

(No Model.)

H. C. WEEDEN.
ROOF FLANGE.

No. 580,515.

Patented Apr. 13, 1897.

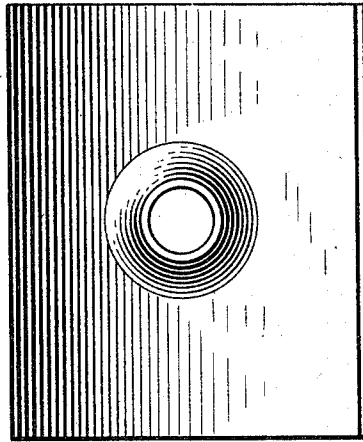


Fig. 1.

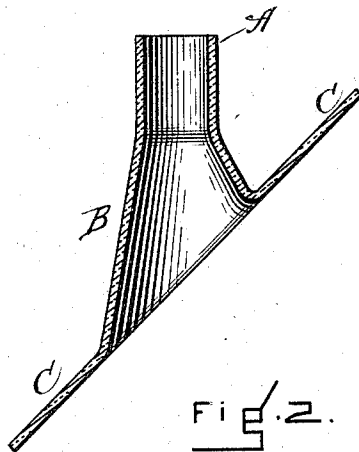


Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY C. WEEDEN, OF QUINCY, MASSACHUSETTS.

ROOF-FLANGE.

SPECIFICATION forming part of Letters Patent No. 580,515, dated April 13, 1897.

Application filed July 28, 1896. Serial No. 600,754. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. WEEDEN, a citizen of the United States, residing at Quincy, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Roof-Flanges, of which the following is a specification.

My invention relates to improvements in roof-flanges for ventilating and other pipes, and its object is to improve the construction and efficiency of these devices, as will be hereinafter more fully set forth.

It is frequently necessary to carry a pipe, particularly the ventilating-pipe of indoor plumbing, through and above the sloping roof of the building, and when this is done it is obvious that some device must be provided for making the joint between the roof and the pipe rain-tight. It has been attempted to do this heretofore by the use of a variety of devices or "roof-flanges," so called, commonly made of cast metal, and this method of construction has involved the manufacture and carrying in stock of such articles, ranging according to the various sizes of pipe commonly employed, which are from two to six inches in diameter. Furthermore, it is necessary to make the roof-flanges of various angles to match the angles of various sloping roofs, and this necessity has heretofore required the carrying of flanges of different angle as well as of different size of aperture. Furthermore, so far as I am aware, by reason of these roof-flanges having been heretofore invariably constructed of practically inexpandable and incontractible material there has always been a necessity of making the joint between the aperture of the flange and the pipe tight either by calking or, when a lead flange is used, by clamping or otherwise compressing the same tightly around the pipe. Obviously any of these constructions may result in an imperfect joint, with consequent leakage.

The object of my improvement is to produce a construction of this flange which will be in itself adapted to be used in connection with all the different sizes of pipe commonly

employed, which will have a considerable range of roof-angle, and which will wholly dispense with the calking or clamping or compressing before referred to. This device I will now proceed to describe in the form now best known to me.

My improved roof-flange is shown in the accompanying drawings, in Figure 1 in top plan view, and in Fig. 2 in vertical section.

As shown in the drawings, my improved roof-flange consists of an upper cylindrical portion having a diameter slightly less than the least diameter of pipe in connection with which it is to be used, or, say, slightly less than two inches. The length of this cylindrical portion may be varied. The cylindrical portion A is joined by means of a tapering portion B to an inclined base C, the taper extending from the diameter of A at the upper end to one such that when cut in horizontal plane there will remain a circular aperture slightly less in diameter than that of the largest size of pipe with which the device is intended to be used. The cylindrical and tapering portions are arranged, preferably, at an angle of forty-five degrees with reference to the base portion C. I form the portions A and B, and preferably the whole device, of india-rubber, whereby I obtain a self expanding and contracting pipe-encircling aperture.

The length of pipe passing through the roof is carried up through the roof-flange, which, if not already sufficiently large, is cut off horizontally, so that its aperture will under its own elasticity permit the pipe to pass, but hug the same closely, the base of the pipe being supported by being set into the pipe below, or otherwise, in any suitable manner. The base of my improved roof-flange may be of any suitable form, but is preferably made square, as shown.

The flexibility of the device permits it to be bent and yield to accommodate a range of angles of roof, and it is also, as above explained, adapted to be adjusted to receive a variety of diameters of pipe.

I claim—

1. A roof-flange consisting of a base C and

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a tapering portion B, the whole being formed of india - rubber, all substantially as described.

2. A roof-flange formed wholly of india-
5 rubber and consisting of a flexible base C, a self expanding and contracting cylindrical portion A, and an intermediate tapering portion B, for the purpose set forth.

In testimony whereof I have hereunto subscribed my name this 27th day of July, A. D. 1896.

HENRY C. WEEDEN.

Witnesses:

WARREN B. THAYER,
EVERETT D. CHADWICK.