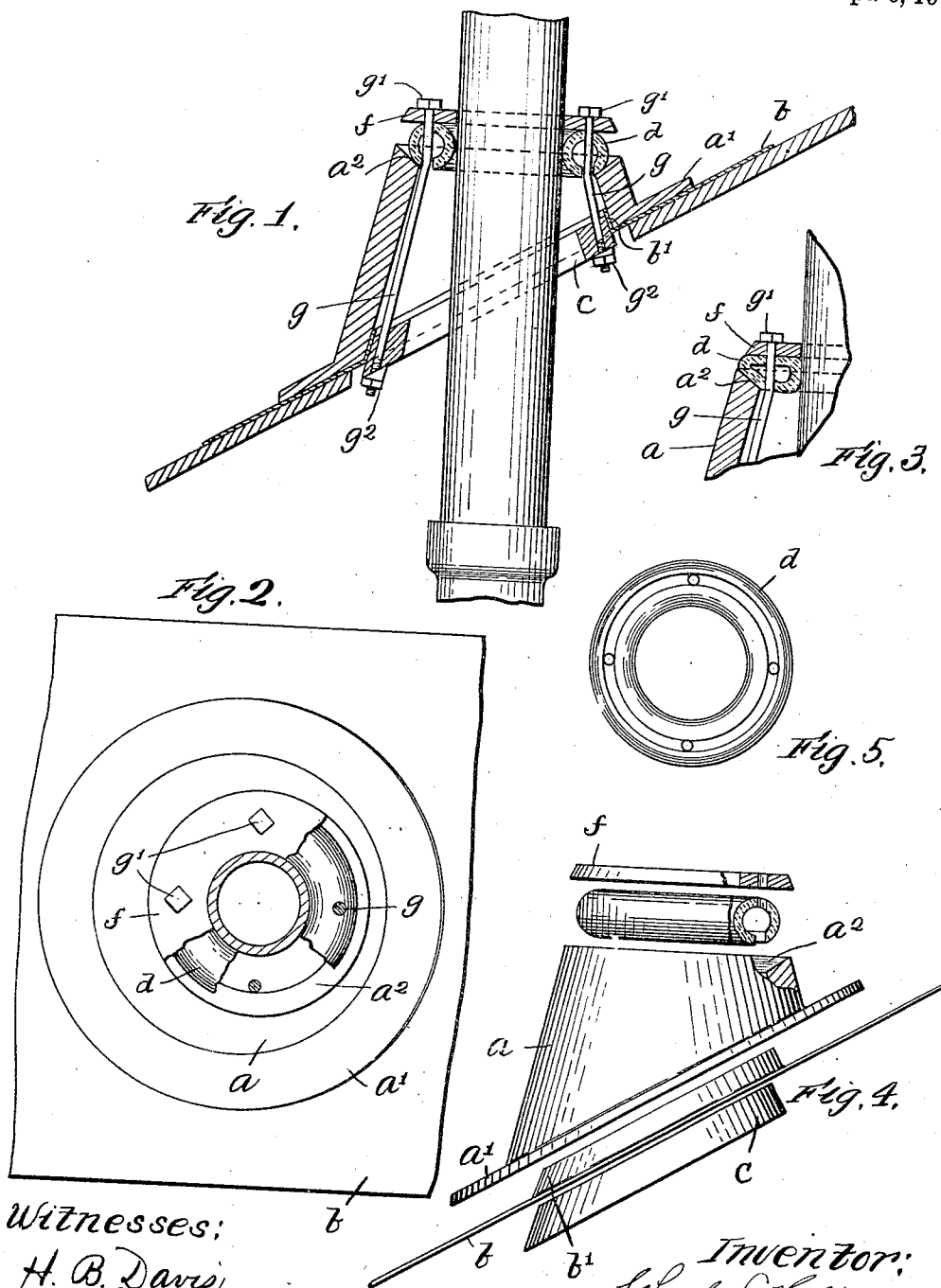


969,476.

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ROOF COLLAR FOR VENT PIPES.
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UNITED STATES PATENT OFFICE.

CHARLES L. HOLT, OF LAWRENCE, MASSACHUSETTS.

ROOF-COLLAR FOR VENT-PIPES.

969,476.

Specification of Letters Patent.

Patented Sept. 6, 1910.

Application filed December 27, 1909. Serial No. 535,003.

To all whom it may concern:

Be it known that I, CHARLES L. HOLT, of Lawrence, county of Essex, State of Massachusetts, have invented an Improvement in Roof-Collars for Vent-Pipes, of which the following is a specification.

This invention has for its object the construction of an improved roof-collar for vent-pipes, and particularly to the construction of the external joint, whereby a tight joint is produced between the collar and vent-pipe, at a point above the roof, by means operated from beneath the roof, thereby not only avoiding the use of molten metal in making the joint, but also obviating the necessity of the plumber going on to the roof.

The invention involves an improved form of roof-collar and joint-forming elements in assembled form which a carpenter can place in position on the roof, when shingling the roof, or otherwise working upon it, so that, when the plumber projects the vent-pipe up through the roof and collar, the joint-forming elements may be operated by him, from beneath the roof, and a tight joint produced.

Figure 1 is a vertical section of a roof-collar for vent-pipes embodying this invention, the vent-pipe having been projected up through the collar and the joint-forming elements being in their normal positions. Fig. 2 is a plan view of the device, some of the parts being broken away. Fig. 3 is a sectional detail of the joint. Fig. 4 is a side elevation of the several parts. Fig. 5 is an under side view of the compressible ring, which serves as the essential joint-forming element.

a represents the roof-collar, which, as here shown, consists of a tapering tubular cylinder having a flange a' at the bottom and a seat a^2 at the top, formed by beveling the top from the outside toward the inside. The bottom of the collar may be formed at any angle desired, according to the pitch of the roof, or it may be made horizontal to accommodate a flat roof.

A flashing b is employed, which consists of a flat sheet of copper or equivalent material having a center-hole through it and having its edge, at the hole, turned up, as at b' , to engage the under side of the collar a . Said up-turned portion b' may be of any suitable length. A ring c , made tapering in cross-section, and of a shape and size

to fit the opening at the bottom of the collar, is adapted to be pushed into said opening, to thereby force the up-turned edge b' of a flashing firmly against the interior 60 wall of the collar.

A compressible ring d is employed, which is designed to rest on the seat a^2 , at the top of the collar. It may be made of lead, or asbestos, or other suitable material. As here shown, it is made of lead, by cutting out a flat disk with a center-hole through it and rolling or bending it into tubular form, see Fig. 5. Such a ring subserves all the purposes of this invention. It is designed 70 and intended that said compressible ring, when compressed, shall firmly and intimately engage the vent-pipe e , which is projected up through the collar, and to accomplish this result a pressure-plate f , made as 75 a flat ring, is placed on said compressible ring, and bolts g extend through holes in said plate and ring and down along the inside of the collar and through holes in the ring c , and nuts g' are arranged on the up- 80 per ends of said bolts, or said upper ends may be formed with heads in lieu thereof, and nuts g^2 are arranged on the lower ends of said bolts.

The parts are loosely assembled for shipment and are placed in position on the roof of a building by the carpenter while he is working on the roof, and when so placed in position thereon the nuts g^2 are accessible through the hole made in the roof by the 90 carpenter, see Fig. 1. The plumber projects the vent-pipe up through the collar and then tightens up the nuts g^2 , thereby drawing the bolts down and compressing the ring d , to cause it to firmly and intimately 95 engage the vent-pipe, see Fig. 3, and also to force up the tapered ring c to cause it to firmly engage the up-turned portion b' of the flashing, and firmly clamp said edge in position. The time taken by the plumber 100 to thus make the joint, having all the joint-forming elements at hand and requiring on his part merely the labor of tightening the nuts g^2 , becomes an inconsequential item of expense, as contrasted with the expense of 105 making an external joint by the plumber going on the roof.

I claim:

1. A roof-collar having a flange at the bottom and a seat at the top, a compressible- 110 ring arranged on said seat, and means accessible from beneath the roof for compress-

ing said ring to cause it to intimately engage the vent-pipe and produce a tight joint, substantially as described.

2. A roof-collar having a flange at the bottom and a seat at the top, a compressible-ring arranged on said seat, a pressure-plate arranged on said ring, and means accessible from beneath the roof for exerting pressure upon said plate to compress the ring and cause it to intimately engage the vent-pipe and produce a tight joint, substantially as described.

3. A roof-collar having a flange at the bottom and a seat at the top, a compressible-ring arranged on said seat, a pressure-plate arranged on said ring and bolts extending through said pressure-plate and ring and accessible from beneath the roof, whereby pressure may be exerted on said plate to compress the ring, substantially as described.

4. A roof-collar having a flange at the bottom and a seat at the top, a compressible-ring arranged on said seat, consisting of a tubular ring of sheet metal, and means for compressing said ring to cause it to engage the vent-pipe, substantially as described.

5. A roof-collar having a flange at the bottom, a flashing having a center-hole through it and an up-turned flange at the edge of said hole, adapted to project up into the opening at the bottom of the collar, and a clamping-ring for engaging said flange, substantially as described.

6. A roof-collar having a flange at the bottom and a seat at the top, a compressible-ring arranged on said seat, a flashing at the bottom of said collar having an up-turned central flange adapted to engage the interior of the collar, a tapered ring adapted to enter the opening at the bottom of the

collar and clamp an up-turned flange in position, and means for moving up said tapered ring and for also compressing said compressible-ring, substantially as described.

7. A roof-collar having a flange at the bottom and a seat at the top, a compressible-ring arranged on said seat, a flashing at the bottom of said collar having an up-turned central flange adapted to engage the interior of the collar, a tapered ring adapted to enter the opening at the bottom of the collar and clamp the up-turned flange in position, and bolts extending through said compressible-ring and said tapered ring, whereby the former may be compressed and the latter moved up into the opening at the bottom of the collar, substantially as described.

8. A roof-collar having a flange at the bottom and a seat at the top, a compressible-ring arranged on said seat, a pressure-plate arranged on said ring, a flashing at the bottom of said collar having an up-turned central flange adapted to project up into the opening at the bottom of the collar, a tapered ring adapted to enter said opening at the bottom of the collar and engage said flange, and bolts extending down through the said pressure-plate and compressible-ring and tapered ring, which are arranged on the inside of the collar, substantially as described.

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

CHARLES L. HOLT.

Witnesses:

B. J. NOYES,
H. B. DAVIS.