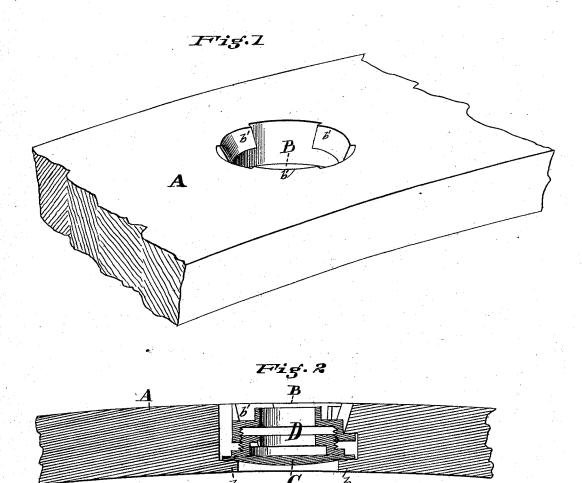
## J. KIRBY. Bung Stave Lock.

No. 203,922.

Patented May 21, 1878.



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## JNITED STATES PATENT OFFICE.

JOSIAH KIRBY, OF CINCINNATI, OHIO.

## IMPROVEMENT IN BUNG-STAVE LOCKS.

Specification forming part of Letters Patent No. 203,922, dated May 21, 1878; application filed April 26, 1878.

To all whom it may concern:

Be it known that I, Josiah Kirby, of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Bung-Fastening Devices, of which the fol-

lowing is a specification:

My invention has for its object the cheapening of the cost of devices for securing in position a thin self-supporting bung, and it refers more particularly to the construction of the annular seat upon which the bung rests, and the projections against which the bung-follower acts in keeping the bung against the seat; and my invention consists in forming, in connection with the bung-hole, the aforesaid annular bung-seat, and the lugs for securing the follower upon the bung in one of the barrel-staves, thereby dispensing with the bushing heretofore used.

Referring to the drawings, Figure 1 is a perspective view of a portion of a barrel-stave embodying my improvement. Fig. 2 is a sec-

tional elevation of the same.

A is the barrel-stave, provided with the bung-orifice B, which has, near its inner surface, an offset, forming an inwardly-projecting annular flange, b, while contiguous to its outer surface, and projecting from the wall of the orifice, are projections b'. The method of forming a bung-hole of this description is immaterial, it being sufficient to say that it may easily be so formed by means of mortising and frizzing bits of suitable configuration.

As seen in Fig. 2, the bung C, which is in the form of a thin disk, is laid against the seat b, and to secure it there a follower, D, is provided. This follower is preferably formed in two parts, having screw-threaded connections; so that these parts may be expanded, when in position, between the bung and the projec-

The follower D is provided with suitable blanks in its periphery to enable it to be inserted into the bung-orifice past the projections b', and it is enabled to engage with them by being partially revolved.

In the construction of the bung-hole with the seat b and projection b', I am enabled to dispense with the metal bushing heretofore used, and the material of the stave has proved amply strong enough to secure the bung C in the manner described. Thus is an item in the expense of providing means for securing thin bungs dispensed with.

For the purpose of illustrating the use of my invention, I have shown, in connection with the stave bung-hole, one description of follower, the peculiar construction of which is the subject of another application for Letters Patent. Reference is made thereto for a fuller

description of said follower.

It is immaterial, so far as the subject of this invention is concerned, what description of follower is employed with a thin bung and the stave bung-hole constructed as described. The only point essential to this invention in the construction of the follower is, that it shall pass beneath the lugs, and by means of the latter hold the bung down upon the seat.

The bung may be a thin disk or plate of

metal, wood, or other material.

I prefer to employ a thin wooden pressed bung, as the latter, when moistened, expands, and, without the aid of a gasket or packing, &c., makes a tight joint between the bung and seat. So, in such instance, the preferred form of follower is that whose center is open to admit of a puncturing instrument being passed through same to perforate the bung for a ventorifice, or for the introduction of an instrument performing the office of a vent.

What I claim as my invention, and desire

to secure by Letters Patent, is-

The combination, with a thin bung and re-taining-follower, of a bung-orifice formed in the stave with an annular seat for the bung and projections, to enable the follower to keep the bung against the seat.

JOSIAH KIRBY.

Attest:

W. S. Christopher, C. Walton, Jr.