

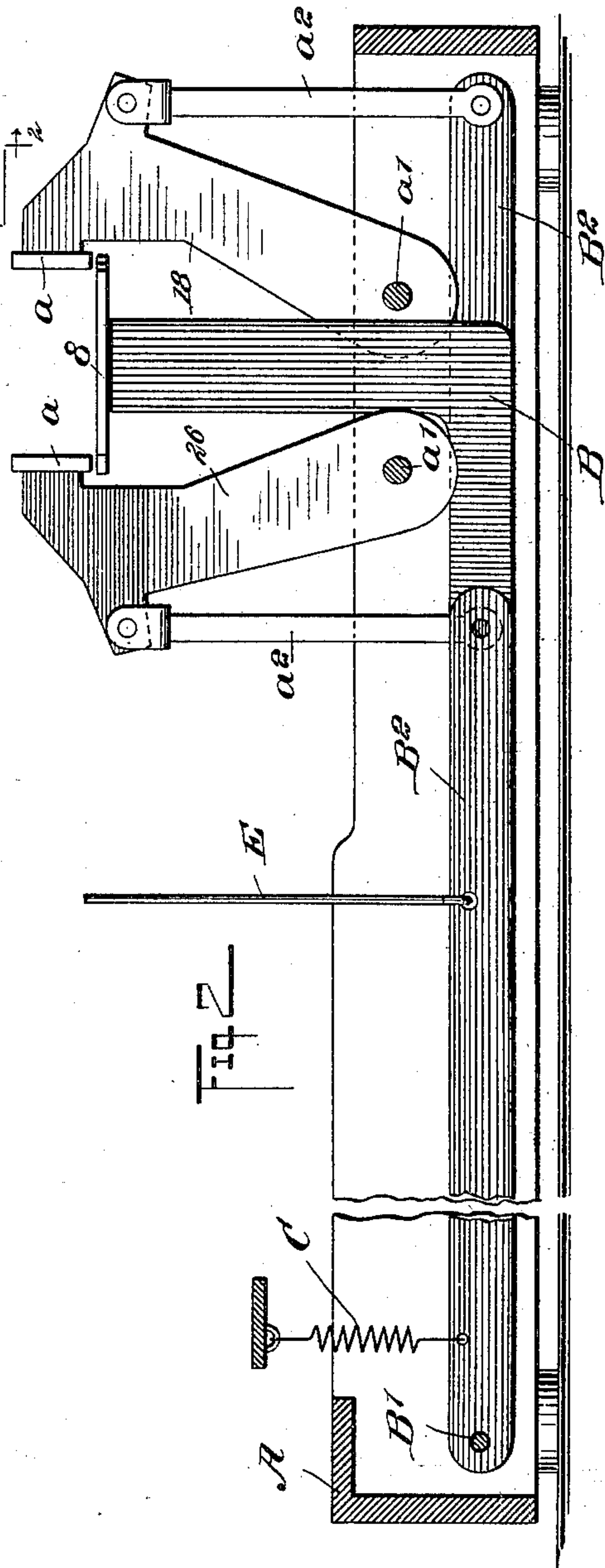
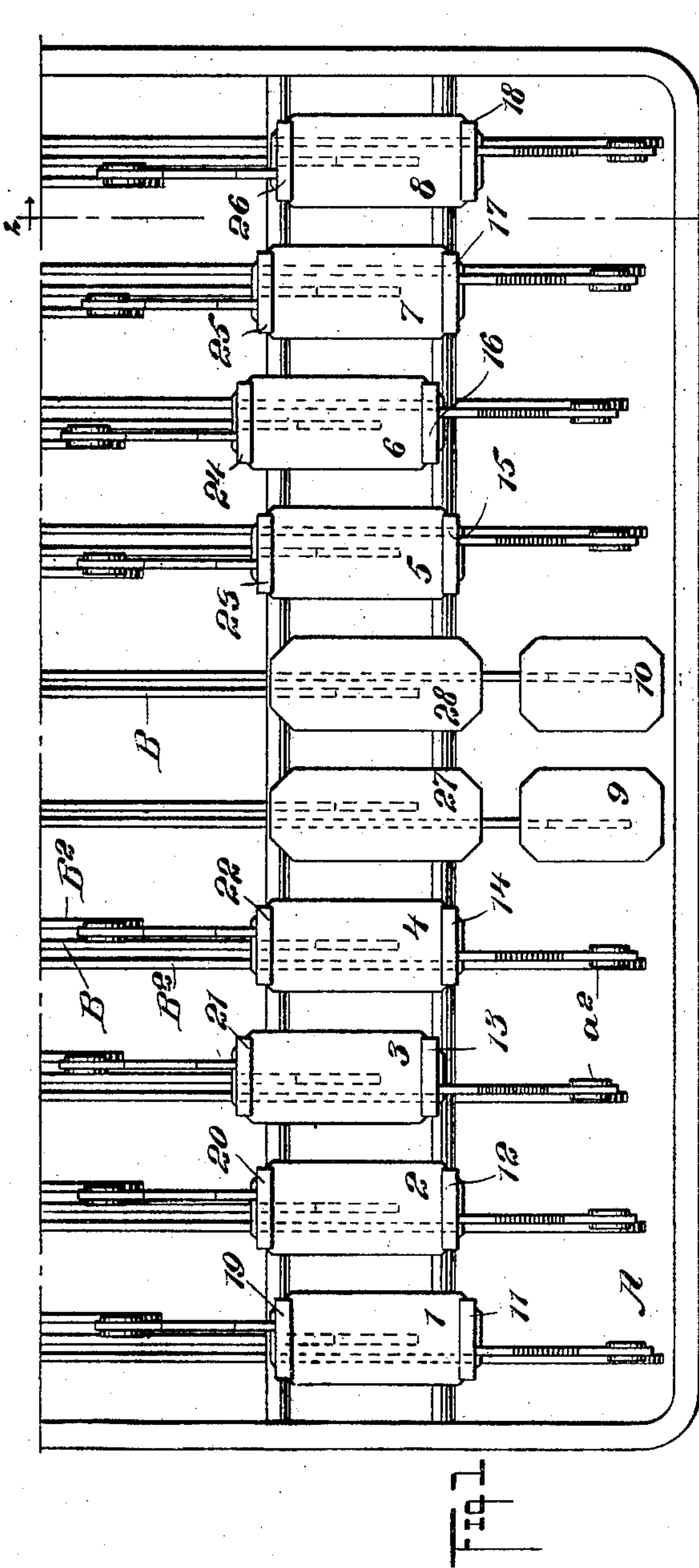
No. 688,759.

Patented Dec. 10, 1901.

J. B. VIDAL.
TYPE WRITER.

(Application filed Feb. 27, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

JUAN B. VIDAL, OF HAVANA, CUBA.

TYPE-WRITER.

SPECIFICATION forming part of Letters Patent No. 688,759, dated December 10, 1901.

Application filed February 27, 1901. Serial No. 49,061. (No model.)

To all whom it may concern:

Be it known that I, JUAN B. VIDAL, a citizen of Cuba, and a resident of Havana, Cuba, have invented new and useful Improvements in Type-Writers, of which the following is a full, clear, and exact description.

My invention relates to type-writers, and particularly to the keys thereof, and has for its object to provide an arrangement of keys which will enable the operator to readily find the keys and to operate them with a very slight movement of the fingers.

The invention will be fully described hereinafter and the features of novelty pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures. Figure 1 is a plan of a type-writer keyboard constructed according to my invention, and Fig. 2 is a sectional elevation on the line 2 2 of Fig. 1.

In the drawings I have shown a keyboard comprising 28 keys, arranged according to my invention. The construction described hereinafter may, however, be applied to a greater or smaller number of keys. The type-writer comprises a suitable frame A, to which the key-levers B are pivoted, as at B', said levers being under the influence of springs C. These levers actuate the impression mechanism in any suitable manner, as through the medium of rods E, and as such constructions are well known and form no part of my present invention I have omitted from the drawings the mechanism operated by the keys.

The keyboard comprises three different sets of keys—viz., twelve vertically-movable keys, (designated, respectively, by the numerals 1 to 10, 27, and 28,) eight keys operated by forward movement—viz., 11 to 18—and eight keys operated by rearward movement—viz., 19 to 26. The keys 1 to 10 are so arranged that the operator with his hands in a natural position can rest his thumbs on the keys 9 and 10 and his fingers on the other keys. The forwardly and rearwardly movable keys have projections *a*, extending above the upper ends of the other keys, so that the operator by simply flexing a finger forward or back-

ward, without removing the finger-tip from the corresponding vertically-movable key, can operate one of the forwardly-movable or rearwardly-movable keys. The latter are pivoted to the frame at *a'* and have an operating connection, as by means of links *a²*, with the corresponding key-levers B². The space between opposing projections *a* is of course of sufficient width to receive the operator's fingers. The stems of keys arranged in front and in the rear of the same vertically-movable key are arranged on opposite sides of the stem of that key, as shown, and thus a very compact arrangement of the keys and their levers is obtained.

It will be seen that the keys occupy but little space, and the operator is not required to remove his fingers from the keys, and it thus becomes possible to acquire great speed and to use the machine without looking at the keys.

The invention is of course applicable to any machine using a keyboard similar to that of a type-writer.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A keyboard for type-writers and other machines, comprising a series of depressible keys, and two series of keys movable forwardly and rearwardly one of these series being located in advance and the other in the rear of the depressible keys, the said forwardly and rearwardly movable keys projecting upwardly beyond the depressible keys immediately adjacent thereto so that a finger engaging a depressible key may by a slight movement operate the adjacent key of the second kind, and the latter key will form a stop to guide the finger to the depressible key.

2. A keyboard for type-writers and other machines, comprising a series of depressible keys, and keys movable forwardly and rearwardly and located in front and rear of the depressible keys, the upper ends of the forwardly and rearwardly movable keys projecting upwardly beyond the upper ends of the adjacent depressible keys, and being spaced from each other to receive the operator's fingers.

3. A keyboard for type-writers and other

machines, comprising a series of depressible
keys, keys movable forwardly and rearwardly
and arranged in pairs, each adjacent to one
of the depressible keys, the keys of each pair
5 projecting above the adjacent depressible
key and being spaced from each other to re-
ceive the operator's finger.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

JUAN B. VIDAL.

Witnesses:

JESUS VIDAL,
RDE AREZARENA.