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KEYBOARDS FOR AUTOMATIC COMPOSING MACHINES

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The present invention relates to keyboards for automatic composing machines as used in automatic composing plants for printing texts.

There are known composition systems for printing texts in which the typing of the texts to be printed also serves for perforating or otherwise marking a band or tape or a recording medium which is later used in a composing machine for printing these texts. Such a system is described in our United States Patent No. 2,762,485 which claims the priority of an application filed in France on March 24, 1954.

One of the objects of the present invention is to make it possible to use for such typing of texts a typewriter preferably of the kind known as electrical typewriter, the keyboard of which has been adapted to the requirement of automatic composing of texts. This is accomplished by the provision thereon, in addition to a conventional keyboard, of one or several auxiliary keyboards with one or more sets of auxiliary keys in order to increase the amount of information contained in the texts with additional information elements, in particular with "service information" used for the composition of texts.

Another object of the invention is to realize this increase in the capacity of the keyboard, designed to make available a number of characters or signs much higher than that provided by the keys of an ordinary typing machine, preferably without adding character bars and without increasing the dimensions of the set of characters of the machine.

According to a feature of the invention, there is associated with the aforementioned keyboards a recording device such as a perforator adapted to mark a tape or recording medium according to a predetermined code corresponding to the keys depressed on either the main keyboard or the so-called "service keyboard," or in a set of additional keys, hereinafter termed "collateral keys," which serve to give a somewhat modified significance to certain associated symbols of the main keyboard.

There is also provided in accordance with the invention a keyboard system adapted to control a recording mechanism such as a perforator upon each depression of keys and also to cause the appearance on a sheet of paper, in a manner known per se, of the characters of signs corresponding to the types which have been depressed

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and registered. As, however, the number of character bars is chosen preferably smaller than the number of keys of the keyboard, we prefer to provide, according to another feature of the invention, means to cause the cooperation with the said keyboard of a device permitting to actuate a single character bar either with a key of the "collateral keyboard" or with a key of the "service keyboard" as well as a device permitting to characterize on the sheet of paper the characters and signs in a manner dependent upon the actuation of the collateral keys or of the keys of the "service keyboard."

According to another aspect of the invention, there are added to one of the keyboards, e.g. the "service keyboard," three keys entitled respectively "lower case," "large capitals" and "small capitals"; these keys control by means of a shifting device the relative position of the set of characters and of the carriage of the machine on the one hand, and by means of a selection device the selective characterization of subsequently actuated symbols, i.e. characters and signs, on the other hand. The depression of the "lower case" keys will for example cause a certain relative positioning of two co-operating elements, namely the carriage and the set of character-bearing members, whereas the depression of either of the other keys ("large capitals" and "small capitals") will place these elements in another predetermined relative position. The depression of any one of these keys will always cause a particular relative positioning of the carrier and of the set of characters but this relative positioning will subsequently be reversed in the case of at least one of these keys, for example of the "lower case" key, in response to a confirmation actuation resulting from the depression of another key of the keyboard, the arrangement thus being similar to the locking or non-locking capital shift in an ordinary typewriter. If the carriage is not to be locked in shifted position, the return of the keys to the rest position will preferably give rise to an "unshift" code or the operator will have to actuate immediately the service keys corresponding to cancellation of shift.

The depression of any one of the three keys corresponding to the actuation of the device for the selective characterization of subsequently typed characters will, in a system incorporating features of the invention, result in a change of color of the typed character, as by the use of a multicolor ribbon adapted to be moved by the above-mentioned device into positions of registry of differently colored tracks or zones thereof with the type faces of the character bars and/or the operation of auxiliary means which cooperate selectively with the ribbon in order to modify the appearance of the later-typed characters, as by introducing gaps or additions which render perceptible the category of which they form part without materially impairing the legibility of the character. A means of characterizing the type other than by a change of color is for example the interposition of a grid between the paper and the character to be typed, said grid being positionable to avoid the printing of the whole outline of a character on the paper or, conversely, to add marks to some parts of the character.