

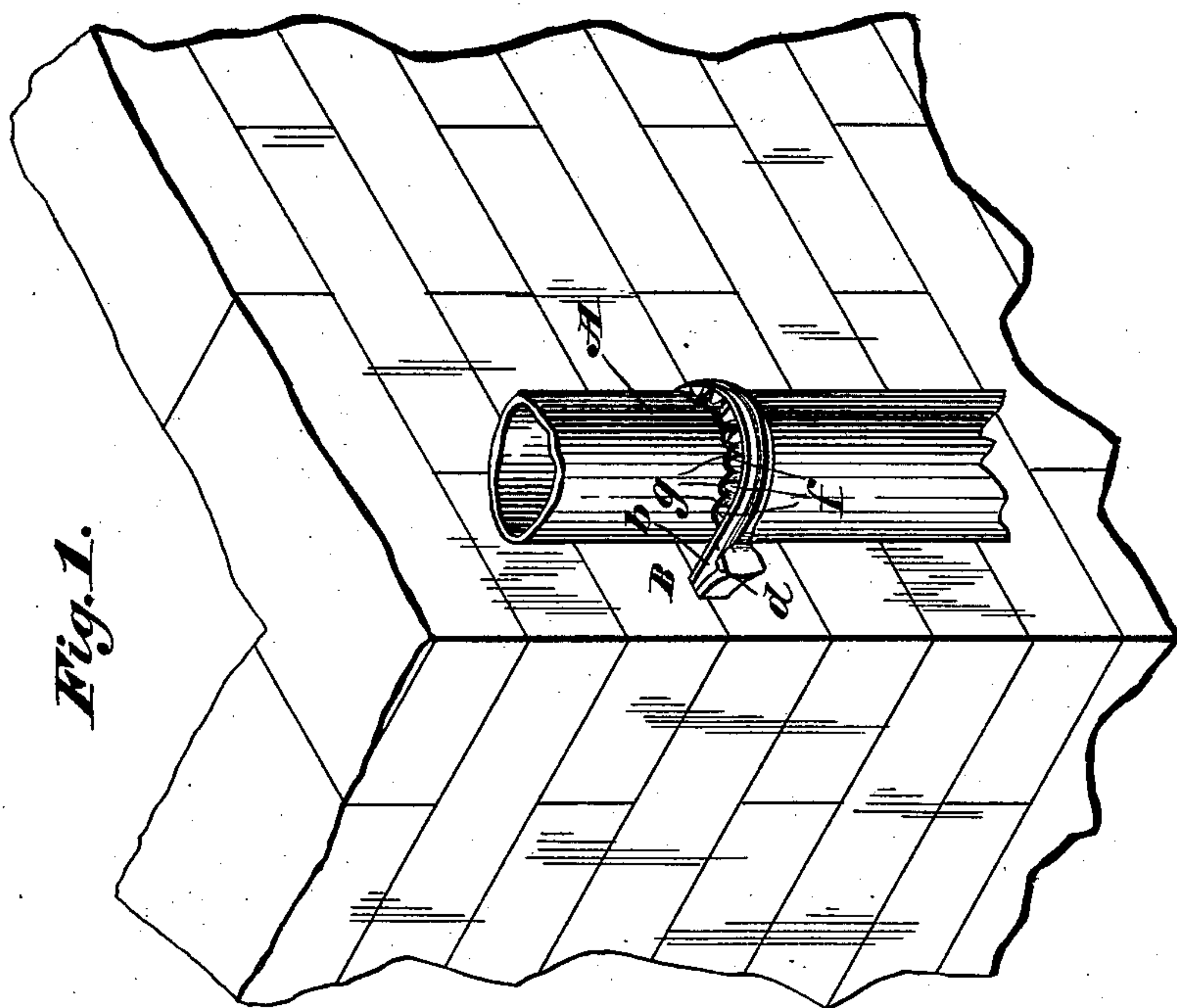
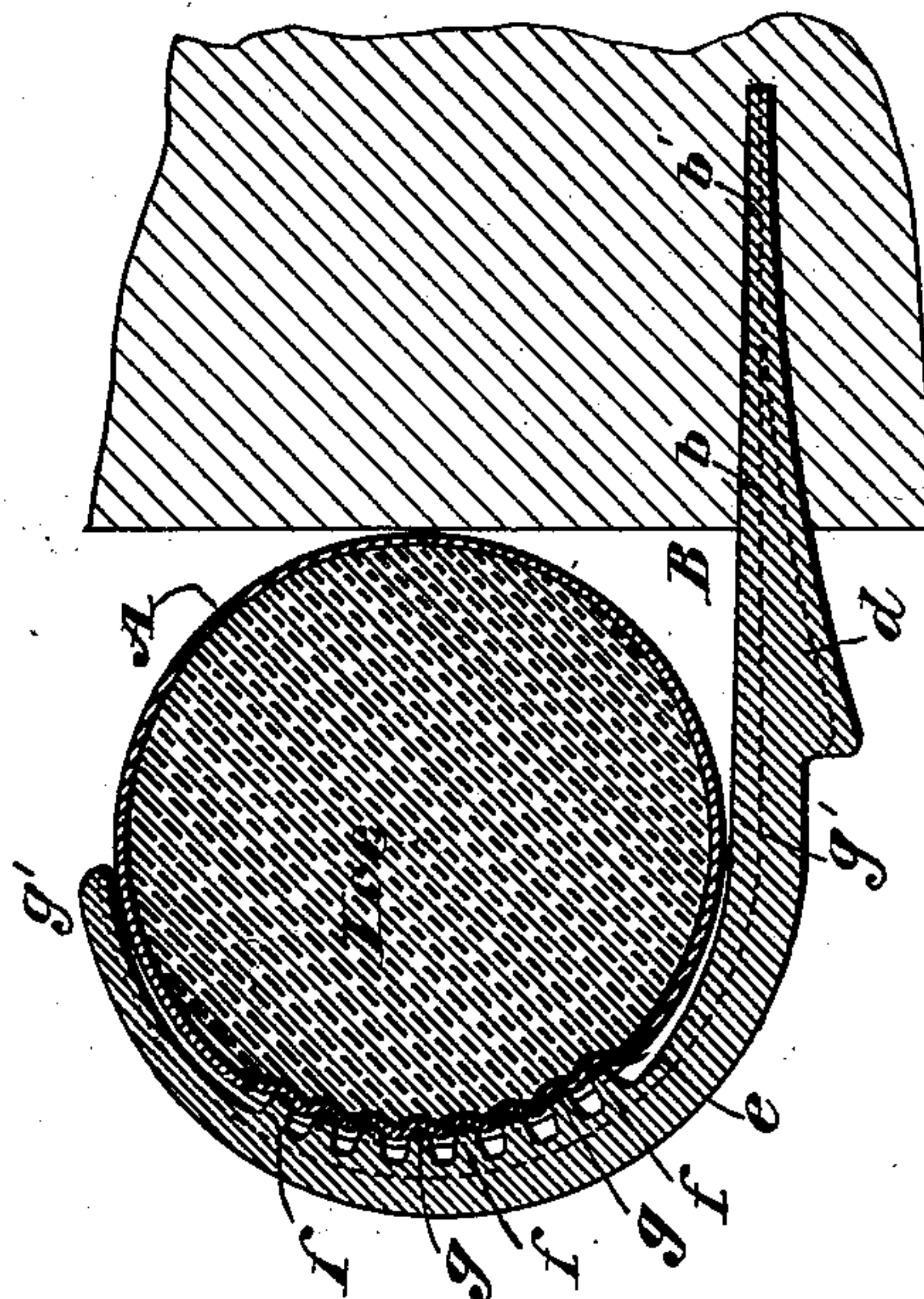
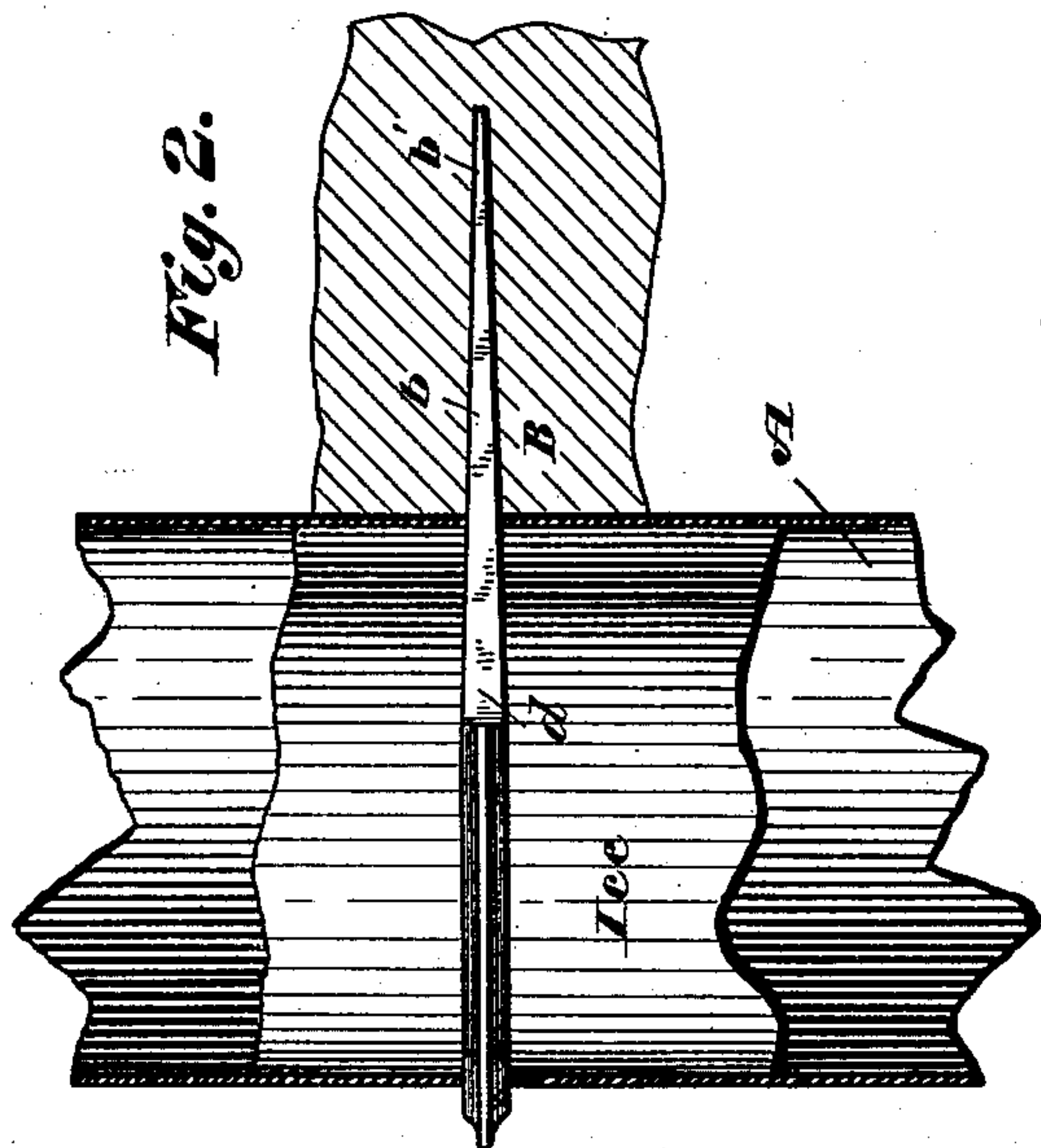
(No Model.)

2 Sheets—Sheet 1.

E. G. MINNEMEYER.
HANGER FOR CONDUCTOR PIPES.

No. 549,578.

Patented Nov. 12, 1895.



Witnesses:

Frank Blair Rivers

M. B. May

Inventor

E. G. Minnemeyer
by N. H. Bliss
Attorney

(No Model.)

2 Sheets—Sheet 2.

E. G. MINNEMEYER.
HANGER FOR CONDUCTOR PIPES.

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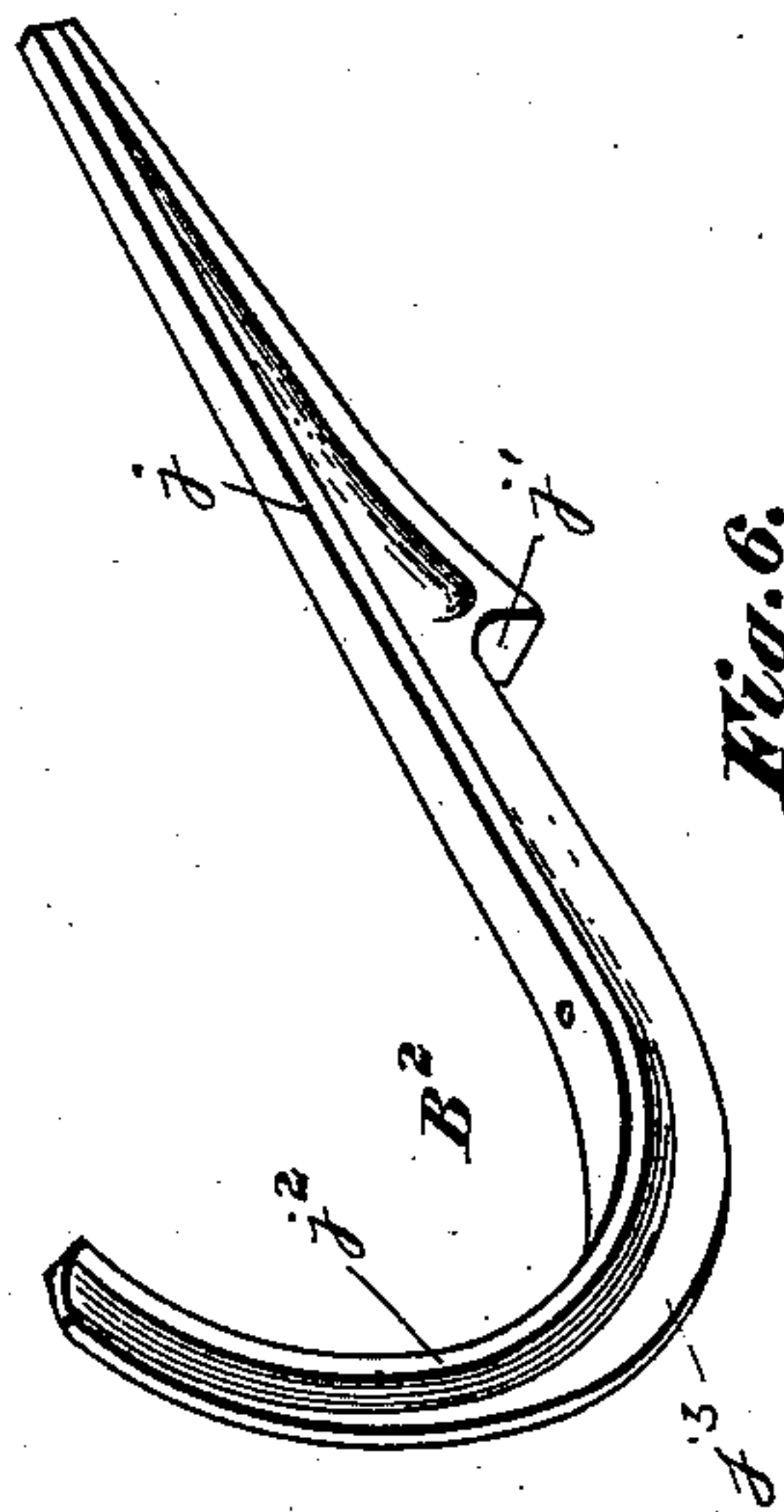


Fig. 6.

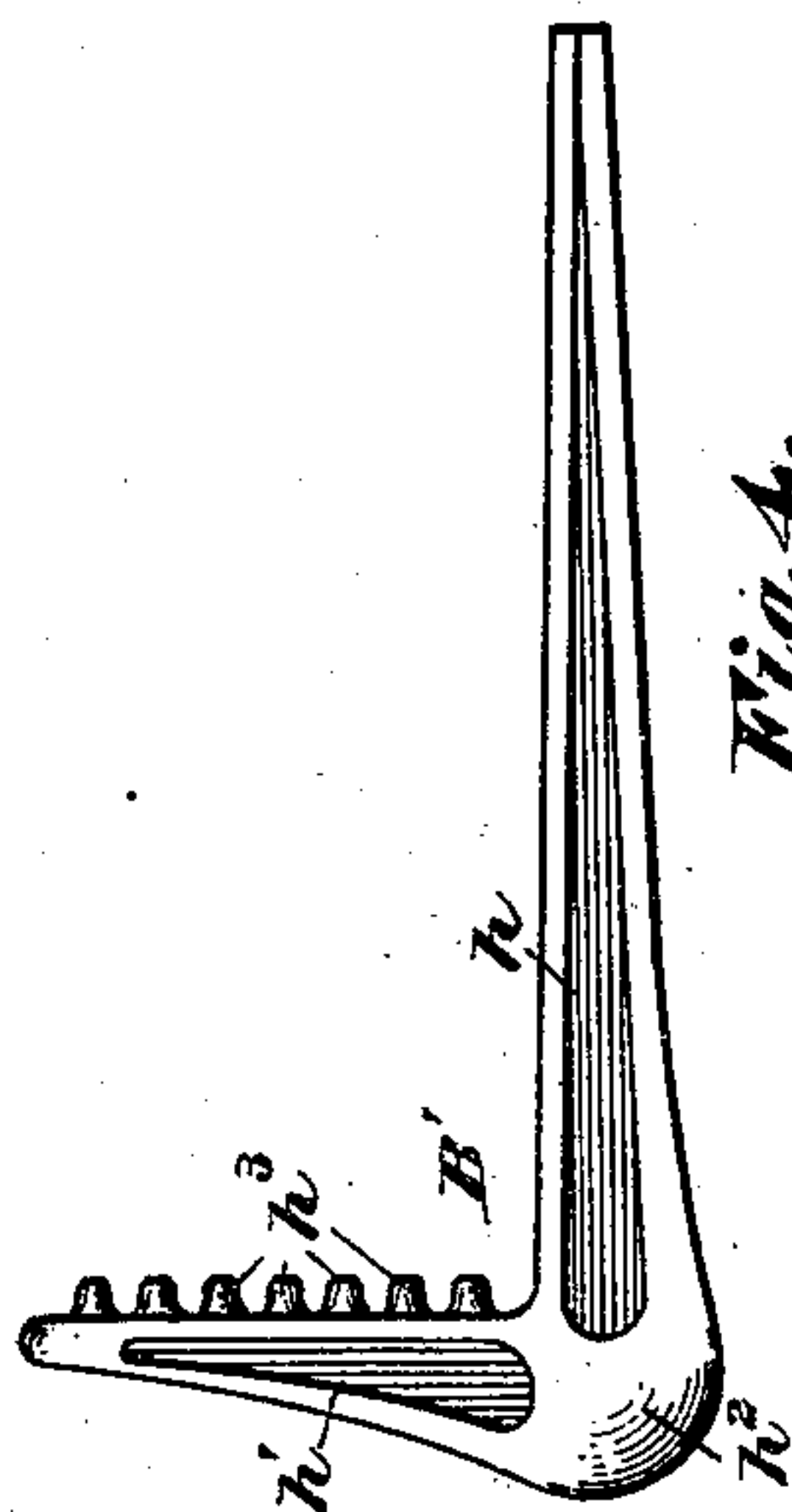
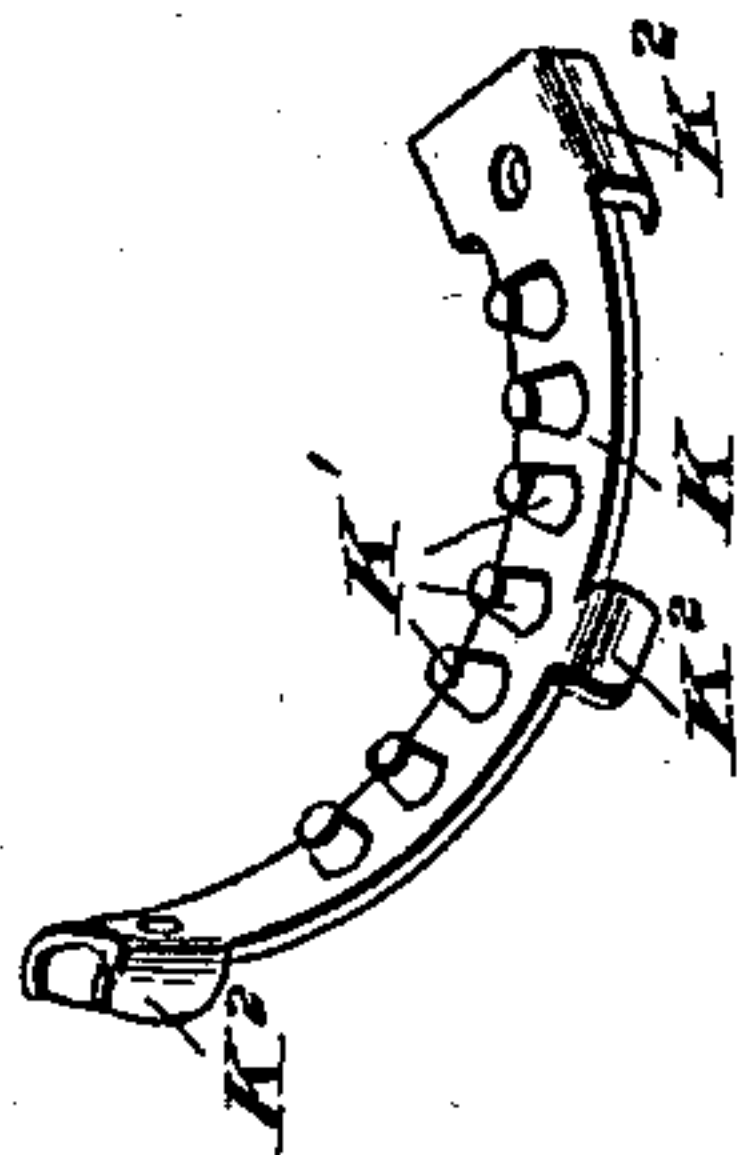


Fig. 4.

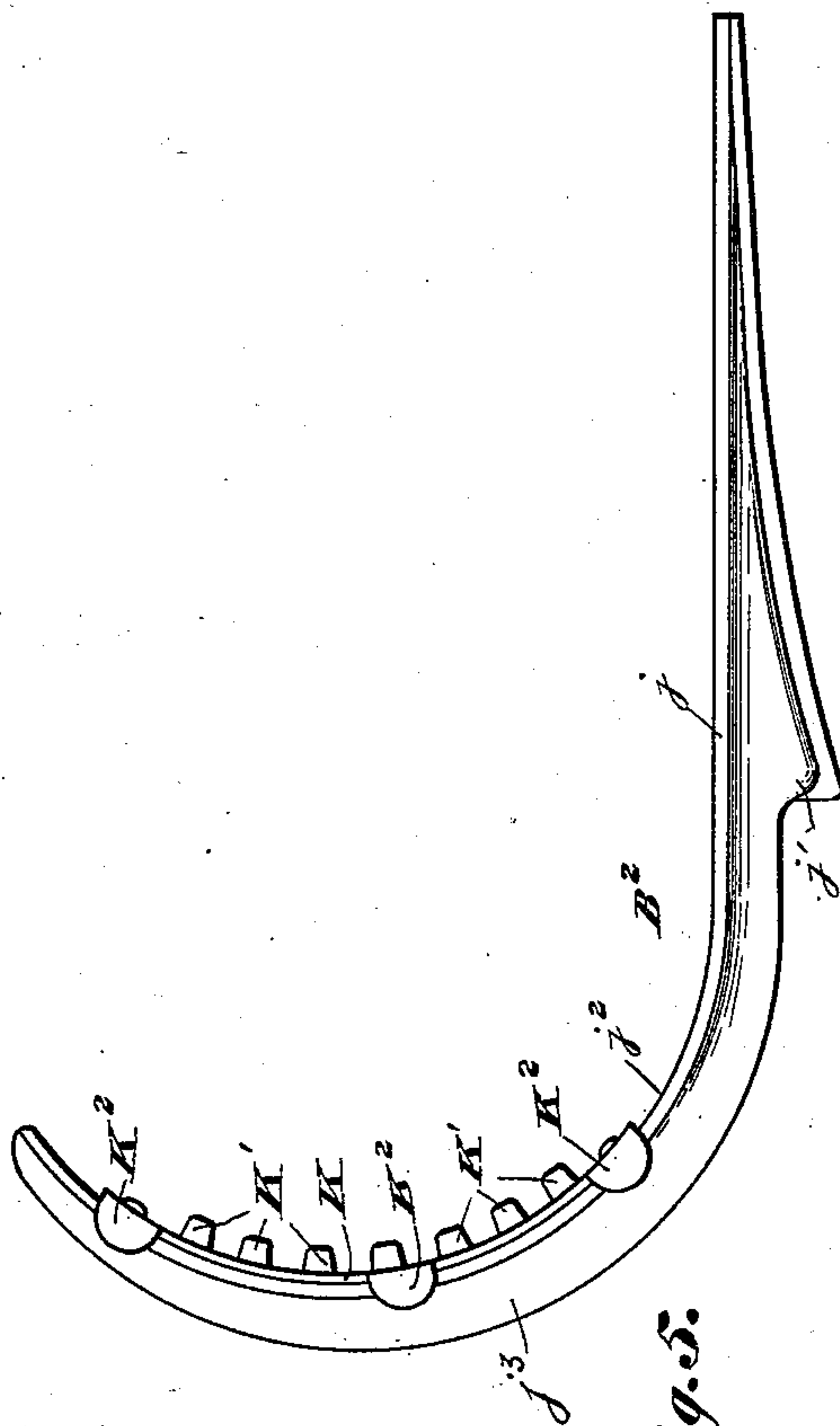


Fig. 5.

Witnesses;
Frank Blair Rives.
M. B. May

Inventor
E. G. Minnemeyer
by H. H. Bliss
Attorney

UNITED STATES PATENT OFFICE.

EDWARD G. MINNEMEYER, OF CHICAGO, ILLINOIS.

HANGER FOR CONDUCTOR-PIPES.

SPECIFICATION forming part of Letters Patent No. 549,578, dated November 12, 1895.

Application filed October 20, 1894. Serial No. 526,467. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. MINNEMEYER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hangers for Conductor-Pipes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in hangers for conductor-pipes, the object of the invention being to provide a hook or hanger which shall be so constructed as to loosely engage with the pipe and yet shall be in such positive engagement with it as that the pipe shall be prevented from slipping longitudinally of its axis after it is once placed in position. To this end the hanger is cast or provided with projections, which, as the hanger is driven into the wall, form recesses in the pipe, as will be hereinafter fully described and set forth.

Referring to the drawings, Figure 1 is a perspective view of a portion of a dwelling, showing a part of a conductor and the hanger. Fig. 2 is a side view of the hanger, the pipe being shown in section. Fig. 3 is a section on line *xx*. Fig. 4 shows a hanger to be used for conductor-pipe, square or rectangular in section. Fig. 5 shows a modified form of hanger. Fig. 6 is a perspective view of the hanger and the supplemental strip detached therefrom.

The principal objection to the ordinary hangers with a semicircular gripping portion now in use is that while they hold the pipe firmly in lines transverse to its axis, yet they provide no means for preventing movement of the pipe in lines longitudinal thereof. This has proved a serious difficulty, especially in those parts of the country where ice forms in the pipe for a considerable portion of the year. It will be readily understood and seen that unless some additional means are provided for preventing longitudinal movement and slipping of the pipe the great weight of

the ice therein will cause the sections of pipe to slip and become disjointed. To obviate this trouble, I, as aforesaid, provide the hanger and pipe with means for locking them together against vertical movement relatively to each other.

In Figs. 1 to 3 I have shown one form in which my invention may be embodied. A represents a conductor-pipe, which may be either corrugated or smooth or of any shape in cross-section as may be preferred. The hanger is represented by B, it having the shank portion *b*, pointed at the end, as at *b'*, and having the strengthening-web *d*, which forms a driving-head to receive the blows of a hammer when the hanger is being driven into place. The gripping-pipe inclosing portion *e* of the hanger is semicircular and may be provided, if desired, with a strengthening web or rib on its exterior surface. The inner surface of the semicircular part *e* is corrugated or provided with a series of inwardly-extending projections *f f f*, which may be cast or formed therewith or may be riveted thereto. As shown, they are cast with the hanger and are U-shaped or semicircular in section, although they may be of any shape. If preferred, I can provide the inner surface with corrugations which are sufficient to engage the pipe.

It will be seen that when the hanger is driven into the wall the projections or corrugations *f* will impinge upon the exterior surface of the pipe and form recesses *g g*, the walls of which bear against the sides of the projections *f f* and prevent any vertical movement of the pipe. I prefer that the projections should not penetrate the pipe and form holes in it, although this may be done, if desired. The recesses or sockets *g g* are not sufficient to obstruct the flow of water through the pipe, as they project inward but a very small distance.

In Fig. 4 I have shown a differently-shaped hanger, which is especially adapted for use in connection with pipes square or polygonal in cross-section and either plain or grooved longitudinally. This hanger B' has a straight shank *h*, with a pipe-inclosing arm *h'*, which extends laterally at right angles therefrom. It is swelled or thickened at *h²* to provide a

driving-head and is provided on the inner surface of the arm h' with corrugations or projections h^3 , similar to those at $f f$ on the hanger shown in Figs. 1, 2, and 3.

5 In Figs. 5 and 6 I have shown how my invention can be applied to any of the ordinary hooks now in use. B^2 is a hanger, which may be one of any of the common types, it having a shank j , driving-head j' , and the bent semi-circular pipe-inclosing arm or extension j^2 ,
10 provided with strengthening-rib j^3 . To provide the inner edge of the pipe-inclosing arm j^2 (which is smooth) with corrugations or projections, I add a supplemental metallic strip
15 K , having inwardly-extending projections K' , which positively engage the pipe. It is substantially the width of the arm j^2 and is secured thereto in any suitable way, as by ears or lugs $K^2 K^2 K^2$, which are bent over, so as
20 to engage the edges of the said arm.

It will be understood that I do not limit myself to a corrugated strip of the form shown, as it may be made in any way or in any shape or may be applied to any style of
25 hanger without departing from the spirit and scope of my invention.

The advantages incident to a hanger constructed as above set forth are apparent. It may be used at any point and loosely engage
30 the pipe—that is, it is not permanently secured to it—while at the same time it tightly clamps the pipe against lateral or vertical movement. It can be easily withdrawn, and while it makes a series of indentations in the
35 pipe, yet such indentations or recesses are not sufficient to injure or mar the latter.

While the ordinary hooks now in use engage the pipe, it will be seen that such en-

gagement is not positive in the sense that the pipe and the hanger are interlocked. 40

In using my hanger the pipe is gripped between the wall and the inclosing portion of the hanger, the curved ends $g' g'$ thereof preventing the pipe from being flattened when the hanger is driven in far enough to cause
45 the locking-projections to form indentations or sockets in the pipe, and the pipe and hanger are positively locked together without the use of solder, while at the same time the hanger can be easily withdrawn from its engagement
50 with the pipe, so as to remove the latter.

What I claim is—

1. The herein described hook or holder for vertical water pipes adapted to support a pipe both vertically and laterally, it having the
55 shank b with the tapering end b' , adapted to be driven tangentially into a wall, and the semicircular pipe inclosing part e provided with the inwardly extending projections f adapted to indent without perforating a sheet
60 metal water pipe, substantially as set forth.

2. A hook or hanger for a vertical water pipe having its tapering shank b , adapted to be driven tangentially into the wall, and the
65 pipe inclosing hook e , in combination with the supplemental metallic strip K secured to the inner face thereof and having inward projections K' adapted to form recesses in a pipe without perforating it, substantially as set
70 forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD G. MINNEMEYER.

Witnesses:

OSCAR L. McMUNEY,
ELLA C. HOWE.