

G. A. CAGE.  
TOUCH KEY FINDER FOR TYPE WRITERS.  
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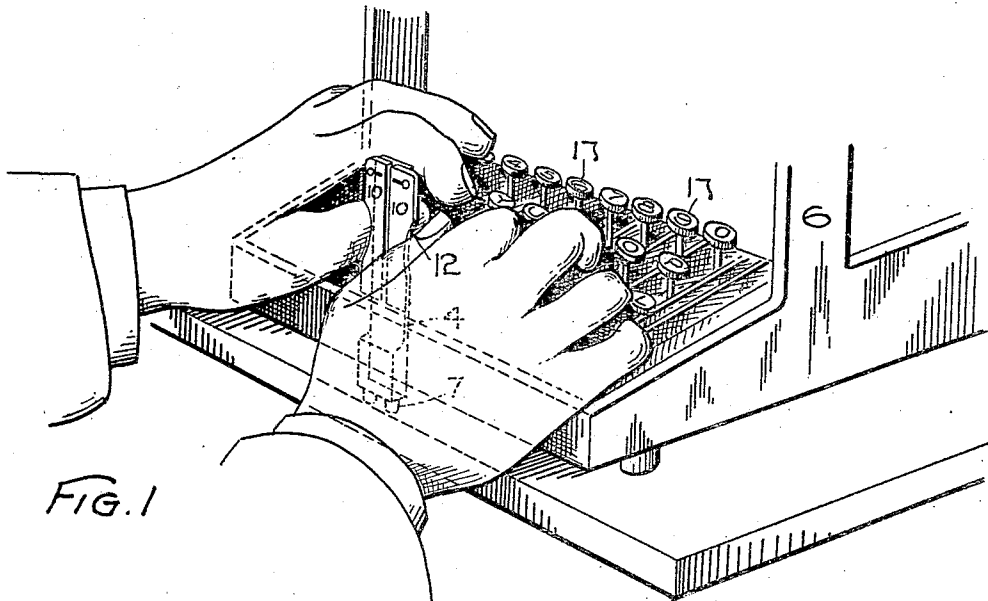


FIG. 1

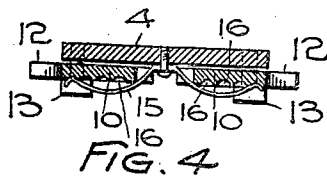


FIG. 4

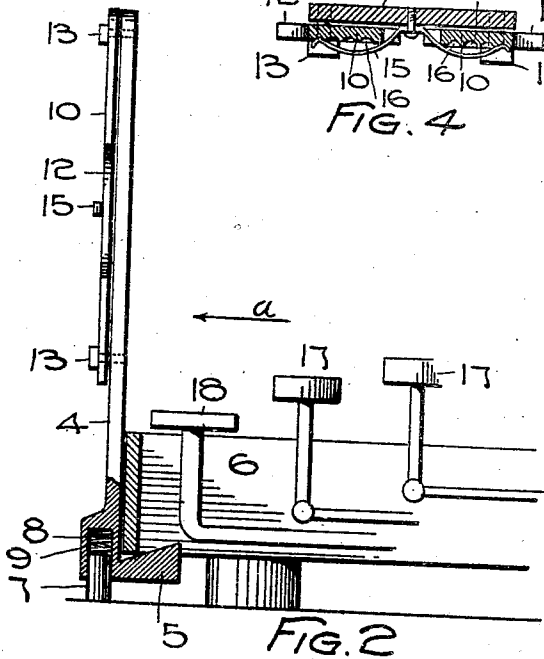


FIG. 2

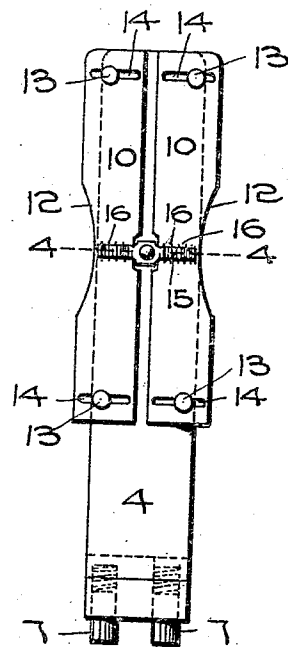


FIG. 3

INVENTOR.  
G. A. Cage

WITNESSES:  
M. S. Geary.  
F. H. Cuno.

*[Signature]*  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

GUSTAVUS A. CAGE, OF DENVER, COLORADO.

## TOUCH KEY-FINDER FOR TYPE-WRITERS.

943,108.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed December 4, 1908. Serial No. 465,987.

*To all whom it may concern:*

Be it known that I, GUSTAVUS A. CAGE, a citizen of the United States of America, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Touch Key-Finders for Type-Writers, of which the following is a specification.

This invention relates to a new and useful device to be used in connection with a type writing machine for the purpose of enabling the operator to determine by touch instead of by sight, the proper position of the hands in relation to the keys of the machine. I attain this object by placing an upright, centrally at the front end of the machine and in close proximity to the spacing key, which upright is engaged by the thumbs of the operator, when the hands are in the proper position over the key board.

Operators, acquainted with the so called touch-system of typewriting, have heretofore to some extent, determined the position of the hands, by placing the little fingers upon the end keys of the middle row, which method is impracticable not only by reason of the instability of the support, but principally because it is unsuited to many operators whose hands are of small or irregular proportions.

By the employment of the thumbs in determining the position of the hands relative to the keyboard, the above objections are averted and any person may at once place the hands in the right position over the keys without having to raise the eyes from the manuscript which is being copied.

In manipulating the various keys, the operator continuously engages the upright with the thumbs, the normal position of which is determined by indentations in the sides of the upright, moving them downwardly to depress the spacing key at the front-end of the machine or upwardly to reach the highest or figure keys.

An embodiment of the invention is illustrated in the accompanying drawings in the various views of which like parts are similarly designated and in which—

Figure 1 is a perspective view of a typewriter key board provided with the improved touch key finder, showing the hands in the operative position. Fig. 2 a section elevation of the device in position on a typewriting machine, Fig. 3 an elevation of the device looking in the direction of the

arrow A Fig. 2, and Fig. 4 an enlarged transverse section taken along the line 4—4 Fig. 3.

The finder, is illustrated in the drawings in the form of an attachment which may be placed in position on a typewriting machine without marring or defacing any of its parts, but it will be understood that, if desired, it may be made integral with or permanently attached to the frame of the machine.

In machines, whose construction renders the placing of an upright in front of the spacing key, impracticable, the finder may be secured upon or form part of the latter.

The device, in its preferred form, comprises an upright or standard —4— which is formed at its lower extremity with a laterally projecting flange —5— whose upper surface slants inwardly to frictionally engage the lower edge of the front-end of the typewriter frame 6.

The frictional contact between the parts —5— and —6—, is maintained by means of two preferably cylindrical supports —7— whose upper portions, project into vertical, correspondingly shaped recesses —8— in the lower part of the upright and engage coiled springs —9— placed therein.

The upper part of the upright, projecting above the frame, is provided with two oppositely, laterally slidable plates —10— whose outer edges are indented at —12— to receive the thumbs of the operator. The members —10— are guided and held against vertical displacement by means of headed screws —13— which are secured in the upright —4— and project through slots —14— in the plates, and the said members are maintained in the adjusted position by means of a curved transversely disposed leaf spring —15— whose central portion is secured upon the upright and whose extreme ends are adapted to enter any one of a series of notches —16— formed in the respective plates —10—.

The above described construction renders the device of practical value to all persons, irrespective of the form or proportions of their hands.

In the operation of the machine, the operator places the thumbs in the indentations —12— of the plates —10—, in which attitude, the fingers are in the proper position over the keys —17— comprised in the key board.

To operate the spacing key —18—, the thumbs are moved downwardly along the edges of the extension plates, and to engage the upper rows of keys of machines which have the double key system, the thumbs are moved upwardly along the said edges.

It will thus be observed, that by the use of the finder, the operator may, at any time place the hands in their normal position over the keys of the machine, without taking the eyes off the manuscript which is being copied and my invention will, in this manner, conserve the nervous force of the operator and contribute greatly to the speed, and accuracy of the writing.

It will be understood that the means employed to secure the attachment in operative position on the machine, as well as those by which the position of the indented edges is varied may be changed within the spirit of the invention, to suit varying circumstances.

What I claim and desire to secure by Letters-Patent is:—

1. The combination with a typewriting machine, of an upright placed at its front medially of the key board and in proximity to the space bar, whereby, when the thumbs of the operator engage opposite sides of said upright, the other fingers of the hand will extend in operative position over the keys.

2. The combination with a typewriting machine, of an upright having laterally extensible edges, disposed so as to be engaged by the thumbs of the operator, when the other fingers are in the operative position over the key-board of the machine.

3. The combination with a typewriting machine, of an upright having in its opposite sides depressions adapted to receive the thumbs of the operator when the other fingers are in the operative position over the key-board of the machine.

4. A device of the class described, comprising an upright and means to detachably secure the same in operative relation to a typewriting machine medially of its key-board and in proximity to its space bar, so that its opposite edges will engage the thumbs of the operator when the other fingers are in the proper position over the key-board of the said machine.

5. A device of the class described comprising an upright adapted to be detachably se-

cured in operative relation to a typewriting machine medially of its key board and in proximity to its space bar and having in its opposite sides, means to determine the position of the thumbs of the operator when the other fingers are in the proper position over the key-board of the said machine.

6. A device of the class described comprising an upright adapted to be detachably secured in operative relation to a typewriting machine medially of its key board and in proximity to its space bar and having laterally extensible edges, disposed so as to engage the thumbs of the operator when the fingers are in the operative position over the key-board of the said machine.

7. A device of the class named comprising an upright, laterally movable members carried thereby and means to maintain the said members in their adjusted position, said upright having means whereby it may be secured in relation to a typewriting machine medially of its key board and in proximity to its space bar, so that said members may be engaged by the thumbs of an operator whose hands are in operative position over the key board.

8. A device of the class named comprising an upright, laterally movable plates carried thereby and having indentations in their outer edges and means to maintain the said plates in their adjusted position, said upright having means whereby it may be secured in relation to a typewriting machine medially of its key board and in proximity to its space bar so that said indentations may receive the thumbs of an operator whose hands are in operative position over the key board.

9. A device of the class described, comprising an upright having at its lower extremity a flange adapted to be inserted between the front part of a typewriting machine and a surface upon which it is supported and vertically movable supports, resiliently connected with the said upright so as to engage said surface.

In testimony whereof he has affixed his signature in presence of two witnesses.

GUSTAVUS A. CAGE.

Witnesses:

G. J. ROLLANDET,  
M. L. GEARY.