

THE RACE FOR THE AMERICA'S CUP.

The first of this season's races for the America's cup, won last year by the *Mayflower*, sailing against the *Galatea*, occurred on Sept. 27, 1887. The cup was held by the New York Yacht Club, subject to challenge, and expecting one from some English yacht. On Sept. 22, 1886, the challenge came. It was received by cable message dated the preceding day, on behalf of Mr. Jas. Bell, and signed by William York, secretary of the Royal Clyde Yacht Club. Soon it was understood that a special boat was to be built for the contest. Several new yachts, therefore, were built here for the purpose of meeting the Scotch adversary. Previous races had made it perfectly clear that the English could build very fast boats, although they had always lost the America's cup races. The name of the intended competitor, the *Thistle*, was first divulged on Nov. 18, 1886, but all attempts to obtain a statement of her dimensions were futile, as the utmost secrecy was observed in her building and launching. The *Shamrock* and *Titania*, both of second-class size, were built in the belief that the *Thistle* would be about seventy feet in

teen races on the other side, winning eleven firsts, one second, one third, and twice not being placed. Thus her position was firmly established as the fastest yacht in England, the renowned *Irex* even having to acknowledge her superiority.

The *Thistle* left England July 25, and reached New York August 16, making a 22 days' run. The *Volunteer* spent the yachting season, up to the date of and after the arrival of the *Thistle*, in racing and cruising with other yachts, and it was generally acknowledged that she was by far the fastest boat in America. A trial race with the *Mayflower* was sailed on Sept. 16, when the *Volunteer* appeared so distinctly superior that she was at once chosen as defender of the America's cup.

The *Thistle* and *Volunteer* were put in the dry dock before the contest, when the hulls of each could be examined by those interested. The *Thistle* appeared of very handsome model, but no reason for the secrecy maintained about her lines could be discerned. She is much wider than the typical English cutter, and has her forefoot very much cut away, probably to make her quick in stays.

It was won by the *Volunteer* by the superiority of her windward work. In the run home before the wind the *Thistle* gained nearly three minutes on her rival. The following is the official time:

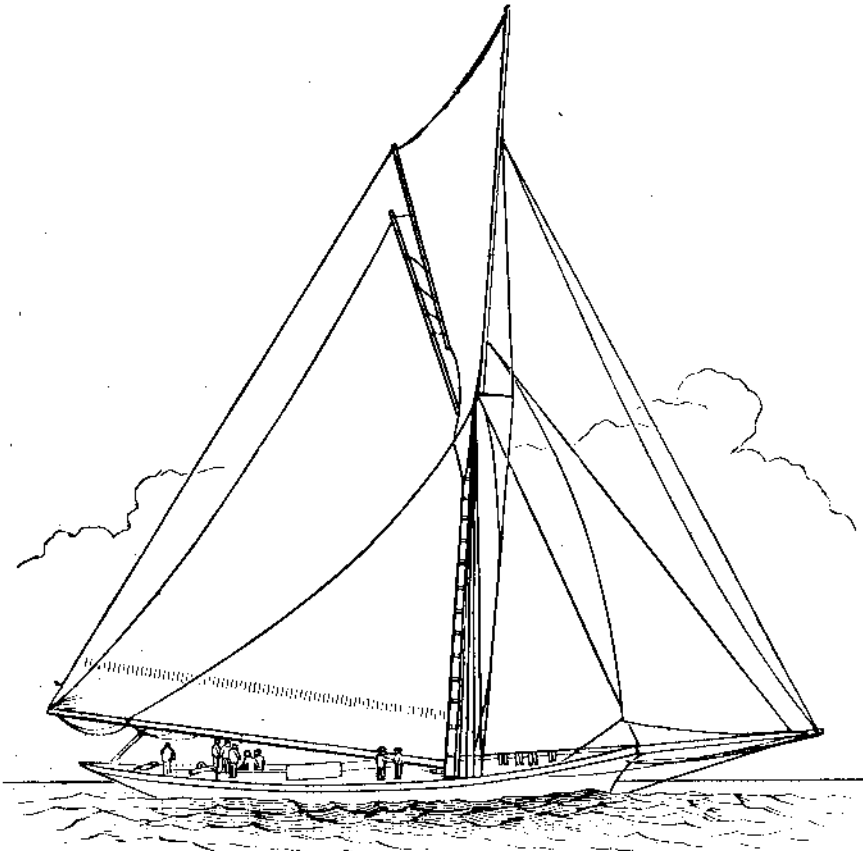
Name.	Start.	Finish.	Elapsed	Corrected
	H. M. S.	H. M. S.	Time.	Time.
<i>Volunteer</i>	10:40:50 $\frac{3}{4}$	4:23:47	5:42:56 $\frac{3}{4}$	5:42:56 $\frac{3}{4}$
<i>Thistle</i>	10:40:21	4:35:12	5:54:51	5:54:44

The cup therefore remains here, the *Volunteer* coming in about two miles ahead in the second race.

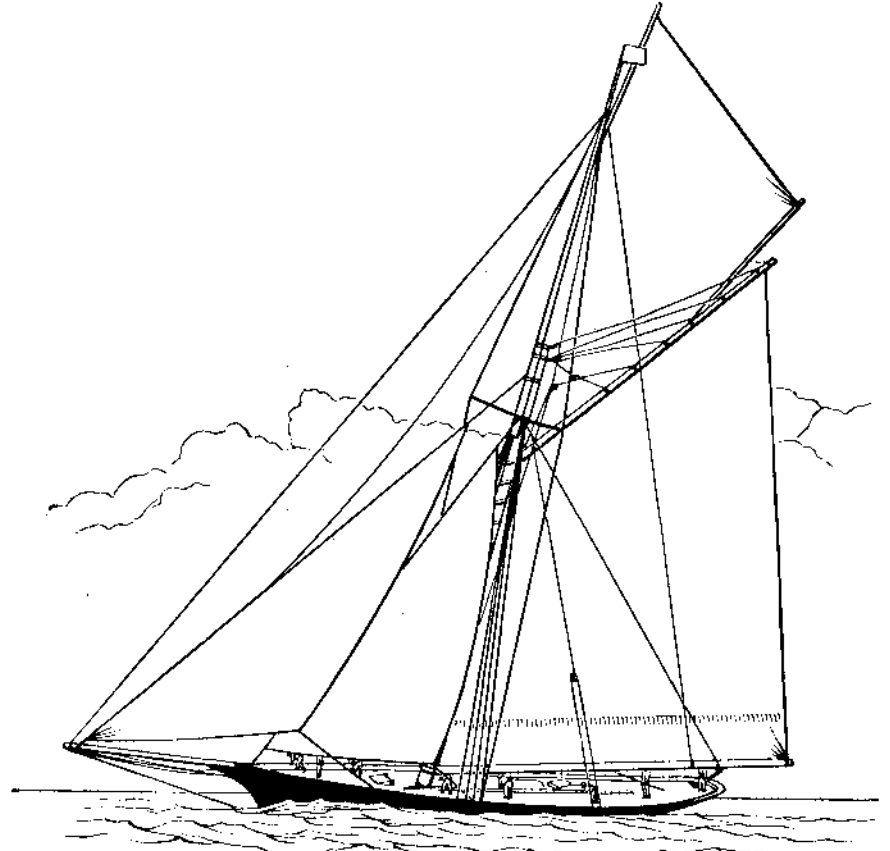
We publish outline views of the two yachts and their sheer plans and midship sections, giving a good idea of their respective features and points of resemblance and difference.

"The Deadly Toy Pistol."

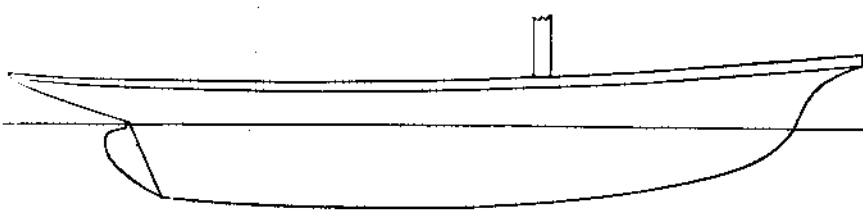
Dr. John Homans has lately made certain pointed statements concerning the damage done by this infernal contrivance, in the form of a letter to the editor of the *Boston Transcript*. He says he has now two boys under his care whose hands have been injured by the toy



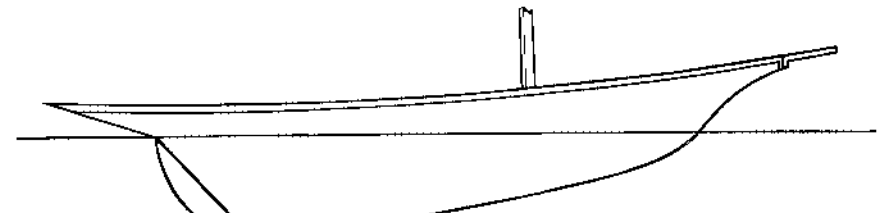
THE VOLUNTEER.



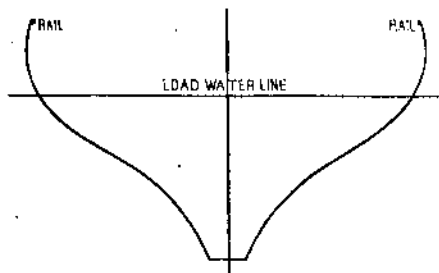
THE THISTLE.



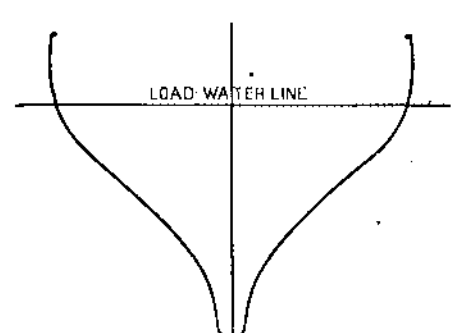
SHEER PLAN OF THE VOLUNTEER.



SHEER PLAN OF THE THISTLE.



MIDSHIP SECTION OF THE VOLUNTEER.



MIDSHIP SECTION OF THE THISTLE.

The first race was won by the *Volunteer*. It was sailed under the following official measurements, according to the certificate of Mr. John Hyslop, the measurer:

	<i>Thistle.</i>	<i>Volunteer.</i>
	ft.	ft.
Length for tonnage.....	96.5	92.58
Length over all.....	108.5	106.23
Length on water line.....	86.46	85.88
Breadth of beam.....	20.3	23.16
Depth of hold.....	14.10	10.90
Tons, old measurement.....	258.94-95	209.8-95
For time allowance.....	89.20	89.35

The *Volunteer* allows the *Thistle* five seconds.

The course was the inside course of the New York Yacht Club, from a point within the Narrows, down New York Harbor, to and around the lightship, and return, following the main ship channel. The length of the course is 38 nautical miles (about 42 $\frac{1}{4}$ statute miles). The *Volunteer* came in over twenty minutes ahead, averaging a gain of nearly half a minute per mile, representing at the average rate of sailing in distance gained per mile about 370 feet. The actual space separating the two at the conclusion was about 2 $\frac{1}{2}$ miles.

The following is the official time:

	Start.	Finish.	Elapsed	Corrected
	H. M. S.	H. M. S.	Time.	Time.
<i>Volunteer</i>	12:34:58 $\frac{3}{4}$	5:23:16 $\frac{3}{4}$	4:58:18	4:53:18
<i>Thistle</i>	12:33:06	5:45:52 $\frac{3}{4}$	5:12:46 $\frac{3}{4}$	5:12:41 $\frac{3}{4}$

The second race was set for September 29, but was postponed to September 30 for lack of wind.

It was sailed on the outside, course twenty miles to windward and return.

length. The disappointment of their owners at being excluded from the contest must have been very keen. It was only on March 29 of the present year that the general dimensions of the *Thistle* were known, when they were forwarded with the official challenge.

Mr. Burgess, the builder of the *Puritan* and *Mayflower*, believed that he could surpass both these efforts. He was accordingly engaged to model a new yacht to compete, if successful in the trial races, for the coveted trophy. On April 1, Gen. C. J. Paine, of Boston, gave Mr. Burgess the order for the boat, and Pusey, Jones & Co., of Wilmington, Delaware, contracted to build her. The work was done with the utmost expedition. She was launched on June 30, and three weeks later made her first trial trip. She was named the *Volunteer*, and was built of steel. The *Thistle*, also of steel, was launched on April 26, and sailed her first trip on May 12. In her building and launching the utmost secrecy was preserved, and at once the most marvelous stories of her speed began to appear. She sailed in fif-

pistol, and that four years ago he had five patients whose injuries were due to the same implement, all of whom died of tetanus. He thinks the wound is generally produced by the cartridge exploding in the hand, either by coming back through the breech or in some other way.—*N. Y. Med. Jour.*

VERY elastic caoutchouc tubing gradually loses some of its elasticity. Later, the tubes break on stretching, even if previously laid in warm water, and finally they crack if pressed between the fingers. This change is put down to a very slow formation of sulphuric acid by the action of moist air on the sulphur contained in the caoutchouc. By frequent washing with slightly alkaline water, the action of the acid is prevented. Tubes washed five or six times a year remained perfectly elastic.