

(No Model.)

L. D. WHITSON.
TYPE WRITING MACHINE.

No. 579,203.

Patented Mar. 23, 1897.

Fig. 1.

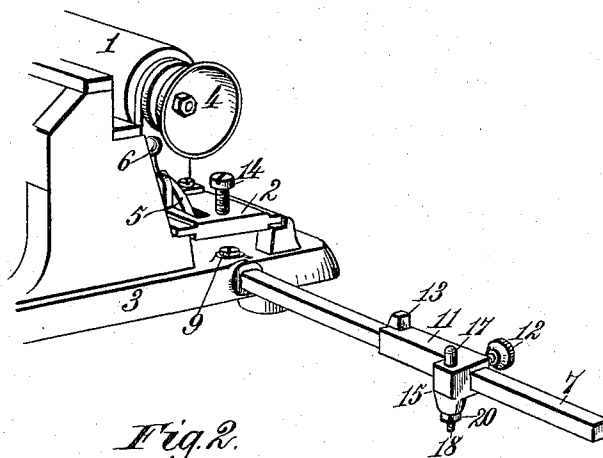


Fig. 2.

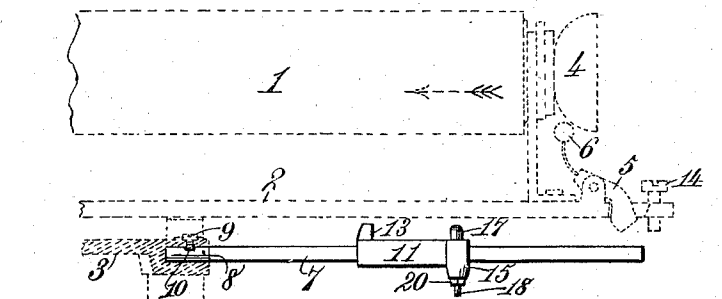


Fig. 3.

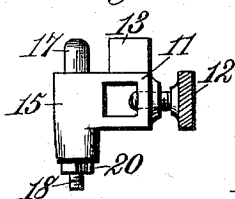


Fig. 4.

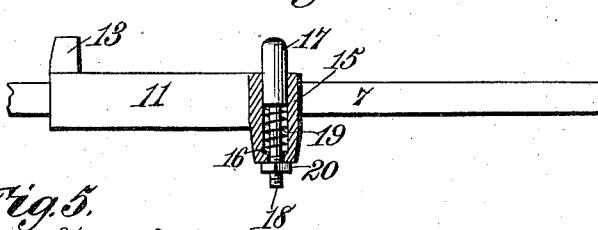
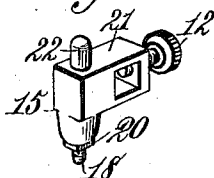


Fig. 5.



Witnesses:
Robert Everett.
Dennis Sully.

Inventor:
Lorenzo D. Whitson.
By *James L. Norris.*
Att'y.

UNITED STATES PATENT OFFICE.

LORENZO D. WHITSON, OF NASHVILLE, TENNESSEE, ASSIGNOR OF ONE-HALF
TO THE MARSHALL & BRUCE COMPANY, OF SAME PLACE.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 579,203, dated March 23, 1897.

Application filed April 9, 1896. Serial No. 586,842. (No model.)

To all whom it may concern:

Be it known that I, LORENZO D. WHITSON, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to type-writing machines, and has for its object to provide improved means for adapting such machines for doing tabular work or work arranged in symmetrical vertical columns and for writing on narrow paper.

To these ends my invention consists in the features and in the combination, construction, or arrangement of parts hereinafter described, and pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a perspective view of a portion of a type-writing machine, showing my improved attachment applied thereto. Fig. 2 is a rear elevation thereof. Figs. 3 and 4 are respectively a detail end elevation and side elevation, partly in section, of the sleeve carrying the trip-pin for ringing the bell and the projection for stopping the carriage. Fig. 5 is a perspective view of an auxiliary bell-ringing attachment.

In order to show my improved attachment in operative position on a type-writing machine, I have illustrated the same applied to the Blickensderfer machine, wherein a platen 1 is mounted on a carriage 2, that travels in suitable ways formed on the frame 3 of the machine. Fixed on the end of the platen 1 is a gong 4, and pivotally mounted on the end of the carriage is a trip 5, carrying at its free end a bell-hammer 6, that is adapted to strike the gong when the trip is oscillated and sound an alarm. All the above parts are common to the Blickensderfer type-writing machine and need not be described in detail.

The reference-numeral 7 indicates a bar square or angular in cross-section and reduced and rounded at one end, as at 8, to form a tenon that is fitted in a correspondingly-shaped aperture in the end of the frame 3 of the machine and held rigid therein by a machine-screw 9, tapped through said frame

and engaging a notch or flattened surface 10, formed on the tenon. Fitted on the bar 7 is a sleeve 11, the bore of which corresponds in shape to the cross-sectional area of the bar 7, on which the sleeve is adapted to slide, and said sleeve is held stationary at any desired point on the bar 7 by a set-screw 12, which is tapped through the side of the sleeve and engages the bar.

Upon one end of the sleeve 7 is formed a lug or projection 13, against which is adapted to abut the lower end of a set-screw 14, tapped through the end of the carriage 2, and thus stop the travel of the carriage. On the other end of the sleeve 7 and on one side thereof is formed a hollow boss 15, provided upon its under side with a shoulder 16. Disposed in said hollow boss is a trip-pin 17, having a reduced and threaded stem 18, a coiled spring 19 being arranged in said hollow boss and resting at its lower end on the shoulder 16 and at its upper end bearing against the under side of the trip-pin. The lower threaded end of the stem 18 projects below the boss 15 and has tapped thereover a set-nut 20, by means of which the trip-pin may be adjusted to project the desired distance above the boss 15 to properly engage the trip 5 on the carriage 2, the coiled spring holding the trip-pin up to its adjusted position with a yielding or elastic bearing.

The operation of the attachment is as follows: Let it be assumed that it is desired to make tabulated work—that is to say, for example, it is desired to write a list of names and addresses, or a list of articles and their cost or price, or similar work arranged in columns. In doing such work much time of the operator is commonly consumed, and he must use great care in placing the carriage always in the same position, so as to make the names and addresses or the articles and their cost or price register or align vertically. In using my improved attachment the sleeve 11 is adjusted and fixed on the bar 7 at the proper point, and the set-screw 14 is raised so as to clear the lug or projection 13 on the sleeve. The carriage may be now moved forward rapidly and without the exercise of any care until the trip-pin 17 engages and oscillates the trip 5 and sounds the alarm, upon which the

operator depresses the proper key-lever to print the initial letter or figure of the address, cost, or price intended to be printed, and in this manner the initial letter or figure of each succeeding word or amount will fall directly below the initial letter or figure of the preceding word or amount, thus causing the columns to appear in true vertical alinement, having perfectly straight even margins. The sleeve can manifestly be adjusted on the bar to write any length of lines and any number of columns within certain limits defined by the size of the machine, economizing time and labor and avoiding annoyance by relieving the operator of the necessity of having to stop and set the platen to the desired point to write the words or figures in symmetrical columns.

When it is desired to write on narrow paper, postal cards, and the like, the set-screw is screwed down so as to engage the lug or projection 13 on the sleeve and stop the carriage, the sleeve being adjusted to cause said set-screw and lug or projection to engage each other to bring the carriage to a state of rest at the place desired.

In practice the distance between the trip-pin and the lug or projection will be such as to sound the alarm at a point that will allow the carriage to be moved, say, about ten letter-spaces before the carriage is stopped, and by combining the trip-pin and stop in one device it is only necessary to adjust one to effect the adjustment of both.

While I have shown my improved attachment as applied to a Blickensderfer type-writing machine, it will be manifest that it may be applied to machines of other standard manufacture.

In Fig. 5 I have shown an auxiliary bell-ringing attachment, consisting of a sleeve 21, provided with a trip-pin 22. Said sleeve and trip-pin are constructed in the same manner as that before described, the only difference being that the sleeve 21 is shorter than the sleeve 11 and is not provided with a lug or projection for stopping the carriage. The sleeve 21 is arranged on the bar 7 either in advance or rear of the sleeve 11 and operates to give an additional alarm for making column-work to enable the operator to print, for example, the street-numbers in addresses or the cost per piece of articles, in such manner that the street-numbers or piece-cost will stand in vertical columns.

Having described my invention, what I claim is—

1. The combination with a type-writing machine having a carriage carrying a platen, bell and vibratory bell-hammer trip, of a tabulating attachment consisting of a bar at-

tached at one end to the type-writer frame and projecting to one side thereof, a sleeve fitted on said bar against rotation and longitudinally adjustable thereon, a fixed lug on one end of said sleeve adapted to engage a stop-pin on the carriage to arrest the movement of the latter, and a trip-pin mounted on the other end of said sleeve and operating to engage and vibrate the bell-hammer trip, substantially as described.

2. The combination with a type-writing machine having a carriage carrying a platen, bell, and vibratory bell-hammer trip, of a tabulating attachment consisting of a bar detachably secured to the type-writer frame and projecting to one side thereof, a sleeve fitted on said bar against rotation and longitudinally adjustable thereon, a fixed lug on one end of said sleeve adapted to engage a stop-pin on the carriage to arrest the movement of the latter, and a vertically-adjustable trip-pin mounted on the other end of said sleeve and operating to engage and vibrate the bell-hammer trip, substantially as described.

3. The combination with a type-writing machine having a carriage carrying a platen, bell, and vibratory bell-hammer trip, of a tabulating attachment consisting of a bar detachably secured to the type-writer frame and projecting to one side thereof, a longitudinally-adjustable sleeve fitted on said bar against rotation, a fixed lug on the end of the sleeve nearest the type-writer, a vertically-adjustable trip-pin mounted on the other end of said sleeve and operating to engage and vibrate the bell-hammer trip, and a vertically-adjustable stop-pin carried by the said carriage and adapted to be projected into and retracted out of position for engaging the said fixed lug, substantially as and for the purpose specified.

4. A tabulating attachment for type-writers, consisting of a bar angular in cross-section and provided at one end with means for attachment to one side of a type-writing machine, a sleeve shaped interiorly to correspond to the shape of said bar and longitudinally adjustable on the latter, a fixed lug on one end of said sleeve, and a vertically-adjustable trip-pin mounted on the other end of said sleeve, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LORENZO D. WHITSON.

Witnesses:

J. A. BENNIE,
JOEL DAVIS.