

Jan. 10, 1956

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2,730,248

KEYBOARD FOR MAIL SORTING APPARATUS

Filed March 23, 1953

FIG. 1

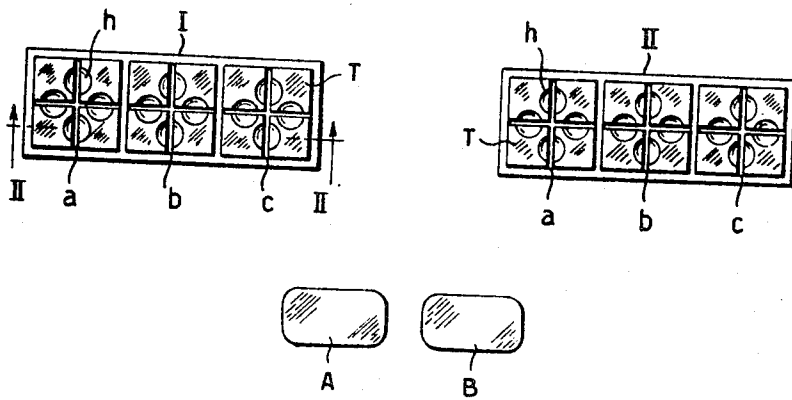


FIG. 2



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KEYBOARD FOR MAIL SORTING APPARATUS

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Application March 23, 1953, Serial No. 344,169

Claims priority, application Netherlands March 27, 1952

3 Claims. (Cl. 214—11)

The invention relates to a method and an apparatus for sorting postal pieces and provided with (a) one or more places for sorting operators, at which places a keyboard is provided, (b) a number of compartments for receiving sorted pieces and (c) means for conveying the pieces sorted at the sorting places to said compartments and (d) means for controlling the place of delivery of postal pieces at a compartment in correspondence with the keys struck on the keyboard.

Such machines are known under the trademark of "Transorma."

They are preferably used for a quick distribution of postal pieces over a plurality of compartments and in accordance with their places of destination (cities, towns, villages, delivery areas, etc.), or their addresses (streets, avenues, squares, etc.).

The operator is called a "transormist." Transormists must be able to convert a great number of data to figures and numbers and consequently, to do strenuous memorizing work. At 's-Gravenhage (The Hague) in Holland, for instance, mechanical sorting covers about 2200 streets. Each street is given a certain figure. The number of figures varies in accordance with the capacity of the machines, e. g. 250, 300 or 400 counters. Accordingly, the streets are indicated by 1, 2 or 3 figures. The keys are struck with the left hand and blindly. The operator takes the postal pieces from a pile, one by one, and after reading them off puts them into an opening from which the pieces are received in a transportation means which is adjustable to deliver the articles at different compartments.

Although such sorting apparatus can be operated very quickly and efficiently, some objections may be felt against the long and costly training of personnel, the difficulty of committing a great number of data to memory, etc.

The present invention aims at eliminating such objections by providing a new method and a new machine in correspondence with it, with a new keyboard.

According to the invention a word read off from a postal piece, e. g. the name of the street or of the place of destination, is split up into parts such as syllables by the operator, and for the letters of these parts, abbreviated, if necessary, the keys are pressed by the fingers of two hands, after which the results are translated by means of a translating mechanism in the machine. The results of this translatory action determine the adjustment of the means mentioned under (d).

In one practical way of carrying out this method not more than four fingers of each hand are used at a time.

In addition to the features mentioned in the numbers (a) to (d) inclusive, a machine according to the invention comprises a set of keys which are arranged in such a way that a number of keys can be touched by a number of fingers of each hand of the operator at a time, while it is also provided with one or more translation mechanisms for the registration of the results.

In another very effective and simple embodiment twice three sections of four keys each are provided at each sorting place, and the keys of each section can be pressed separately, in pairs, but also four at a time, if required.

Moreover, each section may be formed by four adjacent rectangular, or approximately rectangular keys the upper surfaces of which are, at their adjacent sides, provided with recessed finger grips opposite to each other.

If necessary, there may be one or more additional keys to be operated by the thumb and/or the little finger of each hand, while also foot pedals may be provided.

From the description now following it will be apparent that the invention provides a considerable simplification, also because the operator need not be extensively trained.

In the embodiment to be described here two small keyboards are used, a plan view of which is shown in Fig. 1 of the drawing; Fig. 2 shows a part section along the line II—II of Fig. 1.

One board is generally indicated as I and another as II. Board I comprises a thumb key A and board II a thumb key B. Board I with the thumb key A is meant for the left hand, board II with the thumb key B for the right hand of the operator.

Each keyboard I or II respectively consists of three sections, each formed by four keys arranged rectangularly or in a square. The sections are indicated as a, b, c and the keys as T.

As shown in Fig. 2 some edges of the keys are provided with recesses h making it possible for two adjacent keys to be pressed down simultaneously by one finger put into the adjacent recesses of these keys.

Thus the four keys in each section a, b or c offer ten possibilities which, however, need not all be used. The four keys may be pressed separately or in pairs. This makes eight possibilities. The four keys may also be pressed down simultaneously by applying pressure to the point between the four keys, while the keys may also be left untouched. It is very well possible to codify the twenty-six letters of the alphabet over eight keys. The place of each letter in the keyboard is determined by its frequency. Thus the letters a, d and j may be grouped together on key 1, the letters s, t and z on 8.

Naturally, the operator must be acquainted with this distribution of letters over the keys which is the same for all sections. In each section of each keyboard not more than one letter can be pressed. Thus three letters can be pressed on the left keyboard I and the same is the case with the right keyboard; in total, therefore, six letters at a time. However, it also is possible first to press, say, three letters on the left keyboard and after that three letters on the right-hand keyboard, and conversely, while the succession in which the letters are pressed per section is of no account.

In many cases, as with short syllables, and also by leaving out certain letters, less than the maximum of six letters is codified. On an average, even, a quantity of less than five letters is required for each code. So, letters are used instead of figures. As a rule, the first syllable of an address, place of destination, etc. is codified by the left hand and the second syllable by the right hand, always to a maximum of three letters.

Some simplifications are used for this codification. Thus, double vowels are always reduced to one. Sch is reduced to s and ch to c.

As applied to the sorting of postal articles for The Hague and suburbs, for instance the following method is applied:

Postal articles for suburbs such as Scheveningen, Loosduinen, Rijswijk ZH and Voorburg, which are also sorted out in The Hague, are given a certain indication. This is also done for streets ending in a frequently occur-

ring word, such as -laan, -plein, -weg and -kade (avenue, square, road or quay). In these cases an additional key is pressed by the thumb. Merely by way of example some codifications are given here:

	Left	Right
Altingstraat.....	al-	tin
Aastraat.....	a--	---
Ruysbroeckstraat.....	ruy	bro
Wilgstraat.....	wil	g--
Bolstraat.....	bol	---
Duinweg.....	dui	--w
Footlaan.....	fut	--l
IJmuidensestraat.....	ij-	mui

A register causes the "translation" which is necessary for the adjustment of the cams on the postal pieces conveying carriages of the machine.

999,999 combinations are possible, quite apart from the possibilities offered by the two additional keys, owing to which the capacity of the first and last sections is doubled.

The new codification method may be considered as a letter-figure system and practically provides a possibility of reducing each name of a street to a so-called telegraphic abbreviation.

The above concerns the sorting of postal articles to be delivered from the Station Post Building at The Hague, which has been chosen for this purpose and as an example. The system is, however, equally applicable to similar sortings in the cities of other countries. Divisions such as regional offices, delivery offices, zones, districts, sections, bureaux centraux distributeurs, etc. can similarly be given predetermined indications.

Familiar endings of street names, such as street, road, lane, square, place, drive, avenue, etc. are given separate indications and for numbered streets the figure keys 0-9 may be pressed. The same is the case with numbers of P. O. boxes.

The sorting process as combined with the two keyboards also offers a solution to the problem of sorting postal articles to be despatched for which purpose certain codes can be assigned to the names of cities in the country and abroad.

As each section of the keyboards offers ten possibilities, the process is also applicable to a numerical sorting of all kinds of postal forms, assignats, etc.

What I claim is:

10 1. A keyboard comprising a plurality of rectangular shaped keys arranged in a plurality of rectangular groups of four keys each, the edges of each key adjacent an edge of another key in the group having part of a finger shaped recess therein, whereby each key may be depressed individually, or the adjacent keys having said recesses may be depressed in pairs, or all the keys in a group may be depressed by pressure on the center of the group.

20 2. A keyboard comprising a plurality of rectangular shaped keys arranged in six rectangular groups of four keys each, three of said groups being positioned for use by a right hand and three of said groups being positioned for use by a left hand, the edges of each key adjacent an edge of another key in a group, having part of a finger shaped recess therein, whereby each key may be depressed individually, the adjacent keys having said recesses may be depressed in pairs, or all the keys in a group may be depressed by pressure on the center of the group.

30 3. A keyboard as claimed in claim 2 having a thumb key adjacent the left end of the right hand group and having a thumb key adjacent the right end of the left hand group.

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