

(No Model.)

N. W. PAYNE.

APPARATUS FOR PLUGGING AND TAPPING BARRELS.

No. 297,440.

Patented Apr. 22, 1884.

Fig:1.

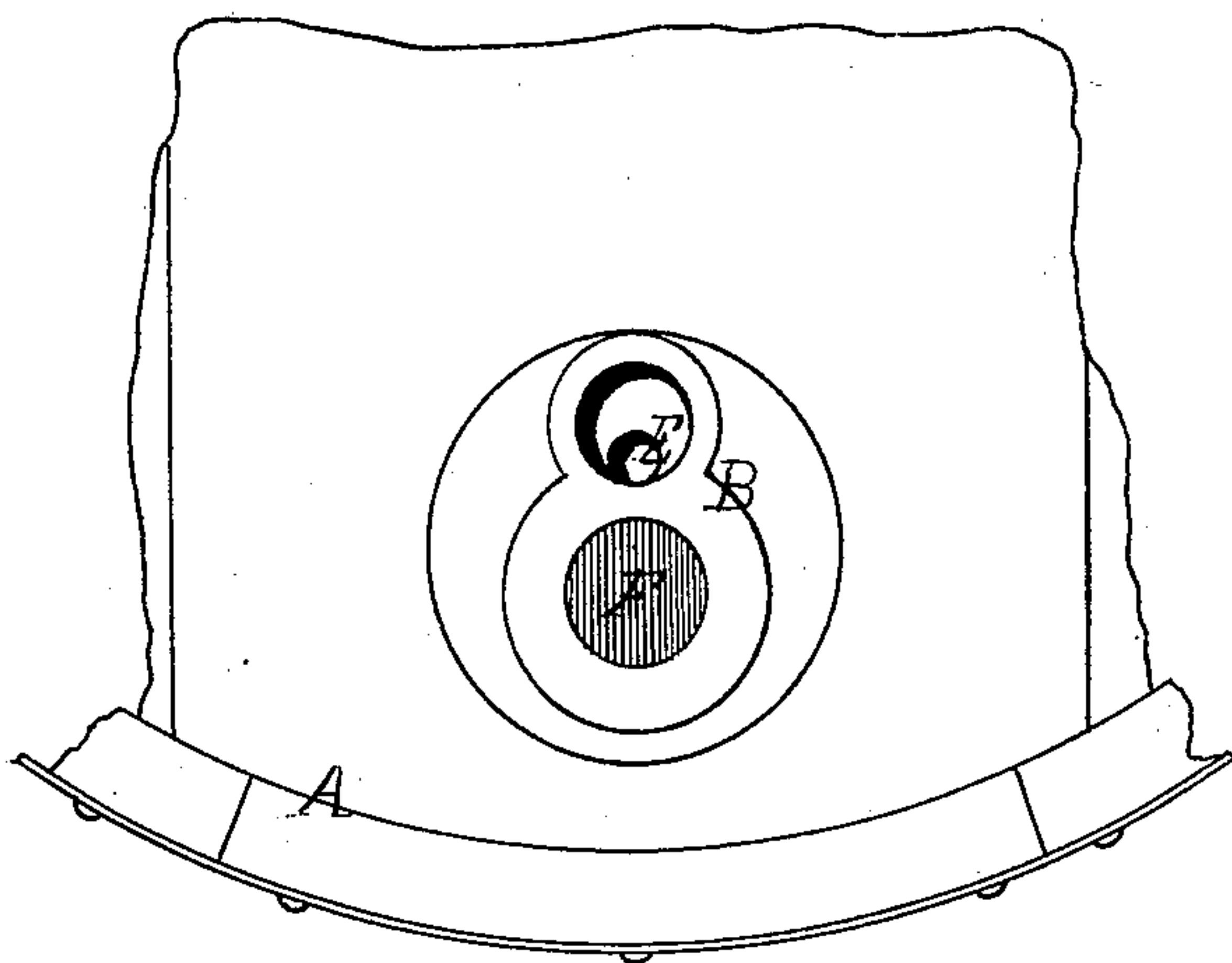


Fig:2.

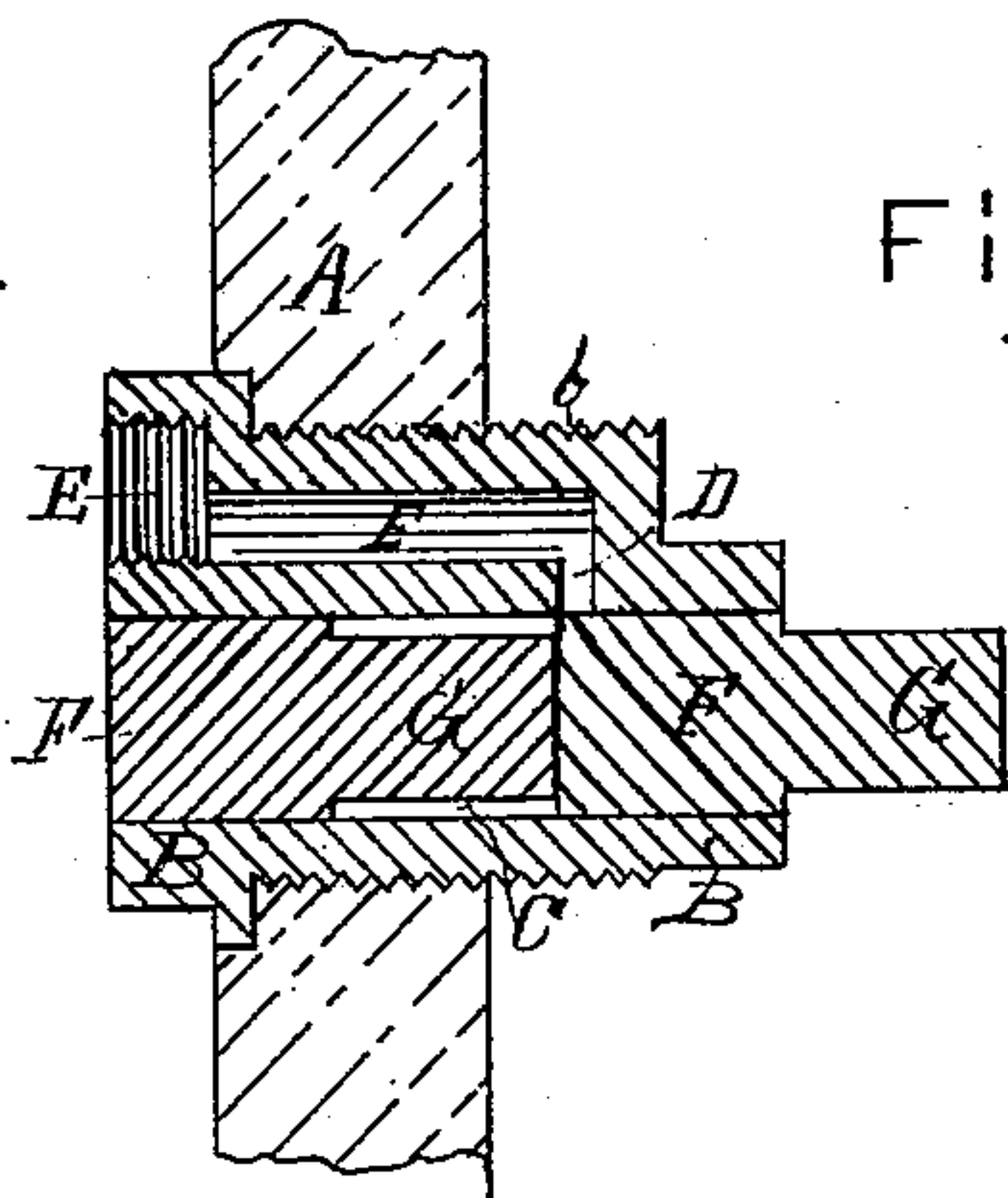


Fig:3.

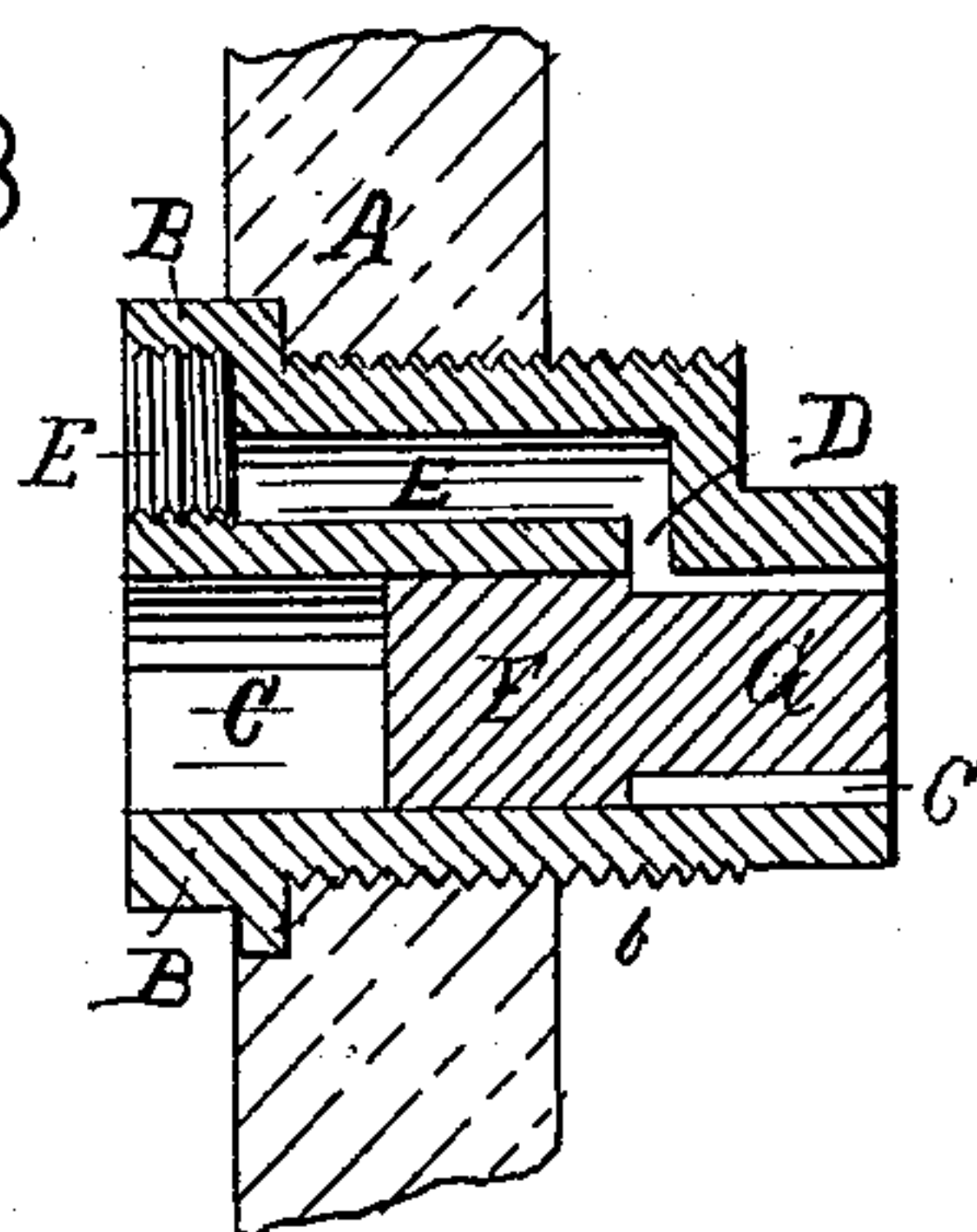


Fig:4.

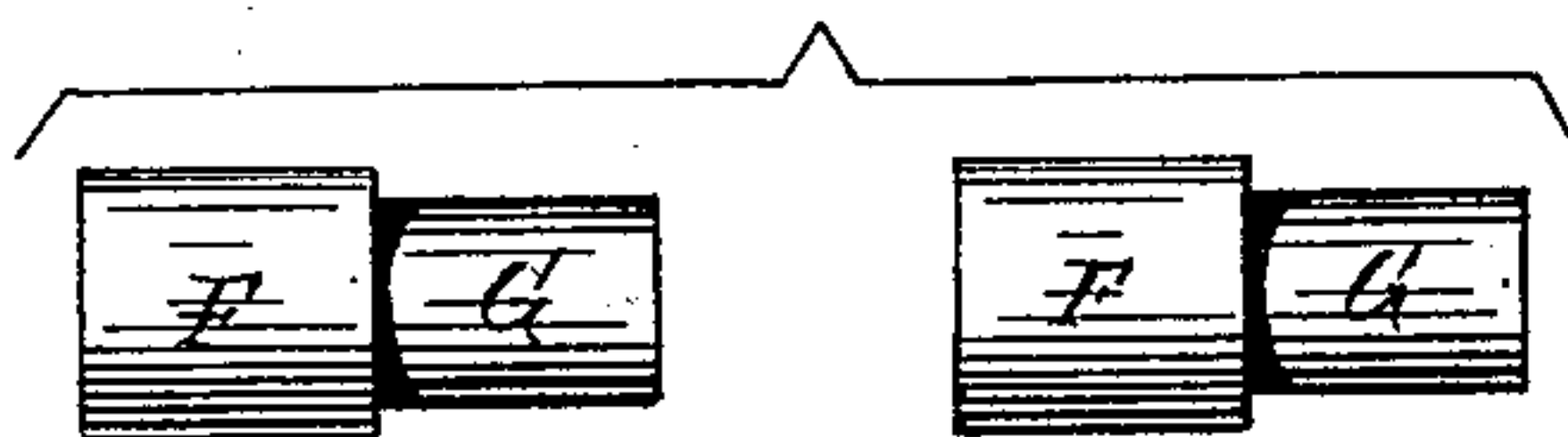


Fig:5.



Fig:6.

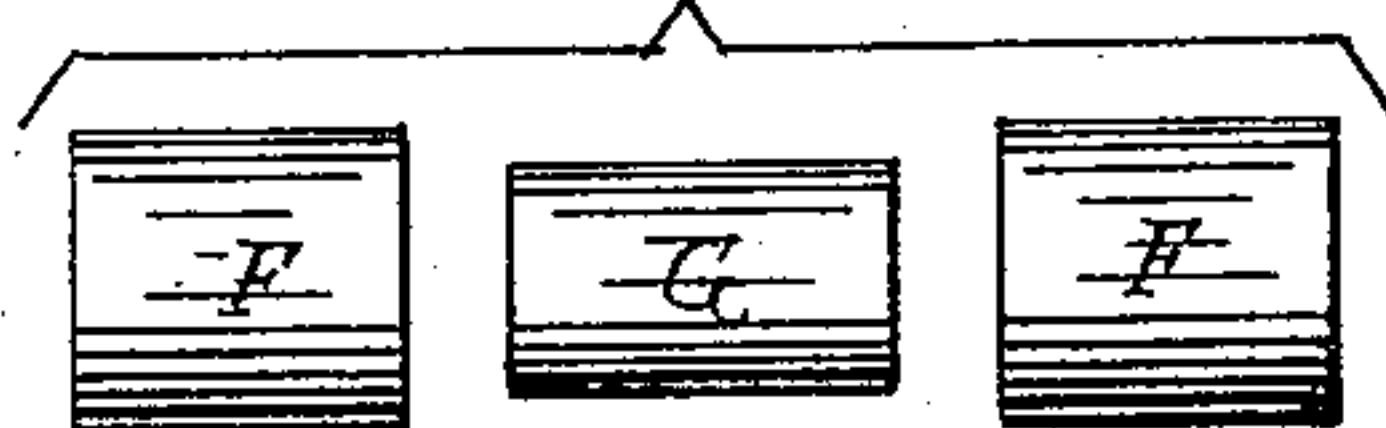
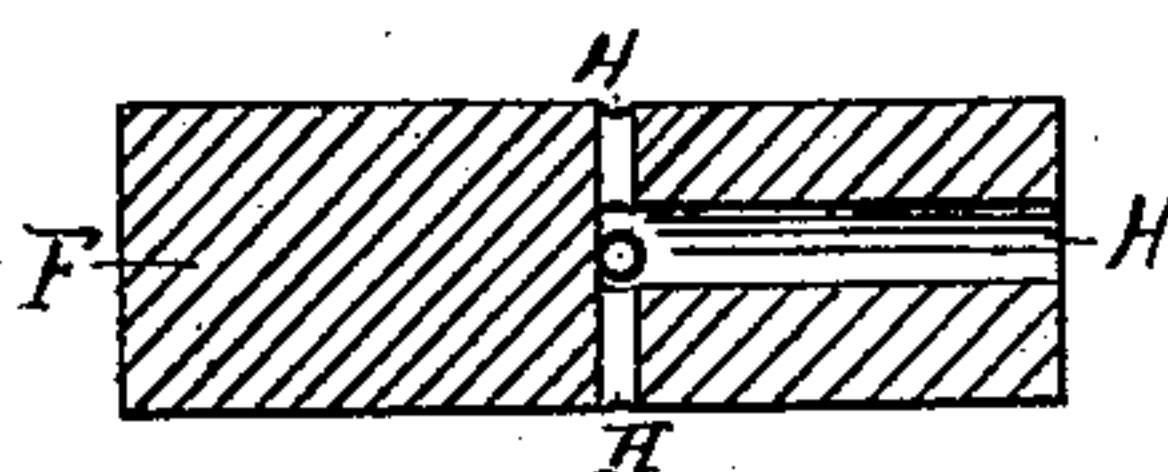


Fig:7.



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APPARATUS FOR PLUGGING AND TAPPING BARRELS.

SPECIFICATION forming part of Letters Patent No. 297,440, dated April 22, 1884.

Application filed November 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, NEWTON W. PAYNE, a citizen of the United States, residing at East Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Apparatus for Plugging and Tapping Barrels; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

The purpose of this invention is to provide for the tapping of ale and beer barrels without attaching a faucet directly to them, and at the same time to avoid waste of the liquids incident to removal of the plug as commonly practiced. A metallic hub or bushing is screwed or otherwise secured in the tap-hole in the head of the barrel. This hub has a cylindrical unthreaded aperture through it with an enlargement or lateral recess in the metal about two-thirds in from the outer face, and a smaller aperture parallel to the first communicates at its inner end with this recess or enlargement of the first. The outer end of the small aperture is threaded to receive the coupling-screw on a flexible or other pipe, through which the liquid may be drawn off. A plug is employed having a diameter to fit the main aperture, and a less capacity at its inner end permitting the liquid to pass as far as to the recess with which the inner end of the small hole communicates. By preference two plugs are employed, each having two distinct diameters, and one plug is employed to follow the other and drive it into the barrel while plugging the outer end of the main aperture. The reduced part of the plug goes first and forces the enlarged part of the preceding plug from the inner portion of the main orifice, thus allowing the liquid access to the annular spaces surrounding such reduced part, thence to the branch or recess, and through it to the small orifice, and to the pipe screwed therein. The enlarged part of the plug at the same time closes the outer portion of the main orifice. Both plugging and tapping are therefore effected alternately by the simple act of driving in the plugs.

In the drawings, Figure 1 shows part of the end of a barrel provided with my apparatus. Figs. 2 and 3 are vertical central sections of the same, illustrating the alternate plugging

and tapping of the barrel. Figs. 4, 5, 6, and 7 represent various forms of the plugs.

A is the head of the barrel, in the tap-hole of which the metallic hub B is permanently secured either by the screw-thread *b* or otherwise. In Figs. 2 and 3 this hub is shown as countersunk, and the projecting flange bears firmly against the head of the barrel, so that the driving blows on the plug are not resisted merely by the screw-threaded part *b*.

C is the main orifice through which the plugs are driven in; D, the recess or branch therefrom, and E the draft-orifice, communicating by the branch D with the inner portion of the main opening at a point distant about two-thirds through from the outer end. The outer end of the draft-opening is threaded for attachment of a tube through which the ale, beer, or other liquid may be drawn off.

A peculiar feature of my invention is the plug shown in one, two, or three pieces in Figs. 4, 5, 6, and 7, but having in each figure the part F, of diameter to fit the orifice C, and the part G, of less diameter, or otherwise arranged, to permit flow of the liquid as far as the recess or branch D, while the part F occupies the outer portion of the orifice C. In Fig. 7 this vent for the liquid is through axial and radial perforations H of the plug terminating in the recess D when the plug is properly driven in.

The operation will be clear from the drawings. When the barrel is filled with the liquid, the hub B is plugged, as shown in Fig. 2, or with the form of plug shown in Figs. 5, 6, or 7. This closes the main orifice, both at its outer and its inner portions, and prevents the liquor entering the orifice E. When it is desired to tap the barrel, the discharge-tube is screwed into the threaded part of this orifice and the plug driven in from the position shown in Fig. 2 to that of Fig. 3, when the inner plug being dislodged it is obvious the liquid, without escaping through the orifice C, will have a vent through the apertures H, or the annular space surrounding the small part of the plug, and through the recess D, draft-orifice E, and pipe screwed therein. This position of the plug enables it to act as a strainer, excluding all coarse materials. In again filling the barrel another plug is inserted, and the one shown in

Fig. 3 is advanced by it until they again assume the positions shown in Fig. 2.

The hub may be conveniently screwed into the barrel by a lever recessed to fit over its protruding walls; or such walls may be squared externally to receive an ordinary wrench.

I claim as my invention—

1. The hub B, formed with the plug-orifice C, extending longitudinally through it of uniform diameter, and the draft-orifice E, running but part way through it with the transverse connecting-recess D, in combination with plugs adapted by driving in to alternately open and close the tap-hole of the barrel, for the purpose set forth.

2. A barrel provided with a hub permanently secured in its tap-hole, and having one internal and two external orifices connected transversely, as shown, in combination with the plug or plugs F G, having two distinct diameters, substantially as and for the purpose set forth.

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

NEWTON W. PAYNE.

Witnesses:

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