

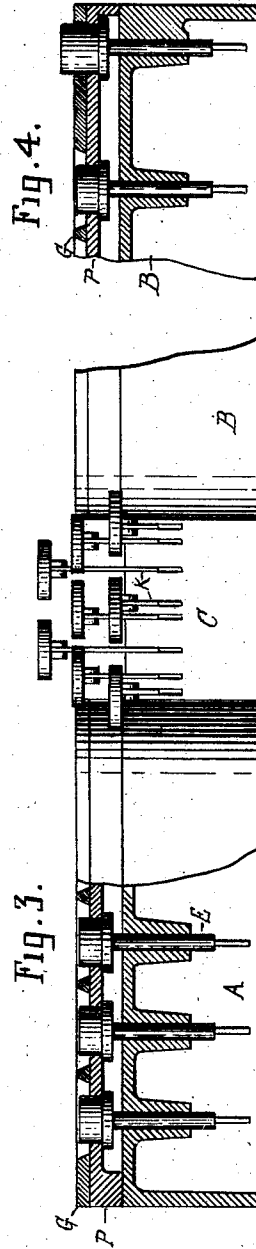
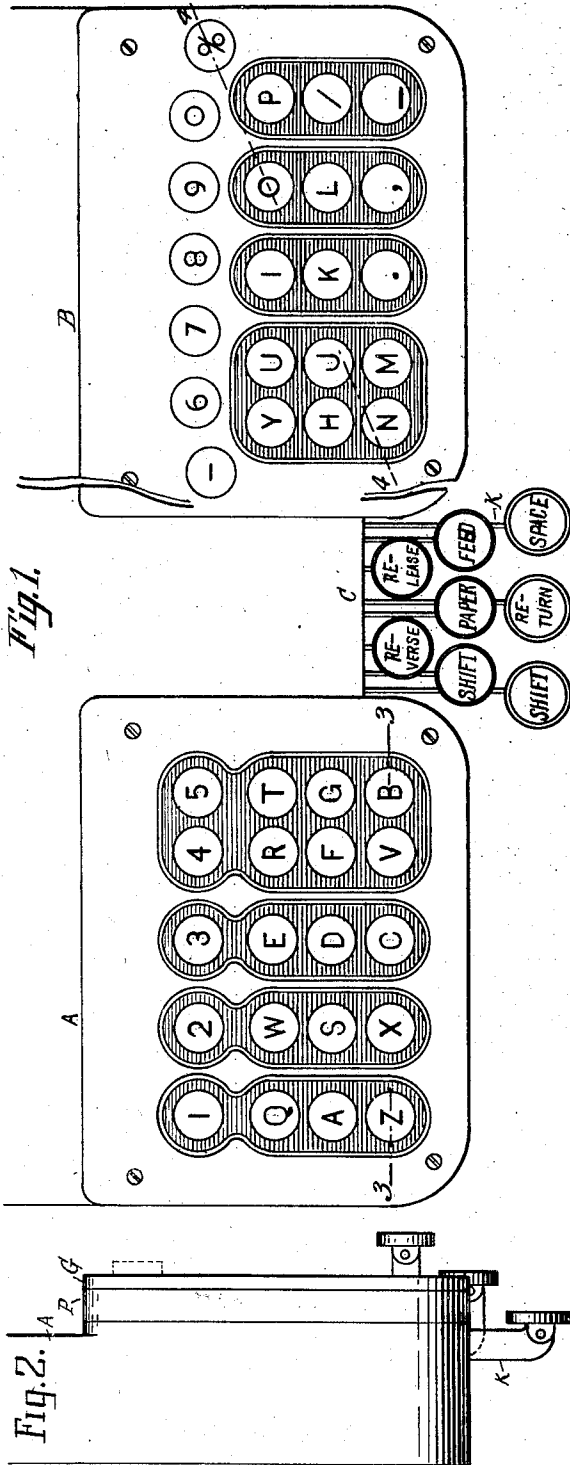
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1,652,464

TYPEWRITER KEYBOARD

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INVENTOR

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UNITED STATES PATENT OFFICE.

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TYPEWRITER KEYBOARD.

Application filed February 8, 1926. Serial No. 86,815.

This invention relates to keyboards for power-typewriters or similar machines, and is a continuation in part of my application Ser. No. 13,613, filed Mar. 6, 1925.

One object of this invention is to construct a keyboard in such a manner that all the automatic motions of a machine of this nature can be controlled by the operator with the least possible motion of the hands. Another object is embodied in a new and useful grouping of the printing-keys, that will make their operation by touch easier to master, and which will generally tend to improve both speed and accuracy.

These and other valuable features will be more fully disclosed hereinafter, and have been illustrated in the accompanying drawings, in which Fig. 1 is a top-view of the keyboard consisting of three distinct sections. While the left and right hand sections are supposed to be alike, and my preferred key-arrangement has been shown in the left-hand section, I have shown a slightly modified key-arrangement in the right-hand section of this view. Fig. 2 is an end-view of Fig. 1. Fig. 3 is a front-view of Fig. 1, sectioned on lines 3—3 of Fig. 1. Fig. 4 is a front-view of the right-hand section of Fig. 1, sectioned on the lines 4—4.

In the above referred-to application I have shown a keyboard containing 60 printing keys, but as the typewriter construction disclosed in that application permits the use of a much larger number of types, I have shown a correspondingly larger keyboard, but it should be understood that the number of keys used constitutes no part of this invention.

The above referred-to invention discloses, besides the short motion and light touch of the printing-keys, that on such machines it is possible to control automatically from the keyboard several different motions of the paper and the carriage, and for which therefore a corresponding number of keys is needed. These keys together with the usual space and shift-keys will hereafter be referred to as the control-keys, and as such distinguished from the printing keys. The actual number of control keys is immaterial to the subject of this invention.

The printing-keyboard is divided into two separate flat-top sections, mounted upon the two frames A and B. Between these sections, and mounted in the frame-portion C, are grouped a series of control keys, which

together constitute the control-keyboard, and in which the keys are arranged in bank-formation. The object of this arrangement is to enable the operator to manipulate any of the keys in the control-keyboard with either one of the two thumbs without removing his fingers from the printing keys. The control-keys may be connected to the machine in any suitable manner, but in my preferred construction they are fastened to the end of a corresponding series of key-levers K. On the top of frames A and B are fastened two straight top-plates P, through which the printing-keys extend. In my preferred construction as shown in Fig. 1, the keys have been arranged in a series of straight ranks and files, with rank and file perpendicular to one another. All these keys extend an equal distance above the top-plate P, which make their upper surface present one single plane. By means of distinct differences in file distances, these keys have been arranged into four demarcated groups, in order to clearly indicate the particular keys to be operated by each of the four fingers according to the system of touch writing now in general use. To further disclose this grouping to either or both sight and touch, and thus aid the correct fingering, each of these four groups has been surrounded by raised finger-guides, made in the form of an open guide-frame G, resting on the top-plate P. This frame may be made either a part of the top-plate itself, or attachable thereto as shown.

In Fig. 1, part B is shown a modified key-arrangement, where the same general principle above outlined has been applied to the letter-keys only,—that is the keys occupying the three front ranks of the keyboard; while the rear keys, or the figure and sign-keys, have been grouped independently in any suitable manner according to the number of such keys. Besides the top-surfaces of these latter keys have been made to extend above the guide-frame G, as shown in Figure 4.

Having thus fully described my invention, what I claim as new and useful is set forth in the following claims:

1. A printing keyboard comprising a series of keys whose upper surfaces jointly constitute a plane, said keys located in a series of parallel ranks and files, and said ranks separated by different file-distances into distinct groups for the purpose of disclosing to either and both sight and touch

the particular keys to be operated by each of the fingers.

2. A printing keyboard comprising a series of keys whose upper surfaces jointly constitute a plane, said keys located in a series of parallel ranks and files, said ranks separated by different file-distances into distinct groups, and said groups surrounded by raised finger-guides.

3. A printing keyboard comprising a flat top-plate provided with openings in which the heads of the printing keys are mounted, said keys extending an equal distance above said plate, said openings located in a series of parallel ranks and files, and said ranks separated by different file-distances into distinct groups for the purpose of disclosing to either or both sight and touch the particular keys to be operated by each of the fingers.

4. A printing keyboard comprising a flat top-plate provided with openings in which the heads of the printing keys are mounted, said keys extending an equal distance above said plate, said openings located in a series of parallel ranks and files, said ranks separated by different file-distances into distinct groups, and said groups surrounded by raised finger-guides resting upon said top-plate.

5. In a power typewriter the combination of a printing keyboard divided into two separate sections, each section comprising a series of ranks and files of keys whose upper surfaces jointly constitute a plane; and a

control-keyboard interposed between said sections and comprising a number of banked keys arranged in a series of ranks and files.

6. In a power typewriter the combination of a printing keyboard divided into two separate sections, each section comprising a number of keys whose upper surfaces jointly constitute a plane, said keys located in a series of parallel ranks and files, and said ranks separated by different file distances into distinct groups, and a control keyboard interposed between said sections and comprising a number of banked keys arranged in a series of ranks and files.

7. A printing keyboard comprising a top plate with openings in which the heads of the keys are mounted, said openings located in distinct groups, and each group surrounded by raised finger-guides in the form of flat open frames resting on said top plate.

8. In a power typewriter the combination of a printing keyboard divided into separate sections, each section comprising a top-plate with openings in which the heads of the keys are mounted, said openings located in distinct groups, each group surrounded by raised finger-guides in the form of flat open frames resting on said top plate, and a control keyboard interposed between said sections and comprising a number of banked keys arranged in a series of ranks and files.

Signed by me at Point Loma, California, this 29th day of January, 1926.

OLUF TYBERG.