Nov. 14, 1961 E. S. RUTH 3,009,023

TELEPHONE-EQUIPPED ALARM BOX

Filed May 8, 1959

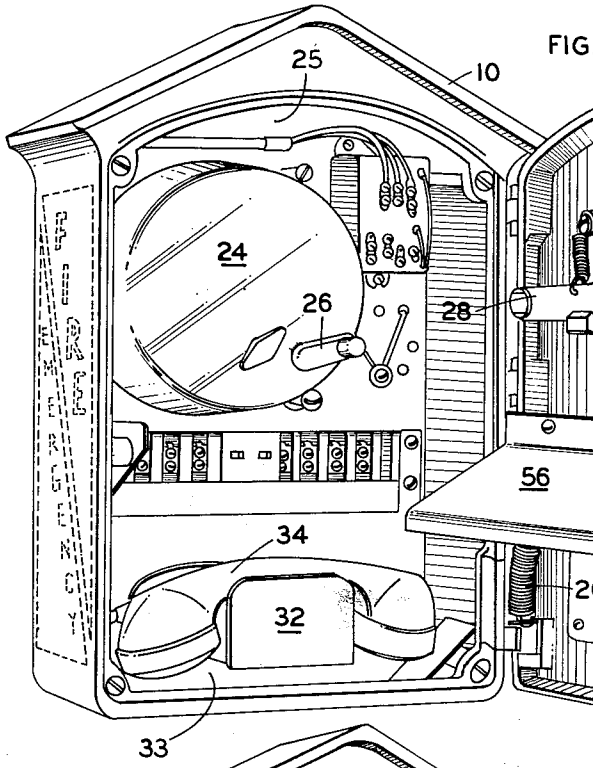


FIG. 2

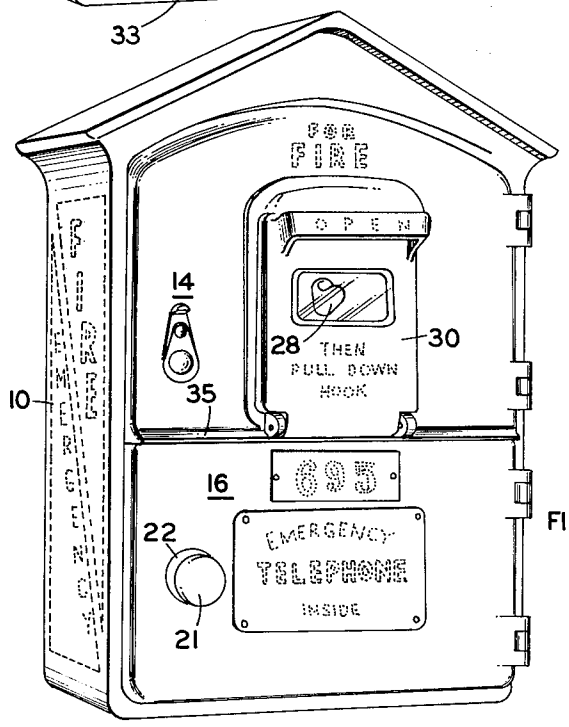


FIG. 1

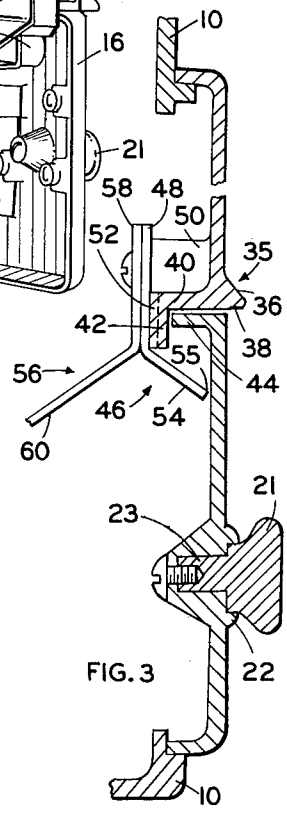


FIG. 3

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TELEPHONE-EQUIPPED ALARM BOX

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This invention relates generally to combination telephone communication and fire alarm boxes, and more particularly to a novel and improved casing assembly for such boxes.

In municipalities, fire alarm boxes are located at various strategic points so that anyone observing a fire may promptly report the location thereof to the fire department by operating an automatic alarm signal transmitter. The strategic location of fire alarm boxes could be utilized as well for the location of civil defense, police, or emergency telephones in order to provide protection against emergencies other than fire. Furthermore, if such telephones were actually housed within the fire alarm boxes, the resulting economy in terms of cost and maintenance can be easily visualized.

As a general rule, the casing for a conventional fire alarm box is provided with a door on the front thereof for access to, and adjustment or maintenance of, the signal transmitter. For reasons of security, this door is locked to seal the portion of the casing containing the signal transmitter, and a separate pull handle is provided on the door for gaining access to a hook, lever or handle which can be pulled down or otherwise operated to initiate action of the transmitter. In order to provide for storage of a police or emergency telephone in the same casing with such a transmitter, it would be necessary to provide some means for independent access to the telephone. Inasmuch as fire alarm boxes are most often exposed to the weather, it is also necessary that the casing and means providing access to the signal transmitter and the telephone be constructed to prevent damage thereto by water or other foreign matter blown into the box by heavy winds or carried into the box by capillary action through notches, cracks, joints, or the like.

Accordingly, it is an object of this invention to provide a novel and improved fire alarm box having means for accommodating a telephone and having means for providing independent access to the telephone while at the same time providing protection of the signal transmitter and phone within the box from weather damage caused by water or other foreign matter entering the box.

It is another object to provide a fire alarm box casing of simple construction having means for locking the compartment for the signal transmitter to prevent access from the space occupied by the telephone.

A further object is to provide means to insure that the telephone is properly cradled in its compartment when not in use.

The manner in which the foregoing and other objects are achieved in a preferred embodiment of this invention will be apparent from a consideration of the following description thereof taken in connection with the accompanying drawings illustrating the same, in which:

FIG. 1 is a front view in perspective of a fire alarm box embodying this invention;

FIG. 2 is an enlarged perspective view of the box of FIG. 1, with the front cover portion opened; and

FIG. 3 is an enlarged partial elevation in section of a portion of the casing of the box of FIG. 1.

With reference to the drawings, there is shown a fire alarm box having a casing or housing **10** provided with a pivoted door **12** closing the front of the casing. The door **12** comprises an upper section or door **14** provided along one side edge with integral hinge knuckles co-

operating with mating knuckles integral with one side wall of the casing, and with a hinge pin inserted through the door and side wall knuckles to pivotally mount the door **14** for horizontal swinging movement. The door **14** further comprises a lower section or door **16** pivotally mounted on the same side wall of the casing as the upper door **14** by means of knuckles on the door and casing side wall cooperating with the pin mounting the upper door. As shown in FIGS. 1 and 2, the upper door **14** is provided with a lock **17** for securing the door closed, while the lower door **16** is not provided with any locking means but rather is provided with a magnetic catch comprising a magnet **18** carried by the lower door **16**, as shown in FIG. 2, and a magnet strike **19** carried by the top door **14**. Obviously, the location of elements of the magnetic catch could be reversed and, further, the fixed one of these elements, if desired, could be located on a fixed wall of the casing. A spring **20** urges the lower door **14** toward closed position, and a handle **21** is provided on the lower door to facilitate opening thereof. As can be seen in FIG. 3, the handle fits closely within a boss **22** provided on the lower door, and the handle is further provided with a shaft **23** extending into the lower door and eccentrically of the boss. Further, as shown in FIG. 2, a screw or other suitable means anchors the handle shaft to the lower door. By this manner of mounting, the handle may not be removed simply by rotating the same, because rotation of the handle is precluded by the eccentric relationship of the shaft and handle. Therefore, to remove the handle, certain tools will be necessary, thus reducing the possibility of theft of the handle. While no locking means are shown in the embodiment of FIG. 2, it will be obvious that a lock similar to the lock **17** may be provided for the lower door when it is desired that the door be opened only by certain authorized personnel, as for example police or civil defense personnel.

As shown in FIG. 2, signal transmitting means **24** are disposed within the casing in a compartment **25** generally in registry with the upper door **14**. The signal transmitter **24** is of a suitable type for sending signals to a central location in response to actuation of a starting mechanism in the transmitter. These signals are, of course, coded to provide an indication of the specific location of the box from which the signals originate. As is conventional, the signal transmitter is provided with a lever **26** for actuating the starting mechanism of the transmitter, which lever is engageable by a pull **28** mounted on the upper door **14**. The pull extends through an opening in the door **14**; and when the door **14** is in closed position and the pull **28** is depressed, the pull will engage the lever **26** to actuate the starting mechanism. The usual pull guard or cover **30** is pivotally mounted on the door **14** and shields the pull from the weather and unintentional or inadvertent depression.

As shown in FIG. 2, a cradle **32** is mounted in the casing in a compartment **33** adjacent the bottom wall thereof and is adapted to support a telephone **34**. The telephone is located generally in registry with the bottom door **16**, although, as will be apparent from FIG. 2, the upper edge of the door **16** is disposed sufficiently above the hand grip of the phone so that when the door is opened there will be ample room for a person to insert his hand and grasp the phone. Correspondingly, the juncture between the bottom of the top door **14** and the top of the bottom door **16** lies in the region of the signal transmitter compartment **25** of the box.

The spring **20** maintains the lower door **16** firmly closed to prevent entrance of rain or the like along the sides and bottom of the door **16**. Also, means are provided for preventing entrance of water and the like between the bottom and top edges of the doors **14** and **16**. In accord-

ance with the invention, and as will be apparent from FIGS. 2 and 3, the upper door 14 is provided along its lower edge with a generally triangular molding portion 35 having a front face 36 inclined downwardly and away from the door 14 and an undercut bottom surface 38 which is generally an extension of the bottom surface of the door 14 and which joins the inclined surface 36 in a sharp edge. Accordingly, heavy or beating rains engaging the front face of the door 14 will tend to shoot off the sloping front edge 36 of the bottom molding on the door. The sharp edge between the surfaces 36 and 38 of the molding tends to cause water which does not shoot off the molding to form in droplets and fall from the sharp edge of the molding. The door 14 is further provided with a horizontally extending ledge or wall 40 along the bottom thereof and extending rearwardly and inwardly of the casing to form generally a continuation of the bottom of the molding 35. The ledge 40 terminates in a depending lip or flange 42 extending along the rear edge of the wall 40. As will be apparent from FIG. 3, the bottom surface of the ledge 40 and outer surface of the lip 42 cooperate to form a recess or pocket in which is received a rearwardly extending lip 44 extending along and from the top edge of the lower door 16. It is preferred that the top surface of the lip 44 and the bottom surface of the ledge 40 be spaced closely together so that any water entering the space between the ledge 40 and lip 44 tends to be held within this space by capillary action rather than flowing through the space and into the casing. The lip 42 extends downwardly beyond the lower edge of the lip 44 and passes closely adjacent the rearward edge of the lip 44 so as to tend to reduce the effect of any winds blowing into the space between the ledge 40 and lip 44.

As best shown in FIG. 3, a sheet metal drip guard 46 is carried by the upper door 14 and includes a flat base 48 mounted on a boss or web 50 integral with the upper door and disposed above the ledge 40. The base of the drip guard extends fully across the ledge 40 and in overlying engagement with the rear surface of the lip 42. Drainage grooves 52 are provided in the rear surface of the lip 42 to permit passage of water from the upper surface of the ledge 40 and between the drip guard base 48 and the lip 42. The base of the drip guard terminates at its lower end in an inclined portion 54 sloping downwardly and forwardly toward the door 16 and terminating at its lower end closely adjacent the rear surface of the lower door. As apparent from FIG. 3, the sloping portion of the drip guard passes under the bottom edge of the lip 42 and the rear surface of lip 44. Further, it is preferred that the forwardmost edge of the sloping portion disposed next adjacent the lower door 16 be provided with a sharp edge 55 for a reason which will be apparent hereinafter.

A sheet metal hand guard 56 is also carried by the top door 14 and includes a flat base 58 overlying the base 48 of the drip guard and mounted to the boss 50 by the same means as is the drip guard base 48. The base 58 of the hand guard extends fully across the ledge 40 and at its lower end terminates at an inclined guard portion 60 sloping downwardly and rearwardly of the lower door or inwardly of the casing to form a common wall between the top and bottom of the compartments 33 and 25 respectively and thus to shield the signal transmitter 24 from contact by the hand of a phone user when the lower door 16 is open and upper door 14 is in its normally locked position.

As noted above, the configuration and relative location of the ledge 40, depending lip 42, and lip 44 on the top of the lower door are such as to impede entrance of water between the doors. However, should water pass through the space between these doors, it will pass between the rear edge of the lip 44 and front surface of the flange 42 and fall onto the top surface of the inclined portion 54 of the drip guard. The water will then flow down the drip guard and off the sharp edged lower end thereof and preferably onto the rear surface of the bottom door, whereby it will flow down the bottom door and out of the casing through suitable draining provisions. Any water gaining entrance to the casing along the upper edge of the upper door will fall onto the top surface of the ledge 40. The projection of the base 48 of the drip guard well above the ledge 40 will trap the water on the ledge, whereby the water will flow only through the drainage grooves 52 on the lip 42 and onto the top surface of the inclined portion 54 of the drip guard. It will thus be seen that any water obtaining entrance to the casing either along the top edge of the upper door or between the doors will be carried away by the drip guard 46 rather than splashing onto the signal transmitter or telephone. Further, as should be apparent from FIGS. 2 and 3, the drip guard prevents any water from splashing onto the hand guard 56 and flowing down the hand guard and damaging the telephone. It should further be noted that with the upper door locked in position and the lower door open, if rain should be blown into the box, the generally outwardly facing surfaces of the hand guard provides a barrier between the signal transmitter and telephone to prevent rain damage to the signal transmitter as well as to prevent contact with the transmitter. Additionally, as will be apparent from FIG. 2, the sloping portion of the hand guard extends over the cradle 32 and is spaced therefrom a distance sufficient for the telephone handset to be removed from and replaced on the cradle in the position shown in FIG. 2. However, the sloping portion of the hand guard is spaced sufficiently close to the cradle to assure that if the telephone is placed in the lower compartment 33 in any position other than properly in the cradle, the telephone will project at least partially out of the front opening of the compartment 33 and preclude closing of the door 16. In this manner, if the telephone is not replaced properly, the user will be made aware of this fact when he finds he cannot close the door, and he will then correct the situation.

Therefore, it can be seen that there has been provided a novel and improved combination fire alarm and emergency telephone box fully satisfying the aforestated objects of this invention. While the invention has been described in terms of a preferred embodiment, it will, of course, be apparent to those skilled in the art that various modifications and alterations could be made in the specific structure shown without departing from the invention. Accordingly, the foregoing description and accompanying drawings are not to be taken in any way as limiting the invention. Rather, the invention is to be limited only by the appended claims, which shall include within their scope all structure which logically falls within the language of these claims.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In a combination fire alarm and emergency telephone box including a casing having an open front and a pair of pivotally mounted doors closing the front of the casing and being disposed one above the other with the bottom edge of the upper door lying closely adjacent the top edge of the lower door, fire alarm signal transmitting means disposed within the casing generally in registry with one door, and means within the casing for supporting a telephone generally in registry with the other door; means for preventing wind driven water damage to equipment within the casing including a pair of closely spaced generally horizontally extending walls on the upper and lower doors respectively and extending along the next adjacent edges of the doors and rearwardly thereof into the casing, one of said walls terminating at its rearward edge in a lip extending generally parallel to said doors and closely adjacent and across the rearward edge of the other wall, and a drip guard carried by the door respectively associated with said one wall and including an inclined portion extending along said

lip and sloping in a direction forwardly toward said lower door, said inclined portion passing under said rearward edge of said other wall and having a forwardmost edge lying closely adjacent the rear surface of said lower door.

2. In a combination fire alarm and emergency telephone box including a casing having an open front and a pair of pivotally mounted doors closing the front of the casing and being disposed one above the other with the bottom edge of the upper door lying closely adjacent the top edge of the lower door, fire alarm signal transmitting means disposed within the casing generally in registry with one door, and means within the casing for supporting a telephone generally in registry with the other door; means for preventing wind driven water damage to equipment within the casing including a pair of closely spaced generally horizontally extending walls on the upper and lower doors respectively and extending along the next adjacent edges of the doors and rearwardly thereof into the casing, one of said walls terminating at its rearward edge in a lip extending generally parallel to said doors and closely adjacent and across the rearward edge of the other wall and including an inclined portion extending along said lip and sloping in a direction forwardly toward the lower door, said inclined portion extending under said rearward edge of said other wall and having a forwardmost edge lying closely adjacent the rear surface of said lower door, and a hand guard carried by the door carrying the inclined portion for preventing access to said signal transmitting means when access to the interior of the casing is obtained by opening only the lower door, said hand guard including a portion extending generally along said one wall and sloping rearwardly thereof into the casing to form a barrier between the signal transmitting means and the telephone supporting means.

3. In a combination fire alarm and emergency telephone box including a casing having an open front and a pair of pivotally mounted doors closing the front of the casing and being disposed one above the other with the bottom edge of the upper door lying closely adjacent the top edge of the lower door, fire alarm signal transmitting means disposed within the casing generally in registry with one door, and means within the casing for supporting a telephone generally in registry with the other door; means for preventing wind driven water damage to equipment within the casing including a lip along the bottom edge of the upper door having a sloping top surface extending downwardly and outwardly from the front surface of said upper door and terminating in a sharp edge formed by the juncture of said top surface with a generally horizontal surface on the bottom of said upper door, a pair of parallel closely adjacent generally horizontally extending walls on said upper and lower doors respectively and extending along the next adjacent edges of the doors and rearwardly thereof into the casing, one of said walls terminating at its rearward edge in a flange extending parallel to said doors and closely adjacent the rearward edge of the other wall, and a drip guard carried by the door respectively associated with said one of said walls and including an inclined portion extending along said flange, said inclined portion sloping in a direction forwardly toward the lower and across said rearward edge of said other wall and having a forwardmost edge lying closely adjacent the rear surface of said lower door.

4. In a combination fire alarm and emergency telephone box including a casing having an open front and a pair of pivotally mounted doors closing the front of the casing and being disposed one above the other with the bottom edge of the upper door lying closely adjacent the upper edge of the lower door, fire alarm signal transmitting means disposed within the casing generally in registry with one door, and means within the casing for supporting a telephone generally in registry with the other door, and means for preventing wind driven water damage to equipment within the casing including a pair of parallel closely adjacent generally horizontally extending walls on said upper and lower doors respectively and extending along the next adjacent edges of the doors and rearwardly thereof into the casing, one of said walls terminating at its rearward edge in a flange extending parallel to said doors and closely adjacent the rearward edge of the other wall, and a drip guard carried by the door respectively associated with said one of said walls and including a base portion lying along the rearwardly facing surface of said flange and an inclined portion extending along said flange and sloping in a direction forwardly toward the lower door, said inclined portion passing under said rearward edge of said other wall and having a forwardmost edge lying closely adjacent the rear surface of said lower door, and means for providing water drainage from the upper surface of said one of said walls onto the top of said inclined portion of the drip guard.

5. In a combination fire alarm and emergency telephone box including a casing having an open front and a pair of pivotally mounted doors closing the front of the casing and being disposed one above the other with the bottom edge of the upper door lying closely adjacent the upper edge of the lower door, fire alarm signal transmitting means disposed within the casing generally in registry with said upper door, and telephone supporting means within the casing for supporting a telephone generally in registry with said lower door; the upper door having a ledge extending across its bottom edge and rearwardly of the upper door and into the casing, the lower door having a lip at its top edge extending across said top edge and extending closely adjacent said ledge in underlying parallel relation thereto, the ledge terminating at its rearward edge in a depending flange extending across the upper door and downwardly beyond and rearwardly of the rear edge of said lip, a drip guard carried by the upper door and including a base portion overlying the rearwardly facing surface of said depending flange and extending upwardly beyond the upper surface of said ledge, said drip guard further including an inclined portion extending along said flange and sloping from said base portion in a direction forwardly toward the lower door, said inclined portion extending under and beyond said rearward edge of said lip with the forwardmost edge of said inclined portion lying closely adjacent the rear surface of said lower door, said depending flange being provided with drainage slots in said rearwardly facing surface thereof extending laterally and downwardly of the flange to provide for passage of water between said rearward surface of the lip and said base portion of the drip guard, and a hand guard carried by said upper door and including a base portion overlying said base portion of the drip guard and an inclined guard portion extending across said upper door and sloping downward and inwardly of the casing to form a barrier between said telephone supporting means and signal transmitting means.

6. In a combination telephone communication and fire alarm box; a casing having an open side and defining contiguous signal transmitter and telephone compartments, a pair of doors pivotally mounted on the casing to close said open side, said doors being generally respectively opposite said compartments, a guard member mounted on the door opposite the transmitter compartment and extending inwardly of the casing when the transmitter compartment door is closed to separate said compartments and prevent access to said transmitter compartment from the telephone compartment, and independent latch means for said doors.

7. In a combination telephone communication and fire alarm box according to claim 6 and wherein the transmitter compartment is disposed over the telephone compartment and a telephone cradle and a telephone handset are located within the telephone compartment; the cradle supporting the handset in a predetermined position rela-

tive to the telephone compartment door wherein the handset does not interfere with the opening and closing of the telephone compartment door, the guard member extending over the handset and cradle in spaced relation thereto and arranged relative to said cradle and the general plane of the door opening of the telephone compartment to engage the handset and cause the handset to be in interfering relation with the telephone compartment door when the handset is placed in the telephone compartment

in other than said predetermined position and thus prevent the door to said telephone compartment from being closed unless the telephone is properly placed on said cradle.

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