

# ENGLISH RACING YACHTS.<sup>1</sup>

By DIXON KEMP.



YACHT-RACING and fox-hunting equally claim to be the national sport. To the fascination of danger that belongs to both is largely attributable the rival claims. A runaway horse, it has been remarked, will make an incurable fox-hunter, and it may as surely be explained that an over-canvased yacht will make an incurable yachtsman. The fox-hunter's stories in course of years revert to clearing "bull-finches," and the yachtsman's recollections similarly rest on some blow that caught big topsails aloft, when neither haul-yards nor sheets could be started as the race was in hand by seconds only, and the cup lost unless everything is risked. In days gone by stout hulls and short canvas left crews time to ease sheets, and races were not won by seconds; nowadays the bursting of a spun yarn may give the race to a rival. Indeed, within these later years there has been such opportunity for courage and hardihood, for skilful seamanship, and adroit handling, as the earlier annals of the sport cannot claim. When builders varied widely in their model, and crews believed as much in luck as in sailing, progress in working out the problem of speed could only be slow and uncertain. With hull, canvas, and ballast wrought out with such accuracy of calculation, that the same classes of yachts are matched within seconds, the haphazard wins of earlier days are becoming unknown. The weather alone, in modern yacht-racing, remains the disturbing element.

The yachting correspondent is an innovation of recent times, whose presence has tended to clear away the atmosphere of myths in which the earlier history of the sport has been lost. Not until the advent of the United States schooner *America* at Cowes, to compete against English-built yachts in 1851, did the press become thoroughly interested in the sport and influenced public opinion in its favour. A spirit of international rivalry was stirred that has never died out, and which has been of infinite benefit in making yacht-racing popular. The accounts of the race round the Isle of Wight, for the cup presented by the Royal Yacht Squadron, and for which repeated international contests have since been sailed, lent a zest to the sport it had not previously attained. The novel build of the *America* schooner, her rig and canvas challenged English traditions and aroused a contemptuous unbelief in their value. It could hardly be borne that the prestige of England's pleasure navy should be seriously invaded by an American vessel built in defiance of time-honoured prejudices.

Naturally in a young country like the United States, reverence and prejudice in favour of old customs and practices had not such weight as they had in England; consequently the novel teachings of that original-minded Scotchman, the late Mr. Scott

<sup>1</sup> The yachts are from photographs by Messrs. West and Son, Southsea; Adamson, Rothesay; and Johnston, New York.



H.R.H. THE PRINCE OF WALES, COMMODORE OF THE ROYAL YACHT SQUADRON.

From a photograph by A. Debenham, Cowes.



Russell, took root at once in America, whilst scarcely any one at home would seriously listen to what was termed the "elegant guess-work" of the Scotch engineer.

It had been ascertained by numberless experiments with models, that a vessel, to meet with a minimum of resistance must have a certain amount of fineness or sharpness at one end or the other; and certainly some of the experiments appeared to indicate that the sharpest end should be aft. Beyond this there was the conviction,

or rather a sort of superstition, that the full end should be forward to prevent a vessel being swallowed by a hollow sea; the result was that the "cod's head and mackerel tail" became a universal form for sea-going vessels.

The investigations and experiments of Mr. Scott Russell, however, appeared to make the discovery that this theory was all wrong; and indeed that it was a law of nature that the bow should be longer and finer than the stern; also that it was favourable to speed if the bow were formed with a hollow entrance so that the wedge should enter the water more gradually.



"MABEL," *née* "IREX," 86 TONS, 99 RATING, DESIGNED BY A. RICHARDSON,  
BUILT BY FAY AND CO., OWNED BY MR. G. A. MUIR.

Although this novel teaching was not put into practice in England, yet a great many believed in Mr. Scott Russell's theories, and in 1847, Mr. Mare, a Thames shipbuilder, designed and built the cutter *Mosquito* in very near accord with the new theory. This yacht was remarkable for stiffness, speed, and weatherliness; qualities, however, which in her case were somewhat dependent on her construction. She was built of iron, and a very heavy iron keel was worked into her; beyond this she carried her inside ballast very much lower than could a vessel constructed of wood, according to the practice of that date.

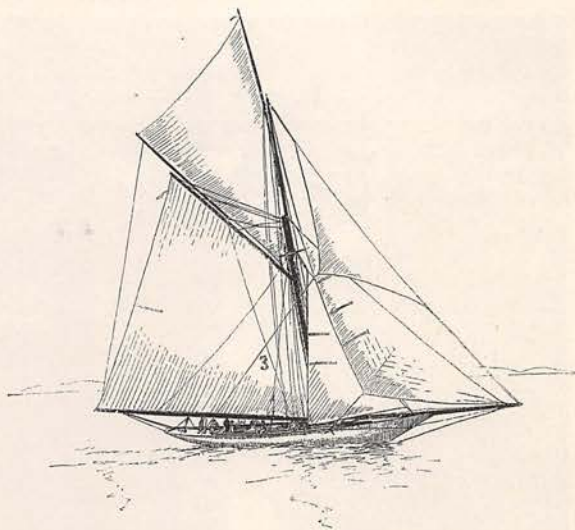
The success of the *Mosquito* had, however, practically no effect on the minds of British yacht-builders and yacht-owners; in fact, the *Mosquito* was regarded with a considerable contempt, and it was considered smart to predict that some day, owing to her sharp bow and her metal construction, she would take a dive or ship a sea and go to the bottom.



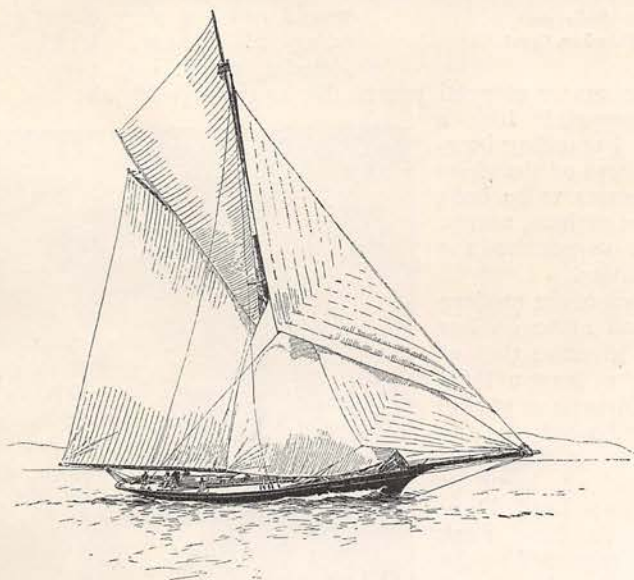
The son of a government shipwright, a native of Dartmouth, in Devonshire, had, however, emigrated to the United States and started as a ship-builder there. This was George Steers, and all the noted vessels he produced showed that he placed some credence in Mr. Scott Russell's views. In 1850-51 he built the now historical *America*, and it should be said that she accorded with Mr. Scott Russell's theories much closer than a schooner Mr. Russell himself built named *Titania*. The broad result of the visit of the *America* to Cowes was that the form of British yachts was revolutionised, and the "cod's head and mackerel tail" disappeared as if by magic.

American ideas were not only adopted but were exaggerated. The bows of yachts already built were lengthened, with an improvement in speed. Schooners were sailed about without foretopmasts in the American fashion, but without noticeable advantage—and abortions in imitation of the *America* were plentiful.

English yacht-modelling and yacht-racing, thanks to the American visitor, entered upon a new and more interesting life. The sea-going craft with broad-side guns were sup-



"GLORIANA," 46 FT. SAILING LENGTH, BUILT BY HERRESHOFF AND CO., BOSTON, U.S.A., FOR MR. E. D. MORGAN, AND THE MOST SUCCESSFUL YACHT IN THE 46 FT. CLASS IN 1891.



"VALKYRIE," 94 TONS, 78 RATING, DESIGNED BY G. L. WATSON, BUILT BY MESSRS. FAY AND CO. FOR THE EARL OF DUNRAVEN, AND NOW OWNED BY THE ARCHDUKE STEPHEN OF AUSTRIA.

also laced to booms. The success and weatherliness of the *America* were so convincing that flat-sitting sails were accepted offhand, and there has never since been a doubt raised as to the superiority of a flat-sitting sail on any point of sailing over a bellying display of canvas.

planted by yachts of moderate dimensions and undoubted speed. It should be also pointed out that the success of the *America* not only influenced the form of the hull but the manner of fitting them with sails also. The theory evolved by science had been for some years, that to obtain the best effect in plying to windward the sails should be so cut and made that they would sit flat when close-hauled. The practice, however, always had been to so cut the sails, that they would under all conditions of sailing "belly" to the wind, or, as the sailors put it, "hold the wind." The *America's* sails were, however, cut so as to sit flat when close-hauled, and to secure this end they were



Of the vessels lengthened by the bow, the only two which attained any success were the *Alarm* schooner and the *Cutter Arrow*, the latter being still in existence. Of



THE EARL OF DUNRAVEN, K.P.  
From a photograph by A. Debenham, Cowes.

masts, the *Aline* had her masts stepped is termed a "running bowsprit" like a cutter's, instead of the usual standing bowsprit and jib boom. The success of the *Aline* caused a great many schooners to be built by the Gosport firm, but none of them, except perhaps the *Gwendolin*, ever approached the *Aline* in good all-round qualities.

The *Katrina* represents one of the modern school of racing yachts, and although her draught of water is not so great as that of an English keel yacht, it is at least a third more than that common in American yachts of her length. She is ballasted in the most modern style, and has a large sail spread. Her rating is about the same as the *Valkyrie*, and at the time Lord Dunraven sent his challenge to the New York Yacht Club the *Katrina* was regarded as the probable defender of the "America Cup." In general form she is not unlike a Burgess Fife or Watson design, and her entrance does not partake of the shovel bow or mussel-shell bow which has recently been revived in America with some success by Mr. Herreshoff in the cutter *Gloriana*, 46ft.

The proportions of yachts, the number of beams to length—were at one time supposed to greatly influence the performances of yachts, and some builders set great

the attempts made to imitate the *America*, the *Viking* was the only good likeness, but she failed as a racing yacht, whilst the *Gloriana*, built after the lines of one of George Steer's famous pilot schooners named *Mary Taylor*, was a very great success indeed. She was not distinguished for weatherly qualities, but her speed off the wind and in light airs was simply marvellous. She was built in 1852, and is still numbered among the cruising fleet. The most successful attempt, however, ever made to imitate and improve upon the *America*, was the production of Messrs. Camper and Nicholson in 1859-60, in the form of the *Aline*, now owned by the Prince of Wales. This vessel really set the form of profile and spar plan for all schooners built since that date. In outline she was a much more beautiful vessel than the *America* or *Alarm*, although the *Gloriana* would run her very close on the score of beauty. Unlike the *America*, which had very raking



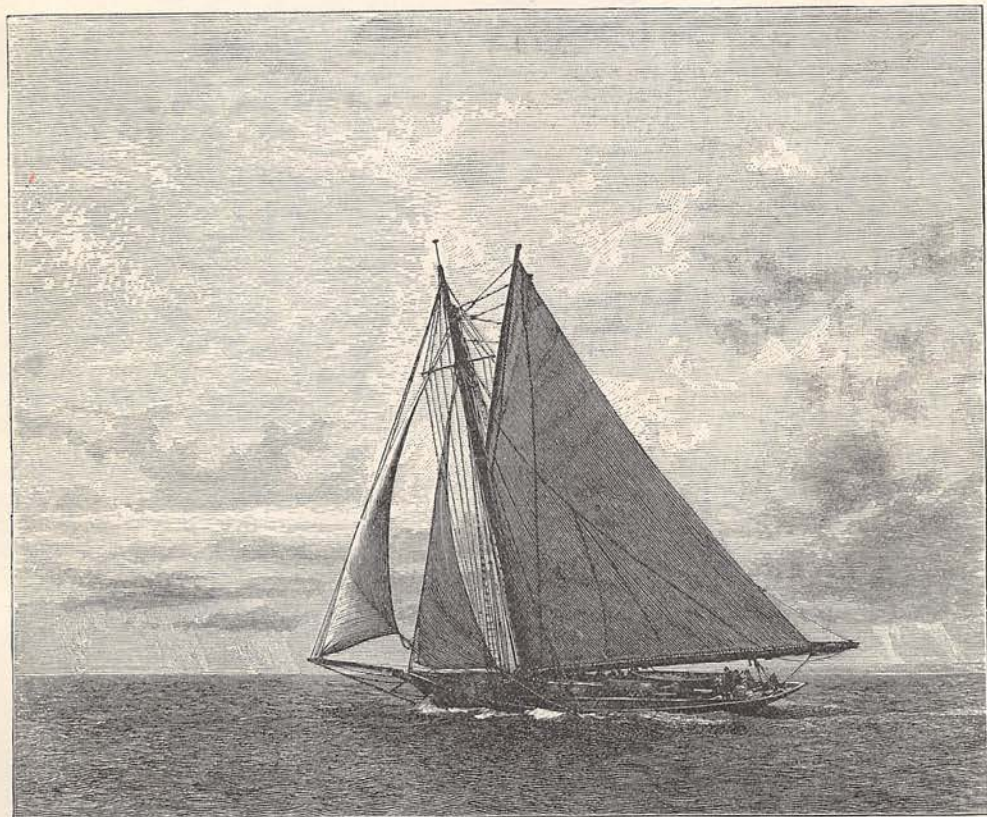
CAPTAIN CRANFIELD.  
From a photograph by G. A. Oldham, Colchester.

practically upright, and she had what



store on a particular proportion. The general result, however, was that for any given tonnage yachts were all of much the same length, beam, and draught of water ; and it was popularly supposed that these proportions could not be departed from without violating some law of nature.

Still many shrewd men knew and others suspected that the longer a vessel was for any given tonnage, the faster she ought to be ; but the difficulty in the way was the provision for sail-carrying power, as this power mainly depended on breadth ; and length could only be increased at the sacrifice of some breadth. To Mr. Wanhill of Poole, is mainly due the credit of surmounting the difficulty. He saw that under the tonnage



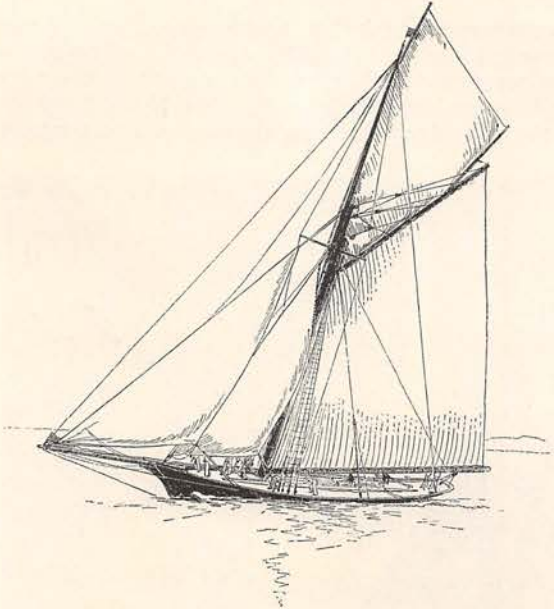
"KATRINA," 30 TONS, 78 RATING, DESIGNED BY A. CARY SMITH, OF NEW YORK, FOR MR. E. AUCHINCLOSS.

rule, length and breadth only were taxed ; and that depth was entirely unpenalised. He therefore early in the forties commenced to build his yachts longer and narrower for any given tonnage than existing yachts, and compensated for the loss of breadth by taking greater depth, which enabled the ballast to be carried much lower. Beyond this he had an iron keel, weighing two or three tons, under the wood keel, and finally, as in the case of the *Vigilant*, built in 1856, a lead keel was used.

Still lead keels or iron keels were regarded with great disfavour for many years, and Wanhill remained the pioneer in that direction, his last great success with a large weight of outside ballast being the schooner *Egeria*, built in 1865, for Mr. John Mulholland, and still owned by him. The *Egeria*, however, only had seven tons on her keel, or about one-tenth of her total weight of ballast, and the *Cambria*, built four years later, only had five tons of outside lead, and even with that amount a good many predicted that she would make a poor show in her race across the Atlantic against the American yacht *Dauntless* in 1870. She, however, won the race, and made much better weather of it than the *Dauntless* did. The *Aline* never had any outside ballast, and the proportion of one-tenth of outside weight to total weight of ballast was not exceeded for a great many years so far as large yachts were concerned ; in



the case of the smaller yachts, however, the proportion of outside ballast to that carried inside had greatly increased until 1879, when Mr. G. L. Watson produced the ten-tonner *Madge* with nine-tenths of her ballast outside.



"METEOR," *née* "THISTLE," 170 TONS, 116 RATING, DESIGNED BY G. L. WATSON, BUILT BY HENDERSON AND CO., NOW OWNED BY H.I.M. THE GERMAN EMPEROR.

Dixon Kemp, January 1880, whereby the yachts their length of load line and their sail area. America, and with characteristic modesty, it is now claimed as an American invention.

The immediate effect of this rule was that advantage was at once taken of the liberation of beam from penalty, and yachts were forthwith built of about the proportions in practice prior to the era of lead keels. This fact disposed of the argument by which the old tonnage rule had been largely supported—that yachts were narrow because of the natural process of selection, and not because the rule imposed a heavy penalty on beam.

The principle of the new rule is based on the fact that length and sail-spread are the primary elements of speed. So far as the classes of ten rating (representing old ten-tonners) and upwards go the operation of the rule has been to produce a sort of stagnation in length and sail area for any given rating, and a yacht cannot now be outbuilt year by year, by the mere addition of length of hull, weight of lead and sail-spread.

This can be illustrated by the old twenty-tonners. *Vanessa* was built in 1873, of forty-seven feet water-line, twenty-nine tons displacement, three tons of lead on the keel, and 2,500 square feet sail-spread. She was of twenty tons rating for competitive sailing, and under the old tonnage

In the following year (1880), Mr. J. Beavor Webb designed and built the twenty-tonner *Freda*, with the whole of the ballast outside, and the same year the ninety-tonner *Samøna* was designed by Mr. A. Richardson, with practically all her ballast outside. At the same time Mr. G. L. Watson produced the ninety-tonner *Vanduaara* built of steel, and she had her ballast so built into her that it was the counterpart of the lead keel of the *Samøna*.

As the quantity of outside ballast increased, so did the length and sail-spread of the yachts, until at last, in 1886, the common proportion of yachts was about six beams to length. This was a crisis in the history of yacht design: both owners and designers felt that the next step was the "plank on edge," and every one was ripe for a change in the measurement rule.

After a lengthened inquiry the Yacht Racing Association adopted in 1887 a rule proposed by Mr. are rated for competitive sailing by In 1882 this rule was adopted in



CAPTAIN ROBERT DUNCAN.

From a photograph by J. Paton, Greenock.



rule, the "twenty-tonner" had developed in 1884 into the form of the *Clara* of fifty-three feet water line, thirty-seven tons displacement, and twenty-two tons of lead on keel, her sail area being 3,600 square feet. Under the length and sail area rule of 1886 various twenty raters have been built, and they are all practically of the same proportions and sail-spread; forty-seven feet on the waterline, twenty-eight tons displacement, sixteen tons of lead on the keel, and a sail-spread of 2,600 square feet. Any improvement in speed or weatherliness is therefore due to the skill of the designer in varying the form. This also applies to the larger class of yachts, such as the *Valkyrie*, designed by Mr. G. L. Watson, for the Earl of Dunraven, and sailed in an almost faultless manner by Cranfield, a typical east country skipper; higher up the scale we have the *Thistle* (now owned by the German Emperor, and named *Meteor*), which was also designed by G. L. Watson, and sailed by a Clyde skipper named Duncan.

In the smaller classes there has been a development of length at the expense of sail-spread; but the present indications are that the development of length and curtailment of sail have passed the crucial point.

It will be gathered from the foregoing that a yacht which is built to compete under a particular rule of rating may not be absolutely the best yacht judged, say, by the standard which a man who is only fond of cruising might set up. Also if the test of merit varies, so naturally will the objects to which the tests are applied.



"IVERNA," 152 TONS, 118 RATING, DESIGNED BY A. RICHARDSON, AND BUILT BY MESSRS. FAY AND CO. FOR MR. JOHN JAMESON.

For instance, the crack twenty-rater *Dragon* if tested by the *Clara* under the old tonnage rule, would figure as a very poor twenty-tonner; on the other hand, the *Clara* by the existing rating rule would be of thirty-two rating, and compare unfavourably with the *Dragon* if tested by the time scale under that rule.

Thus the test of excellence is almost wholly fictitious, but evidence appears now to point to the fact that the attempt to limit the increase of length, weight and sail-spread and at one and the same time, has met with some success under the existing compound rating rule by the length and sail area.

No feature in yacht-racing has come into greater prominence during the last twenty years, than the rapid development of the amateur.

Yacht matches in which amateur steersmen took the helm during the race have been one of the oldest institutions in British yachting, and from time to time yacht matches have been sailed with amateur crews. But the regular racing of yachts with Corinthian crews is of recent origin. The innovation was begun in the smaller classes of yachts by

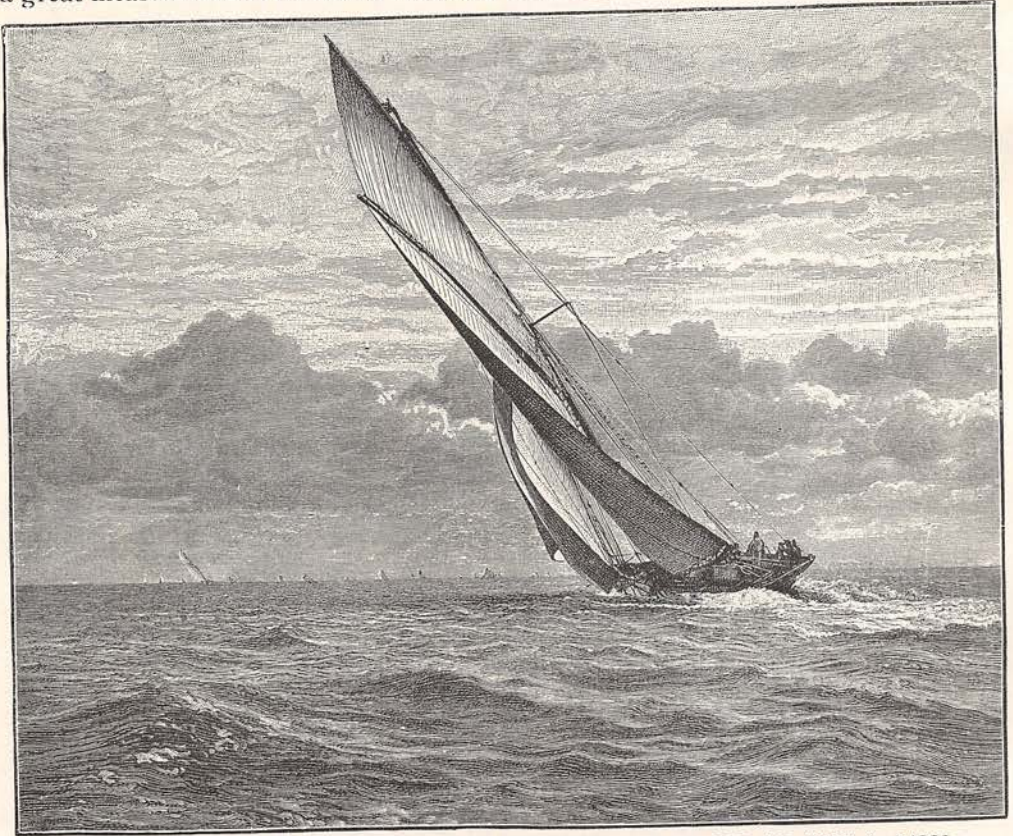


G. L. WATSON, OF GLASGOW.  
From a photograph by W. Kalston, Edinburgh.

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retaining a certain number of paid hands per ton, but in later seasons the professional sailors have become occasionally dispensed with altogether in the three, five, and ten-ton yachts. A rooted prejudice against amateur sailors naturally prevailed among yacht captains and crews, but these have been disappearing, and year after year amateur matches have found more favour. In smaller classes of 2½ rating up to 5 rating, amateurs have shown themselves to be smarter crews than paid hands, unless these have come through a similar training with smaller classes of yachts. Indeed the popularity of matches among the smaller classes of yachts is in a great measure due to the clever handling of amateur seamen, and it is equally certain



"YARANA," 72 TONS, 66 RATING, BUILT BY HENDERSON AND CO. FOR MR. PAUL A. RALLI,  
NOW OWNED BY MR. M. B. KENNEDY, AND KNOWN AS "MAID MARION."

that in mixed regattas where ten and twenty raters are competing, more interest is attached to the performance of these small cutters with their amateur crews than to the sailing of the larger vessels. Amateur seamanship has been an undoubted cause of what may be regarded as the latest and most promising revival that has attended the national sport.

While yacht-building and yacht-racing have been distinguished by novelties, there has been a change in the character of the owners of racing yachts. In years bygone wealthy men purchased yachts to cruise and race without being heartily interested in racing. With their friends on board these owners entered in a yacht race to enjoy the fun and obtain incidents to talk about. With roomy decks, short canvas, high bulwarks, leave to walk and talk an enjoyable time was passed. But a penalty on beam, lead ballast and the exigencies attending modern racing tended to a change; narrow decks, low bulwarks, clouds of spray, moving about and chatting prohibited, left the owner, who took his friends for a jolly time, to discover racing was a serious business, associated with discomforts and hardships.

With the true racing yachtsman the case was different. To him the trials of racing are so many fascinations. To him it is enough to watch how his cutter is closing upon



her rival, to keep one eye on the sea and another on the canvas is the excitement he enjoys. But the yachtsman like the sailor must be in a manner born to the sea. The love of the sea and the joy of fighting it do not come of opportunity nor of contact with this sport as happens with other sports. The fox-hunter finds pleasure in the dinners, the songs, the gaieties associated with his sport; the yachting sailor cares little for these things. Yachting is not in the ordinary sense a social sport. Ladies may affect an interest in it; but the number of ladies who really enjoy a tearing breeze on board a racing yacht, who have the nerve and judgment to place her successfully on a wind, or put her round a mark in company with half a dozen competitors are very few. Still, such ladies do exist, and at least a score are to be found on the Solent. These beautiful "rope-haulers" are not only good on the mainsheet, but can work the head sheets in a bout to windward, and many of them are capable helmswomen.

