

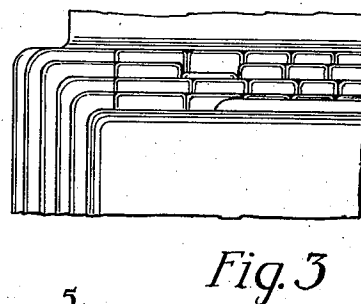
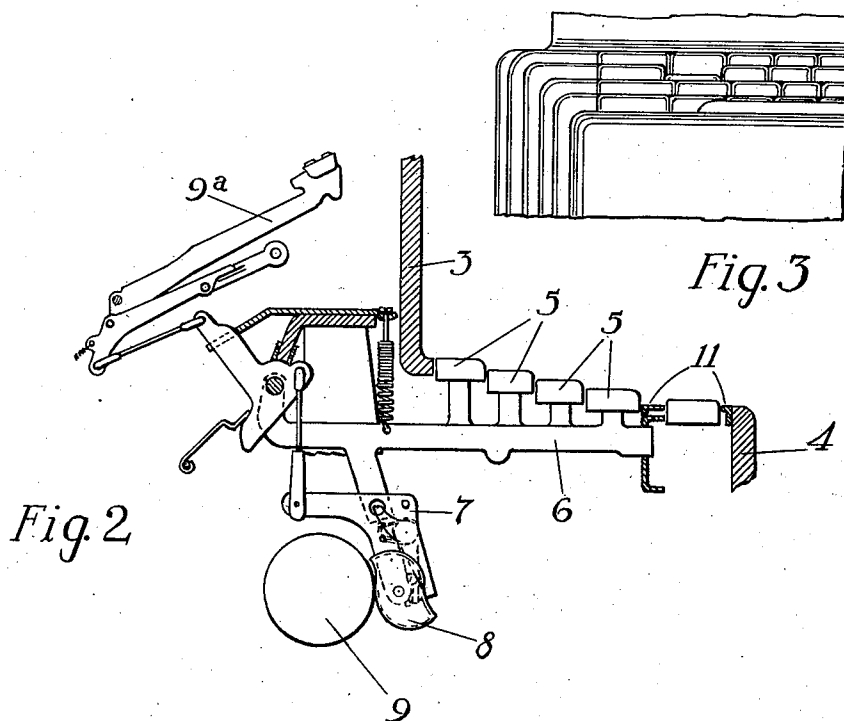
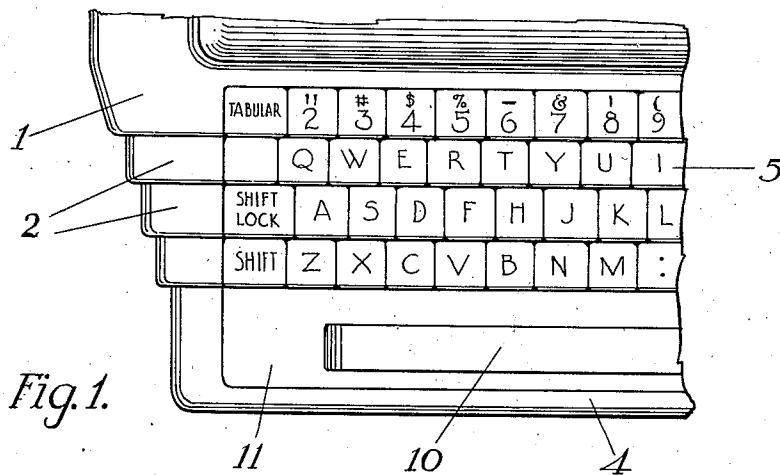
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TYPEWRITER KEYBOARD

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TYPEWRITER KEYBOARD

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1 Claim. (Cl. 197—98)

This invention relates to a typewriter keyboard, and has for its object to provide a construction in which the keys are so constructed and arranged as to afford a practically closed case for the interior mechanism and prevent access of particles of dust and dirt to the operating parts beneath the keyboard.

In the conventional typewriter, the keys are spaced considerably from each other both vertically and horizontally, and it is a more particular purpose of the invention to locate the keys close to one another in both vertical and horizontal planes, and in this fashion to close the gaps between the keys, at the same time without interfering with the proper operation of the machine.

To these and other ends, the invention consists in the construction and arrangement of parts that will appear from the following description when read in conjunction with the accompanying drawing, the novel features being pointed out in the claim following the specification.

In the drawing:

Fig. 1 is a partial plan view of a typewriter frame and keyboard embodying a preferred embodiment of the invention;

Fig. 2 is a vertical sectional view, and

Fig. 3 is a partial front elevation of the frame and keyboard, one key being illustrated in depressed or operating position.

Referring more particularly to the drawing in which like reference characters refer to the same parts throughout the several views, 1 designates a frame preferably having stepped portions 2 corresponding to the several banks or rows of keys and an opening between the vertical wall 3, the front wall 4, and the end portions of the frame, in which the keys 5 are located.

Each key 5 is connected through a key bar 6 to control a cam unit 7 carrying a cam 8 which is adapted to be positioned, when the key is depressed, in operative relation to a power roller 9 which is rotated continuously by an electric motor or other suitable source of power. The power roller operates, when the cam 8 is set, to actuate the type bar 9* through a type bar mechanism such as shown in the art and illustrated for instance in Patent No. 1,934,338, dated November 7, 1933.

The invention is particularly applicable to an electrically operated typewriter for the reason that the operative stroke of each key is usually less than in the manually operated typewriter and therefore lends itself to the purpose of this invention, although the principle may be successfully applied to manually operated typewriters as well.

In order to substantially fill the keyboard opening in the frame, the keys are preferably rectangular in shape, each key abutting the adjacent key and being located in juxtaposition thereto with only enough spacing between the keys to permit the necessary freedom of movement.

The outer keys in the top, bottom and side rows are located in juxtaposition to the adjacent surface of the frame and are also preferably disposed with the top surfaces of the keys normally in alignment with or in the same plane with the adjacent top surface of the frame, the stepped portions 2 of which correspond to the stepped arrangement of the keys. The inner keys are arranged in juxtaposition to the surrounding keys so that each row of keys forms a substantially unbroken and continuous surface with the corresponding stepped portion 2 of the frame.

The keys 5 are arranged in stepped relation, as shown in Fig. 2, and are so disposed that those of one row overlap somewhat in a vertical plane the keys of the adjacent row, so that the keys by their relative position to one another afford a substantially closed case both in horizontal and vertical planes, and eliminate, to a large degree, the possibility of dust or dirt getting into the mechanism beneath the keys.

10 designates the usual spacing bar which is located in an opening afforded in a guard plate 11, the latter being permanently secured to the front of the frame 4, flush with the top surface thereof, and constituting a part of the frame 4 and filling the space between the front portion 4 and the lowermost bank of keys.

While the invention has been described with reference to a particular embodiment, it is not confined to the precise arrangement herein disclosed, and this application is intended to cover any modifications or departures coming within the purposes of the improvement or the scope of the following claim.

I claim:

The combination with a typewriter frame having a key-receiving opening and stepped portions at the sides of said opening, of a series of rectangularly shaped keys arranged therein in stepped rows aligned with said stepped portions of the frame, the outer keys being disposed in juxtaposition to and normally lying flush with adjacent portions of the frame, each of the remaining keys being disposed in juxtaposition to the surrounding keys and lying flush with the other keys in the same longitudinal row, the keys in one row overlapping in a vertical plane the keys in the adjacent rows.

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