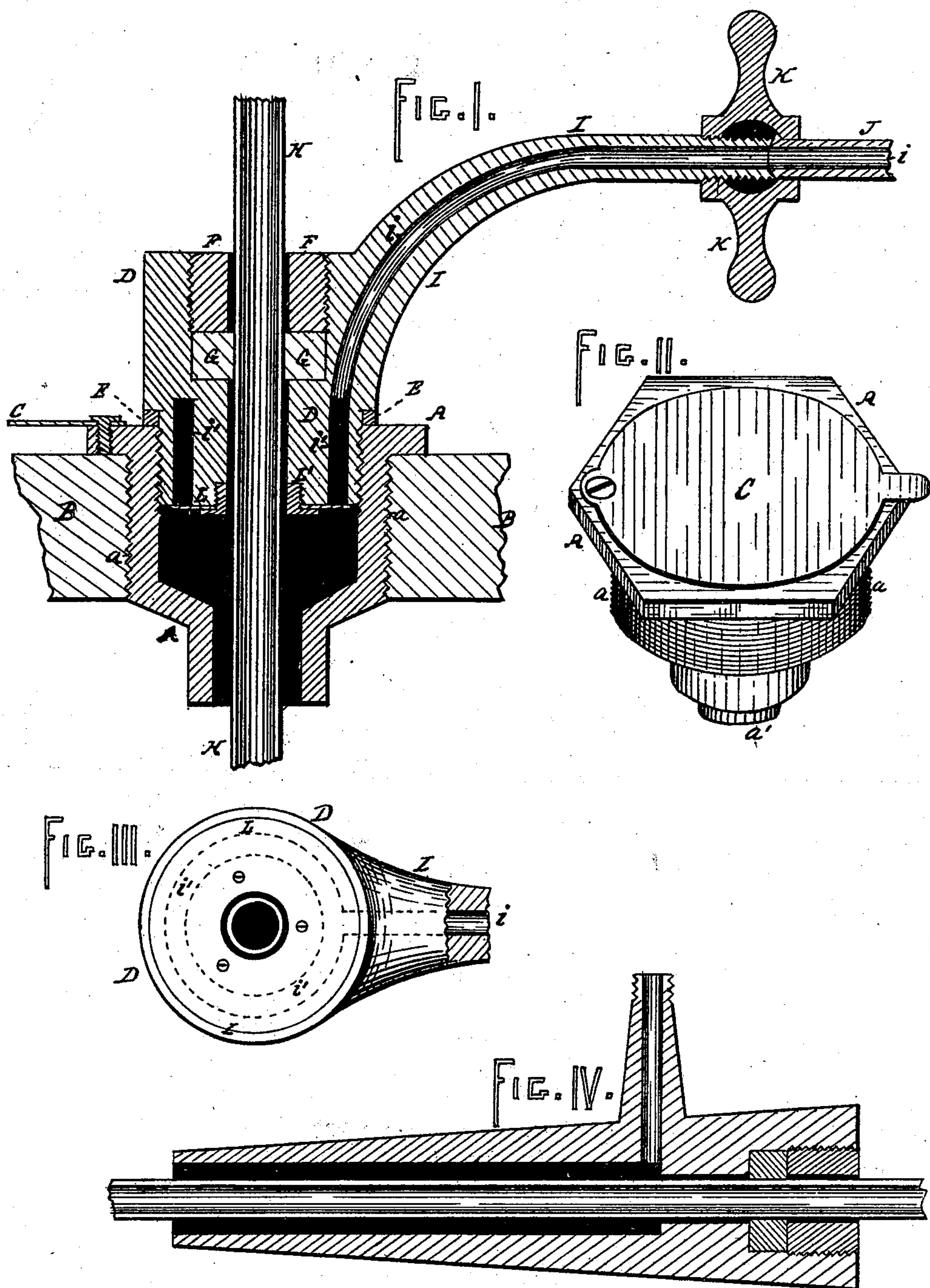


(No Model.)

C. I. SNYDER.  
PORTER OR BEER TAP.

No. 502,835.

Patented Aug. 8, 1893.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## PORTER OR BEER TAP.

SPECIFICATION forming part of Letters Patent No. 502,835, dated August 8, 1893.

Application filed December 19, 1892. Serial No. 455,558. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES I. SNYDER, of the city and county of Philadelphia, State of Pennsylvania, have made certain new Improvements in Ale, Porter, or Beer Taps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part hereof.

To better comprehend the scope of my invention, it may be stated that, heretofore, the head of every keg or barrel was constructed with an orifice or tap hole, which, before filling the keg, was closed ordinarily by means of a cork. This latter was forced in as the tap was driven into the keg,—the tap itself being provided with a stopper (to prevent the escape of the liquor) which also was forced into the keg upon the insertion of the ordinary tap rod which communicates with the bar cock or faucet—the liquor being forced through said tap rod by the pressure introduced into the keg, through the air passage and chamber of the tap, from the air pump with which the tap is connected.

Now in order that the tap shall operate successfully, it is essential that the joint between it and the keg shall be perfect to prevent the escape of the air or gas which is being forced into the keg—insuring the passage of the liquor through the tap rod as the faucet is turned on. To attain this air tight joint, it is customary to use a packing of paper around the tap. This packing becomes saturated with the liquor in a very little while and exceedingly offensive; besides does not always suffice for the purpose. Furthermore, every time a tap is driven into a keg, the tap hole is more and more enlarged until the tap can no longer be used, when it becomes necessary to insert a new head. All these defects are overcome by my invention—which consists: in certain details of construction, arrangement and combination of parts, all of which are more fully described herein-after.

The novel features of this improvement are embraced in the appended claims.

In the drawings: Figure I is a vertical sectional view of my improved tap and tap receiver. Fig. II is a perspective of the receiver with cap or cover. Fig. III is a bottom view of the tap proper showing an automatic valve

for checking the escape of the air from the keg should the pump become disconnected or fail to operate. Fig. IV is a sectional view of the ordinary tap in use heretofore.

A is the receiver (which is made preferably of cast iron) provided upon its outer periphery with a thread *a* whereby it is screwed into the tap hole of the head B of the keg, its lower orifice being closed by a cork or stopper *a'* which is inserted by means of the ordinary cork setter. It will be observed that this receiver is permanently attached to the keg, and being preferably made of metal will endure until the keg itself is thrown aside as worthless.

C is a cover or cap which may be hinged or screwed on, and serves to prevent the accumulation of foreign matter in the receiver.

D is the tap proper and screws into the receiver A as shown in Fig. I, the washer E serving to form an air tight joint therewith.

F is a screw threaded ring by which the elastic washer G can be spread out and pressed against the tap rod H after the latter has been inserted.

Arm I is connected with the tube J, leading from the force pump, by means of the coupling K—the air passage *i* terminating at its lower extremity in the annular air chamber *i'*. The advantage of this construction is that the current of air passes down around the tap rod H without interference, whereas in the old style tap, as shown in Fig. IV the air was forced in at right angles to the air chamber and the current broken.

L is an automatic check valve, made of any suitable elastic material, which may be held in place by the flanged threaded ring L' or screwed on to the tap as shown in Fig. III, and serves to retain the air in the keg should the pump become detached or fail to operate. It also prevents the liquor, from any cause, being forced up into the air chamber or tube where it would be liable to spoil and clog. It will of course, be obvious that the air chamber *i'* may be made to extend only part of the way around, or in fact be merely a continuation of the air passage *i* and the valve L modified accordingly.

Now when it is desired to tap the keg, the cover C of the receiver A is removed, the tap D is inserted, and, by means of the arm I,



which serves as a wrench, screwed tightly down upon washer E until a perfect joint is made. The outer end of arm I by the coupling K is connected with the tube J leading from the force pump. The latter is then put in operation,—the air driven through the passage *i* into the annular chamber *i'* down around the tap rod H through the tap receiver into the keg, with a pressure upon the liquor sufficient to force the latter up through the said rod when the faucet is opened.

In addition to the advantages already pointed out, and the facility with which it can be applied, by the use of my said tap a decided saving of corks or stoppers is effected. Heretofore as already pointed out two corks were requisite—a large one for the tap hole and a smaller one for the tap itself. My tap however, requires but one small cork for the receiver.

A decided advantage obtained by locating the automatic check valve at the bottom of the annular air chamber *i'* is that the valve is thus brought in close proximity to the contents of the keg, and prevents the slime which forms on top of the beer from getting back and accumulating in the air pipes. This is effectually prevented by locating the check valve in the aforesaid manner, closing the inner terminal of the air inlet. It often happens that the accumulated slime in the air pipe is forced back or returned to the beer in the keg, tainting it, and rendering the same unfit for use. Such objection is more frequently experienced where there is a series of kegs severally connected by valved branch air pipes with a main air pipe leading from an air pump. In such instance, it is difficult to maintain uniform pressure on all the kegs at once, and the slime from the keg longest on tap and under weakest pressure gets back into the air pipe and is returned perhaps to other fresh kegs under high pressure. This

difficulty however is entirely overcome by my peculiar arrangement of the air pressure appliances and the location of the check valve in the position referred to.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the class described, the combination, with a tap receiver in the form of a bushing fixed in the tap hole of a keg or barrel and provided with a central interior screw-threaded bore, and a detachable top or cover—of a detachable tap externally screw-threaded at its lower end to engage the screw-threaded bore of the receiver, whereby the tap proper can be removably secured in operative position in the tap receiver, substantially as described.

2. In a device of the class described, a tap for beer kegs or barrels having an axial vertical bore adapted to receive a tap rod; an annular chamber formed outside of, and concentric with, the axial bore, an automatic check valve at the bottom of the air chamber and located at the lower terminal point of the tap; and a lateral air inlet conductor connecting at its inner end with the top of the annular chamber; all arranged whereby the entrance of slime, &c., from the beer keg or barrel into the air pipe is prevented, substantially as described.

3. A tap for beer kegs or barrels made in one piece of metal and having an axial vertical bore; an annular air chamber outside of, and concentric with said bore; an automatic check valve at the bottom of said chamber; and a laterally curved inlet conductor forming a handle or lever for turning the tap, substantially as described.

CHARLES I. SNYDER.

Witnesses:

JOHN MCCLOSKEY,  
JOHN MONTAGUE.