No. 654,605. Patented July 31, 1900.

F. A. CHALMERS.

TYPE WRITER.

(Application filed Feb. 8, 1900.)

(No Model.)

Fig. 1.

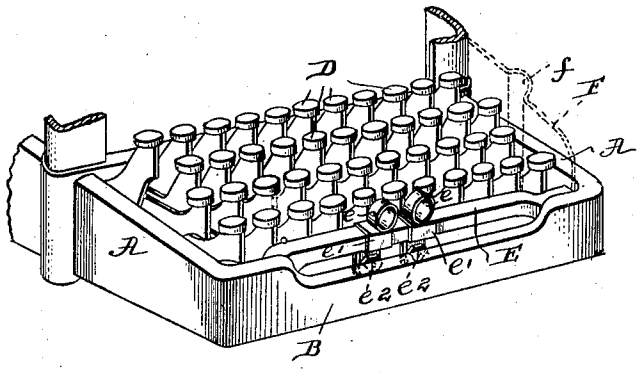


Fig. 3.

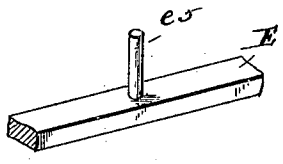


Fig. 2.

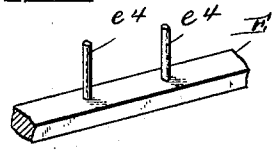


Fig. 4.

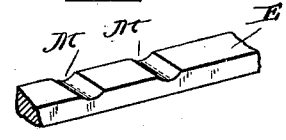


Fig. 5.

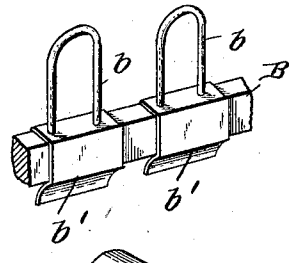


Fig. 6.

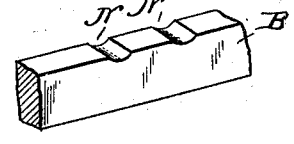
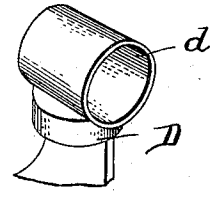


Fig. 7.



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UNITED STATES PATENT OFFICE.

FRANK A. CHALMERS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO BENJAMIN S. BANKS, OF SAME PLACE.

TYPE-WRITER.

SPECIFICATION forming part of Letters Patent No. 654,605, dated July 31, 1900.

Application filed February 8, 1900. Serial No. 4,437. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. CHALMERS, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Type-Writers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

In many cases to-day expert type-writer operators operate the keyboard mechanically and without maintaining continuously an observation of the keyboard. This is particularly advantageous in the case of copying, where the eye of the operator is required to be maintained upon the copy. There are certain difficulties which have occurred in practice with reference to this character of writing. As the operator must in using the machine in this manner be dependent entirely mechanically upon the position of the keys upon the board, if at any time he should remove his hands from the keyboard there is a liability, and, in fact, it often occurs, that the operator will replace his hands incorrectly on the keyboard, thereby striking the wrong keys, thus producing the wrong letter, and thereby spoiling the work. There is also a tendency of the operator to use only a portion of his fingers in writing, whether he looks at or away from the keyboard, and this has a tendency to lessen his speed and accuracy of the work.

The object of my invention is to provide mechanical means attached to the type-writing machine whereby the operator may have a fixed point upon the machine which he may locate readily at all times and from which he may mechanically and without visual observation of the keyboard locate the position of the keys throughout, and thus if at any time his hands should be removed from the keyboard he may readily find and maintain the standard position from which he works. Its object is also to enable and cause the operator to use all his fingers, and thus enable more rapid and correct work to be done.

To that end my invention, speaking generally, consists in providing an indicator having a fixed relation with reference to the keyboard and adapted to locate the hand or hands in a prearranged position with relation to the keyboard and maintain the hand or hands in a prearranged position with relation to the keyboard and from substantial lateral movement in either direction.

I will now describe my invention as embodied in the accompanying drawings, in which—

Figure 1 is a perspective view of a type-writer keyboard with my improvement attached to the spacing-bar, also showing modification in dotted lines. Fig. 2 is a perspective view of the spacing-bar, showing another form. Fig. 3 is a perspective view of the spacing-bar, showing another form. Fig. 4 is a perspective view of the spacing-bar, showing another form. Fig. 5 is a portion of the framework of a type-writer, showing my improved device attached thereto. Fig. 6 is a view similar to Fig. 5 with a modified device. Fig. 7 is a perspective view of one of the keys, showing my improvement attached thereto.

A is a portion of the side frame of a type-writing machine.

B is the front frame, forming the keyboard.

D are the keys, and E the spacing-bar. Upon this spacing-bar and substantially central thereof and of the keyboard I place the thimbles *e e*, in which the thumbs of the operator may be inserted. These thimbles *e* are secured to the spacing-bar by the clips *e'* and the bolts e^2, so that their position on the spacing-bar may be varied. As may be seen from this construction the operator can place his thumbs readily without seeing the keyboard, and thus obtain a fixed position in which to place his fingers. If at any time he should remove his hand or hands from the keyboard, he can readily replace them in that position without examining with his eye the keyboard. In place of having indicators or indicating devices in that position I can place them as follows: Connected with the side frame A is the plate F, having the groove *f* on a line with the outside key on the second tier of the bank of keys. The operator can with this construction obtain a fixed point of operation by plac-

ing his small or little finger in the groove. This groove can be readily found without looking at the keyboard, and when found the little finger may be placed there and held to locate a fixed position with reference to the keys. Of course while I have shown this last arrangement on one side of the keyboard it might be placed upon the other side or both sides.

In place of the thimbles *e*, as indicated, I may use the pins e^4, supported upon the spacing-bar, as shown in Fig. 2, or I may use a central pin e^5, as shown in Fig. 3, against the opposite sides of which the thumbs may be caused to abut in order to locate and find the position for the hand of the operator.

In Fig. 4 I have shown grooves M used in place of the thimbles *e* of Fig. 1, or pins e^4 of Fig. 2, or pins e^5 of Fig. 3.

In Fig. 5 I have shown a locating and indicating device attached to the front part of the frame B. This consists of the yokes *b*, which are secured to the spring-clips *b'*, which in turn are secured to the frame B.

In Fig. 6 I have shown grooves N in the frame B in place of the yokes *b*.

In Fig. 7 I have shown an indicating and locating device *d*, attached to one of the keys. The operator can feel with his hands for this indicator *d* and place his finger or thumb therein, and thus obtain a positive location from which to operate the keyboard.

I have shown several modifications of my invention; but I wish it to be understood that I do not limit myself to any one of these modifications or to any specific construction, except as the same may be hereinafter specifically claimed.

Having now fully described my invention, what I claim, and desire to protect by Letters Patent, is—

1. In a type-writing machine, an indicator adapted to locate and maintain the hand or hands of the operator in a prearranged position with relation to the keyboard, and from lateral movement therefrom in both directions.

2. In a type-writing machine, an indicator having fixed relation with reference to the keyboard, and adapted to locate and maintain the hand or hands of the operator in a prearranged relation to the keyboard, and from lateral movement therefrom in both directions.

3. In a type-writing machine, an indicator located below the bank of keys and adapted to lock the finger or thumb of the operator from substantial lateral movement in both directions.

4. In a type-writing machine, an indicator, located below the bank of keys, substantially central thereof and adapted to lock the finger or thumb of the operator from substantial lateral movement in both directions.

5. In a type-writing machine, indicators located below and substantially central of the bank of keys and adapted to lock the thumbs or fingers of the hands of the operator from substantial lateral movement in both directions.

6. In a type-writing machine, an indicator secured to the spacing-bar, said indicator being adapted to lock the finger or thumb of the operator from substantial lateral movement in both directions.

7. In a type-writing machine, a plurality of indicators secured to the spacing-bar, said indicators being adapted to lock the fingers or thumbs of the operator from substantial lateral movement in both directions.

8. In a type-writing machine, indicators secured to the spacing-bar, substantially central of said spacing-bar said indicators being adapted to lock the fingers or thumbs of the operator from substantial lateral movement in both directions.

9. In a type-writing machine, an indicator adapted to locate the hand or hands of the operator in a prearranged position with reference to the keyboard, laterally adjustably secured below the bank of keys.

10. In a type-writing machine, an indicator adapted to locate the hand or hands of the operator in a prearranged position with reference to the keyboard, laterally adjustably secured to the spacing-bar.

11. In a type-writing machine, an indicator adjustably secured below the bank of keys, said indicator having vertical portions between which the finger or thumb of the operator is adapted to be placed.

12. In a type-writing machine, an indicator adjustably secured to the spacing-bar having vertical portions between which the finger or thumb of the operator is adapted to be placed.

In testimony of which invention I have hereunto set my hand, at Philadelphia, Pennsylvania, on this 1st day of February, 1900.

FRANK A. CHALMERS.

Witnesses:
M. F. ELLIS,
J. M. SHINDLER, Jr.