

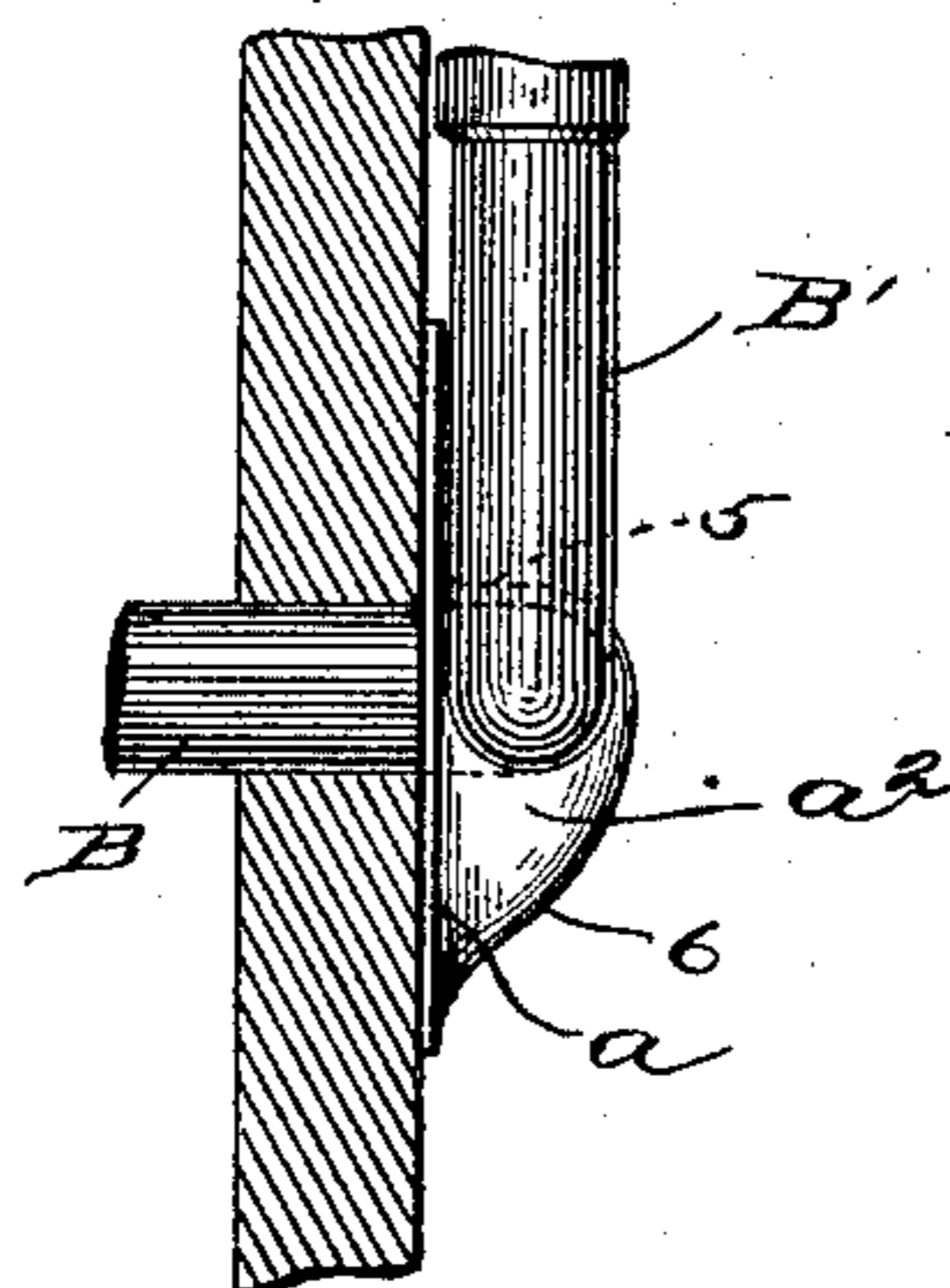
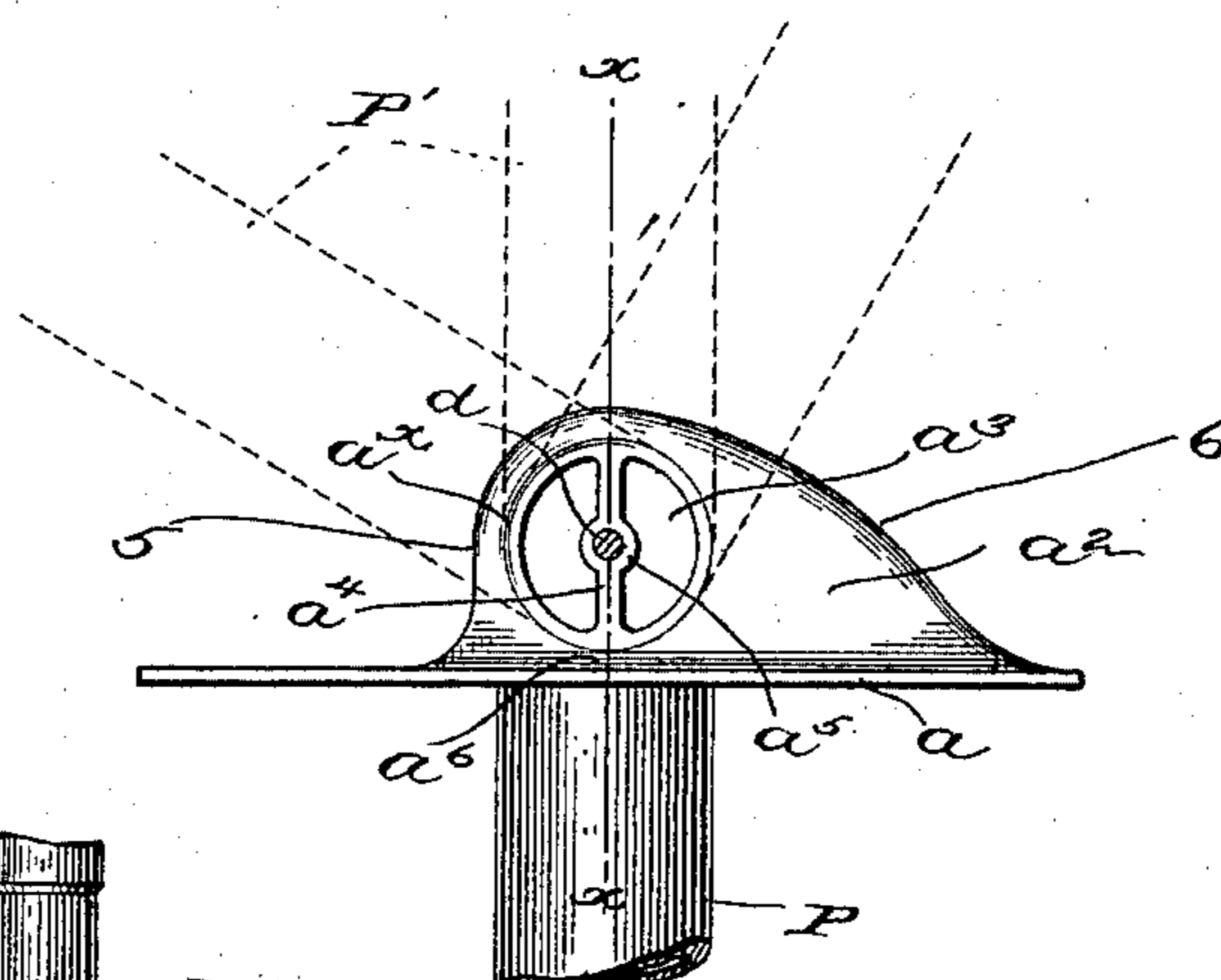
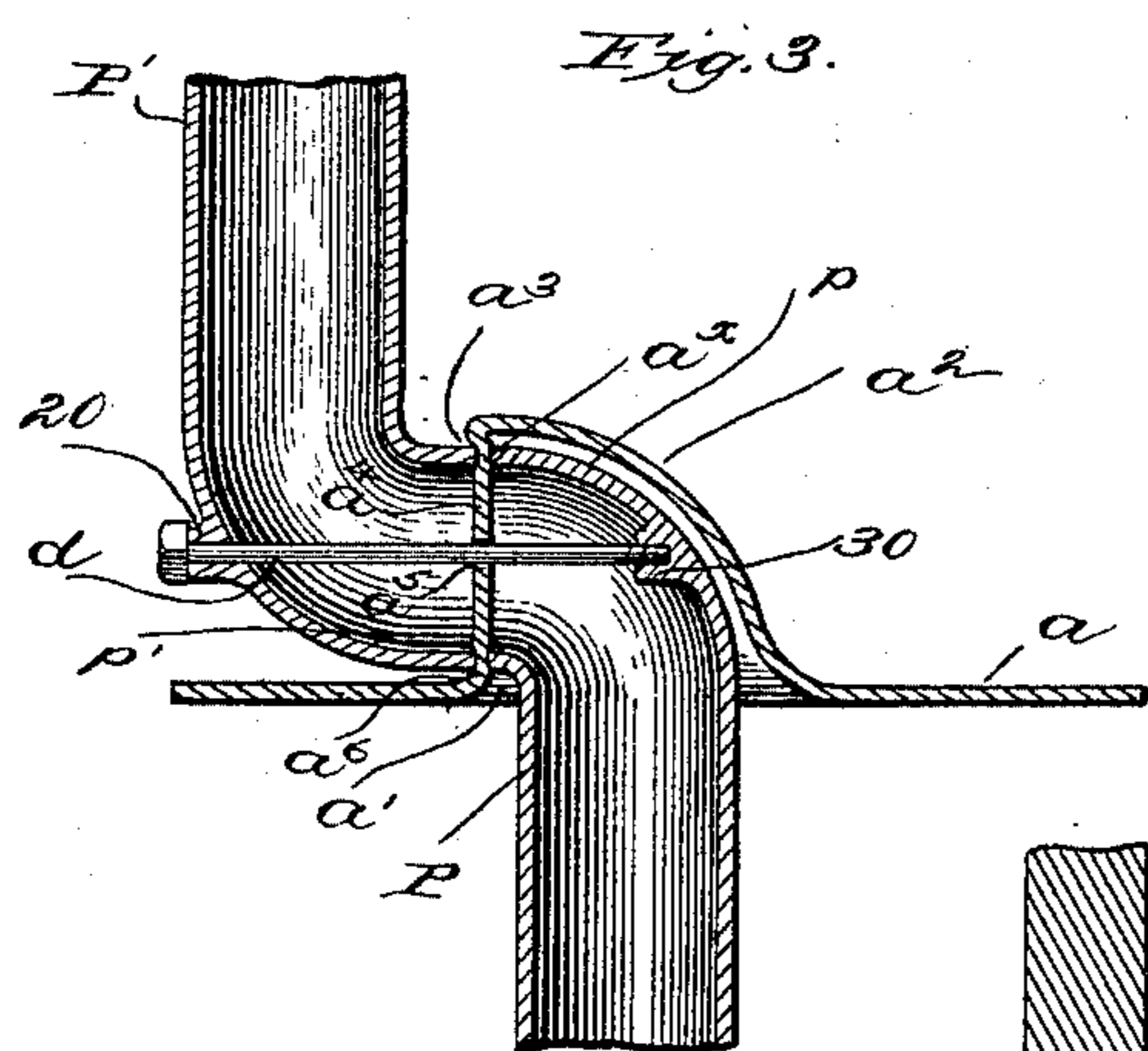
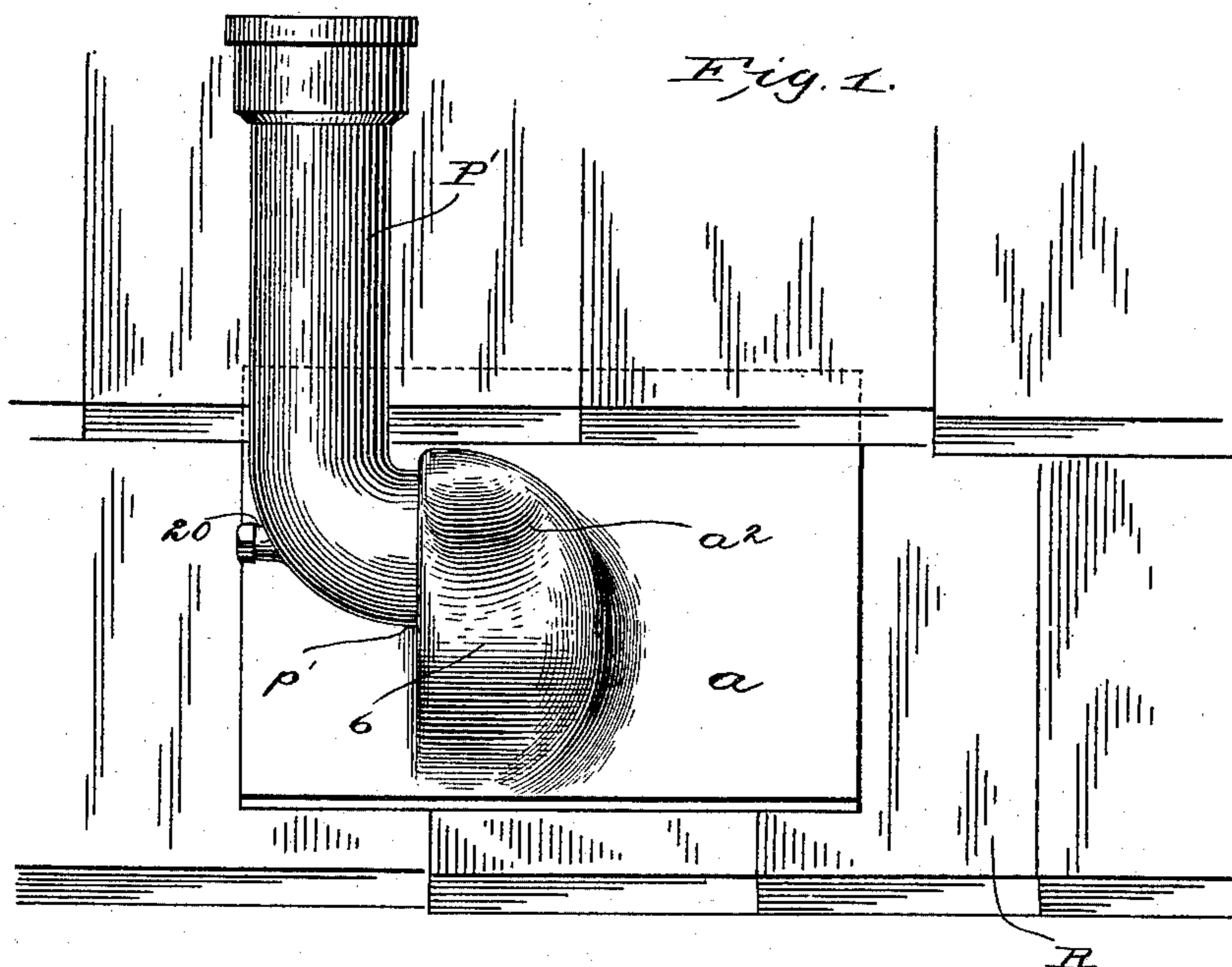
No. 683,385.

Patented Sept. 24, 1901.

G. T. COOPER.
EXTERNAL JOINT FOR ESCAPE PIPES.

(Application filed Jan. 30, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

GEORGE T. COOPER, OF NATICK, MASSACHUSETTS.

EXTERNAL JOINT FOR ESCAPE-PIPES.

SPECIFICATION forming part of Letters Patent No. 683,385, dated September 24, 1901.

Application filed January 30, 1901. Serial No. 45,382. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. COOPER, a citizen of the United States, and a resident of Natick, county of Middlesex, State of Massachusetts, have invented an Improvement in External Joints for Escape-Pipes, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a simple, convenient, and effective external joint for escape-pipes which is adjustable for roofs of various pitches and which can be used in various parts of a building where it is desirable to form an external joint for an escape-pipe.

In accordance with my invention I am enabled to get an absolutely-tight joint without the use of packing, oakum, &c., and also obviating the dangerous and expensive "poured" joint, wherein molten lead is poured into the hub or other device surrounding the adjacent ends of the pipes to be joined together.

Various novel features of my invention will be hereinafter described, and particularly pointed out in the following claims.

Figure 1 is a view in side elevation of one embodiment of my invention in operative position on the roof of a building. Fig. 2 is a left-hand end view of the device shown in Fig. 1, the external pipe-section being indicated by dotted lines. Fig. 3 is a longitudinal section on the line $x-x$, Fig. 2, showing a mode of connecting the pipe-sections at the joint; and Fig. 4 is a view in elevation, showing how my invention may be employed to form an external joint when the escape-pipe passes through a wall.

In the present embodiment of my invention the joint-making device comprises a flat extended base a , preferably made of lead or other suitable soft metal, cast or otherwise shaped and adapted to rest upon the roof R , Fig. 1, or other part of the building, said base having an opening a' therein for the passage therethrough of the upper internal section P of the escape-pipe. The base is shown as upturned around the opening a' and shaped to form an external protective hood a^2 , having an open mouth a^3 , and preferably the mouth will be substantially at right angles to the

base. The mouth is shown as intumed around its perimeter to form an annular seat a^x , and a cross-bar or support a^4 extends across the mouth diametrically, with a central opening a^5 ; Figs. 2 and 3, for a purpose to be described, and by reference to said figures it will be seen that the seat at the part nearest the base is not tangential thereto, but is connected with the base by the wall a^6 , the clearance thus provided preventing any leakage of moisture into the joint and permitting adjustment of the outer pipe-sections.

I prefer to make that side of the hood which is usually uppermost, as 5, substantially at right angles to the base, the opposite side 6 being gradually inclined toward the lower edge of the base, the straight side permitting the hood to be placed close to the lower edge of a tier of slates or shingles on a roof.

The upper end of the pipe-section P is shown as bent at p , concealed within the hood, its extremity abutting against the inner face of the seat a^x . (See Fig. 3.) The adjacent end p' of the outer pipe-section P' is also shown as bent and abutted against the outer face of the seat, so that the adjacent ends of the two pipe-sections are in alignment, with the soft-metal ring or seat a^x between them, and said ends are pressed thereinto to form a water-tight joint by means of a connection (shown as a bolt d) passed through a hub 20 on the bend of the section P' and at its other end screwed into a threaded boss 30 on the interior of the bend of the pipe-section P . The bolt passes through the aperture a^5 in the bar a^4 and is thereby centered and supported, and by tightening up the connection the ends of the pipe-section are drawn toward each other and forced into the material of the seat. Before the connection is tightened the sections P P' are set at the desired angle, and usually the outer section will be vertical, and it will be manifest that this may be accomplished no matter what the pitch of the roof, as shown by dotted lines, Fig. 2.

In Fig. 4 I have shown the joint device on a wall with the inner pipe-section B horizontal and the outer section B' vertical.

My invention is not restricted to the precise construction and arrangement shown and described, as the same may be modified in

various particulars without departing from the spirit and scope of my invention.

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

1. A device of the class described, comprising a supporting - base having an opening therein, an external hood covering the opening and having an open mouth, and an annular seat in said mouth.

2. A device of the class described, comprising a supporting - base having an opening therein, an external hood covering the opening, and having an open mouth, and an annular seat of soft metal in said mouth, to form a joint above the roof between the adjacent inner and outer sections of an escape-pipe.

3. A device of the class described, comprising a metallic supporting-base having an opening therein and upturned around the opening to form an external protective hood having its mouth above and substantially at right angles to the base, an annular seat in the mouth of the hood, and a transverse support extended across the mouth.

4. A device of the class described, comprising a soft-metal base having an opening therein and adapted to rest upon the roof, an integral external hood surrounding the opening and having its mouth substantially at right angles to the base, and an integral annular seat within and forming the perimeter of the mouth of the hood.

5. A base having an opening therein and an external protective hood therefor, the mouth of the hood being substantially at right angles to the base, and an annular soft-metal seat in the mouth of the hood, combined with the inner and outer sections of the escape-pipe having their adjacent ends resting upon opposite faces of the annular seat, and means to force the said ends of the pipe-sections, upon the seat, to form a tight joint at the mouth of the hood.

6. A metallic base having an opening therein and an external protective hood, the mouth of the latter being intumed to form an annular seat substantially at right angles to the base and external thereto, and an apertured bar extended across the mouth, combined with the inner and outer sections of the es-

cape-pipe having their adjacent ends abutted against opposite faces of the annular seat, and a connecting - bolt in engagement with said sections and extended through the apertured bar, said bolt acting to rigidly secure the pipe-sections in engagement with the seat to form a tight joint thereat.

7. A metallic base having an opening therein and an external protective hood, having an open mouth, an annular seat in the mouth, and a supporting-bar extended diametrically across the mouth, combined with inner and outer sections of an escape-pipe having their adjacent ends abutted against opposite faces of the seat, a connecting - bolt in engagement with said sections and centrally located relative to their adjacent ends, whereby the outer section may be set at the desired angle with the inner section, the bolt passing through the supporting-bar at the center of the seat and rigidly holding the pipe-sections in adjusted position against the latter to form a tight joint thereat.

8. A device of the class described, comprising a supporting - base having an opening therein to receive the end of the inner section of an escape-pipe, an external hood surrounding said opening, and an annular seat within the mouth of the hood, to receive against its opposite faces the adjacent ends of the inner and outer sections of the escape-pipe.

9. A device of the class described, comprising a supporting - base having an opening therein to receive the end of the inner section of an escape-pipe, an external hood surrounding said opening, and an annular seat within the mouth of the hood, combined with inner and outer sections of an escape-pipe, and means to connect them at the desired angle with their adjacent ends pressed against opposite faces of the seat to form a tight joint thereat.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE T. COOPER.

Witnesses:

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