E. RODIER.

BUNG AND BUSH COMBINED.

No. 190,905. Patented May 15, 1877.

Fig. 1.

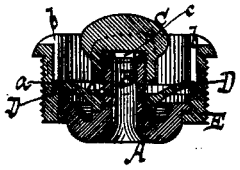
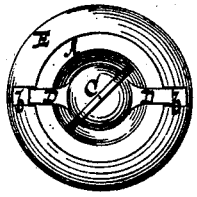


Fig. 2.



Witnesses
Otto Stupland
Hugo Bruggemann

Fig. 3.

Inventor.
Edward Rodier
by
Van Santvoord & Hauff.
his attorneys.

UNITED STATES PATENT OFFICE.

EDWARD RODIER, OF HUNTER'S POINT, NEW YORK.

IMPROVEMENT IN BUNG AND BUSH COMBINED.

Specification forming part of Letters Patent No. **190,905**, dated May 15, 1877; application filed April 18, 1877.

To all whom it may concern:

Be it known that I, EDWARD RODIER, of Hunter's Point, in the county of Queens and State of New York, have invented a new and Improved Bung and Bush Combined, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a vertical central section of my bung and bush. Fig. 2 is a plan or top view thereof. Fig. 3 is a transverse section of the screw-cap or valve.

Similar letters indicate corresponding parts.

My invention has reference to the construction of bungs and bushes for barrels or casks; and it consists in a bung having an upwardly-projecting screw-nipple, constituting an air-vent, on which is fitted a screw-cap or valve, and having adjustable radial arms for locking such bung within a bush; also, in combining with said bung a bush having a suitable seat for the bung, and having inclined shoulders or grooves on its inner surface, so arranged that the bung can be locked on its seat by adjusting and wedging said radial arms under the said shoulders or grooves, while by making said radial arms adjustable, as stated, they can be arranged relatively to said inclined shoulder, so as to press the bung down on its seat with greater or less force, and to compensate for wear of the parts.

In the drawing, the letter A designates a bung, on the upper part of which is cast or secured a nipple, B, which is provided with an external screw-thread. C is a cap, which is fitted on the screw-nipple B, such cap being provided with an internal screw-thread corresponding to that on the nipple. This cap, moreover, is provided with lateral openings *c*, so that when it is screwed down on the nipple B, or slightly elevated, as the case may be, it serves as a valve, either to close or open the end of the nipple. D D are arms projecting radially from the nipple B. These arms D D are both made of a single piece of metal, and they have a flat form, while in the strip composing said arms is formed a threaded hole or opening of equal diameter to the nipple B, so that the arms can be attached to the nipple B by screwing the same thereon.

The letter E designates a bush, which has an external screw-thread, whereby it is adapted to be secured in the bung-hole of a barrel. The lower and interior part of this bush E is so shaped as to form a seat for the bung A, as shown, a packing-ring being interposed between the bung and said seat. On the inner surface of the bush E are formed inclined shoulders or grooves *a*, which extend in a longitudinal direction, and also transverse grooves *b*, which extend from the upper edge of the bush to its said inclined shoulder *a*.

When it is desired to lock the bung A within the bush E, the radial arms D D are passed downward through the transverse grooves *b*, and then the bung is turned, so as to wedge said arms under the inclined shoulder *a*, the bung being by this means driven down on its seat.

It will be noticed that by attaching the radial arms D D to the nipple B by a screw-thread said arms are rendered adjustable, and can be moved to a higher or lower position on the nipple B, and relatively to the inclined shoulder *a*, so that the bung can be pressed down on the seat with greater or less force, and, at the same time, I am enabled to compensate for wear, either of the bung or its seat, the inclined shoulder *a*, or of the radial arms D D.

The inclined shoulders *a* form portions of a screw-thread, and it is obvious that, if desired, said shoulders may be carried throughout the inner surface of the bush E, and the transverse grooves *b* dispensed with, and a screw-thread may be formed on the ends of the radial arms D D, to engage with said shoulders or the thread of the bush.

What I claim as new, and desire to secure by Letters Patent, is—

1. A bung having an upwardly-projecting screw-nipple, B, a screw-cap or valve, C, and adjustable radial arms D D, for locking said bung within a bush, as described.

2. The combination of a bung having an

upwardly-projecting screw-nipple, B, a screw-cap or valve, C, and adjustable radial arms D D, with a bush having a seat for the bung, and inclined shoulders or grooves *a*, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 17th day of April, 1877.

EDWARD RODIER. [L. S.]

Witnesses:
J. VAN SANTVOORD,
E. F. KASTENHUBER.