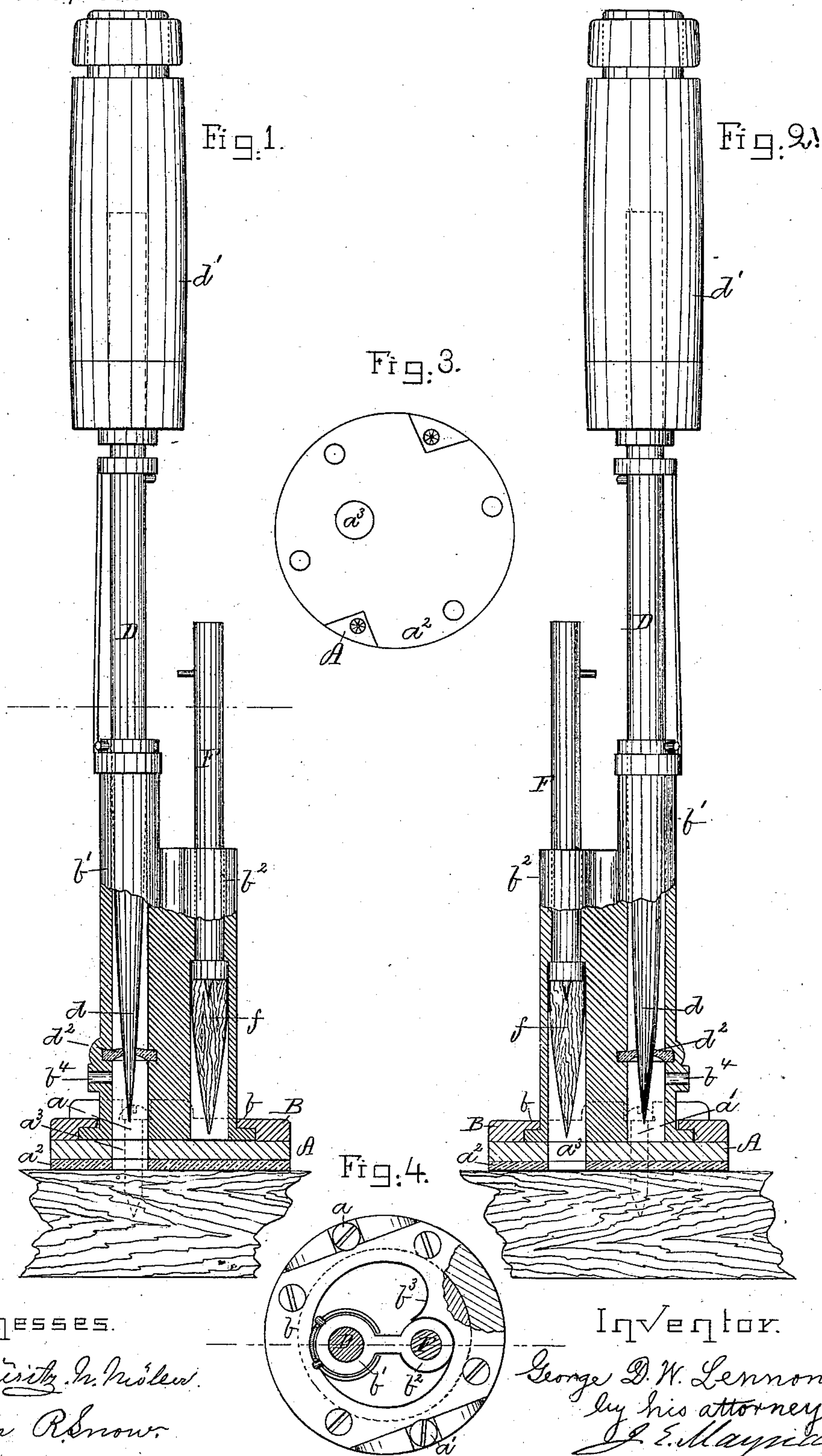


(No Model.)

G. D. W. LENNON.  
APPARATUS FOR SAMPLING CASKS.

No. 309,232.

Patented Dec. 16, 1884.



Witnesses.

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# UNITED STATES PATENT OFFICE.

GEORGE D. W. LENNON, OF BOSTON, MASSACHUSETTS.

## APPARATUS FOR SAMPLING CASKS.

SPECIFICATION forming part of Letters Patent No. 309,232, dated December 16, 1884.

Application filed February 23, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE D. W. LENNON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Apparatus for Sampling Casks, of which the following is a specification.

Heretofore in sampling casks a small hole has been made through one of the staves and a sample of the liquid within the cask allowed to escape through the hole, which is then closed by driving in a spile or conical plug of wood. In this operation some of the liquid is usually wasted, and when the cask contains a fermented liquid—such as ale or beer—a waste always occurs.

The object of my invention is to provide means for sampling casks of any kind of liquid, whereby a portion of the liquid may be withdrawn and the hole be closed much more conveniently than heretofore.

My invention is the first instrument or machine for accomplishing this purpose ever used, so far as I am aware.

It consists of a foot or base adapted to be secured to a cask and to be fitted thereto by means of a packing. A hole through the foot admits the passage of a tool for puncturing or boring a hole through the stave and of a tool for holding the spile for closing the hole. The puncturing-tool and the spile-holder are mounted on a carrier so arranged as to bring either tool over the hole in the foot, as desired. These tools may be properly packed to prevent the liquid from escaping around them. A small hole in the apparatus allows a sample of the liquid to be drawn off.

In the accompanying drawings, which illustrate my new apparatus for sampling casks, Figures 1 and 2 are sectional elevations, one showing the piercing-tool over the hole in the foot, the other showing the spile over that hole. Fig. 3 is a bottom plan, and Fig. 4 a cross-section.

A is the foot or base, which is attached to the cask by any suitable device—such as a strap passing around the cask, or a blade projecting from the foot and adapted to be forced under a hoop. The simplest device, and that which I prefer to use for this purpose, consists of two points,  $a$   $a'$ , attached to the foot A, and adapted to be driven into a stave of the cask. The bottom of the foot A may be flat, a sufficiently tight joint being

made between it and the cask by means of a packing,  $a^2$ , of rubber or other suitable material. A hole,  $a^3$ , is made in the foot A.

B is the tool-carrier, mounted on foot A. Two guides,  $b'$   $b^2$ , are fast to the carrier B.

A tool, D, for making the hole through the stave is mounted in the guide  $b'$ , and a tool, F, for holding a spile,  $f$ , is mounted in the other guide,  $b^2$ . The tool D may be a gimlet, tap-borer, or the like; but the preferred form is that shown in the drawings, and consists of a steel pin,  $d$ , tapering to a point at one end, and having a handle,  $d'$ , by means of which it may be driven and turned at the other end. By constantly turning such a tool as it is being driven through the stave a smoother hole is produced than any made by a boring-tool.

The spile-holder F is simply a plunger having a pin in one end, which, being inserted in the large end of the spile, holds it in position for being driven by striking on the outer end of the plunger. The plunger is best made to fit its guide closely. The tapering pin  $d$  is best provided with a packing,  $d^2$ . The guides  $b'$   $b^2$  are shown as placed equidistant from the axis of the carrier B, so that when the carrier is turned they will be brought directly over the hole in the foot A, which is properly located for this purpose. A stop,  $b^3$ , on the rim  $b$  prevents either tube from passing the hole in the foot A. A small hole,  $b^4$ , in the guide  $b$ , below the packing  $d^2$ , admits of drawing off a sample of the liquor.

In using this apparatus the foot is secured to the cask, the puncturing-tool is brought in position over the hole in the foot and driven through the stave, thereby making a hole through which the liquor escapes when the tool is withdrawn, and the desired quantity for a sample is drawn off through the hole  $b^4$ . The spile-holder is then brought in position and the hole is closed by striking the plunger and forcing in the spile.

I claim as my invention—

The apparatus above described for sampling casks, consisting of the foot, the carrier, the puncturing-tool, and the spile-holder, all arranged together and operating substantially as set forth.

Witnesses: GEO. D. W. LENNON.

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