No. 686,323. Patented Nov. 12, 1901.

M. L. McGUIRE.

COLLAR FOR ROOFS.

(Application filed May 2, 1899. Renewed July 5, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

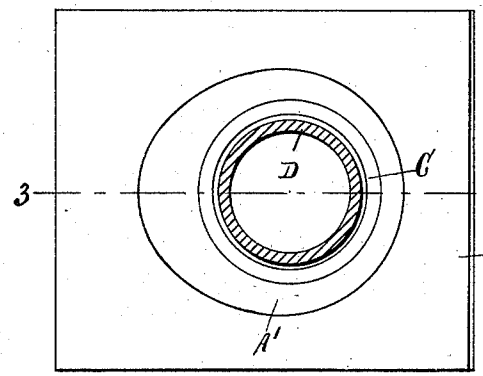


Fig. 2.

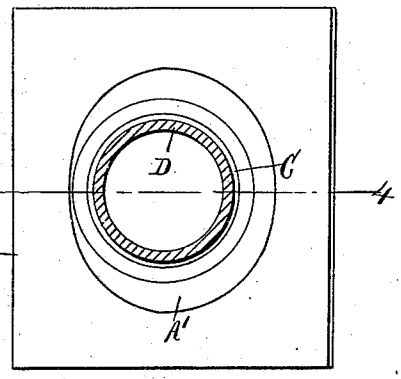


Fig. 3.

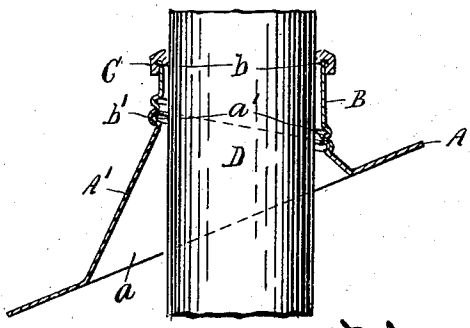


Fig. 4.

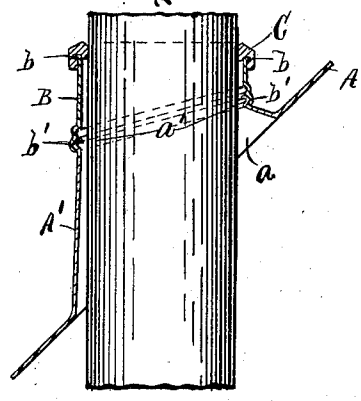
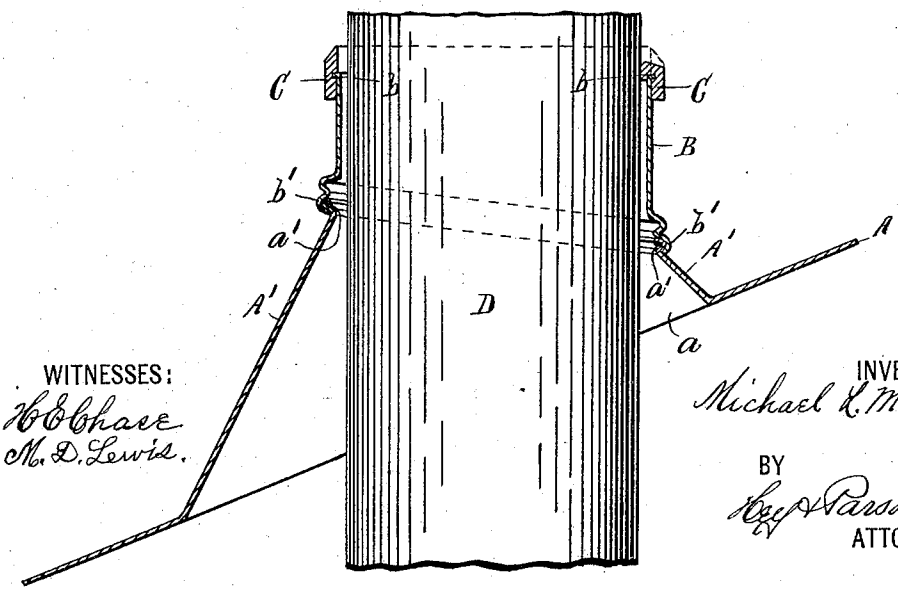


Fig. 5.



WITNESSES:
H. C. Chase
M. D. Lewis.

INVENTOR
Michael L. McGuire
BY
Hoyt A. Parsons.
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 686,323. Patented Nov. 12, 1901.

M. L. McGUIRE.

COLLAR FOR ROOFS.

(Application filed May 2, 1899. Renewed July 5, 1901.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 6.

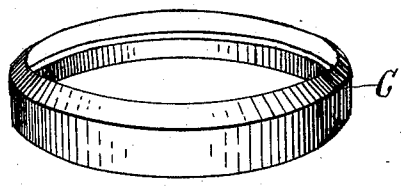


Fig. 7.

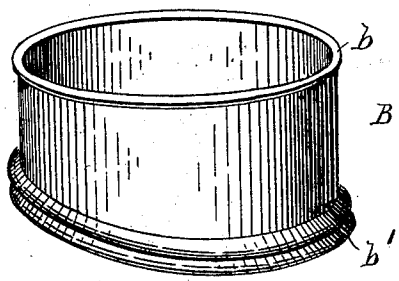
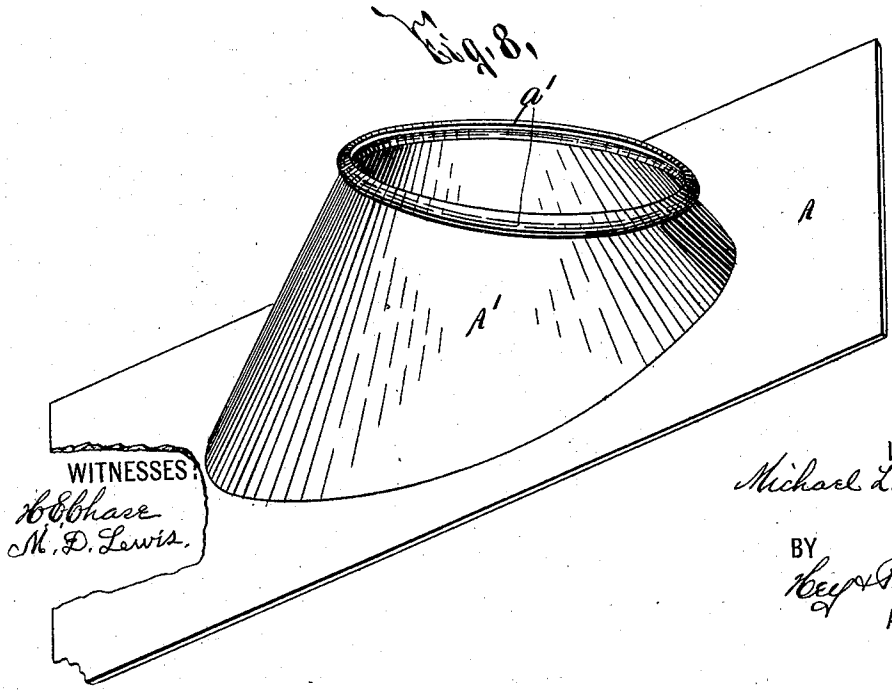


Fig. 8.



WITNESSES:
H. B. Chase
M. D. Lewis.

INVENTOR
Michael L. McGuire

BY
Key & Parsons
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MICHAEL L. McGUIRE, OF SYRACUSE, NEW YORK.

COLLAR FOR ROOFS.

SPECIFICATION forming part of Letters Patent No. 686,323, dated November 12, 1901.

Application filed May 2, 1899. Renewed July 5, 1901. Serial No. 67,229. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL L. McGUIRE, of Syracuse, in the county of Onondaga, in the State of New York, have invented certain new and useful Collars for Roofs, of which the following is a specification.

This invention relates to collars particularly applicable for use upon the roofs of buildings at points where pipes are passed therethrough, and has for its object the production of a device which is exceedingly simple and light in construction, is manufactured and placed in operative position at a minimum cost, and is readily adjusted to conform to any inclination of a roof; and to this end the invention consists in the combination, construction, and arrangement of the component parts of a collar for the desired purpose, as hereinafter fully described, and pointed out in the claims.

In describing this invention reference is had to the accompanying drawings, forming part of this specification, in which like letters indicate corresponding parts in all the views.

Figures 1 and 2 are top plan views of my collar and a pipe encircled thereby, said collar being shown in two positions assumed when applied to roofs of different inclinations. Figs. 3 and 4 are vertical sectional views taken, respectively, on lines 3 3 and 4 4, Figs. 1 and 2. Fig. 5 is an enlarged vertical sectional view similar to Fig. 3, showing a portion of the pliable sleeve at the upper edge of the collar as in its inoperative position. Figs. 6, 7, and 8 are isometric views, respectively, of said sleeve, the adjustable nipple, and the base of my invention.

This improved collar consists, essentially, of a base A, a flange A′, a nipple B, and a sleeve C.

The base A may be of any desired form, size, and construction, is usually secured to the upper face of the roof, (not illustrated,) and preferably consists of a rectangular metallic plate having a substantially central opening *a* for receiving a pipe D.

The flange A′ is usually formed substantially conical and projects upwardly from the edge of the opening *a*, with its axis arranged at an angle with the base A. The upper end of the flange A′ is preferably formed of considerably smaller diameter than the opening *a* and is provided with a bearing *a′*, which is arranged at an angle with the base A and the axis of the flange A′ and generally consists of an annular bead or shoulder of rounding cross-section. Said flange is preferably formed integral with the base A, but may obviously be formed separable therefrom and suitably secured thereto, as by solder.

The nipple B is substantially cylindrical and projects upwardly from the outer end of the flange A′ at an angle with the base A and the axis of said flange A′. Said nipple is preferably formed of less size than the flange A′ and is provided at its upper end with a substantially horizontal laterally-projecting peripheral shoulder *b*, which reinforces said upper end and prevents bending thereof when calking the joint between the nipple B and the pipe D, passed therethrough. The nipple B may be fixed to the flange A′, although it is usually adjustably connected thereto, being here illustrated as axially movable and as provided at its lower end with a bearing *b′*, arranged at an angle with the base A and consisting of an annular bead or shoulder engaged with the bearing *a′*. By connecting the nipple B to the flange A′, so as to permit axial movement of said nipple, and by also providing said nipple and flange with the inclined bearings *a′ b′*, my collar is easily adjusted for use on roofs of different inclinations, and consequently it is readily placed in operative position, and a dealer is not required to keep as large a stock as would be necessitated were each collar capable of use upon roofs of but one inclination.

The sleeve C is preferably formed of lead or other pliable material, encircles the upper end of the nipple B, and additionally reinforces the upper end of said nipple and prevents bending thereof when calking the joint between the nipple B and the pipe D. Said sleeve is usually formed with an annular groove in its inner face, which receives the shoulder *b*, and is generally cast upon the upper end of the nipple B, but may be soldered to said nipple, if desired. The upper end of the sleeve C is preferably decreased upwardly in thickness, is extended beyond the upper end edge of the nipple B, as seen in Fig. 5, and may be beaded or calked inwardly against the periphery of the pipe D and the inner

face of the nipple B, as illustrated in Figs. 3, 4, and 5. When said sleeve is beaded or calked inwardly, as described, the upper end of the nipple B resists the outward pressure generated by said beading or calking, and the pipe D is firmly held in position.

The sleeve C is particularly applicable for use with the remaining parts of my collar; but it is obvious that any other suitable means may be used for closing the joint between said collar and the pipe D.

The construction and operation of my collar will now be readily understood upon reference to the foregoing description and the accompanying drawings, and it will be particularly noted that considerable change may be made in the construction and arrangement of its component parts without departing from the spirit of my invention.

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

1. In a collar, the combination of a base and a nipple arranged at an angle with the base, one of the parts being movable on an axis extending lengthwise of said one of the parts; with a bearing provided on the base and arranged at an angle therewith, and a bearing provided on the nipple and arranged at an angle with the longitudinal axis of the nipple and engaged with the first bearing for varying the angle between the base and the nipple as said one of the parts is moved on said axis, substantially as and for the purpose described.

2. A collar comprising a base, a flange rising from one side of the base and formed with a bearing arranged at an angle with the base, and a nipple arranged at an angle with the base and formed with a bearing arranged at an angle with the longitudinal axis of the nipple and engaged with the first bearing, said nipple being movable on its longitudinal axis for varying the angle between the base and the nipple, substantially as and for the purpose described.

3. A collar comprising a base, a flange rising from one side of the base and having its outer end formed with a bearing consisting of an annular bead or shoulder arranged at an angle with the base, and a nipple arranged at an angle with the base and having its end adjacent to the base formed with a bearing consisting of an annular bead or shoulder arranged at an angle with the longitudinal axis of the nipple and engaged with the first bearing, said nipple being movable on its longitudinal axis for varying the angle between the base and the nipple, substantially as and for the purpose specified.

4. The combination with a pipe; of a collar comprising a base, a substantially rigid cylindrical portion rising from the base, and a pliable sleeve surrounding the upper end of said portion and having one end fixed to its periphery and its other end extended beyond the end edge thereof, and inwardly into engagement with the inner face of said portion and the periphery of the pipe for forming a substantially tight joint between the pipe and the collar, substantially as and for the purpose specified.

5. A collar having a substantially cylindrical portion provided with a laterally-projecting peripheral shoulder for reinforcing said portion, and a pliable sleeve surrounding the substantially cylindrical portion for additionally reinforcing the same, and having its inner face formed with an annular groove for receiving said shoulder, substantially as and for the purpose described.

6. The combination with a pipe; of a collar having a substantially cylindrical portion provided with a laterally-projecting peripheral shoulder for reinforcing said portion, and a pliable sleeve surrounding the substantially cylindrical portion for additionally reinforcing the same and having its inner face formed with an annular groove for receiving the peripheral shoulder, said sleeve having its outer end extended beyond the end edge of said cylindrical portion and inwardly into engagement with the inner face of said portion and the periphery of the pipe, for forming a substantially tight joint between the pipe and the collar, substantially as and for the purpose specified.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 17th day of April, 1899.

MICHAEL L. McGUIRE.

Witnesses:
H. E. CHASE,
ARTHUR E. PARSONS.