No. 655,380. Patented Aug. 7, 1900.

# G. STROH.

## TAP.

(Application filed June 23, 1898.)

(No Model.)

Fig. 1.

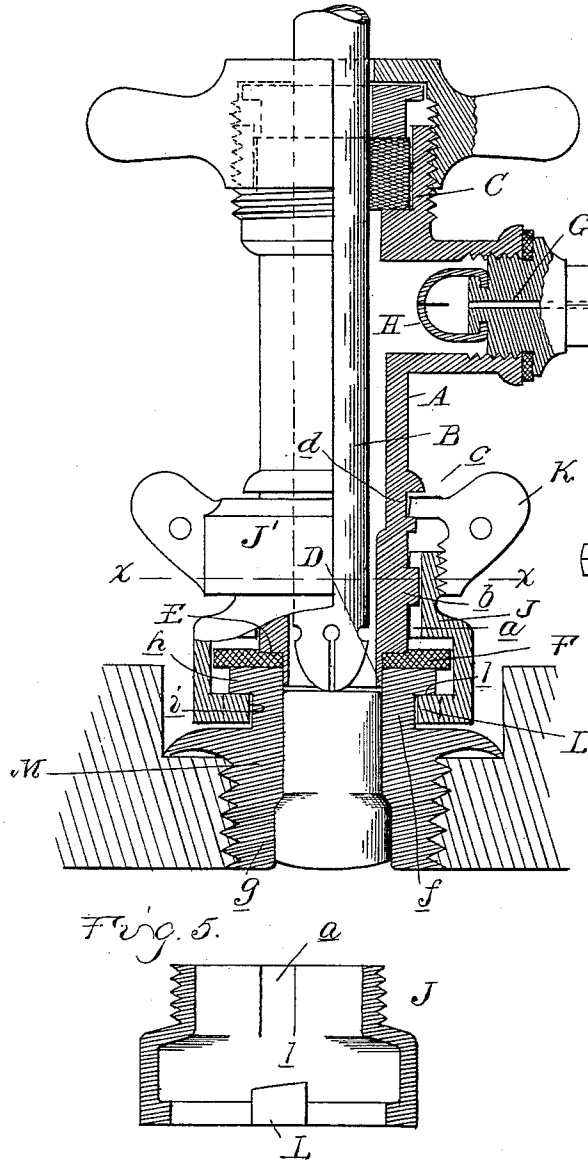



Fig. 2.

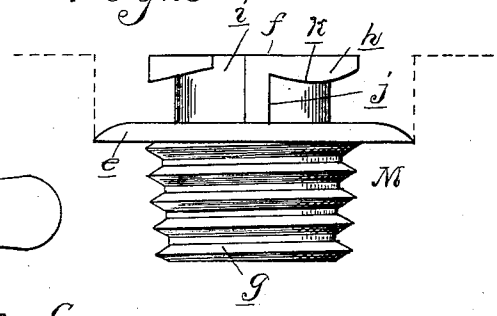



Fig. 3.

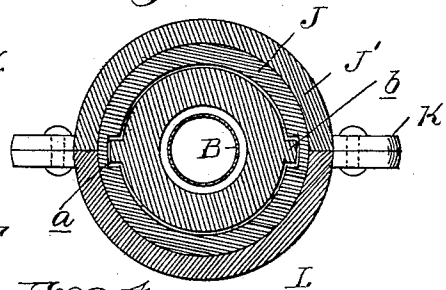



Fig. 4.

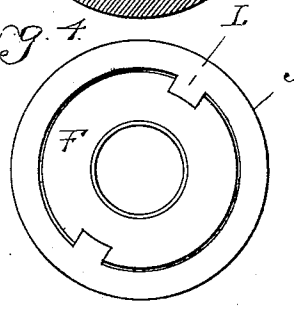



Fig. 5.




Witnesses:
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# UNITED STATES PATENT OFFICE.

GEORGE STROH, OF DETROIT, MICHIGAN.

## TAP.

SPECIFICATION forming part of Letters Patent No. 655,380, dated August 7, 1900.

Application filed June 23, 1898. Serial No. 684,227. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE STROH, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Taps and Bushings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to the class of taps used in connection with a so-called "tap-bushing" permanently secured in the head of the barrel or keg and with which the beer-tap is adapted to couple.

The object of my invention is to construct the tap and bushing in such a manner that they can be coupled readily and quickly and form a tight joint and at the same time can be locked together in such manner that under no contingencies of use can they become accidentally disconnected.

To this end my invention consists in a peculiar construction, arrangement, and combination of the coupling devices of the tap and bushing, all as more fully hereinafter described and shown.

Figure 1 is a vertical central section, partly in elevation, of the tap and bushing as in their coupled position. Fig. 2 is a detached elevation of the bushing. Fig. 3 is a horizontal section on line $x\,x$, Fig. 1. Fig. 4 is an end view of tap. Fig. 5 is a detached section of the sliding part of the coupling-sleeve.

A is the sleeve or casing of the tap. B is the tap-tube, passing centrally through this sleeve and which by pushing it through the sleeve into the barrel permits the drawing off of the contents.

C is a stuffing-box for the tap-tube, formed in the upper end of the sleeve.

D is a reduced extension formed at the lower end of the sleeve.

E is a shoulder or seat formed at the base of the extension. F is a packing seated against said shoulder and around the extension.

G is the air-inlet into the interior of the casing, provided at its inner end with the check-valve H and at its free end with a suitable nipple I to connect thereto a flexible tube.

J J′ is a two-part coupling-sleeve, the part J of which slidingly engages with the casing by means of longitudinal guide-grooves $a$ and lugs $b$, formed, respectively, on the adjacent faces of the coupling-sleeve and casing, while the part J′ turns loosely on the casing by means of an interior flange $c$, engaging into an annular groove $d$ on the casing. The part J′ is provided with wings K for turning it by hand and is interiorly screw-threaded, and the part J is screw-threaded upon its upper end to engage therewith, and its lower end is enlarged and formed with inwardly-projecting coupling-lugs L, placed at diametrically-opposite points.

M is the bushing, formed with an annular flange $e$ and two nipples $f\,g$, centrally on opposite sides thereof, in axial line with each other. The nipple $g$ is screw-threaded for the purpose of securing the bushing permanently in a suitable hole in the keg or barrel, and the nipple $f$ forms the coupling member for securing the tap thereto. To this end it is provided with interrupted screw-flanges $h\,h$, forming between them openings $i$ for the entrance of the coupling-lugs L of the tap. The screw-flanges terminate in stops $j$, and adjacent to the stops each screw-flange is formed with a relief or depression $k$, which is preferably formed by reversing the pitch of the screw, and correspondingly therewith the lugs L have their coupling-faces $l$ formed with the same reverse pitch.

A tap of the general construction as the one above described is shown in United States Letters Patent No. 542,063. The novel bushing which I use in connection therewith, however, materially alters the character of my device as a whole, and its operation is as follows: In coupling, the operator, after engaging the coupling-sleeve of the tap with the coupling-nipple of the bushing, turns the tap until the coupling-lugs L strike against the stops $j$ and prevent any further turning, and then he turns the sleeve J′ to the right as far as it can be turned. In this manner the coupling-lugs L engage with the depressed portions $k$ of the coupling-flanges $h$ and make it impossible to uncouple the tap without first loosening up by unscrewing the part J′.

In constructing the parts as described it

will readily be seen that it requires only a partial turn of the coupling part J′ in coupling or uncoupling, and the same is therefore quickly obtained.

The depressed portion of the screw-threads and the faces of the coupling-lugs with which said depressed portions are intended to interlock may be constructed in any desired manner to obtain the desired object. In constructing these parts as shown in the drawings they are not likely to wear out, and the coupling and uncoupling are very easily effected. The degree of depression may also be varied according to the contingencies under which the device is intended to operate. Thus the spirit of my invention is complied with by merely flattening the screw-flanges at the points *k*.

My improvement of adding the locking feature to the tap is a decided advantage over previous constructions, as it does prevent accidental uncoupling and consequent loss from contingencies which often arise in the use of such taps. Besides my construction enables the operator to use greater power, and consequently to obtain a tighter joint, which will withstand any pressure which may exist within the barrel or be practicably used in drawing off the contents.

What I claim as my invention is—

1. A bushing provided with interrupted coupling-flanges, stops formed at the ends of said flanges, a relief or depression formed in said flanges adjacent to the stops, a tap provided with an outer casing, and a two-part screw-connected coupling-sleeve on said casing one turning loosely on the casing and the other slidingly engaging therewith and provided with coupling-lugs adapted to couple with the bushing.

2. A bushing provided with interrupted screw coupling-flanges for coupling with the tap, stops formed at the ends of said flanges, depressions *k* formed adjacent to the stops, a tap provided with an outer casing and a two-part coupling-sleeve the parts of which have a screw-thread connection with each other, one turning loosely on the casing and having wings for turning by hand and the other slidingly engaging with the tap-casing and having coupling-lugs conformable to the depressions in the coupling-flanges of the bushing.

3. The combination with a bushing having a nipple adapted to form one member of a coupling and a tap having a casing adapted to form another member of said coupling, of interrupted cam-flanges on the nipple formed with depressions in the ends of said cam-flanges and a two-part coupling-sleeve one part of which has a sliding engagement on the casing and carries coupling-lugs adapted to be engaged with the depressions of the cam-flanges and the other part turning loosely on the casing and having a screw-threaded engagement with the aforesaid part whereby the same may be moved endwise to positively lock the coupling-lugs into the depressions of the cam-flanges to prevent uncoupling by twisting.

In testimony whereof I affix my signature in presence of two witnesses.

GEO. STROH.

Witnesses:
M. B. O'DOGHERTY,
OTTO F. BARTHEL.