

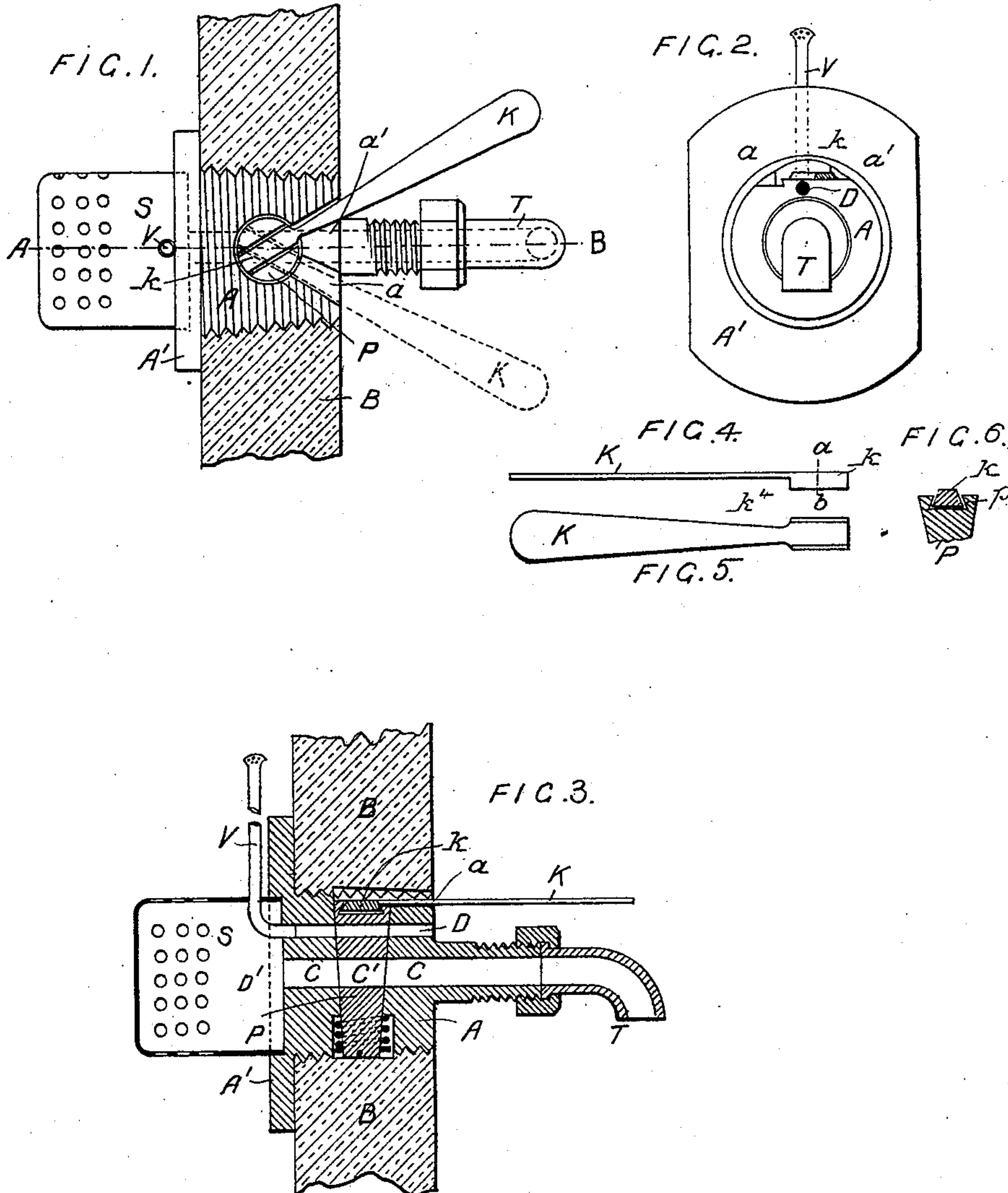
(No Model.)

2 Sheets—Sheet 1.

S. MYER & H. W. JOYCE.  
DRAW-OFF LOCKING TAP.

No. 582,394.

Patented May 11, 1897.



Witnesses  
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E. A. Scott.

Inventors.  
Sydney Myer  
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By Richard R.  
Attorneys

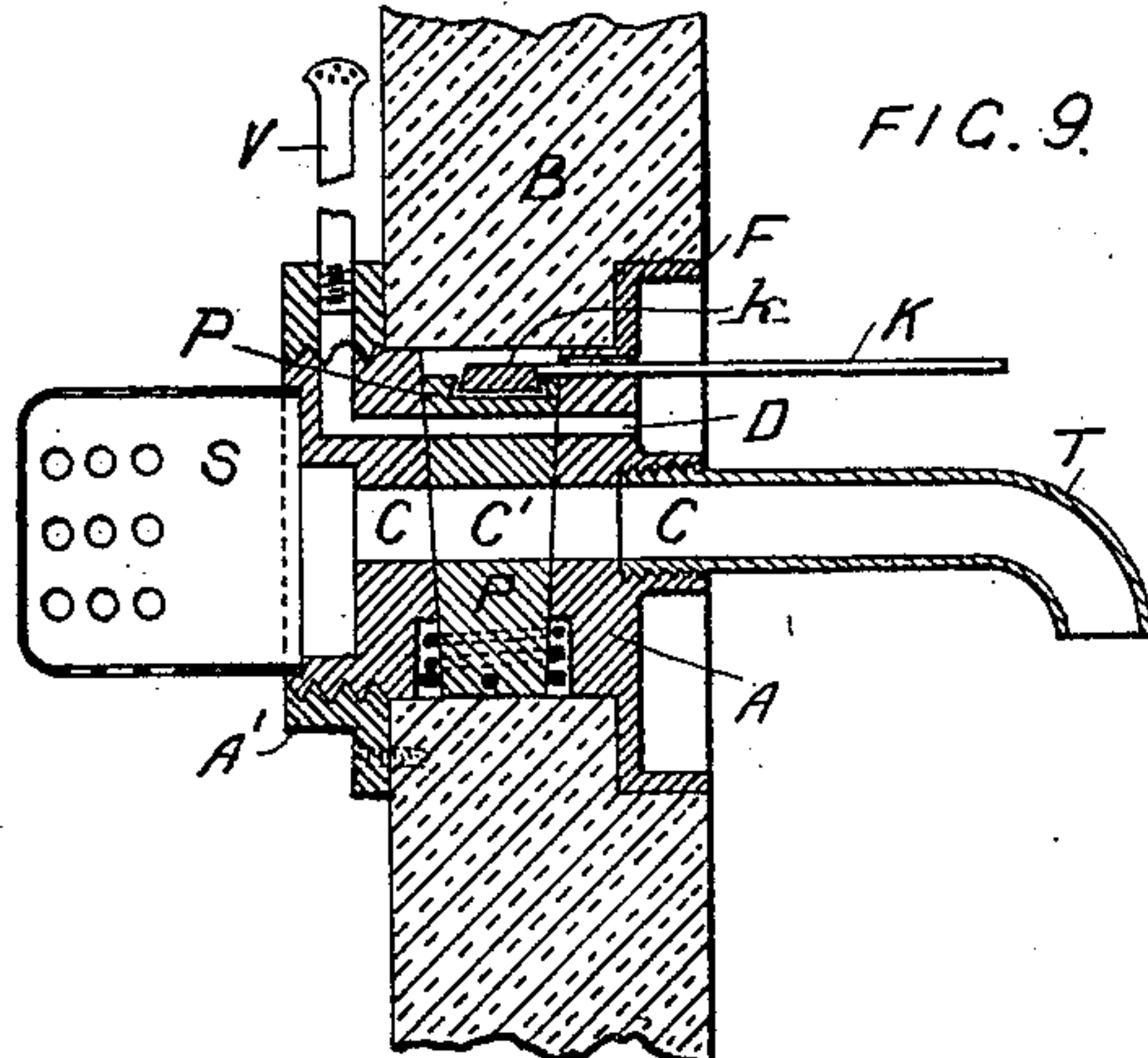
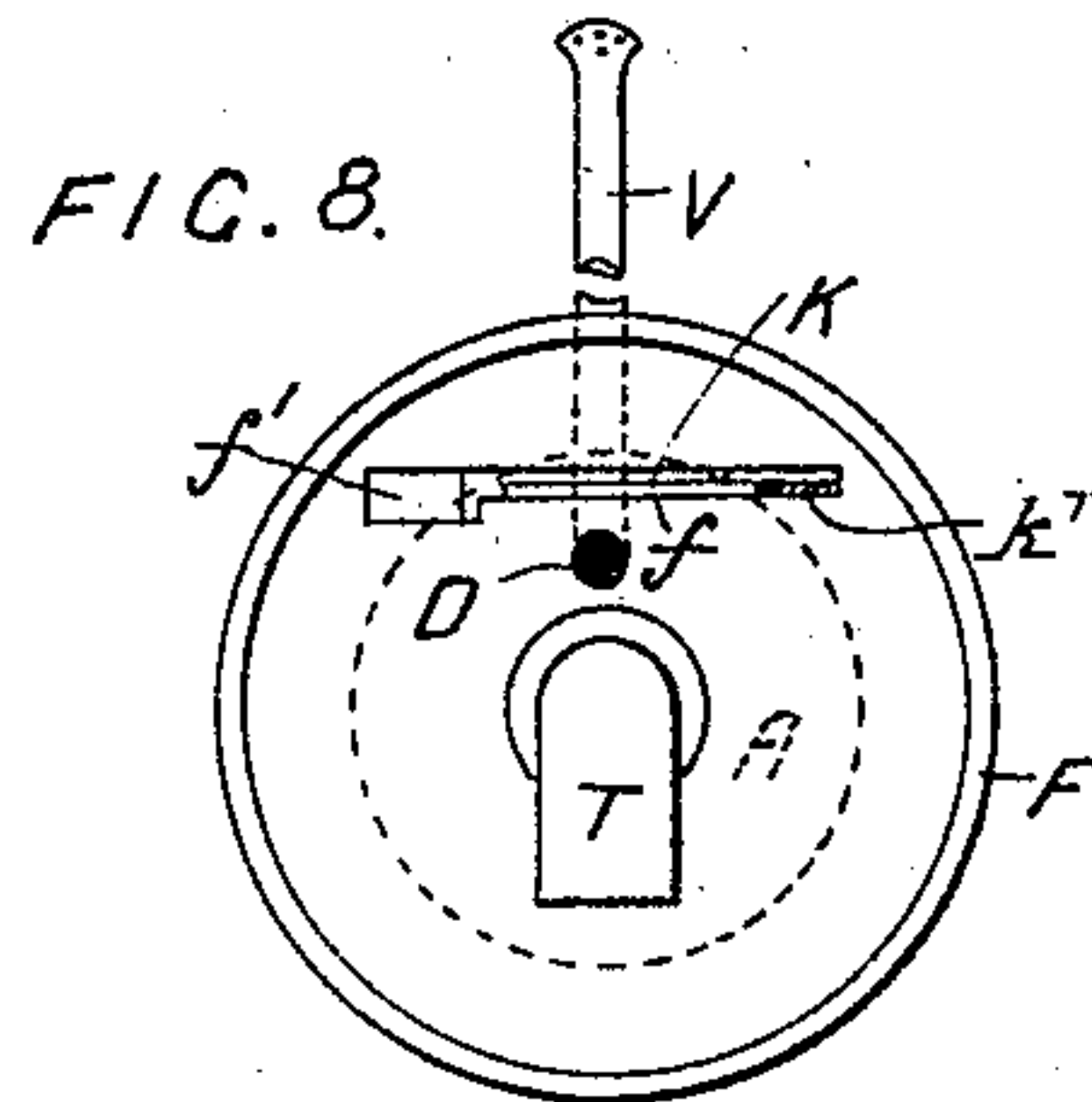
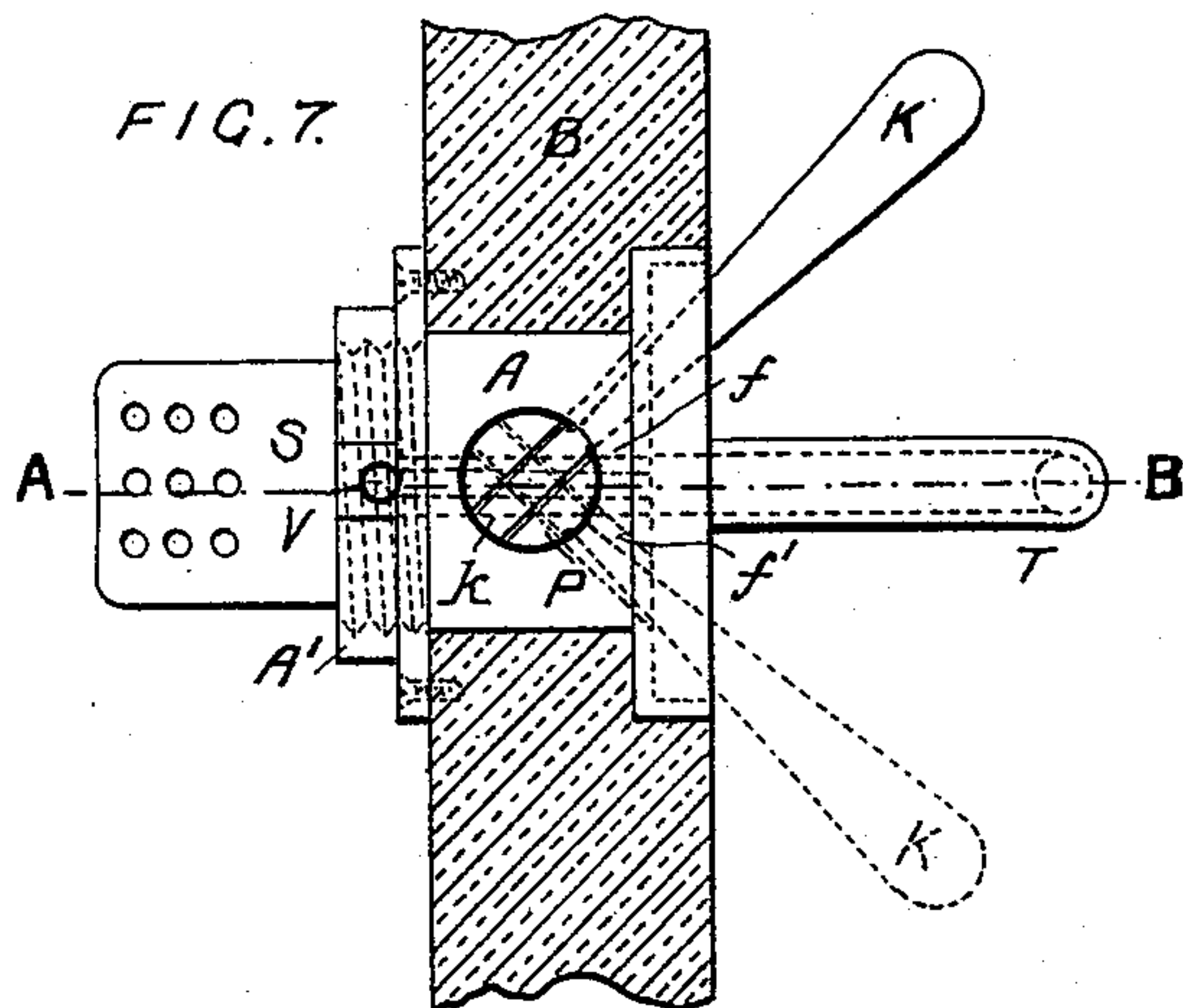
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# UNITED STATES PATENT OFFICE.

SYDNEY MYER AND HORACE W. JOYCE, OF HEREFORD, ENGLAND.

## DRAW-OFF LOCKING-TAP.

SPECIFICATION forming part of Letters Patent No. 582,394, dated May 11, 1897.

Application filed August 20, 1896. Serial No. 603,311. (No model.)

*To all whom it may concern:*

Be it known that we, SYDNEY MYER and HORACE WILLIAM JOYCE, subjects of the Queen of Great Britain and Ireland, residing at Hop Market, Broad Street, Hereford, England, have invented new and useful Improvements in Draw-Off Locking-Taps, of which the following is a specification.

Our invention relates to draw-off locking-taps for casks and the like adapted for operation only by a special key which cannot be withdrawn unless the tap is in closed position.

The object of our invention is to provide a strong, efficient, and inexpensive working-tap having few parts and not liable to derangement.

The body of our tap may be in one piece adapted to be fixed permanently to the cask from inside and to project through same, or it may be in two parts to facilitate cleaning out, one permanently fixed to the cask from within and the other to the first secured from without.

In both cases the body of the tap is bored longitudinally with a liquid and an air passage and fitted with a vertical rotary plug having corresponding passages registering with the body-passages when the tap is open. The plug is operated only by a special key, and this key and the body, or equivalently a flange upon the body, are mutually so arranged that the key can only be inserted and withdrawn when the tap is quite closed. Thus the tap cannot be left partly open, and hence no waste can occur.

Referring in further description to the accompanying drawings, Figure 1 is a plan, Fig. 2 a front elevation, and Fig. 3 a vertical section, of our improved one-part body-tap. Fig. 4 is an elevation; Fig. 5, a plan of key; Fig. 6, a section on line *a b* of Fig. 4, showing top of plug and its keyway. Fig. 7 is a plan, Fig. 8 a front elevation, and Fig. 9 a vertical section, of our improved two-part body-tap.

Similar letters refer to similar parts in all the figures.

Referring first to Figs. 1 to 6, the body A of the tap is coned and screwed externally and has a rear flange A', adapted for fixing inside the casks B, as shown.

C is the liquid-way, and D an airway bored straight through the body.

P is the coned plug, working vertically in the body A and secured at its base by a nut and spring, as shown, or otherwise suitably. The plug is provided with liquid and air ways C' and D', registering with C and D only when the tap is open. In the top of the plug is cut a keyway, as at *p*, Fig. 6, preferably of dovetail section, into which fits a correspondingly-shaped downwardly-projecting enlargement *k* on the end of the key K.

The upper part of the screwed body A is recessed with a flat surface *a'* level with the base of the keyway *p* of the plug and suitably flared or formed for the angular horizontal operation of the key. At the closed position, which in the drawings is shown as on the left side, a sunk keyway *a* is cut in the flat *a'*, of a depth equal to the depth of the keyway *p* in the plug P and the projection *k* below the key K, so that only when the plug-keyway *p* is lineable with the body-keyway *a* can the part *k* of the key K be inserted, and when once the key is moved to the right to operate the plug the inner end of the projecting part *k* engages the inner circular wall of the flat surface *a'*, and the key cannot be withdrawn until the plug is returned to closed position, the flat or breast of the key during operation moving over the flat surface *a'*. Instead of this permanently-fixed tap it may in some cases be desired to have a removable body, and for this purpose we have designed the two-part tap illustrated in Figs. 7 to 9.

The body A of the tap and the securing-flange A' are separate, and the rear flange A' is internally screwed and adapted for fixing within the cask B. The body A is turned plain externally and is screwed or otherwise fixed to the said flange A'. The plug and internal liquid and air ways are arranged as in the first-described arrangement, but in this case, instead of a flat surface *a'* with sunk keyway *a*, a flange F is cast on the front end of body A, adapted to be countersunk into the face of the cask. This flange has a slot *f* in every way equivalent to the above-described keyway arrangement and of the form shown in Fig. 8 for the insertion, operation, and retention of the key K. The slot is cut at its left-



hand end  $f'$  to a depth corresponding with the base of the plug-keyway  $p$  plus the projection  $k$  of the key, and for a distance equal to the width of the key the other part  $f$  is parallel. When the deeper part  $k$  of the end of the key is inserted and the plug turned to the right, the lower surface  $k^4$  of the key moves over the higher part of the slot  $f$  and the projection  $k$  moves behind the flange, so that the key cannot be withdrawn except when the tap is closed.

With both arrangements we may combine a liquor-strainer  $S$ , fixed to the inlet end of the body, and a spout  $T$  for facilitating delivery, or a union part may be provided for connecting up a beer-pump or such like appliances. We also provide an upwardly-projecting air-inlet  $V$ , which may be arranged to admit air or relieve internal pressure either on partial turning of the tap without allowing the escape of the liquid or only when the tap is fully open.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In combination with the tap having a body part, a plug extending transversely of the axis of said body and having a keyway extending transversely of its end, a key adapted to said keyway and having a shoulder and the rib or shoulder on the tap for engaging the key-shoulder to hold the key in place when the plug is in open position, substantially as described.

2. A draw-off locking tap comprising two parts, one adapted to be permanently fixed

from inside the cask, the other secured to it from outside and having a front flange with specially-formed key-slot and keyway in same admitting a special key horizontally, only when the tap is in closed position and preventing its withdrawal except when in that position, substantially as above described.

3. In combination with the wall of the cask the tap having a body part to extend through the wall of the cask, a plug extending through said body part at right angles to the axis thereof, said plug being in the vertical plane of the cask-wall, so that its ends will be covered by the wall of the cask, the keyway in the plug, the shoulder on the tap and the key having a shoulder to engage therewith, the said keyway extending transversely of the end of the plug and the key extending at right angles to the plug and to the cask-wall, substantially as described.

4. In combination, the tap, the plug having a keyway extending transversely of its end, a shoulder on the tap and a key having a shoulder and adapted to the transverse keyway, said key being inserted or removed by moving the same in a plane at right angles to the axis of the plug, substantially as described.

In witness whereof we have hereunto set our hands in the presence of two witnesses.

SYDNEY MYER.  
HORACE W. JOYCE.

Witnesses:

HENRY A. PRYOR,  
ALFRED B. CAMPBELL.