

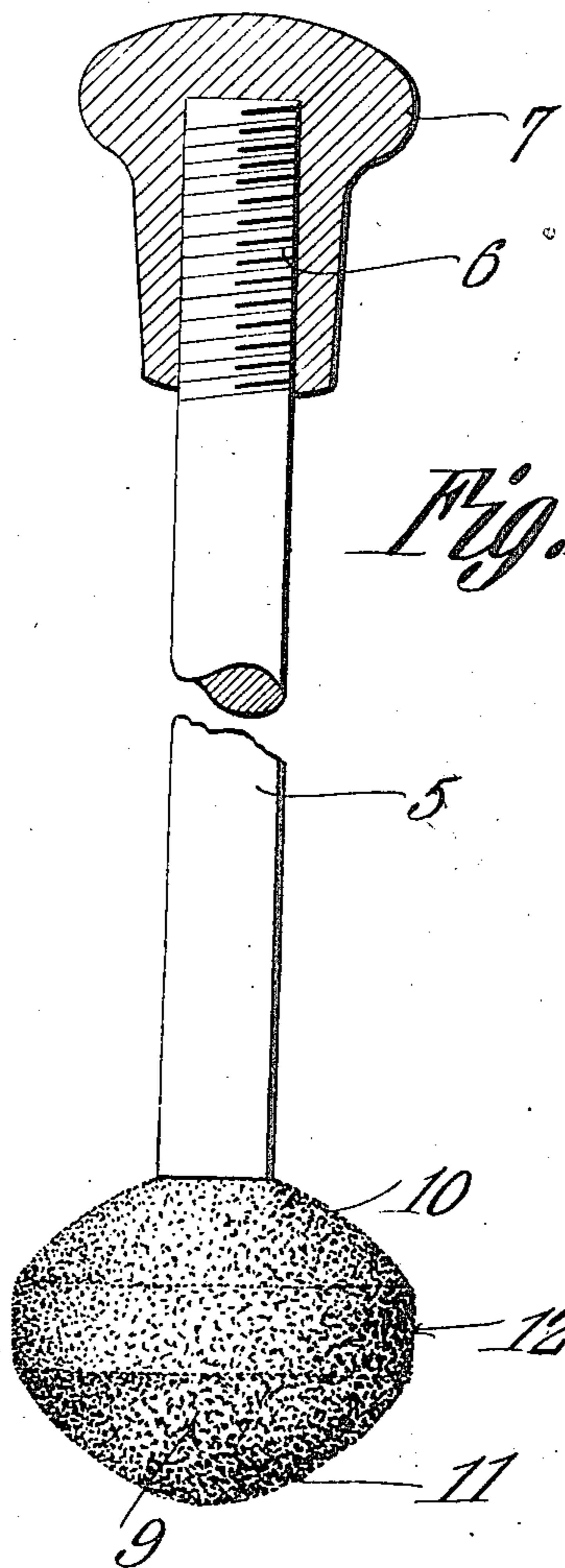
F. WARNER.

PONTIL HEAD.

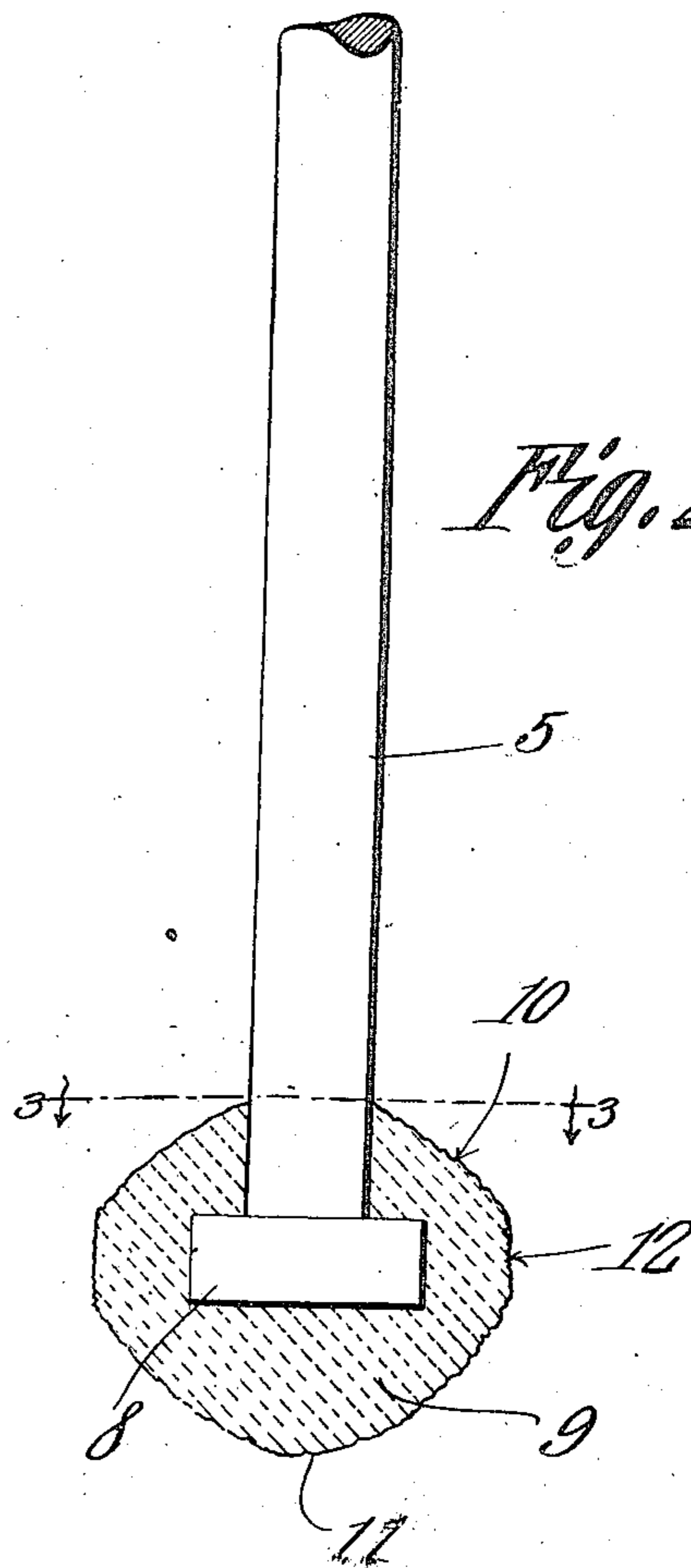
APPLICATION FILED JAN. 14, 1909.

953,247.

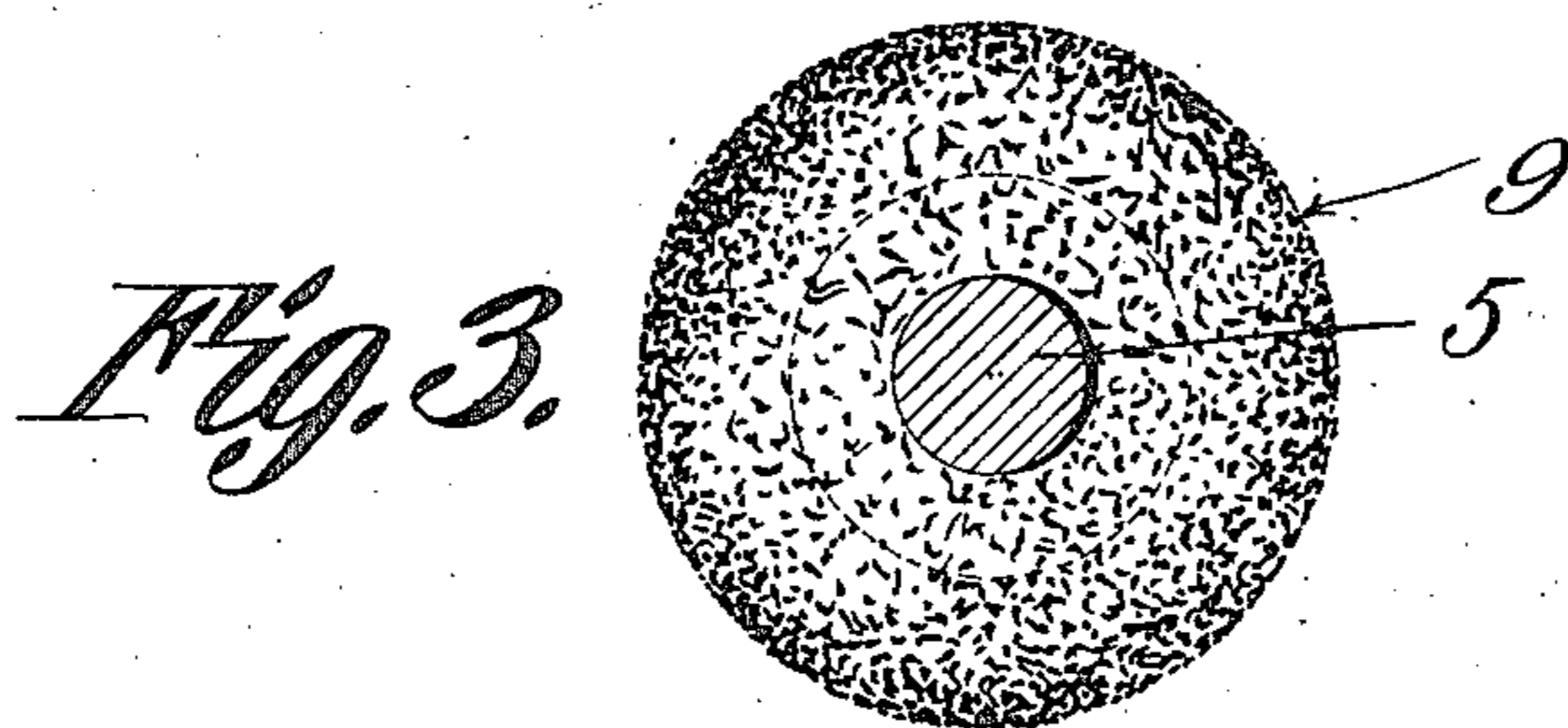
Patented Mar. 29, 1910.



*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

Witnesses

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# UNITED STATES PATENT OFFICE.

FRANK WARNER, OF BUTLER, OHIO.

## PONTIL-HEAD.

953,247.

Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed January 14, 1909. Serial No. 472,346.

*To all whom it may concern:*

Be it known that I, FRANK WARNER, a citizen of the United States, residing at Butler, in the county of Richland and State of Ohio, have invented a new and useful Pontil-Head, of which the following is a specification.

This invention relates to glass manufacture and more particularly to a pontil head especially designed for use in the manufacture of milk bottles and similar containing vessels.

Heretofore, in the manufacture of glass articles the pontil heads employed for gathering and drawing the molten glass have been made of metal, which material often melts and causes particles of iron to mix with the glass and produce dark spots in the ware and otherwise injure and discolor the same.

The object of the present invention is to prevent discoloration of glass articles during their manufacture by providing the pontil rod with a head formed of silica or other refractory material and which is capable of performing all of the functions of the usual metallic head and which will not disintegrate and mix with the glass under the intense heat to which the pontil head is subjected.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification:—Figure 1 is a side elevation partly in section of a pontil rod constructed in accordance with my invention. Fig. 2 is a view showing the head in section. Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 2.

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

The pontil head forming the subject matter of the present invention includes a rod or shank 5 preferably circular in cross section, as shown, and having its upper end

threaded at 6 for engagement with a handle 7. The lower end of the rod is extended laterally to form an enlargement constituting an anchor 8 for the pontil head 9. The head 9 is preferably formed of concrete, silica or similar refractory material, which latter is molded on the end of the rod 5 when in a plastic condition and allowed to set, the enlargement 8 serving to anchor the head on the end of the rod and thus prevent accidental displacement of the same. The head may be of any desired shape or contour but in its preferred embodiment is provided with convex upper and lower faces 10 and 11 and an intermediate annular straight portion 12 disposed parallel with the longitudinal axis of the rod 5.

Attention is here called to the fact that the head being formed of concrete or other silicious material presents a roughened surface to the molten glass thus causing the latter to readily adhere to the head when handling the glass during the manufacture of bottles, jars and similar articles. It will also be noted that by reason of the fact that the head 9 is formed of refractory material, the latter will withstand a very high temperature without disintegrating and commingling with the molten glass, thus preventing the formation of dark spots in the glass or other discoloration of the same, which invariably results when metal heads are used for this purpose.

It will of course be understood that the heads may be made in different sizes and shapes and formed of any suitable material capable of withstanding the intense heat to which it is subjected without disintegration or fusion.

Having thus described the invention what is claimed is:—

1. A device of the class described including a rod having one end thereof threaded and its opposite end provided with an enlargement constituting an anchoring device, a handle engaging the threaded end of the rod, and a head molded on the anchoring device while in a plastic state and formed of refractory material.

2. A device of the class described includ-

ing a rod, and a head secured to one end of  
the rod and formed of refractory material,  
said head having upper and lower convex  
faces and an intermediate annular edge dis-  
5 posed parallel with the longitudinal axis of  
the rod.

In testimony that I claim the foregoing

as my own, I have hereto affixed my signature in the presence of two witnesses.

FRANK WARNER.

Witnesses:

LE ROY L. STICHLER,  
RALPH C. GRUBB.