(No Model.) 3 Sheets—Sheet 1.

H. D. BENNETT.

WORKMAN'S TIME RECORDER.

No. 506,410. Patented Oct. 10, 1893.

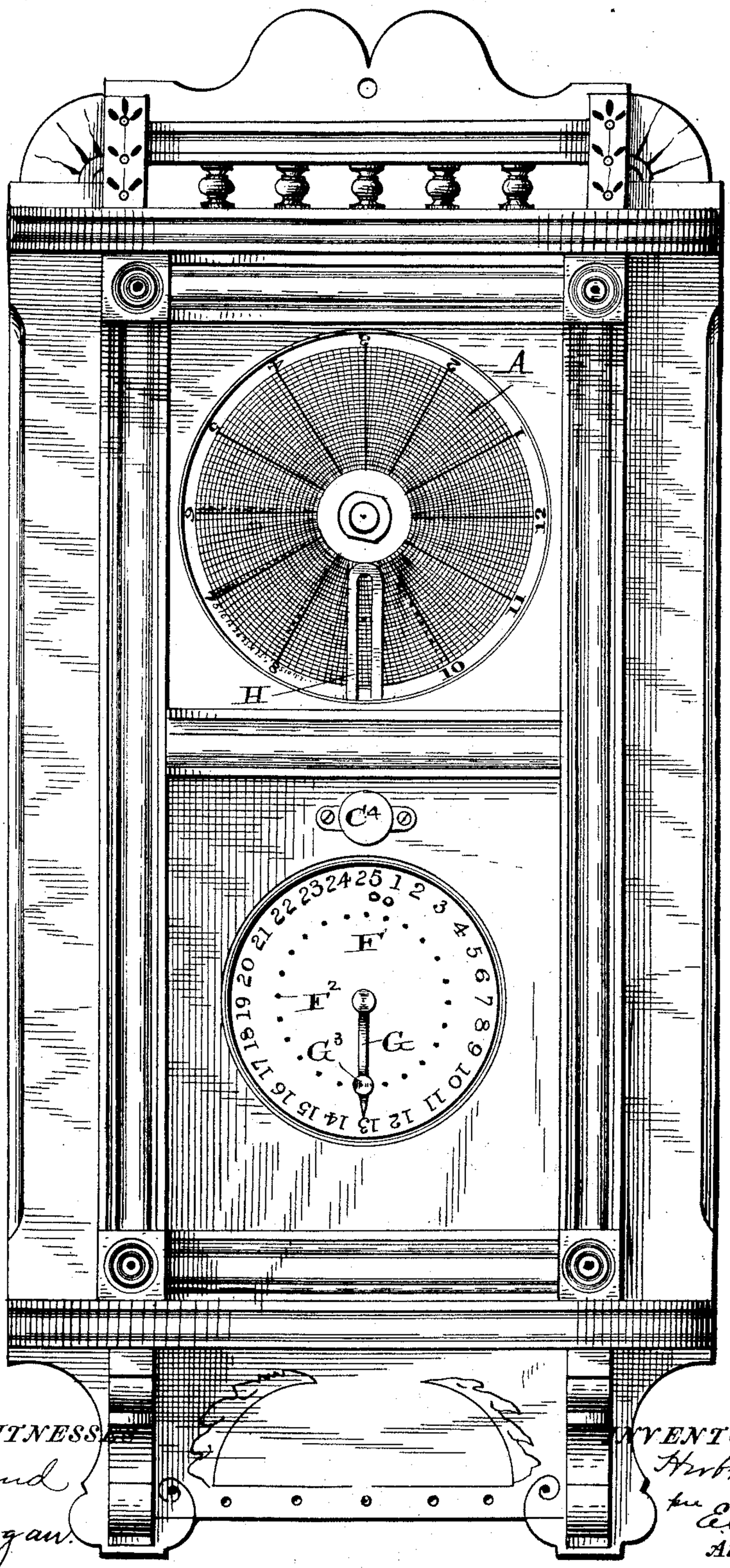

Fig. 1.

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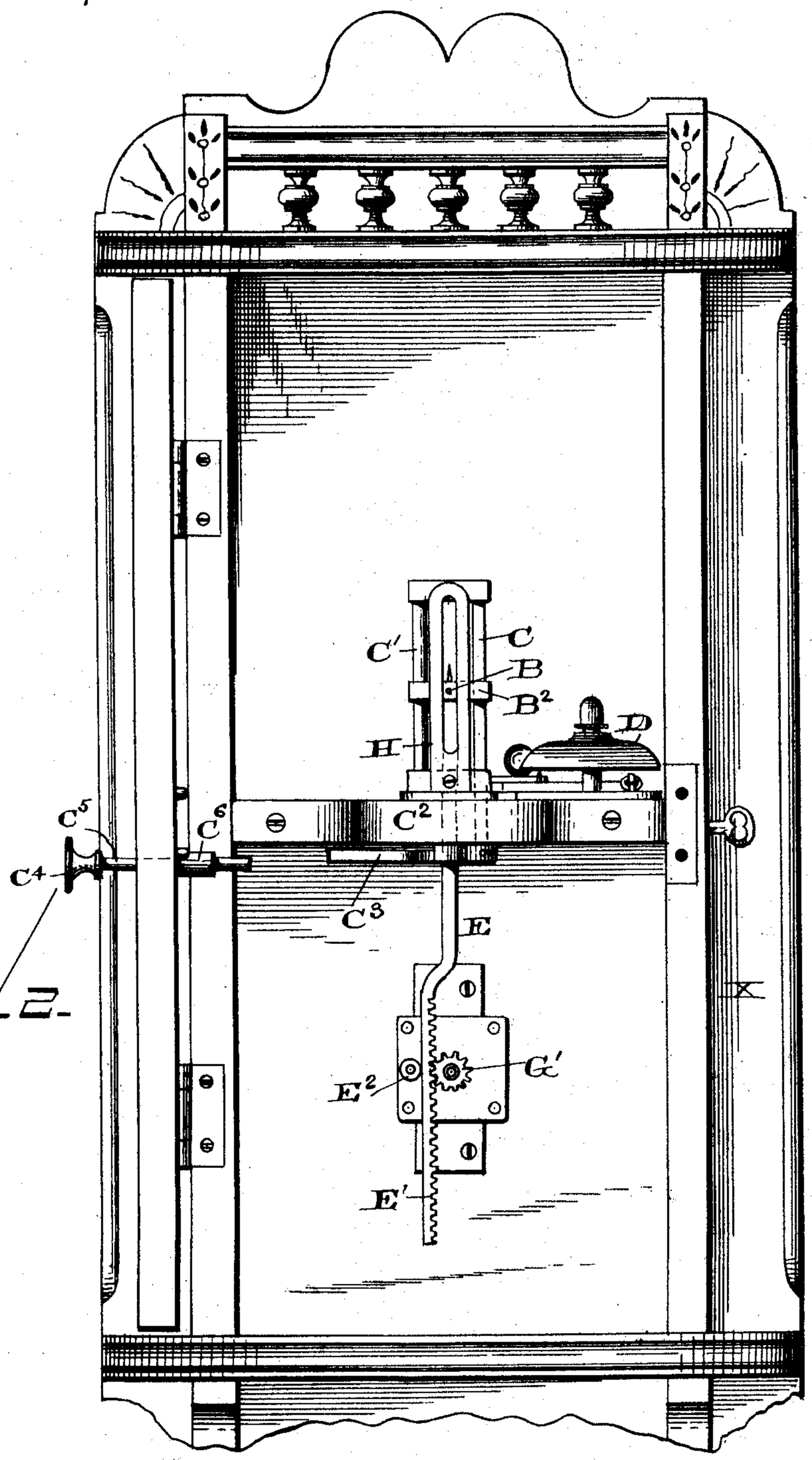

Fig. 2.

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WORKMAN'S TIME RECORDER.

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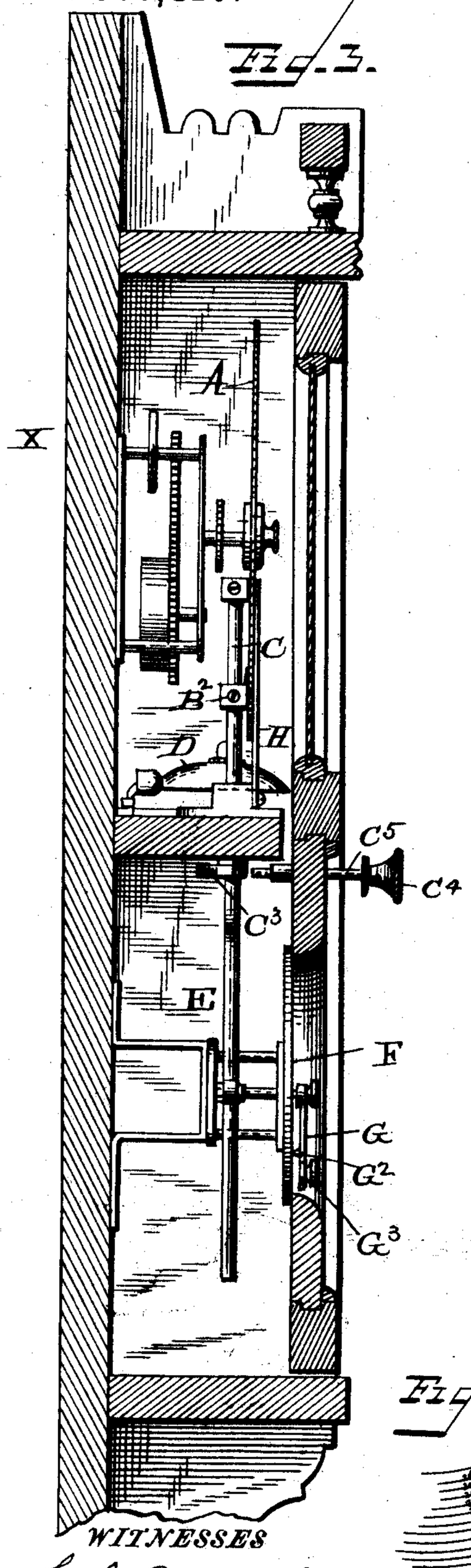
Fig. 3.



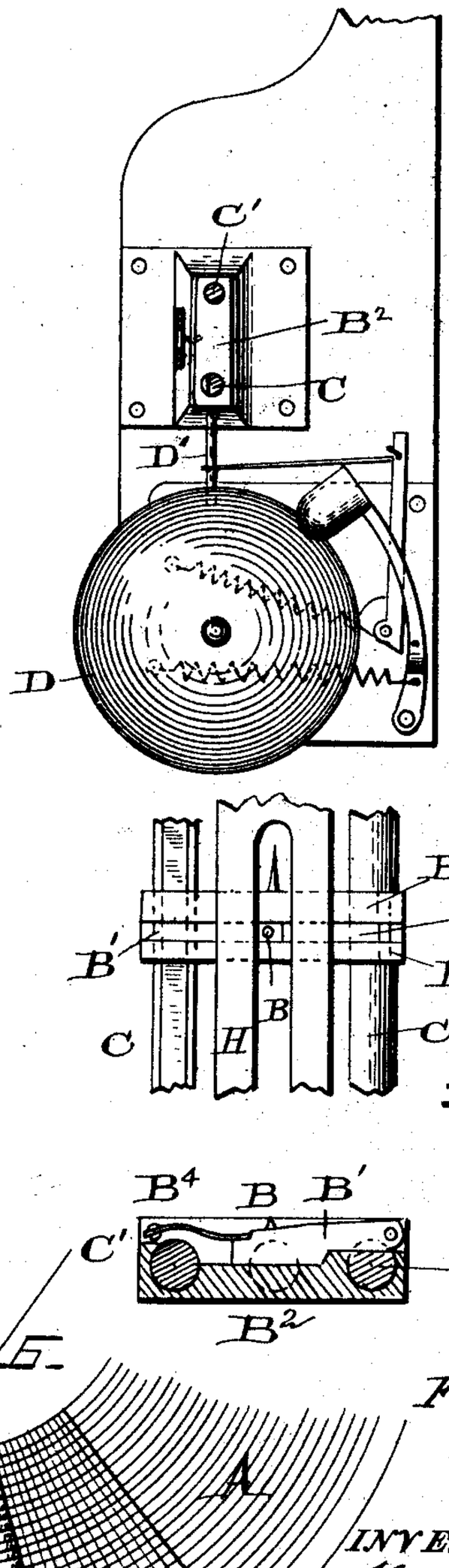
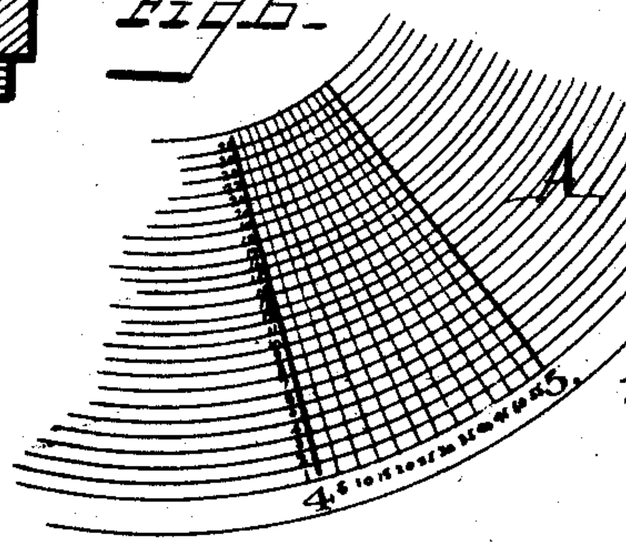


Fig. 4.

Fig. 5.

Fig. 6.

Fig 7



WITNESSES

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UNITED STATES PATENT OFFICE.

HERBERT D. BENNETT, OF COLUMBUS, OHIO, ASSIGNOR TO THE NATIONAL TIME REGISTER COMPANY OF OHIO, OF SAME PLACE.

WORKMAN'S TIME-RECORDER.

SPECIFICATION forming part of Letters Patent No. 506,410, dated October 10, 1893.

Application filed August 20, 1892. Serial No. 443,626. (No model.)

To all whom it may concern:

Be it known that I, HERBERT D. BENNETT, a citizen of the United States, residing at Columbus, county of Franklin, State of Ohio, have invented certain new and useful Improvements in Workmen's Time-Recorders, of which the followiug is a clear and exact description, reference being had to the accompanying drawings.

This invention relates to improvements in workmen's time recorders, and more especially to improvements to the workman's time recorder, for which a patent was granted to F. N. Johnston and C. E. Egan, March 29, 1892, No. 471,733.

The objects of the present invention are to remove the necessity for detached parts to operate the machine, and to provide a selecting mechanism by means of which the separate workmen may make distinct and continuous records.

In the drawings:—Figure 1, is a front elevation of the invention. Fig. 2, is a front elevation of the same; the dials and clock works being removed. Fig. 3, is a longitudinal section of the invention as shown in Fig. 1. Fig. 4, is a plan view showing the position of the punching device and bell, the guide rods being in section. Fig. 5, is a detail enlarged front view of the punching device and guide rod. Fig. 6, is a cross-section of the movable block and punching device. Fig. 7, is a front view of a section of the time dial.

In the former machines where numerous records have been produced, the recording device has been adjusted by means of a key or some other separate parts of distinguishing formation. These parts have been always subject to loss and misplacement by the operative. It is the object of the present invention to obviate this by having a designating device permanently attached to the machine, the adjustment of which adjusts the recording device.

Attached to the hour-hand post of the works of a clock is a dial A which moves with the hour post and makes one complete revolution in twelve hours. The dial is radially divided into twelve equal divisions, and the division lines are numbered from 1 to 12, whereby the dial is set for time. Each of the hour divisions is divided by other radial lines into twelve (12) or five (5) minutes, divisions whereby the record may be read for five (5) minute intervals at a glance. The dial is again divided by concentric lines into equal spaces of any desired number. By means of the concentric spaces formed by the concentric lines, individual records are kept, as each operative is assigned a certain number which corresponds with the number of one of these spaces.

The dial A is constructed of paper preferably, but may be constructed of any material adapted to receive an impression from a pricking point B by which the record is made. This pricking point B is rigidly fixed in the swinging arm B′ which is pivotally attached to the sliding block B^2, resting in a groove formed by the side flanges B^3. The arm is so mounted in the groove, that the pricking point is turned outward in the middle of the block B^2. The swinging arm B′ is maintained back in the groove, so that the pricking point B does not extend beyond the flanges B^3, by means of the detent spring B^4, the fixed end of which is set in the block B^2 while the free end rests over the free end of the swinging arm B′ pressing it back in the groove. The sliding block is mounted on the guide rods C and C′. The rod C′ is stationary and is set rigidly in the base plate C^2 and head block C^3, while the rod C rotates in bearings formed in the said base-plate and head block. The rod C is flattened on one side, the flattened side bearing against the swinging arm B′ as it rests in the groove in the block B^2. Attached rigidly to the lower end of the rod C below the base plate is the finger C^3 which extends in front of the push button C^4. The push button C^4 is mounted on the door of the frame X, in which the recorder is mounted. The button consists of the button C^4 and the shank C^5 which passes through the thimble C^6 and is wrapped with a spiral spring which acts to throw the button outward. The inner end of the shank C^5 rests against the finger C^3 so that any inward thrust of the push button is imparted to the said finger and through it transmitted to the rod C, rotating the same, presenting its rounded side to the swinging arm B′, and thereby forcing the

end carrying the pricking point B forward beyond the flanges B^3 in such manner as to force the pricking point through or into the dial A. In this manner the impressions by which the record is kept are imprinted upon the dial A either by pricking as herein described, or by printing, through the medium of an inked ribbon or carbon paper or paint.

As a signal of the complete operation the bell D is mounted within the case. To sound the bell the rod C is provided with the arm D′ rigidly attached thereto. The moving end of the arm D′ is connected to the striking mechanism of the bell and adjusted to operate the same when the rod C has been rotated sufficiently to have forced the pricking point through the dial A. The bell serves the further purpose of attracting the attention of those within hearing, and thus placing a check on those desiring to tamper with the record by imprinting more than one record at the same time.

To make more than one record the sliding block, carrying the pricking point is moved up and down on the guide rods C and C′ across the concentric spaces above described. To accomplish this the sliding block is rigidly mounted on the end of the connecting rod E which extends downward through the base plate C^2 behind the designating dial F. At the lower end E′, the rod E is formed into a rack bar which engages a cogged pinion G′ mounted in the designating dial. To act as guides and at the same time steady the movement of the connecting rod E there are placed, so as to bear against the lower part E′ the friction rollers E^2. Any lateral disadjustment of the connecting rod is prevented by its position between the dial F and the bracketed frame upon which the said dial is mounted.

Mounted on the shaft of the pinion G′ in front of the dial F is a pointer G extending to near the edge of the said dial. This pointer is constructed of spring metal to force the small nub G^2 near its outer end into the small indentations F^2 with which the dial F is provided. The pointer is also provided with a handle G^3 by means of which it may be moved around the dial F.

The indentations F^2 on the designating dial F are so spaced as to allow of sufficient movement of the pointer G, and pinion G′ to move the connecting rod so as to raise or lower the sliding block B^2 over one concentric space on the dial A for each succeeding indentation on the dial F. Beside each indentation are numbers in seriatum corresponding to the numbers of the concentric spaces on the dial A, whereby each employé having an assigned number has only to turn the pointer G until the nub G^2 strikes in the indentation opposite his number, and then press the push button C^4 when the pricking point B will puncture the dial A in the concentric space bearing his number, as above described, and so on each time he operates the device, the puncture will be made in the concentric space assigned to him.

It is obvious that as the dial A is connected to the clock-work to rotate with the hour-post and is divided as above described, the punctures will show at a glance the incoming and outgoing time, recorded of each employé, being made at a fixed station radial to the said dial A.

To support and guide the dial A at the point of puncture while providing an indicator, by means of which the dial may be set for time, there is mounted on the base-plate C^2 the triangular rod H, into the valley of which the pricking point B strikes after puncturing the dial A, the sides of the triangle forming resisting walls against the escapement of the dial. It is by means of the sharp angle of this rod, which is turned toward the operative that the dial is set, this being the starting or unit point.

In this invention the pricking point B and its adjuncts are placed behind the dial A, while the rod H is placed in front of the same. The advantage gained by this adjustment is that only one slight obstruction is offered to the view of the dial A. By this arrangement the records may be read within the smallest limit of time after being made, and that without opening the machine.

While I have shown and described the particular construction of mechanism for raising and lowering the recording device, it is obvious that a right and left wound spindle, the cords of which attached to the upper and lower ends of the connecting rod E, as well as other well known devices, would accomplish the same purpose without avoiding this invention.

What I claim is—

1. In a workman's time recorder the combination of a movable time dial having marked thereon concentric spaces and radial divisions and provided with a time mechanism to rotate it, a recording device adapted to mark the said time dial and provided with suitable mechanism to operate it, a designating dial provided with stations equal in number to the concentric spaces on the time dial and bearing numeral designation in successive order, and a shifting mechanism for adjusting the recording device consisting of a pointer pivotally mounted on the designating dial and adapted to rest opposite the said stations and suitable connections with the said recording device whereby the recording device is shifted over one concentric space on the time dial for each successive station over which the pointer is passed, substantially as shown and described.

2. In a workman's time recorder such as described the combination of a movable time dial having marked thereon concentric spaces, and radial divisions and provided with a time mechanism adapted to rotate it, a recording device consisting of the pricking point B, the swinging arm B′, sliding block

B^2, guide rod C provided with the finger C^3 and the push button C^4, a designating dial provided with stations equal in number to the concentric spaces on the time dial and bearing distinctive designations, and a shifting mechanism for adjusting the pricking point B of the recording device, consisting in the rod E the rack-bar E′, the pinion G′ and the pointer G, adapted to rest opposite the said stations on the designating dial substantially as described.

In witness whereof I have hereunto set my hand this 5th day of August, 1892.

HERBERT D. BENNETT.

Witnesses:
J. H. SCHWARTZ,
G. W. PATTERSON.