weight device, which as was stated in the paper on the Comparison of Indicators presented at the last meeting of this Society, was found to agree with the mercury column at the Brooklyn Navy Yard.

The standard of pressure used for the low pressure indicators was a mercury column, the reading of which were verified by a distilled-water column in order to make sure that the density of the mercury, which was the ordinary mercury of commerce, did not vary from the standard figure.

The readings of the mercury column agreed precisely with the readings of the distilled-water column, so that the density of the commercial mercury was the same as for chemically-pure mercury.

The same mercury was employed in the column used for measuring the vacuum in the engine test as was employed in the tests for standardizing the springs.

The general method of standardizing the indicators, and calculation of the equivalent scales of the springs so as to allow for all variations in the scales at different heights on the diagrams, is the same as was given in detail in the paper on the Comparison of Indicators already mentioned.

The results of tests of the springs are given in detail in tables VII. and VIII., and the calculation of the equivalent scales in tables IX. to XIII.

TABLE I.

FINAL RESULTS OF TEST.

Horse power			1592.2
Steam per hour per horse power, lbs			13 50
Average pressure at engine throttle, lbs. per square inch above atmosphere			123.0
Average superheating at engine throttle, degrs. Fahr			14.6
Average vacuum, inches of mercury			25.6
Lbs. of steam per hour per horse power calculated from indicator cards.	High pressure cylinder.	Near cut-off	11.81
		Near release	12.02
	Low pressure cylinder.	Near cut-off	10.95
		Near release	11.99
Steam not accounted for at cut-off of high pressure cylinder, per cent			12.5
Revolutions per minute			65.21
Piston speed in feet per minute			783
Ratio of expansion			13.4
Ratio of actual mean effective pressure to mean effective pressure for Marriotte curve and two pounds back pressure			0.79