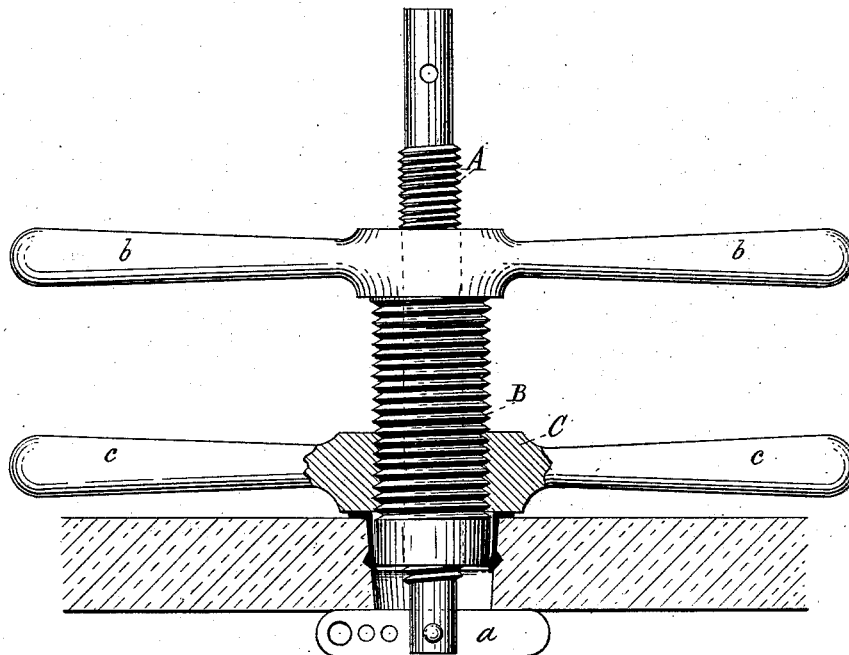


G. H. GILLETTE.
Bung-Bush Insertter and Expander.

No. 218,871.

Patented Aug. 26, 1879.



Attest:

L. Allen

Chas. M. Higgins.

Inventor:

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Attys

UNITED STATES PATENT OFFICE.

GEORGE H. GILLETTE, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENT, TO CHARLES G. SINGER, OF SAME PLACE.

IMPROVEMENT IN BUNG-BUSH INSERTERS AND EXPANDERS.

Specification forming part of Letters Patent No. **218,871**, dated August 26, 1879; application filed May 14, 1879.

To all whom it may concern:

Be it known that I, GEORGE H. GILLETTE, of New York city, have invented an Improved Tool for Inserting and Expanding Bung-Bushes, of which the following is a specification.

My improved tool is more especially designed for the insertion of a novel form of bung-bush, described in a separate application, the inner edge of which is formed with an annular rib adapted to be expanded and embedded in the bung-hole.

My improved tool mainly consists of a central screw-stem having one end provided with a pivoted cross-head adapted to enter the bung-hole and seize the under side of the stave, while the upper portion of the stem carries a revolving nut having projecting lever-handles, and terminating in a circular expanding head or die, which screws into the bung-hole and expands the bush.

The annexed drawing presents an elevation of my improved tool, shown partly in section, and represented in the act of inserting a bung-bush, which, with the bung-stave, appears in section.

As illustrated, A indicates a central screw-stem, on which the other portions of the tool work. The lower end of this stem is forked or slotted, and in the slot is pivoted the cross-bar *a*, one end of which is heavier than the other, so that when the stem is held vertical the cross-head falls in line therewith, enabling the stem to be inserted in the bung-hole, when, by screwing the stem upwardly, the cross-head flies out at right angles, and is brought up tightly against the under side of the bung-stave, as illustrated, thus obtaining an internal hold upon the stave.

B is the expanding-plug, which works as a nut upon the screw-stem A, its upper end being provided with the projecting lever-handles *b b*, while its lower end, which terminates in a smooth circular expanding die or plug, enters the bung-bush and rests against the annular rib of the bush.

The interior or bore of the expanding-plug is threaded to work upon the screw-stem, and its outside is also threaded to receive the in-

serting and clamping wrench C, which is provided with projecting lever-handles *c c*, similar to the expander B, and is free to screw up or down upon the expander.

The tool is used as follows: The bung-bush being placed in the bung-hole, the tool is held by the handles *b b* in a vertical position, and the wrench is screwed upon the expander, while the stem A is screwed down, so that its lower end projects well below the expander. The tool is then inserted in the bush, so that the cross-bar in the end of the stem passes below the stave, while the expander enters the bush, resting on or near the annular rib on the inner edge of the bush. The stem is now rapidly screwed upward, which brings the cross-head *a* at right angles to the stem, and close against the under side of the stave, as shown. The wrench C is now screwed downward against the shoulder of the bush, thus forcing the bush tightly into the bung-hole, and bringing the shoulder of the bush tightly down upon the stave, and at the same time clamping the tool firmly in position for the expanding action. The expander is now revolved by turning the handles *b b*, and it is thus forcibly screwed into the bush, turning both on the stem A and in the wrench C, and the expanding end being thus forced against the ribbed edge of the bush, it expands the same outwardly and embeds the edge in the sides of the bung-hole, as illustrated, thus securely fixing the bush in the hole. The movements of the tool are then reversed and the tool removed to insert the next bush; and it will be seen that the bushes may thus be inserted very rapidly and with great ease.

The use of the clamping and inserting wrench C *c c*, in combination with the expander and the central stem, is not essential; but it is preferable.

What I claim as my invention is—

1. A tool for inserting and expanding bung-bushes, formed of a central screw-stem, A, having its lower end provided with a cross-head adapted to enter the bung-hole and seize the under side of the stave, and of the screw-plug B, provided with operating-handles, and arranged to screw upon the stem, with its

lower end adapted to enter and expand the bush, substantially as herein shown and described.

2. The combination of the central screw-stem, A, provided with a cross-bar to seize the under side of the bung-stave, and the expanding screw-plug B, working on the said stem, with the clamping-wrench C, working as

a nut on the threaded sides of the expanding-plug B, substantially as and for the purpose set forth.

GEORGE H. GILLETTE.

Witnesses:

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