

L. H. HANDY & W. L. PHILLIPS.

APPARATUS FOR DRAWING BEER.

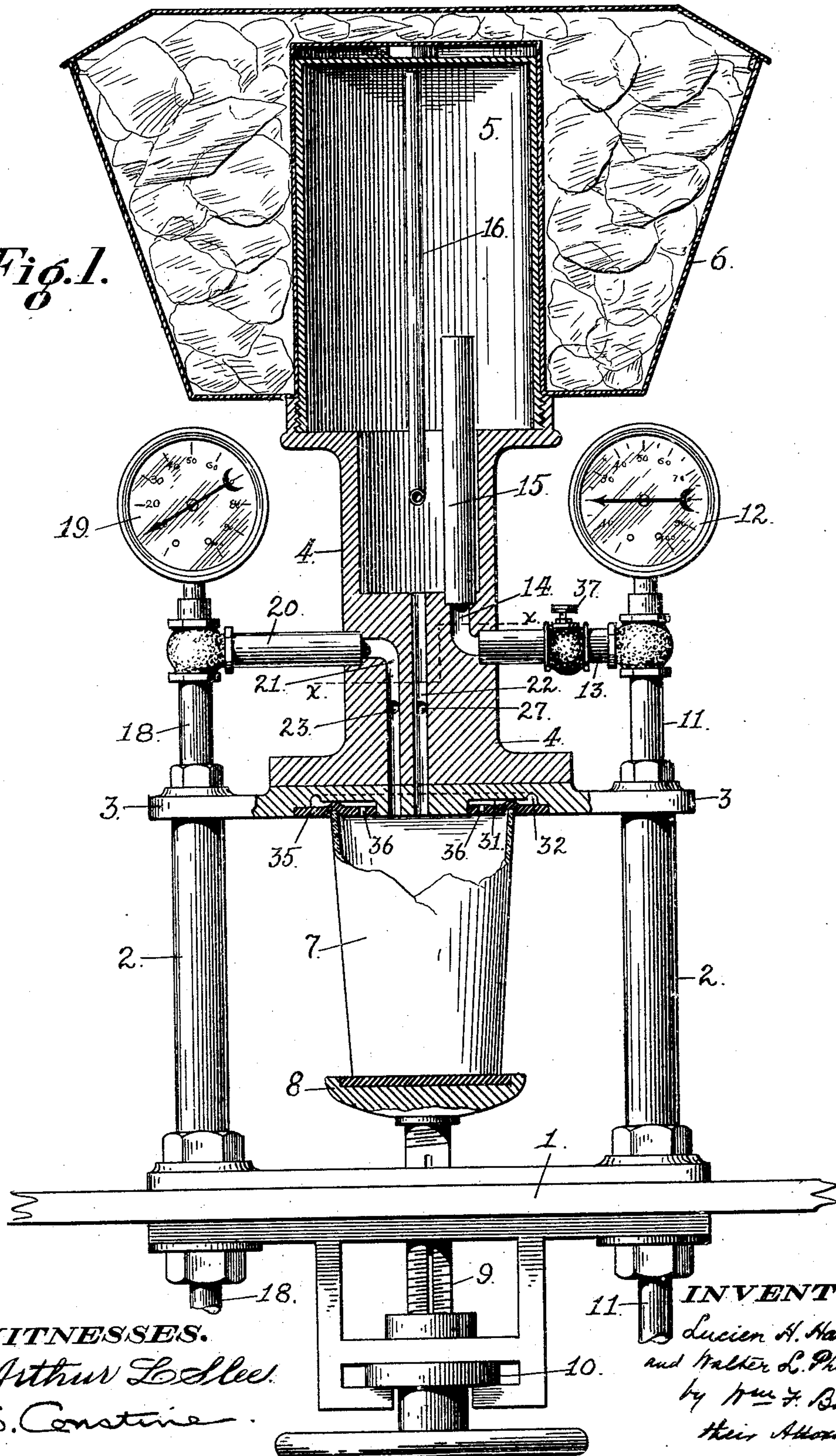
APPLICATION FILED SEPT. 17, 1908.

931,297.

Patented Aug. 17, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES.

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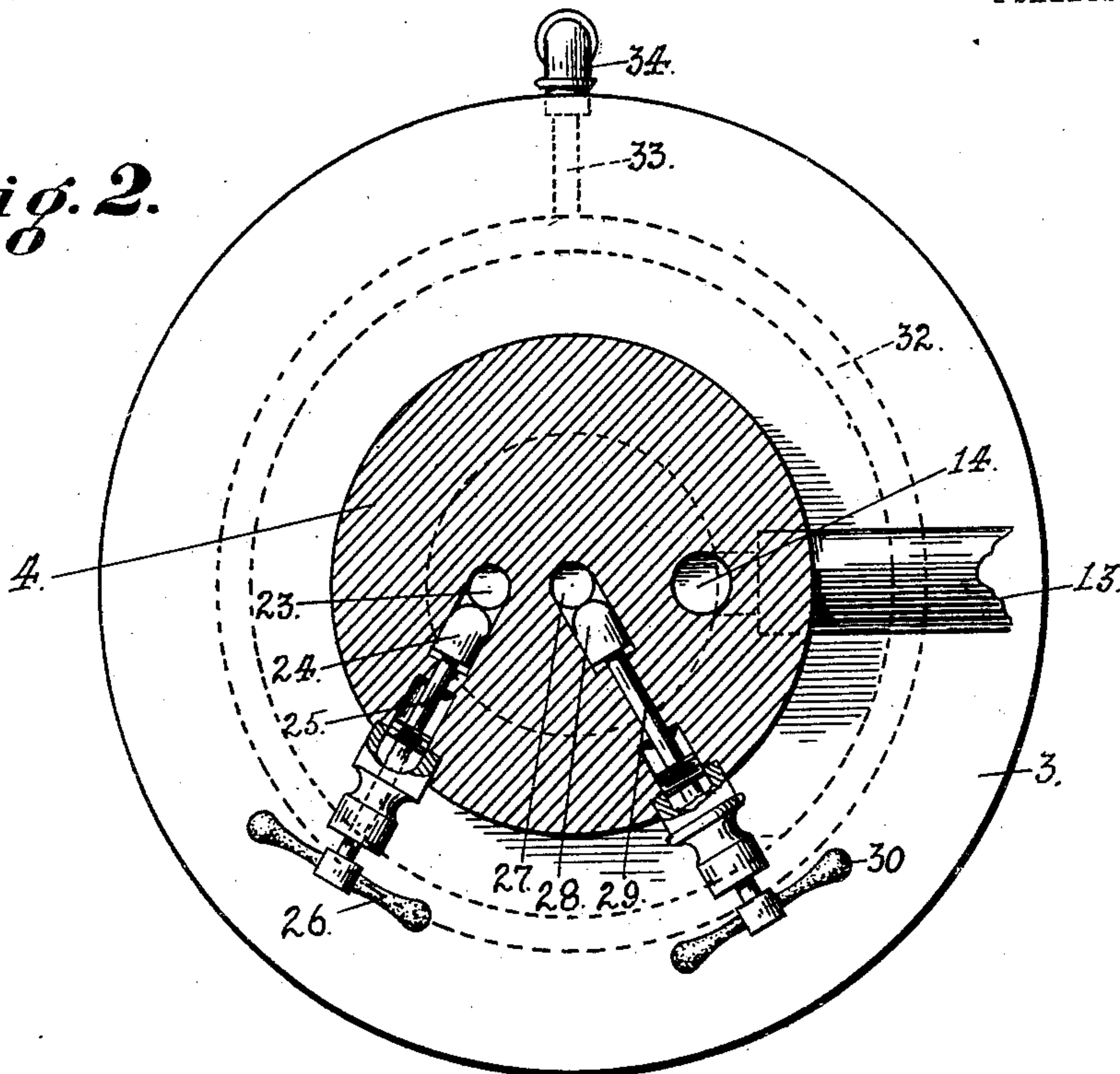
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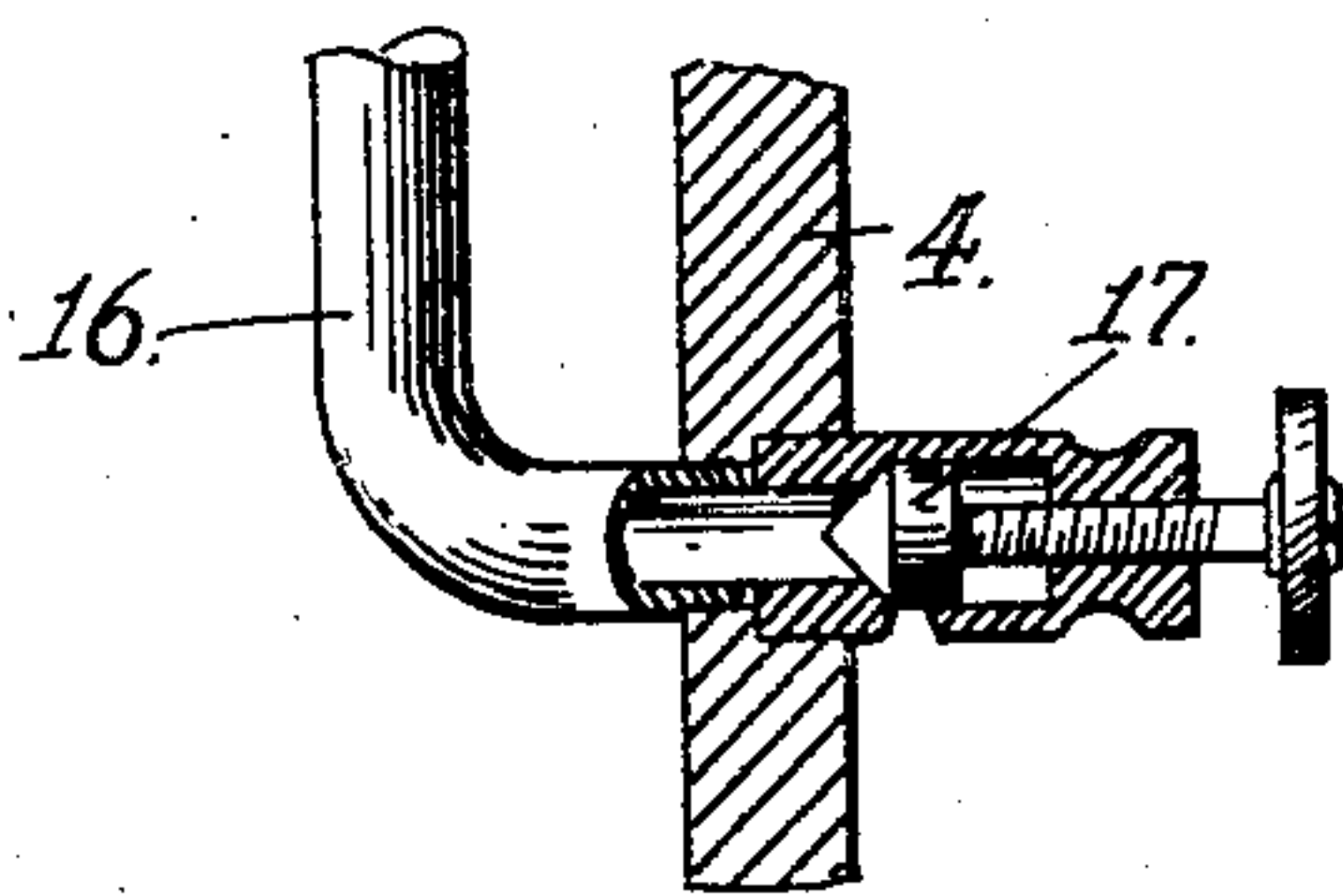
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2 SHEETS—SHEET 2.

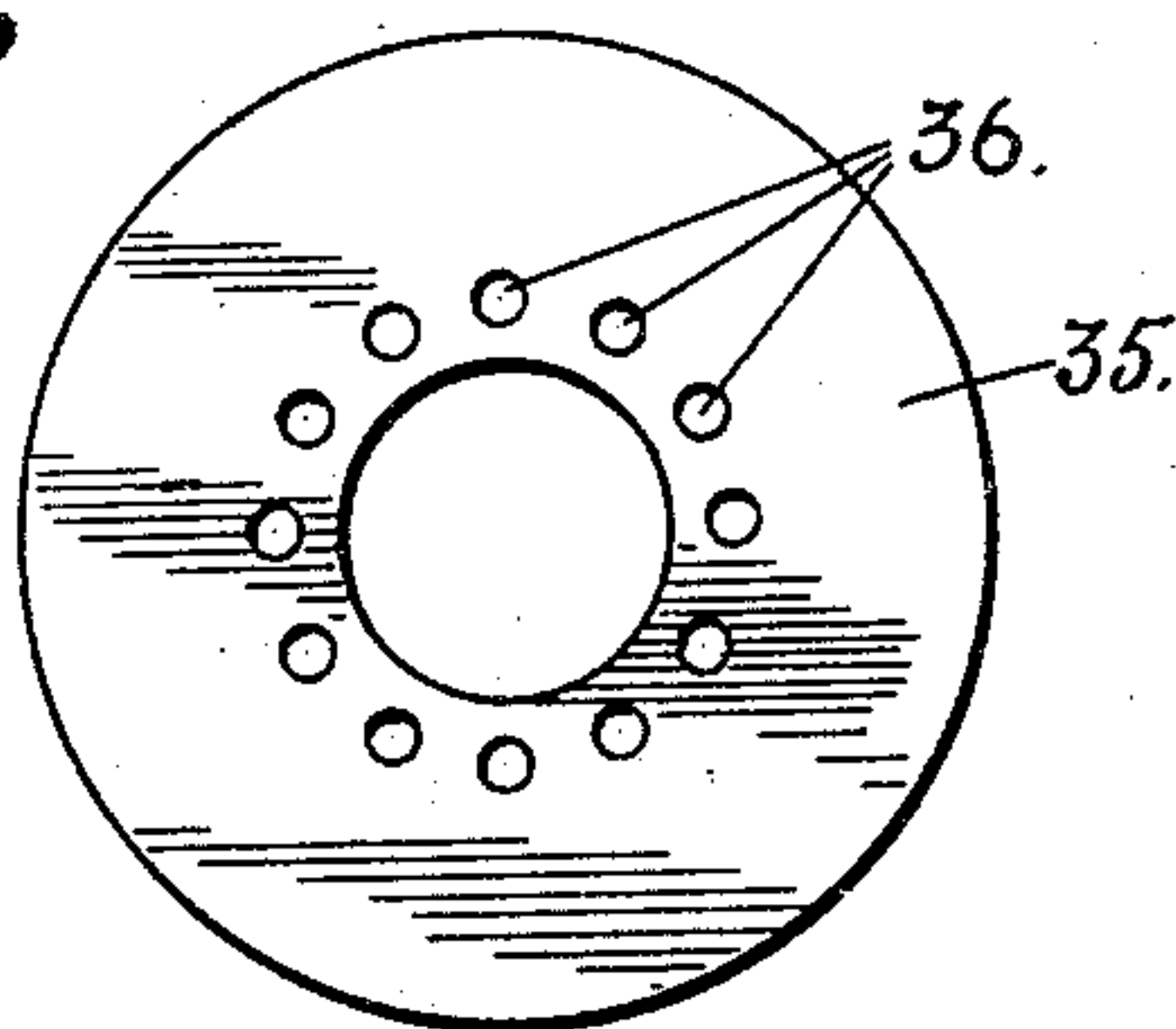
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

LUCIEN H. HANDY AND WALTER L. PHILLIPS, OF SAN FRANCISCO, CALIFORNIA.

## APPARATUS FOR DRAWING BEER.

No. 931,297.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed September 17, 1908. Serial No. 453,448.

*To all whom it may concern:*

Be it known that we, LUCIEN H. HANDY and WALTER L. PHILLIPS, citizens of the United States, residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Apparatus for Drawing Beer, of which the following is a specification.

Our invention relates to that class of apparatus for drawing steam-beer and similar beverages, in which the beer is conducted from its source through confined passages and receptacles exposed to a corresponding air pressure, thus enabling the beer to be drawn into a glass without undue foaming.

The object of our invention is to provide a simple and effective apparatus of this type, capable, especially, of permitting the quick removal of the glass after being filled.

To this end our invention consists in the novel arrangement, construction and combination of the parts of the apparatus which we shall hereinafter fully describe, by reference to the accompanying drawings in which—

Figure 1 is a vertical section, partly broken, and part in elevation, of our apparatus. Fig. 2 is a cross-section, enlarged, on the line  $x-x$  of Fig. 1. Fig. 3 is a detail, enlarged, showing the emergence and control of the air vent-pipe from the chambered base of the filling receptacle. Fig. 4 is a plan of the flexible washer 35.

1 is a table.

2 are hollow standards which support a plate 3 upon which rests the chambered base 4 of the filling receptacle 5, around which is placed an ice chest 6.

7 is the glass to be filled with the beer; 8 is its support; 9 is the screw to raise and lower the support 8; and 10 is the hand wheel nut to operate the screw.

11 is a pipe, which passes up through one of the standards 2. The lower end of this pipe may be supposed to be connected with the source of beer supply. Its upper end carries a pressure gage 12. From the upper portion of pipe 11 extends a lateral pipe 13 which leads to a passage 14 in the base 4, and from said passage leads a pipe 15, up into the filling receptacle 5. In the filling receptacle 5 is an air vent pipe 16 which extends from near the closed top of said receptacle, down into the chambered base 4, and is then bent outwardly, as shown in Fig. 3,

through the side wall of said base and is provided with a controlling valve 17 on its outer end. 18 is a pipe which passes up through the other standard 2. The lower end of this pipe may be supposed to be connected with a source of compressed air. Its upper end carries a pressure gage 19. From this pipe 18 extends a lateral pipe 20 which leads to a passage 21 in the base 4, which passage extends downwardly through the base and through the plate 3 and opens into the glass 7.

From the bottom of the chamber in base 4 extends a passage 22 which leads through the base and through the plate 3 and opens into the glass 7. In the air passage 21 of the base is a port 23 which is controlled by a slide valve 24 (Fig. 2) operated by a screw stem 25 and handle 26. In the beer passage 22 is a port 27 which is controlled by a slide valve 28 (Fig. 2) operated by a screw stem 29 and handle 30.

In the under surface of the plate 3 is made an annular seat 31, which, near its outer rim, is deepened into an annular channel 32, from one side of which, as shown in dotted lines in Fig. 2, a port 33 opens to the outside of the plate and communicates with a downturned pipe 34 which may open to the atmosphere in any desired location. In the annular seat 31 of plate 3 is fitted a flexible washer 35 which is provided with an annular series of holes 36 (Fig. 4) exposed within the area of the top of the glass 7. This washer, as seen in Fig. 1 is not as thick as the seat 31 is deep, so that unless pressed up as it is shown to be in said Fig. 1, the holes 36 in the washer communicate through the space above the washer, with the deeper rim channel 32 of the washer seat 31. In the lateral pipe 13 is a controlling cock 37.

The operation of the apparatus is as follows:—The cock 37 in pipe 13 being closed, the gage 12 will indicate the pressure of the beer. We, thereupon, regulate the pressure of air, as indicated on gage 19 to about that of the beer. Then we elevate the glass 7 to its seat with such pressure that its rim will force up a part of the washer 35 against its seat and make a tight joint, as seen in Fig. 1. We then open the port 23 in the air passage 21, and also open the port 27 in the beer passage 22, thereby admitting the air pressure to the glass and to the filling receptacle 5. Then both ports 23 and 27 are closed, and the glass may be lowered or



allowed to remain. We now open the cock 37 in the beer inlet lateral pipe 13, and at the same time we open slightly the air vent valve 17. The beer will now flow in solid liquid form without foaming, into the filling receptacle 5, the air pressure therein yielding before it through the air vent pipe 16. When, through the valve 17 of the air vent pipe 16, the beer begins to show, we know the receptacle 5 is full, and we then shut said valve 17. Now to draw a glass of beer we elevate the glass 7 again if it has been lowered; and press it up as shown in Fig. 1, to form a tight joint, by reason of its rim pressing the washer up as seen. Then we open the ports 27 and 23. The beer will then descend by gravity into the glass, against the air-pressure, and drive the air back through the passage 21 and pipes 20 and 18. The beer enters the glass solid and fills it without foaming. The beer thus taken from the receptacle 5 will be replaced by an equal volume from the source. When the glass is full, we close the beer port 27 and the air port 23, and then we gently and slightly lower the glass, just enough to relieve the excessive pressure of its rim on the washer 35. The washer will thereupon become flat and communication is thus opened between the glass and the outer air, through the washer holes 36, the overlying seat 31, the annular channel 32, port 33 and pipe 34. The surplus air confined in the glass has, thus, an opportunity to quickly expand and escape into a comparatively large area, through a great number of holes, and in so doing, it passes without violence out of the glass and does not disturb the settled condition of the beer. This operation is quickly over, and the glass may then be lowered sufficiently for removal without undue foaming. This removal of the glass, comparatively quickly, is of great value in practice, as it saves time and avoids impatient waiting for the beer to settle.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:—

1. A beer drawing apparatus comprising a filling receptacle; a base therefor having a beer outlet passage through it with a controlling cock, a beer inlet passage from its side and communicating at its inner end with the filling receptacle, and a separate air inlet passage from its side and opening through its bottom, said air passage having a controlling cock; an adjustable support adapted to place a glass in communication with both the air passage and the beer outlet passage where they open through the bottom of the filling receptacle base; a controllable pipe connection between the source of beer and the beer inlet passage in the receptacle base; a pipe connection exterior to the receptacle between a source of air under pressure and the air passage in said base;

and a controllable air vent from the filling receptacle.

2. A beer drawing apparatus comprising a filling receptacle; a chambered base supporting said receptacle having a beer outlet passage through its bottom with a controlling cock, a beer inlet passage opening through its side into its chamber, and a separate air inlet passage opening through its side and bottom, with a controlling cock; an adjustable support adapted to place a glass in communication with both the air passage and the beer outlet passage; a controllable pipe connection between a source of beer and the beer inlet passage in the receptacle base; a pipe connection exterior to the receptacle between a source of air under pressure and the air passage in said base; and a controllable air vent from the filling receptacle.

3. A beer drawing apparatus comprising a filling receptacle; a chambered base supporting said receptacle, said base having a beer outlet passage through its bottom with a controlling cock, a beer inlet passage opening through its side into its chamber, and a separate air inlet passage opening through its side and bottom, with a controlling cock; an adjustable support adapted to place a glass in communication with both air passage and beer outlet passage; side stand-pipes one connected with a source of beer and the other with a source of air under pressure; a pressure gage upon top of each stand-pipe; a cock controlled lateral pipe connecting the beer stand-pipe with the beer inlet passage of the chambered base; a lateral pipe connecting the air stand-pipe with the air passage of said base; and a controllable air vent from the filling receptacle.

4. In a beer drawing apparatus, and in combination with means for admitting beer to the glass to be filled, an adjustable support for said glass; a superposed plate having in its under surface an annular seat with an outlet passage from its rim to the exterior of the plate; and a flexible washer loosely filling said seat and traversing the rim of the glass, said washer having a series of holes exposed within the area of the glass top.

5. In a beer drawing apparatus, and in combination with means for admitting beer to the glass to be filled, an adjustable support for said glass; a superposed plate having in its under surface an annular seat formed with a deeper channel at its rim, said channel having an outlet passage to the exterior of the plate; and a flexible washer loosely filling said seat and traversing the rim of the glass, said washer having a series of holes exposed within the area of the glass top.

6. In a beer drawing apparatus the combination of a filling receptacle having a con-



5 trollable beer outlet passage to the glass to  
be filled, a beer inlet passage from a source  
of beer, a controllable air passage from a  
source of air under pressure to the glass to  
be filled, and a controllable air vent; an ad-  
justable support for said glass adapted to  
place it in communication with the beer  
outlet passage of the filling receptacle and  
with the compressed air passage; a plate  
10 above said glass having in its under surface  
an annular seat with an outlet passage from  
its rim to the exterior of the plate; and a  
flexible washer loosely filling said seat and  
traversing the rim of the glass, said washer  
15 having a series of holes exposed within the  
area of the glass top.

7. In a beer drawing apparatus the com-  
bination of a filling receptacle having a con-  
trollable beer outlet passage to the glass to  
20 be filled, a beer inlet passage from a source  
of beer, a controllable air passage from a  
source of air under pressure to the glass to

be filled, and a controllable air vent; an ad-  
justable support for said glass adapted to  
place it in communication with the beer out- 25  
let passage of the filling receptacle and with  
the compressed air passage; a plate above  
said glass having in its under surface an an-  
nular seat formed with a deeper channel at  
its rim, said channel having an outlet pas- 30  
sage to the exterior of the plate; and a flexi-  
ble washer loosely filling said seat and trav-  
ersing the rim of the glass, said washer  
having a series of holes exposed within the  
area of the glass top. 35

In testimony whereof we have signed our  
names to this specification in the presence  
of two subscribing witnesses.

LUCIEN H. HANDY.  
WALTER L. PHILLIPS.

Witnesses:

WM. F. BOOTH,  
D. B. RICHARDS.