

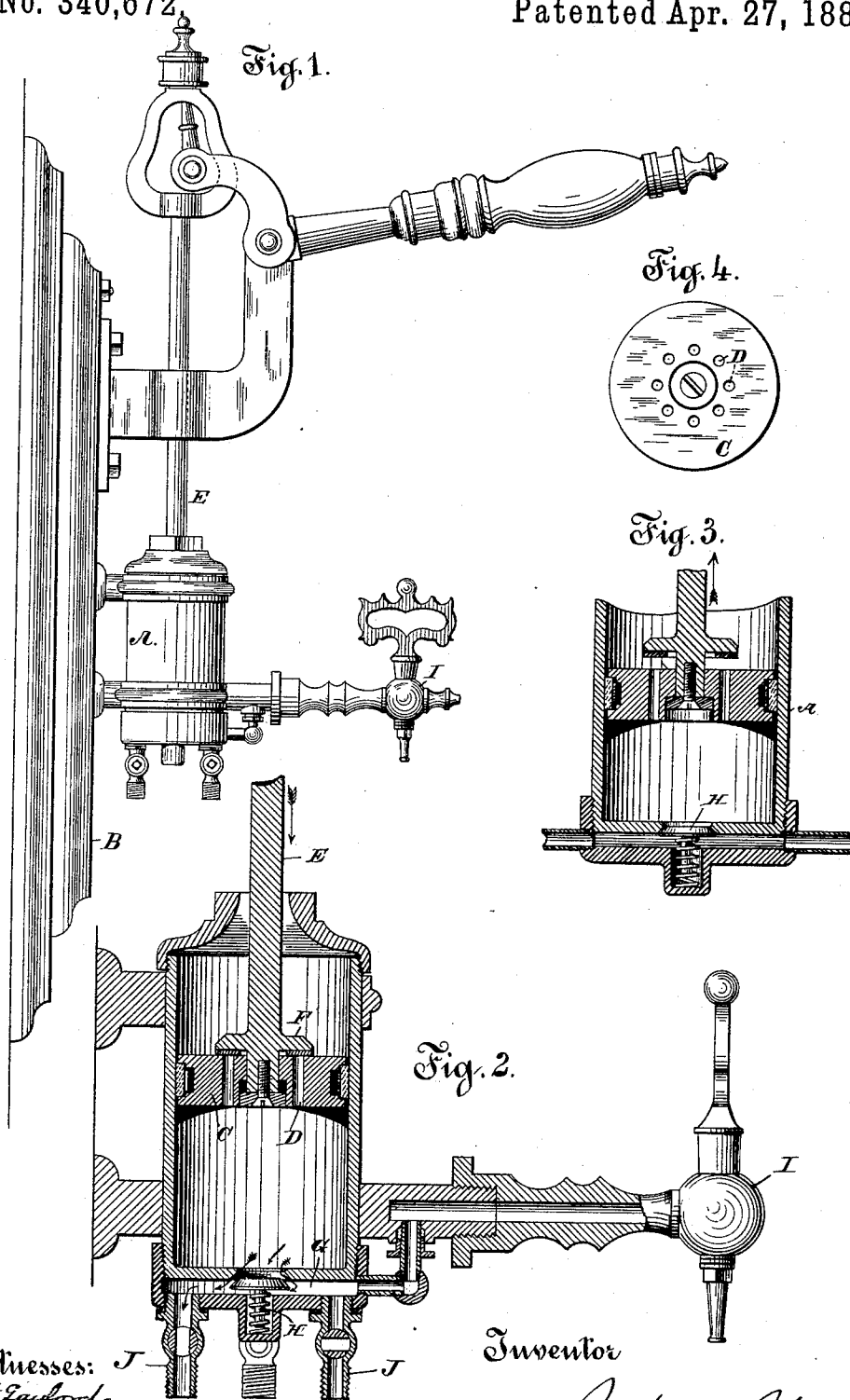
(No Model.)

R. MORRELL.

APPARATUS FOR DRAWING ALE, &c.

No. 340,672.

Patented Apr. 27, 1886.



Witnesses:
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APPARATUS FOR DRAWING ALE, &c.

SPECIFICATION forming part of Letters Patent No. 340,672, dated April 27, 1886.

Application filed June 6, 1885. Serial No. 167,910. (No model.)

To all whom it may concern:

Be it known that I, RICHARD MORRELL, of Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Apparatus for Drawing Ale, Beer, and other Liquors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

10 This invention relates to that class of apparatus which is adapted to drawing ale, beer, and other liquors from casks or barrels.

15 The object of the invention is to provide an apparatus, of simple and improved construction and operation, by which liquor may be drawn at will from one or more casks or barrels attached to a common discharge or draw cock.

20 The invention consists in combining and arranging a discharge-cock and one or more pipes leading to one or more casks or reservoirs from which liquor is to be drawn with a force-pump, whereby air can be forced down any one of the pipes, and the liquor in the cask 25 connected therewith placed under such pressure that it will ascend the same pipe through which air is forced, and be delivered from the discharge-cock, all substantially as hereinafter described and claimed.

30 In the drawings, Figure 1 is an elevation view of an apparatus embodying the invention. Fig. 2 is an enlarged central section of the force-pump and receiving-chamber, with the parts in the position they occupy when the 35 pump-piston is moving down. Fig. 3 is a like view showing the position of the parts when the piston is moving upward, and Fig. 4 is a bottom view of the pump-piston.

40 Referring to these views in detail, A represents the air force-pump, which is provided with a suitable handle for operating it, and is mounted on a supporting-base, B, and C is the piston of this pump, which piston is perforated by inlet-holes D, and has a slight play on the 45 piston-rod E, so that in going down the flange F closes such holes and prevents the air in front of the piston from escaping, and in going up, Fig. 3, the piston moves slightly on the piston-rod, and these holes are opened to admit 50 air beneath the piston.

G is the receiving-chamber, which for con-

venience is secured to the barrel of the force-pump, there being a check-valve, H, arranged between the pump-barrel and such chamber, which acts to prevent the air or any liquid 55 forced into the chamber from rushing into the pump barrel. This receiving-chamber connects with the discharge-cock I, and is provided with the requisite number of stop-cocks, J, to each of which is to be attached a pipe 60 leading from one of the casks or barrels containing one kind of liquor to be kept on draft.

The operation of the apparatus is this: Communication is opened between the receiving-chamber and such cask as it is desired to draw 65 from, the discharge-cock and the pipes to the other casks being closed, and the pump-handle is operated a few times, which results in air being forced into that particular cask, and its contents being put under pressure. When 70 this has been done, the discharge-cock can be opened, and the contents of the cask openly connected therewith will be forced out at the discharge-cock by the compressed air stored in the cask, and drawing from such cask may be continued until the air-pressure therein has been 75 reduced too low to lift its contents to the discharge-cock, when more air may be forced into the cask, as before. When it is desired to change from one kind of liquor to another, communication will be cut off between the receiving-chamber and the cask then being drawn 80 from, and open connection will be established between the chamber and the cask it is desired to draw from, the pump being used when 85 making the change, if it be necessary to increase the pressure in the new cask to be drawn from. When it is desired to clear the receiving-chamber of all liquor of one kind, (as before drawing another kind of liquor,) a few strokes 90 of the pump will force the liquor then in the chamber back into the pipe from which it was drawn, and leave the chamber empty. The connecting-pipe then open is to be closed, and the pipe it is desired to draw from may be 95 opened. The discharge-cock may be cleared, as also the receiving-chamber, by closing all the pipes to the casks, and then operating the pump with the discharge-cock open.

It will be understood that the principal office of the receiving-chamber is to afford a receptacle common to all the pipes from the casks, 100

so that a single pump and discharge-cock may be used for any number of casks. The invention, therefore, is not limited by the shape or position of this chamber. It might in form be a pipe running to the discharge-cock, and connected by suitable branches to the pump and the various casks. So, too, when the apparatus is continuously used to draw liquor from but one cask, the common delivery-chamber is not needed, as only a single pipe leading from the discharge-cock to the cask is required. So, also, in such case, there is no need of a stop-cock between the discharge-cock and the cask. This modification is illustrated by Fig. 3, where the pipe attached to the lower end of the pump-barrel represents the pipe running from the cask to the discharge-cock.

If it be desired to supply the casks with pure air, this can be done by connecting one end of a pipe with the upper part of the pump-barrel, preferably just below the piston when at the limit of its upward stroke, while the other end of the pipe communicates with outdoor air.

I am aware that pumps for forcing air into casks of liquor through their drawing faucets

have been connected with the cocks or plugs of such faucets so as to be operated by turning the cocks, or so that the cocks formed part of the pumping mechanism. These I do not claim, and they will not serve the purpose of my invention, which requires that the pump be attached to the pipe leading from the delivery-cock to the cask without any working connection with such cock, and so that the pump may be worked independently of the cock.

What is claimed as new is—

In an apparatus for drawing ale, beer, and other liquors, a discharge-cock and a pipe connecting it to a reservoir of liquor, in combination with a force-pump attached to said pipe and arranged to be operated independently of said cock, whereby air may be forced down the pipe into the cask, and the liquor placed under pressure and caused to ascend the pipe through which the air is forced, and be delivered at the discharge-cock.

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