EUROPEAN PATENT APPLICATION

(54) Election apparatus.

(57) An election apparatus (1) for entering, recording and grouping one or more selections to be made by a voter, particularly suitable for selecting lists and/or candidates in polls, wherein at least one keyboard (2) having a predetermined pattern is provided for making a selection and further a screen (8) is provided on which the selection made is displayed upon completion of each selection procedure and which enables checking of the selection made.
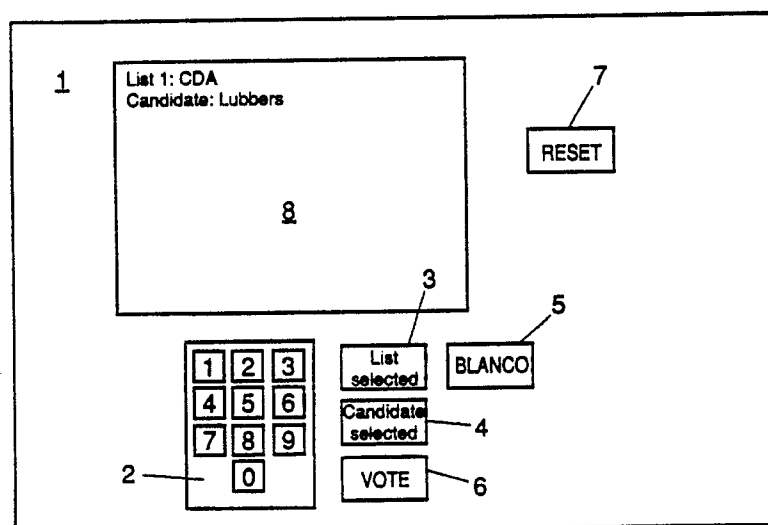
FIG. 1

ELECTION APPARATUS

This invention relates to an election apparatus for entering, recording and grouping one or more selections to be made by a voter, particularly suitable for selecting lists and/or candidates in polls.

In the Netherlands the known election apparatuses, sometimes referred to as voting machines, are used primarily in parliamentary and local elections. Voting machines are now used in many countries. The constructions vary between countries because the voting procedures differ from one country to another. In the case of elections in the Netherlands, the lists of parties and candidates are placed under the keyboard of the voting machine. One row of keys is assigned to each list. Within that row, one key is assigned to each candidate. The name of each candidate is visualized to the right of the key assigned to him. When the voter has pressed the key of his choice, his selection is displayed on a screen, i.e. the number of the list selected and the number of the candidate selected from that list are indicated. Alternatively, the voter can indicate he abstains from voting - namely, by pressing the "blank" key provided for that purpose.

When the voter finds he wants to change his original vote, a reset key can be pressed. In that case the selection procedure in the voting procedure can be repeated. When the voter has checked his choice, he can make it final by pressing the voting button provided above the keyboard. The voting machine is now blocked for further use. By pressing the 'clear' button, the presiding officer of the polling station can clear the machine for a next voter.

The known voting machines have a number of drawbacks. The machine lacks flexibility. The rows of keys and the keys in the rows are limited to a fixed number. This renders the machine unsuitable for polls involving a great number of lists, say, more than 25. This has consequences for its use, for instance in Dutch municipalities and abroad. Moreover, the voting procedure of these machines is specifically geared to the voting procedure as laid down in Dutch electoral law. The known machine is unsuitable for other voting procedures, in which, for instance, more votes are to be given.

Another drawback is that the weight and the dimensions of the known machines are relatively great. As a result, for instance the transportation and storage of large numbers of such machines may present problems.

Finally, in the known voting machine, the display of the choice made, of both list and candidate, is not optimal. It is not the names of the list and the candidate that are displayed, but only the numbers of the list and the candidate. This prevents optimal checking of the selection that has been made. It is an object of this invention to obviate the drawbacks mentioned hereinabove.

To this effect, an election apparatus of the type described in the preamble is characterized in that at least one keyboard having a predetermined pattern is provided for making a selection, and that the machine is further provided with a screen on which the selection made is displayed upon completion of each selection procedure and enables checking of the selection made.

Some embodiments of the invention will now be further explained and illustrated with reference to the accompanying drawings, in which:

Fig. 1 diagrammatically shows a first embodiment of an apparatus according to the invention; and

Fig. 2 diagrammatically shows a second embodiment of an apparatus according to the invention.

The election apparatuses shown in the Figures are so constructed that the desired selection can be made on the basis of the numbered lists and candidates. To that end, the machine 1 is equipped with one or more keyboards 2, or 2 and 9, each having ten keys, numbered 0 through 9 in this embodiment. To promote recognizability and hence operational convenience, the positioning of the numbers 0 through 9 is preferably the same as in the known push button telephones. Furthermore, separate buttons 3 and 4 are provided for completing each selection. Provided in addition to the keys mentioned are a key 5 for indicating abstention and a key 6 for confirming a selection and thereby making it final. Further, the machine comprises a screen 8, for instance a liquid crystal display or a video screen, on which a few lines of text can be displayed. Finally, near the screen a reset key 7 is provided for cancelling a selection of a list or a candidate or a blank vote and restarting the selection procedure.

To make the machine ready for use in any poll, only the names and numbers of the lists and the candidates need to be entered in the memory of the machine and, optionally, displayed visually on the machine. Mostly the lists and candidates are provided in the poll booth in printed form.

The operation of the machine is as follows. From the numbered lists and numbered candidates before him, printed or otherwise displayed, the voter first selects the list of his choice by pressing the corresponding number of the list on the keyboard provided for that purpose. By operating the first so-called completion or enter key 3 the proce-

dure for selection of the list is completed and the list number selected is written in the memory of the machine. Upon completion of this procedure, the name of the list selected is displayed on the screen. As from that moment, the machine can only be used for selecting a candidate from the list just selected or for correcting a previously made selection by means of reset key 7. For the selection of the candidate, the same keyboard (Fig. 1) or a keyboard next to it (Fig. 2) can be used. The keys are now suitable for the selection of a certain candidate. Again, the voter must make a selection by entering a number, but this time the number of the candidate of his choice from the list just selected. For that purpose, in the embodiment of Fig. 1 the same keyboard 2 as used for the selection of the list must be used. In the embodiment of Fig. 2, however, a separate keyboard 9 is provided for the selection of the candidate. By completing the procedure for the selection of the candidate by pressing a second completion or enter key 4, in addition to the name of the list selected, also the name of the selected candidate is displayed on the screen. If, however, the voter wishes to abstain from voting, the blank selection key 5 can be pressed.

When the selection procedure for both the list and the candidates or a blank vote has been completed, the voter can make his selection final by operating the voting button 6. This completes the voting procedure for the voter in question.

The dimensions and the weight of a machine according to the invention can be limited, inter alia in virtue of the limited number of keys.

It is observed that after perusal of the above various modifications will readily occur to anyone skilled in the art. Thus, pictograms may be provided on one or more keys to clarify their function. Further, touch-sensitive buttons may be used. Also, the keyboard may be integrated into the screen. Then the screen may, at least partly, be constructed as a touch screen. On behalf of the visually handicapped persons, tactile and/or auditory aids such as headphones may be provided.

These and similar modifications are considered to fall within the scope of the invention.

Claims

1. An election apparatus for entering, recording and grouping one or more selections to be made by a voter, particularly suitable for selecting lists and/or candidates in polls, characterized in that at least one keyboard having a predetermined pattern is provided for making a selection, and that the machine is further provided with a screen on which the selection made is displayed upon completion of each selection procedure and which enables checking of the selection made.

2. An election apparatus according to claim 1, characterized in that a separate keyboard is provided for each type of selection a voter is to make in a voting procedure.

3. An election apparatus according to claim 1 or 2, characterized in that said at least one keyboard is a numeric keyboard.

4. An election apparatus according to claim 3, characterized in that the keys of the keyboard are arranged according to a standard pattern.

5. An election apparatus according to one or more of the preceding claims, characterized in that one or more keys are provided with pictograms for .clarification.

6. An election apparatus according to one or more of the preceding claims, characterized in that said at least one keyboard comprises touch-sensitive keys.

7. An election apparatus according to one or more of the preceding claims, characterized in that said at least one keyboard is integrated in the screen.

8. An election apparatus according to one or more of the preceding claims, characterized in that said at least one keyboard comprises tactile patterns for and on behalf of visually handicapped persons.

9. An election apparatus according to one or more of the preceding claims, characterized in that the apparatus comprises, in addition to the screen, auditory aids for the auditory reproduction of the selections made.

10. An election apparatus according to any one of the preceding claims, characterized in that the screen is a liquid crystal display.

11. An election apparatus according to any one of the preceding claims, characterized by at least one enter key for entering a selection made in the memory of the election apparatus and by at least one key for correcting an incorrect selection and at least one key for making an entered selection final.
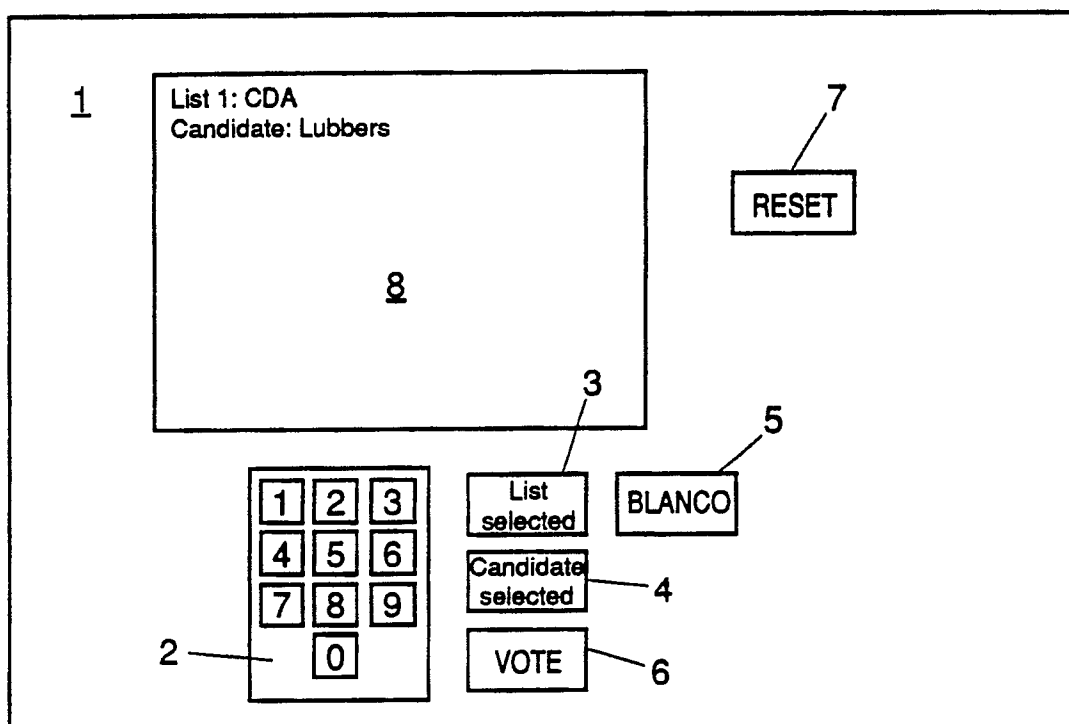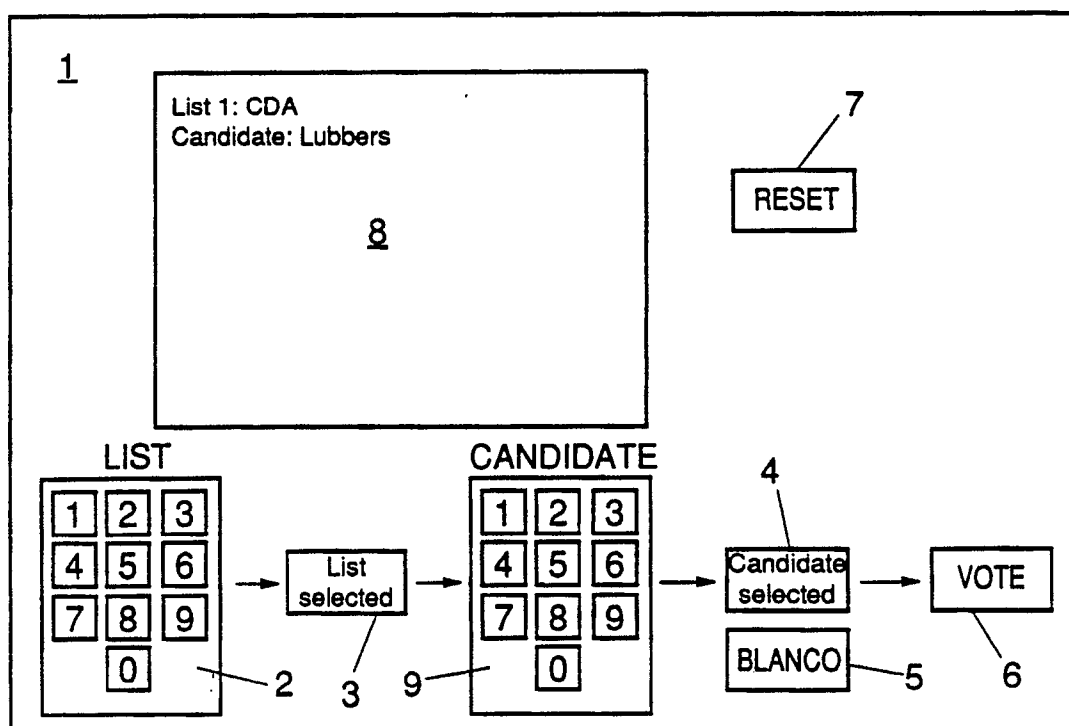
FIG. 1

FIG. 2

European
Patent Office

**EUROPEAN SEARCH
REPORT**

Application Number

EP 90 20 2560

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	EP-A-0 292 053 (NEDAP) * column 1, line 48 - column 3, line 24; claims 1-17; figures * ---	1-11	G 07 C 13/00
Y	EP-A-0 199 683 (INDUSTRIE ELETTRONICHE RE-GISTRATORI DI CASSA SWEDA) * page 6, line 14 - page 10, line 10; figures * ---	1-11	
A	US-A-3 779 453 (KIRBY) * column 1, line 53 - column 2, line 59 * * column 5, line 11 - column 6, line 41; figures * ---	1-4,6	
A	US-A-3 941 976 (HUHN) * column 5, line 53 - column 8, line 50; figures * ---	1,5	
A	FR-A-2 604 275 (COMBALUZIER) * abstract; figures * ---	5	
A	US-A-4 015 106 (PHILLIPO) -----		

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

G 07 C
G 06 F

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	20 December 90	MEYL D.