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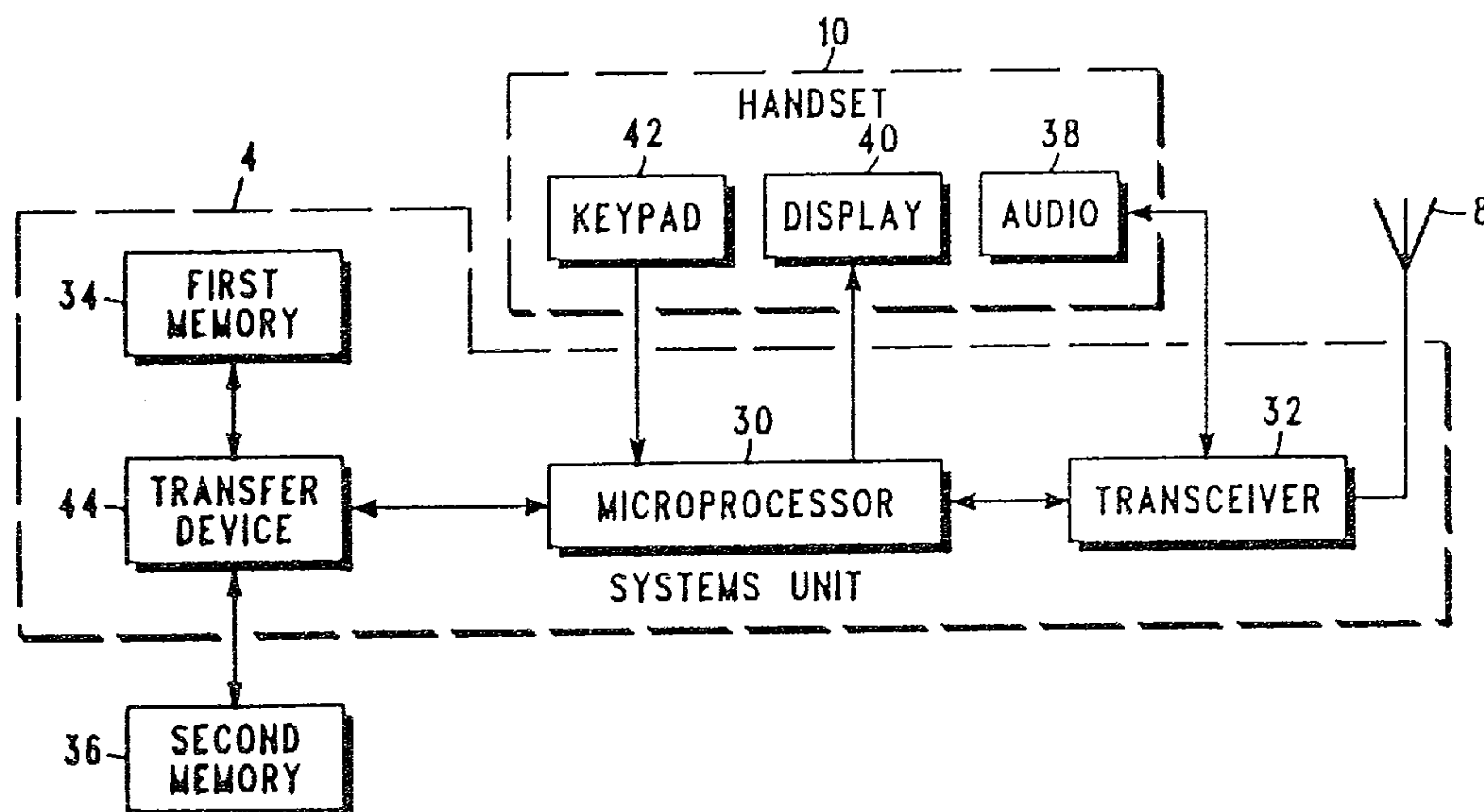
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(54) **RADIOTELEPHONE MUNI D'UN DISPOSITIF DE  
COMPOSITION AUTOMATIQUE**

(54) **RADIO TELEPHONE WITH REPERTORY DIALER**



(57) A radio (2) having: a first memory (34) for storing first information items; memory receiving means (18) for temporarily receiving a second memory (20, 36) for storing second items of information; memory access means (30, 44) for accessing both said first and second memories: and user selective transfer means (42, 30, 44) for causing an information item from one said memories to be transferred to the other of said memories. In a preferred form the radio is a radiotelephone, the first and second items of information are telephone numbers and the second memory is a magnetic card or a smart card.



Abstract

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RADIO

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10 second items of information; memory access means (30, 44) for accessing both said first and second memories; and user selective transfer means (42, 30, 44) for causing an information item from one said memories to be transferred to the other of said memories. In a preferred form the radio is  
15 a radiotelephone, the first and second items of information are telephone numbers and the second memory is a magnetic card or a smart card.

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RADIO TELEPHONE WITH REPERTORY DIALERBackground of the Invention

5           This invention relates to radios and particularly to radios of the kind having first memories for holding first information items and being arranged to receive second memories for holding second information items.

          An example of such a radio is a radiotelephone in  
10   which a first memory holds telephone numbers which can be dialled by a user via abbreviated dialling techniques which are well known in the art. Such a radiotelephone may be arranged to receive a memory carrier, for example in the form of a magnetic card, providing a second memory  
15   holding telephone numbers which the user can dial in a similar abbreviated way to the numbers in the first memory (see, for example Japanese patent application J62020454A). Such a facility allows a user to dial abbreviatedly with any suitably equipped radiotelephone  
20   from a personally chosen list of telephone numbers stored in his or her own magnetic card or other memory carrier.

          It is an object of the present invention to provide a radio of the above kind wherein the utility of the first and second memory facilities may be enhanced.

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Summary of the Invention

          In accordance with the present invention there is provided a radiotelephone having means for coupling to a second memory, the radiotelephone comprising a first  
30   memory for storing first abbreviated dial information items including telephone numbers; memory receiving means for temporarily receiving the second memory having user memory locations for storing second abbreviated dial information items including telephone numbers; user  
35   selective memory access means for accessing the second memory, selecting an abbreviated dial information item in the second memory and automatically dialling the telephone number included therein;

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and user selective transfer means for user selectively  
identifying an abbreviated dial information item in one  
5 of the memories and causing it to be transferred to the  
other of the memories for user selective access and  
automatic dialling from the other of the memories.

- 2 -

Brief Description of Drawings

5           One radiotelephone in accordance with the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 shows a perspective view of the radiotelephone; and

10          Figure 2 shows a block schematic circuit diagram of part of the radiotelephone.

Description of Preferred Embodiment

15           Referring firstly to Figure 1, a radiotelephone 2 has a system unit 4 with carrying handle 6 and antenna 8, and a handset 10 removably located in the system unit and connected thereto by a coiled cord 12. The handset 10 is provided with a group of twenty-four keys 14 and a visual display 16, as  
20 well as mouth- and ear-pieces (not shown).

The system unit 4 is also provided, adjacent the handset location, with a receiving slot 18 for a memory card 20. As shown, a fully inserted memory card 20 protrudes from the slot so as to facilitate later removal.

25           In use of the radiotelephone, a user can abbreviatedly dial any of up to one hundred stored telephone numbers by first pressing a pre-designated "abbreviated dial" key (e.g. key 24) on the handset 10 and then pressing two numeric keys (00 - 99) defining a memory location in which is stored the  
30 number to be dialled. Memory locations 00 - 39 are pre-defined as being "user" locations for holding numbers stored in the user's memory card 20, while the remaining codes 40 - 99 are pre-defined as being "system" locations for holding numbers stored in the system unit 4.

35           Telephone numbers for abbreviated dialling may be stored directly in the memory locations 00 - 39 of the memory card 20 or in the system unit memory locations 40 - 99 by the user (i) pressing a pre-designated "store" key (e.g. key 26), (ii) entering the desired telephone number by pressing the

- 3 -

relevant numeric keys, (iii) pressing the "store" key again,  
then (iv) pressing two numeric keys (00 - 39 or 40 - 99)  
5 defining the memory location in which the number is to be  
stored.

As an alternative to the above method of storing  
telephone numbers for future abbreviated dialling by entering  
each digit of the number as necessary, the radiotelephone 2 is  
10 also provided with the facility to transfer stored numbers  
between the memory locations of the system unit 4 and the  
memory locations of the memory card 20. Stored number may be  
transferred between the two types of memory locations by the  
user (i) pressing the "store" key twice, (ii) pressing two  
15 numeric keys (00 - 39 or 40 - 99) defining the memory location  
from which the stored number is to be transferred, (iii)  
pressing the "store" key again, then (iv) pressing two numeric  
keys (40 - 99 or 00 - 39) defining the memory location into  
which the stored number is to be transferred. It will be  
20 appreciated that, alternatively to pressing the "store" key  
twice to initiate the transfer, if desired another of the keys  
14 may be dedicated for use as a "transfer" key.

Associated with each memory location is storage  
capacity for alphabetic information relating to the telephone  
25 number stored therein. Thus the name can be stored of the  
person whose number is stored. The data in the memory  
locations 00-39 of the memory card is only accessible by  
individual selection of the corresponding short number,  
00-39. The facility is provided to transfer all stored  
30 numbers and associated alphabetic information from the memory  
card to the system unit and the facility is provided to  
search, scan and recall the data alphabetically. In this  
manner all the memory locations 00-99 can be searched.

It will be readily appreciated that this transfer  
35 facility enhances the usability of abbreviated dialling with  
the radiotelephone by obviating the need for numbers to be  
re-keyed in order to be stored, and so removing the risk of  
mis-keying. Instead numbers may be transferred or "swapped"  
with ease.

- 4 -

Referring now also to Figure 2, in block schematic form the radiotelephone 2 comprises in the system unit 4 a  
5 microprocessor 30, a radio transceiver 32 and a first set of memory locations 34. A removable set of second memory locations 36 may be provided (in the form of the memory card 20). An audio section 38, display section 40 and keypad section 42 are provided in the handset 10. Transfer means 44  
10 are also provided in the system unit, under control of the microprocessor 30. In use of the radiotelephone 2, the microprocessor 30 receives inputs from the keypad section 42 and from the first and/or second sets of memory locations and controls the transceiver 32, the display section 40 and the  
15 transfer means 44 to operate as described above.

It will be understood that memory card 20 may be in the form of a magnetic card or, preferably, in the form of a "smart" card, whereby for example call charging and other transaction processing may be performed within the card.

20 It will be appreciated that although in the above example there has been described the facility to transfer stored telephone numbers between first and second memories in a radiotelephone, the invention may be more broadly applied to the transfer of any stored information between first and  
25 second memories in any radio.

It will be appreciated that the invention has been described above by way of example only and that modifications to the above example may be made without departing from the inventive principle.

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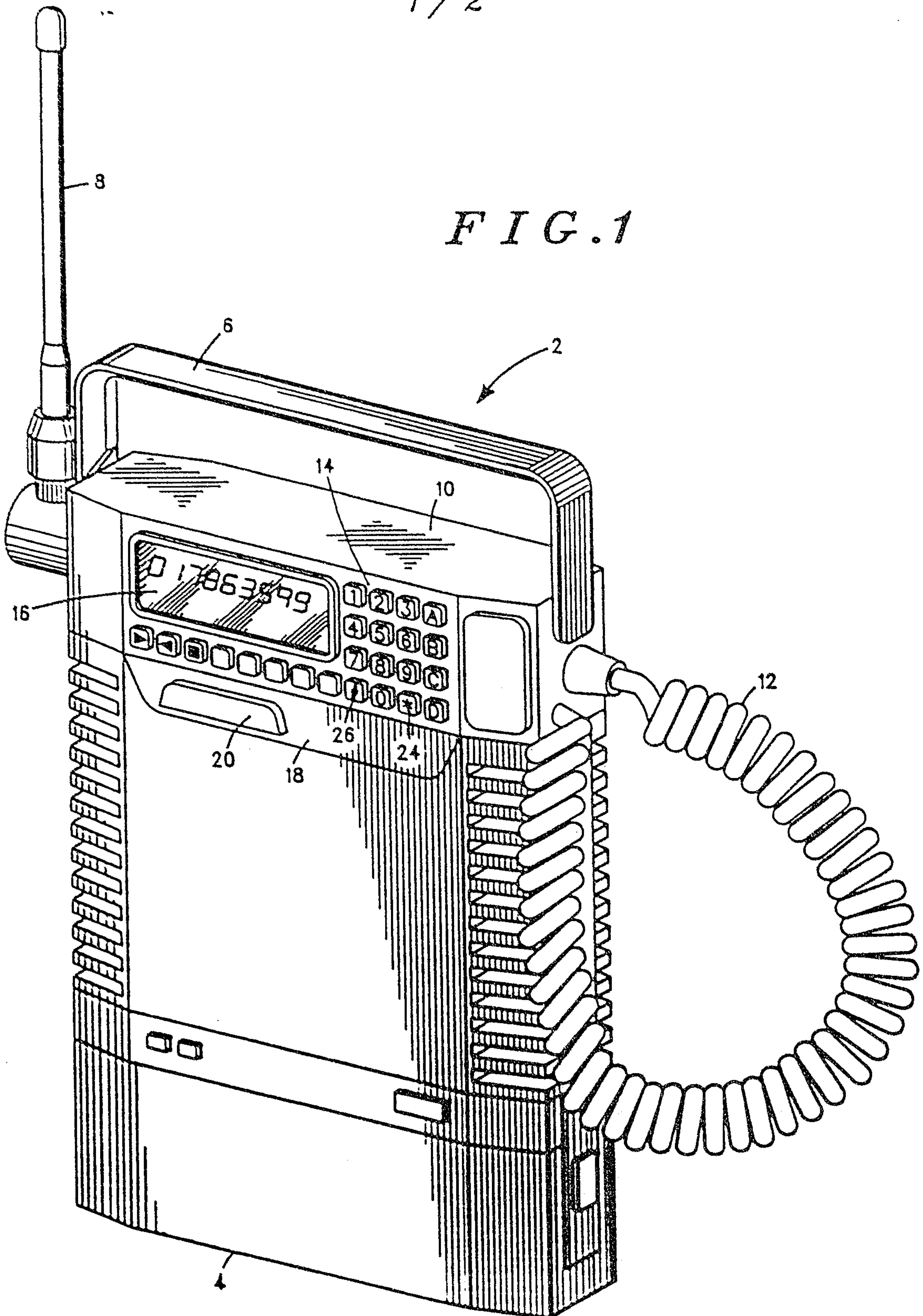
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THE EMBODIMENT OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A radiotelephone having means for coupling to a second memory, the radiotelephone comprising:
  - a first memory for storing first abbreviated dial information items including telephone numbers;
  - memory receiving means for temporarily receiving the second memory having user memory for storing second abbreviated dial information items including telephone numbers;
  - user selective memory access means for accessing the first memory, selecting an abbreviated dial information item in the first memory and automatically dialling the telephone number included therein,
  - user selective memory access means for accessing the second memory, selecting an abbreviated dial information item in the second memory and automatically dialling the telephone number included therein, and
  - user selective transfer means for user selectively identifying an abbreviated dial information item in one of the memories and causing it to be transferred to the other of the memories for user selective access and automatic dialling from the other of the memories.
2. A radiotelephone according to claim 1, wherein transfer means are provided for causing all telephone numbers and accompanying alphabetic information in the second memory, comprising a smart card.
3. A radiotelephone according to claim 1, wherein transfer means are provided for causing all telephone numbers and accompanying alphabetic information in the second memory to be transferred to the first memory.
4. A radiotelephone according to claim 3, wherein means are provided for carrying out searching operations on the basis of the alphabetic information on the information items in the first memory after such a transfer.

FIG. 1



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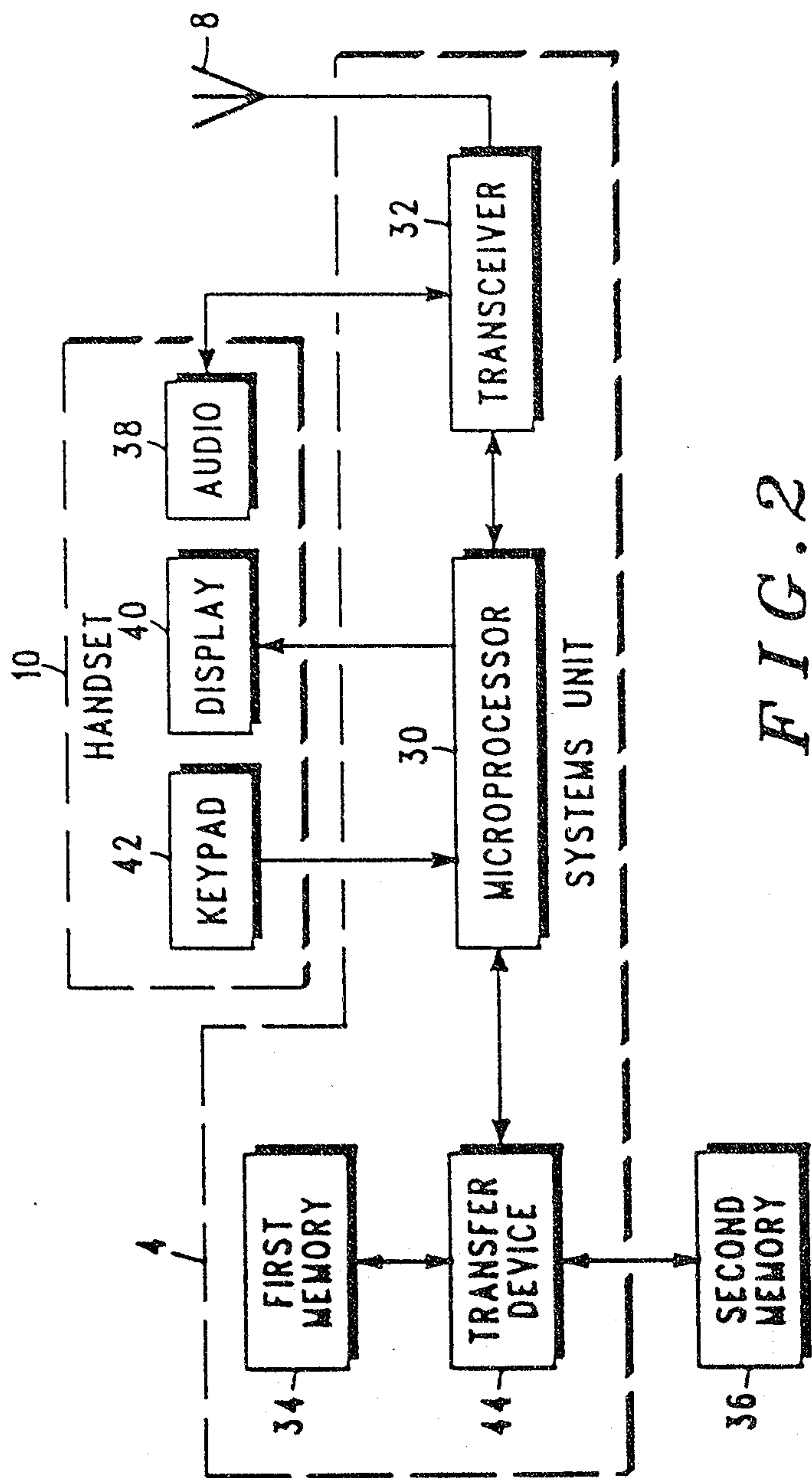


FIG. 2