

No. 657,106.

Patented Sept. 4, 1900.

L. H. HANDY.

DEVICE FOR DRAWING LAGER BEER.

(Application filed Apr. 11, 1900.)

(No Model.)

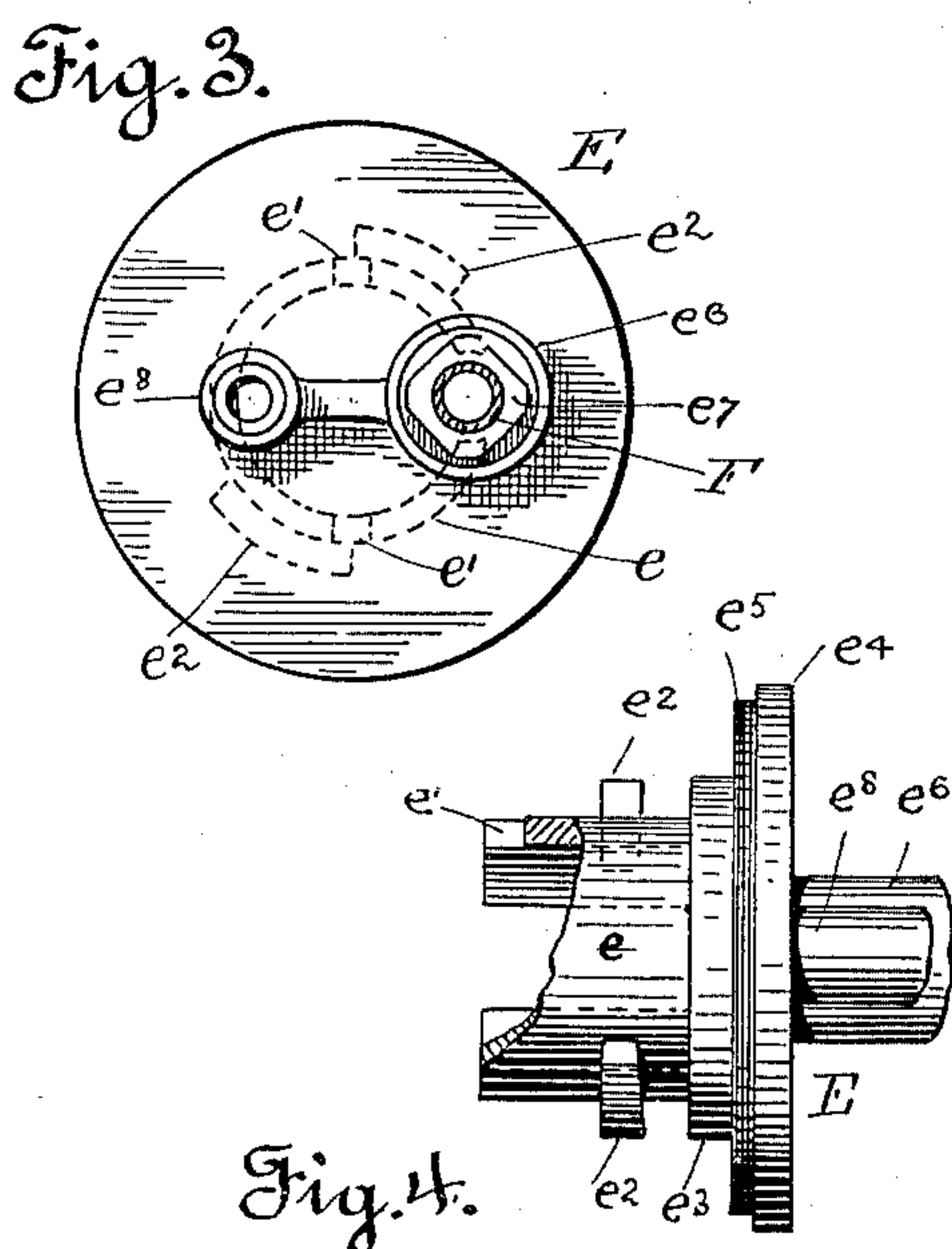
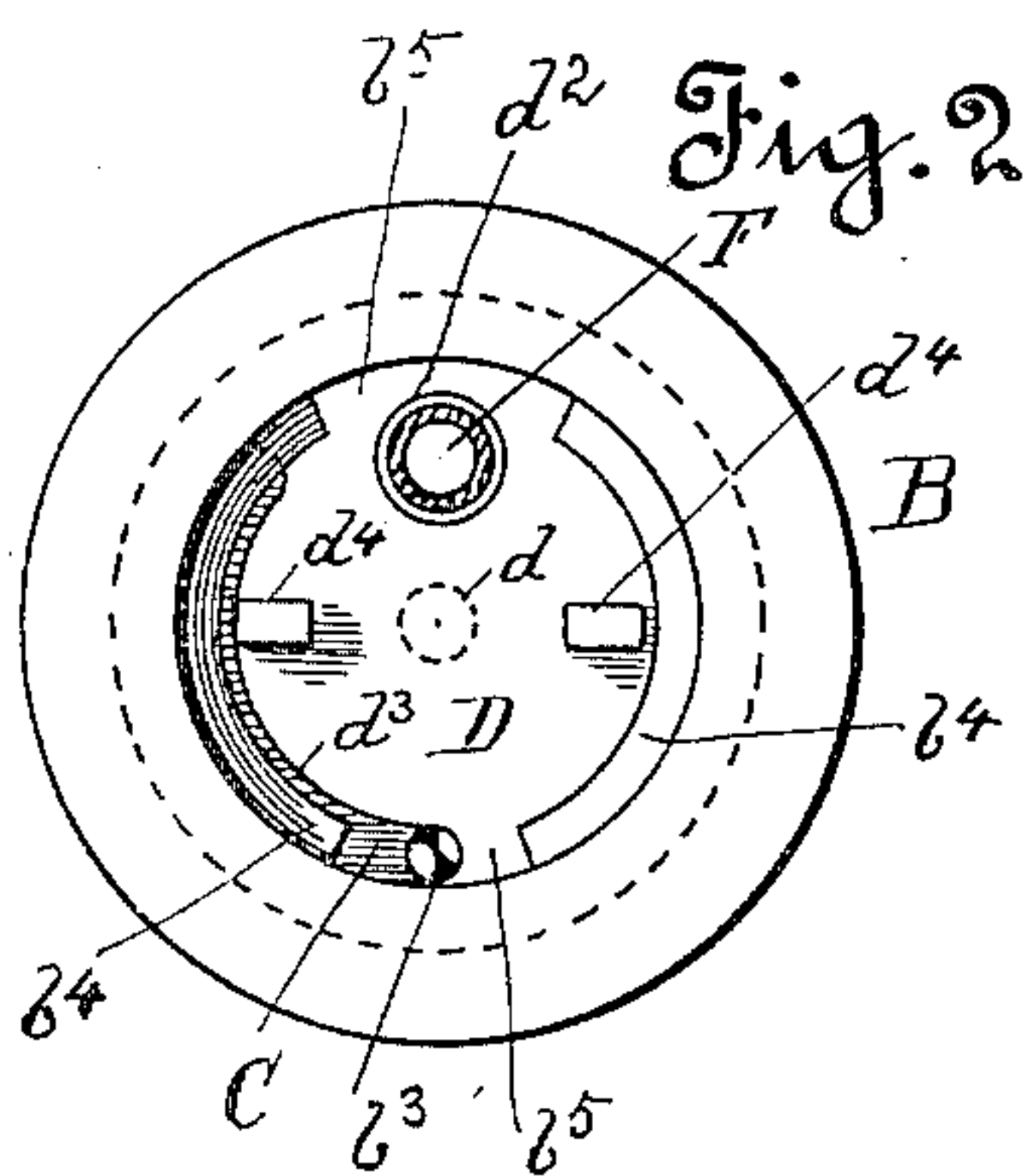
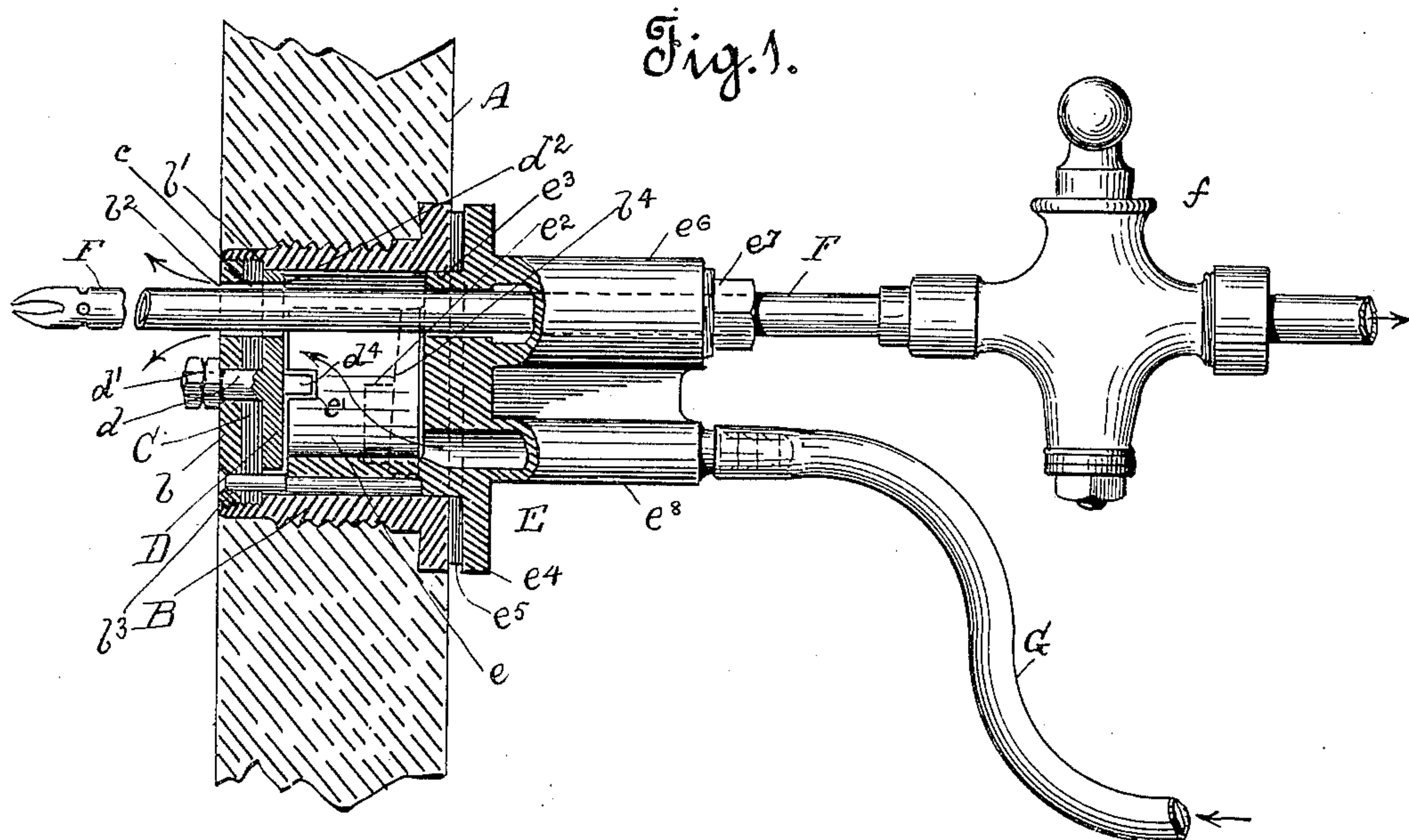


Fig. 4.

Inventor.

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UNITED STATES PATENT OFFICE.

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DEVICE FOR DRAWING LAGER-BEER.

SPECIFICATION forming part of Letters Patent No. 657,106, dated September 4, 1900.

Application filed April 11, 1900. Serial No. 12,448. (No model.)

To all whom it may concern:

Be it known that I, LUCIEN H. HANDY, a citizen of the United States, residing in the city and county of San Francisco, in the State of California, have invented certain new and useful Improvements in Devices for Drawing Lager-Beer; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of devices for drawing liquids—such, for example, as lager-beer—in which means are provided for passing a slip-pipe down into the liquid in the receptacle and forcing air under pressure upon top of the liquid, whereby the latter is forced up through the slip-pipe.

My invention consists in the novel combinations of bung, controlling-valve, operating-key, slip-pipe, and air-passage and in the novel details of construction in connection therewith, which I shall hereinafter describe and claim.

The object of my invention is to provide a simple and effective device for this purpose which can be readily applied and easily and economically operated.

Referring to the accompanying drawings, Figure 1 is a sectional side elevation of my device. Fig. 2 is a front view of the bung, the slip-pipe F being in section. Fig. 3 is a front view of the key. Fig. 4 is a side view of the key.

A is a portion of the head of the barrel or keg containing the lager-beer. Into this head is fitted in suitable manner, as by screwing, the bung B, which consists of a metallic shell. The outer end of the bung is open; but its inner end is closed by the wall b , which may be made integral therewith, or it may be a separate piece suitably secured. The best form of construction is that here shown, in which said inner wall or end b is a separate piece externally threaded and adapted to be screwed into the bung up to a shoulder b' therein. The advantage of this construction lies in the fact that it enables a better application and seating of the washer-seat C, which consists of a disk or plate of suitable material placed upon the inner surface of the end wall b . In practice this washer-seat is of hard rubber, and by having the end wall b a separate piece from the bung said washer-

seat can be baked directly upon the face of the wall, thus making a better job than when placed in position from the open front of the bung. In the end wall b of the bung is made a port b^2 , and in the washer-seat C is made a corresponding port c , the two ports being in permanent alinement.

D is a disk valve. Formed with its inner face is a pivot-stem d , which passes through the center of washer-seat C and end wall b and takes the nuts d' upon its inner end, whereby the valve is secured to the face of the washer-seat C and may have an oscillatory movement upon its pivotal center. The valve D has a port d^2 , which by the movement of the valve is adapted to be thrown into or out of alinement with the ports c and b^2 , thereby opening and closing communication into the keg A. A groove or slot d^3 in the valve playing over a fixed pin b^3 serves to limit the movement or stroke of the valve. The valve has also upon its inner face a lug or lugs d^4 , which in the best construction are two in number, one on each side of the center, and are best made as part of or integral with said valve. The outer or open end of the bung B is provided on its inner surface with opposing flanges b^4 , which are arcs of circles, leaving opposing spaces b^5 between them. One of these spaces b^5 is longer than the other, this being the usual construction of such parts to enable the convenient insertion of the key with proper side up. The under faces of the flanges b^4 are made on an incline, as shown, thus making them cam-flanges in the usual manner of such flanges for this purpose.

E is the key. It has an annular or hollow inner end e , which is adapted to enter the bung, and said end has the notches e' which are to engage the lugs d^4 of the valve D. It has also the exterior flanges e^2 which are adapted to pass through the spaces b^5 of the bung and to be then turned to bear under and engage behind the cam-flanges b^4 of said bung, whereby the key is locked in the bung. The key has also the circumferential shoulder e^3 to bear against the outer face of the flanges b^4 ; also the flange or shoulder e^4 , with a washer e^5 , adapted by the cam action of the flanges b^4 and e^2 to be drawn up tightly to the face of the open end of the bung B

and to form a tight joint therewith. The outer end of the key is formed with a guide-socket e^6 , adapted to receive the slip-pipe F, which extends through said socket and into the hollow end e of the key. Packing within the socket adjusted by a nut e^7 is made to tighten around the pipe and form a tight joint when required. The key also carries an air-passage socket e^8 , which communicates with the inner hollow end e of the key.

The slip-pipe F is sufficiently smaller than the ports in the valve D, washer-seat C, and end wall b to not only permit it to readily pass therethrough, but to leave appreciable surrounding space for the air to enter the keg around said slip-pipe. With the air-passage socket e^8 is connected the hose G, which is supposed to extend in usual manner to the air-pump, unnecessary herein to show. The slip-pipe F has a controlling-cock f , and said pipe or its connections are supposed also to extend up to within reach of the operator and to be provided with the usual drawing-faucet.

The operation is as follows: The keg A is provided with the bung B and its contained valve, which latter is turned to close the ports in the bung, thereby making the keg tight. When the beer is to be drawn, the operator applies the key E by inserting its hollow end e into the bung. The flanges e^2 of the key pass through the spaces b^5 of the bung, and thus permit the key end to enter far enough for its notches e' to engage the lugs d^4 of the valve. Then the key is turned, so that its flanges e^2 , engaging under the cam-flanges b^4 of the bung, draw the key up tight to cause its shoulder e^4 and washer e^5 to form a tight joint with the end face of the bung. This movement of the key thus locks it in the bung and at the same time turns the valve D, so that its port aligns with the ports on the washer-seat C and end wall b , thereby opening a straight communication into the keg. The position of the slip-pipe F is now such that thereupon it can be pushed down through the open communication of the three aligned holes as far down into the keg as is necessary, and the packing-nut e^7 is turned to make said pipe tight in its socket. Now the air-pump is connected and the air is forced through socket-passage e^8 into the hollow end e of the key and thence down around the pipe F through the three aligned holes in the valve and bung and onto the surface of the beer, whereby its pressure will cause the beer to flow from the lower portion of the keg up through slip-pipe F and thence to the operator. When the keg is empty, the slip-pipe F is withdrawn from the keg and the key is turned to unlock it from the bung. This turning closes the valve in the bung and the key is then taken out.

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

1. A device for drawing liquids, consisting

of a bung, a valve therein, adapted to open and close communication between the liquid-receptacle and the bung, a key, adapted to be fitted to the bung, and to operate the valve thereof, a slip-pipe, carried by the key, and adapted to pass through the communication opened by the key, into the liquid-receptacle, and an air-passage in said key, adapted to be connected by the operation of the key with the open communication into said liquid-receptacle.

2. A device for drawing liquids, consisting of a bung, a valve therein, adapted to open and close communication between the liquid-receptacle and the bung, a key, adapted to be fitted to the bung, and having a hollow inner end, adapted to engage and operate the valve, a slip-pipe, carried by the key, and adapted to pass appreciably loosely through the communication opened by the key, into the liquid-receptacle, and an air-passage in said key, communicating with its hollow inner end, whereby the air may enter the open communication to the liquid-receptacle, by passing around the slip-pipe.

3. A device for drawing liquids, consisting of a bung, having a ported inner end wall, an oscillating valve seated upon the face of said end wall, inside the bung, and having a port, adapted to open and close communication between the liquid-receptacle and the bung, a key, adapted to be fitted to the bung, and to operate the valve thereof, a slip-pipe, carried by the key, and adapted to pass through the communication opened by the key, into the liquid-receptacle, and an air-passage in said key, adapted to be connected by the operation of the key with the open communication into said liquid-receptacle.

4. A device for drawing liquids, consisting of a bung, having a ported inner end wall, an oscillating valve seated upon the face of said end wall, inside the bung, and having a port, adapted to open and close communication between the liquid-receptacle and the bung, a key adapted to be fitted to the bung, and having a hollow inner end, adapted to engage and operate the valve, a slip-pipe, carried by the key, and adapted to pass appreciably loosely through the communication opened by the key, into the liquid-receptacle, and an air-passage in said key, communicating with its hollow inner end, whereby the air may enter the open communication to the liquid-receptacle, by passing around the slip-pipe.

5. A device for drawing liquids, consisting of a bung, a valve therein, adapted to open and close communication between the liquid-receptacle and the bung, a key, adapted to be fitted to the bung, and having a hollow inner end, adapted to engage and operate the valve, a guide-socket, and a separate air-passage socket, carried by the key, and both opening into the hollow inner end of said key, and a slip-pipe, carried in the guide-socket, and adapted to pass into and through the hollow end of the key, and to pass appreciably

loosely through the communication opened by the key, into the liquid-receptacle.

6. A device for drawing liquids, consisting of a bung, having a ported inner end wall, an oscillating valve seated upon the face of said end wall, inside the bung, and having a port, adapted to open and close communication between the liquid-receptacle and the bung, a key adapted to be fitted to the bung, and having a hollow inner end, adapted to engage, and operate the valve, a guide-socket, and a separate air-passage socket, carried by the key, and both opening into the hollow in-

ner end of said key, and a slip-pipe, carried in the guide-socket, and adapted to pass into and through the hollow end of the key, and to pass appreciably loosely through the communication opened by the key, into the liquid-receptacle.

In witness whereof I have hereunto set my hand.

LUCIEN H. HANDY.

Witnesses:

B. E. HANDY,
D. B. RICHARDS.