(No Model.) 2 Sheets—Sheet 1.

G. F. SAGE.

WORKMAN'S TIME RECORDER.

No. 500,037. Patented June 20, 1893.

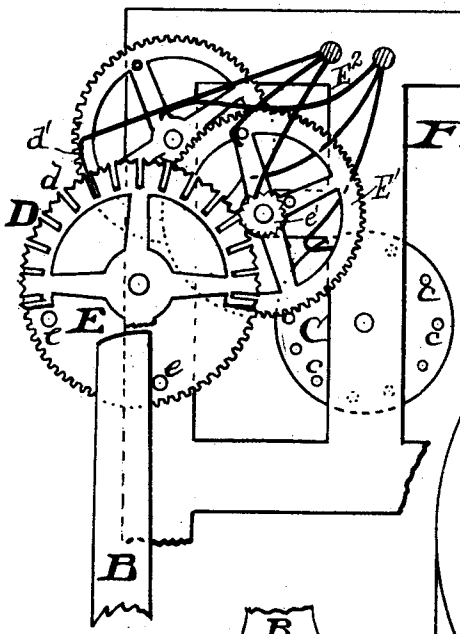

Fig. 2.

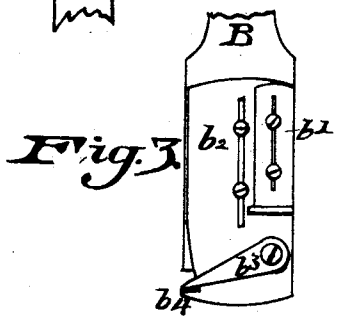

Fig. 3.

Fig. 1.

Witnesses,

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(No Model.) 2 Sheets—Sheet 2.

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WORKMAN'S TIME RECORDER.

No. 500,037. Patented June 20, 1893.

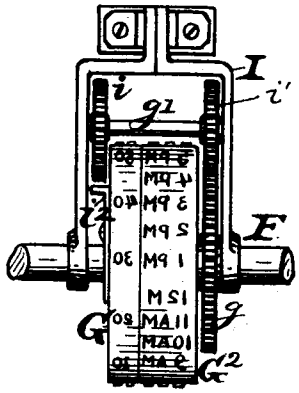

Fig. 7.

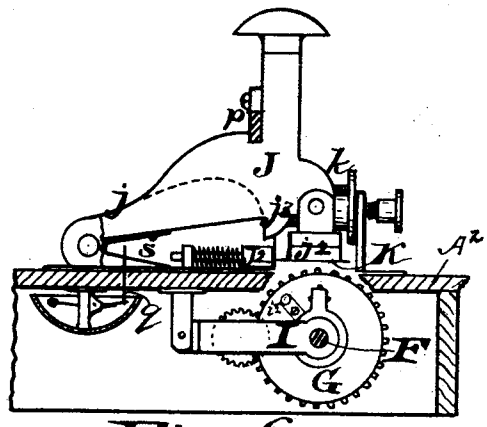

Fig. 6.

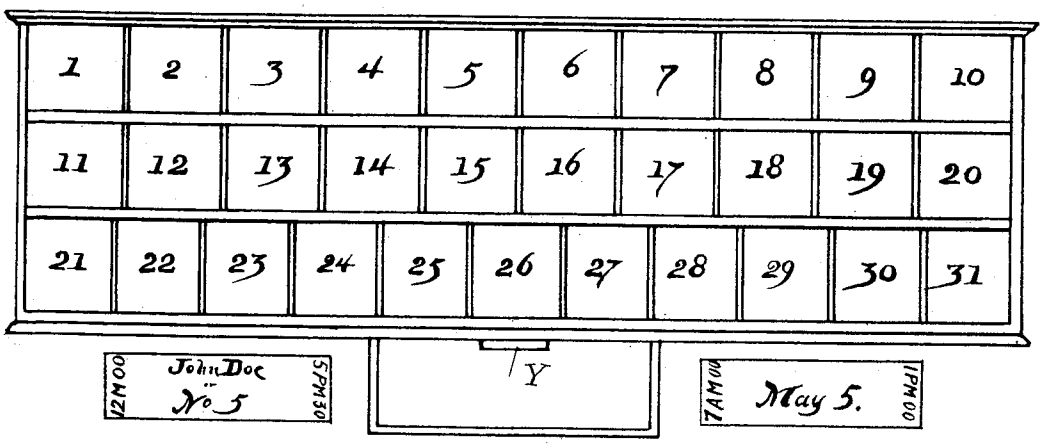

Fig. 8.

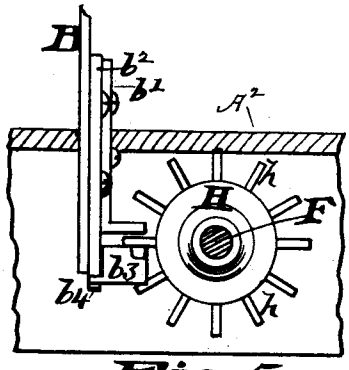

Fig. 5.

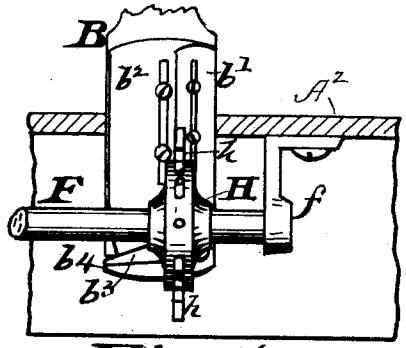

Fig. 4.

Witnesses

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By Geo. W. Tibbitts Atty.

UNITED STATES PATENT OFFICE.

GEORGE F. SAGE, OF CLEVELAND, OHIO.

WORKMAN'S TIME-RECORDER.

SPECIFICATION forming part of Letters Patent No. 500,037, dated June 20, 1893.

Application filed June 4, 1891. Serial No. 395,162. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. SAGE, a citizen of the United States, and a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Workmen's Time-Recorders, of which the following is a specification.

This invention relates to mechanism and method of using the same, for registering the arrival and departure of employés in factories, stores, &c.

The invention comprises the constructions and combinations substantially as hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of a clock and stamp mechanism, partly in section embodying my invention. Fig. 2 is a detached view of a part of the striking mechanism of a clock, which I employ as the means for operating the rotative stamp wheels. Fig. 3 is a view of the lower end of the clock actuated lever, which rotates the shaft having the stamp wheel thereon, showing a pawl for engagement with pin wheel on one end of said shaft. Fig. 4 is a detached view of the pin wheel on the shaft located in the base supporting the clock, said wheel being intermittently turned by the movements of the aforesaid lever. Fig. 5 is a transverse view of the pin wheel showing its position relative with the said lever. Fig. 6 is a side elevation of the stamping device, partly in section, showing its location over the dating wheel. Fig. 7 is an edge view of the dating wheel, enlarged, and as seen from the under side. Fig. 8 is a front elevation of a check or ticket holding cabinet adapted for use in connection with my stamping device, and accompanied with two of the checks, showing both sides with the number and time stamped thereon.

A represents a clock standing upon a base, A^2, which also supports the stamp mechanism and the means of operating the same in connection with the clock.

B is a lever fulcrumed in the clock case, its upper end reaching up to the tripping mechanism of the clock which actuates said lever at short intervals of time, as hereinafter described. To accomplish frequent movements of said lever B, I provide, on the shaft of the minute hand or pointer, a wheel C, having twelve or any other desired number of tripping pins *c c* for setting off the tripping mechanism. This wheel and its pins are substituted for the usual tripping pin on said minute hand shaft, which causes the clock to strike once every hour or every half hour. I also provide a wheel D having twenty-four, equidistant peripheral slots *d d*, and a wheel E having five pins, *e e*, and when said wheel E rotates, a pin *e* will push the top end of the lever B to the left, as shown by dotted line in Fig. 1.

A retracting spring *b* is provided connecting the lever B with some part of the clock frame or case for the purpose of throwing the lever back again as soon as released by the pin *e* passing beyond the end of the lever, which it does when the wheel has made one-fifth of the revolution. Such revolution is caused by the complete rotation of the driving wheel E′ connected by a small gear *e′* with the wheel E; and this driving wheel is tripped to start its motion and checked to stop its motion by a system of levers E^2 actuated by the pins *c* in the wheel C every few minutes, and one of the levers having a retaining lip *d′* engaging the slots *d* in the wheel D as will be understood from the drawings—the construction being similar to that generally employed in the striking mechanism in clocks. This is the means I employ for frequently moving the dating stamp wheels to keep the figures on their peripheries in position in accord with the movements of the clock.

In the base A^2 is provided a shaft F journaled in suitable hangers or bearings *f*, and on this shaft the dating stamp wheels G G^2 are supported. Upon the end of said shaft, under the clock is placed a wheel H having radially projecting pins *h h*, by means of which the shaft F is made to rotate, when acted upon by the lever B. On the lower end of the lever B is provided an adjustable plate b^2, carrying an adjustable stop *b′*, and on plate b^2 is attached a dog b^3, on a pivot pin limited in its fall by a stop b^4 on the lower corner of the plate b^2. By the movement of the lever B as shown by dotted lines in Fig. 1 the operation of turning the pin wheel H is accomplished in the following manner: When the lower end of the said lever B is

moved to the right, the dog b^3 will ride over a pin h and fall to the stop b^4 mentioned, which drops its point below the line of the pin with which it had been just engaged. Now when the lever moves back again to its normal position, through the medium of the spring b, the dog passes under the pin on the wheel H and its beveled upper face quickly turns said wheel and shaft, the stop b' limiting the distance of the turning to which the pin can rise, and hence regulating the wheel.

G, G^2, are dating wheels one of which (G) is permanently fixed onto the shaft F, the other G^2, being loosely placed on the shaft by the side of the first. I is a bearing frame or yoke supporting the shaft F, at each side of the said wheels and is secured to the base plate A^2. To the wheel G^2 is attached a gear wheel g. At one side of said dating wheels G G^2, is provided a shaft g', having its bearings in the aforesaid frame I and has a pinion i' meshing with the aforesaid gear g. On its other end is provided a toothed wheel i. On the side of wheel G is attached a single tooth i^2, which is designed to engage and move the toothed wheel once in each revolution of said wheel G. On the periphery of the wheel G are provided raised type or figures at equal distances apart, to represent a certain number of minutes or fractions of an hour, as for instance 0, 5, 10, 15 and so on to 55.00, and on the periphery of wheel G^2 figures representing the hours of the day. These wheels are designed to present the said figures at their top sides through a slot or opening in the bed, beneath a stamping device in accordance with the time of day indicated by the clock.

The stamping device consists of a lever J pivoted to a plate fixed onto the base A^2 over the aforesaid dating wheels and between two side plates $j\,j$. It is provided with a suitable stamping head or block j^2. The lever is held up by a spring s. K is an inking ribbon supported on spools k set in supporting posts k^2 at each side of said stamping block j^2, and passing under same and directly over the said dating wheels. On the spool shafts are fixed ratchet wheels l and on the lever J is a double or two armed pawl p capable of being tilted so as to cause the pawl to engage with one of the said ratchet wheels l, for the purpose of rotating the spool and thereby carrying the ribbon, whenever the stamp lever is depressed. The said pawl may be tilted, it will be noticed, from side to side for reversing the movements of the ribbon.

J^2 is a spring actuated stop set in between the side plates $j\,j$ upon which a lug j^3 strikes, if the lever J should be pushed down whenever there is no card or check inserted to be stamped. The insertion of a check pushes the stop J^2 back and allows the lever to go clear down and make an impression. A bell or gong is also placed in the base beneath the stamping lever whose hammer is moved by the stamping lever striking on a rod q, connected with the hammer, reached only whenever the stamping lever moves down its full stroke.

Fig. 8 represents a cabinet having thirty one pigeon holes or drawers numbered to correspond with the days of a month. These drawers are designed to contain a quantity of paper or card board checks or tickets having the day of the month and the month printed thereon corresponding with the numbers on the drawers, and having a sufficient blank space on the opposite side of said check or tickets for the name or number of a workman or employé and also sufficient space on both sides for the time to be stamped thereon. These drawers are to be locked and only the one opened corresponding with the day of the month on which the device is used left open from which an employé may obtain a check.

The use and working of this device are as follows: The drawer corresponding with the day of the month, say the 5th is opened by the person employed to keep the accounts of workmen or employés. Now as the workmen arrive they take from the drawer a check and place it in the device and operate the stamp thus stamping on said check the time of day, say 7 a. m. They write their name or if they have a number write that upon their check and place the same in their pocket to be retained for such use during the day, and when they make their final departure again use the stamp to record the time of such departure, and then deposit the check in the receptacle Y of suitable construction formed in the base of the cabinet. When the check is inserted for stamping the bell is also sounded.

Having described my invention, I claim—

1. In a workman's time recorder, the combination with a clock-mechanism having an intermittently moved tripping wheel provided with pins; of a lever actuated by said pins, a shaft having numbering stamp wheels, a spring-supported stamp-lever above said wheels, inking devices therefor, a pin-wheel on the shaft standing in a plane at right angles to that of the movement of the clock-lever, a plate on the lever having a stop, and a dog pivoted to the plate with its tip resting normally on the stop and having an inclined upper face adapted to pass under one pin of said wheel when the clock-lever is moved, as and for the purpose set forth.

2. In a workman's time recorder, the combination with a clock mechanism having an intermittently moved tripping wheel provided with pins; of a lever actuated by said pins, a shaft having numbering stamp wheels, a spring-supported stamp-lever above said wheels, inking devices therefor, a pin-wheel on the shaft, a plate adjustably secured to the clock-lever and having a fixed stop, a dog pivoted to the plate and its tip resting on said stop, and a second stop adjustably secured to the plate above the dog, as and for the purpose set forth.

3. In a workman's time recorder, the com-

bination with a clock mechanism; of a stamping device consisting of a lever J pivoted between side plates *j j* and provided with a stamp-head j^2, a lug j^3 on said lever, a spring-actuated stop J^2 above the platen and standing normally below said lug, numbering stamp-wheels, and connections substantially as described between said wheels and clock mechanism, as and for the purpose set forth.

4. In a workman's time recorder the combination of a stamping device consisting of a lever J pivoted between side plates *j j* and provided with stamp head j^2 the inking ribbon K supported on spools K K, ratchet wheels *l l* mounted on the shafts of said spools, the double adjustable pawl *p*, spring actuated stop J^2, a lug j^3 on the lever above the normal position of said stop and the dating wheels substantially as and for the purpose specified.

5. In a workman's time recorder, the combination with a clock mechanism; of a stamping device consisting of a lever J provided with a stamp-head j^2, a lug j^3 on said lever, a spring-actuated stop J^2 above the platen and standing normally below said lug, a bell having a clapper, a push rod connected with said clapper and moved only when the lever J is depressed to its full extent, stamp-wheels, and connections substantially as described between said wheels and clock mechanism, as and for the purpose set forth.

6. In a workman's time recorder, the combination with a clock mechanism, and a shaft turned periodically thereby; of fast and loose stamp-wheels on said shaft, the fast one carrying a single tooth and the loose one a gear, a yoke, a shaft journaled therein and driven from said gear, a toothed wheel on said shaft engaged by said pin at each revolution of the fast stamp-wheel; and a stamp-head and inking devices, as and for the purpose set forth.

GEORGE F. SAGE.

Witnesses:
A. H. ROWLEY,
DAN F. REYNOLDS, Jr.