No. 750,787. PATENTED JAN. 26, 1904.

A. D. BLODGETT.

CLOCK CASE.

APPLICATION FILED NOV. 29, 1901.

NO MODEL.

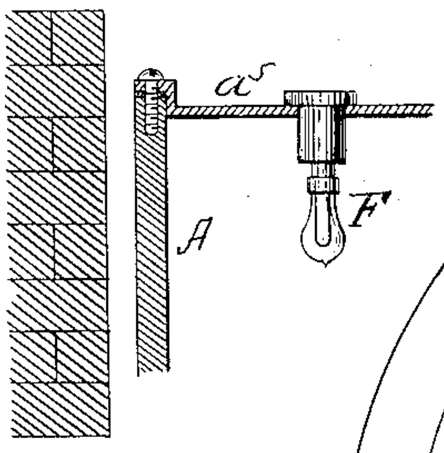

Fig. 5.

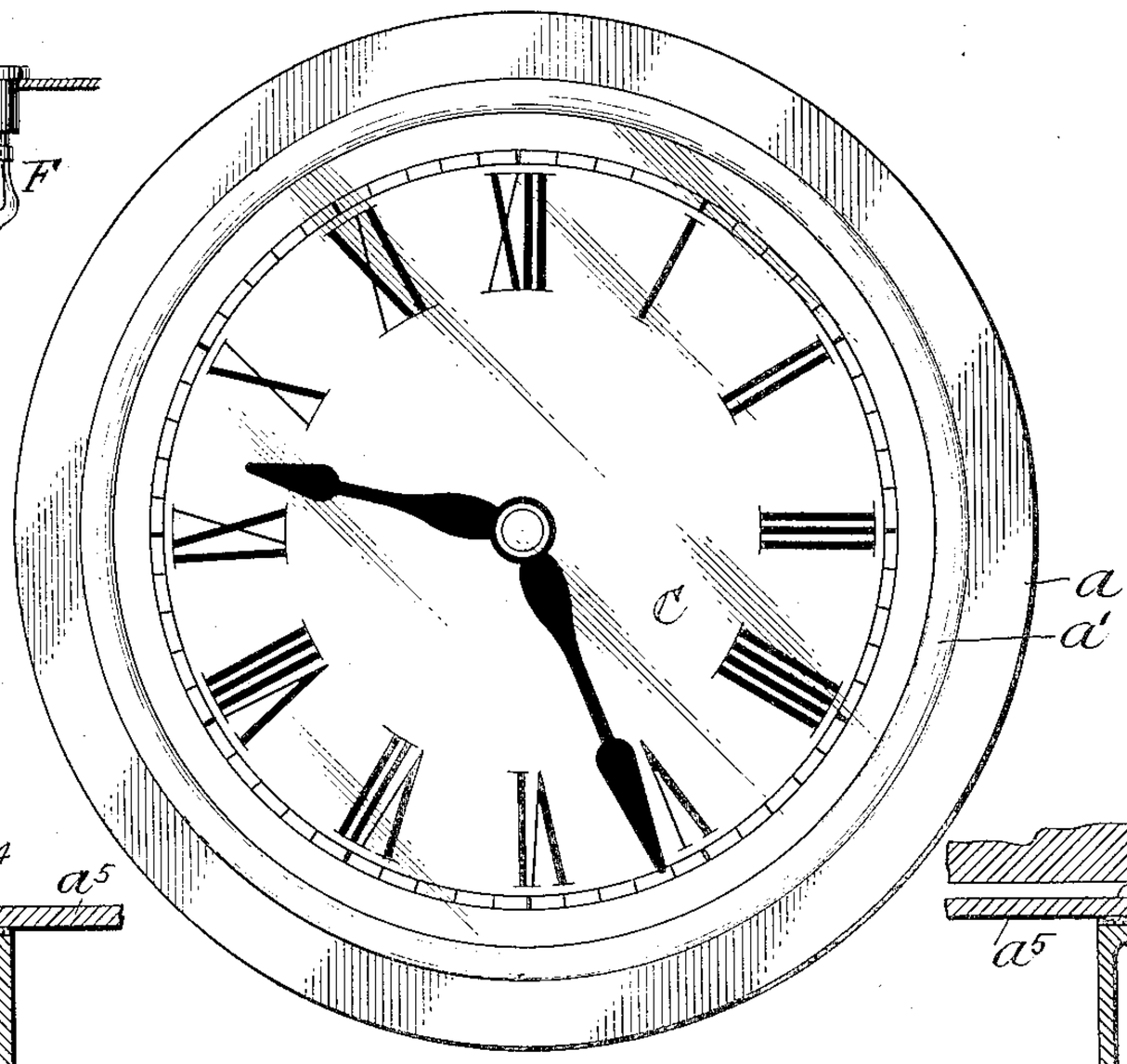

Fig. 1.

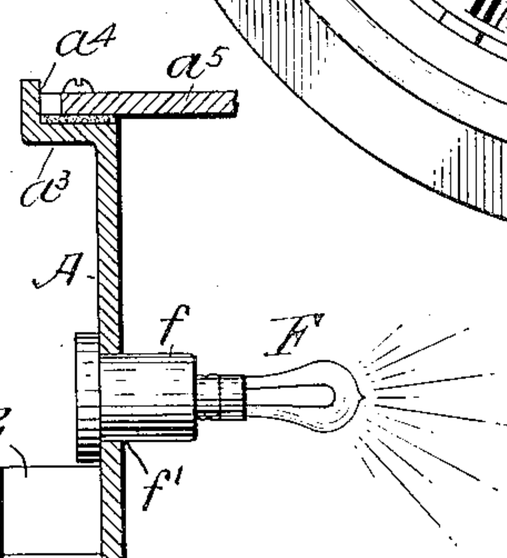

Fig. 3.

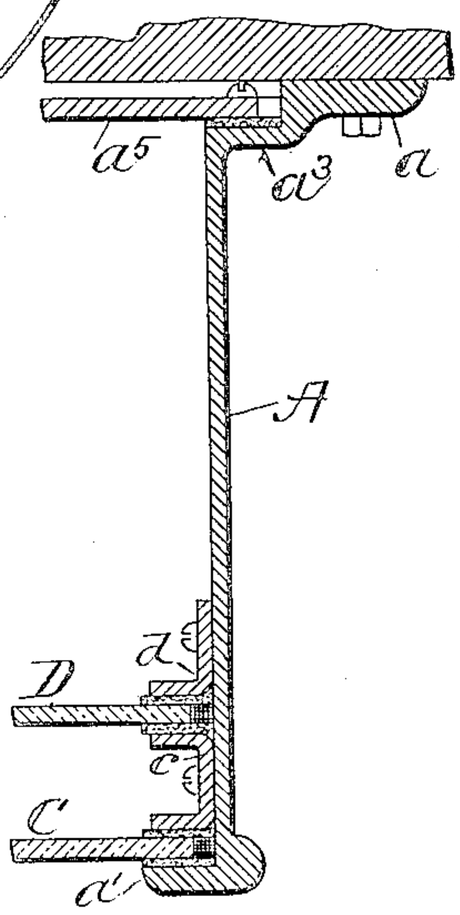

Fig. 4.

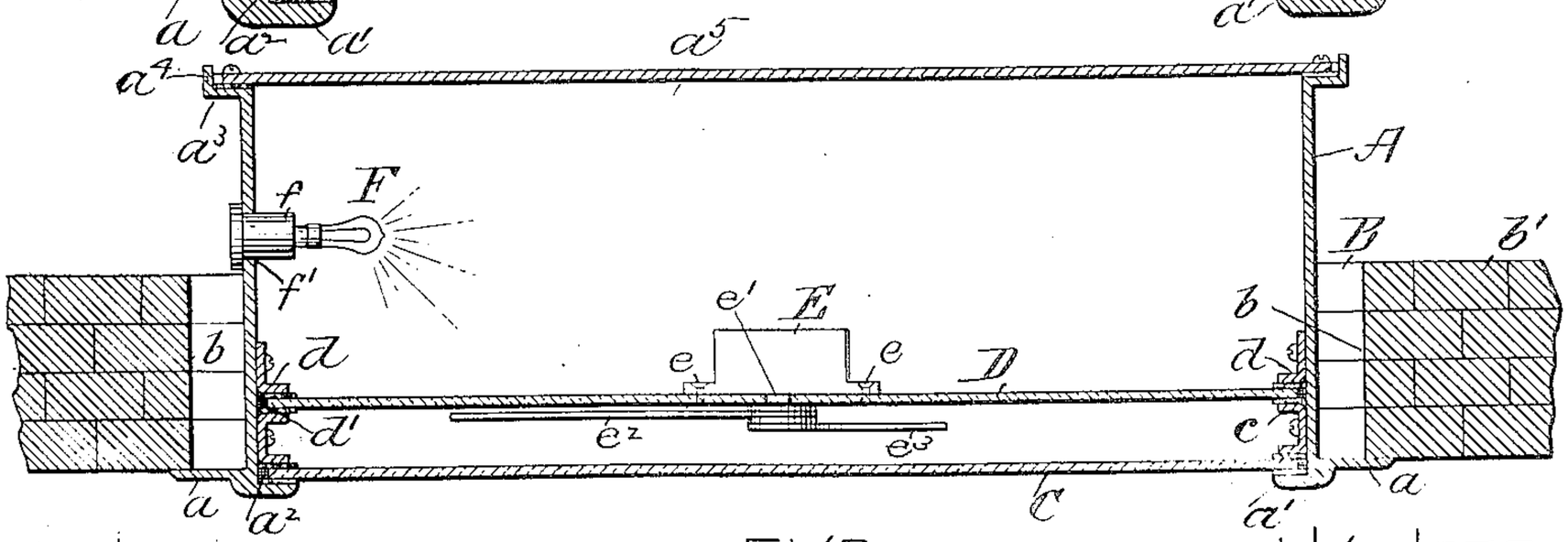

Fig. 2.

WITNESSES:

J. M. Dolan.

Saml. Sippel Fein

INVENTOR.

Aaron D. Blodgett.

by his attys.

Clarke & Raymond

No. 750,787. Patented January 26, 1904.

UNITED STATES PATENT OFFICE.

AARON D. BLODGETT, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO BLODGETT CLOCK COMPANY, OF PORTLAND, MAINE, A CORPORATION OF MAINE.

CLOCK-CASE.

SPECIFICATION forming part of Letters Patent No. 750,787, dated January 26, 1904.

Application filed November 29, 1901. Serial No. 83,982. (No model.)

To all whom it may concern:

Be it known that I, AARON D. BLODGETT, a citizen of the United States, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Cases for Tower and Similar Clocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to tower and similar out-of-door clocks.

It comprises a cylindrical metal case having means for the attachment thereto of a dial-plate, a transparent plate, the clock-movement, and an illuminating apparatus, and also means for rendering it weatherproof and for securing it to a tower or other support.

In the drawings, Figure 1 is a view in elevation of the clock. Fig. 2 is a view in horizontal section, also showing a portion of the tower or support for it. Fig. 3 is a detail view, principally in section, enlarged, to further illustrate its construction. Fig. 4 is a detail view, enlarged, principally in section, showing a modified form of the invention. Fig. 5 shows a detail in construction, to which reference is hereinafter made.

Referring to the drawings, A is a cylinder or shell of metal of any desired size. It has at its outer edge an integral outward-extending flange a of considerable depth, which is adapted to cover the joint between the case and the wall b of the aperture B of a tower or support b', and an inward-extending integral flange a', against the inner surface of which the protecting-plate C, of glass or other transparent medium, is held by holding knees or brackets c within the case and attached to it by screws or in any other desired way. Packing material is interposed between the surfaces of the plate and the flange a' upon one side and the knees. I prefer to use putty upon the outer side between the plate and the flange and a ring of felt or india-rubber upon the inner side.

The plate is made sufficiently less in diameter than the bore of the case to prevent contraction of the case from injuring the plate, and I prefer that the plate be enough smaller to permit of the placing between its edge and the case of a ring a^2 of rubber, wood, or similar resilient material which has the property of compression and expansion. The case also contains the dial-plate D, which may be transparent or not, as desired, and which is held in the cavity of the case by the knees or brackets c and by the knees or brackets d, which are screwed, bolted, or otherwise attached to the inner face of the case. Packings of rubber, felt, or other material may be inserted between the faces of the plate and the brackets, and the plate may be made sufficiently small to permit of the insertion between its edge and the wall of the case of the resilient ring of packing d'.

The plate D may support the movement E, which may be attached thereto by bolts or screws e. The plate has a central hole e', through which the hand-operating arbors or sleeves extend. This disposes of the movement upon the inner side of the plate D and the hands e^2 e^3 upon the outer side of the plate in the cavity or space between it and the outer plate C. I prefer that the movement E be what is known as a "secondary" movement, electrically operated by a clock placed at any distance and having any desired relation to the movement.

I prefer that the knees or brackets c be shaped to provide supports for the inner as well as for the outer plate and so that their placing and attachment to the case and the securing of the outer plate C in position shall at the same time act to provide the supports and place of location of the dial-plate D.

To illuminate the clock, I prefer to employ one or more electric incandescent lights F. One such light is shown in Fig. 2. It is carried by an insulating-holder f, which slightly exceeds the diameter of the chamber and which is removably held in a hole f' in the case of sufficient size to receive it. There is thus provided an opening in the case of sufficient degree to permit the lamp to be entered therein and removed therefrom.

The inner edge of the case may have an outward-extending flange a^4, provided with an annular shoulder a^9, and this flange is adapted

to receive and hold a covering-plate a^5, which is united at its edge by screws to the flange and which is held from lateral movement by the shoulder. A packing may be interposed between the plate and the flange.

Where the clock is to be fastened upon a tower or support rather than in it, then the flange a is transposed from the outer edge of the case to the inner edge, as represented in Fig. 4, then forming an extension of the flange a^3 and a base which rests against the face of the tower or support and through which bolts or other means for fastening the clock to the support extend.

It will be seen that the construction provides means whereby the case may be built into the tower or support as it is being constructed or may be readily located in an aperture previously formed for its reception without requiring nice adjustment of one or construction of the other, as the flange a is of sufficient width to not only lap upon the face of the tower or support and conceal and protect the joint between the case and the wall of the aperture, but is also of sufficient extent to compensate for any inequalities of workmanship in making the aperture and to render unnecessary a close fit. After the case has been placed in the aperture with the outer flange against the face of the tower or support the space remaining between the case and the wall of the aperture may be filled with cement or other supporting-filling.

It will be noticed that the case is so constructed that all the plates and parts are accessible from its back side and also so that the plates C and D and the works must be placed in position from the open back, the outer flange a' precluding the placing of the plates and works from the front of the case. This makes it possible to reach all the plates and the works and to remove them from the inside of the tower or support after the case has been permanently located therein.

Instead of employing knees or brackets for sustaining the protecting and dial plates there may be used a ring of suitable yielding material and of the desired width and size between the protecting or guard plate and the dial and also upon the inner side of the dial, which rings are attached to the case. They may be made of leather, felt, or wood, with or without a surfacing of polished sheet metal or other material.

When the wall of the tower is too thick to permit of placing the electric lights in the side of the metal case, they may be placed in holes formed in its back a^5.

In some cases where no provision has been made in the tower or support for the reception of the case the flange a^3 may be omitted from it and the ring held in position by clamps bolted to the case and lapping upon the inside of the wall.

The movement need not be attached to the dial-plate and need not be an electric movement. Any ordinary clock-movement may be employed and it may be mounted in the case in any desired way.

Where the clock is not illuminated, a dial-plate of non-transparent material, like wood or metal, may be employed.

In Fig. 5 I have shown a construction in which the back plate is provided with a shoulder instead of the flange a^3 and in which the plate is fastened to the case, the shoulder extending into or fitting the cavity of the case.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The clock-case herein described, the same comprising a metal shell adapted to be built into or contained in a tower or other support, an integral joint-sealing flange outwardly extending from the outer end of the said shell against the face of the tower or support, an integral inwardly-extending outer flange, a transparent guard-plate adapted to bear against the said inwardly-extending flange, a yielding packing placed about the edges of said plate to provide a weatherproof joint and a detachable plate for closing the inner end of the chamber.

2. The clock-case herein described, the same comprising a metal shell adapted to be built into or contained in a tower or other support, an integral joint-sealing flange outwardly extending from the outer end of the said metal shell against the face of the tower or support, an integral, outwardly-extending inner flange adapted to receive a detachable back plate, an integral inturned outer flange, a transparent guard-plate adapted to bear against the said inwardly-extending flange, and to provide a weatherproof face-plate for the outer end of the shell-inclosed chamber substantially as described.

3. The clock-case herein described, the same comprising a metal shell adapted to be built into or contained in a tower or other support, an integral joint-sealing flange outwardly extending from the outer end of the said metal shell against the face of the tower or support, an integral inturned outer flange, a transparent guard or face plate adapted to be held against the inwardly-extending flange, a detachable back plate, and yielding packing placed about the edges of the end-closing plates to the shell-inclosed chamber providing a weatherproof compartment substantially as described.

4. The clock-case herein described, the same comprising an exterior shell having at its outer end an integral inwardly-extending flange, a transparent guard-plate contained within the cavity to the shell, a yielding packing placed about the edges of said plate, means attached to the exterior shell aforesaid for holding said guard-plate and packing against said inturned flange, also locating and providing a bearing

for the dial-plate contained within the case, said dial-plate and means for holding it against the guard-plate holder, the said plates and holders being accessible and removable from the back end of the case, and means for closing the back end of the case.

5. The clock-case herein described, the same comprising an exterior shell having at its outer end an integral inwardly-extending flange, a transparent guard or face plate packed about its edges, means attached to the exterior shell aforesaid for holding said plate and packing against the said inturned flange, also locating and providing a bearing for the dial-plate contained within the case, said dial-plate, means for holding it against the guard-plate holder, a detachable back plate having a packed edge and means for attaching it to the exterior shell or case whereby there is provided a weather-proof chamber substantially as described.

6. The clock-case herein described forming a part of a tower or similar structure, comprising a metal shell, accessible from its inner end, flush or practically flush at its outer end with the face of the tower or supporting structure, and having, respectively, outwardly and inwardly turned outer flanges, a transparent guard or face plate, a yielding packing placed around the edge of said guard-plate, an annular flange detachably secured to the shell of the casing for holding said guard-plate and packing clamped against said inturned flange, a transparent dial-plate, an annular flange detachably attached to the casing and adapted to hold the dial-plate in place resting against the exterior annular flange, a means for illumination in the chamber back of the transparent dial-plate, and a detachable back plate for closing the inner end of the casing substantially as described.

7. In a tower or other clock, a metal case having a guard-plate and a transparent dial-plate and one or more holes in its side or end with an insulator and electric lamp for each hole of a size to enter the hole, the said hole being larger in diameter than the diameter of the lamp whereby the insulator and lamp may be attached together and placed or removed as an entity.

8. In a clock as herein described a shell for the clock-movement adapted to be contained in a suitable support, a joint-sealing flange outwardly extending from the outer end of said shell against the face of the support, the shell having also an outer flange, extending inwardly beyond the inner circumference of the shell, a plate adapted to be inserted through the shell from the rear and to be stopped by and bear against the said inwardly-extending flange, and means for retaining said plate in position.

AARON D. BLODGETT.

In presence of—
J. M. DOLAN,
F. F. RAYMOND, 2d.