

No. 702,704.

Patented June 17, 1902.

A. B. CARLL.
HANGER FOR PIPES, &c.
(Application filed June 27, 1901.)

(No Model.)

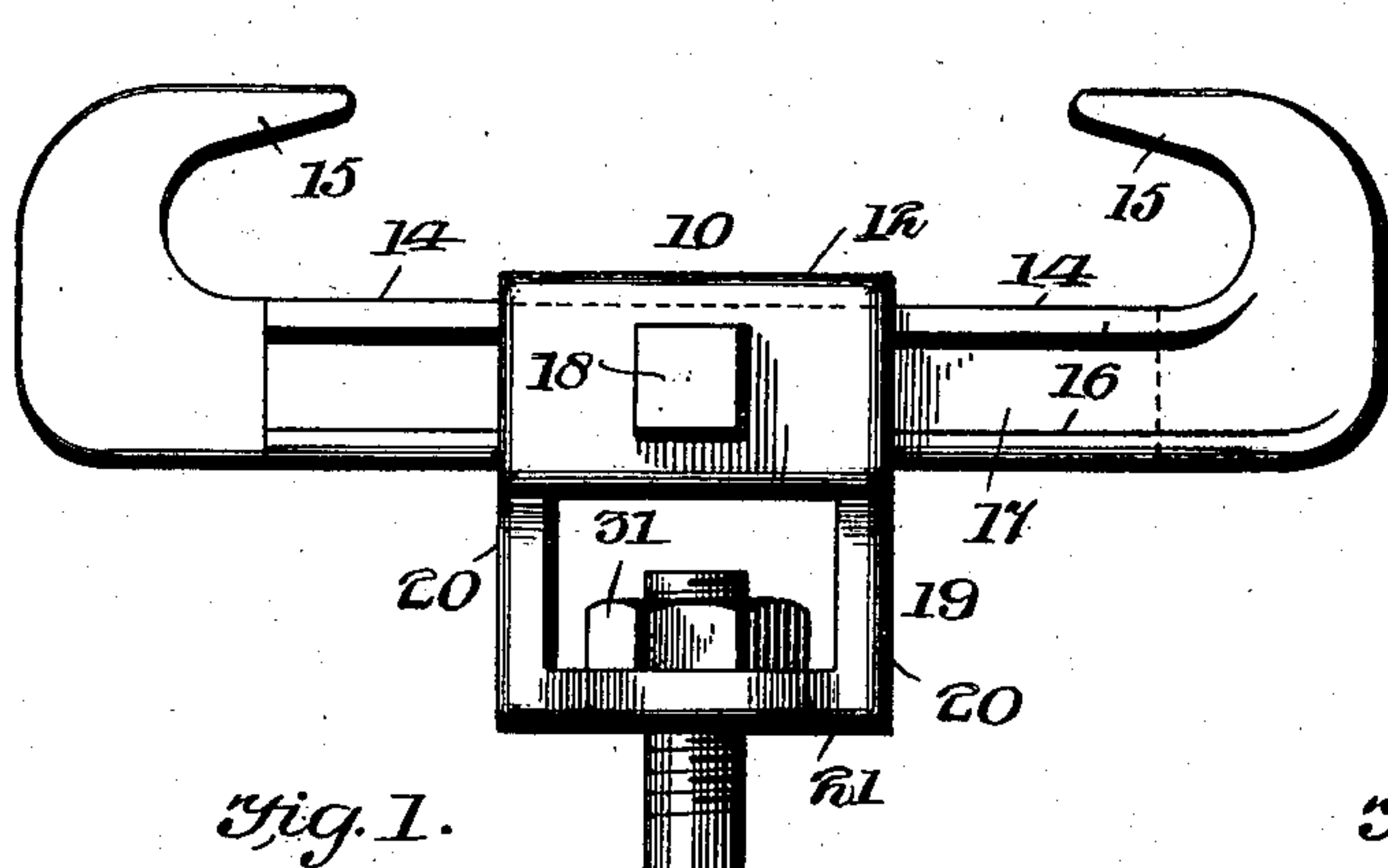


Fig. 1.

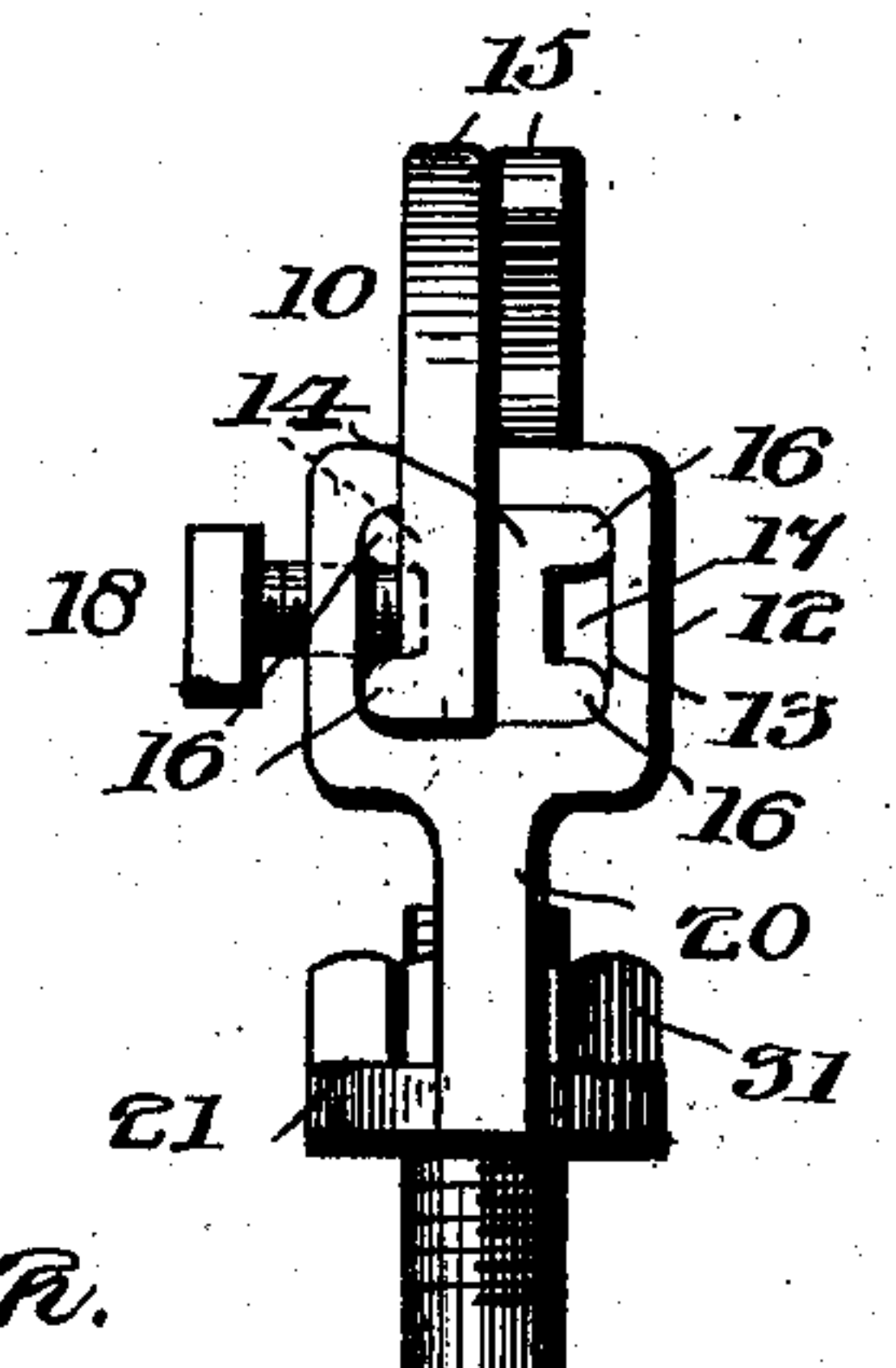


Fig. 2.

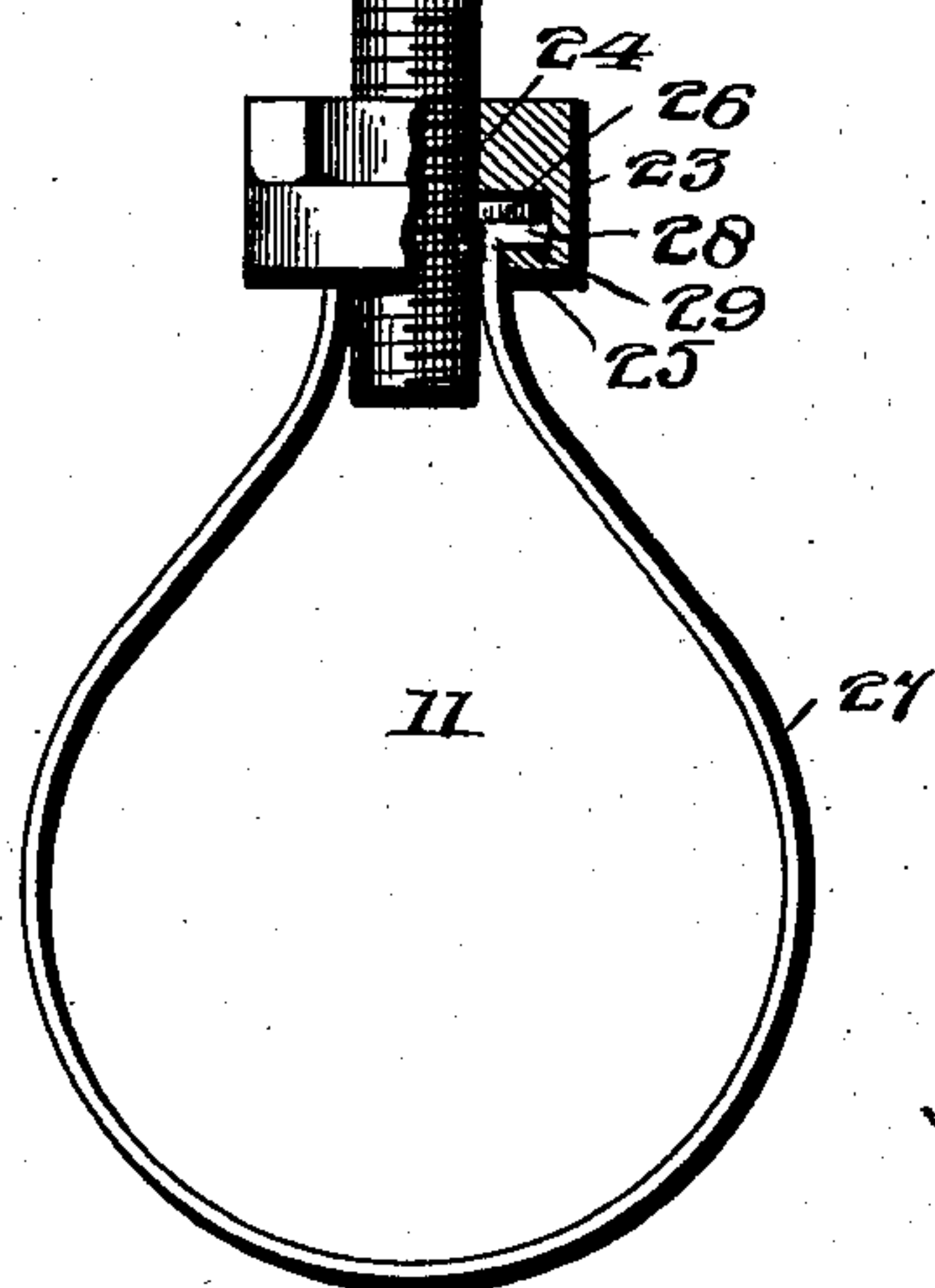


Fig. 3.

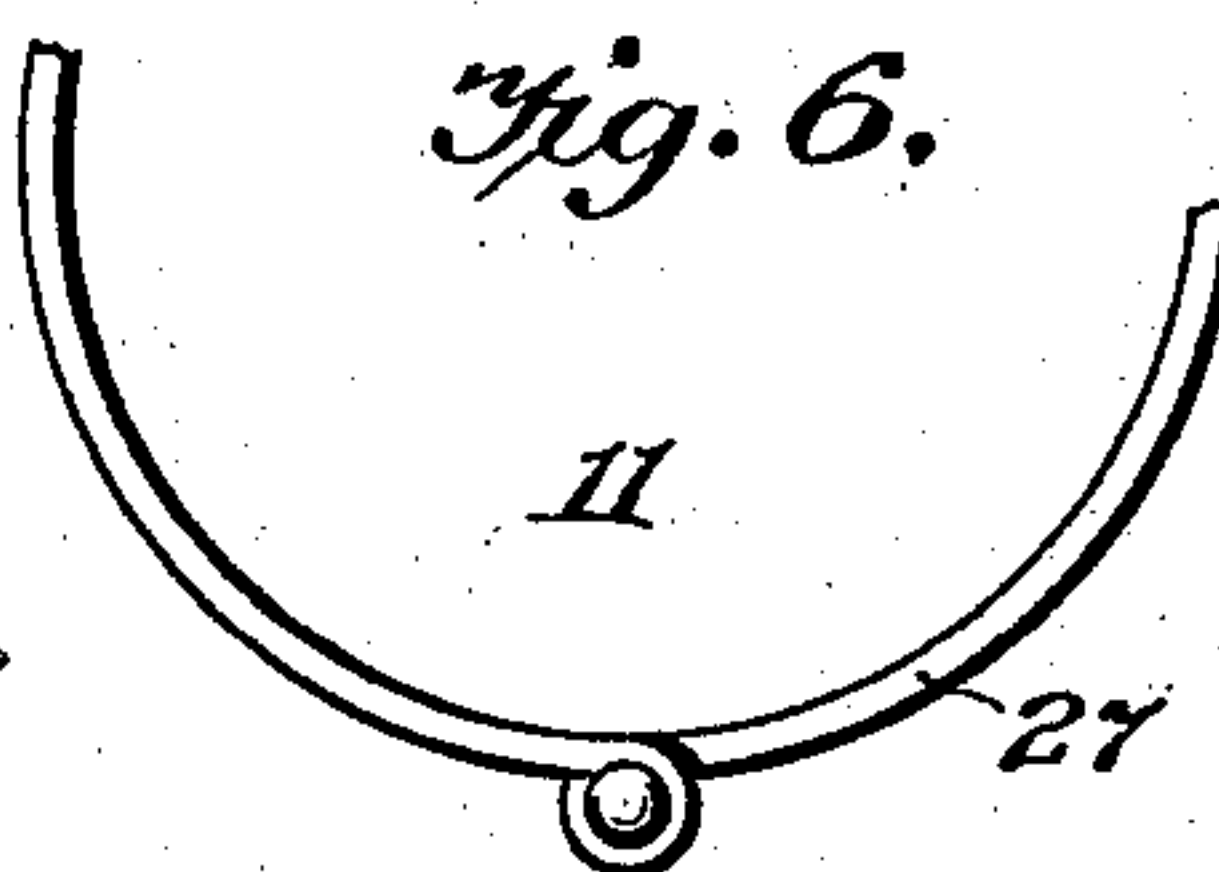
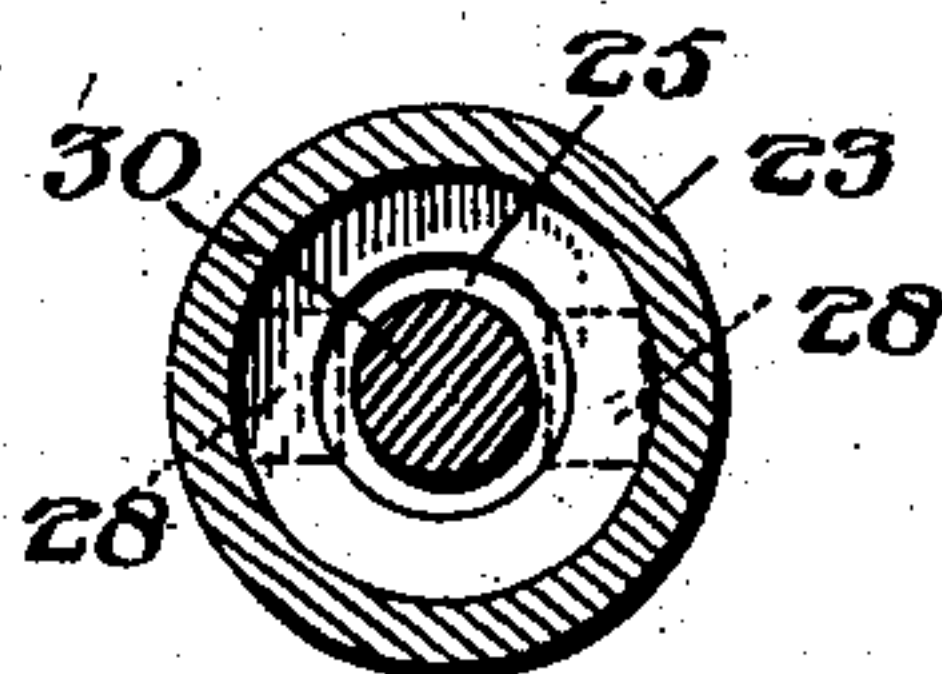
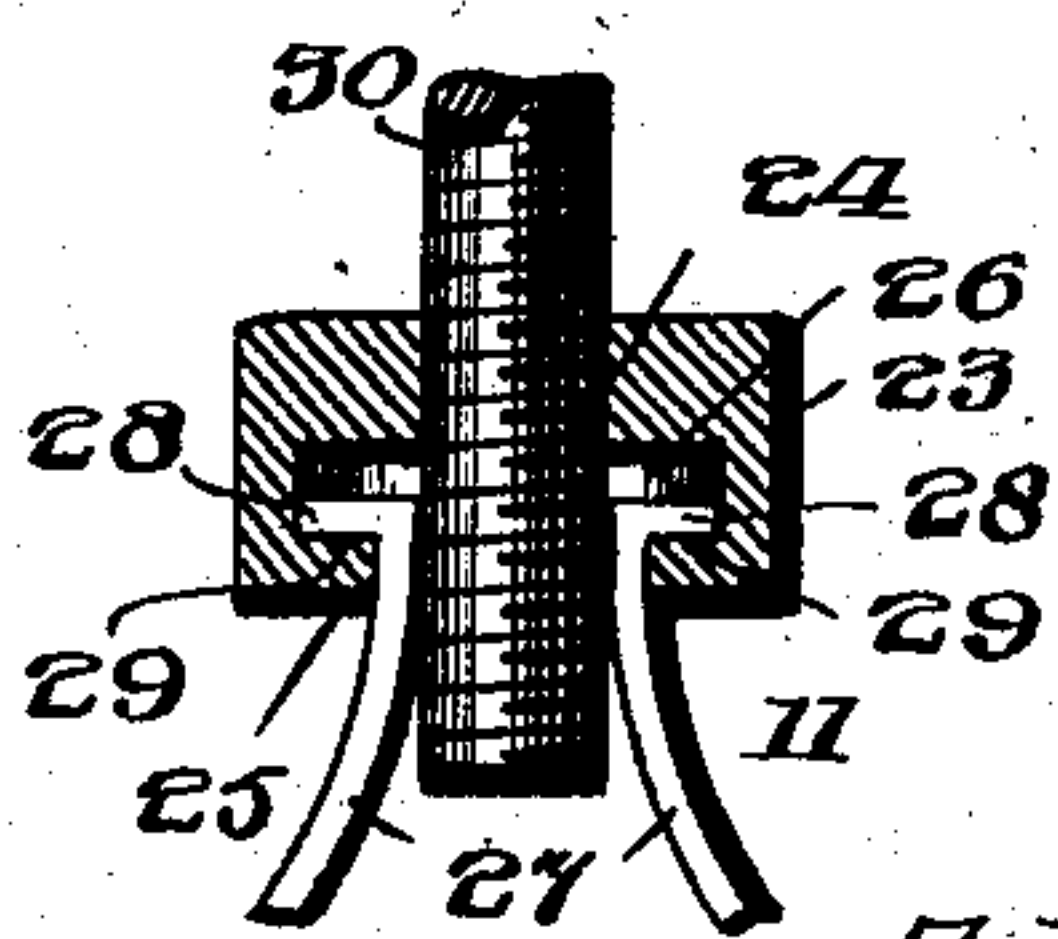
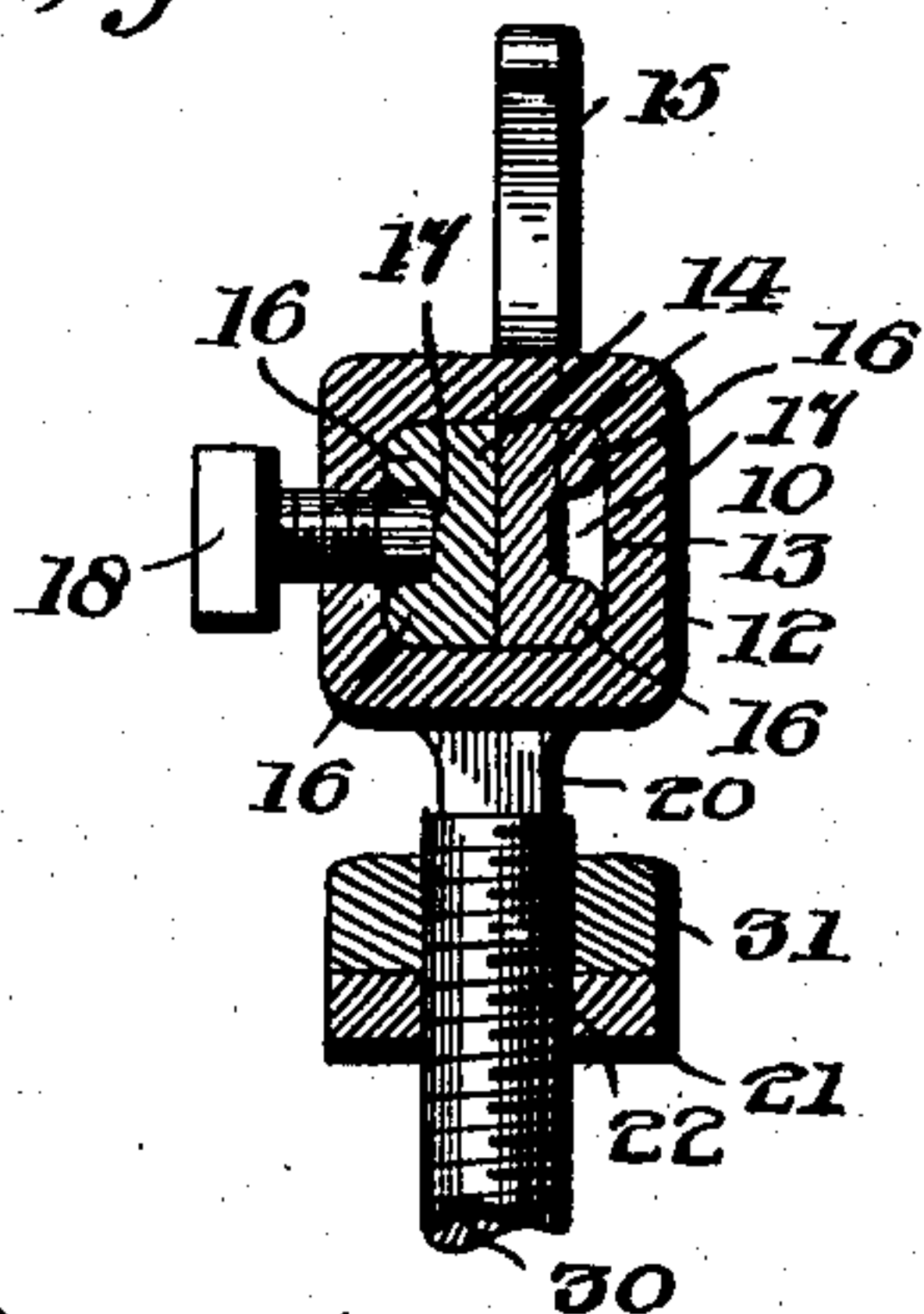


Fig. 4.

Fig. 5.



A. B. Carll, Inventor:

By

E. G. Siggers

Attorney

Witnesses
Geo. A. Syne
B. H. Foster

UNITED STATES PATENT OFFICE.

ADDISON B. CARLL, OF NEW YORK, N. Y.

HANGER FOR PIPES, &c.

SPECIFICATION forming part of Letters Patent No. 702,704, dated June 17, 1902.

Application filed June 27, 1901. Serial No. 86,266. (No model.)

To all whom it may concern:

Be it known that I, ADDISON B. CARLL, a citizen of the United States, residing at Tremont, New York, in the county of New York and State of New York, have invented a new and useful Hanger for Pipes or Analogous Articles, of which the following is a specification.

The present invention relates to suspending devices, and more particularly to that class of articles known as "pipe-hangers," although it will be readily understood that it may be employed for supporting other devices.

One of the objects of the invention is to improve articles of this character by providing a novel construction the elements of which are simple and inexpensive and which can be readily assembled and placed in operative position to support a pipe or other article.

One of the features resides in a novel construction of beam-clamp, which may be adjusted to different sizes of beams or girders and securely fastened in adjusted position.

Another and very important feature relates to novel means for securing the pipe to the supporting device, said means permitting connection being made with the pipe after the supporting device has been fastened in place.

In the following specification the preferred embodiment of the invention is fully described, and said embodiment is also illustrated in the accompanying drawings.

It will of course be understood that such changes may be made from the construction set forth as are within the scope of the appended claims.

In the drawings, Figure 1 is a side elevation of the improved hanger. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical transverse sectional view through the supporting-head. Fig. 4 is a vertical sectional view through the fastening element. Fig. 5 is a horizontal cross-sectional view through the fastening-nut. Fig. 6 is a detail view of a portion of a modified band having a hinge-joint therein.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

In carrying out the invention as shown in

the accompanying drawings a beam-clamp (designated as a whole by the reference-numeral 10) is provided, from which is suspended the pipe-engaging means 11. The beam-clamp 10 comprises a head 12, having a transverse horizontal opening 13, in which are slidably arranged the overlapping shanks 14 of a pair of oppositely-disposed jaws or hooks 15. These hooks are located above the upper edge of the head 12 and are arranged to engage over the usual side flanges of a metallic girder. The shanks 14 are preferably provided on their outer faces with longitudinally-disposed ribs 16, forming intermediate channels 17. A set-screw 18 is passed through the wall of the head 12 and projects into the transverse opening 13. The inner end of this screw is arranged to bear against the outer face of the adjacent jaw-shank and fits in the channel between the ribs thereof, as clearly shown in Fig. 3. A stirrup 19 is suspended from the head 12 and comprises depending arms 20, connected at their lower ends by a horizontal plate 21, having a vertical opening 22 there-through.

The pipe-engaging means is preferably constructed in the following manner: A fastening element 23 is provided, preferably in the form of a nut having a vertically-arranged screw-threaded bore 24 and a counterbore 25 in its lower ends, said counterbore being concentric with the screw-threaded bore 24. An annular internal groove 26 is located at the upper end of the counterbore and communicates therewith. A pipe-engaging element in the form of a band 27 is provided at its ends with outstanding lugs 28, having angular shoulders 29. These lugs are arranged to engage in the annular groove 26 of the fastening-nut, and the portions adjacent thereto will thus be located in the counterbore. When this band cannot be conveniently sprung over the pipe, it can be made with a hinged or other joint on the lower side, allowing it to open, as is shown in Fig. 6. Connecting the pipe-engaging means and the beam-clamp is a hanger-rod 30, the opposite ends of which are screw-threaded. The upper end of this rod passes through the vertical opening 22 of the stirrup and is threaded into a nut 31, located upon the horizontal plate 21. The lower end of the rod engages in the screw-threaded bore

24 of the nut and is arranged to pass down through the counterbore between the terminals of the pipe-band.

The manner of applying the device will be readily apparent. The set-screw 18 is first loosened, so as to permit the free movement of the jaws, which are engaged over the lower flanges of a girder or beam, after which the set-screw is retightened, thus holding the jaws against independent movement and locking them rigidly in place. The hanger-rod is then suspended from the stirrup, and the fastening-nut is threaded partly on the lower end of the same, after which the band 27 is sprung over the pipe to be supported, and the upper terminals are inserted in the counterbore until the shoulders or lugs engage in the annular groove. The nut is then screwed up so that the rod will be passed down between the terminals of the pipe-band. In this position the ends of said band will be securely locked against accidental displacement.

By the construction shown and described it will therefore be seen that a hanger is provided which is simple and inexpensive to construct and may be readily applied to a support. Furthermore, novel means are employed that may be readily applied to a pipe and secure a lock therein by the same means that connects the pipe-engaging means with the supporting mechanism.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a hanger for pipes and analogous articles, a beam-clamp comprising a head having a transverse rectangular opening there-through, oppositely-disposed jaws having shanks slidably arranged in overlapping relation within the opening of the head, said jaws having their adjacent faces flattened and bearing against each other and their outer faces provided with longitudinally-disposed ribs, forming channels therebetween, and a set-screw threaded into the wall of the head and having its inner end located in the channel of the adjacent jaw-shank the ribs of the other shank bearing against the inner wall of the head opposite the set-screw whereby the shanks are held against rotary movement in the head.

2. In a hanger for pipes and analogous articles, the combination with a fastening element having an opening therein, said opening having an enlarged portion extending in from one end of the fastening element and a socket located at the inner end of and opening solely into said enlarged portion, of a pipe-engaging element extending into the enlarged portion of the opening and having a shoulder that engages in the socket, and a supporting device for the fastening element, said device passing through the opening of the fastening element and bearing against that side of the pipe-engaging element which is opposite the shoulder to hold said shoulder in the socket.

3. In a hanger for pipes or analogous articles, the combination with a fastening element comprising a nut having a screw-threaded bore, an inclosed counterbore concentric therewith extending into the nut from one end and an internal annular groove communicating with the inclosed counterbore, of a pipe-engaging element consisting of a band, the opposite ends of which have offset studs that engage in the annular groove of the nut and are slidable laterally therein, and supporting means for the fastening element, said means including a screw-threaded shank engaging in the bore of the nut and having a portion located in the counterbore between the terminals of the band to hold the offset studs thereof in the annular groove.

4. In a hanger for pipes or analogous articles, the combination with supporting means including a head having oppositely-disposed adjustable jaws, of a fastening element comprising a nut having a screw-threaded bore, an inclosed counterbore concentric therewith extending into the nut from one end and an internal annular groove communicating with the inclosed counterbore, a pipe-engaging element consisting of a band, the opposite ends of which are engaged in the counterbore and have offset studs that are located in the annular groove of the nut said ends being spaced apart, and slidable laterally in said groove, and a vertically-arranged hanger-rod having its opposite ends threaded, the upper end of said rod having a connection with the supporting-head, and the lower end being threaded in the bore of the fastening-nut and projecting into the counterbore thereof between the spaced terminals of the pipe-band.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ADDISON B. CARLL.

Witnesses:

SIMON T. STERN,
B. J. MCQUAY.