L. DAROZIR & L. BOUDREAU.

Automatic Closing Bungs and Faucets.

No. 157,092. Patented Nov. 24, 1874.

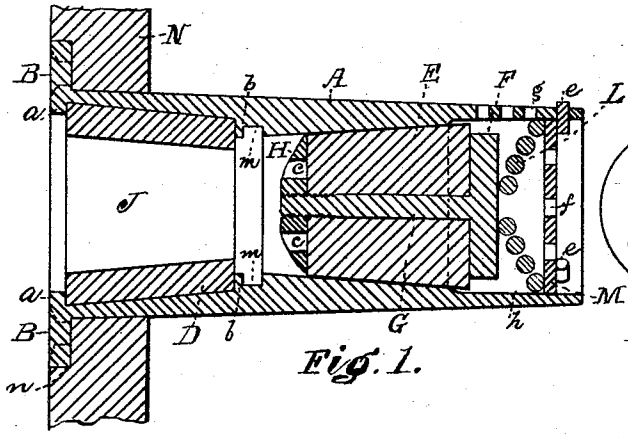

Fig. 1.

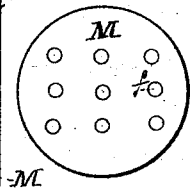

Fig. 4.

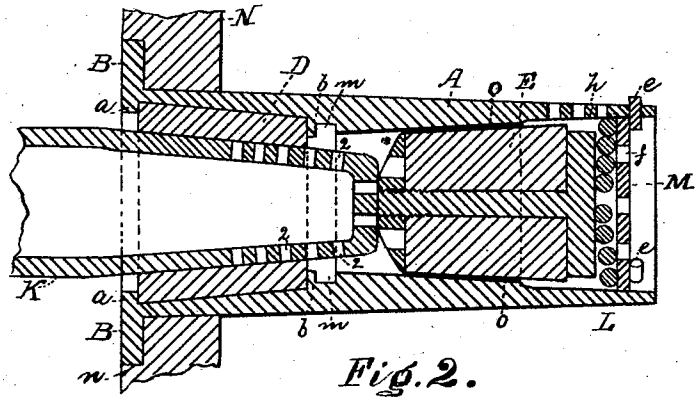

Fig. 2.

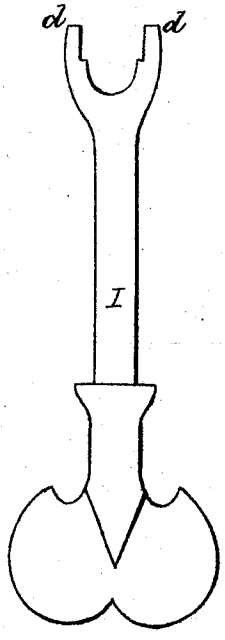

Fig. 5.

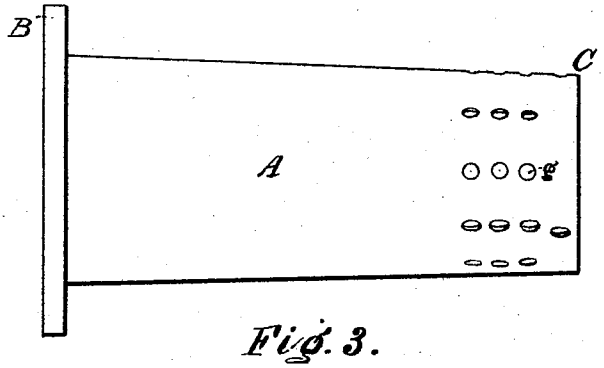

Fig. 3.

Witnesses;

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LEVI DAROZIR AND LEANDRE BOUDREAU, OF WORCESTER, MASSACHUSETTS; SAID DAROZIR ASSIGNOR TO JEAN BAPTISTE PRIMEAU AND LEANDRE BOUDREAU, OF SAME PLACE.

IMPROVEMENT IN AUTOMATIC CLOSING BUNGS AND FAUCETS.

Specification forming part of Letters Patent No. **157,092**, dated November 24, 1874; application filed October 17, 1874.

To all whom it may concern:

Be it known that we, LEVI DAROZIR and LEANDRE BOUDREAU, both of the city and county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Automatic Closing Head-Bungs for Beer and other Barrels; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming a part of this specification, and in which—

Figure 1 represents a longitudinal central section through one of our improved head-bungs when applied to use in a barrel, a section of the barrel-head being shown. Fig. 2 represents a similar section after the faucet has been introduced into our improved head-bung for the purpose of drawing beer or its contents from a barrel, only a section of the faucet being shown. Fig. 3 represents a side view of our improved head-bung detached. Fig. 4 represents an end view of the spring head-plate, and Fig. 5 represents a side view of the piston-key.

To enable those skilled in the art to which our invention belongs to make and use the same, we will proceed to describe it more in detail.

In the drawings, the part marked A is the outer shell or case of the bung, having a flange, B, upon its front end, said shell or case A being made slightly tapering from its inner end C to the flange B. Within the interior of the front part is arranged a conical packing-ring, D, which we prefer to make of cork, but it may be made of rubber or other suitable elastic material. This ring is forced in from the front end and compressed during the operation, so that after it has passed the front flange *a* it will expand and make a tight joint between its outer surface and the conical surface of the chamber in the front end of shell A, and between its front and rear edge and the flanges *a* and *b*, which project in from the inner surface of shell A. E is a closing valve, fitted to work in a conical chamber in the rear end of shell or case A, the cone shape of said chamber being the reverse of the one in the front end of the shell A. The valve E, in this instance, is made of cork, but it may be made of any other suitable material, and it is made cone shape, to fit the cone-shaped chamber, in which it is arranged. F is a metallic head, upon its rear end having a spindle, G, which passes through the valve, and is provided with a metal screw-cap, H, provided with key-holes *c c*, by which said cap can be screwed down to expand valve E, as occasion may require, to cause it to properly fit and tightly close the chamber when it is in the position shown in Fig. 1. I is a key, having forks *d d*, to enter the holes *c c* in cap H, and by which said cap can be screwed down very quickly by the operator, the spindle of key I being inserted through the open hole J in the front end of the bung before the spindle K of the faucet is driven in. In rear of head F is arranged a cone-shaped spiral spring, L, with its point resting against head F, while its larger end rests against the inner end of head-plate M, the outer end of said head-plate being held within the rear end of the shell or case A by means of pins or screws *e e*. Head-plate M is provided with a series of holes, *f*, and the inner end of shell A is also provided with holes *g*. The interior of shell A is chambered out more in that part in which spring L is arranged, as shown at *h*, Figs. 1 and 2. A groove, *m*, is formed upon the interior of shell A, between flanges *b* and the conical chamber in which piston E works.

In applying our improved bung to the heads of barrels, a conical hole is first bored in the head N, and also a groove, *n*, cut in the head outside of the hole, so that, when the shell or case A is driven into the head N of the barrel, it will make a tight joint, as indicated in Figs. 1 and 2 of the drawings. Screw-holes may also be made in the flange B, for screwing the flange to the head of the barrel. By having the groove *m* arranged between the reverse chamber, the liquid has a free escape as soon as the valve is started back, even though the front end of valve E should reach beyond said groove. The pressure of the beer or other liquid in the barrel, if considerable, against valve E would cause it to fit tightly, even

though spring L were not used; but there would be a liability, in such case, of more or less waste of liquid than there is when a spring, L, is used; therefore, we prefer to use a spring, L, or equivalent device, in all cases. When beer or other liquid is to be drawn from the barrel the end K of the faucet is driven into the bung so that its rear end will strike against cap H and drive valve E back, as indicated in Fig. 2 of the drawings, and when in this position the end of the faucet will be held firmly and tightly within the elastic ring D, of cork or other suitable material, so that no liquid can escape except through the faucet, which it can do freely as soon as the faucet-stopper is turned, since there is an open space, *o*, between the outer surface of valve E and its chamber, when driven back by the end of the faucet, as shown in Fig. 2, the liquid passing freely through said space, and also through openings 2 2 in the end of the faucet. As soon as the faucet is removed spring L instantly forces valve E forward and prevents any further escape of the liquid.

It will thus be seen that our improved bung is very convenient and secure. It enables the dealer to test the beer without wasting but very little, and when all the beer has been drawn and the faucet removed valve E is automatically closed, thus keeping the barrel closed.

Having described our improvements in automatic closing head-bungs for beer and other barrels, what we claim therein as new and of our invention, and desire to secure by Letters Patent, is—

1. The combination, with shell or case A, of packing-ring D, valve E, and spring L, substantially as and for the purposes set forth.

2. The combination, with the front outer end of case A, provided with flanges *a* and *b*, of elastic packing-ring D, substantially as and for the purposes set forth.

3. The combination, with shell A, provided with reverse conical chamber, as described, of conical ring D, and conical valve E, substantially as and for the purposes set forth.

4. The combination, with shell or case A, and valve E, of the perforated removable head-plate M, and spring L interposed between said valve and head-plate, substantially as and for the purposes set forth.

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