?) is to initiate flow on the leeward surface of the luff. This means that, as the sail goes up, the sheet must be fully released and the guy overtrimmed. Once the luff is obviously aback, the pole can be eased forward until the leading edge fills. Then from a luffing state the sheet is trimmed until the entire sail fills. Three factors aid this result: (1) the boat is borne away **gradually** and, even if the leg is a run, not headed below a broad reach until the spinnaker is filled, (2) the jib sheet is released as the mark is rounded (a stalled jib will prevent the spinnaker from ever filling), and (3) a preventer is rigged to prevent the pole from coming back without the spinnaker tack. As soon as the spinnaker is filled the boat can be brought to its ideal course, the jib can be dropped (preferably without scrambling onto the foredeck), and the mast pulled forward - raked forward of vertical, (not to achieve balance as in heavy air, but to get the spinnaker away from the main). The mainsail should be set full (outhaul and Cunningham eased, mast straight, vang tight) and the boom trimmed at a closer than usual angle of attack (the apparent wind is always shifts forward in light air and the downwind course must be relatively high on the wind). Readjust the pole height as necessary to keep the tack at the same height as the clew (better too low than too high in very light air).

Trim on the run is based upon two principles: (1) the helmsman can maintain spinnaker trim better by altering course than the sheet-man can by trimming the sheet and (2) as the helmsman wishes to alter the course continuously he must lead the way and the sheet trimmer must follow. With a minor decrease in wind strength or the slightest sagging of the spinnaker luff, the boat can be headed up until the sail lifts in its entirety. With a minor increase in wind strength, the beginning of a folding of the luff, the boat can be headed off, to gain position farther to leeward. The sheet trimmer must follow the boat's lead. With a greater decrease in wind strength, the pole may have to be eased farther forward (so the boat can sail higher) or even dropped to a lower level. With a greater increase in wind strength the opposite adjustments may be indicated, so that the boat can be taken down as far as possible in the gust. In addition to responding to changes in wind velocity, the helmsman will respond to changes in wind direction, following the wind, maintaining the same sailing angle (until a major lift that requires a jibe occurs). The boat is continuously sailed high enough, but no higher than is necessary, to keep the air flow attached to the leeward surface of the luff of the spinnaker (so that the luff at least is unstalled). Only in moderate to heavy air can the spinnaker be sailed completely at the stall.

The angle of the pole to the centerline rarely needs adjustment while running. It is better to leave it alone and sail the boat so as to keep it at the proper angle to the wind. Then compass headings indicate wind shifts and the appropriateness of a given jibe. In general, the higher on the wind the boat is sailed and the stronger the wind, the higher the pole can be set. It should always be set approximately perpendicular to the mast but a 15 degree variation from the horizontal is acceptable.

Expect the spinnaker to collapse when running into a hole (the apparent wind moves forward abruptly). The pole may have to be let go all the way forward and then retrimmed to re-establish flow. Expect the spinnaker to stall with an abrupt gust (the apparent wind moves aft abruptly). The pole may have to be brought back and the boat headed up before it can be allowed to bear away in the gust. If the wind becomes extremely light and/or extremely variable in direction and/or the current is with the wind, it may be impossible to keep the spinnaker filled. If the spinnaker is collapsed more than it is filled, it is doing more harm than good and all the wind's energy is being exhausted in opening it rather than moving the boat. Take it down! Which, of course, means that in light air the primary effort of the helmsman and the sheet trimmer is to keep the spinnaker from collapsing.



SAM, THIS SPINNAKER IS COLLAPSED AND IT CERTAINLY IS DOING MORE HARM THAN GOOD, BUT HOW IN HADES DO YOU GET IT DOWN?

# THE MARK OF PERFORMANCE

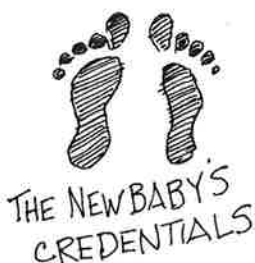


As one design sailmakers, we've concentrated our efforts on a limited number of classes, enabling us to become very successful in each. Because we've limited ourselves to a small field, our standards are very high and we've become experts in creating a fast sail that can be tuned to your specifications. Our Board of Experts designed and built the sails which took the first three places at the E and M-20 Inland Championships and seven of the first ten places at the National E Championship. Exhaustive testing of the X boat sails last Fall brought results of six of the first ten places in the Senior Fleet and five of the first seven in the Junior Fleet. In a very competitive Olympic year our Soling sails dominated regattas in Europe as well as North America. Our design team produced sail designs which won seven of the first ten places in the Soling Class at the Olympic Games, including the U.S. Silver Medal winner. The knowledge gained from this intensive design program is applied directly to our Scow Sail designs and keeps Melges Sails ahead of the competition. Call or Write Today!

**MELGES SAILS**  
INCORPORATED

MELGES SAILS, INCORPORATED, Zenda, Wis. 53195 414/248-6623





# 1925

## RULES

### Inland Lake

### Yachting Association

#### SPECIAL SCANTLING RULES FOR CLASS E.

Add the following Paragraph: Class "E" Yachts shall be constructed in accordance with the following restrictions:

1. Planking of hull shall not be less than  $\frac{1}{2}$  in. thick at any point, and shall be of at least as great density as cedar.

2. Frames or ribs shall be of oak, elm or other hard wood and shall be 1 in. by  $\frac{3}{8}$  in. in size, spaced 6 inches center to center.

3. The deck planking shall not be less than  $\frac{3}{8}$  in. thick, with a canvas covering; the planking to have at least as great density as cedar. The deck beam shall be  $\frac{3}{4}$  in. by 1 in., spaced not more than 6 in. center to center.

4. Bracing of hull shall consist of three trusses. There shall be two bilge trusses whose length shall be at least two-thirds of the boat. The third truss shall be an interrupted center truss the forward part extending from the bow of the boat to the center-board box, and rear section extending from rear end of the cockpit to stern of the boat.

5. All spars shall be round. No Stream lines allowed. The Mast shall be straight, without a curve.

Class "E" Yachts to be not over 28 ft. over-all length and not less than 27 ft. 9 in. over-all length, beam not less than 6 ft. 6 in. nor more than 6 ft. 9 in., greatest moulded depth to be not more than 17 in. nor less than 16 in. amidship. Sail area limited to 285 square ft. total. Class E yachts built under the Rules and Restrictions adopted in 1923 for the Regatta of 1924 are eligible in Class E races.

Class E boats shall be built with center-board or bilge boards constructed of  $\frac{1}{2}$ -inch boiler plate steel and to be regular stock

thickness when finished. These boards shall not extend beyond the bottom of the hull more than four and one-half feet. Rudder or rudders of Class E shall be of boiler plate steel.

.. The total actual weight of the crews including all clothing, personal apparel and belongings worn by them or carried on board during any race shall not exceed 850 pounds for Class A yachts, 650 pounds for Class B yachts, 400 pounds for Class C, 550 pounds for Class E yachts.

\* The total area of the Mainsail and jib in Class "E" shall not exceed 285 sq. ft. The area of the mainsail alone shall not exceed 235 sq. ft. The luff of the mainsail shall not exceed 28 ft. and shall not be less than 27 ft. The area of the jib alone shall not exceed 50 sq. ft. The mainsail and jib shall be made of sail cloth not lighter than approximately  $28\frac{1}{2}$  in. width 5 oz. material. This is a limitation of weight and not on width.

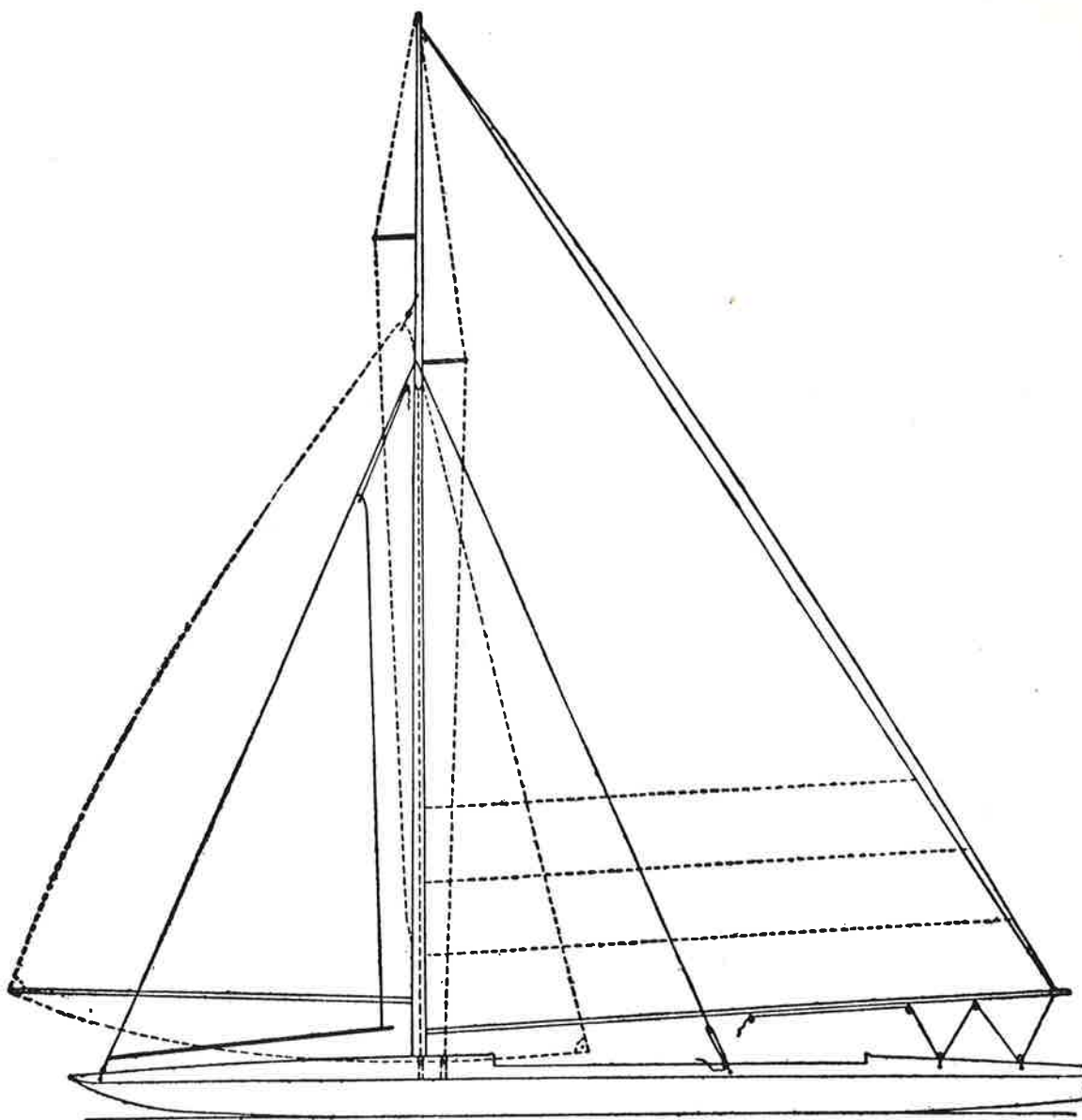
The peak of the mainsail in Class E shall not be more than 31 ft. 6 in. from the planking of the bottom of the boat immediately adjoining the center keelson or the center backbone of the boat, measured perpendicularly. When measured the mainsail shall be hoisted until flat.

In Class E the area of the spinnaker shall not exceed 112 sq. ft.

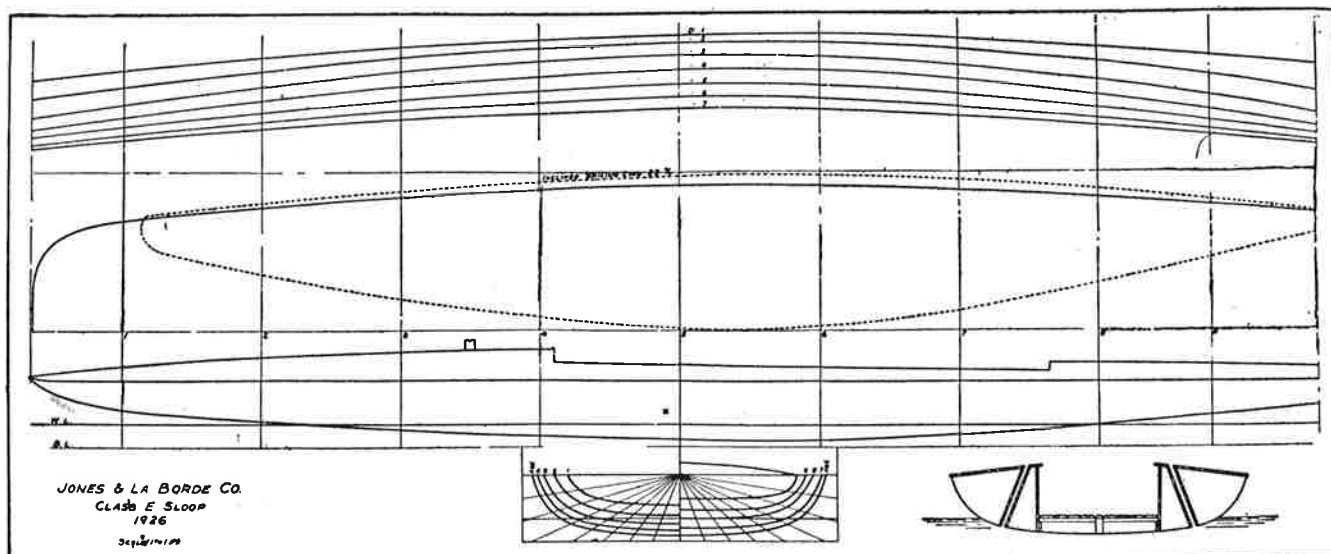
Class "E" Yachts shall be restricted to one spinnaker, which shall be used throughout the Regatta. A Yacht shall secure the permission of the judges and measurer before using any substitute spinnaker.

.. In Classes A, B and E sails set at one time shall be limited to mainsail, one working jib and one spinnaker.

\* By 1939 these figures were 57 for jib and 228 for main  
Uncertain when the change was made —

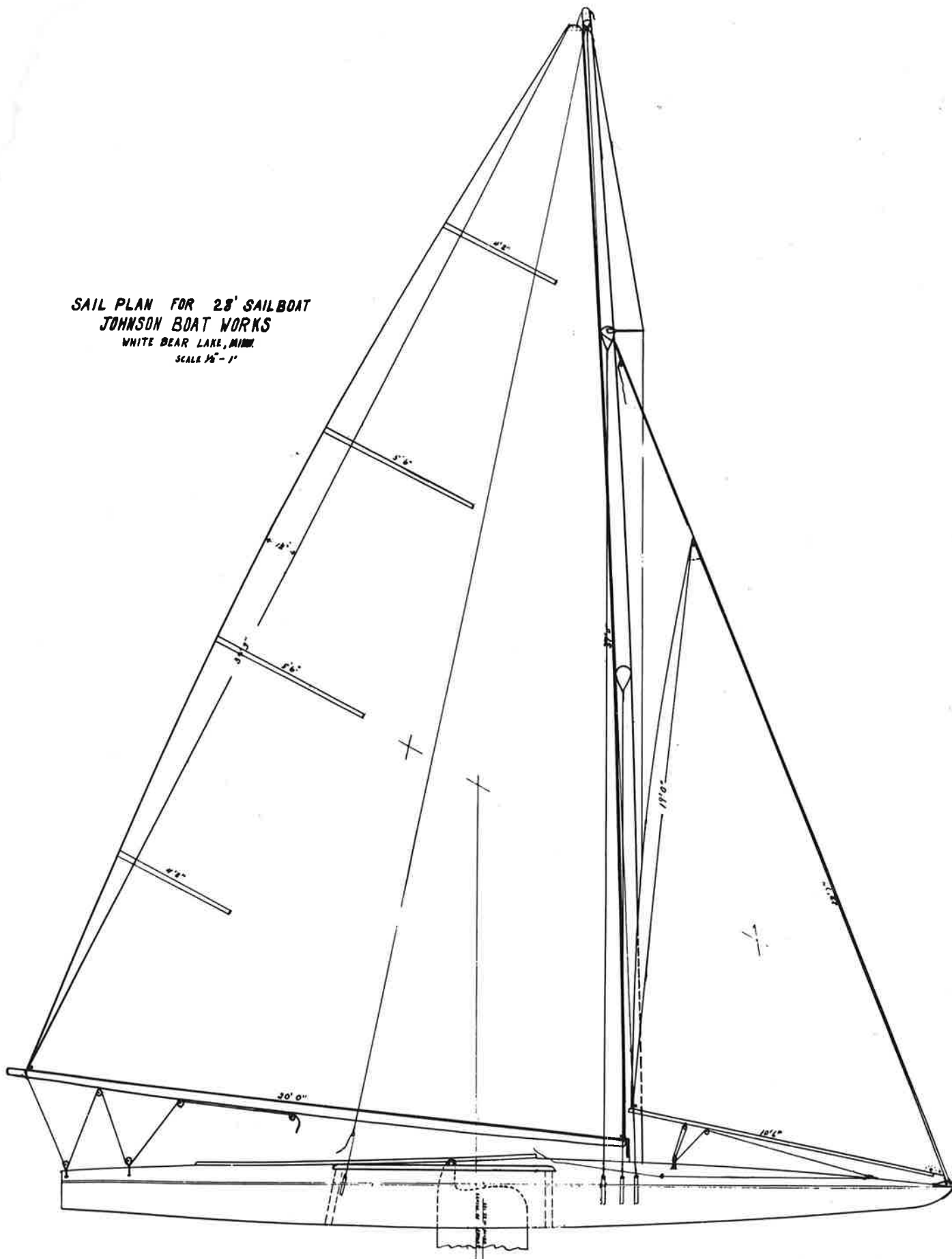


SAIL PLAN OF JONES AND LA BORDE'S LATEST RACING SCOW



LINES OF THE PRESENT SCOW MODEL, SO POPULAR ON THE LAKES OF WISCONSIN AND THE WATERS OF BARNEGAT BAY

SAIL PLAN FOR 28' SAILBOAT  
 JOHNSON BOAT WORKS  
 WHITE BEAR LAKE, MINN.  
 SCALE 1/8" = 1'





# New Johnson Scows Are More

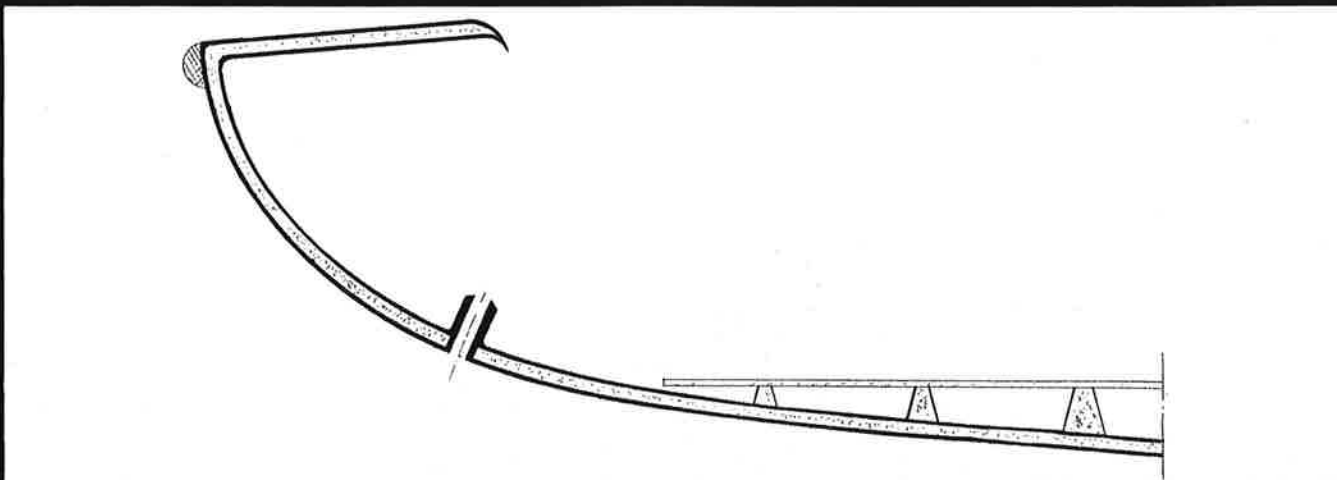


1976 E. Regatta

Photo By Bill Akin — Pewaukee Yacht Club

They are solid, strong, fully buoyant, and will sail and perform even better than the wooden boats. Yet they are fiberglass (with AIREX® foam) having the inherent advantage of low maintenance and long life. Ever since John A. Johnson came to White Bear Lake in 1894 to build the first scow sailboats in North America, the Johnson family have maintained a tradition of producing high quality boats. See photo opposite page.

Our 1977 "E" scows use the highest quality, and yet most modern boat building materials . . . fiberglass and AIREX foam. The hull and deck are built in sandwich construction, with a layer of 3/8" foam and two skins of fiberglass. Together this forms a construction that is stiffer and stronger than wood, and still more buoyant. AIREX foam is a Swiss product which has been used as a core material for fiberglass boats since the mid-fifties. The success of this product in boatbuilding, both as a hull and deck core material, has convinced us that we should choose it for our scow sailboats. AIREX is the only plastic foam specifically made for boatbuilding.



The E,C,D, and M Scows are now built in AIREX fiberglass sandwich construction.

# Than Just Fiberglass Boats...

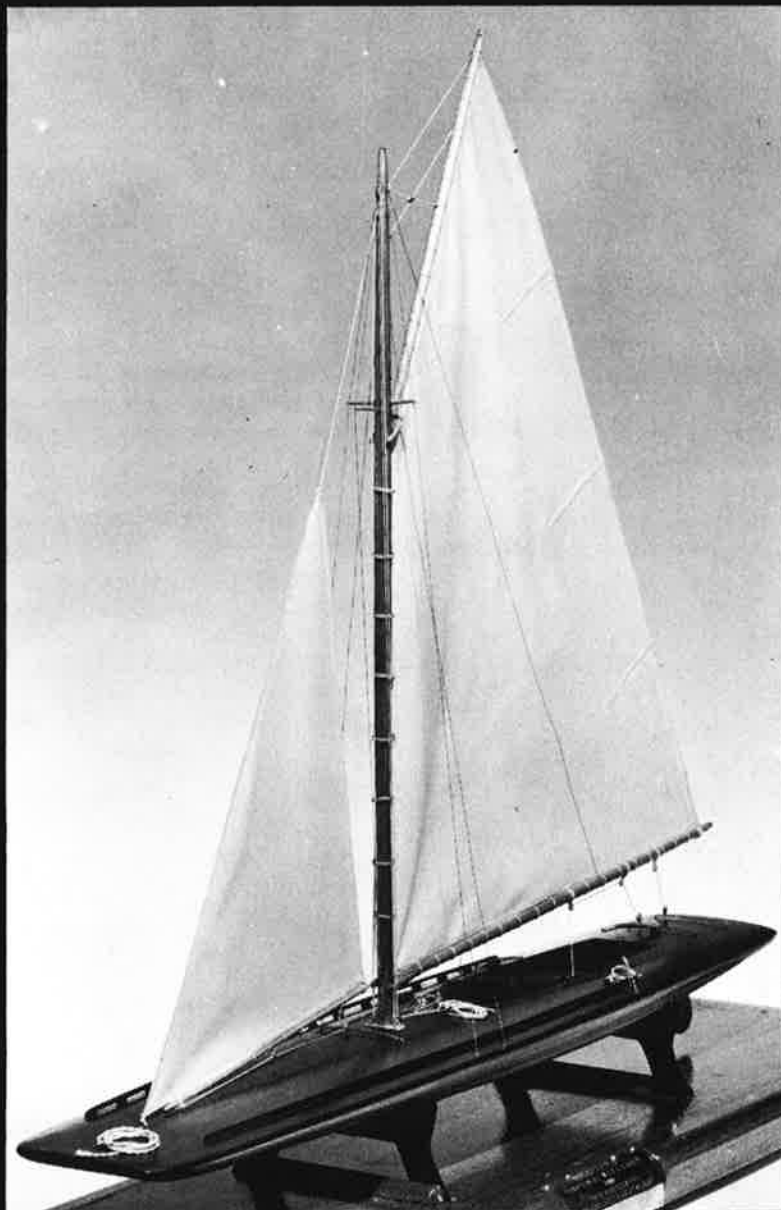
In choosing this product for our boats, we follow the lead of many of the world's best naval architects and yacht designers. Many highly successful sailboats, both for ocean and one-design racing, are built in AIREX fiberglass sandwich construction.

For us, the builders, the advantages are not in arriving at a cheaper or faster method of construction. Each boat will be kept in the mold for a longer period. We will pay a considerably higher amount for our material in comparison to those who use end grain balsa wood.

## **We Can Offer Our Customers:**

An absolutely unsinkable boat (even the decks float by themselves) with built in flotation that is not added later in the form of blocks or buoyancy tanks, but built inherently into the hull, indestructibly.

A boat which will never increase in weight due to water absorption, and that is built with a foam that will not crumble, break down, deteriorate nor break away from the FRP skins once we in the shop obtain a bond.



Model of the first "A" scow "Minnezitka" on display at the Smithsonian Institute, Washington, D.C. Built by J.O. Johnson of the Johnson Boat Works.

We are not pioneering a new unproven product, nor a new method of construction. We are offering you a boat built with materials that have proven themselves in the market for almost twenty years, and as for the fiberglass part, even longer. We are building each boat with the accuracy and proper weight distribution of a glider to achieve maximum sailing performance. Our boats are intended to be around for a long time, and so are we.

Please talk to us about our new boats, and come and have a look!

# JOHNSON BOAT WORKS

WHITE BEAR LAKE, MINNESOTA

612-429-7221

® Registered trademark of AIREX Ltd., Switzerland

SAMPLES FROM OUR IRRELEVANT  
PHOTO FILE



LAKE GENEVA SAILING SCHOOL - 1941. OLD CLASS X  
SCOW WITH 300lb CENTER BOARD [PHOTO: ERNST SCHMIDT]



BUILDER W. NAPPER SANDING A SANDBAGGER  
AT LAKE GENEVA. [PHOTO: ERNST SCHMIDT]



EVEN THE MOST HARDNOSED "STINKPOT" HATERS WOULD DIG THIS WHITE BEAR LAKE BEAUTY. [PHOTO JOHNSON BOAT CO]



MIGHT BE H. PORTER'S YALE-BUILT HALF-RATER ON LAKE GENEVA  
[PHOTO: ERNST SCHMIDT]



MEANWHILE - BACK IN THE 1970'S. FINDS AN EMINENT  
ILYA OFFICIAL SCRUTINIZING A MEASUREMENT SITUATION  
[PHOTO: REPORTER]