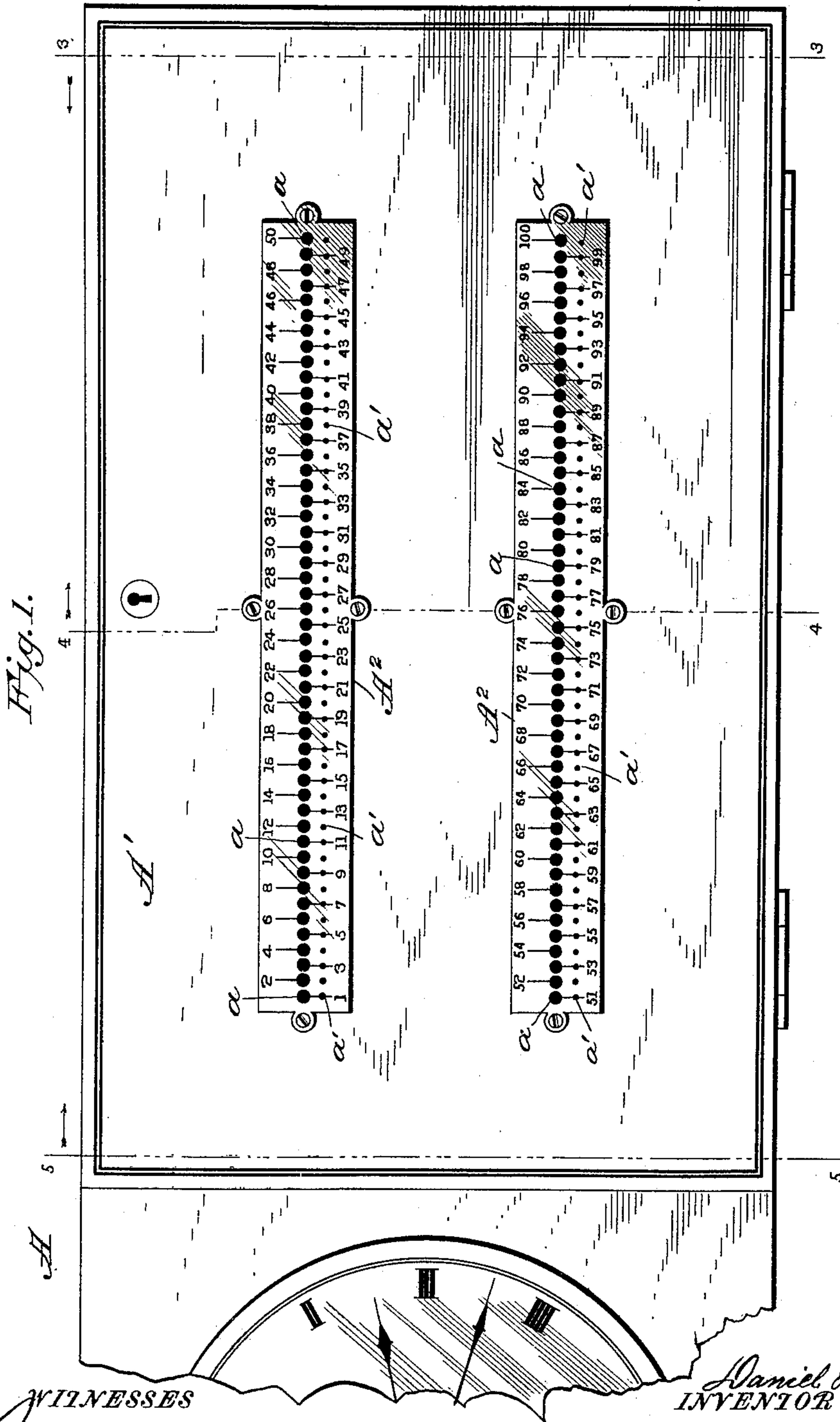


D. HEPP.

WORKMAN'S TIME RECORDER.

No. 520,310.

Patented May 22, 1894.



WITNESSES  
*W. Johnson*  
*G. S. Elliott*

*Daniel Hepp*  
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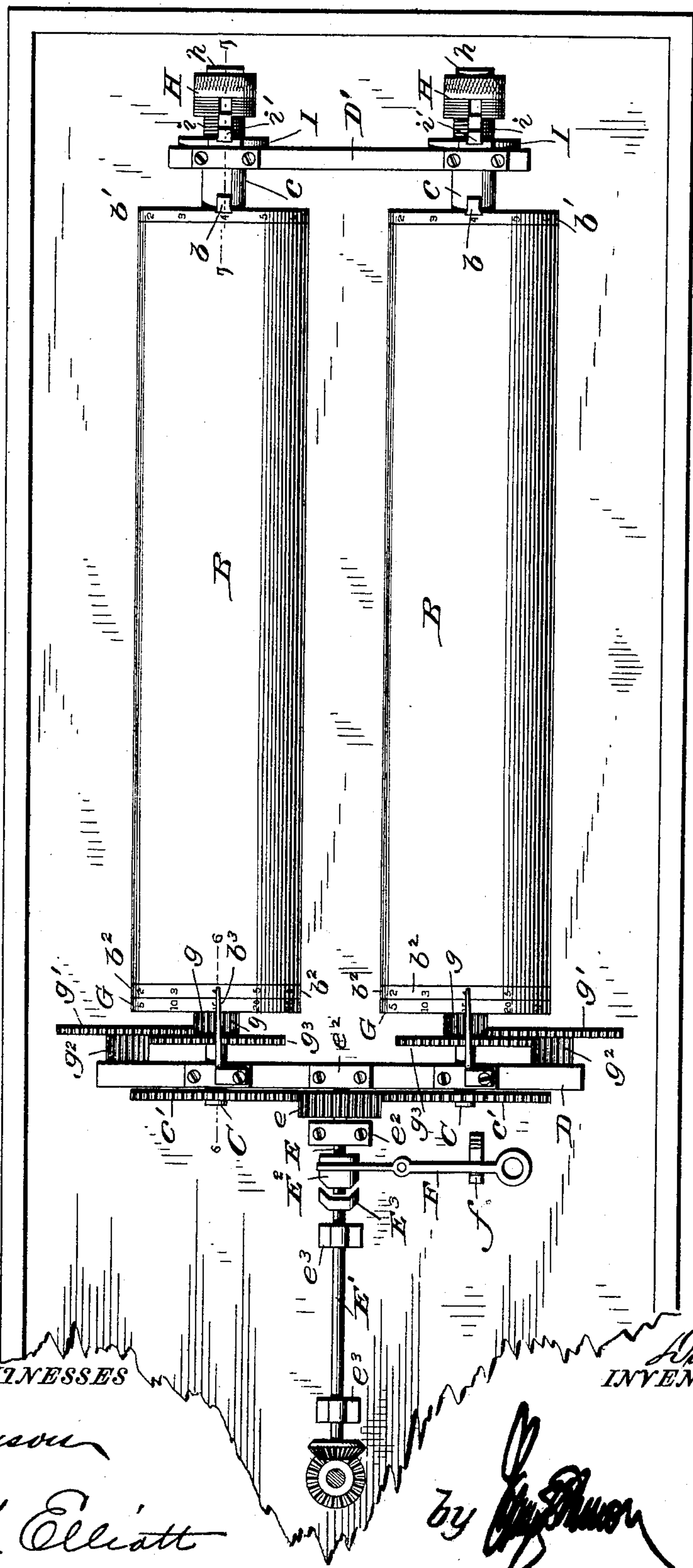
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Fig. 2.

A



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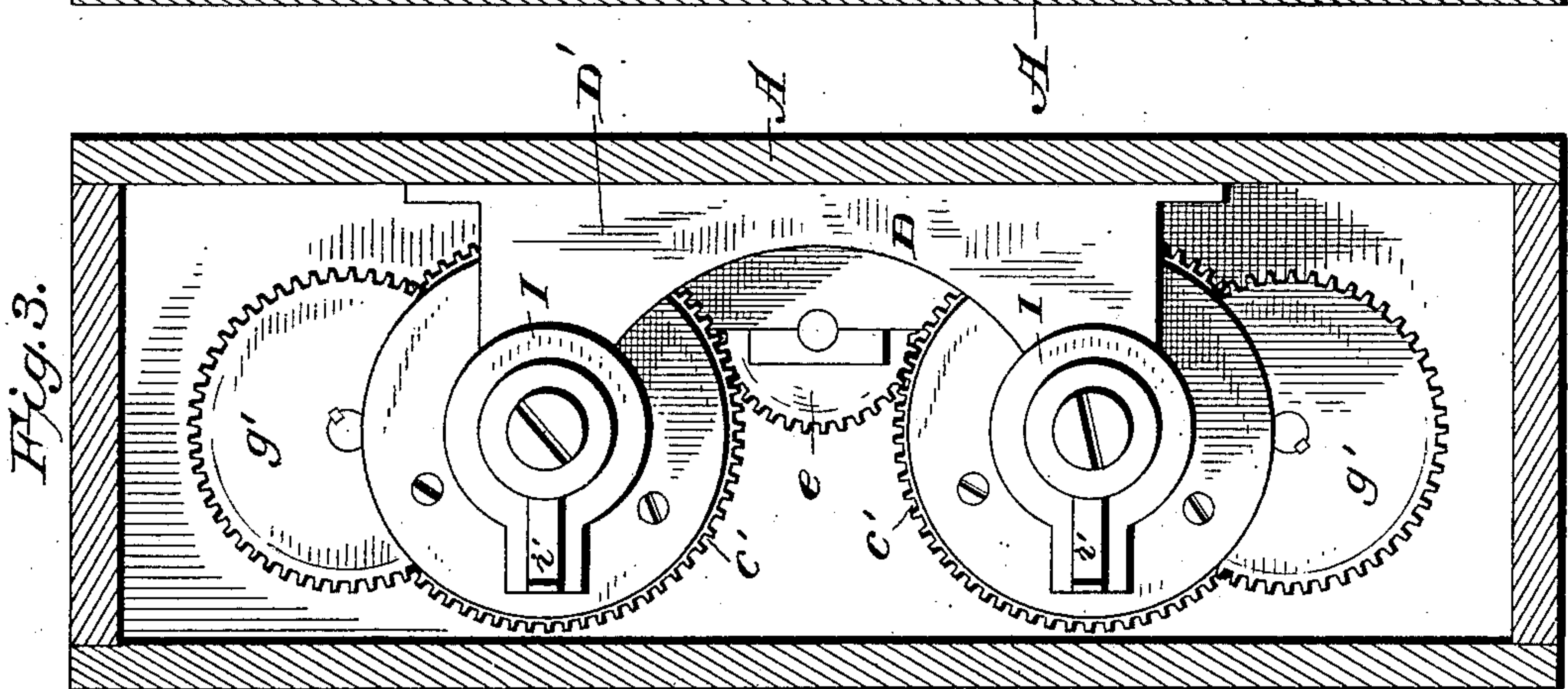
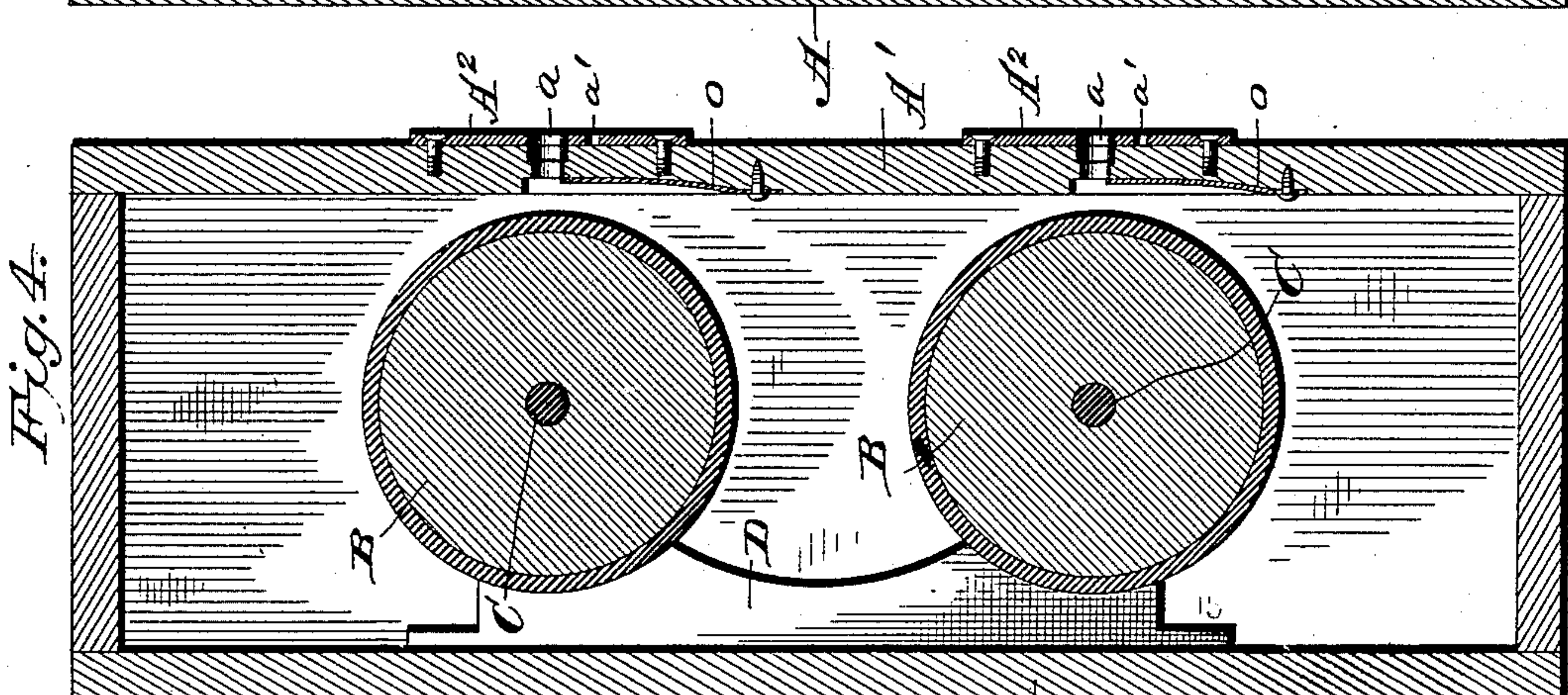
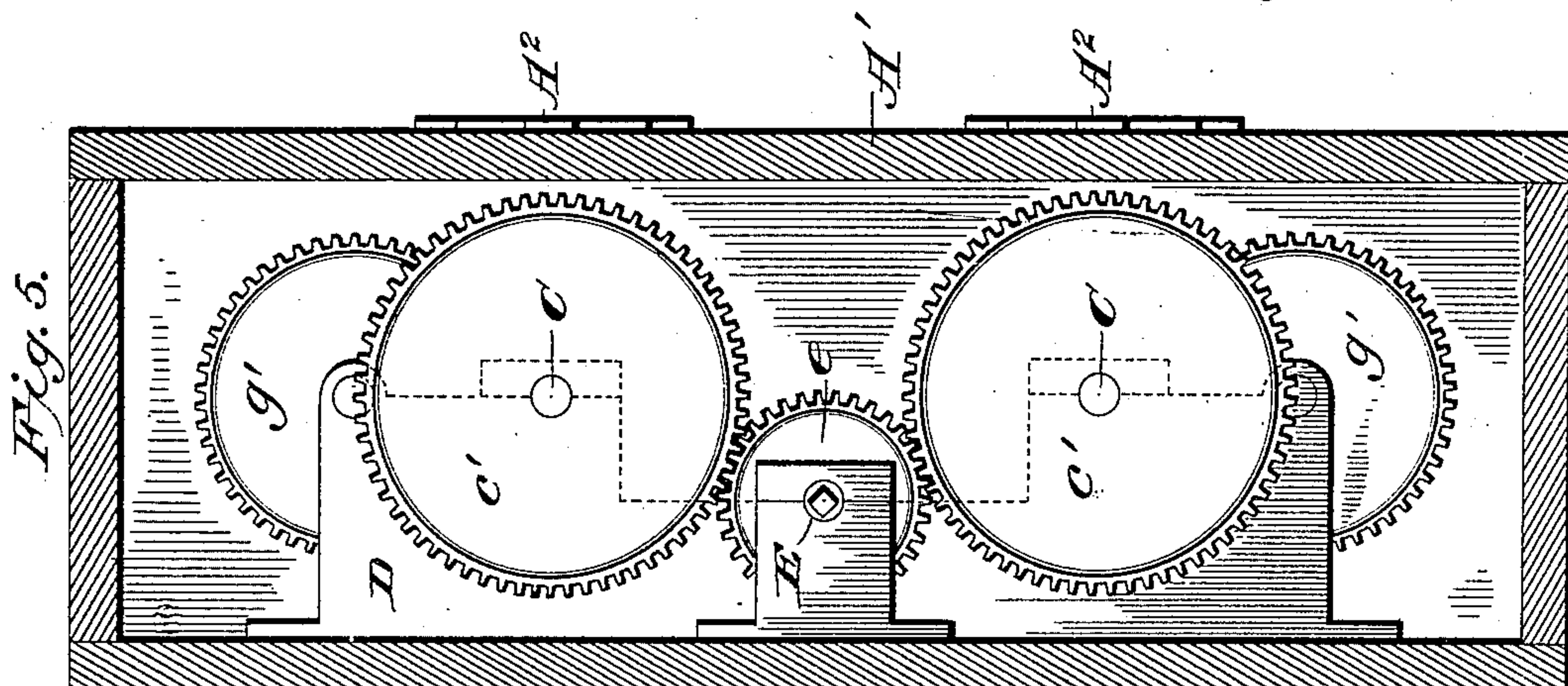


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4 Sheets—Sheet 4.

WORKMAN'S TIME RECORDER.

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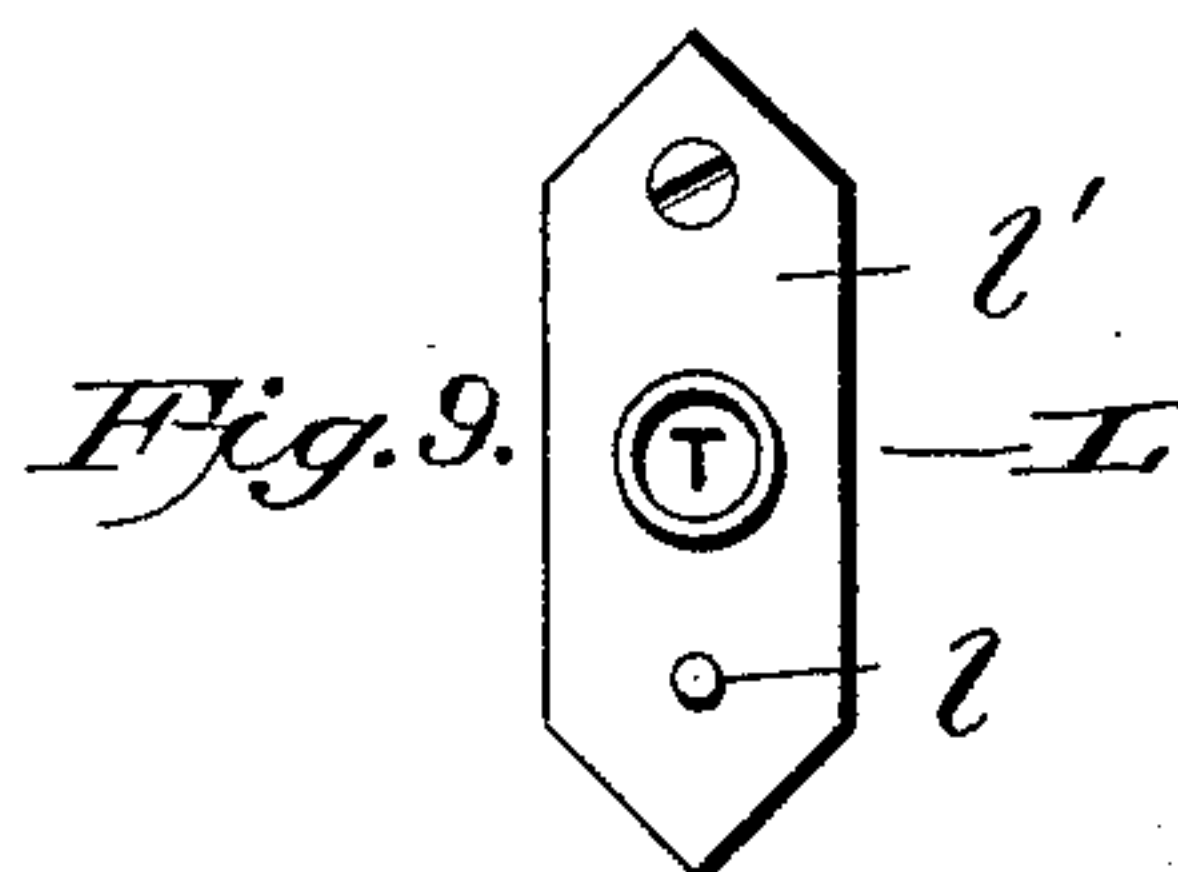
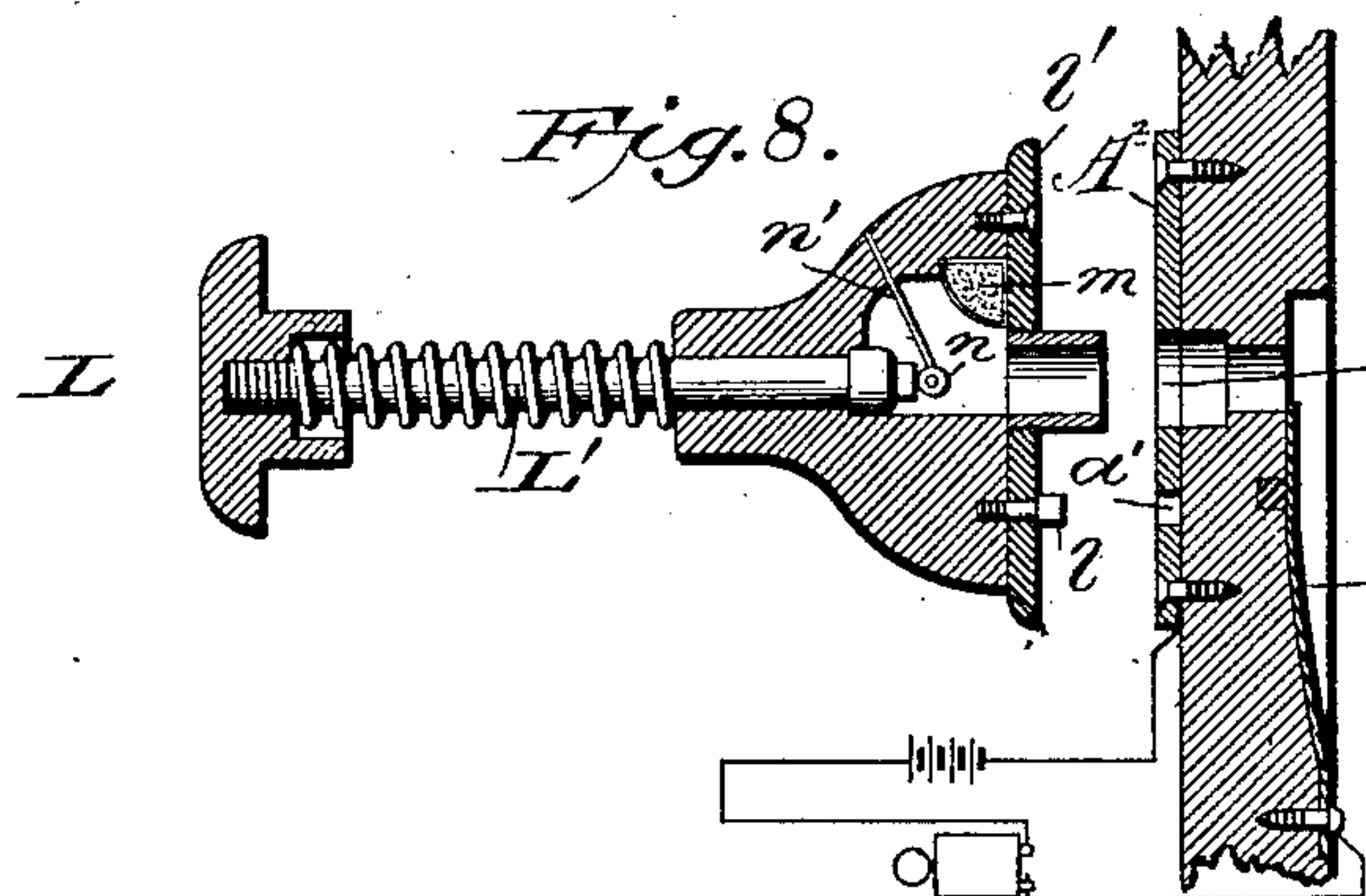
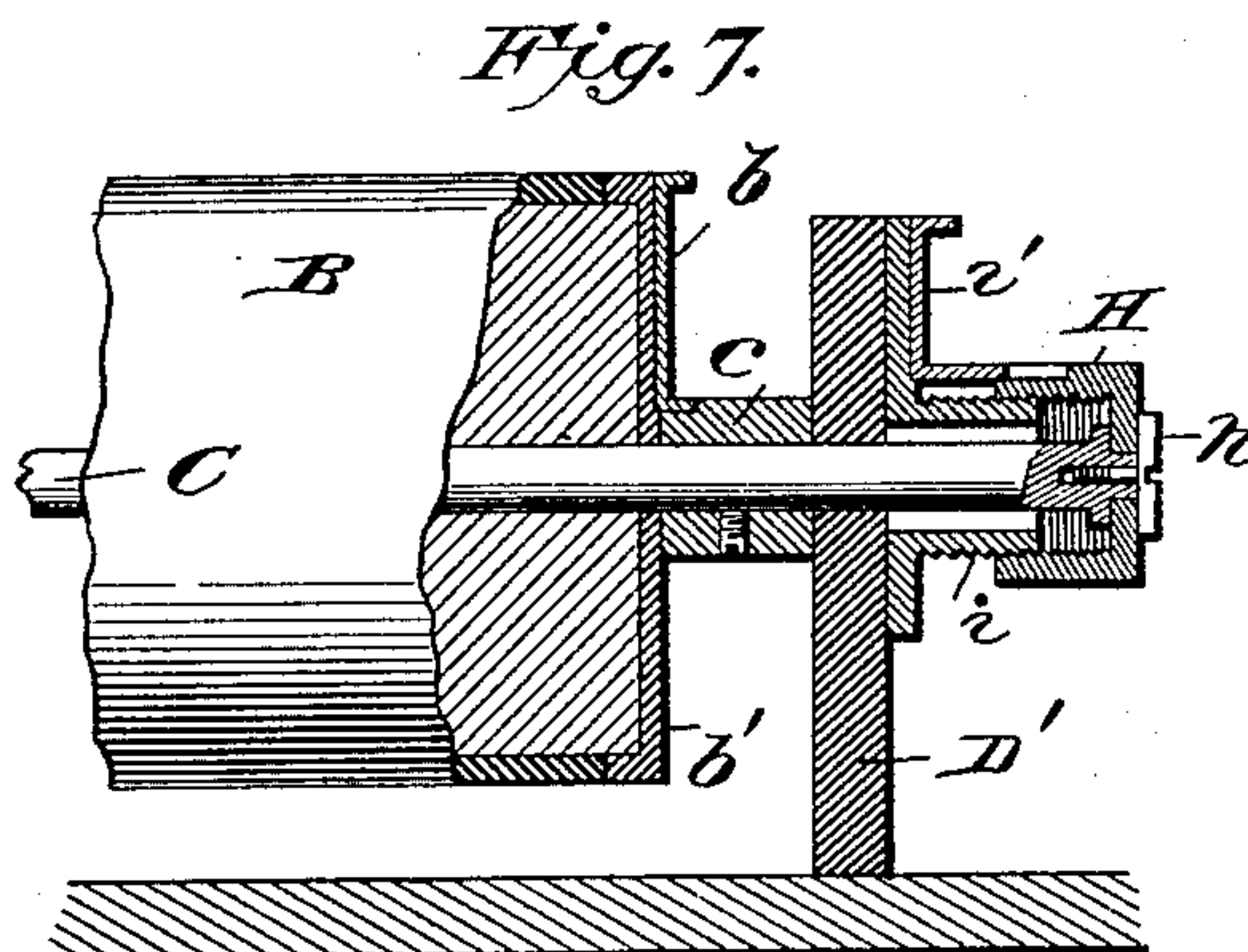
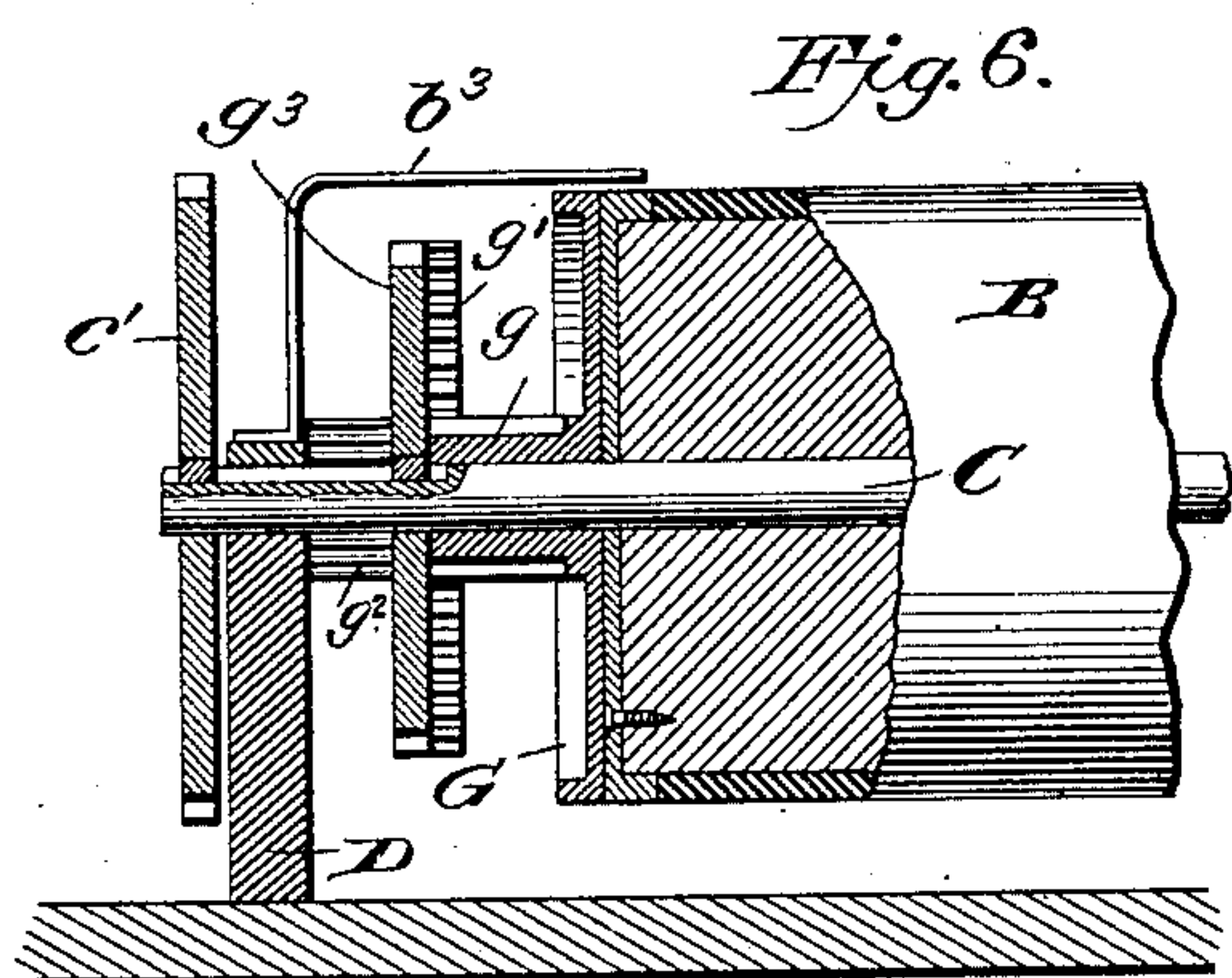


Fig. 10.


[illegible]

**WITNESSES**

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# UNITED STATES PATENT OFFICE.

DANIEL HEPP, OF CHICAGO, ILLINOIS.

## WORKMAN'S TIME-RECORDER.

SPECIFICATION forming part of Letters Patent No. 520,310, dated May 22, 1894.

Application filed November 29, 1893. Serial No. 492,387. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL HEPP, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Time-Recorders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a time recorder which dispenses with the use of keys which puncture the record-sheet or make an impression thereon by means of an interposed ribbon, and employ in lieu thereof a self-inking recording key stamp which each employé uses for recording his time.

A further object of the invention is to provide improved recording mechanism and record-sheet, by means of which a record of several days can be kept with a single sheet.

In carrying out my invention I make use of a record-sheet in which the spaces on a line with each employé's name is divided into a number of parallel rows of spaces upon which are impressed marks indicative of the arrival and departure of the employés, said record-sheet being applied to a rotatable and longitudinal movable cylinder which is adapted to be thrown in gear with the time-keeping mechanism.

The invention also embodies the employment of more than a single roller or cylinder where the machine is intended to record the time of a large number of employés; and it consists in the novel features of construction, as will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification: Figure 1 is a plan view, showing the upper part of the casing containing the time recording mechanism and a part of the dial of the clock. Fig. 2 is a plan view with the cover removed. Figs. 3, 4 and 5 are sectional views on the lines 3, 4 and 5, respectively, indicated on Fig. 1. Figs. 6 and 7 are sectional views on the lines 6 and 7 of Fig. 2. Fig. 8 is a sectional view of the recording key or stamp with a part of the key-

plate and cover, showing the electric connection for sounding an alarm. Fig. 9 is a plan view of the under side of the key, and Fig. 10 is a plan view showing a portion of the record-sheet.

A designates the box or casing which contains the time recording mechanism and clock the dial and hands of which are visible.

Within the box or casing are located rollers or cylinders B B which are mounted upon shafts C C journaled in bearings attached to supports D and D' rigidly secured to the bottom of the casing. Each roller is keyed to its shaft, by means of a sliding key *b* which is attached to the head *b'* of the roller and engages a recess in a collar *c* rigidly secured to the shaft, so that when the key is disengaged the roller will be free to rotate. The end of each shaft C is extended beyond the support D and has keyed thereon a gear-wheel *c'* in mesh with a pinion *e* on a shaft E adapted to be connected to a shaft E' rotated from the clock mechanism. The shafts E and E' are journaled in bearings *e<sup>2</sup>* and *e<sup>3</sup>* extending from the bottom of the casing and are connected to rotate together by the sliding clutch E<sup>2</sup> on one shaft engaging a disk E<sup>3</sup> on the other shaft. The clutch is thrown in and out of engagement with the disk by means of a pivoted lever F the forked end of which embraces the clutch while the other end engages a catch *f* for holding the lever in an adjusted position. The catch is preferably a plate with recesses with which the lever F engages, and to move the clutch E<sup>2</sup> it is only necessary to slightly raise the handle end of the lever to free it from the catch when it can then be adjusted. When the clutch is thrown in engagement with the disk the shafts E and E' rotate, and the pinion *e* thereon meshing with the gearwheels *c' c'* will revolve the rollers or cylinders synchronous with the clock mechanism, the rollers being geared to the clock so that each will make a complete revolution every twelve hours. The circumference of the heads *b'* and *b<sup>2</sup>* of the rollers or cylinders is divided into twelve equal parts to assist in properly attaching the record sheet, and in connection with these marks denoting the hours is used a pointer *b<sup>3</sup>*, which extends from the support D as shown in Fig. 6.



the end of each day or at the commencement of a new day the key  $i'$  is withdrawn and the screw-cap H given one revolution which will move the roller to the next row of time spaces  $k^3$  of the record sheet.

The rollers or cylinders may be provided with any suitable means for holding the record sheet thereon, and said cylinders may be of any light material and covered with rubber.

10 Beneath each aperture in the cover-plate  $A^2$  is a plate  $o$  which is connected by a wire which leads to an electric bell said bell and the battery being connected to the plate  $A^2$ . The end of the plate  $o$  lies in the path of the  
15 key or stamp so that when the key contacts with said plate the circuit will be completed and an alarm sounded. The alarm mechanism may be of such a character that it will operate either on an open or closed circuit, as  
20 may be desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a time recorder, the combination, of a  
25 clock, a roller or cylinder adapted to be placed in gear therewith, said roller or cylinder having hour and minute disks, and means for adjusting the roller so that it will move synchronously with the clock movement, said  
30 roller carrying a record-sheet which is divided longitudinally into spaces, an apertured plate located outside of the case near the roller, and a recording key for impressing a character on the record sheet, substantially  
35 as shown, and for the purpose set forth.

2. In a time recording mechanism, the combination of a roller or cylinder which is movable longitudinally upon its supporting-shaft, of a gearwheel adapted to engage with a pinion on a shaft driven from the clock mechanism, gearwheels  $g'$  and  $g^3$  meshing with pinions  $g$  and  $g^2$ , the pinion  $g$  carrying a minute-disk, as G, the roller carrying adjacent to the minute-disk an hour-disk, and means for dis-

engaging the gearing from the clock movement and the roller from its shaft, substantially as shown and for the purpose set forth.

3. In a time recording mechanism, the combination, of a roller or cylinder which is adapted to be moved synchronously with the  
50 clock movement, gearing having broad pinions over the surfaces of which the intermeshing gearwheels are adapted to slide, and a rotatable cap held in engagement with the shaft, substantially as shown, whereby when  
55 said cap is turned the shaft carrying the roller will be moved longitudinally, for the purpose set forth.

4. A time recorder constructed substantially as shown and provided with a number  
60 plate having a series of apertures and perforations, of a self-inking recording key having a base-plate with a portion which is adapted to enter the apertures in the number-plate and a projection which enters the  
65 perforations, substantially as shown.

5. In a time recorder, the combination, with the shaft supports, of a shaft  $E'$  geared to the clock mechanism, said shaft having a disk with a clutch face, a shaft  $E$  carrying a pinion  $e$  and a clutch member by means of which  
70 the recording mechanism can be disconnected from the clock mechanism, a shaft carrying a roller or cylinder and pinion  $c$  which meshes with the pinion  $e$ , the heads of the  
75 drum being divided circumferentially as set forth, means for engaging the roller or cylinder with its shaft, and a rotatable cap which is carried by one end of the shaft and engages a threaded projection extending from  
80 a support, substantially as shown and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL HEPP.

Witnesses:

W. C. ROHLF,

WM. TOMS.