

NEW LOGS

THE "CONE RESISTANCE LOG".

A new log, the purpose of which is to allow ships to determine their speed accurately, has been constructed by the Hamburg Experimental Ship-Model Tank. This log does not give the distance run, but the ship's actual speed. The cone is towed on the beam of the ship, and care must be taken that it remains outside the zone of dead water which the hull draws along by skin friction. The ship's speed may be determined by measuring the resistance; the computations for this determination have been made at the Hamburg Ship-Model Tank. The diameter of the base of the cone is $5\frac{1}{8}$ (2 inches) and the weight thereof is 180 gr. (6 $\frac{1}{3}$ ounces).

Speed trials were carried out with the "Cone Resistance Log" by the steamer *Hamburg* during an Atlantic crossing, and a complete report on the results obtained has been made by Dr G. KEMPF and W. SOTTORF in the Review "*Werft, Reederei und Hafen*".

A log has now been constructed which records both the speed and the distance run.

DYNAMOMETRIC LOG OR BLADE LOG.

BAULE SYSTEM.

This log, constructed by the firm Alfred BAULE & C^{ie}, 13, Rue Léon Gambetta, Chaville (Seine-et-Oise - France) may be adapted to ships of any tonnage. It consists of an elastic blade firmly attached at one of its extremities. The plane of the free end of the blade is perpendicular to the direction of the stream lines, and is subjected to a deformation which depends solely on the velocity, at each instant, of the stream lines and the elasticity of the blade. The flexible blade is held by a fitting on the hull, and a connection by wire wound round a drum indicates the amount of deformation of the blade, and consequently the speed, on a dial. An electric device permits the log's indications to be repeated at a distance. A totalling voltmeter records the distance run in sea miles.

