

(No Model.)

2 Sheets—Sheet 1.

M. MARTIN.
WORKMAN'S TIME RECORDER.

No. 475,458.

Patented May 24, 1892.

Fig. 1,

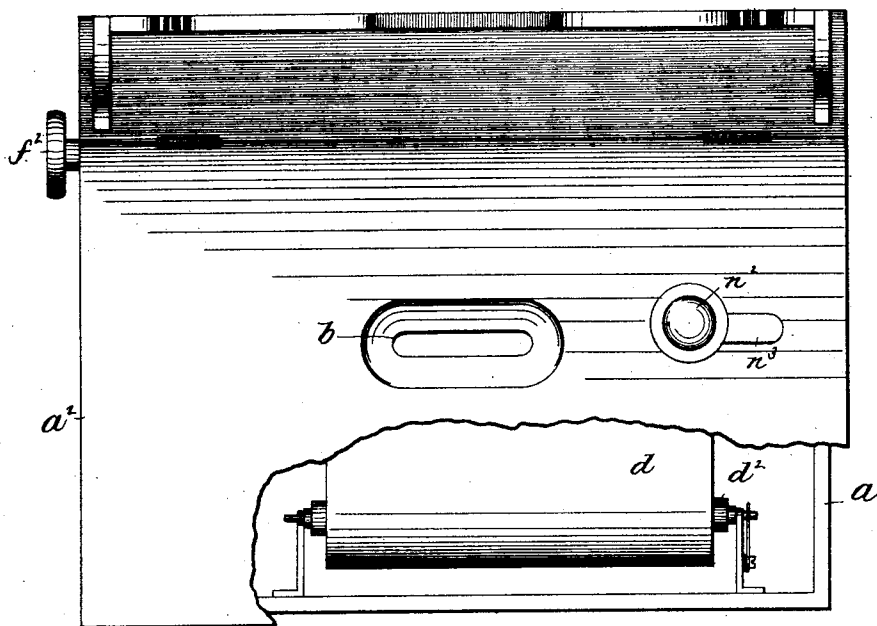
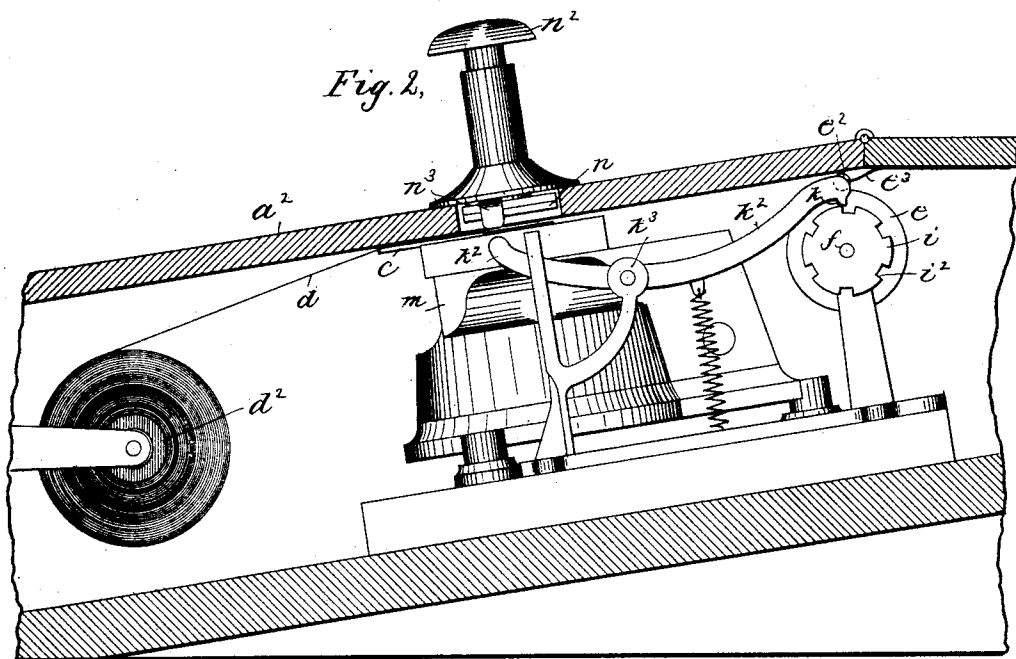


Fig. 2,



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Inventor,
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by *Jos. P. Livermore*
Att'y.

(No Model.)

2 Sheets—Sheet 2.

M. MARTIN.
WORKMAN'S TIME RECORDER.

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Fig. 3.

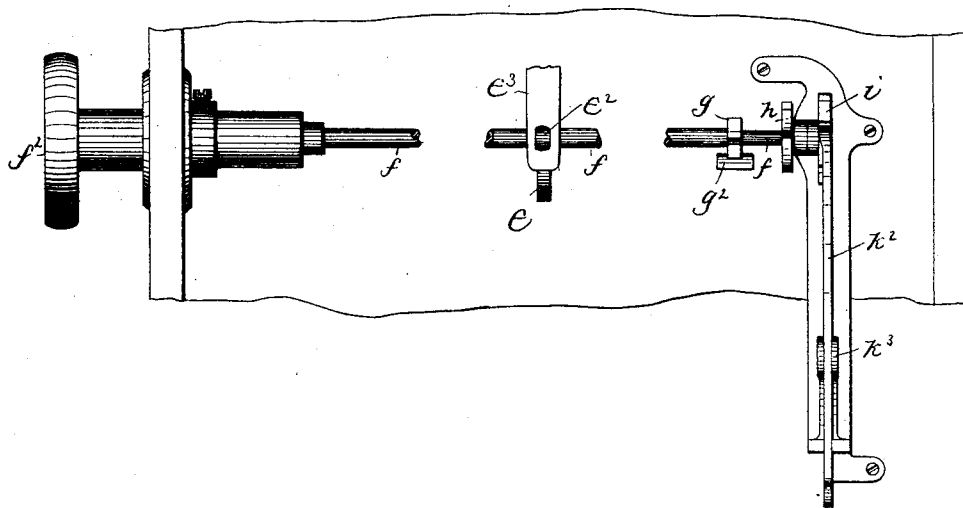


Fig. 4.

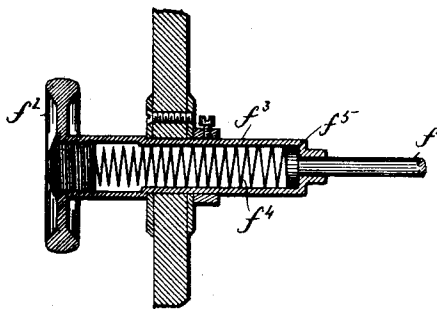
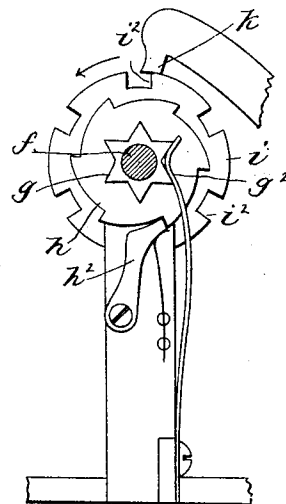


Fig. 5.



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UNITED STATES PATENT OFFICE.

MORRIS MARTIN, OF MALDEN, MASSACHUSETTS, ASSIGNOR TO THE AUTOMATIC TIME STAMP AND REGISTER COMPANY, OF PORTLAND, MAINE.

WORKMAN'S TIME-RECORDER.

SPECIFICATION forming part of Letters Patent No. 475,458, dated May 24, 1892.

Application filed January 15, 1889. Renewed July 20, 1891. Serial No. 400,034. (No model.)

To all whom it may concern:

Be it known that I, MORRIS MARTIN, of Malden, county of Middlesex, and State of Massachusetts, have invented an Improvement in

5 Apparatus for Recording the Time Attendance of Employés, &c., of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 My invention relates to an apparatus for recording the time attendance of employés or for similar purposes, and is embodied in an apparatus comprising an inclosing case containing a recording-surface, which may be a

15 continuous strip or web of paper, on which each person whose attendance at the instrument is to be recorded signs the name, and said case also incloses a time-stamp, by which the person signing makes an imprint on the

20 recording-surface showing the time at which the signature is written and the act of imprinting performed.

The present invention relates, mainly, to the construction of the feeding apparatus by

25 which the recording-surface or signature-strip is moved after each signature is made and in intermediate mechanism between the paper-feeding and time-imprinting devices by which the operation of feeding is controlled by that

30 of printing, although the actuation of the feeding mechanism is entirely independent of that of the printing mechanism and the reverse.

In a prior application, Serial No. 280,368,

35 filed July 19, 1888, I have shown and described an apparatus comprising an inclosing case and a movable signature-strip contained therein and a time-stamp for imprinting on said strip the time at which the signature is

40 made, and I do not in this application broadly claim these elements in an apparatus of this kind. In that apparatus the paper-feeding mechanism was actuated by the imprinting mechanism, so that the one operation of actuating the platen of the time-stamp both made

45 the time-imprint and fed the paper into position for the next signature and imprint. I have found that such mechanism is open to certain objections and is somewhat liable to

get out of order or to break down, and the ob- 50
ject of the present invention is mainly to remove such objections.

In the apparatus forming the subject of this invention the time-stamp is of the usual construction and the web of paper is fed by being 55
passed over a wheel or cylinder connected with a shaft having a handle outside of the case, by which it may be turned by the operator. The said handle is frictionally connected with the shaft, so that if the shaft is 60
positively held the handle may be turned independently without injury to the parts; but when said shaft is released the turning of the handle will cause the shaft to turn and the paper to be fed. The said shaft is provided 65
with a star-wheel or cam-plate tending to hold the shaft at definite points, the angular space between the recesses of said star-wheel corresponding to the amount of movement required for each feed of the paper. 70
The said shaft is also provided with a locking plate or disk having recesses or shoulders also spaced to correspond with the amount required for each feeding operation, and the apparatus is provided with a lock or 75
detent co-operating with said shoulders, and being itself operated by the plate or operating-handle of the time-stamp in such manner that when the said platen is operated to make an impression the said detent is also operated 80
to release the shaft and permit it to be turned, so as to feed the paper the required distance, at the end of which movement the detent engages the locking-shoulder and prevents further movement of the shaft until 85
another impression has been made. The feeding-shaft is also preferably provided with a ratchet-wheel and co-operating pawl to prevent reverse rotation of said shaft.

Figure 1 is a plan view of a time-recording 90
apparatus embodying this invention with a portion of the inclosing case broken away; Fig. 2, a partial longitudinal section of said case, showing the inclosed mechanism in side elevation on a larger scale than represented 95
in Fig. 1; Fig. 3, a partial plan view of the paper-feeding shaft and co-operating parts; Fig. 4, a sectional detail of the paper-feeding

though it may be used to indicate the time at which a person was present at and operated the instrument for any reason—as, for example, to indicate the different visits of a watchman:

5 The operator arriving at the instrument usually finds the signature of the last preceding operator in place under the signature-opening *b*, and his first act is to turn the handle *f*², so as to convey the preceding signature out of the
10 way and bring a blank portion of the paper under the opening *b*. This can be done, as the last operator released the shaft in the act of making the time-imprint; but if the shaft should fail to turn it shows that the last operator had neglected to make a time-imprint and
15 the present operator would do so, such imprint being opposite to the signature of the last operator, who would by his neglect get the time of the succeeding operator instead
20 of his own. In either case, the operator, having turned the handle *f*², would cause the shaft to rotate, and after a movement equal to about half the required movement of the feed the cam-disk *g* and its spring *g*² would
25 throw the shaft the remainder of the distance; but just before the spring projection *g*² fully seated in its corresponding recess the detent projection *k* would engage the next shoulder *i*² of the locking-disk and prevent further rotation of the shaft, and owing to the frictional
30 connection between the handle and shaft the operator could not by turning the handle too far bring any strain on the apparatus, and owing to the locking mechanism it would be impossible to feed the paper more than a definite amount, determined by the space between the successive locking-shoulders *i*². The operator would then sign on the paper through
35 the opening *b* and then operate the handle *n*², which would make the time-imprint opposite the signature, showing the time at which the signature was made, and would also release the shaft ready for the next paper-feeding operation.

45 The operator might, if desired, feed the paper ahead after making the signature and time-imprint, in which case the next person, finding a blank space, would sign immediately and make an imprint, and then either
50 feed the paper onward or leave it, as preferred. In any event the operator, if finding a signature already under the opening, would have to feed the paper, making an imprint, if necessary, owing to the neglect of the previous signer to make one, or, if finding the
55 blank space already there, would sign and make the corresponding imprint, when the apparatus would be ready for the next operator.

60 By the herein-described construction the actuation of the paper-feed is wholly independent of the actuation or operation of the time-imprinting mechanism, but is controlled thereby, so that only one feed movement can
65 be made for each time-imprint, and the operator's own signature is a guarantee that

the said operator was present, as it would be impossible for any person to make the record without forging the signature, which would lead to detection.

70 The apparatus is simple, durable, and inexpensive and more reliable than that in which intermediate mechanism between the printing and paper-feeding apparatus is employed to effect both operations of feeding and im-
75 printing by a single act of the operator or by the actuation of a single handle.

I claim—

1. The combination of an inclosing case provided with a signature-opening, with a recording-strip inclosed in said case and movable below said opening, a feed-shaft for the said strip, provided with a handle outside the case and a lock and detent for said shaft, and an independently-operated time-stamp inclosed in said case, the platen or part by which the impression of said time-stamp is made co-operating with the said detent to release without actuating the paper-feeding shaft when the impression is made, substantially as described.

2. The combination of an inclosing case provided with a signature-opening, with a recording-strip inclosed in said case and movable below said opening, a feed-shaft for the said strip and handle outside of the case frictionally connected with the said shaft and a lock and detent for said shaft, and an independently-operated time-stamp inclosed in said case, the platen or part by which the impression of said time-stamp is made co-operating with the said detent to release without actuating the paper-feeding shaft when the impression is made, substantially as described.

3. The combination of an inclosing case provided with a signature-opening, with a recording-strip inclosed in said case and movable below said opening, a feed-shaft for said strip, provided with a cam-plate and yielding projection co-operating therewith, and a locking-disk provided with shoulders, a detent co-operating with said shoulders, and a time-stamp the platen of which is provided with a part that engages the detent, substantially as described.

4. The combination of an inclosing case provided with a signature-opening, with a recording-strip inclosed in said case and movable below said opening, a feed-shaft for said strip, provided with a cam-plate and yielding projection co-operating therewith and also provided with a ratchet and pawl, a handle outside the case frictionally connected with said shaft, and a time-stamp having an operating-handle outside the case by which an imprint is made independently of the movement of the shaft, substantially as described.

5. The combination of an inclosing case provided with a signature-opening, with a recording-strip inclosed in said case and movable below said opening, a feed-shaft for the

said strip, provided with a handle outside the case and a time-stamp inclosed in said case, and an operating-handle for the platen of said time-stamp outside of the case and independent of the handle by which the feed-shaft is operated, substantially as described.

5 In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

MORRIS MARTIN.

Witnesses:

JOS. P. LIVERMORE,

JAS. J. MALONEY.