W. H. BUNDY.

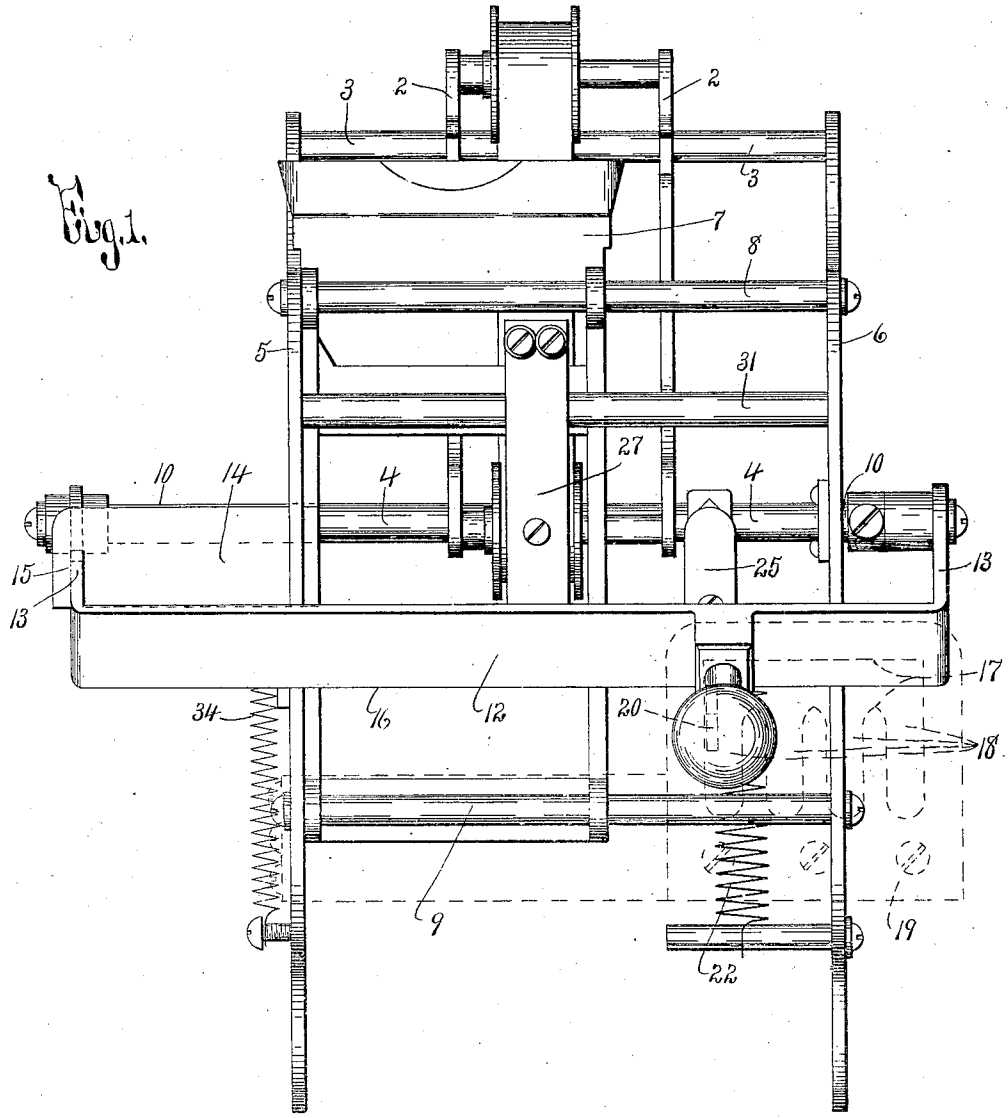
TIME RECORDER.

APPLICATION FILED NOV. 21, 1904.

937,921. **Patented Oct. 26, 1909.**

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES:

Chas. F. Toner.

Chas. Young.

INVENTOR

Willard H. Bundy

BY

Hegy & Parsons

ATTORNEYS

W. H. BUNDY.

TIME RECORDER.

APPLICATION FILED NOV. 21, 1904.

937,921. Patented Oct. 26, 1909.

2 SHEETS—SHEET 2.

Fig. 3.

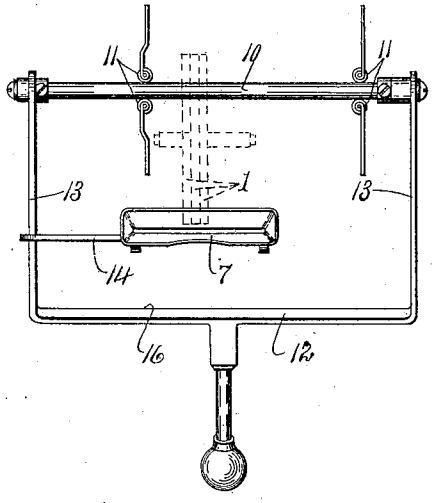
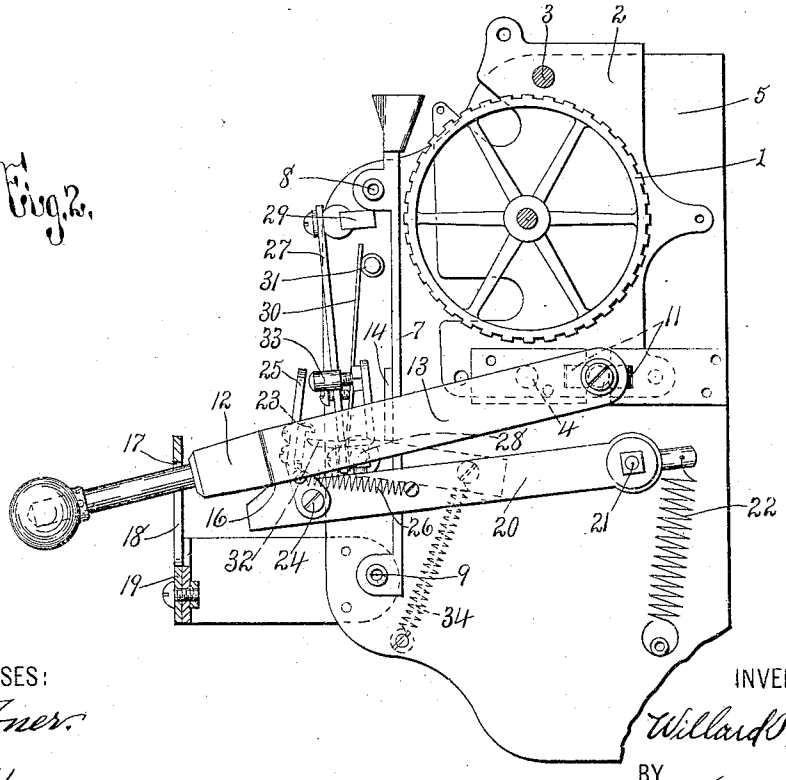


Fig. 2.



WITNESSES:

Chas. Foner.

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INVENTOR

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UNITED STATES PATENT OFFICE.

WILLARD H. BUNDY, OF SYRACUSE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO TRUST AND DEPOSIT COMPANY OF ONONDAGA, TRUSTEE, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

TIME-RECORDER.

937,921. Specification of Letters Patent. **Patented Oct. 26, 1909.**

Application filed November 21, 1904. Serial No. 233,658.

To all whom it may concern:

Be it known that I, WILLARD H. BUNDY, of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Time-Recorder, of which the following is a specification.

My invention relates to time-recorders, and has for its object the production of a mechanism for supporting and printing upon cards, or similar record-sheets, which is especially simple in construction and highly efficient in use.

To this end, the invention consists in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawing, in which like characters designate corresponding parts in all the views.

Figure 1 is a front elevation of a portion of a time-recorder embodying a preferable construction of my invention, the plate provided with the guide for the free end of the operating member being indicated by dotted lines. Fig. 2 is a side elevation, partly in section, in reduced scale, of most of the parts seen in Fig. 1. Fig. 3 is a detail view of the operating member, the card-supporting element, and contiguous parts, the printing element being indicated by dotted lines.

1 is a printing element which is of any desirable form, size and construction, being here shown as a plurality of type-wheels journaled in a suitable frame 2 fixed in any desirable manner to rods 3, 4 connecting frame-members 5, 6. The type-wheels are connected in the usual manner to a suitable time-movement, unnecessary to illustrate and describe herein.

7 is a card-supporting element which is arranged opposite to the printing element 1 and preferably consists of a skeleton frame having an opening in its top for the entrance of the cards, and openings in its sides for exposing the cards to the printing mechanism. This card-supporting element is shiftable laterally relatively to the printing element 1, being here shown as mounted on guide-rods 8, 9 connecting the frame members 5, 6.

10 is a shaft movable endwise in guides in the frame-members 5, 6, opposite portions of each of the guides being provided with antifriction means, as rollers 11, for engaging the shaft 10 and preventing binding thereof during its endwise movement.

12 is a lever provided with a bifurcated rear end, the bifurcations 13 thereof being arranged at opposite sides of the card-supporting element 7 and the frame-members 5, 6, and being pivoted to the ends of the shaft 10. It will be apparent, however, that the bifurcations 13 may be fixed to the ends of the shaft 10, if desired. One of the bifurcations 13 is connected to the card-supporting element 7 by a suitable arm 14 having one end fixed to the element 7, and its other end provided with an upright guide or slot 15 which is open at its lower end and receives said bifurcation 13, the opposite walls of the slot 15 being engaged with the inner and outer faces of the bifurcation within said slot. The shaft 10 and the lever 12 constitute an operating member which both shifts the card-supporting member 7 laterally relatively to the printing element 1, and effects the operation of the printing element on the cards.

The front end of the lever 12 is provided with a lower face 16 arranged substantially parallel to the direction of the lateral movement of the card-supporting element 7, and is movable in guides 17, 18, the guide 17 being arranged parallel to the face 16, and the guides 18 being extended downwardly from the lower side of the guide 17 and arranged substantially parallel to each other, and at a right-angle to the guide 17. Said guides 17, 18 may be formed in a plate 19 carried by the frame-members 5, 6. The guides 18 correspond to the portions or divisions of the card for receiving various records, said portions or divisions being disposed in a horizontal or transverse line with respect to each other, and when the operating member, composed of the shaft 10 and the lever 12, is alined with a predetermined guide 18, the card-supporting element will be so adjusted relatively to the printing element, that the record when made by said element, will be in the predetermined position. For instance, in the illustrated exemplification of my invention, if the operating member is moved downwardly in the left-hand guide 18, the registration will indicate "In", or the time of arrival of the workman, whereas, if said member is moved downwardly in the right-hand guide, the regis-

tration will indicate "Out", or the time of the workman's departure.

My recorder may be provided with suitable indicating means, as shown in my Patent No. 659,193 issued Mar. 11, 1902, for informing the workman of the particular portion or division of the card in position to receive the record.

As best seen in Fig. 2, the face 16 of the lever 12 engages the front end of a movable part or lever 20, pivoted intermediate of its ends at 21, and having its rear end connected to a spring 22, which normally raises the front end of the part or lever 20 and the corresponding end of the lever 12. Said member 20 is provided with a hook 23 which is secured thereto by a pivot 24, is provided at its upper end with an arm 25, and is connected to one end of a spring 26 having its other end connected to the part or lever 20. 27 is a hammer pivoted at one end at 28, and provided at its other end with a platen 29 for forcing the card against the printing element 1 and effecting the operation of said element upon the card. The hammer 27 is provided with a spring-arm 30 which engages a stop 31 and withdraws the platen 29 from engagement with the card. Said hammer is also provided with an arm 32 which is engaged by the hook 23 for rocking the platen 29 from the card, and with an additional arm 33 for engaging the arm 25 and forcing the hook 23 out of engagement with the arm 32, as the platen reaches the limit of its movement from the card. A suitable spring 34 returns the hammer and causes the platen to move against the operation of the spring 30, independently of the card-supporting and printing elements, and strike the card against the printing element, whereupon the spring 30 immediately withdraws the hammer to its normal position. The described means for effecting the operation of the printing element upon the card when the free end of the lever 12 is depressed, is only one type of mechanism capable of use for the desired purpose, and as the same is fully set forth and claimed in said Patent No. 659,193, I do not limit myself thereto, and further description thereof is deemed unnecessary.

In the use of my time-recorder, if the card-supporting element should be adjusted in order that the record upon the card will be in the desired place, the workman shifts the operating member, consisting of the shaft 10 and the lever 12, laterally until the free end thereof is in alinement with the proper guide 18, whereupon he depresses said free end, and the record is then made on the predetermined portion of the card. The succeeding workmen will not be required to shift the card-supporting element laterally unless the records on their cards are to be in different positions. It will be particularly noted that whenever adjustment of the card-supporting element is required in order that the record may be made on the predetermined portion of the card, such adjustment is effected by the same operating member for bringing about or effecting the printing of the record, which is a feature of great advantage, as will be apparent to those skilled in the art.

The construction and operation of my time-recorder, will now be readily understood upon reference to the foregoing description and the accompanying drawing, and it will be understood that more or less change may be made in the component parts thereof, without departing from the spirit of my invention.

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

1. In a time-recorder, a printing element, a card-supporting element shiftable relatively to the printing element, and provided with a guide, and an operating member movable with the card-supporting element for shifting the same, and movable in the guide relatively to the card-supporting element for effecting the operation of the printing element upon the card, substantially as and for the purpose described.

2. In a time-recorder, a printing element, a card-supporting element shiftable laterally relatively to the printing element, means independent of said elements for effecting the operation of the printing element upon the card, and an operating member for shifting the card-supporting element laterally, and for actuating said means, substantially as and for the purpose set forth.

3. In a time-recorder, a printing element, a card-supporting element shiftable relatively to the printing element, and an operating member movable about an axis, said member being movable axially for shifting the card-supporting element, and being movable about its axis for effecting the operation of the printing element upon the card, substantially as and for the purpose specified.

4. In a time-recorder, a printing element, a card-supporting element shiftable relatively to the printing element, and provided with an arm having a slot, and an operating member movable in the slot about an axis, said member being movable axially and coacting with opposite walls of the slot for shifting the card-supporting element, and being movable in the slot about said axis for effecting the operation of the printing element upon the card, substantially as and for the purpose described.

5. In a time-recorder, a printing element, a card-supporting element shiftable relatively to the printing element, and an operating member having an opening for receiving the card-supporting element, said oper-

ating member being connected to the card-supporting element, and being movable in one direction for shifting the card-supporting element, and being movable in another direction for effecting the operation of the printing element upon the card, substantially as and for the purpose set forth.

6. In a time-recorder, a printing element, a card-supporting element shiftable laterally relatively to the printing element, and an operating member having a bifurcated end, the bifurcations thereof being arranged at opposite sides of the card-supporting element, said operating member being connected to the card-supporting element, and being movable in one direction for shifting the card-supporting element, and being movable in another direction for effecting the operation of the printing element upon the card, substantially as and for the purpose specified.

7. In a time-recorder, a frame, a printing element, a card-supporting element, one of said elements being shiftable relatively to the other, and an operating member comprising a shaft movable endwise in the frame, and a lever connected to said shiftable one of the elements, said lever being movable lengthwise of the axis of the shaft for shifting said one of the elements, and being movable about such axis for effecting the operation of the printing element upon the card, substantially as and for the purpose described.

8. In a time-recorder, a frame, a printing element, a card-supporting element shiftable laterally relatively to the printing element, and an operating member comprising a shaft movable endwise in the frame, and a lever pivoted to the shaft and connected to the card-supporting element, said lever being movable with the shaft lengthwise of the axis thereof for shifting said one of the elements, and being movable about such axis relatively to the shaft for effecting the operation of the printing element upon the card, substantially as and for the purpose set forth.

9. In a time-recorder, a frame, a printing element, a card-supporting element shiftable laterally relatively to the printing element, and an operating member comprising a shaft movable endwise in the frame, and a lever connected to the card-supporting element, and having one end bifurcated, the bifurcations thereof being arranged at opposite sides of the card-supporting element and supported on the shaft, said lever being movable lengthwise of the axis of the shaft for shifting the card-supporting element, and being movable about said axis relatively to the shaft for effecting the operation of the printing element upon the card, substantially as and for the purpose specified.

10. In a time-recorder, a frame, a printing element, a card-supporting element shiftable laterally relatively to the printing element, and an operating member comprising a shaft movable endwise in the frame, and a lever connected to the card-supporting element, and having one end bifurcated, the bifurcations thereof being pivoted to the shaft, said lever being movable with the shaft lengthwise of the axis thereof for shifting the card-supporting element, and being movable about such axis relatively to the shaft for effecting the operation of the printing element upon the card, substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 30th day of September, 1904.

WILLARD H. BUNDY.

Witnesses:
S. DAVIS,
D. LAVINE.