

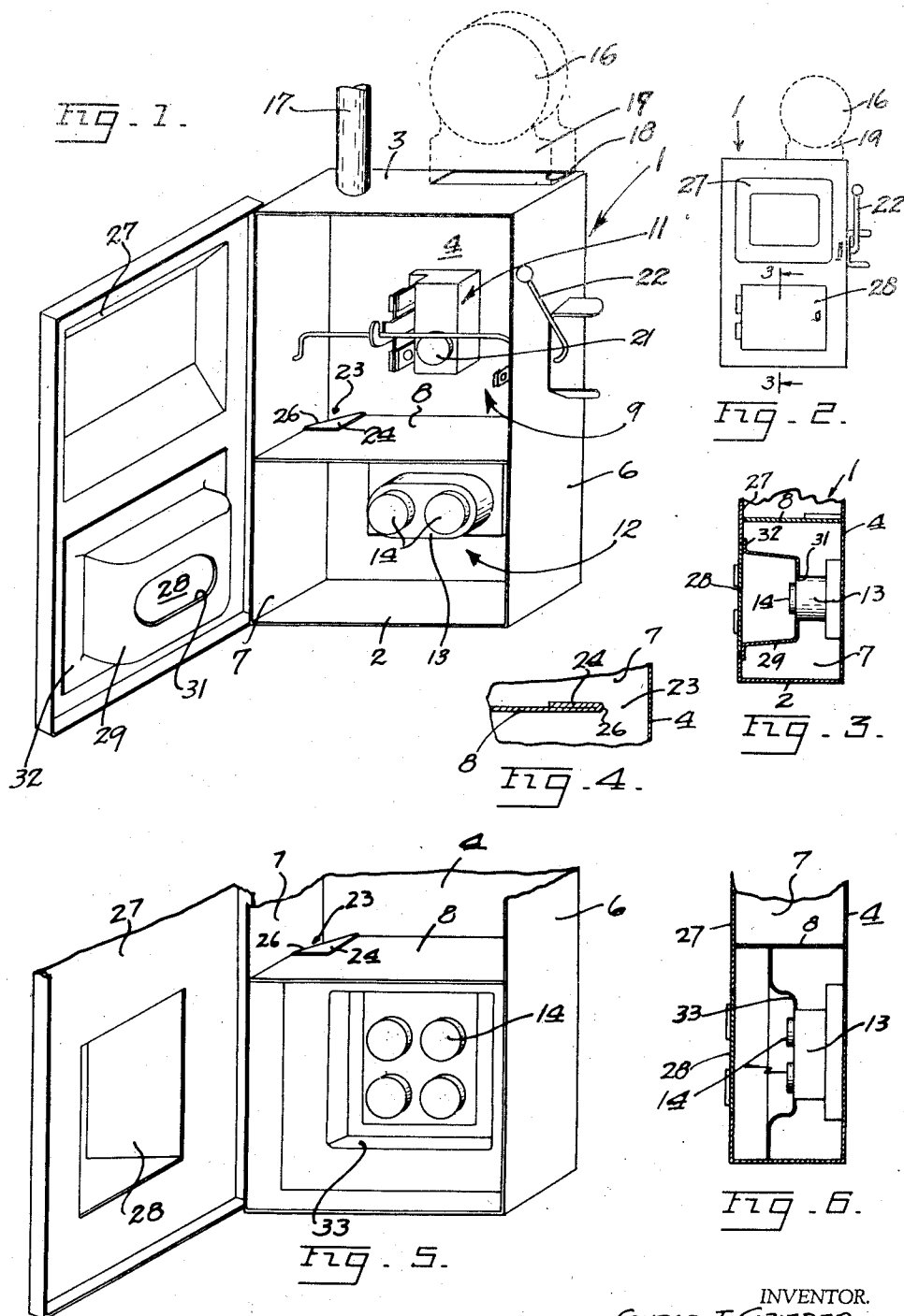
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ELECTRICAL SERVICE BOX

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ELECTRICAL SERVICE BOX

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This invention relates to electrical service boxes.

An object of this invention is to provide a combination box wherein all conductors leading from the meter chamber to the fuses and to local circuits fuses are completely concealed and confined in the same box without any exterior connections or conduits.

Another object of this invention is to provide a box for electric service equipment which is separated into compartments, one for the service switch and another for circuit fuses, and in which access may be gained to the circuit fuses without exposing the switch or any terminals or conductors.

Another object of this invention is to provide a fuse box with separate compartments for the service switch and for the local circuit fuses and a double door so arranged as to selectively uncover both compartments or only the fuses.

Another object of this invention is to provide an electrical service box which is highly useful and simple in construction. Convenience of arrangement, lightness and comparative inexpensive of manufacture are further objects which have been borne in mind in the production and development of the invention.

I am aware that some changes may be made in the general arrangements and combinations of the several devices and parts, as well as in the details of the construction thereof without departing from the scope of the present invention as set forth in the following specification, and as defined in the following claims; hence I do not limit my invention to the exact arrangements and combinations of the said device and parts as described in the said specification, nor do I confine myself to the exact details of the construction of the said parts as illustrated in the accompanying drawing.

With the foregoing and other objects in view, which will be made manifest in the following detailed description, reference is had to the accompanying drawing for the illustrative embodiment of the invention, wherein:

Fig. 1 is a perspective view of an embodiment of my invention with the box door open.

Fig. 2 is a front view of a box constructed in accordance with my invention.

Fig. 3 is a fragmental, sectional view of the box, the section being taken on the line 3—3 of Fig. 2.

Fig. 4 is a fragmental, sectional view showing the forming of the conductor passage through a corner of the partition of my box.

Fig. 5 is a fragmental, perspective view of a modified embodiment of my invention, and

Fig. 6 is a fragmental, sectional view of the modified form of my box with the doors closed.

In carrying out my invention I make use of a casing formed into a box which has a bottom wall 2, a top wall 3, a back wall 4, and side walls 6 and 7. The box 1 is divided into two compartments by a horizontal partition 8. In the upper or service switch compartments 9 is disposed a service switch of the usual type denoted in its entirety by the numeral 11. In the lower compartment 12 is located a fuse block 13 with the usual replaceable fuses, such as the plug fuses 14. On the top wall of the box 1 is located a meter 16 of the usual type as indicated in broken lines in Figures 1 and 2. Alongside the meter 16 is the usual conduit 17 for electrical conductors or lead-in or service wires.

It is to be noted that the meter 16 is directly seated on an aperture 18 in the top wall 3 of the box 1 so that the wires are entirely confined and concealed within the box 1 between the meter terminal chamber 19 and the switch 11. This switch 11 also usually includes service fuses, such as the fuse 21 shown in this illustrative embodiment. The switch 11 can be manipulated from the outside of the box 1 in the usual manner by a handle 22.

Communication between the compartments 9 and 12 is accomplished through a passage 23 formed at a corner of the box 1 by folding back a corner 24 of the partition 8, as shown in Figures 1 and 4. A rounded edge 26 is thus produced preventing chafing of the conductor wires leading from the switch compartment 9 to the fuse compartment 12, and thereby the use of bushings or other inserts is eliminated.

A closure in the form of a door 27 is suitably hinged on the longitudinal free edge of the side wall 7 so as to cover the open front of both compartments 9 and 12. This door 27 has on it a smaller auxiliary door 28 which can be opened outwardly while the main door 27 remains closed. In the preferred embodiment access through the auxiliary door 28 is limited by a shield bowl 29 formed integrally on the inside of the door 27 around the opening of the auxiliary door 28. The shield bowl 29 fits over the fuse block 13 so as to cover the edges of the same. A central opening 31 on the bottom of this shield bowl 29 fits over the top of the fuse block 13 so as to expose only the fuses 14 but to keep the block terminals and wires inaccessible through the aperture 31. It is to be noted that the flanges

32 of the shield bowl 29 are integrally united with the underside of the main door 27 so that the auxiliary door 28 is recessed into the plane of the main door 27 and bears against the bowl flanges 32 when in closed position.

In the modified embodiment of my invention a shield bowl 33 is secured into the lower compartment 12 of the box 1 so as to cover the entire space around and outside the top edges of the fuse block 13 and leave only the fuses 14 accessible through the auxiliary door 28.

By the features of my invention heretofore described a box is produced which has many important advantages over other service boxes. One of the advantages is that the conductors entering through the service conduit 17 are never again exposed, but thereafter all conductors between the switch, the meter, and the fuses are constantly and entirely confined and concealed within the same box. Another advantage is that the local circuit fuses 14 which are replaced more frequently than the service fuses 21 are in an entirely separate compartment, yet the use of bushings for wires and the like is obviated without any danger of chafing the wires. This is accomplished in a facile manner by folding back one of the rear corners of the partition. A further advantage of my invention is the shielding of all so called live connections and terminals while the local circuit fuses 14 are exposed for replacement. This is achieved by the use of the auxiliary door 28 in cooperation with the shield bowl 29 or 33. Thus the main door 27 can be suitably sealed and any danger of shock, or of tampering with the meter connections can be prevented, yet the local circuit fuses may be maintained in the same box and separately exposed to limited access by the use of the auxiliary door 28. These and other advantages are accomplished by the facile device herein described, one which combines comparatively light weight with ruggedness of construction and positiveness of operation especially adapting it for its use. Being a unitary character the device accomplishes savings in the manufacture and in the installation of service and fuse boxes and it lends itself to more efficient and safe operation.

Having thus described my invention what I claim and desire to secure by Letters Patent is:

1. In an electrical service box of the character described, in combination, a box, a partition wall dividing the box transversely into two compartments, a switch in one compartment, fuses in the other compartment, the top end wall of the box at said switch compartment having an aperture for a direct meter support and connection and having a second aperture for a lead-in conduit for the feed lines, and said partition having an aperture for wires leading to said fuses, a door to cover said compartments of the box, and an auxiliary door on the main door for access to said fuses.

2. In an electrical service box of the character described, a box, the top of the box having an

aperture therethrough for supporting a meter thereon and directly receiving the connections from said meter, a transverse partition dividing said box into a switch compartment immediately below said top aperture and into a fuse compartment below said switch compartment, said partition having an aperture therethrough for connecting lines between said compartment inside said box, a door covering both compartments on one side of the box, and means on the door to provide separate access through the door to the fuses in said fuse compartment.

3. As an article of manufacture, an electrical service box, comprising side walls forming an open front, a bottom, the top side wall having an aperture for direct support of a meter, a fuse block mounted in the lower portion of the box, a circuit switch mounted in the box between the fuse block and the meter aperture, a door to cover the open front of the box, means under said door to cover the fuse block so as to afford access to the fuses in said fuse block, said door having an aperture opposite said fuse block, and an auxiliary door on the first door and on said aperture of the first door for affording access separately to the fuses without uncovering said circuit switch.

4. As an article of manufacture, an electrical service box, comprising a bottom, side walls extended from the bottom to inclose a space with an open front, the top side wall having an aperture for direct support of a meter, a fuse block mounted on the bottom of the box near the lower portion of the box, a circuit switch mounted on the bottom of the box between the fuse block and said top wall, a door to cover the entire front opening of the box, said door having an aperture opposite said fuse block, an auxiliary door on said aperture of the first door to afford separate access to the fuses without exposing the switch.

5. As an article of manufacture, an electrical service box, comprising a bottom, side walls extended from the bottom and defining a space with an open front, the top side wall having an aperture for direct support of a meter, a circuit switch mounted in the space of the box adjacent said top wall, a fuse block mounted in the space of the box between said switch and the lower side wall of the box, a partition extended transversely in said space between the switch and the fuse block, said top wall having another opening for the feed lines alongside said meter aperture, and said partition having a passage for the connection from the switch and meter to the fuse block, a door to cover the entire front of the box, an opening in the door opposite the fuse block, an auxiliary door on said door opening to afford separate access to the fuses in said fuse block without opening said first door, and means under the opening of the door to shield said fuse block so as to leave the fuses exposed at said opening.

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