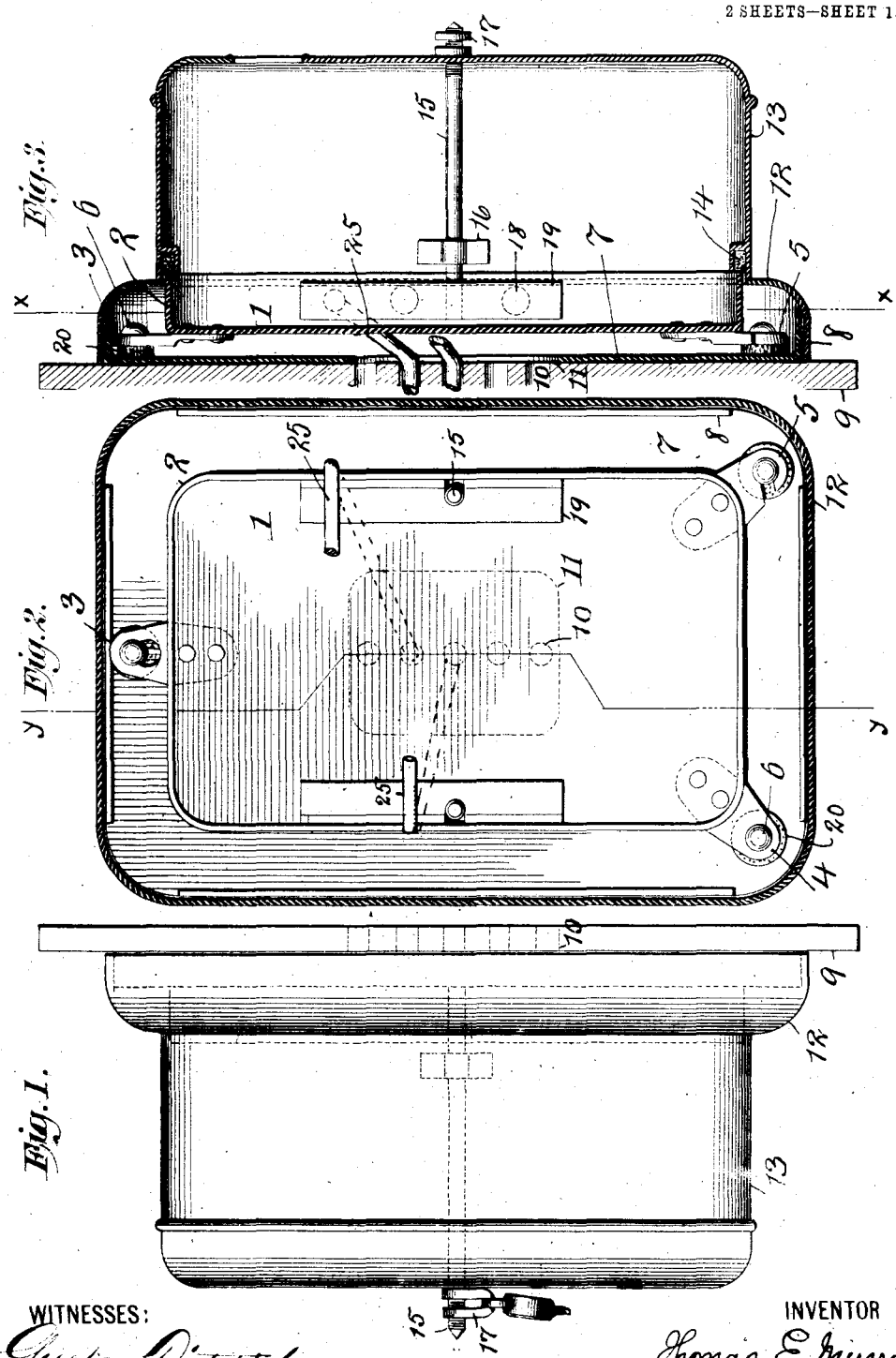
No. 872,572. PATENTED DEC. 3, 1907.

T. E. MURRAY.

ELECTRIC METER CASE AND SUPPORT.

APPLICATION FILED JULY 13, 1907.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

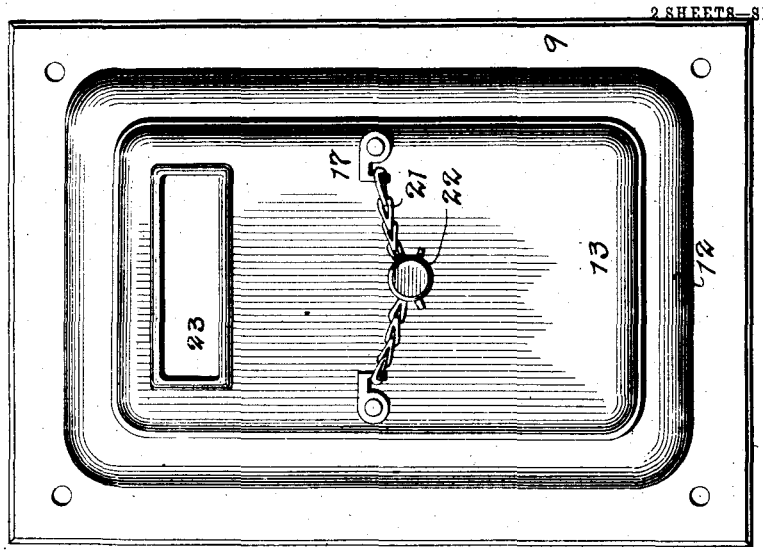


Fig. 6.

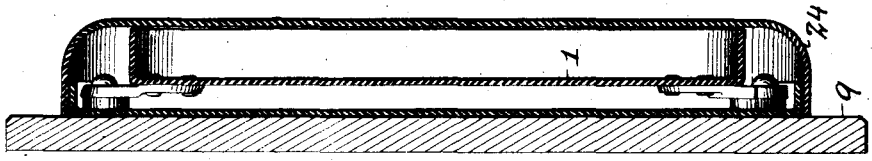
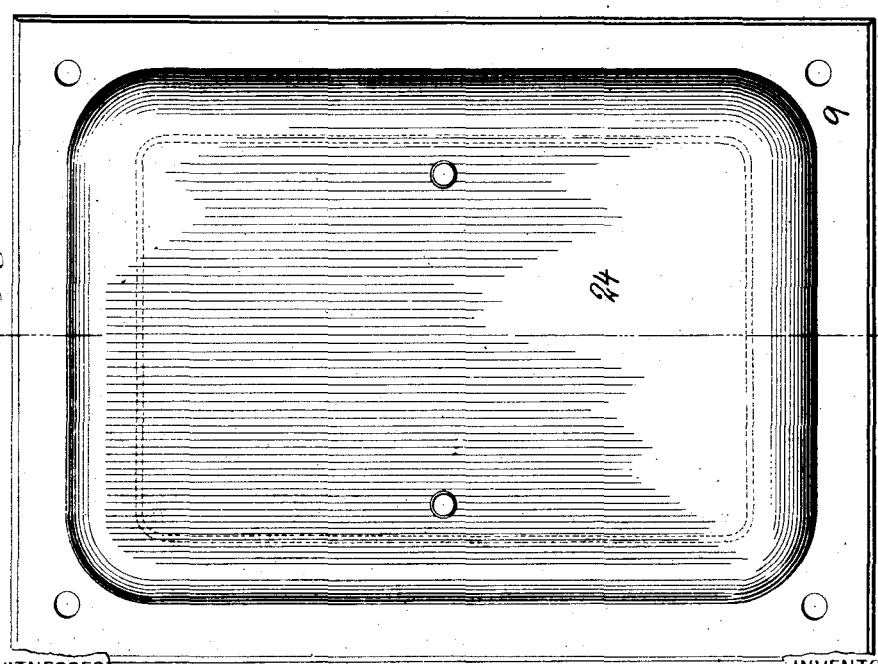


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS E. MURRAY, OF NEW YORK, N. Y.

ELECTRIC-METER CASE AND SUPPORT.

No. 872,572. Specification of Letters Patent. Patented Dec. 3, 1907.

Application filed July 13, 1907. Serial No. 383,557.

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Electric-Meter Cases and Supports, of which the following is a specification.

The invention relates to an electric meter case and support, more particularly designed for receiving the usual meter mechanisms used in electric lighting systems.

The object of the invention is to provide a case and support simple in construction, which offers everywhere close joints and completely prevents access to the circuit wires, which presents no means whereby induced current can be caused and energy in that way purloined, in which all parts are clamped together by a simple detachable fastening and guarded by a seal, and in which the meter mechanism and case may be readily removed when not in service from the permanent parts of the device, and a simple shield substituted and sealed in place.

The invention consists in the combinations pointed out in the claims.

In the accompanying drawings—Figure 1 is a side elevation of the meter case in place. Fig. 2 is a section of the case on line *x x* of Fig. 3. Fig. 3 is a section on line *y y* of Fig. 2. Fig. 4 is a front elevation. Fig. 5 is a front elevation showing the shield or cover substituted for the case. Fig. 6 is a section on line *z z* of Fig. 5.

Similar numbers of reference indicate like parts.

1 is a rectangular plate of non magnetic metal, such as aluminium, having a surrounding flange 2, and on its rear side three lugs, 3, 4 and 5. Said lugs have openings to receive the fastening screws 6, which pass through a back plate 7 also of non magnetic metal, having partial side flanges 8. The back plate 7 rests against the base or wall 9, in which are openings 10 for circuit wires, two of which are here shown at 25, and is itself provided with a central opening 11, through which said wires may pass. On the screws 6 are washers 20, which may be of elastic material such as rubber, and which separate the lugs 3, 4, 5, from the back plate. For convenience in readily attaching the flanged plate 1 to its support, the lug 3 is provided with an aperture having an enlarged lower portion, which passes over the head of the fastening screw, and afterwards the plate is lowered to bring the narrow part of said aperture on the screw shank. Also for convenience of adjustment the screw aperture in lug 5 may extend laterally through the lug.

12 is a rectangular rim of non magnetic metal, in which fit the side flanges 8 of back plate 7. The rear edges of the wall of rim 12 rest against the base 9. The outer portion of said wall is curved inwardly to a rectangular opening in which fits the side flanges 2 of the back plate 1. The case or cover 13 of sheet metal is open on its rear side and the rear edges of its walls rest upon the upper surfaces of the curved over walls of rim 12, in close proximity to the rectangular opening, and hence in close proximity to the outer faces of the surrounding flanges 2 of back plate 1. The outer edge of said flange extends a little beyond the rim, substantially as shown in Fig. 3, and enters a recess 14, formed by a suitably shaped flange on the inner side of the wall of case 13, in which recess any suitable elastic packing may be placed.

Rigidly fastened to plate 1 are rods 15, which extend outwardly through guide lugs 16 on the inner side of the walls of case 13, and through openings in the front wall of said case. The protruding end of each of said rods is threaded to receive the threaded parallel arms of a spring nut 17.

In the flange 2 of plate 1 are openings 18, (dotted lines, Fig. 3) for circuit wires, which openings extend through wooden blocks 19, secured to the inner sides of said flange. The meter mechanism with which said circuit wires connect is not herein shown, since it forms no part of the present invention. It is, however, all supported on and secured to plate 1, and is inclosed in the case 13.

In assembling the parts, the back plate 7 is placed against the base 9, so that its opening 11 comes over the apertures 10 in said base. The flanged plate 1 is then put in position and both flanged plate and back plate are secured to the base by the screws 6 passing through the lugs 3, 4, 5, in the manner already set forth. The rim 12 is then put in position, and upon it is placed the outer case 13, the rods 15 passing through the interna

lugs 16 and openings in the case wall. The spring nuts 17 are then placed on the threaded ends of rods 15 and turned down, thus forcing the rear edge of case 13 closely against the outer surface of rim 12 and the rear edge of rim 12 closely against the wall or base 9. The packing in recess 14 on the inner side of the walls of case 13 is also forced down upon the outer edge of the flange 2 of plate 1, and the spring or elastic washers 20, thus become compressed and serve by their resiliency to make the joint in the recess still more close. After the parts are thus assembled and secured, the ends of short chains 21, which are attached to eyes on nuts 17 are brought together and fastened by any suitable seal 22, so that the parts cannot be taken asunder without rupture of said seal. In the front wall of the case 13 is an opening 23, for convenience in showing the meter scale.

When the meter is to be withdrawn from service, its mechanism is detached from the plate 1 and removed, together with the case 13 and rim 12. A flanged cover 24 of sheet metal is then put over the plate 1, as shown in Figs. 5 and 6, and secured by short rods similar to rods 14 connected by chains and a seal, or in any other suitable way.

It will be observed that by this construction I completely protect the circuit wires from outside interference, and I eliminate all open joints. By making the back plate 7 and rim 12 of non magnetic metal I also prevent induced currents in said plates. As all parts of the device are clamped together, tight joints everywhere exist, and these cannot be disturbed because of the seal. The advantage of being able to remove all the meter mechanism and cover from the plate 1 when the meter is not in service and to substitute therefor simply the shielding cover in place of rim 12 will be obvious.

I claim:

1. In combination with a base, a back plate thereon, a flanged plate supported in front of said back plate, a rim surrounding said back plate and flanged plate, a cover in front of said flanged plate and having its edges bearing on said rim, and means for securing said cover in place.

2. In combination with a base, a back plate having outwardly projecting side flanges, a flanged plate supported in front of said back plate, a rim surrounding said back plate and flanged plate, and having its rear edges bearing on said base, in which rim said back plate flanges fit, a cover in front of said flanged plate and having its edges bearing on said rim and means for securing said cover in place.

3. In combination with a base, a back plate of non magnetic metal thereon, a flanged plate supported in front of said back plate, a rim of non magnetic metal surrounding said back plate and flanged plate, a cover in front of said flanged plate and having its edges bearing on said rim, and means for securing said cover in place.

4. In combination with a base, a back plate thereon, a flanged plate, means for elastically supporting said flanged plate in front of said back plate, a rim surrounding said back plate and flanged plate, a cover in front of said flanged plate having a recess receiving the edge of the flange of said flanged plate and means for securing said cover in place.

5. In combination with a base, a back plate thereon, a flanged plate supported in front of said back plate, a rim surrounding said back plate and flanged plate, beyond which rim the flange of said flanged plate protrudes, a cover inclosing said flange and receiving the same in a recess formed around its inner wall, and means for securing said cover in place.

6. In combination with a base, a back plate thereon, a flanged plate secured to and supported in front of said back plate, a rim surrounding said back plate and flanged plate, a cover in front of said flanged plate and means for detachably clamping together said cover, rim and base.

7. In combination with a base, a case supported thereon and at a distance therefrom a rim having its rear edges bearing on said base and provided with an opening having its edges inclosing and bearing on the outer wall of said case, and a shoulder on said outer wall between which and said base said rim is received.

8. In combination with a base, a back plate thereon, a flanged plate secured to and supported in front of said back plate and flanged plate, a cover in front of said flanged plate, threaded rods extending from said flanged plate through the front wall of said cover, and securing nuts on said rods.

9. In combination with a base, a back plate thereon, a flanged plate secured to and supported in front of said back plate, a cover inclosing the flange of said back plate and means for securing said cover in place.

10. In combination with a base, a case supported thereon and at a distance therefrom, and a rim having its rear edges bearing on said base and provided with an opening having its edges inclosing and bearing on the outer wall of said case.

11. In combination with a base, a plate of non magnetic metal on said base, a case supported in front of said plate, a rim of non magnetic metal surrounding said case, and having its outer edges respectively bearing on said base and said case wall, and circuit wires leading through said plate and into said case at points between the inner wall of said case and the line of contact of the edge of said rim and said case.

12. In combination with a case adapted to containing electric meter mechanism and circuit wires entering the same, a base, a shield of non magnetic metal on said base in rear of said case and traversed by said wires, and a shield of non magnetic metal surrounding said case and in contact with said base.

In testimony whereof I have affixed my signature in presence of two witnesses.

THOMAS E. MURRAY.

Witnesses:
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MAUDE A. ROGERS.