(No Model.)

T. H. NORTON.

Railway Train Indicator.

No. 243,458. Patented June 28, 1881.

Fig. 1.

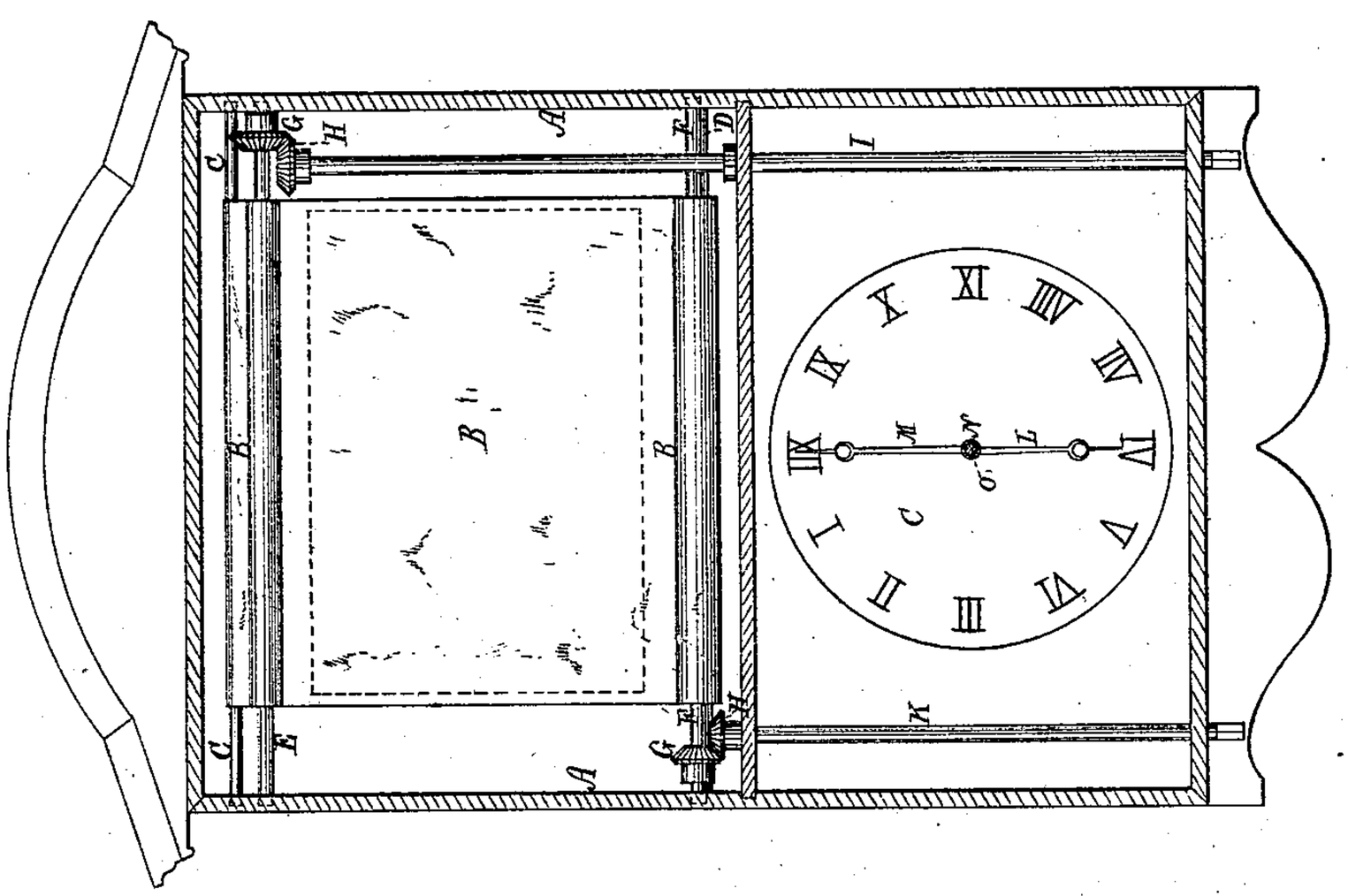
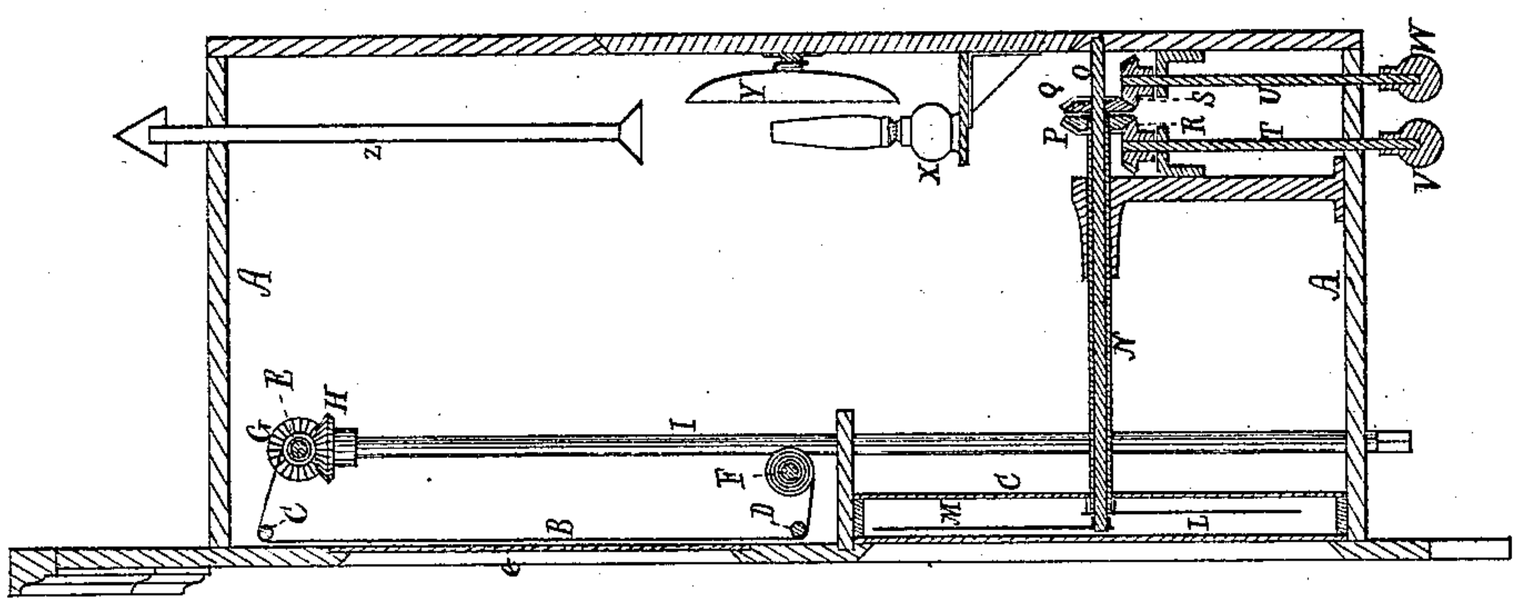


Fig. 2.



Witnesses.

S. N. Piper

E. B. Crapp

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Thomas H. Norton.

by R. H. Eddy atty.

UNITED STATES PATENT OFFICE.

THOMAS H. NORTON, OF SALEM, MASSACHUSETTS.

RAILWAY-TRAIN INDICATOR.

SPECIFICATION forming part of Letters Patent No. 243,458, dated June 28, 1881.

Application filed May 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. NORTON, of Salem, of the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Railway-Train Indicators; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a longitudinal and vertical section, and Fig. 2 a vertical and transverse section, of a train-indicator containing my invention, the nature of which is defined in the claim hereinafter made.

This indicator is to show the time of starting of a railway-train for any station or series of stations whose name or names are supposed to be printed or marked on its transparent or translucent movable apron or sheet. An indicator of the kind may also be constructed so as to show the time of arrival of a train from any station or stations.

The indicator, the case of which is represented at A, has at the front of such case not only a station-indicating sheet, B, transparent or translucent, but a clock-dial, C, also translucent or transparent, such dial having the hours from I to XII marked on it. In Fig. 1 they are shown in reverse.

The train-indicator sheet B extends around two stationary rollers or rods, C D, and at its two ends is fastened to two rotary and parallel shafts, E F, arranged as represented, each of the said shafts being provided with a bevel, G, to engage with one of two other bevel-gears, H, which are fixed on two vertical shafts, I K, duly supported in proper bearings and arranged as shown, and extended down to or through the bottom of the case A and there made prismatic to receive a key for being revolved thereby.

The clock-dial is provided with hour and minute hands L M, which are fixed on the ends of two separate shafts, N O, one of which is tubular and has the other extending through its bore. These shafts have bevel-gears P Q fixed on them to engage with two other such gears, R S, fixed on two vertical shafts, T U, which go down through the case and terminate in knobs V W.

The case is provided with a lamp, X, and reflector Y, and also with a discharge tube or chimney, Z, the lamp and reflector being arranged to illuminate at one and the same time the rear faces of the dial and train-sheet.

By applying a key to either of the vertical shafts of the train-sheet and revolving the shaft the train-sheet will be wound in one direction on one of its shafts and unwound from the other, and thus the names of the stations or places marked on it can be brought directly in rear of a glass pane, *e*, set in the upper part of the case and in front of the train-sheet.

The hour and minute hands may be revolved by manual power applied to the vertical shafts of their operative machinery, such hands being either in rear or in front of the dial fixed in the front of the case.

What I claim as my invention in the train-indicator described is—

The combination of the case, the transparent dial, the hour and minute hands, the transparent train sheet, the mechanism for supporting and operating such sheet and hands, and means of illuminating both sheet and dial, all being substantially as explained.

THOS. H. NORTON.

Witnesses:
R. H. EDDY,
E. B. PRATT.