

(No Model.)

H. A. RUNKLE.
BUNG.

No. 575,009.

Patented Jan. 12, 1897.

Fig. 1.

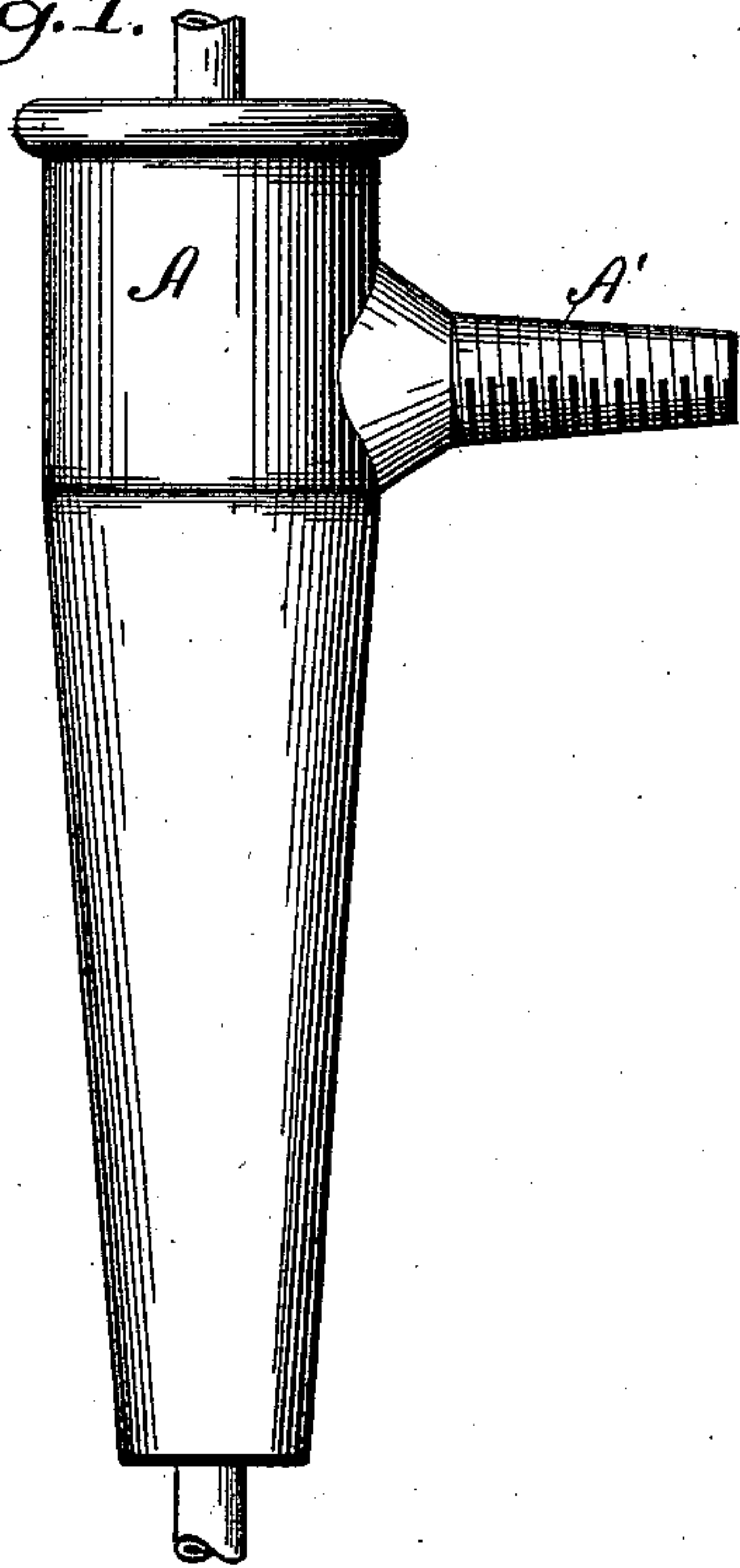


Fig. 2.

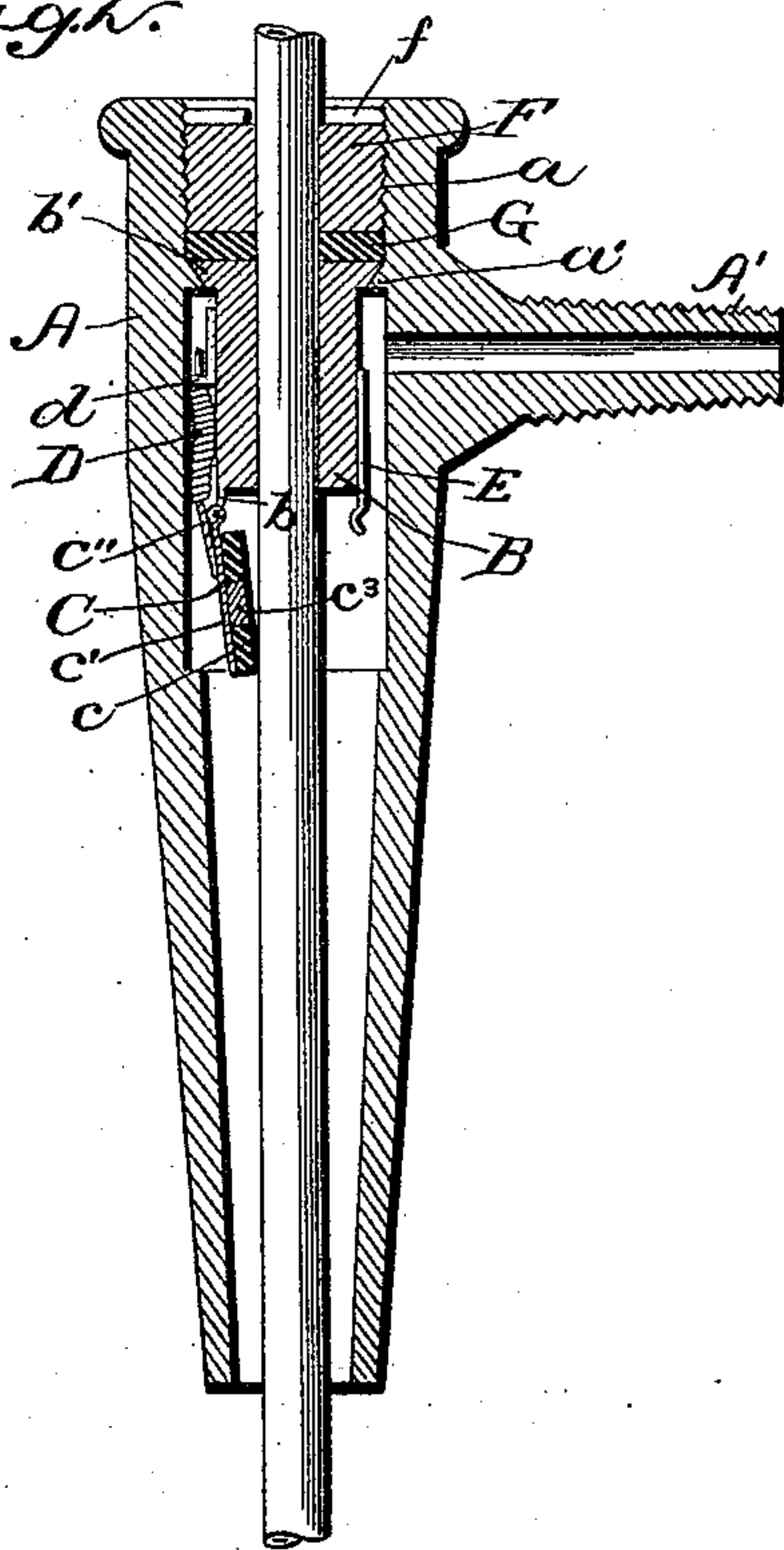


Fig. 4.

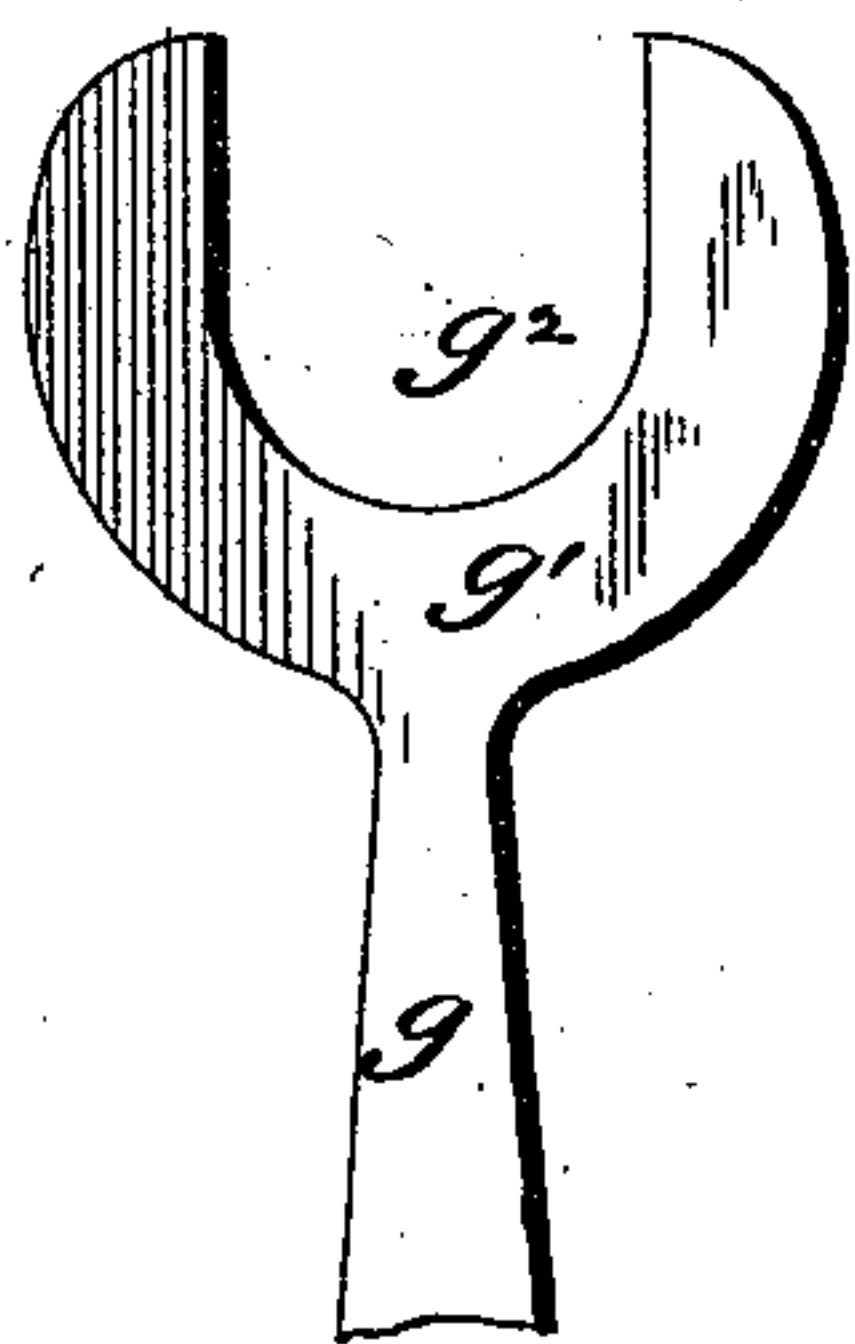


Fig. 5.

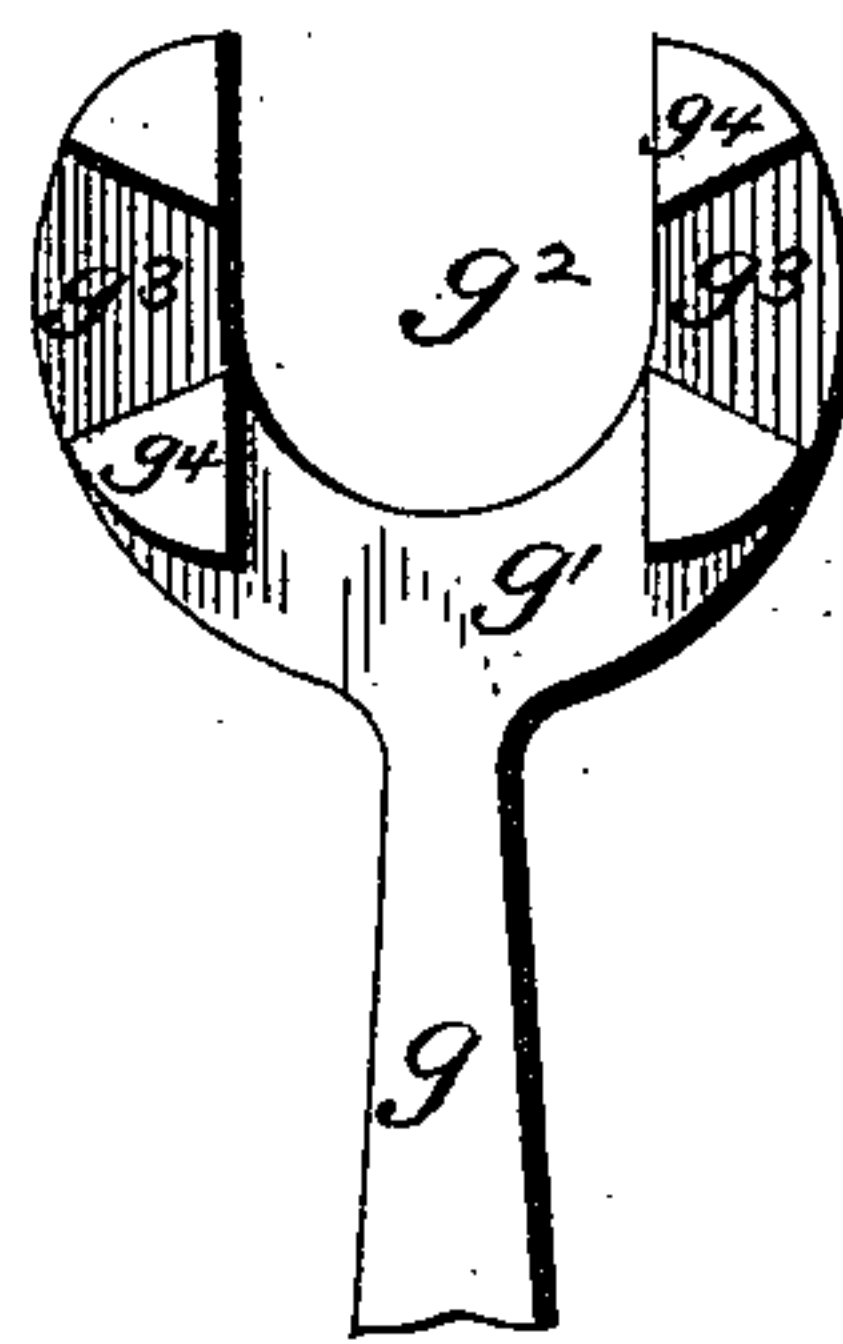
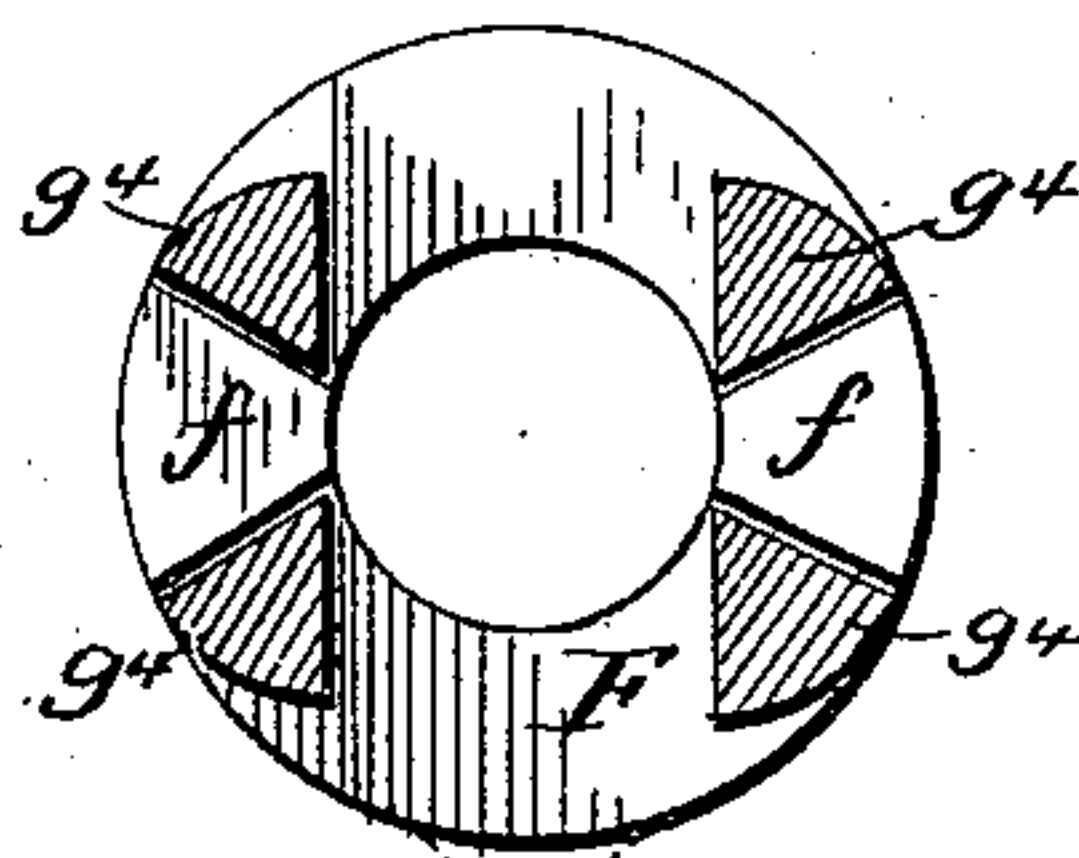


Fig. 3.



WITNESSES

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SPECIFICATION forming part of Letters Patent No. 575,009, dated January 12, 1897.

Application filed August 13, 1896. Serial No. 602,670. (No model.)

To all whom it may concern:

Be it known that I, HOWARD A. RUNKLE, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Bungs for Barrels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has relation to that class of devices for tapping beer-barrels, casks, &c., in which the bung is provided with a valve opened by the insertion of the tube through which the beer flows from the barrel and closed automatically when said tube is withdrawn.

The object of the invention is to provide a most simple, cheap, and durable bung in which there will be no liability of leakage at the top by reason of an imperfection in or adjacent to the plug or because of an insufficient insertion of the plug in the body of the bung, and also in which all liability of leakage at the valve when the tube is not inserted is prevented.

To this end the invention consists in certain peculiarities in the details of construction, substantially as hereinafter described, and particularly pointed out in the subjoined claims.

In the accompanying drawings, illustrating the invention, Figure 1 is a side view of my improved bung. Fig. 2 is a longitudinal sectional view thereof with the draft-tube inserted. Fig. 3 is an outer end view showing the key engaged with the plug. Fig. 4 is a top and Fig. 5 a bottom plan view of the key for screwing or unscrewing the plug.

The same letters of reference designate the same parts in the several views.

The body A of the bung is, as usual, provided with a lateral hollow branch A', forming an air-inlet, and is tapered and has the usual screw-threads a on the inner surface of its larger end, and between said threaded part and air-inlet is an inclined projection a'.

B designates the sleeve through which the

usual draft-tube J, that conveys the beer from the barrel, extends. The diameter of this sleeve is considerably less than that of the bore of the body A, and its outer end is formed with a flange b', which is seated against said flange a'. The inner end of said sleeve is provided with a valve C, which is pivoted at one end to a flange b, projecting from one side of the sleeve, and has a lug c'' projecting toward the wall of the body from said pivot. The valve C comprises a rubber, leather, or similar body c and a metal backing c', and, if desired, it may have a central piece or core c³ extending through the body, which will receive the impact or pressure of the draft-tube when the same is being inserted and shall be of metal or other suitable material capable of withstanding such impact or pressure, whereby the life of the valve is increased. An angle-plate d is secured to the outer surface of the wall of the sleeve at one side thereof, and a coil-spring D is secured at its lower end to said lug c'' of the valve and abuts at its other end against the horizontal part of said angle-plate. The purpose of this spring is to keep the valve C seated against the inner end of said sleeve and thereby close the passage-way through the latter when the draft-tube is not inserted. At the other side of the sleeve, diametrically opposite the spring D, is secured a latch E, formed of flat spring metal, the end of which extends beyond the inner end of said sleeve and is curved to cause it automatically to yield to the valve. This latch engages the valve when the latter is seated and assists the spring D in keeping said valve to its seat. This specific construction of valve and means for holding it to its seat is a feature of prime importance and is the result of much thought and of experiments made by me to produce a bung in which said sleeve will be tightly closed at all times when the tube is not inserted. To produce such a bung that will not be complicated and expensive presented a problem which has been solved by my device.

The outer end of the bung is closed by a plug F, between which and the sleeve packing-rings G are interposed. Heretofore this plug when used has had a comparatively narrow recess formed in its outer end to receive the end of an ordinary screw-driver, or to

receive pins or projections extending from a key or wrench by which it is screwed into and out of the body of the bung. While such a plug is desirable because of its simplicity and cheapness, yet it is seriously disadvantageous in that the recess becomes worn from use, making it difficult to tighten the plug sufficiently to prevent leakage, and, furthermore, when the recess is worn the screw-driver frequently slips and injures the thread of the body. This disadvantage, while apparently a small one, has yet been a fruitful source of annoyance and loss to users, and much thought and time have been expended in the endeavor successfully to overcome it. Devices have been proposed which reliably close the outer end of the body, but all of such devices have been open to other important objections.

I obtain the combined advantages of simplicity and cheapness of construction, ease of operation, and perfectly tight closure by providing the outer surface of the ordinary threaded plug *F* with a suitable number of spaced lugs *f*, preferably two, located one at each side of the central opening through the plug, (in lieu of the recess referred to,) and by employing a key *H* of suitable construction properly to engage said lugs, whereby it may be turned in one direction or the other to screw or unscrew the plug. It will be observed that the lugs are of comparatively considerable diameter and project rearward from the outer end of the plug in the direction of the length thereof, and in the preferred embodiment of the idea they have oppositely-beveled sides. This key is detachable from the plug and comprises a handle *g* and a head *g'*, which head has an opening *g²* through one side to permit it to be engaged with the plug when the draft-tube is inserted, and also has spaces *g³* in its under surface to receive said lugs *f* of the plug. Said lugs are below the plane of the upper surface of the body of the bung, whereby they will not be struck and injured while the bung is being driven to place, and therefore the underneath surface of the key is formed with lugs *g⁴*, which project into the outer end of said body and are so positioned and of such length and shape as to provide the spaces *g³* above referred to.

Having now described my invention, what I claim is—

1. A bung, consisting of a body having an

air-inlet, a sleeve in said body, a pivoted valve at the inner end of said sleeve, a spring attached at one end to said valve adjacent to the pivot thereof and operating to hold said valve yieldingly to its seat, and a spring-latch secured to said sleeve and having one end extended beyond the inner end thereof and curved to engage said valve.

2. A bung, consisting of a body, having an air-inlet; a sleeve in said body; a valve, comprising a plate pivoted at one side to the inner end of said sleeve and having a projection extending from said pivot toward the wall of the body, a spring engaging said projection at one end and abutting against a projection from the wall of the sleeve at its other end, a body of rubber or similar material secured to said plate, and a core of wear-resisting material extending from said plate through said valve-body; and a spring-latch secured to the side of said sleeve remote from said spring and having a curved end engaging said valve when the latter is seated.

3. In a bung, the combination of the body having an internally-threaded outer end, a plug screwed into said outer end and formed with lugs extending outward from its outer surface, said lugs being below the plane of the outer end of the body, and a detachable key, formed with lugs extending into said outer end and relatively positioned to provide spaces fitting said lugs of the plug.

4. The herein-described tap for beer-barrels, &c., consisting of a body, having a lateral air-inlet and formed with an internally-threaded outer end, a sleeve in said bung, a valve at the inner end of said sleeve, a plug having an opening registering with that through the sleeve, said plug being threaded into the outer end of said body and having outwardly-extending lugs terminating below the plane of the top of the body, the draft-tube, and a detachable key the head of which is formed with an opening, whereby it may be inserted or removed when the draft-tube is in place, and is also formed with lugs relatively positioned to provide spaces to fit said lugs of the plug.

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

HOWARD A. RUNKLE.

Witnesses:

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