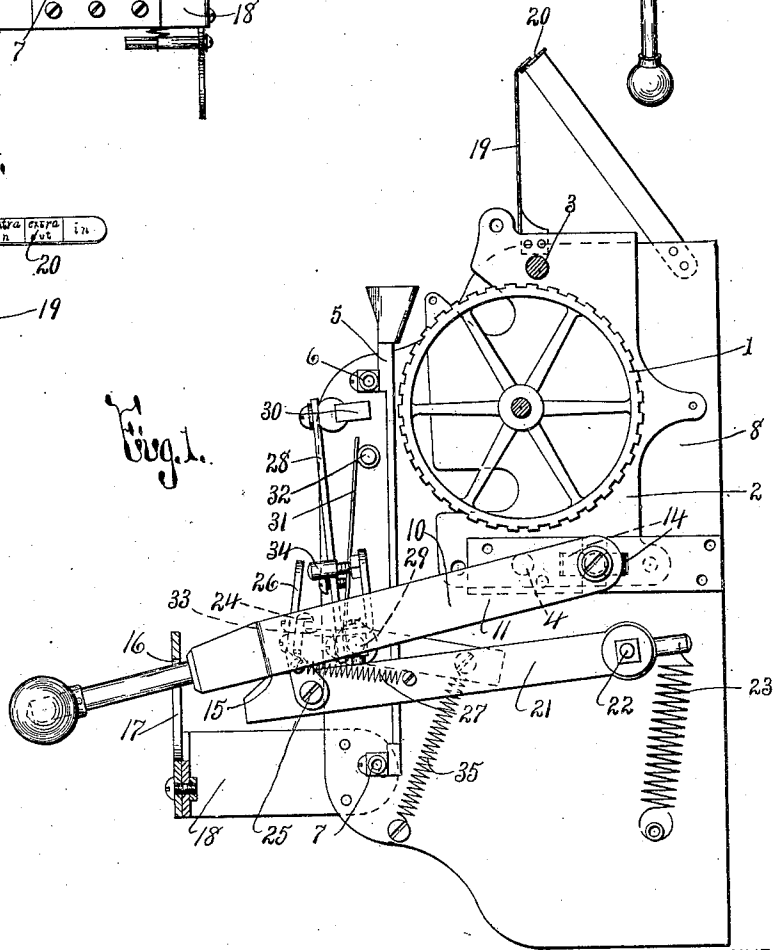
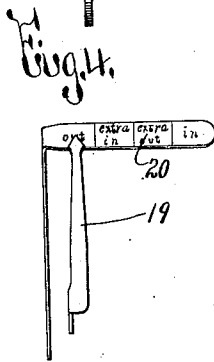
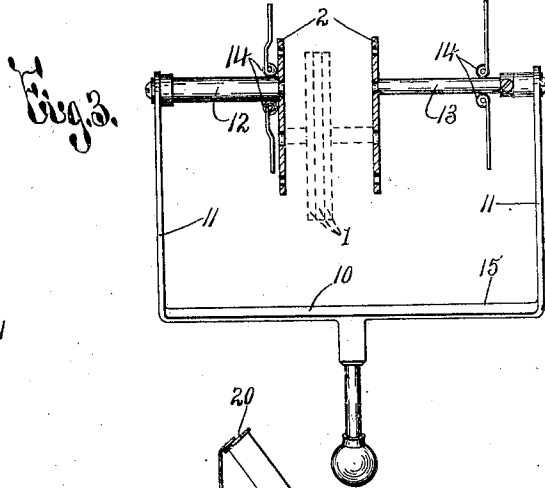
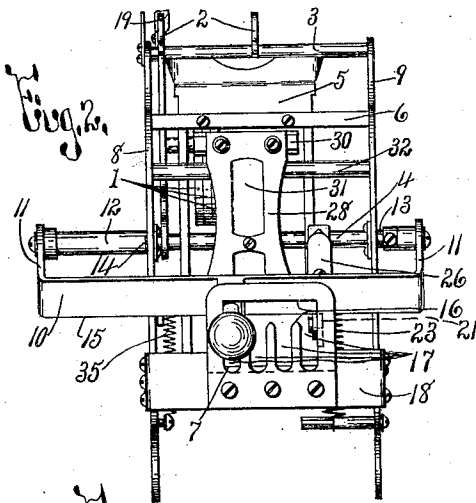


W. H. BUNDY.
TIME RECORDER.
APPLICATION FILED NOV. 21, 1904.

937,920.

Patented Oct. 26, 1909.



WITNESSES:
Chas. Jones.
Chas. Young.

INVENTOR
Willard H. Bundy
BY *Wey & Parsons*
ATTORNEYS

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.

937,920.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed November 21, 1904. Serial No. 233,657.

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 particularly 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 side elevation, partly in section, of a portion of a time-recorder embodying a preferable construction of my invention. Fig. 2 is a front elevation of most of the parts seen in Fig. 1. Fig. 3 is a detail view of the operating member and contiguous parts, the printing element being indicated by dotted lines. Fig. 4 is an elevation of the indicating means.

1 is a printing element which is of any desirable form, size and construction, being here shown as a plurality of type-wheels suitably supported in a laterally shifting carriage 2, which is also of any desirable form, size and construction, being illustrated as mounted on separated guide-rods 3, 4. The type-wheels are connected in the usual manner to a suitable time-movement unnecessary to illustrate and describe herein.

5 is a card-supporting element which is arranged opposite to the printing element 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 fixed relatively to the printing element by any desirable means, being here shown as removably secured to cross-bars 6, 7 connecting the frame-members 8, 9.

10 is an operating member which both shifts the printing element laterally relatively to the card-supporting element, and effects the operation of the printing element on the cards. In the illustrated embodiment of my invention, the member 10 is provided

with a bifurcated rear end, the bifurcations 11 thereof being arranged at opposite sides of the card-supporting element 5, the carriage 2, and the frame-members 8, 9, and being pivoted to lateral extensions 12, 13 which project from the carriage 2 parallel to the direction of the lateral movement of said carriage, and are guided in the frame-members 8, 9. Anti-friction means, as rollers 14, are usually engaged with opposite sides of the extensions 12, 13 for preventing binding of the carriage during the lateral movement thereof.

The front end of the operating member 10 is provided with a lower face 15 arranged substantially parallel to the direction of the lateral movement of the carriage 2, and is movable in guides 16, 17, the guide 16 being substantially parallel to the face 15, and the guides 17 being extended downwardly from the lower side of the guide 16 and arranged substantially parallel to each other, and at a right angle to the guide 16. Said guides 16, 17 may be formed in a plate fixed to a yoke 18 carried by the frame-members 8, 9. The guides 17 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 10 is alined with a predetermined guide 17, the printing element will be so adjusted relatively to the card, 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 member 10 is operated in the right-hand guide 17, the registration will indicate "In", or the time of arrival of the workman, whereas if said member is operated in the left-hand guide, the registration will indicate "Out", or the time of the workman's departure.

In order that the workman may be informed of the particular portion or division of the card in position to receive the record, my machine is provided with suitable indicating means, as a finger 19, fixed to the carriage 2 and movable across an indicating surface 20 which is preferably provided with the same captions as the card.

As best seen in Fig. 1, the face 15 of the operating member 10 engages the front end of a movable part or lever 21, pivoted intermediate of its ends at 22, and having its

rear end connected to a spring 23, which normally raises the front end of the part or lever 21 and the corresponding end of the operating member 10. Said member 21 is provided with a hook 24 which is secured thereto by a pivot 25, is provided at its upper end with an arm 26, and is connected to one end of a spring 27 having its other end connected to the part or lever 21. 28 is a hammer pivoted at one end at 29, and provided at its other end with a platen 30 for forcing the card against the printing element 1 and effecting the operation of said element upon the card. The hammer 28 is provided with a spring arm 31 which engages a stop 32 and withdraws the platen 30 from engagement with the card. Said hammer is also provided with an arm 33 which is engaged by the hook 24 for rocking the platen 30 from the card, and with an additional arm 34 for engaging the arm 26 and forcing the hook 24 out of engagement with the arm 33, as the platen reaches the limit of its movement from the card. A suitable spring 35 returns the hammer and causes the platen to move against the operation of the spring 31 independently of the card-supporting and printing elements, and strike the card against the printing element, whereupon the spring 31 immediately withdraws the hammer to its normal position. The described means for effecting the operation of the printing element upon the card upon the depression of the free end of the operating member 10, is only one type of mechanism capable of use for the desired purpose, and as the same is fully set forth and claimed in my Patent No. 659,193, issued Mar. 11, 1902, I do not herein limit myself thereto, and further description thereof is deemed unnecessary.

In the use of my time-recorder, if it appears from the indicating means that the printing element should be adjusted in order that the record on the card will be in the desired place, the workman shifts the operating lever 10 laterally until the free end thereof is in alinement with the proper guide 17 as shown by the indicating means, 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 printing element laterally unless the records on their cards are to be made in different positions. It will be particularly noted, that whenever adjustment of the printing 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, one of said elements being shiftable laterally relatively to the other, a platen for effecting the operation of the printing element upon the card, and an operating member for shifting said one of the elements laterally and for effecting relative movement of the printing element and the platen, substantially as and for the purpose described.

2. In a time-recorder, a printing element, a card-supporting element, one of said elements being shiftable laterally relatively to the other, a platen movable relatively to the card-supporting element for effecting the operation of the printing element upon the card, and an operating member for shifting said one of the elements laterally and for actuating the platen, substantially as and for the purpose specified.

3. In a time-recorder, a printing element, a card-supporting element, one of said elements being shiftable laterally relatively to the other, a platen for effecting the operation of the printing element upon the carriage, and an operating member movable in one direction for shifting said one of the elements and movable in another direction for effecting relative movement of the printing element and the platen, substantially as and for the purpose set forth.

4. In a time-recorder, a printing element, a card-supporting element, one of said elements being shiftable laterally relatively to the other, a platen for effecting the operation of the printing element upon the card, and an operating member movable in one direction for shifting said one of the elements and in another direction at an angle to the first-mentioned direction for effecting relative movement of the printing element and the platen, substantially as and for the purpose described.

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

6. In a time-recorder, a frame formed with communicating guides arranged at an angle to each other, a printing element, a card-supporting element, one of said elements being shiftable laterally relatively to the other, a platen for effecting the operation of the printing element upon the card, and an operating member movable in one of the guides for shifting said one of the elements and movable in the other guide for effecting relative movement of the printing element and the platen, substantially as and for the purpose set forth.

7. In a time-recorder, a frame having a plurality of substantially parallel guides and a single guide arranged at an angle to the parallel guides and communicating therewith, a printing element, a card-supporting element, one of said elements being shiftable laterally relatively to the other, a platen for effecting the operation of the printing element upon the card, and an operating member movable in the single guide for shifting said one of the elements and movable in any one of the parallel guides for effecting relative movement of the printing element and the platen, substantially as and for the purpose described.

8. In a time-recorder, a card-supporting element, a carriage shiftable laterally relatively to the card-supporting element, a printing element supported by the carriage and movable therewith, a platen for effecting the operation of the printing element upon the card, and an operating member for moving the carriage laterally, said operating member being movable relatively to the carriage for effecting relative movement of the printing element and the platen, substantially as and for the purpose specified.

9. In a time-recorder, a frame, a card-supporting element, a carriage shiftable laterally relatively to the frame and supported by said frame, a printing element supported by the carriage and movable therewith, and an operating member having a bifurcated end, the bifurcations thereof being arranged on opposite sides of the carriage and con-

nected thereto, said member being movable in one direction for shifting the carriage, and being movable in another direction for effecting the operation of the printing element upon the card, substantially as and for the purpose described.

10. In a time-recorder, a frame, a card-supporting element, a carriage shiftable laterally relatively to the frame and having opposite sides provided with lateral extensions guided in the frame, a printing element supported by the carriage and movable therewith, and an operating member having a bifurcated end, the bifurcations thereof being arranged on opposite sides of the carriage and pivoted to the lateral extensions thereof, said member being movable axially for shifting the carriage, and being movable about its axis for effecting the operation of the printing element upon the card, substantially as and for the purpose specified.

11. In a time-recorder, a printing element, a card-supporting element, one of said elements being shiftable laterally relatively to the other, and means for effecting the operation of the printing element upon the card, said means including a movable member, and an operating member, one of the members having an engaging face extending substantially parallel to the direction in which said one of the elements is shiftable, and the operating member being movable in a direction substantially parallel to said face for shifting said one of the elements, and being movable in another direction with the other member for effecting the operation of the printing element upon the card, substantially as and for the purpose set forth.

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 Sept., 1904.

WILLARD H. BUNDY.

Witnesses:

S. DAVIS,
D. LAVINE.