

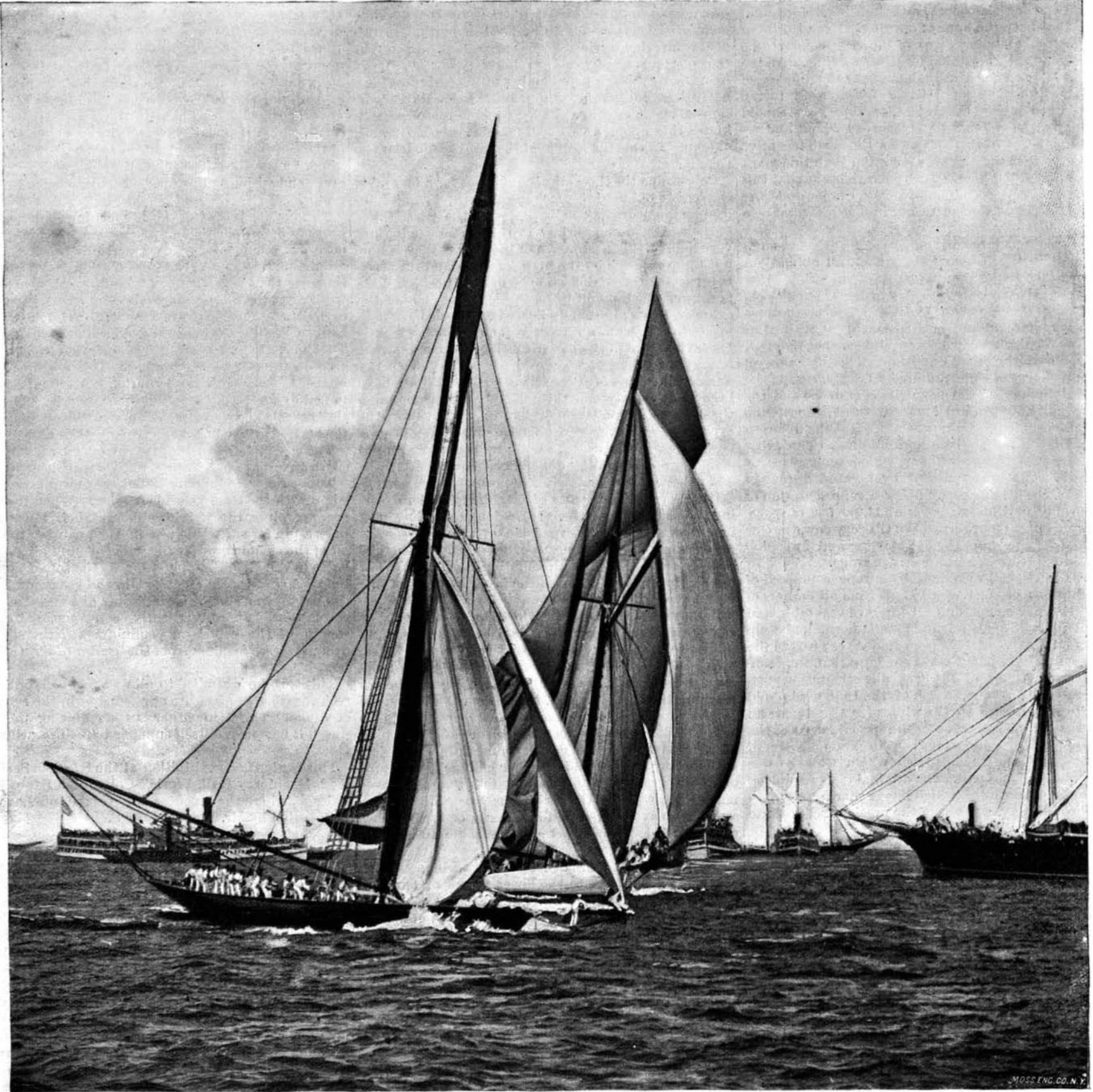
THE AMERICA'S CUP WON BY THE VIGILANT.

In our last issue we gave views of the Vigilant and Valkyrie, the two competitors in the international regatta for the America's cup. As we go to press the progress in the matter is represented by three complete races and by two failures, the latter owing to lack of wind. America retains the cup. The first race was sailed on Saturday, October 7, in rather a light wind. The yachts started off from the New York lightship, dead before the wind, both yachts setting spinnakers as they started. Our large illustration shows this start from an unusually fine photograph taken by our artist. The white yacht, the Vigilant, the representative of America, with her spinnaker almost spread, is crossing the line in company with the Valkyrie in the same condition. The general result of this race was entirely

The second race, sailed on Monday, October 9, was over a triangular course of 10 nautical miles on each side. The first leg of the course was dead to windward, and the other two legs were sailed in a side wind, or "reaching" as it is termed. On this day the wind was considerably stronger than on Saturday and the Vigilant gained on every point. On the first leg the gain was 4 minutes 55 seconds, on the second leg 4 minutes 12 seconds, and on the third leg 3 minutes 26 seconds. The total gain of the Vigilant was 12 minutes 23 seconds, from which must be deducted 1 minute 48 seconds, giving the corrected time 10 minutes 35 seconds as the winning difference. The Vigilant's elapsed time was 3 hours, 25 minutes, 1 second; the Valkyrie's 3 hours, 37 minutes, 24 seconds.

The third race, sailed on Friday, October 13, was the

On the beat to windward for the first time the relative qualities of the two boats in tacking in a heavy head sea and strong wind were seen. The Valkyrie made the best start and possibly blanketed the Vigilant several times. At any rate she managed to round the stake boat one minute and fifty seconds ahead. Both boats had reefed mainsails. After turning, the Vigilant shook out her reef, and with spinnakers set the two ran home. The Vigilant crept up on her rival, managed to trouble her by cutting off her wind, and eventually passed her. This was near the end, and quite probably the Valkyrie would still have won if her sails had not failed. She tore two spinnakers in rapid succession and finally used a balloon jib topsail to run in with. But this succession of troubles was offset by the fact that the Vigilant could not raise her center-



THE VALKYRIE AND VIGILANT STARTING IN THE FIRST RACE FOR THE AMERICA'S CUP.

in favor of the American boat. The start was an exceedingly fair one, the Valkyrie having perhaps a few seconds advantage. The race was over a course of 15 nautical miles to leeward and return. This would have necessitated tacking on the return course, except that the wind changed, enabling both boats to dispense with tacking on the return. The outer mark was turned by the Vigilant 8 minutes 6 seconds ahead of the Valkyrie. On the return the Valkyrie gained a little on the Vigilant, leaving her 7 minutes 36 seconds ahead. On account of the larger sail area and slightly greater length of the Vigilant, a time allowance of 1 minute 48 seconds has to be subtracted from the above, the Vigilant being the winner by 5 minutes 48 seconds corrected time. The Vigilant's time for the thirty nautical miles was 4 hours, 5 minutes, 47 seconds, the Valkyrie's 4 hours, 11 minutes, 35 seconds.

closest. A wind from the east kept freshening until it blew almost a gale. The course was 15 miles to windward, nearly due east, and return. Owing to a slight accident to the Valkyrie, a delay of an hour was experienced in starting the boats. The wind gauge at Sandy Hook now showed thirty miles an hour. The Vigilant crossed the line five seconds behind the Valkyrie, thus being handicapped to that amount. The head sea seems to have told against the Vigilant, as she turned the stake boat behind the Valkyrie. But on the run home she made up this difference and crossed the line slightly ahead of her rival.

The Vigilant's elapsed time was 3 hours 24 minutes and 39 seconds. The Valkyrie's time was 3 hours 25 minutes and 19 seconds. The winning difference in the Vigilant's favor by corrected time was only 40 seconds.

board. It was jammed fast and she had to drag it home with her, while running before the wind.

The time was excellent in this race, and the series go to show that in heavy weather the two boats are of nearly equal merit, while in smooth water the Vigilant is undoubtedly the faster. During the yachting season such days as that of the last race are few and far between.

WHEN a glass stopper sticks in the bottle; pass a strip of woollen cloth round the neck of the vessel and seesaw it backward and forward. This friction heats and causes the neck to expand, so that the stopper becomes loose. On this principle of expansion by heat a tight screw may be withdrawn from a metal socket by surrounding the socket with a cloth dipped in boiling water.