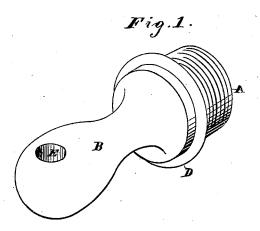
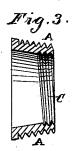
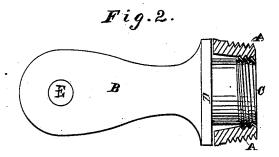
G. H. MIXER. Bung-Bushes.

No. 205,494.

Patented July 2, 1878.







Witnesses In I Boone Geo. Hellrong Seorge St. Miker
by Dewey Hor
attys

UNITED STATES PATENT OFFICE.

GEORGE H. MIXER, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN BUNG-BUSHES.

Specification forming part of Letters Patent No. 205,494, dated July 2, 1878; application filed January 14, 1878.

To all whom it may concern:

Be it known that I, George H. Mixer, of the city and county of San Francisco, and State of California, have invented an Improved Metallic Lining for Bung-Holes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention has reference to an improved bushing or metallic lining for the bung-holes of barrels and casks. These bushings, when thus applied, provide a hole into which a wooden plug or bung can be driven without injuring the barrel-stave or marring the edge

of the bung-hole.

Heretofore these bushings have been made perfectly smooth on their interior and screwthreaded on their exterior, so that a peculiarly-constructed inserting-implement was required to hold them while they were being screwed into the opening, and being tapering on the inside—that is, the opening being narrower at the bottom than at the top in cases where the cask had to sustain an inside pressure—such as beer-casks, for instance—the plug or bung was liable to be blown out, because it had no means of griping the bush.

My improvement consists in constructing the bush with a shallow thread at the lower edge of its interior, by which I am enabled to utilize a screw-plug inserter for turning it into the stave-opening, all as hereinafter more fully

described.

Referring to the accompanying drawings, Figure 1 is a perspective view of my bushing and inserter. Fig. 2 is a section of the same, and Fig. 3 shows a section of the bushing with-

out a flange.

Let A represent a bush or ring, which is provided with screw-threads on its exterior, in the ordinary way, so that it can be screwed into the bored opening in the barrel-stave which is to be converted into a metal-lined bung-hole. The interior of this bush or ring is tapering—that is, the opening or hole through it contracts slightly toward the lower end. This is necessary in order to compress

the wooden plug or bung as it is driven into the bung-hole. Inside of this opening, at its lower edge, I make two or three turns of a shallow screw-thread, as represented. These screw-threads extend upward only a short distance, and are only sufficient to give a good hold to a screw.

B is my inserter. It consists of a metal bar, having one end C, formed into a screw, which is long enough to enter the hole in the bushing A, and engage with the shallow threads at the lower edge. By turning this inserter the two threads are engaged and the bushing is fastened on the screw C, its upper edge pressing against the lower side of a flange, D, on the inserter. The upper end of the inserter or bar has a hole, E, through it, in which a handle or lever can be inserted for the purpose of applying force for turning the bushing. By this means I can easily screw the bush or ring in the bored hole until it has been perfectly seated in place. The rotation of the inserter is then reversed, and it readily unscrews from the bush, leaving the bush in These shallow screw-threads the bung-hole. also serve to fasten the wooden plug or bung in the opening when it becomes wet, as it will swell and key itself in the grooves of the threads, thus preventing its being blown out by inside pressure.

The inserter described and shown herein is not the invention of this patent, it having been made the subject of a separate application.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The bush or ring A, tapering on its inside, and provided with the shallow screw-threads at the lower edge of its interior, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand and seal.

GEORGE H. MIXER. [L. S.]

Witnesses:

Jno. L. Boone, Frank A. Brooks.