

THE CHERNIKEEFF ELECTRIC LOG.

The Electric Submerged Log Company of London made a special installation of the CHERNI-KEEFF Electric Log, type 1, (for the naval service and first class liners) in the port of Monaco aboard the motor-boat *Primavera* for research and for demonstrating its operation to the members of the 2nd International Hydrographic Conference in November 1926.

The programme carried out for the demonstrations was as follows :----

1) The contact mechanism and the propeller of the log. Method of keeping the box containing mechanism watertight when submerged.

2) General arrangement of the installation.

Effect of the distance between the axis of the propeller and the hull of the boat and a study of the phenomenon of the entrainment of water (skin friction) with the aid of the log. The turning of the axis of the propeller parallel to the stream lines.

Cancellation of the coefficient resulting from the installation of the log, i. e. no correction necessary

3) Functioning of the log at high and low speeds (starting from 0). Indications of the distance covered and the speed.

Check of the speed by the flashes of the contact lamp, check of the indications of the log against the distance run by chart between two fixed points: *Monaco-Cap-Martin*.

Verification of the sensitivity of the apparatus to variations in speed.

Indication of the distance and speed during the trip and when going astern.

Determination of the current velocity by the run on opposite courses and at anchor.

4) The diagrams, the transmission apparatus, the recording device and their construction.

The operation of the speed indicator with the dial removed and with the mechanism open. Correction of the speed every 20 seconds.

Demonstration of the facility of disassembling, examination and assembly.

5) Absence of a winding device of any sort.

6) Upkeep of the apparatus, assembly, dismounting, preparations for operation, refilling the immersed propulsion mechanism with oil, electric current, charging the batteries.

7) Uses of the log for hydrographic research, for boat soundings.

Check of the calibration of the propeller by running past two fixed marks on the quay with the boat.

