Translator's notes re EP 0 505 266 A1:

1. p. 11 pars. 3, 4 and 5 (French column 9, lines 17, 19 and 28):
   Fig. 1 probably should be Fig. 4 (since no beacons shown in Fig. 1)

2. p. 13 par. 3 (French column 10, lines 55-56:
   4 is an "encoder-decoder" here, but a "receiver-decoder" everywhere else.

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71 Applicant: **Etablissement Public Télédiffusion de France**
10, rue d'Oradour-sur-Glane
F-75015 Paris (FR)

72 Inventor: **Frossard, Didier**
24 Rue Mertens
F-92270 Bois Colombes (FR)
Inventor: **Roubertou, Denis**
41 Rue de Malakoff
F-92230 Chatillon (FR)

74 Agent: **Fréchède, Michel et al.**
Cabinet Plasseraud 84, rue d'Amsterdam
F-75009 Paris (FR)

54 **System for controlled shutdown and for location of a movable or mobile equipment**

57 The invention relates to a system for controlled shutdown and for location of a movable or mobile equipment by an authorized subscriber.

The system contains a server center (1) that can be accessed by the subscriber by means of an access code and transmission of an intervention order, a network for selective transmission to the equipment (3), this transmission network containing an analog radio frequency transmitter provided with a subcarrier and a receiver-decoder circuit (4) for an order message to shut down the equipment (3), this circuit being installed within this equipment. A controlled inhibition circuit (5) makes it possible to switch to shutdown, startup or standby status of the equipment (3).

Application to motor vehicles, radio frequency or television receivers, high-fidelity appliances, radio telephones, microcomputers, calculators or video cameras.

Jouve, 18, rue Saint-Denis, 75001 PARIS

The invention relates to a system for controlled shutdown and for location of a movable or mobile equipment

At present, the systems for protecting movable or mobile equipments, such as motor vehicles, contain substantially an alarm center installed on board the vehicle, the alarm being tripped in the event of break-in to the vehicle in particular. In the best case, when the alarm system goes into operation, it has a discouraging effect, at least temporarily. Experience shows, however, that the reliability or inviolability of these systems is insufficient, and so the perpetrators of the break-in very often succeed in their intentions.

More recently, more elaborate systems have been proposed in which the activation of protection of these movable or mobile equipments is effected from a central station, by radio frequency link, an identification number being allocated to each of these equipments. When this identification number is called, the corresponding equipment is therefore switched to nonoperative status from the central station. A system of this type has been described in particular in European Patent Application 0291995, published 23 November 1988.

Such a system undoubtedly is of theoretical interest, but is subject to the limitations hereinafter.

In the first place, it involves the use of a digital radio system, by reason of the very form of the transmitted identification or intervention messages. Such digital radio systems are not available at present, and the realization of the system described by the aforesaid document therefore remains problematic.

In the second place, in the described example, the protection of the equipment is achieved by the partial destruction of an electrical supply circuit of the equipment, restart of the latter necessitating a purchase from an accredited agent, since any temporary repair is ruled out.

Such a system therefore cannot aspire to broad territorial coverage on the national scale, for example, thus naturally reducing the practical scope and interest.

The object of the invention is to remedy the aforesaid disadvantages by the use of a system for controlled shutdown of movable or mobile equipment allowing coverage on the national scale, for example.

Another object of the present invention is the use of a system for controlled shutdown of movable or mobile equipment furthermore making it possible to locate this equipment upon the controlled shutdown request by the authorized user.

Another object of the present invention is the use of a system for controlled shutdown of movable or mobile equipment that discourages the theft of these equipments, by switching to shutdown, startup or standby status of this equipment with a high degree of reliability.

The system for controlled shutdown of a movable or mobile equipment by a subscribing owner or authorized agent from a central surveillance point and/or by remote intervention, an object of the invention, is noteworthy in that it comprises a server center that can be accessed by this subscriber upon presentation of an access code and transmission of a corresponding intervention order and means for selectively transmitting, to this equipment, an order message to shut down this equipment, these transmission means containing a network comprising an analog radio frequency transmitter provided with a subcarrier. Receiver-decoder means for the order message to shut down the equipment are placed therein and controlled inhibition means for the operation of the equipment, commanded by the receiver-decoder means, are provided to ensure that the equipment is switched to shutdown, startup or standby status.

The invention is applicable to the surveillance of any type of movable or mobile equipment equipped with a source of electrical energy, such as a motor vehicle, radio or television reception station or the like.

It will be better understood by reading the description and examining the drawings hereinafter, wherein:

– Fig. 1 shows a functional diagram representative of the system for controlled shutdown constituting the object of the present invention,

– Fig. 2 shows a block diagram of a receiver-decoder according to the object of the present invention,

– Fig. 3a shows a diagram illustrating the personalized code and the command message for controlled shutdown used according to the object of the invention in the case of a paging message of the RDS type, and

– Fig. 3b shows an example of the format of the message according to the RDS standard,

– Fig. 4 shows an advantageous variant of the system for controlled shutdown and for location of a movable or mobile equipment furthermore making it possible to locate the movable or mobile equipment upon the controlled shutdown request by the authorized user,

– Fig. 5a shows a detail of implementation of a receiver-decoder in the case of the variant shown in Fig. 4,

– Fig. 5b shows a format of messages transmitted in the case of the variant shown in Fig. 4.

A more detailed description of a system for controlled shutdown and for location of a movable or mobile equipment according to the object of the present invention will be described in connection with Fig. 1.

According to the aforesaid Figure, the system constituting the object of the invention permits the controlled shutdown of a movable or mobile equipment as well as the location of this equipment by a subscribing owner or authorized agent. These operations are normally effected from a central surveillance or remote intervention point.

For this purpose, the system according to the invention contains, for example, a server center 1 that can be accessed by the subscriber or the authorized person upon presentation of an access code and transmission of a corresponding intervention order. It will be understood, of course, that the subscribing owner or authorized person may, for example, communicate the aforesaid access code and the corresponding intervention order to server center 1, as shown in Fig. 1, via a telephone connection or a Minitel, for example. The introduction of the access code in the server center and the noting of the corresponding intervention order may be effected either by an operator or in totally automatic manner without going beyond the scope of the object of the present invention.

In addition, as has also been shown in Fig. 1, the system contains a resource 2 for selective transmission to the aforesaid equipment of an order message M to shut down this equipment 3. In Fig. 1, the movable or mobile equipment 3 is shown non-limitatively and solely by way of example by a motor vehicle.

According to a particularly advantageous aspect of the system constituting the object of the present invention, the aforesaid transmission resource advantageously contains an analog radio frequency transmitter provided with a subcarrier. Thus the system constituting the object of the present invention advantageously uses a paging message transmission network making it possible to cover a territory corresponding to that of a national territory or even to a grouping of national territories.

Thus, as has been additionally shown in Fig. 1, movable or mobile equipment 3 advantageously contains receiver-decoder circuits 4 for the order message to shut down this equipment. A controlled inhibition circuit 5 placed in the movable or mobile equipment and responding to receiver-decoder circuits 4 makes it possible to ensure that this equipment 3 is switched to either shutdown or startup or standby status as will be described later in the description.

In traditional manner, the access code permitting access to server center 1 is a personalized code assigned to the subscriber.

In the same way, and advantageously non-limitative, the code or intervention order is itself a personalized code associated with the movable or mobile equipment proper.

Preferably, the aforesaid two codes are transmitted to server center 1 by the subscriber or an authorized person in order to generate, upon positive response to a control criterion, a request to shut down the aforesaid equipment 3. Of course, in the case that the reception of the personalized code and of the intervention code is handled by an operator, the control criterion may consist simply in the verification of the access code or at least of the current validity of such an access code. In this case, the transmission of the intervention order or code may then be effected following verification of the correspondence of the requested order and of certain characteristics of the aforesaid movable or mobile equipment.

When the reception of the access code and of the corresponding intervention order or code is handled by automatic means, the aforesaid criteria may have the form of triage and comparison criteria, which will not be described in detail, because they correspond to customary techniques in the matter of automatic data processing.

In general, message M to shut down equipment 3 may advantageously contain an identification flag, denoted by D in Fig. 1, this identification flag containing the personalized code assigned to equipment 3 followed by a command message MC for controlled shutdown of this equipment. A more detailed description of the structure of message M will be given later in the description.

As has been additionally shown in Fig. 1, the radio frequency transmission network comprises at least one transmission point of a radio frequency transmitter, this point or these points being distributed over a specified control territory. Each transmission point contains, as has been shown in more detail in Fig. 1, at least one radio frequency encoder 20 making it possible to ensure the encoding of at least one radio frequency parameter of a radio frequency wave on the basis of the order message for controlled shutdown of equipment 3 and a frequency modulation transmitter 21 making it possible to generate a radio frequency wave modulated by order message M to shut down this equipment 3 over a territorial cell of the control territory.

According to a particularly advantageous embodiment of the system constituting the object of the invention, this uses the paging message system known by the name "RDS system", or by the English term "Radio Data System". It is recalled that such a system makes it possible to broadcast digital data at low rate, especially a raw rate of 1,187.5 bits per second for a useful rate lower than 300 bps on a 57 kHz subcarrier wave of a transmission in frequency modulation.

A more detailed description of this type of transmission can be found advantageously in European Standard EN 50067.

One limitation of the aforesaid RDS system arises in particular from the fact that the total number of addresses, meaning definitively the total number of movable or mobile equipments capable of being placed under surveillance by the aforesaid system, is one million at most for the encoding of addresses mentioned in the foregoing, on six decimal digits, for example. Since a large part of these addresses is reserved for the aforesaid paging message service, it is advantageous, according to the system constituting the object of the present invention, to increase the number of allocated addresses to the number of movable or mobile equipments subjected to the process of control by the system constituting the object of the present invention.

As has been additionally shown in Fig. 3, the identification flag containing the personalized code of equipment 3 is therefore advantageously encoded on nine words or digits, which, which are denoted A_1 to A_6 in the address part proper of message M transmitted by the RDS paging message system, while an address complement on three digits denoted A_7, A_8, A_9 is then provided in the part of the message proper to which a space corresponding to ten digits is normally reserved. The intervention order is then encoded, for example, on seven digits, denoted O_1 to O_7 in Fig. 3a.

Thus, by using the address complement on three digits as shown in Fig. 3a, the number of movable or mobile equipments that can be addressed by means of the device constituting the object of the present invention can be increased from one hundred thousand to one hundred million.

It will be noted in addition that, according to an alternative embodiment, the identification flag and/or the command message respectively may contain at most three reserve digits assigned to identification of an equipment type falling under the authority, for example, of a given subscriber or owner. For certain types of subscribers in particular, such as the public or other services, for example, or the services of public nature wishing to subject to control, by means of the system constituting the object of the invention, a large number of movable or mobile equipments belonging to them or under their surveillance, this therefore makes it possible to ensure that each equipment family is placed under control according to a specified criterion.

A more detailed description of a receiver-decoder circuit 4 for the message M, this receiver-decoder circuit 4 being installed in a movable or mobile equipment under consideration, will be given in connection with Fig. 2.

According to the aforesaid Figure, receiver-decoder circuit 4 contains a radio frequency antenna 40 connected to an active receiving element comprising a frequency modulation receiver 41, this frequency modulation receiver being connected, of course, to the aforesaid antenna 40.

A radio frequency decoder is provided in order to make it possible to reconstitute the order message for controlled shutdown of the equipment, this decoder 42 containing, as shown in Fig. 2, a receiver of RDS type, denoted by 420. The RDS receiver delivers, to a first reception quality control circuit 422, a reception quality

control signal, this reception quality control circuit 422 being looped back to frequency modulation receiver 41, so as to ensure optimum reception continuously by tuning control.

Decoder 42 also contains a paging message processing module 421, which receives from the RDS receiver an RDS reception signal. Paging message processing module 421 makes it possible, on the basis of a criterion for evaluation of the reconstituted order message for controlled shutdown, to ensure the command of controlled inhibition means 5 described in the foregoing in connection with Fig. 1.

Preferentially, controlled inhibition means 5 may be connected to paging message processing module 421 via an interface circuit, which is interconnected, as shown in Fig. 2, with paging message processing module 421 via a shutdown logic module 423 and a restart logic module 424. The aforesaid interface in fact constitutes an actuating unit capable of effecting the controlled inhibition command.

Fig. 3b shows the structure of the messages transmitted by a system of RDS type according to the provisions of the European Standard cited above in the description. In particular, it may be noted that the address extension or address complement on three digits advantageously may be realized on the parts denoted 7A corresponding to group codes. Thus a ten-digit message, as shown in Fig. 3a, could be coded on two groups 7A, such as the groups 7A1 and 7A2 shown in Fig. 3b.

It will be noted in addition that the shutdown order or else the restart order, as will be described later in the description, can be transmitted on a paging message of the type known in English as "bip only", or on a digital paging message of ten digits or eighteen digits, or even on an alphanumeric paging message. In the case where the paging message is digital with ten digits, all the digits are used in order in particular to make the message redundant with a view to eliminating transmission errors and personalizing the shutdown or restart order with respect to movable or mobile equipment 3, obviously in order to avoid switching errors. Of course, in this case, such security could be achieved only when the subscribing user or the authorized owner himself communicates a digital message to server 1.

The general operation of the system constituting the object of the invention as described in Figs. 1 to 3a, 3b is as follows:

- In the course of subscription to the surveillance service using the system constituting the object of the present invention, the user of this service for a movable or mobile equipment 3 under consideration has previously purchased or leased a receiver system which is supplied in the form of a box known as a "pager box". This box either may be pre-integrated into the movable or mobile equipment under consideration, for which protection is desired, or added subsequently. The box is accompanied by an address code, according to the usual meaning of paging messaging. In addition, a call code, corresponding to the access code, is communicated to the user by the service administrator. The two codes, the call code and the code corresponding to the intervention order, are communicated to server 1, the role of which is then to ensure technical administration of the service by ensuring the interface between the user and the network of RDS type. Server center 1 then establishes one-to-one correspondence between the two aforesaid codes.

In the case of theft of movable or mobile equipment 3, the owner or the authorized person calls server center 1 and communicates the access code thereto. After verification of the validity of this access code by server 1, as mentioned above in the description, the user is then invited to communicate the shutdown order. This order may be either the simple response to a question of the server or, on the other hand, as already mentioned above in the description, a digital message of several digits. Such a solution then permits very high transaction security, because it is possible, as already mentioned in the above, to personalize this message according to the aforesaid equipment.

The shutdown order is then validated by server center 1 and next transmitted to the box of equipment 3 via message M described above. The latter, via the RDS receiver described in connection with Fig. 2, decodes this message and addresses the corresponding commands to equipment 3 itself, causing immediate or deferred shutdown depending on the application under consideration.

For this purpose, as shown in connection with Fig. 2, shutdown and restart circuits 423 and 424 may play a role analogous to that of two bistable flip-flops in parallel, immediate shutdown possibly corresponding, for example, to an arbitrary state 00 of modules 423 and 424, deferred shutdown possibly corresponding to a logical state

0 of element 423 and to a logical state 1 of element 424, while the restart will correspond, for example, to a logical state equivalent to state 1 of element 423 and to a logical state equivalent to state 1 of element 424. Of course, restart such as described above will be effected only upon order of the authorized owner-holder of the equipment, when the latter has been recovered. This restart may then be achieved in the same way by call from server center 1, communication of the call number and of the restart order, then transmission thereof to equipment 3 via the box.

In general, it will be advisable if the switch to standby status or the switch to deferred shutdown status can each correspond to the logical state equivalent to 0 and 1 respectively of the aforesaid elements 423 and 424. Of course, it will be understood that, in such a case, it will be possible to effect the definitive shutdown by taking into account an operating parameter of equipment 3 under consideration for the purpose, in particular, of avoiding any risk of destruction or of damage caused thereto. By way of non-limitative example, and in the case in which the equipment consists of a motor vehicle, for example, it will be possible to command the switch from deferred shutdown or possibly from the standby status of the system constituting the object of the present invention to definitive shutdown by first breaking the electrical contact intended to assure activation of the starter. In such a case, following breaking of the contact, the system constituting the object of the present invention then makes it possible to inhibit the operation of the vehicle protected in this way when the latter, even if it were to be in standby status or in deferred shutdown status at the user's request, is stopped.

It will be noted in addition that, once the shutdown order is activated, or even an order to switch to standby status, for example, this may be advantageously broadcast cyclically during a time period that is variable depending on the applications, this time period possibly extending to several months.

Finally, in the case in which equipment 3 has been recovered, it may be restarted under the conditions mentioned above by call from server center 1 then communication of the call number and of the restart order and transmission thereof to equipment 3 via the box. In general, it will be noted that radio frequency antenna 40 and the box, in other words the active receiving element, are mechanically integral with equipment 3 and are self-protected.

A particularly advantageous embodiment of the system, constituting the object of the present invention, for controlled shutdown and for location of a movable or mobile equipment, will now be described in connection with Fig. 4.

In this figure, the same references to represent the same elements as in the embodiment described above in connection with Fig. 1.

As may be noted from examination of Fig. 4, the receiver-decoder means additionally contain, connected to radio frequency antenna 40, a radio beacon receiver 60 sensitive to continuous or periodic transmission of a specific radio beacon signal and a conditional radio beacon signal transmitter, this conditional transmitter 61 conditionally transmitting, upon reception of the order message for controlled shutdown of the equipment, a message denoted M' on Fig. 4 making it possible to ensure signaling and location of mobile equipment 3 to a specified radio beacon. In Fig. 1, the aforesaid radio beacon is denoted by 7.0.

Preferably the radio beacons denoted by 7.0 to 7.3 in Fig. 1 may consist of transponders with coded frequency, these transponders being disposed according to a network constituting a grid over the control territory. By way of non-limitative example, the radio beacons may consist of radio beacons available commercially under the name "pointel" or the like.

In general, it will be understood that some of the aforesaid radio beacons, such as radio beacon 7.0 shown in Fig. 1, may consist of beacons said to be semi-active, these radio beacons transmitting a signal encoded at a frequency f1, for example, this signal containing a specified call code intended to be received by radio beacon receiver 60 installed in each movable or mobile equipment, as shown in Fig. 4, in order to induce this to transmit the aforesaid message M' as shown in Fig. 4 via conditional transmitter 61, this message containing at least one encoded part representative of the movable or mobile equipment under consideration. Of course, it will be noted that the semi-active radio beacons, such as radio beacon 7.0 shown in Fig. 4, may be distributed at essential points of the territory, such as, for example, obligatory lanes at the border thereof, border posts, highway toll stations, for example.

In contrast, radio beacons 7.1 to 7.3 are generally radio beacons of traditional type, in other words of transponder type, which make it possible on the basis of

message M' transmitted by mobile equipment 3 to relay this aforesaid message M' or at least to forward a message M'', such as shown in Fig. 4, containing the characteristics of the aforesaid equipemnt as well as location characteristics described later in the description, to server center 1.

In traditional manner, semi-active beacon 7.0 may preferably transmit a call message at a frequency f1 specified on the basis of a specified call code, and message M' retransmitted to beacon 7.0, considered to be semi-active, or to any other traditional beacon, such as 7.1 to 7.3 in Fig. 4, may be retransmitted at a specified frequency f2 to one or the other of these radio beacons. Upon reception of message M' by the beacon under consideration, this, in its function as a transponder, retransmits a message M'' to a beacon situated upstream, the notion of upstream being defined in the direction of server center 1, as shown in Fig. 4. Of course, it will be noted that the radio beacons as shown in Fig. 4 may be spatially distributed in absolutely any manner over the territory subjected to surveillance by means of the system constituting the object of the present invention, the address of each of the aforesaid radio beacons being, for example, representative of the location of a movable or mobile equipment under consideration, the successive transmission of messages M' and M'', as shown in Fig. 4, to ensure uplinking to server center 1, being able, for example, to be affected along a particular route. By way of non-limitative example, it will be considered that, to ensure uplinking of messages M'', the addresses of the beacons or radio beacons ensuring the uplinking of these messages to server center 1 may be ordered according to an equilibrated tree structure (B^+ tree), so as to ensure retransmission, to server center 1, in a minimum number of operations, of the data of message M' and M'' respectively relating to the identification of the movable or mobile equipment 3 and to the location thereof. Furthermore, it will be noted that the density of radio beacons may be variable over the entirety of the territory on which the system constituting the object of the present invention is installed, being able to be on the order of one radio beacon per kilometer according to a specified grid in urban zones, this density being able to be reduced to one radio beacon per ten kilometers in non-urban zones and, particularly in the case in which the movable or mobile equipment consists of a motor vehicle, along the communication routes.

A more detailed description of the layout of radio beacon receiver 60 and of conditional transmitter 61 in connection with receiver-decoder 4 will be given in connection with Figs. 5a and 5b relating to the structure of messages M' and M'', for example.

As has been shown in Fig. 5a, radio beacon receiver 60 and conditional transmitter 61 are connected to radio frequency antenna 40 via a controlled switch 400 capable of occupying two positions I and II. During the initialization phase described above in the description, controlled switch 400 is switched to position I, the box and in particular encoder-decoder 4 then being configured so as to receive the order to switch the entire system to shutdown or standby status.

Upon reception of the aforesaid message relating to the order to switch to shutdown or standby status, the detection of this message for the movable or mobile equipment 3 under consideration by paging message processing element 421, wherein this detection being able to be achieved, for example, in a manner known in itself, by comparison of the elements of the message relating to the identification of equipment 3 with a corresponding code stored in the memory of this same element 421, switching to shutdown or to standby status is effected by modules 423 and 424 described above. Simultaneously, paging processing element 421 issues the command to controlled switch 400 via the connection shown in Fig. 5a, in dot-dash lines by way of simplification. Controlled switch 400 then flips to position II and permits the interconnection of radio beacon receiver 60 and/or of conditional transmitter 61.

In the case in which shutdown is commanded by elements 423 and 424, the connection of conditional transmitter 61 may then be achieved with radio frequency antenna 40, the conditional transmitter then transmitting message M' shown in Figs. 4 and 5b. This message M' may comprise, for example, all of the digits of message M described above in the description, message M' being transmitted, for example, by amplitude coding on a carrier wave at frequency f2, the reception frequency of radio beacons such as radio beacon 7.0 or 71 to 7.3, for example. Upon reception of message M' by radio beacon 7.0, for example, this retransmits, to beacon 7.1 situated upstream, according to the criterion defined above, a message M'', as shown in Fig. 5b, which of course contains the components of message M' relating to the identification of

movable or mobile equipment 3, supplemented by location components denoted by AR, which are specific to beacon 7.0. Message M'' constituted in this way is then transmitted successively to radio beacons 7.1, 7.2, 7.3, then to server center 1 according to the protocol described above. The server center is then in position to locate the aforesaid movable or mobile equipment 3.

Radio beacon receiver 60 and conditional transmitter 61 associated with each movable or mobile equipment 3 will not be described in detail, because they can consist of receivers and transmitters of traditional type.

Finally, it will be noted that, in the case in which the movable or mobile equipment consists of a motor vehicle, the controlled inhibition circuits of this vehicle may advantageously contain an actuating unit connected directly to the electronic ignition or fuel injection circuit of the vehicle. The actuating unit will not be described, because it corresponds to traditional technical characteristics in the corresponding field of technology.

In addition, the system, constituting the object of the present invention, for controlled shutdown of a movable or mobile equipment, may be used and applied to motor vehicles, radio frequency or television receivers, high fidelity appliances, radio telephones, microcomputers or calculators or video cameras.

Claims

1. A system for controlled shutdown of a movable or mobile equipment by a subscribing owner or authorized agent from a central surveillance point and/or remote intervention, characterized in that the said system contains:

– a server center (1) that can be accessed by the said subscriber upon presentation of an access code and transmission of a corresponding intervention order,

– means (2) for selectively transmitting, to the said equipment (3), an order message M to shut down this equipment (3), wherein these transmission means containing an analog radio frequency transmitter provided with a subcarrier,

– receiver-decoder means (4) for the order message to shut down the said equipment, placed in the said equipment,

– controlled inhibition means (5) for the operation of the said equipment (3), commanded by the said receiver-decoder means, to ensure that the said equipment (3) is switched to shutdown, startup or standby status.

2. A system according to claim 1, characterized in that the said access code is a personalized code assigned to the subscriber, the intervention code itself being a personalized code assigned to the said equipment, the two codes being transmitted to the said server center by the subscriber in order to generate, with the subscriber, upon positive response to a control criterion, an order request to shut down the equipment.

3. A system according to one of claims 1 or 2, characterized in that the shutdown order message (M) contains:

– an identification flag containing the said personalized code assigned to the said equipment,

– a command message for controlled shutdown of the said equipment.

4. A system according to claim 3, characterized in that the said radio frequency transmission network comprises at least one radio frequency transmitter transmission point distributed over a control territory, each transmission point containing at least:

– one radio frequency encoder (20) making it possible to ensure the encoding of at least one radio frequency parameter of a radio frequency wave on the basis of the said order message for controlled shutdown of the equipment,

– an FM transmitter (21) making it possible to generate a radio frequency wave modulated by the said order message (M) to shut down the equipment over a territorial cell of the said control territory.

5. A system according to one of claims 3 or 4, characterized in that the said identification flag containing the said personalized code assigned to the said equipment is encoded on nine words or digits, and the said command message for controlled shutdown of the equipment being encoded on seven words or digits

6. A system according to claim 5, characterized in that the identification flag and/or the command message respectively contain at most three reserve digits assigned to identification of an equipment type falling under the authority of a given subscriber.

7. A system according to one of the preceding claims, characterized in that the said receiver-decoder means (4) contain a radio frequency antenna (40) connected to an active receiving element comprising:

– an FM receiver (41), the said radio frequency antenna being connected to the said FM receiver,

– a radio frequency decoder making it possible to reconstitute the order message for controlled shutdown of the equipment, this decoder containing a paging message processing module (421) that makes it possible, on the basis of a criterion for evaluation of the said reconstituted

order message for controlled shutdown, to ensure the command of the said controlled inhibition means.

8. A system according to claim 7, characterized in that the said radio frequency antenna and the said active receiving element, are mechanically integral with the said equipment and are self-protected.

9. A system according to one of the preceding claims, characterized in that the said controlled inhibition means for the operation of the said equipment contain, connected to the said paging message processing module,

– a command logic module (423, 424) capable of establishing a shutdown status, a standby status or a restart status of the said equipment,

– an actuating unit, connected to the said logic module and making it possible to effect the command of the essential organs of the said equipment.

10. A system according to one of claims 7 to 9, characterized in that the said receiver-decoder means additionally contain, connected to the said radio frequency antenna,

– a radio beacon receiver (60) sensitive to a continuous or periodic transmission of a specific radio beacon signal,

– a conditional radio beacon signal transmitter (61), the said conditional transmitter conditionally transmitting, upon reception of the said order message for controlled shutdown of the equipment, a message for signaling and for locating to the said radio beacon.

11. A system according to claim 10, characterized in that the said radio beacons (7.0 to 7.3) consist of transponders with coded frequency, the said transponders being disposed according to a network constituting a grid over the said control territory.

12. A system according to one of claims 9 to 11, characterized in that, if the movable or mobile equipment consists of a motor vehicle, the said controlled inhibition means contain an actuating unit connected directly to the electronic ignition or fuel injection circuit of a vehicle.

13. The use of a system for controlled shutdown of a movable or mobile equipment according to one of the preceding claims for motor vehicles, radio frequency or television receivers, high fidelity appliances, radio telephones, microcomputers, calculators, video cameras.

FIG.1.

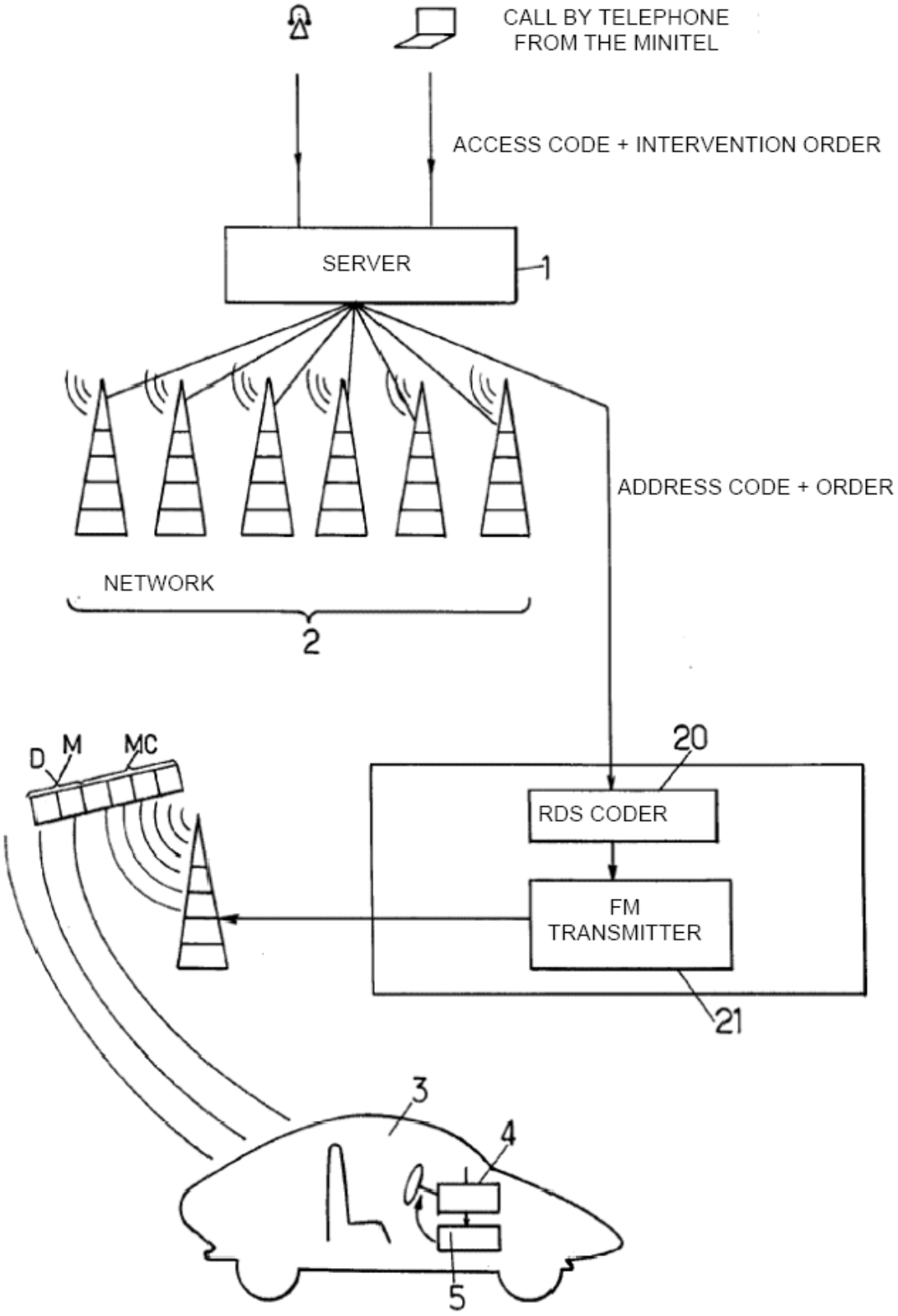
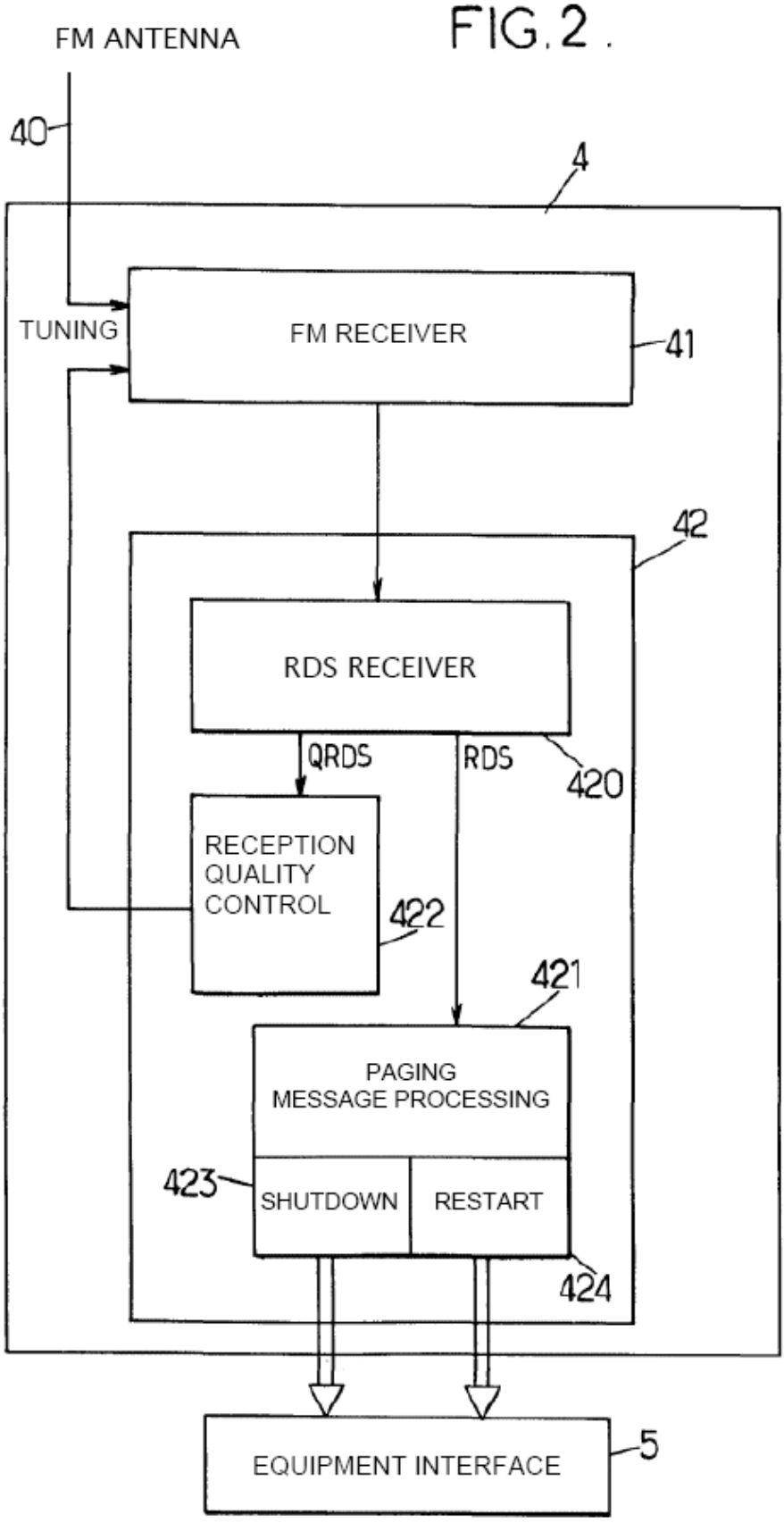


FIG. 2.



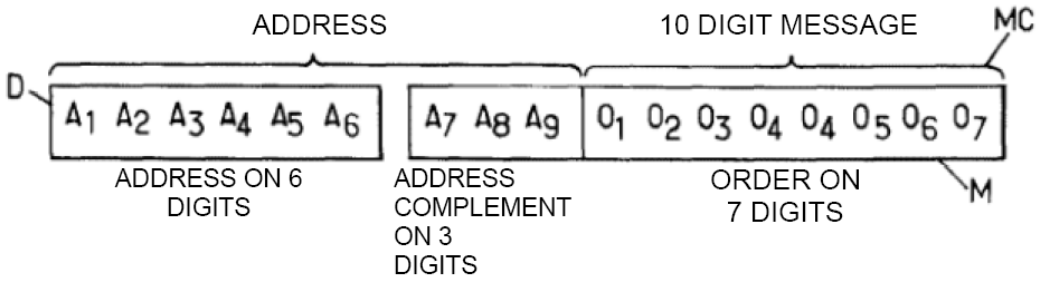
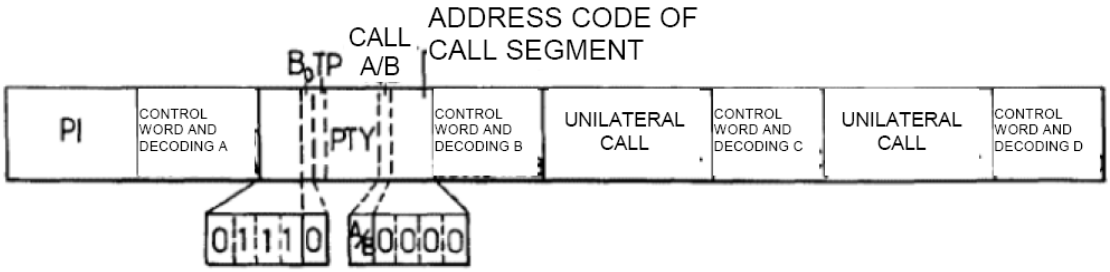
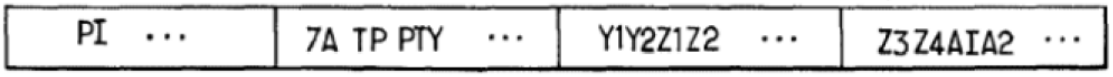


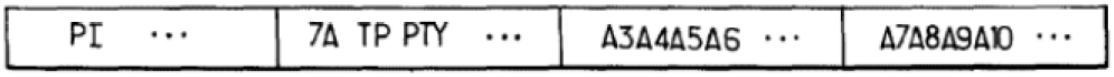
FIG.3a.



GROUP 7A1:



GROUP 7A2:



GROUP 7A3 (ONLY WITH AN 18 DIGIT MESSAGE)

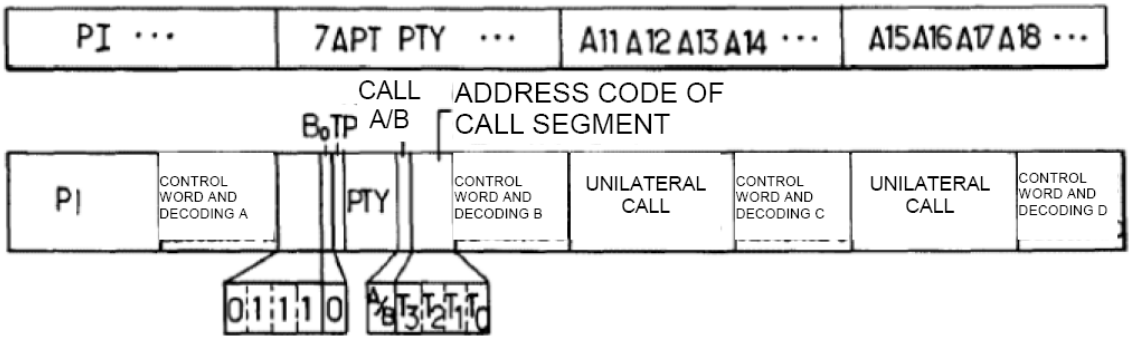


FIG.3b.

FIG.4.

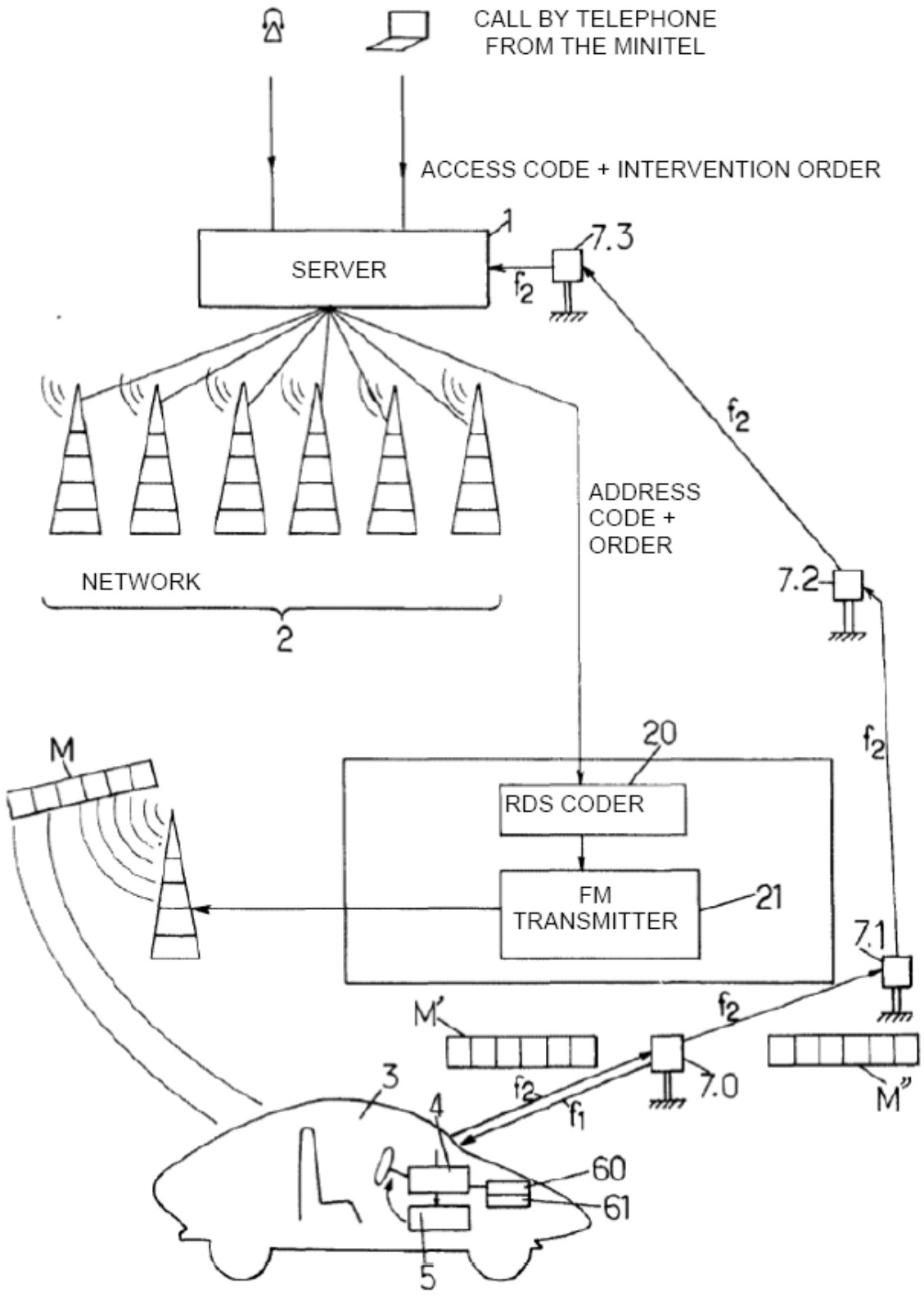
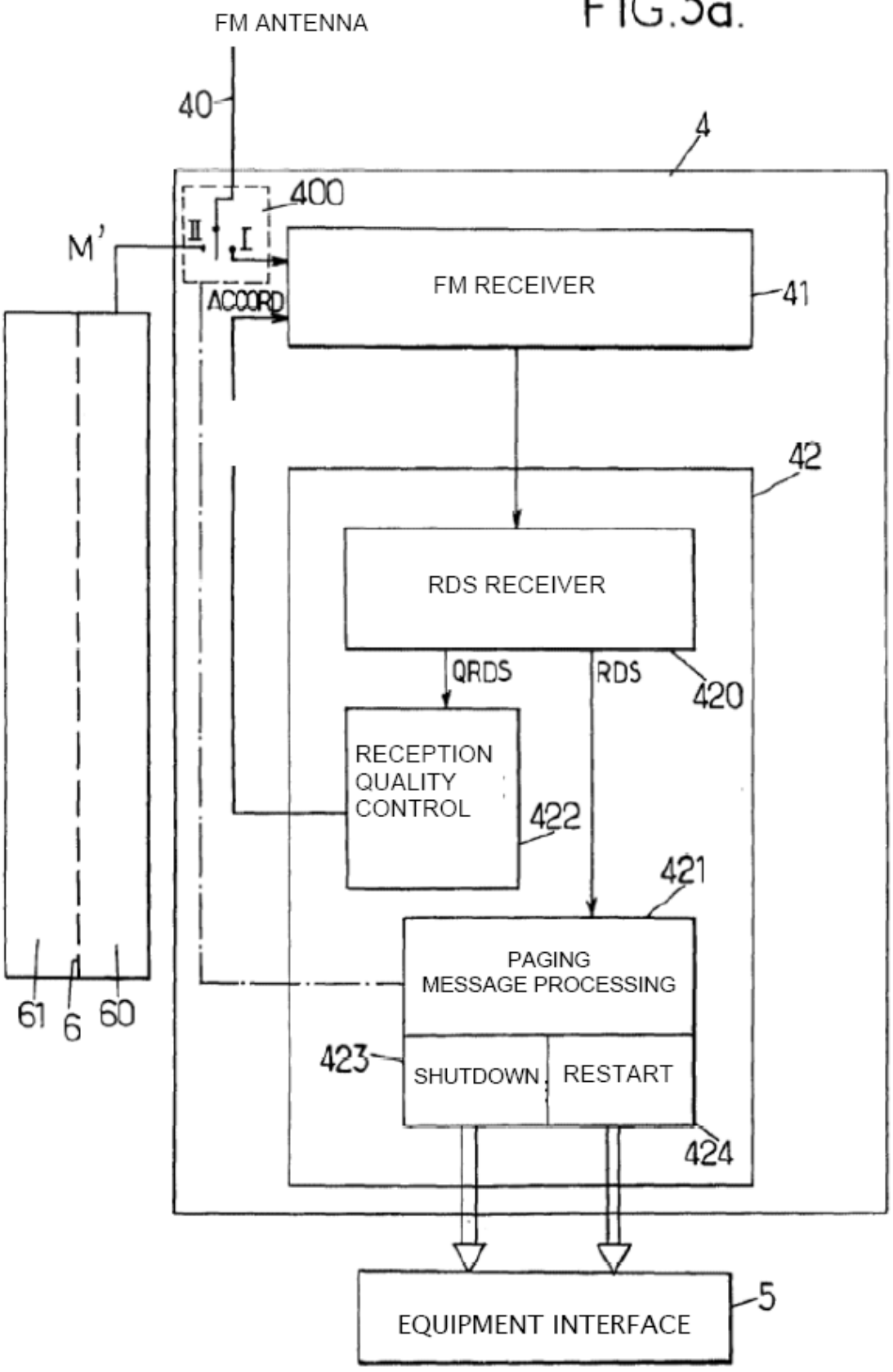


FIG.5a.



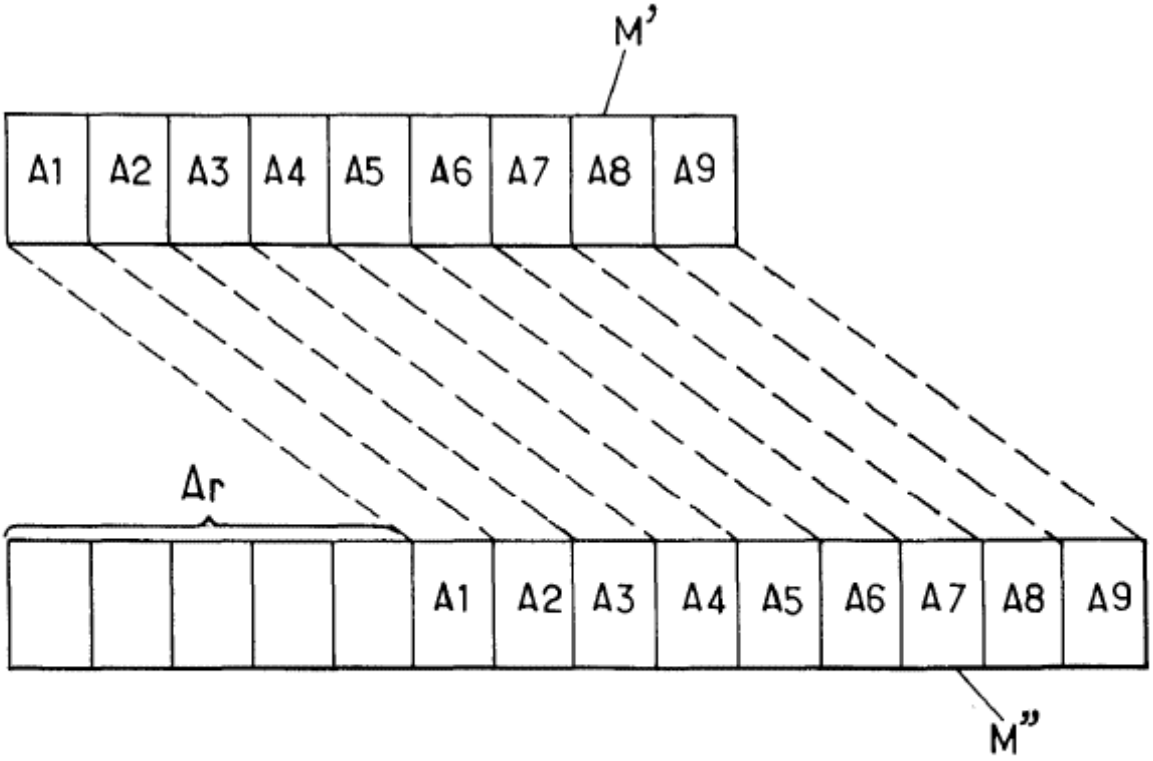


FIG.5b.

Newtype COMMUNICATIONS

www.newtypecommunications.com

445 Fifth Avenue
New York, New York 10016
Phone 212-686-5555
Fax 212-686-5414

STATE OF NEW YORK)
CITY OF NEW YORK :
COUNTY OF NEW YORK)

CERTIFICATION

This is to certify that the following is, to the best of our knowledge and belief, a true and accurate translation into ENGLISH of the attached document(s) relating to:

European Patent Application 0 505 266 A1

written in FRENCH.

NEWTYPE COMMUNICATIONS, INC.

Sworn to and subscribed before me
this 7th day of March, 2014

NOTARY PUBLIC

BRIAN G. BROWN
Notary Public, State of New York
No. 01BR6151227
Qualified in Suffolk County
Commission Expires August 14, 2014