A. CASPER.

METER BOX.

APPLICATION FILED APR. 17, 1917.

1,276,031.

Patented Aug. 20, 1918.

2 SHEETS—SHEET 1.

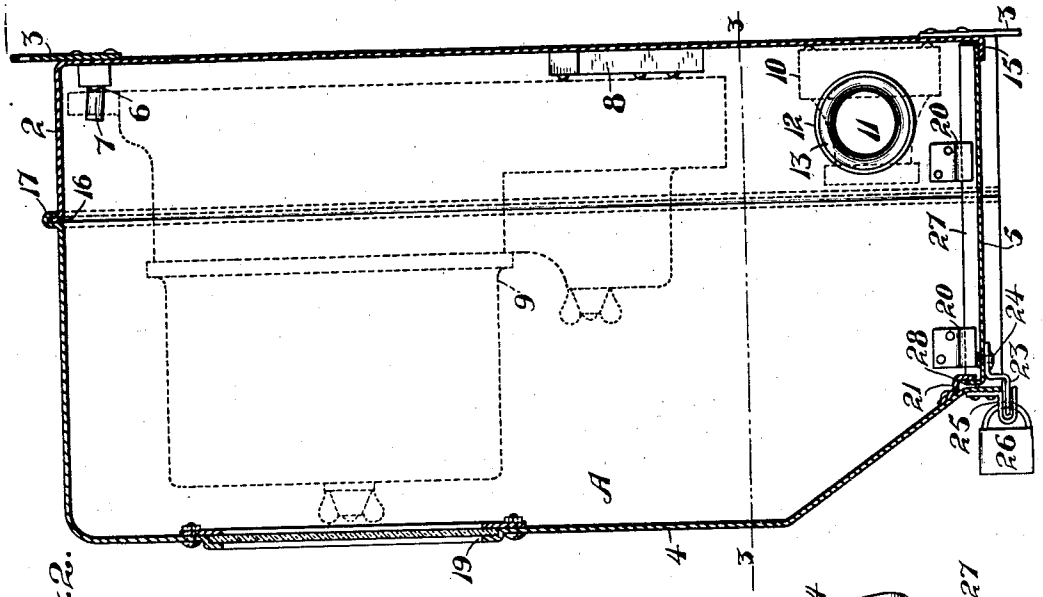


Fig. 2.

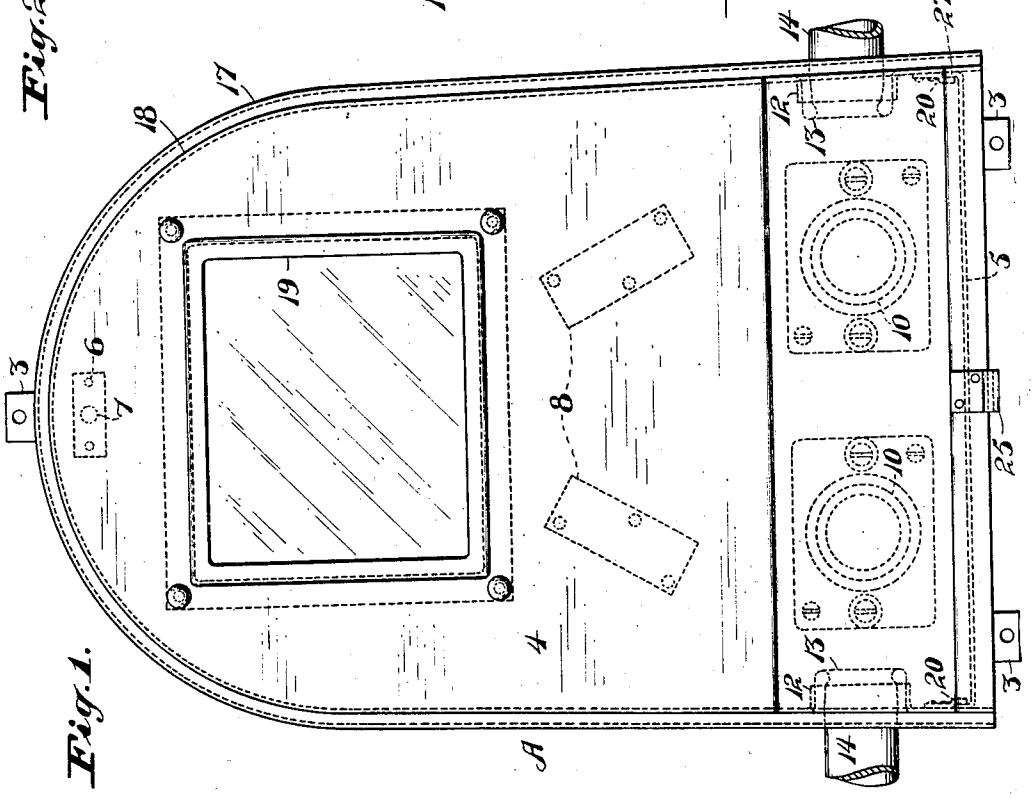


Fig. 1.

WITNESSES:

F. C. Fliedner

Julius C. Benesch

INVENTOR

Albert Casper,

BY Strong & Townsend

ATTORNEYS

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2 SHEETS—SHEET 2.

Fig. 3.

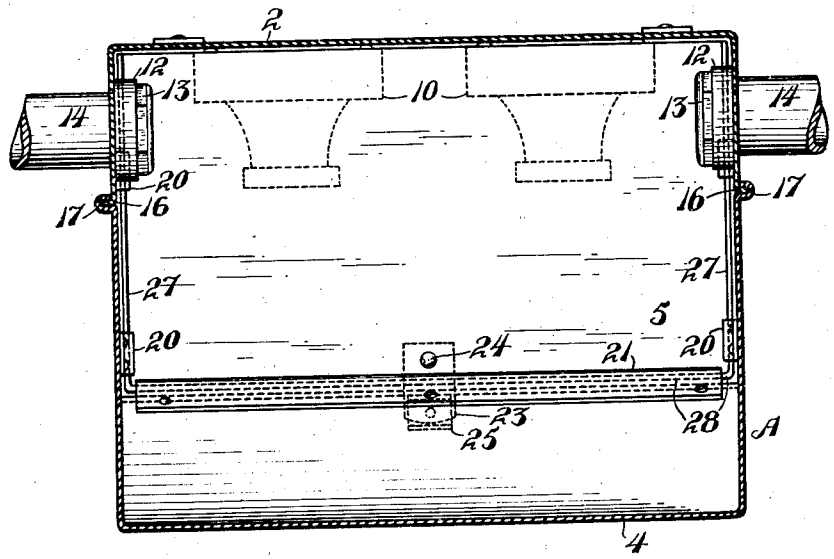
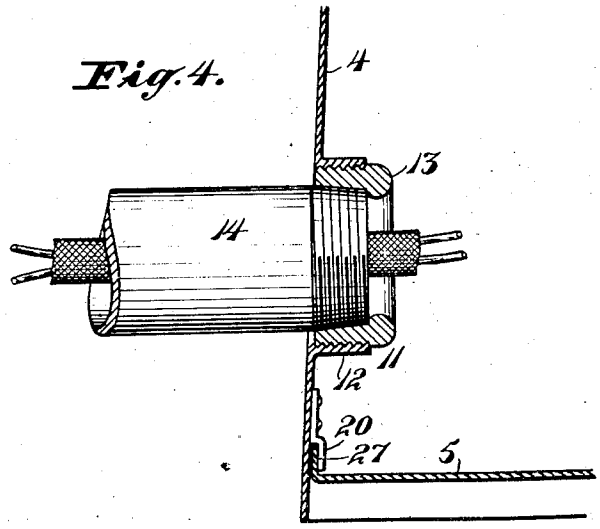


Fig. 4.



WITNESSES:

F. C. Fliedner

Julius C. Berneche

INVENTOR

Albert Casper,

BY Strong & Townsend

ATTORNEYS

UNITED STATES PATENT OFFICE.

ALBERT CASPER, OF VALLEJO, CALIFORNIA, ASSIGNOR OF ONE-THIRD TO WILLIAM W. WEIR, OF VALLEJO, CALIFORNIA.

METER-BOX.

1,276,031. Specification of Letters Patent. Patented Aug. 20, 1918.

Application filed April 17, 1917. Serial No. 162,693.

To all whom it may concern:

Be it known that I, ALBERT CASPER, a citizen of the United States, residing at Vallejo, in the county of Solano and State of California, have invented new and useful Improvements in Meter-Boxes, of which the following is a specification.

This invention relates to an inclosing case and support for watt hour meters and like devices used in electric light and heating systems.

One of the objects of the present invention is to provide a simple, substantial, cheaply manufactured and easily assembled weather-proof box or casing for watt hour meters, with connected fuse blocks and the like, which prevents current theft or tampering with the meter and keeps the meter clean and free from dirt and moisture and which will permit all meters to be installed on the outside of buildings, thereby giving access to meter readers, testers and inspectors. Another object of the invention is to construct the case of separable interlocking sections and, in conjunction therewith, to provide a simple seal guarded fastening whereby all the parts are clamped and secured together. Further objects will hereinafter more fully appear.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a front view of the meter box.

Fig. 2 is a central, vertical section of Fig. 1.

Fig. 3 is a cross section on line 3—3 of Fig. 2.

Fig. 4 is an enlarged detail view, showing how the pipe conduit for the wires is connected to the box.

Referring to the drawings in detail, A indicates in general the meter box forming the subject-matter of the present application. This box consists of a rear casing section 2, provided with projecting lugs 3 to permit it to be secured to an outside wall or other suitable support. 4 indicates a removable front section and 5 a removable bottom section.

Secured on the rear section of the box, as at 6, is a master hook 7, which, together with a pair of heel plates 8, is adapted to form a support for any suitable form of watt hour meter, or any other like device. The master hook, together with the heel plates, not only forms a rigid support for the meter, generally indicated at 9, but it also holds it away from the rear wall of the casing.

Secured in any suitable manner in the lower end of the casing is a pair of fuse blocks 10, and formed on the sides of the casing is one or more threaded inlets, such as generally shown at 11. These inlets are formed by punching out the sides by means of dies in a heavy press and thereafter forming inwardly extending, annular flanges 12 which are threaded to receive a bushing 13 and the conduit pipe 14. The lower end of the casing section 2 is bent to form an inwardly extending flange 15 adapted to partially support the bottom 5, while the entire front edge of said casing section is flanged, as at 16, to receive a hook-shaped interlocking flange 17 formed on the rear edge of the front casing section 4. The upper ends of both of the casing sections 2 and 4 are rounded, as shown at 18, and the interlocking flanges are continuous across said rounded portion and down the sides. A weather-proof interlocking joint is in this manner formed between the casing sections which keeps the meter clean and free from dirt and moisture, thus permitting it to be placed at any convenient place on the outside of a building where it is easily accessible by meter readers, testers and inspectors.

The front casing is preferably provided with a window opening 19, in which is fitted a transparent closure constructed of glass, celluloid, or like material, in this manner permitting a reading of the meter and inspection of the disk rotation without removing the front section of the box. Suitably secured in each side of the front and rear casing sections is a pair of downwardly projecting lugs 20, there being one on each section, and secured to the front portion of the casing is a downwardly turned lug 21 which coöperates with the lugs 20 to limit the upward movement of the bottom section 5, when this is placed on the rear flange 15 and swung up into the position shown in Fig. 2, where it is secured against removal by means

of a latch 23, which is adapted to turn about a pivot 24 to swing it into or out of locking engagement with a hook-shaped lug 25 secured on the outside of the casing section 4; the lug 25, together with the latch 23, being perforated to permit the insertion of a seal or lock, such as shown at 26. The latch in this manner not only supports the bottom section but it also forms a means whereby both the bottom and the front section 4 of the casing are positively locked against removal. The bottom section is otherwise provided with side flanges 27 which engage the lugs 20 and a front flange 28 which interlocks with the lug 21. This is of considerable importance as it positively ties the several interlocking members together and also forms a weather-proof joint between the same, which prevents the admission of dirt, dust or moisture at any time.

A meter box constructed as here shown is cheaply manufactured as the several parts can be formed of comparatively thin sheet metal by means of dies. This not only insures a uniform product but naturally reduces the cost to a minimum, and as the box forms a complete inclosure for the meter and the fuse box, it can readily be seen that tampering with the meter in any manner or stealing current without detection is out of the question as this could not be accomplished without removing the lock 26 or breaking the window 19.

The internally threaded flange 12 and the bushing 13 permit the conduit pipes 14 to be perfectly grounded and therefore not only eleminate the lock washers and nuts heretofore usually employed but also eliminate separate grounding wires.

While the box is here shown as employed with watt hour meters, it is obvious that it may be employed for flush switches of all makes, cans for switchboards, outlet boxes, pull in boxes, weather-proof boxes and all other boxes taking pipes or conduits. The securing of the bottom in the manner here shown permits fuses to be readily replaced, as it is only necessary to release the latch 23 and open the bottom for that purpose. The front casing may also be quickly removed by merely lifting it in a vertical direction to disengage the interlocking flanges 16 and 17. All parts inclosed by the box are, therefore, easily accessible and practically no time is lost when installing, repairing or adjusting instruments housed or inclosed by the same.

The materials and finish of the several parts of the device are such as the experience and judgment of the manufacturer may dictate.

I wish it understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims, and that I do not wish to limit myself to the specific design and construction here shown.

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

1. In a meter box, a casing, a removable front, a bottom, means to support the bottom so as to enable removal thereof independent of the front, the lower end part of the front having a locking member and the front end part of the bottom having a locking member engageable with said locking member of the front, and means to lock said members together, said last named means being disengageable from the locking means of the bottom to allow the latter to be removed without disturbing the front.

2. In a meter box, a casing, a removable front, a bottom, means to support the bottom so as to enable removal thereof by downward movement of the bottom and independent of any movement of the front, locking means on the front, locking means on the bottom engageable with the locking means of the front, and means to lock the locking means of the front and bottom to each other.

3. A meter box comprising a stationary casing section, a removable front section, a removable bottom plate, means on the stationary section for supporting the rear end of the bottom plate, means on the removable front section for supporting the front end of the plate, and a lock insertible through said means adapted to secure the bottom plate and the casing sections against separation or removal, one with relation to the other.

4. A meter box comprising a stationary casing section consisting of an integral back, sides and top, an inwardly turned flange formed on the lower end of the back section, a continuous outwardly turned flange formed on the front edge of the sides and top, a removable front section comprising an integral front, sides and top, a continuous hook-shaped flange formed on the rear edge of the sides and top adapted to interlock with the flange on the stationary casing, a removable bottom plate adapted to be supported at the rear end by the inwardly turned flange on the lower end of the stationary casing section, a lug secured on the lower end of the removable front casing section, a pivoted latch mounted on the bottom plate adapted to be swung into interlocking engagement with the lug to support the front end of the bottom plate, and means for locking said latch against disengagement and the front casing and bottom plate against removal with relation to the stationary casing section.

5. A meter box comprising a stationary casing section consisting of an integral back, sides and top, an inwardly turned flange formed on the lower end of the back section,

a continuous outwardly turned flange formed on the front edge of the sides and top, a removable front section comprising an integral front, sides and top, a continuous hook-shaped flange formed on the rear edge of the sides and top adapted to interlock with the flange on the stationary casing, a removable bottom plate adapted to be supported by the stationary casing and the removable front casing section, means for locking the front section and the bottom plate against removal, an upwardly turned flange formed on the sides and the front edge of the bottom plate, and inwardly turned lugs secured on the sides of the stationary casing section and in the front and sides of the front casing section adapted to limit the upward movement of the bottom plate and also adapted to prevent springing of the sides and front with relation to the bottom plate.

6. A meter box composed of a casing, a removable front therefor, a bottom having downward movement, means to engage the bottom to prevent upward movement thereof, and means to lock the front and bottom against movement and to allow the bottom to be removed without disturbing the front.

7. A meter box composed of a casing, a removable front therefor, a bottom having upturned side and front flanges, means carried by the casing and front to engage said flanges to prevent upward movement of the bottom, and means to lock the bottom to the front.

8. A meter box composed of a casing, a removable front therefor, a bottom having downward movement, means to engage the bottom to prevent upward movement thereof, a keeper borne by the front, a latch on the bottom movable into and out of engagement with the keeper, and means to lock the latch to the keeper, said latch being movable to allow the bottom to be removed without disturbing the front.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALBERT CASPER.

Witnesses:
JOHN H. HERRING,
W. W. HEALEY.