

Aug. 2, 1927.

C. H. KLEIN
NAIL EXPANSION ANCHOR
Filed Aug. 23, 1923

1,637,419

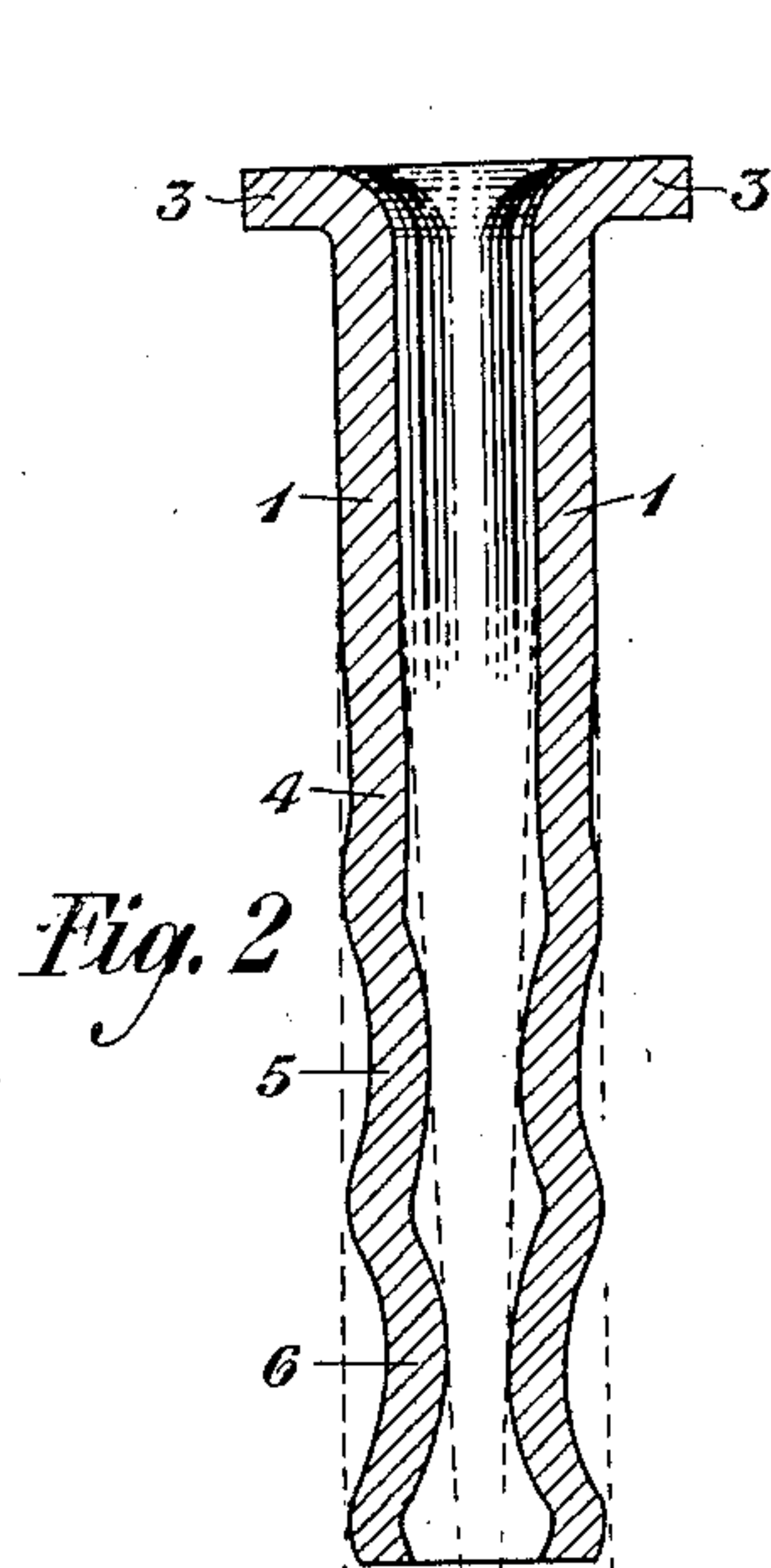


Fig. 2

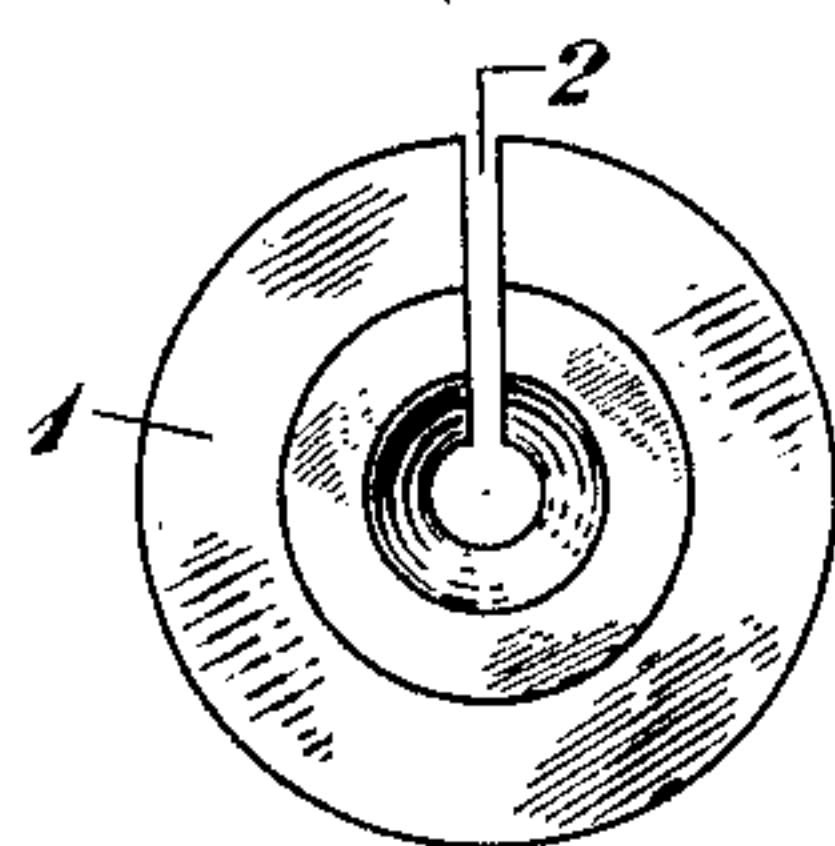


Fig. 4

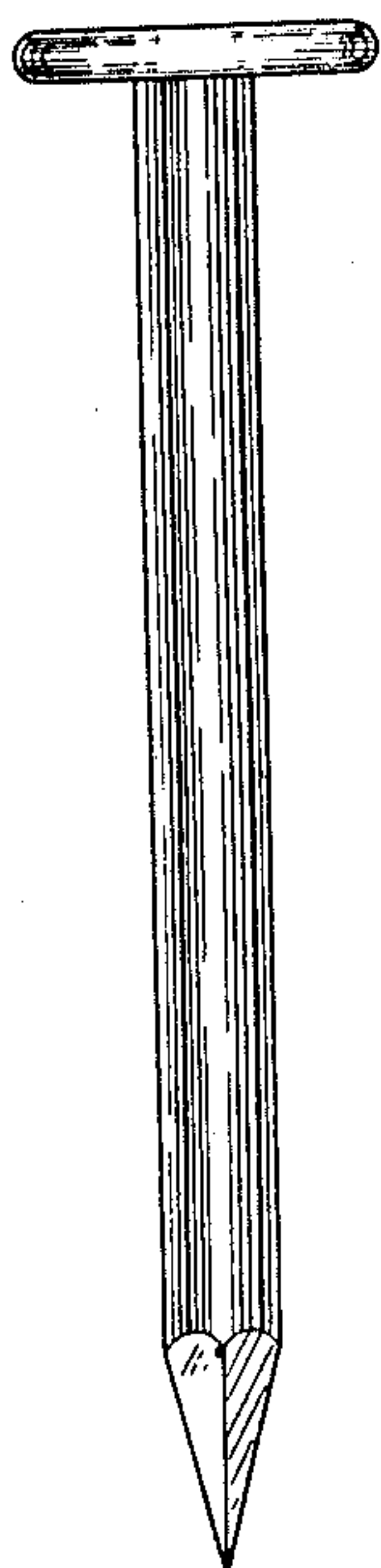


Fig. 1

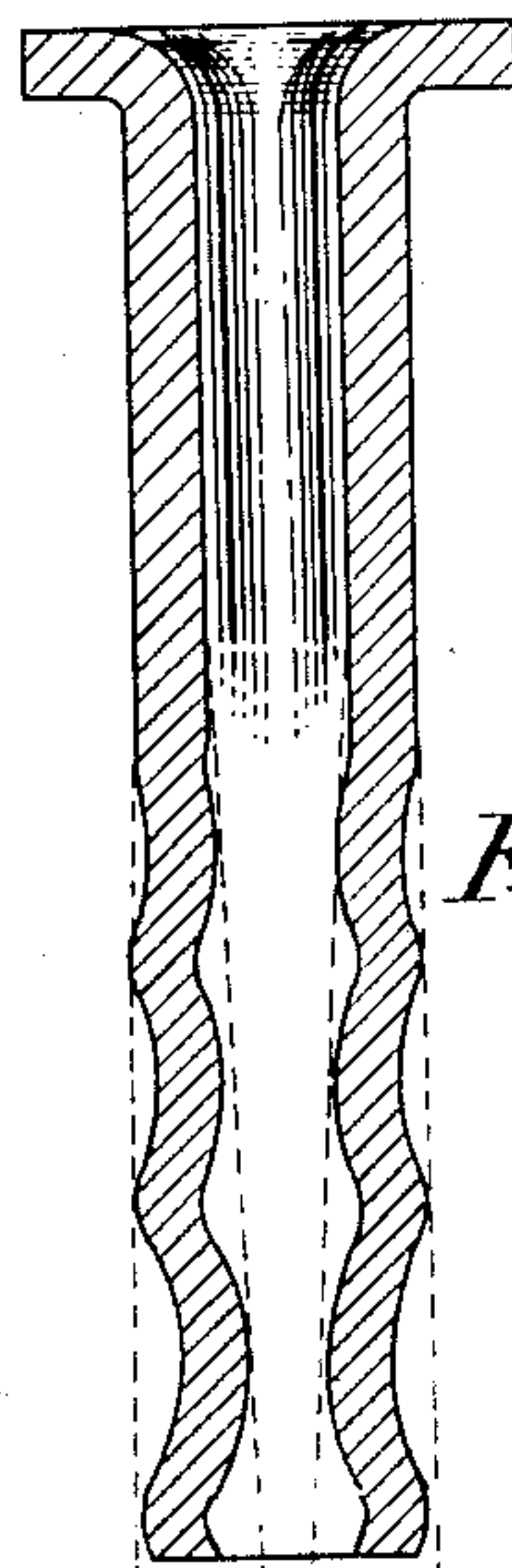


Fig. 3

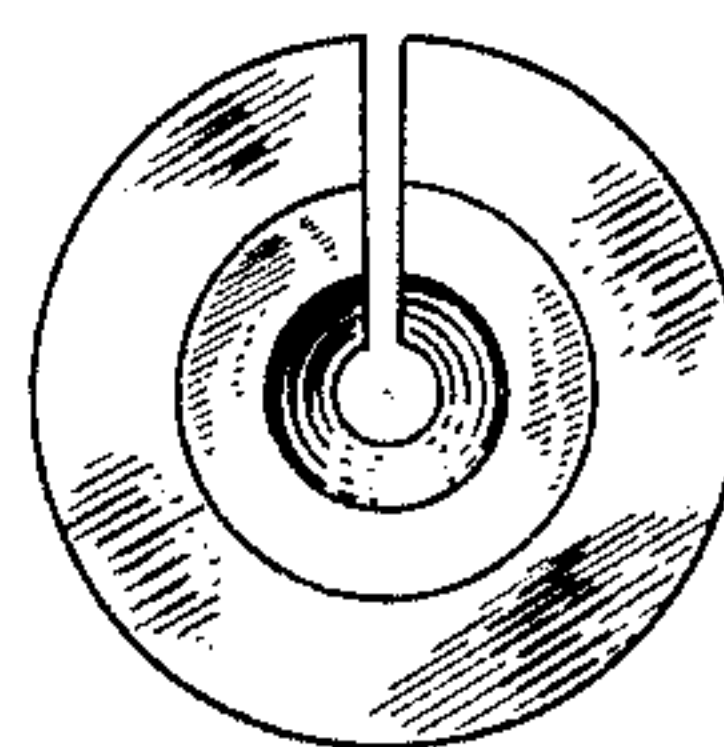


Fig. 5

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1,637,419

UNITED STATES PATENT OFFICE.

CHARLES H. KLEIN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY, A CORPORATION OF NEW YORK.

NAIL-EXPANSION ANCHOR.

Application filed August 23, 1923. Serial No. 659,023.

This invention relates to nail expansion anchors, and the object is to provide an improved and extremely simple, economical means for securing cable clamps and other devices to masonry.

The invention is embodied in a hollow cylinder, made preferably from sheet metal. The anchor is placed in a hole drilled in the masonry, and a nail is driven into the cylinder, thus firmly securing the clamp or other device to the masonry.

In the accompanying drawing, Fig. 1 shows in side elevation the nail which is driven into the anchor cylinder; Figs. 2 and 3 show in cross-section two desirable forms of anchor constructed according to applicant's invention; and Figs. 4 and 5 show top plan views corresponding to Figs. 2 and 3 respectively.

With reference to the details of Figs. 2 and 4 of the drawing, 1 designates the wall of the cylinder, which wall is parted by the longitudinal slot 2, this slot extending over the entire length of the cylinder wall and permitting extra expansion and adjustment to variations in the diameter of the drilled hole. The top 3 is flared out to form a collar for the purpose of holding the clamp or other device to the wall. Circular corrugations 4, 5 and 6, which may be pressed in the sheet metal around the circumference of the cylinder, reduce the diameter of the center hole at the low points of the corrugations. The outwardly projecting ridges formed by the corrugations are rounded. Due to the provision of rounded points of contact between the cylinder and the wall of the hole,

the device will not tend to cut into the masonry at the first slight expansion of the shield, which cutting would prevent longitudinal movement in the hole, this longitudinal movement being desirable in order to insure a tight fastening on the final blow of the hammer. When the nail is driven into the anchor and forced through the points where the corrugations have reduced the inside diameter, it causes expansion of the anchor, producing pressure on the wall of the hole sufficient to give the desired holding power.

Fig. 3 shows an anchor having differently formed corrugations but otherwise corresponding to the form of Fig. 2.

It is understood that the drawing discloses two desirable forms of applicant's anchor merely for purposes of illustration, and does not limit the scope of the invention, which is determined by the appended claim.

What is claimed is:

An expansion anchor consisting of a hollow cylinder parted by a longitudinal slot, the top of said cylinder being flared and the lower portion of said cylinder carrying a plurality of circular corrugations, said corrugations reducing the diameter of the center hole at the low points of the corrugations, and the outwardly projecting ridges formed by said corrugations being rounded.

In testimony whereof, I have signed my name to this specification this 22nd day of August, 1923.

CHARLES H. KLEIN.