

(No Model.)

A. SANFORD.

CANT HOOK.

No. 249,682.

Patented Nov. 15, 1881.

FIG. 1

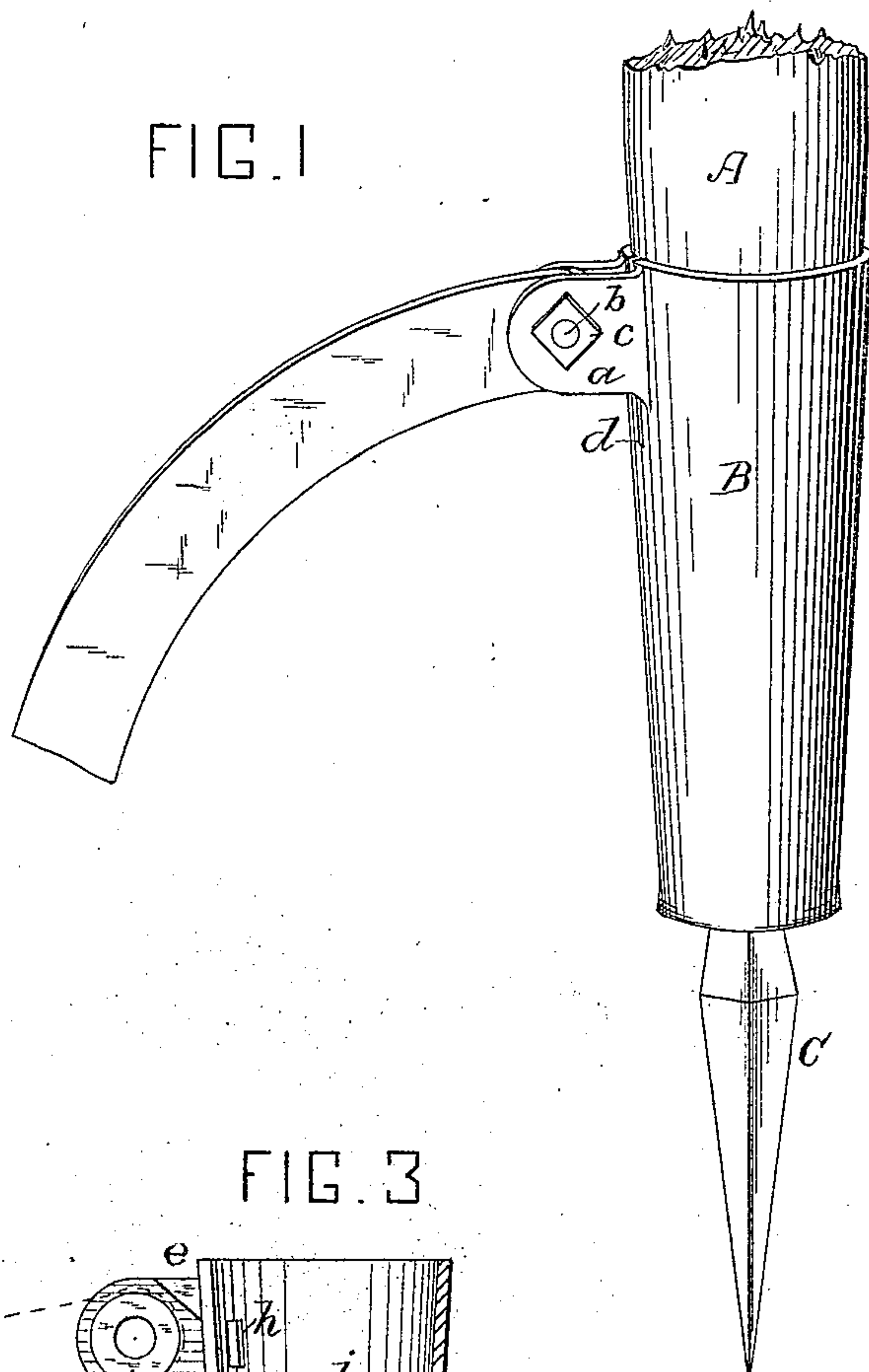


FIG. 2

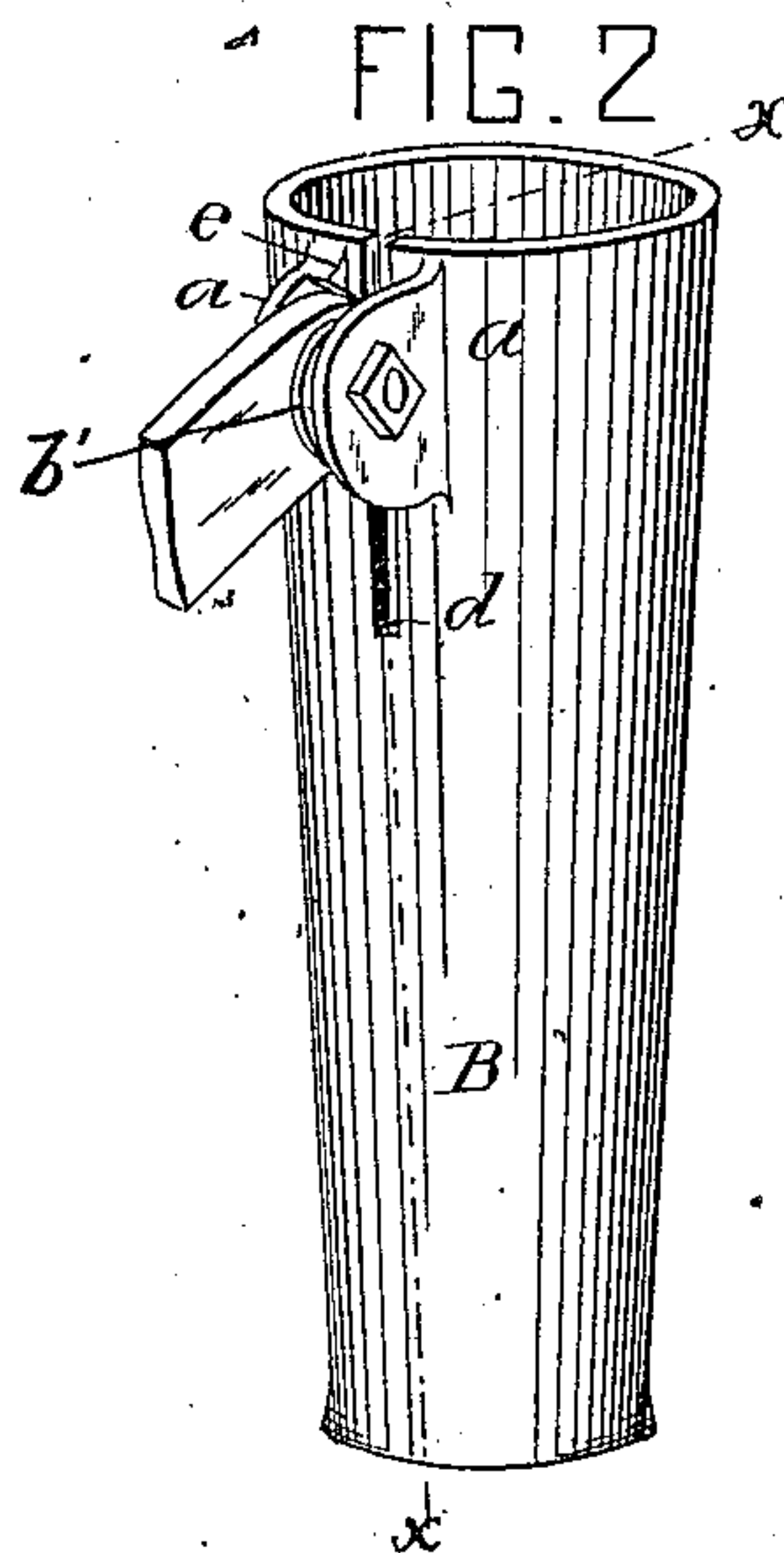


FIG. 3

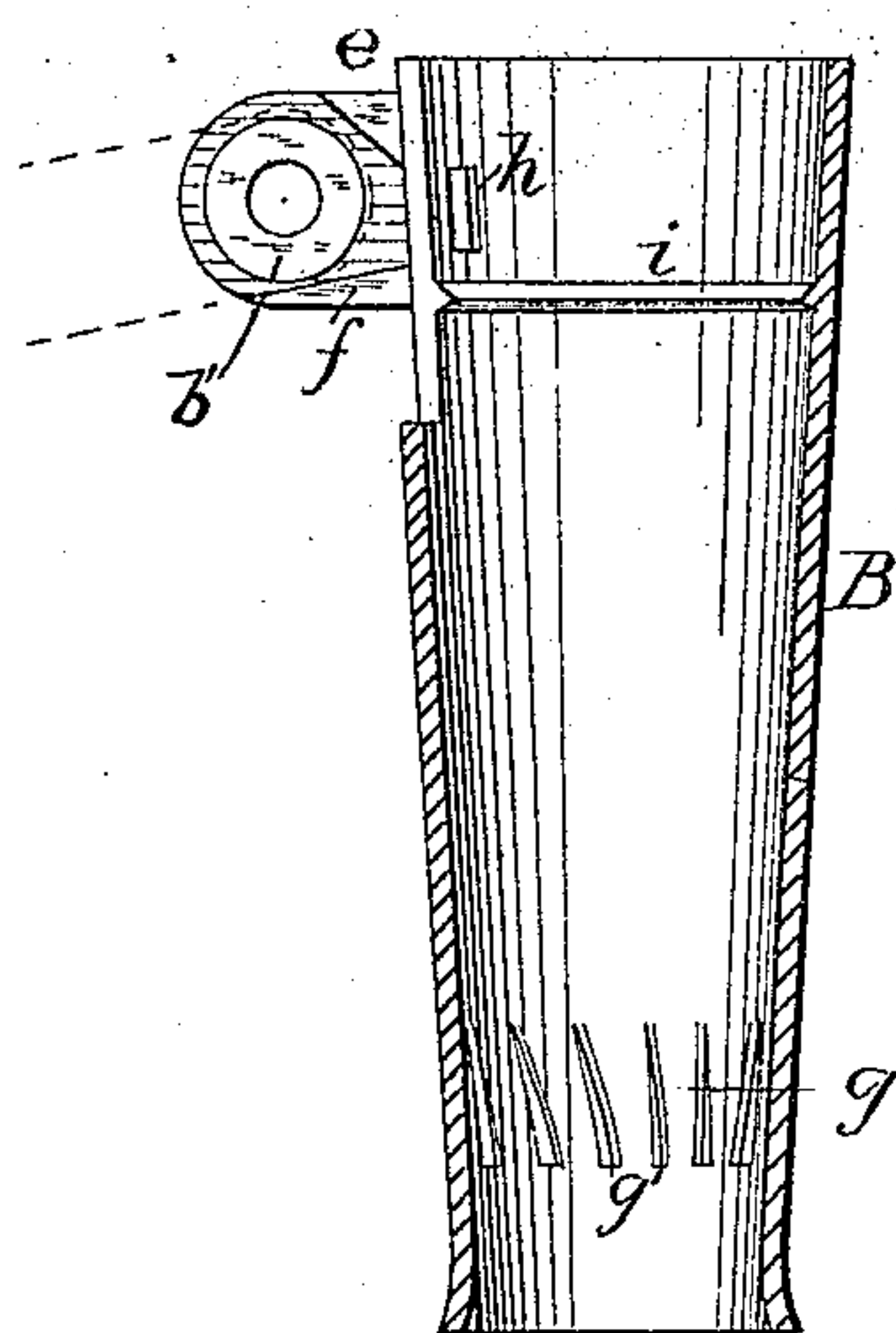


FIG. 4



FIG. 5



FIG. 6



WITNESSES:

James Watson.

H. G. Norton.

INVENTOR

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UNITED STATES PATENT OFFICE.

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CANT-HOOK.

SPECIFICATION forming part of Letters Patent No. 249,682, dated November 15, 1881.

Application filed July 16, 1881. (No model.)

To all whom it may concern:

Be it known that I, ALBERT SANFORD, of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Cant-Hooks; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are views of the ferrule of my improved cant-hook, showing it in different positions. Fig. 3 is a sectional view of the same, taken on the line *xx*, Fig. 2. Figs. 4, 5, and 6 are views showing different forms of the rib which goes around the inside of the ferrule.

Similar letters of reference in the several figures denote the same parts.

My invention relates to improvements in cant-hooks; and it consists in the novel construction of the ferrule, whereby the same is enabled to be more securely attached to and prevented from rotation upon the handle or staff, substantially as I will now proceed to describe.

In the drawings, A represents the handle, B the ferrule, and C the pike or point.

The ferrule is preferably made of annealed cast steel or iron. It is preferably of tapering form, as shown. On one side it is provided with projecting lugs or ears *a a*, between which the hook of the implement is adapted to be pivoted by means of a cross-bolt, *b*, passing laterally through said lugs and secured by a screw-nut, *c*. Washers *b' b'* are mounted upon the bolt on each side of the hook and between the lugs, and when it is desired to tighten the ferrule one or more of such washers can be removed.

The body of the ferrule is divided or opened from its larger end down through between the lugs to a point, *d*, as shown, which construction enables the ferrule to be contracted by means of the nut and bolt, so as to cause it to bind tightly upon the staff, and thus compensate for any shrinkage of the wood, &c.

Shoulders or stops *e* and *f* are provided at the top and bottom of the lugs for the purpose of limiting the throw of the hook.

Near its smaller end the ferrule is provided with a series of internal projecting ribs or threads, *g*, which are preferably made taper-

ing and given a slight spiral twist, and terminate rather abruptly, so as to form shoulders *g'*, as shown. These ribs assist materially in holding the ferrule upon the handle. Near its upper end, at the point where the greatest strain is applied, tending to rotate it—namely, just opposite the lugs which hold the hook—the ferrule is provided with two additional shorter ribs, *h h*. These ribs not only assist in holding the ferrule on, but prevent its rotation.

Extending around the inside of the ferrule, just below the ribs *h h*, is a rib, *i*, shaped in cross-section, as shown in Fig. 4, and divided into several sections, the ends of which are prominent and well defined and assist in preventing the rotation of the ferrule on the handle. This rib may or may not be used in connection with the short longitudinal ribs *h h*, or it may be used exclusively and the longitudinal ribs omitted, as desired. It may, when used, also be made in the form shown in Figs. 5 and 6.

As the shrinkage of the handle can never equal twice the projection of the internal ribs, it is evident that the ferrule can neither rotate nor drop off.

The smaller end of the ferrule is preferably slightly enlarged on the inside, to allow of the driving in of wedges to expand the end of the handle and hold the latter more securely.

In attaching the pike or point to the handle of a cant-hook it has heretofore been customary to bore a hole in the handle and burn the hole to shape it to the required taper to correspond to the taper of the pike; but this burning or charring weakens the handle at a point where strength is of the greatest importance. I now propose to bore the hole in the handle, then coat the shank of the pike with oil-paint, and force it into the hole to its seat with a powerful press. The full strength of the wood is thus preserved, and water is not permitted to get into the hole and act injuriously, as at present.

In applying the ferrule to the staff or handle I first coat its inside or the end portion of the handle with oil-paint, and then, with a powerful press, set it in place. The employment of the oil-paint in this connection also, in a great measure, prevents saturation of the wood with water, and thereby removes the principal cause of shrinkage.

The ferrule may be heated and shrunk to its

place upon the handle; but I prefer to employ the paint and press.

I claim as my invention—

1. The combination of a divided ferrule having internal projecting ribs with a nut and bolt for drawing the parts of the ferrule together and causing its ribs to embed into the wood of the staff, substantially as described.
2. The ferrule having the longitudinal ribs

g g at its lower end, the shorter ribs *h h* opposite the hook-supporting lugs, and the internal rib, *i*, extending around the ferrule below the ribs *h h*, substantially as described.

ALBERT SANFORD.

Witnesses:

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E. T. ELLSWORTH.