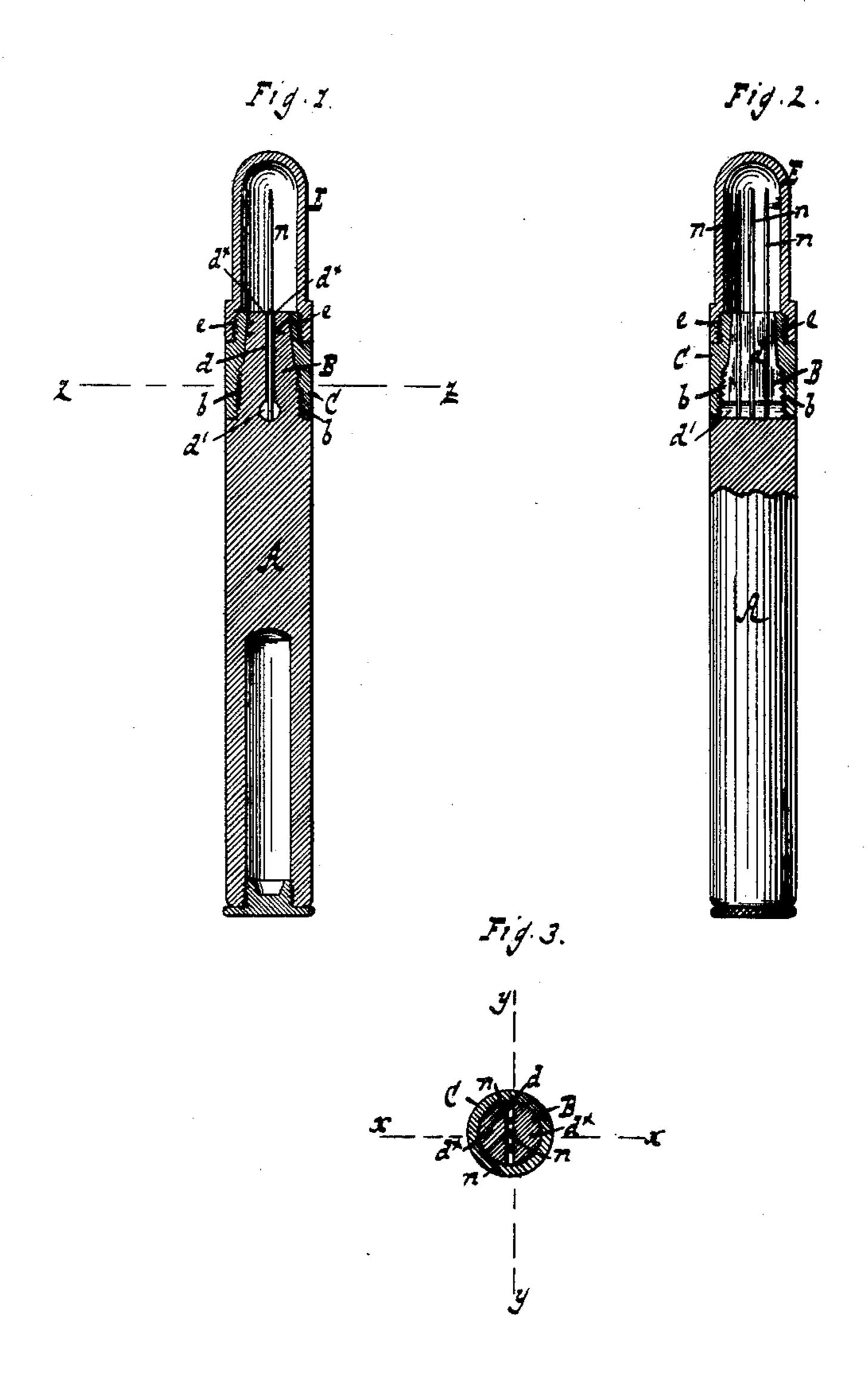
(No Model.)

F. MÜLLER. TOOL HOLDER.

No. 407,230.

Patented July 16, 1889



WITNESSES: William Willer Eduard Wolff.

INVENTOR:

ATTORNEY

## United States Patent Office.

FRITZ MÜLLER, OF NEW YORK, N. Y., ASSIGNOR TO ALFRED DOLGE, OF SAME PLACE.

## TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 407,230, dated July 16, 1889.

Application filed March 7, 1889. Serial No. 302, 289. (No model.)

To all whom it may concern:

Be it known that I, FRITZ MÜLLER, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented new and useful Improvements in Tool - Holders, of which the following is a specification.

This invention relates to a tool-holder which is intended particularly for holding needles to for picking felt, and which is of a peculiar and novel construction, as pointed out in the following specification and claim, and illustrated in the accompanying drawings, in which—

Figure 1 represents a longitudinal section in the plane x x, Fig. 3. Fig. 2 is a similar section in the plane y y, Fig. 3. Fig. 3 is a horizontal section in the plane z z, Fig. 1.

Similar letters indicate corresponding parts.

The purpose of this invention is to provide an instrument for picking up or producing a woolly surface upon the felt upon piano-hammers, in order to soften the tone which is produced by the hammer striking the string, the object being not to disintegrate or remove any portion of the body of the felt, but to loosen or pick up the fibers in such manner as to produce a soft elastic surface.

In the drawings, the letter A designates a 30 handle, which is by preference made of wood, but which may be made of any other material suitable for the purpose. On one end of this handle is formed a nipple B, the inner portion of which is provided with a screw-35 thread b, while its outer portion forms a truncated cone c. Said nipple is also provided with a transverse slot d for the reception of the butt-ends of the series of picking-needles n. As seen in Figs. 2 and 3, said slot ex-40 tends throughout the entire body of the nipple, so that the latter forms two jaws  $d^*$   $d^*$ , and if the picking-needles are placed between these two jaws and the latter are compressed the needles are firmly retained between them. For the purpose of compressing the jaws of

the nipple, I use a ferrule C, which is pro-

vided with an internal screw-thread to en-

gage the screw-thread b of the nipple, and the outer end or mouth of which is tapering on its inside to engage the cone c of the nipple. 50 When this ferrule is screwed down upon the nipple, its tapering mouth compresses the jaws  $d^*$   $d^*$ , and the picking-needles placed between them are firmly retained. By turning the ferrule backward the picking-needles 55 are released, so that they can be readily changed whenever it becomes desirable. The outer end of the ferrule C is provided with an external screw-thread e to receive a screw-cap E, which serves to protect the points of the 60 picking-needles when the implement is not in use. When this screw-cap is applied, my implement can be conveniently carried in the pocket.

By referring to Fig. 1 of the drawings it 65 will be seen that the slot d in the screw-nipple B of the handle is made of uniform width, so that one, two, or more needles n can be secured in the same and that the distance between the needles can be adjusted as may be 70 desirable. On its bottom end the slot d has an enlargement d', so that if two or more needles n are placed into said slot and one of the needles should not be in line with the other or others such needle can be forced into the 75 proper position by means of a pin introduced through the enlargement d'.

What I claim as new, and desire to secure by Letters Patent, is—

A tool-holder composed of a handle A, pro-80 vided with a split screw-nipple B, having a tapering end, a ferrule C, provided with an internal screw-thread and with a tapering mouth to engage the screw-nipple B, and of a cap E, fitting the outer end of the ferrule, 85 substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

FRITZ MÜLLER. [L. s.]

Witnesses:

KATIE M. KASTENHUBER, J. VAN SANTVOORD.