J. Killy, Bung:

No. 111,352.

Patented Jan. 31. 1871.



Tig.1



Tig.3



Fig.2



Tig.4

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# UNITED STATES PATENT OFFICE.

JOSIAH KIRBY, OF CINCINNATI, OHIO.

## IMPROVEMENT IN BUNGS.

Specification forming part of Letters Patent No. 111,352, dated January 31, 1871.

To all whom it may concern:

Be it known that I, JoSIAH KIRBY, of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Bungs; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof to enable one skilled in the art to which my invention appertains to make and use it, reference being had to the accompanying drawing, making part of this specification.

# Nature and Objects of Invention.

My invention consists of a bung of a peculiar construction, specially designed for use in connection with beer-barrels, &c., where an air-vent is required to permit the drawing off of the liquid; the object of my invention being to avoid the necessity of extracting the bung for the introduction of the air-plug, and at the same time to provide for the insertion of the air-plug without a loss of the gases from the liquid.

A further object of my invention is the production of a bung which will serve for the introduction of the pipe of an air-pump for forcibly discharging the liquid to higher elevations, and one that can be readily extracted from a barrel by the use of an instrument which I have designed for this purpose and applied for Letters Patent therefor.

## Description of the Accompanying Drawing.

Figures 1 and 2 represent the two parts composing my improved bung detached. Fig. 3 is a perspective view of an air-plug of ordinary construction, and of a size adapted for use with this construction of bung. Fig. 4 is a sectional view of my improved bung complete.

### General Description.

The bung A is made of wood, with the grain running horizontally, as shown in Fig. 4. Through the center of it, or thereabout, a cylindrical hole is bored or formed, into which a wooden plug, B, is tightly fitted and driven into place. The plug is turned out of wood in such manner that the grain runs at right angles to its axis, so that when driven into place the grain of the plug runs horizontally with the grain of the bung, preventing any leakage through it, which would result if the grain run vertically.

It has been customary in the manufacture of a beer-bung to make it of sufficient length to give considerable projection outside the barrel for the attachment of an instrument for pulling it, and it has always been necessary in use heretofore to first extract the bung and insert in its place a plug of the same size with an air-vent or vacuum-valve, which would permit the withdrawal of the liquid and not permit the escape of gas. A great amount of gas, however, necessarily escapes during the time occupied in making the change. These evils and inconveniences are entirely obviated by the production of my improved bung.

This bung can be made much shorter, and there is no necessity for its withdrawal to admit the air-plug, as the latter can be used as a "drift" to drive in the plug B of the bung, and thereby open an aperture for its own oc-

cupancy.

The shank C of the plug, Fig. 3, is, of necessity, small, and the whole plug is made preferably of metal. It differs in no other respect from ordinary ones, having a hole through its center, which is governed by a valve that admits air into the barrel, and prevents, by closing, the escape of the gases. As scarcely an instant of time can elapse between the time the plug B leaves the bung and the time the hole is again closed by the plug C, no gas can escape from the barrel in the operation.

Important advantages in this form of bung, in addition to what has been already specified, consist in its adaptability for the insertion of a bung-puller for extracting it from a barrel after the simple driving in of the plug, and its adaptability for the introduction of the pipe of an air-pump, thus avoiding the necessity of boring a hole in the staves for such introduc-

tion.

### Claim.

A wooden bung constructed with a central detachable wooden plug, B, for the purposes specified, when the grain of the plug runs horizontally with the grain of the bung.

In testimony of which invention I hereunto set my hand.

JOSIAH KIRBY.

Witnesses:

FRANK MILLWARD, JOHN A. CONN.