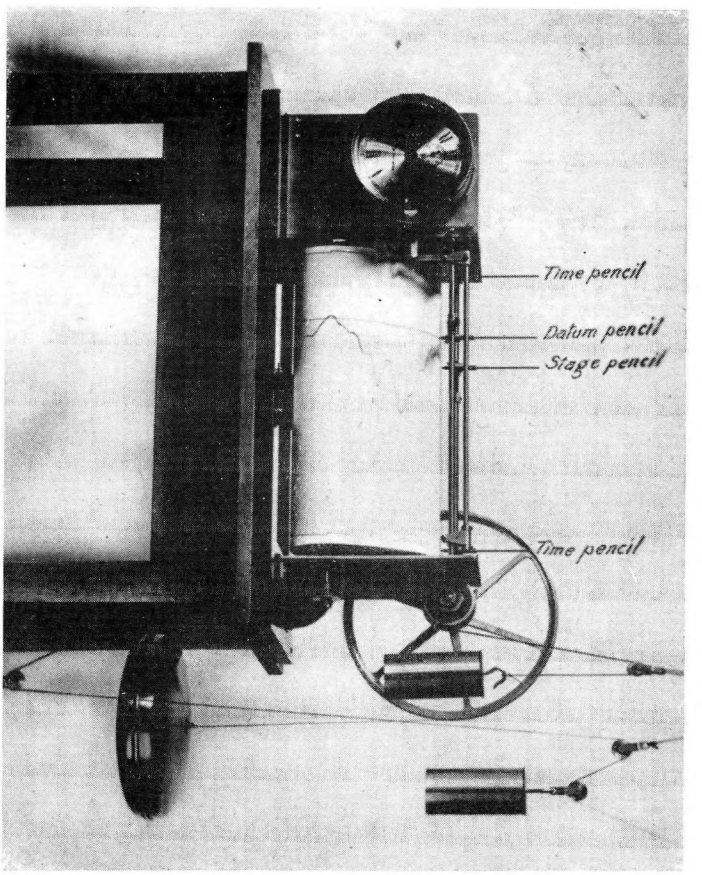


Haskell Self Registering Water Level Gauge

DESCRIPTION OF HASKELL SELF-REGISTERING WATER LEVEL GAUGE

(Information transmitted to the International Hydrographic Bureau by the Canadian Delegation to the VIth International Hydrographic Conference, Monaco 1952.)

(The reference letters are as shown in attached sketch)

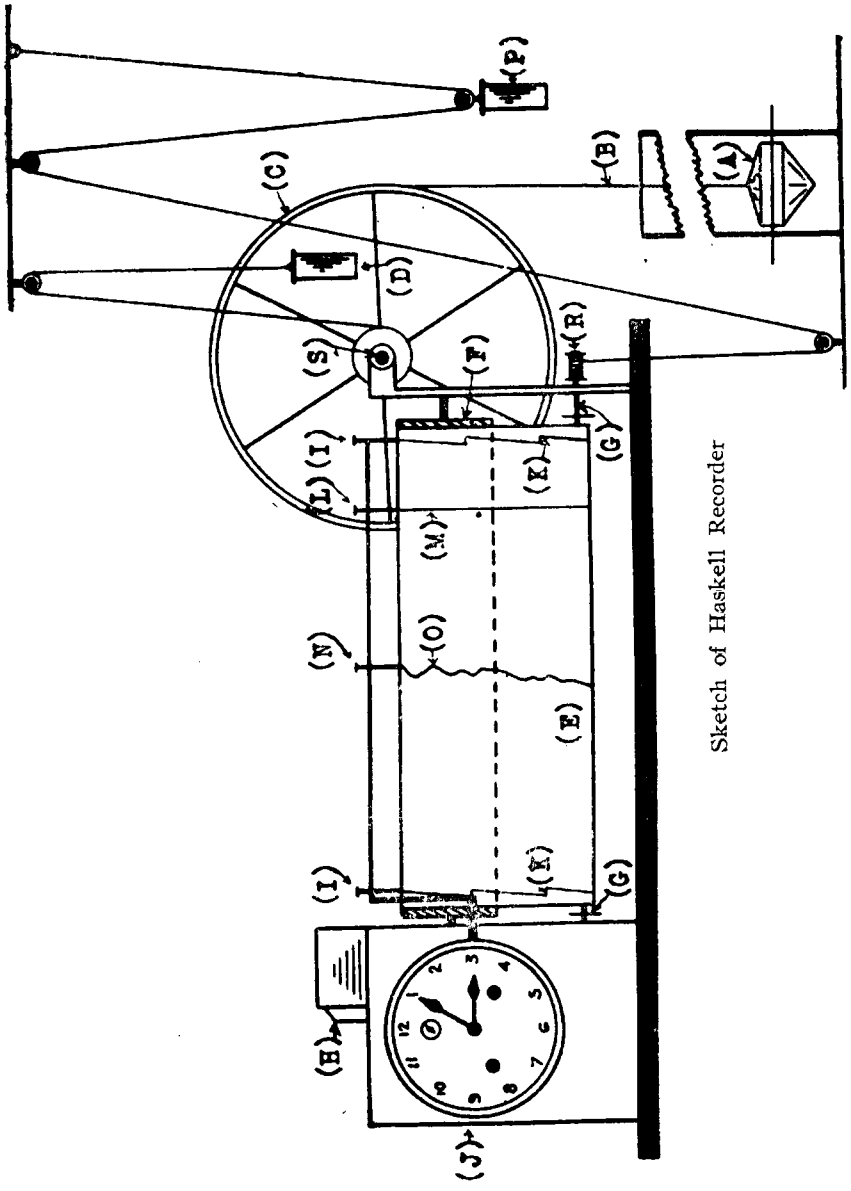
A copper float (A) from which fluctuations are transferred by float wire (B), to float or scale wheel (C). Float wire (B) is attached to and wound in grooves, around wheel (C) fastened to shaft (S) which rides in ball bearings. Counterweight (D) with a cable attached to a grooved sheave on shaft (S), keeps wire (B) taut as the float rises and falls with changes of water level.

The record paper (E) is carried from the supply roll at back of gauge, over cylinder (F) to receiving roller (G). The paper engages on pins at each end of cylinder (F) which is turned two inches an hour, by driving clock (B). Counterweight (F) turns receiving roller (G) to roll up the record.

Four recording pencils register on the blank paper as it is moved forward by cylinder (F). Time pencils (I) and (I) are about half an inch from the edges of the paper, and are controlled by time clock (J) to record hour marks (K). Datum pencil (L) draws a straight line (M) which is the zero of local reference. Stage pencil (N) drawing (O) the rise and fall of water, slides on a polished rod and is attached to a continuous metal tape which passes around a sheave on shaft (S) and a spring tension pulley at the clock end of the gauge. The sheave is provided with pins to engage in perforations in the metal tape.

Interchangeable wheels (C) are used to provide vertical scales of 1, 1 1/2, 2 or 3 inches to a foot. Special wheels can be used for 1/2 or 1/4 of an inch to a foot.

Horizontal scales other than two inches to an hour, could be provided by changing the ratio of gears connecting driving clock (H) and cylinder (F).



Sketch of Haskell Recorder