

No. 883,482.

PATENTED MAR. 31, 1908.

E. RENKENBERGER.
STOPPER EXTRACTOR.
APPLICATION FILED APR. 28, 1906.

Fig. 1

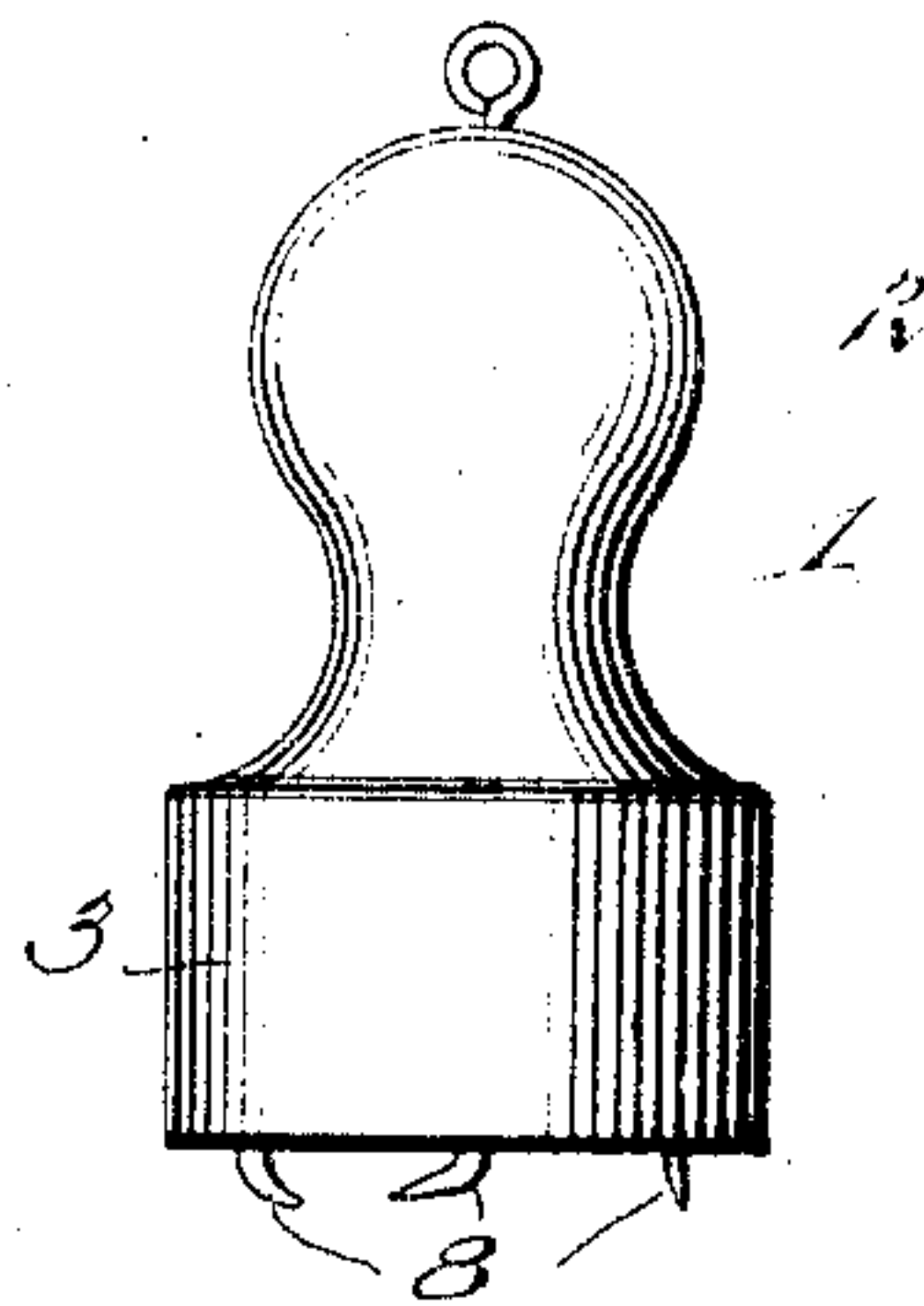


Fig. 3

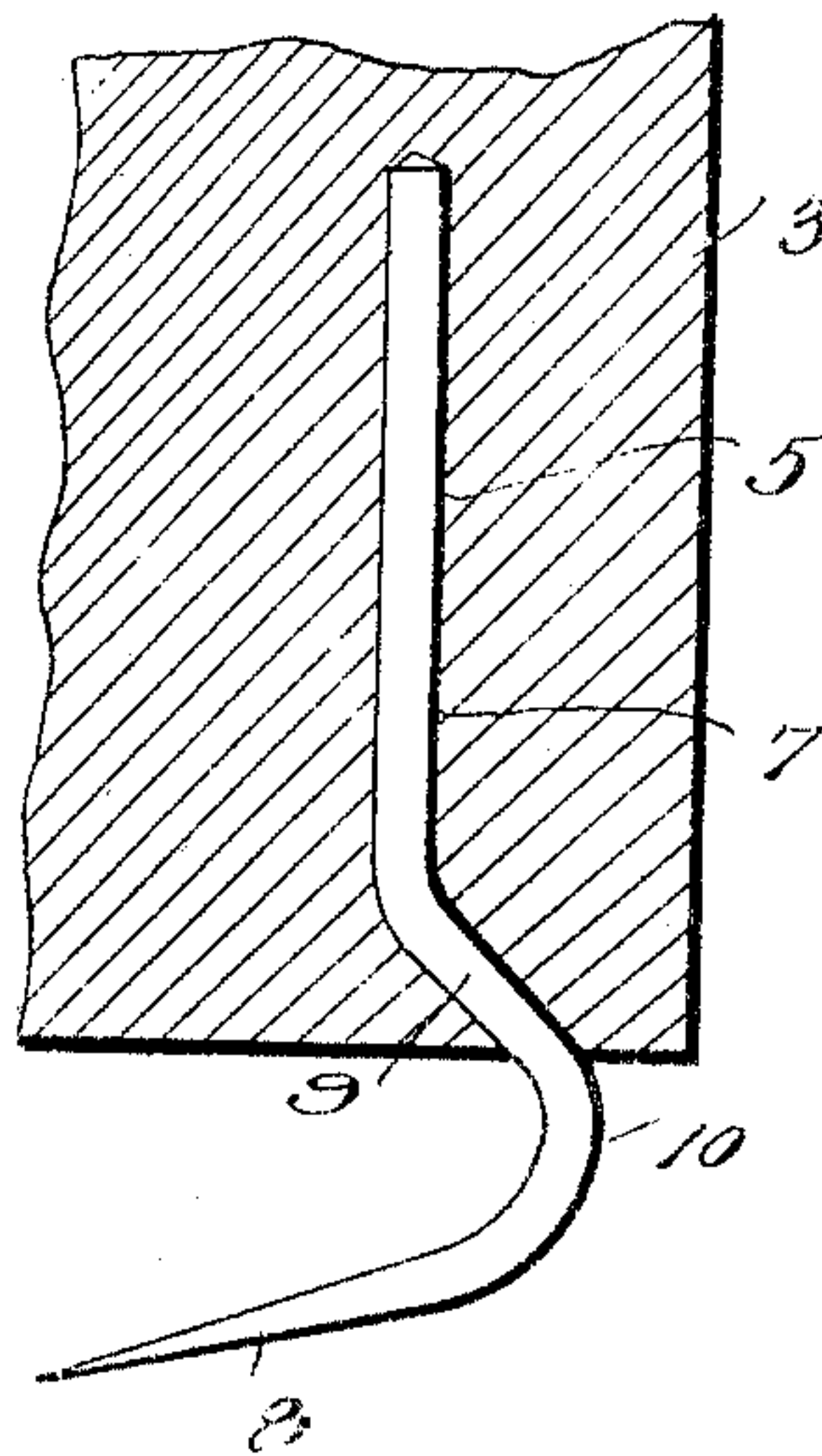
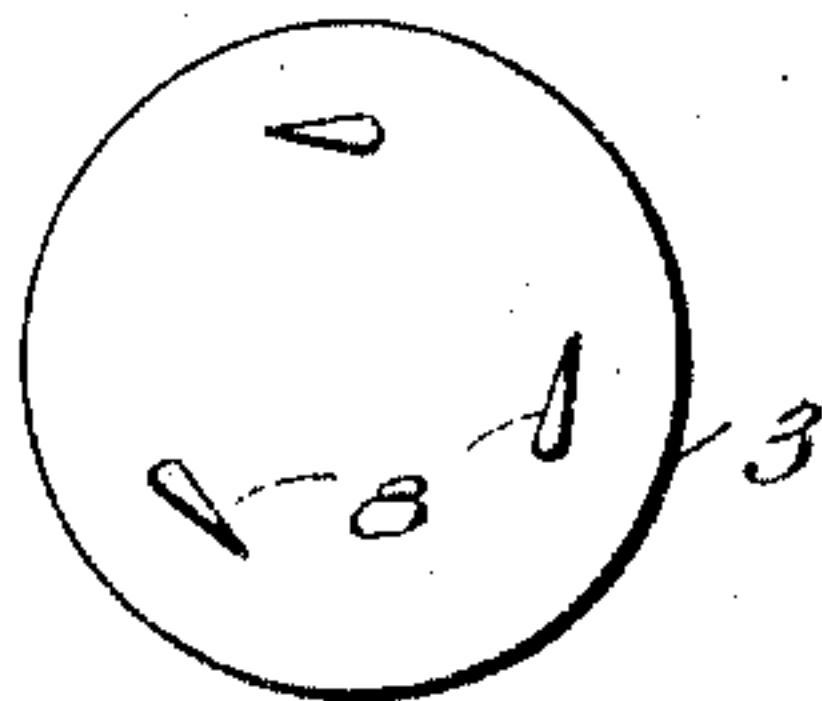


Fig. 2



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STOPPER-EXTRACTOR.

No. 883,482.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed April 28, 1906. Serial No. 314,219.

To all whom it may concern:

Be it known that I, EDWARD RENKENBERGER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Stopper-Extractors, of which the following is a specification.

My invention relates to stopper extractors, and its primary object is to provide a novel and highly useful device of this character by means of which the paper stopper of a milk bottle may be removed and replaced without injury to the stopper or the bottle.

A further object of the invention is to provide a device of the character stated which is provided with two or more prongs of such construction and having such relative relation that the device may be applied with the use of a minimum amount of downward pressure, thereby obviating all liability of forcing the stopper down into the bottle and the consequent displacing of the milk while applying the device.

A still further object of the invention is to provide an extractor which is simple and which may be manufactured and sold at a comparatively low cost.

The invention consists of the construction, combination and arrangement of parts hereinafter fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a view in elevation of a stopper extractor constructed in accordance with my invention. Fig. 2 is a bottom plan view thereof, and Fig. 3 is a longitudinal sectional view thereof.

Referring to the drawings by reference numerals, 1 designates the body which may be constructed of any material suitable for the purpose, and which is formed to provide a handle 2 and an annular head 3. The head 3 is provided with a plain bottom serving as stopper engaging surface and with a plurality of vertically extending sockets 5, said sockets being disposed in points of a circle concentric with and spaced a suitable distance from the circumference of the head 3.

6 designates stopper engaging members which are provided with shanks 7 located within the sockets 5 and with prongs 8 spaced and inclined downwardly from the under surface of the head 3. The prongs 8 are inclined outwardly to dispose their ex-

tremities slightly beyond the circle in which the sockets 5 are located. In view of the downward inclination of the prongs 8 and the relative disposition, a slight downward pressure exerted upon and a slight turning movement imparted to the body will cause the prongs to engage a stopper, whereupon the stopper may be removed from the bottle. In view of the relative location of the prongs 8, the tension placed upon the stopper as a result of a downward pressure exerted upon the body 1, will be evenly distributed over the stopper, and thereby prevent the stopper from being forced down into the bottle. The shanks 7 are abruptly offset as at 9, which offset portions are located within the sockets 5 and thereby prevent the shanks having any movement relative to the body 1. This offset portion 9 terminates in a gradually curved portion 10 which spaces the rear ends of the prongs 8 from the under surface of the head 3 sufficiently to permit the prongs penetrating the stopper.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be understood without a further extended description.

The handle is provided with an eye 11 by means of which it may be hung up when not in use.

Having fully described and illustrated my invention, what I claim is:

A stopper extractor comprising a handle having flat bottom surface, and a plurality of stopper engaging members, each member consisting of a piece of wire formed into a shank, an offset at one end of the shank, and a pointed hook-shape extremity, the shanks and offsets of the members being embedded in the handle so that the offsets prevent rotation of the members and the pointed extremities of the latter being disposed at an inclination of the said flat surface of the handle and pointing in a direction to permit all of the extremities to be engaged in a stopper by a turning movement of the handle.

In testimony whereof, I affix my signature in presence of two witnesses.

EDWARD RENKENBERGER.

Witnesses:

GEORGE C. RENKENBERGER, Jr.,
PETER C. SMITH.