No. 754,512. PATENTED MAR. 15, 1904.

G. & J. STREHL.

BUSHING.

APPLICATION FILED FEB. 26, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

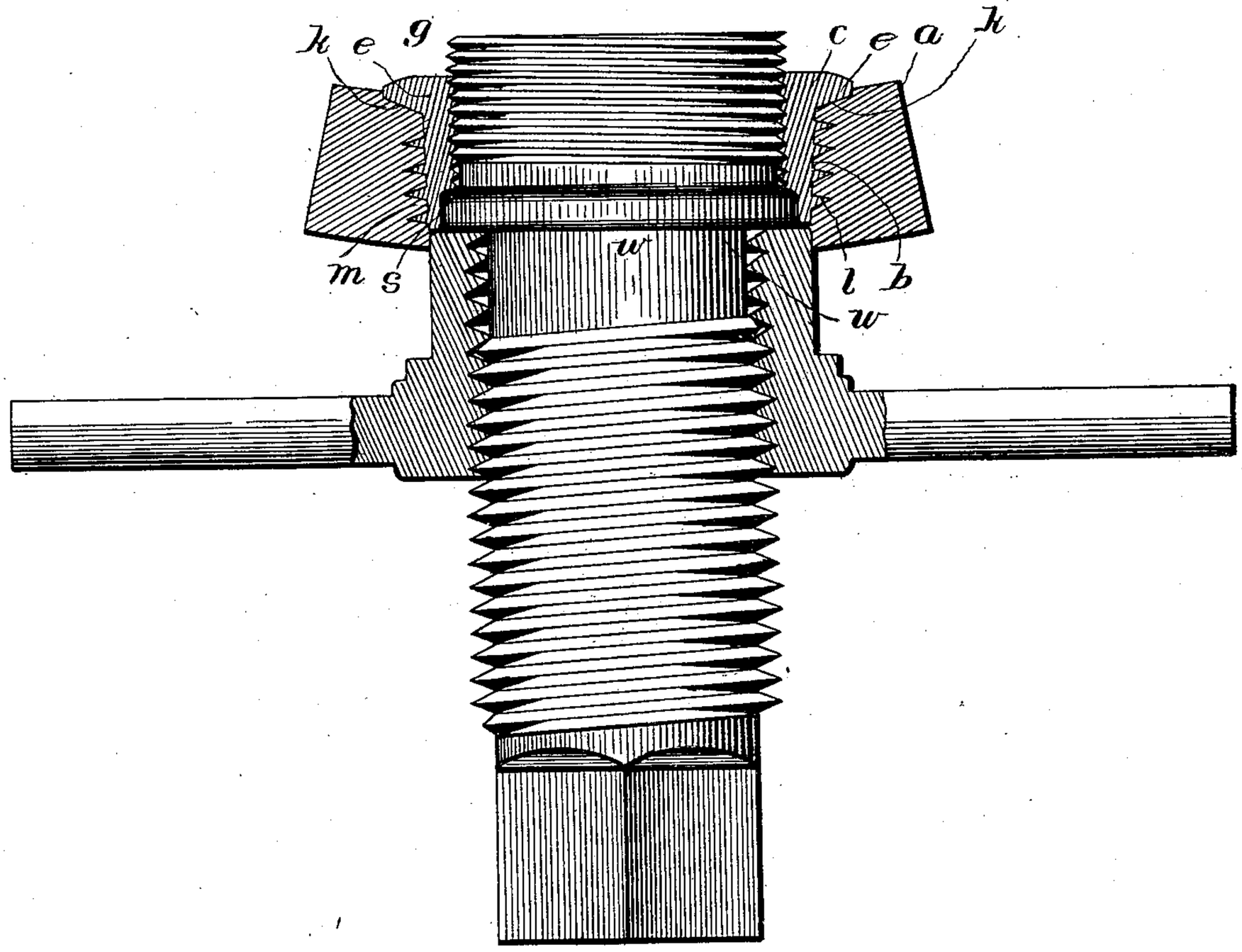
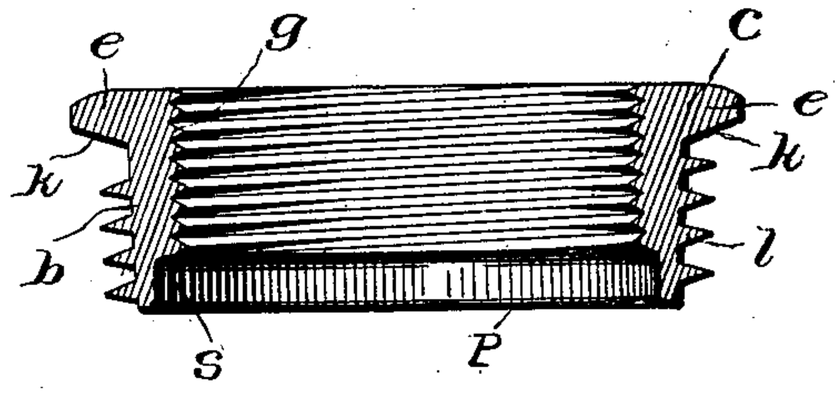


Fig. 2.



Witnesses

R. A. Boswell.

A. J. Gedney.

Inventors

Gustave Strehl

John Strehl

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

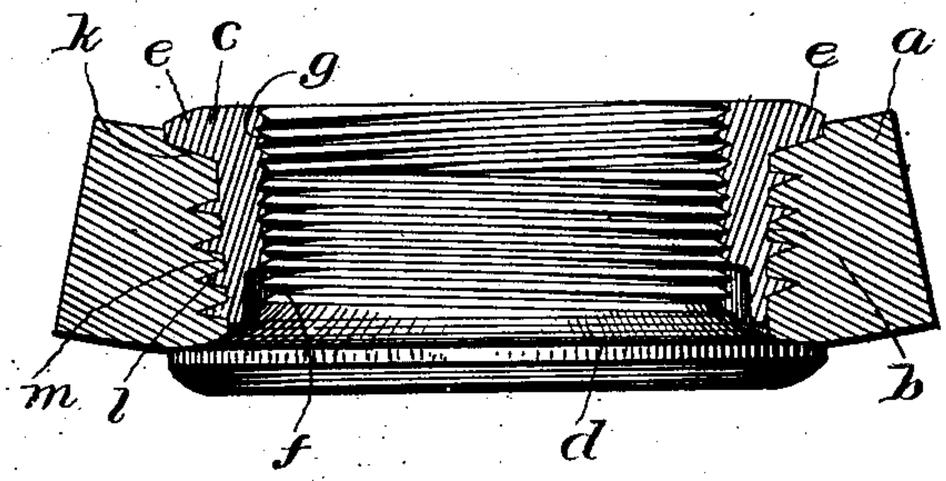


Fig. 4.

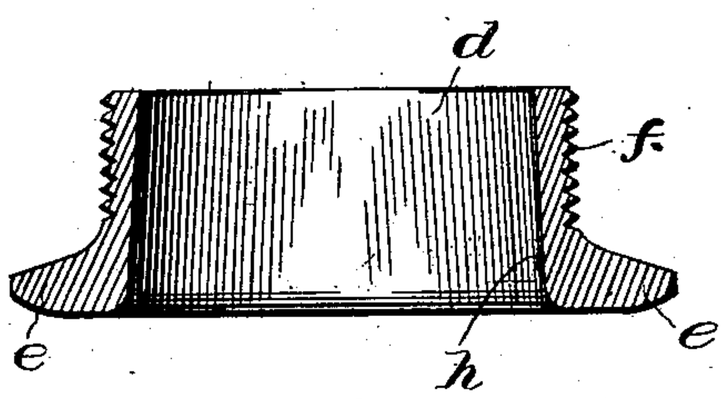
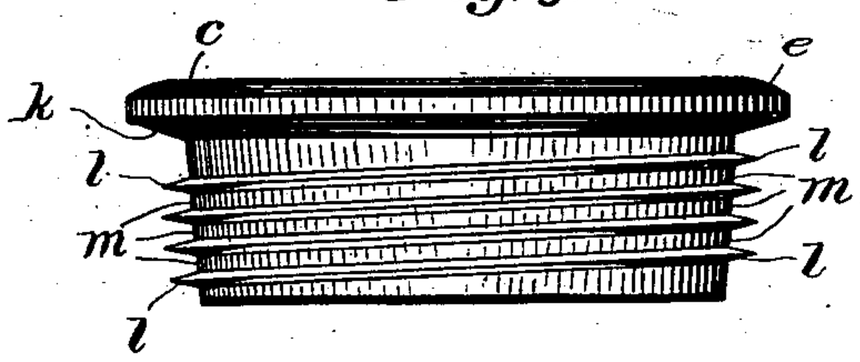


Fig. 5.



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UNITED STATES PATENT OFFICE.

GUSTAVE STREHL AND JOHN STREHL, OF LA CROSSE, WISCONSIN.

BUSHING.

SPECIFICATION forming part of Letters Patent No. 754,512, dated March 15, 1904.

Application filed February 26, 1903. Serial No. 145,252. (No model.)

To all whom it may concern:

Be it known that we, GUSTAVE STREHL and JOHN STREHL, citizens of the United States, and residents of La Crosse, in the county of La Crosse and State of Wisconsin, have made a certain new and useful Invention in Bushings; and we declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a sectional view showing the inner or bushing seat-section in position and the engaged screw-wrench. Fig. 2 is a sectional view of the inner or bushing seat-section. Fig. 3 is a sectional view showing both parts of the bushing in position. Fig. 4 is a sectional view of the outer section. Fig. 5 is a side view of the inner or bushing seat-section.

The invention relates to metal bushings for barrels, casks, and kegs, chiefly such as are used for holding ale or beer; and the invention consists in the novel construction and combination of parts as hereinafter set forth.

The object of the invention is to supply a strong and secure bushing which will present both on the outside and on the inside of the keg a smooth finish, the flanges requiring no projections, lugs, or recesses such as are made in ordinary metal bushings for use in screwing them into place.

In the accompanying drawings the letter *a* designates the wall of a barrel or keg having the bung-hole *b*, the surface of which is usually made slightly tapering from the inside of the barrel-wall outward.

The metal bushing is made in two sections—the inner section or annular bushing-seat *c* and the outer section *d*. Each of these sections is provided with a smooth circular rim-flange *e* at its exposed end, this flange being beveled or rounded off at its periphery. The outer bushing-section *d* is designed to screw into the inner bushing section or seat *c* and is therefore threaded around its exterior wall, as at *f*, to engage the inner thread *g* of the bushing seat-section. The aperture *h* of this bushing-section *d* is finished in the usual smooth tapering manner, as indicated in the drawings. The inner or bushing seat-section *c* is designed to engage the hole *b* in the wall of the barrel in a secure and tight manner and is provided with a rim-flange which engages the interior of the barrel-wall around the hole. This flange is usually provided with an under bevel or swell *k*, surrounding the neck or threaded portion in order that when screwed into the hole *b* this part will be forced into the wood of the barrel-wall at the margin of the hole in such wise as to make a tight joint on the inside of the barrel. This bushing-seat is designed to be screwed into the hole *b* and is provided with an exterior sharp thread *l* of coarse pitch, which will forcibly engage the wall of the barrel-hole *b* when turned with a suitable wrench and will form a secure connection with the wooden seat provided by this hole. Usually the turns of the sharp thread are separated by a broad thread bottom *m*, which is designed to receive and engage the fibers of the wood, compressing the same without breaking them, so that the liability of leakage through the thread is reduced to a minimum. The interior of the bushing-seat *c* is provided with a thread *g* to receive the thread of the outer bushing-section *d*. This thread usually terminates short of the outer edge *p* of the bushing-seat, and an interior annular rabbeted bearing or bevel-shoulder *s* is provided in this end of the bushing-seat to receive the bearing of a screw-wrench *w*, which is employed to turn the bushing-seat home. With this object in view the inner thread *g*, which is engaged by the holding-thread of the screw-wrench, has the same direction of inclination as the outer sharp thread *l*, the latter, however, being, as hereinbefore indicated, a quick thread of coarse pitch. When the bushing-seat is properly engaged by the screw-wrench, it becomes practically solid therewith, and by its means the bushing-seat can be forcibly turned into the hole of the barrel, so as to engage the wooden bearing-wall of said hole in a secure and tight manner. The screw-wrench being removed, the outer bushing, having a fine thread, can then be easily engaged with the bushing-seat.

Having described this invention, what we claim, and desire to secure by Letters Patent, is—

A metallic bushing comprising an outer bushing seat-section having an inner smooth underbeveled rim-flange, a coarse exterior thread, an interior thread, and an interior annular rabbeted wrench-seat at the outer termination of said interior thread, and in combination therewith an inner bushing-section having an outer smooth underbeveled rim-flange, and an exterior thread, said outer underbeveled rim-flange and inner underbeveled rim-flange being adapted to forcibly engage respectively the outer and inner walls of a stave in which the bushing is seated, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

GUSTAVE STREHL.
JOHN STREHL.

Witnesses:
W. J. HICKISCH,
GEO. J. FRIES.