No. 814,094. PATENTED MAR. 6, 1906.

F. STICKEL.

APPARATUS FOR DRAWING BEER, &c.

APPLICATION FILED MAR. 20, 1905.

2 SHEETS—SHEET 1.

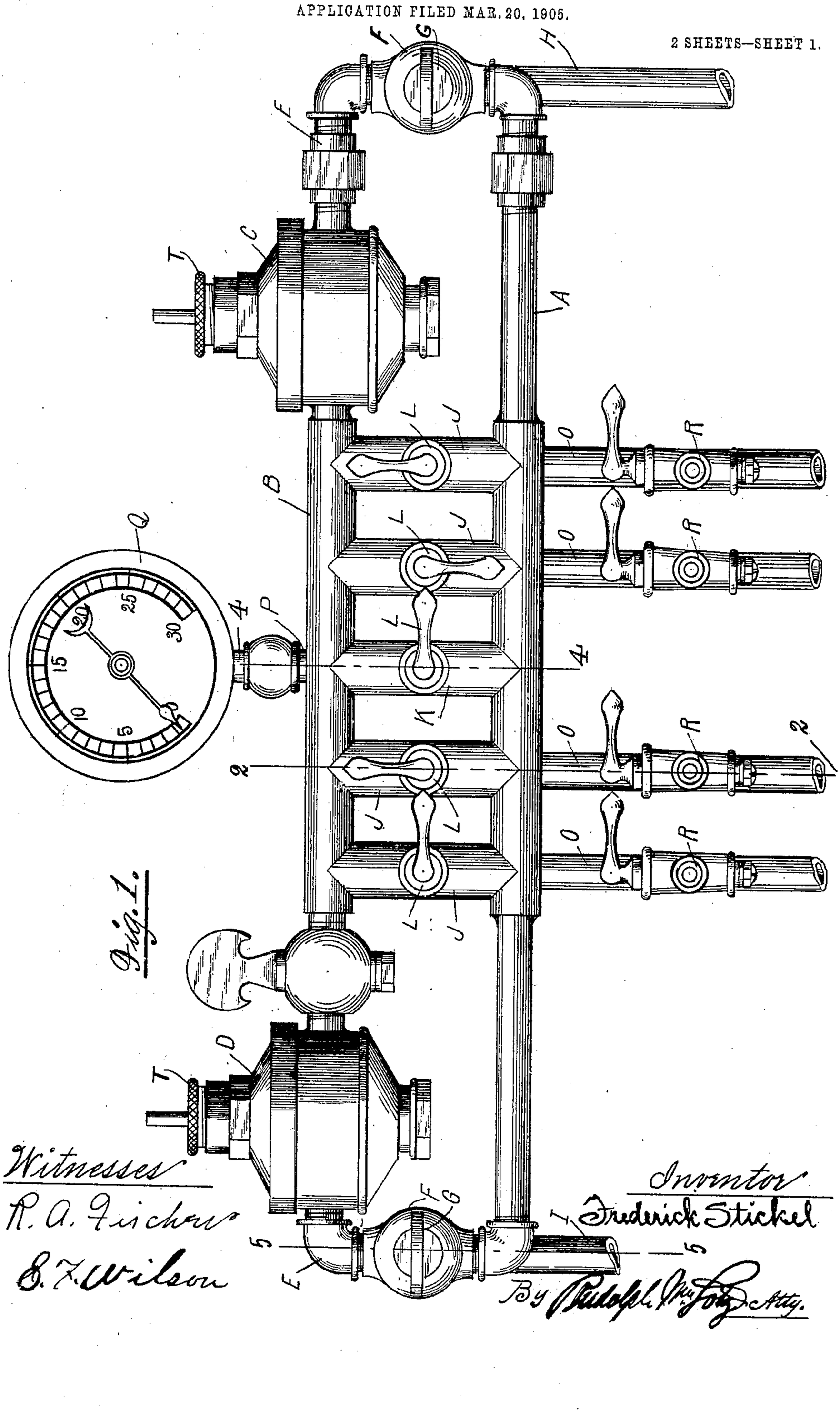

Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

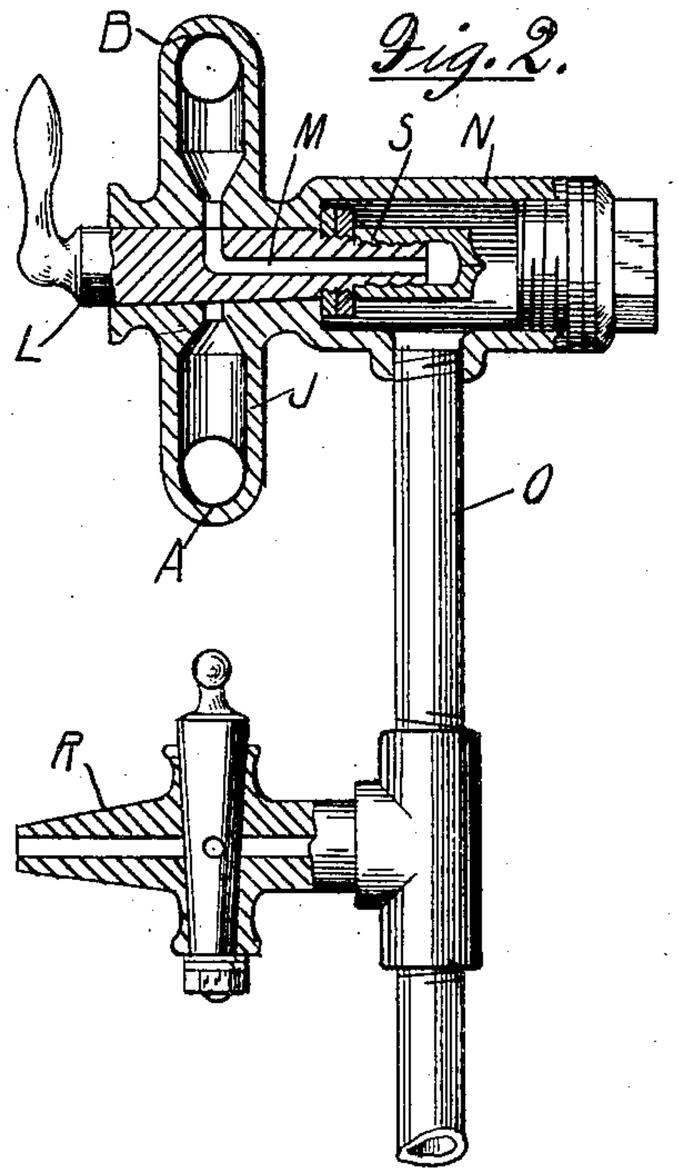


Fig. 3.

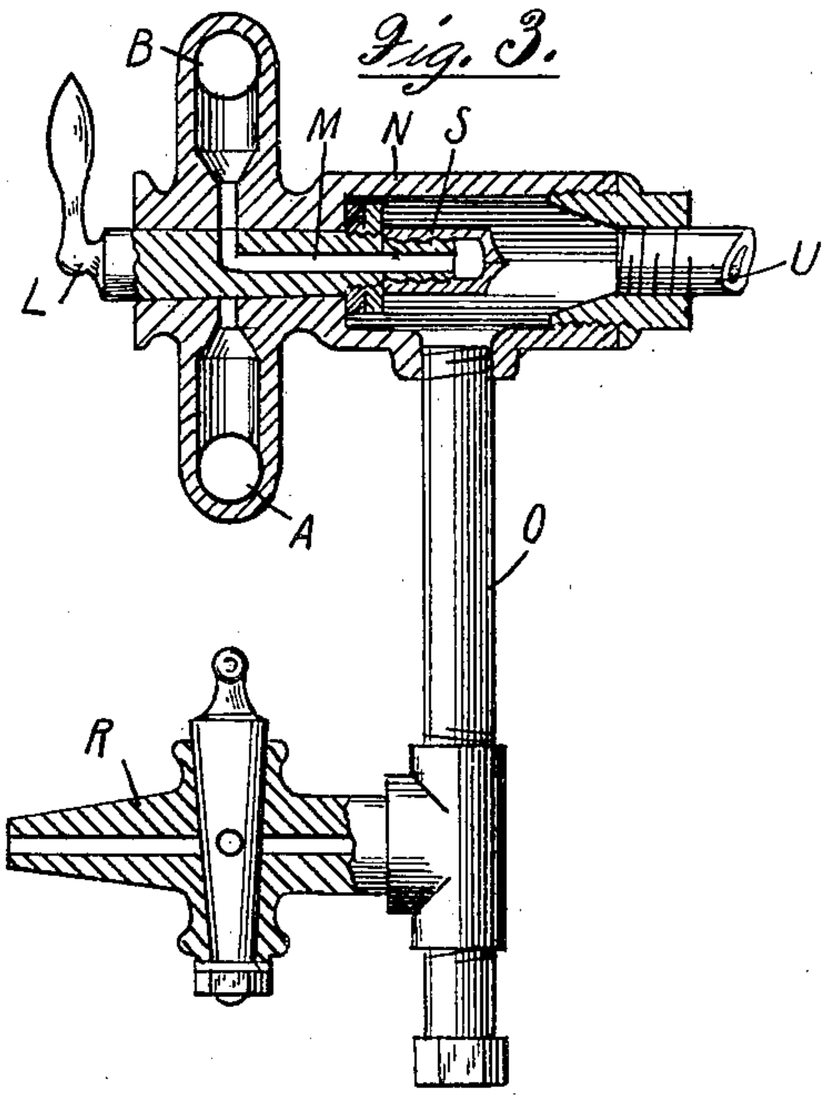


Fig. 4.

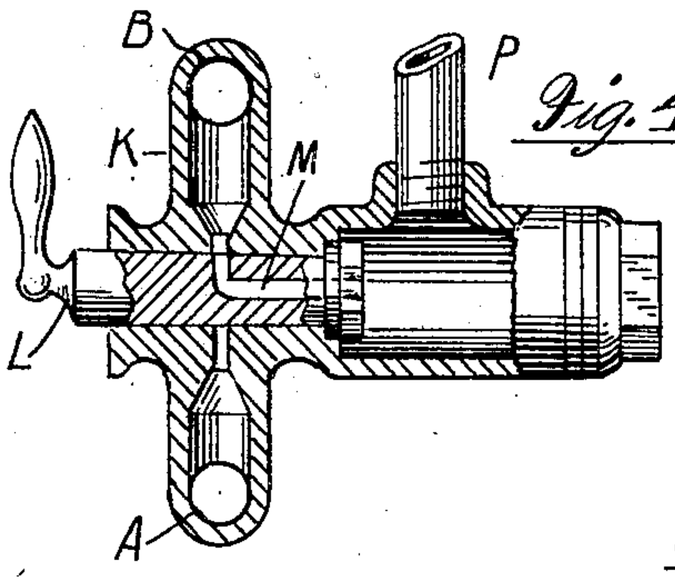


Fig. 5.

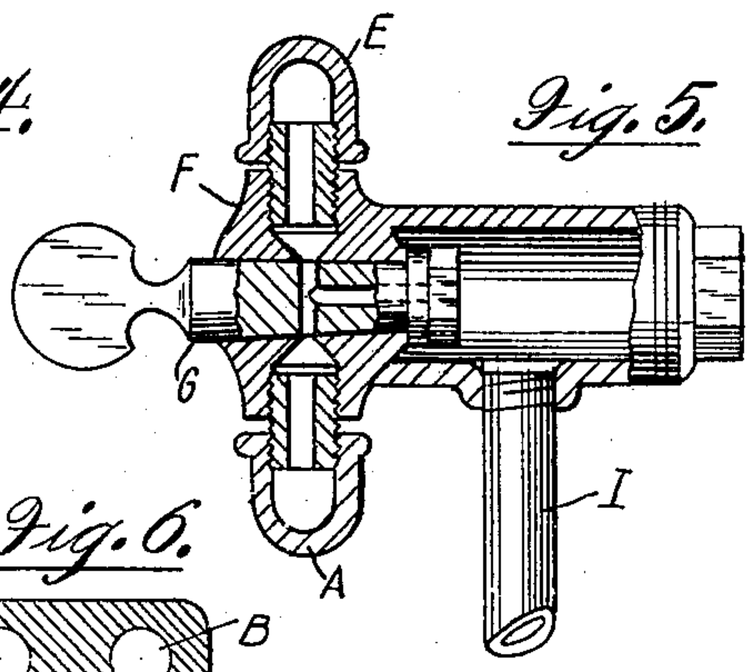
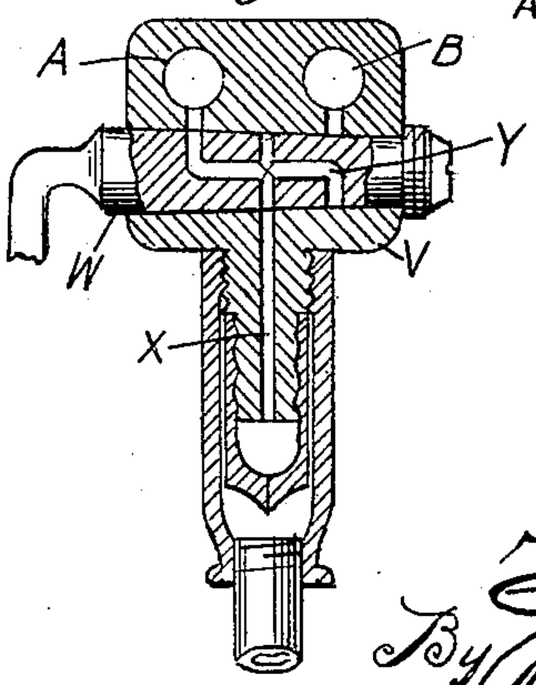


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK STICKEL, OF CHICAGO, ILLINOIS.

APPARATUS FOR DRAWING BEER, &c.

No. 814,094. Specification of Letters Patent. Patented March 6, 1906.

Application filed March 20, 1905. Serial No. 251,054.

To all whom it may concern:

Be it known that I, FREDERICK STICKEL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for Drawing Beer, &c.; and I do hereby 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.

My invention relates to a novel construction in an apparatus for drawing beer, ale, and the like from barrels or kegs by means of fluid-pressure introduced into such barrel or keg above the level of the liquid therein, the object being to provide a device of this character by means of which the bartender is enabled to control the pressure without leaving his post by easy manipulation of parts of the said apparatus within his reach; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a front elevation of a device or apparatus constructed in accordance with my invention. Fig. 2 is a vertical section of the same on the line 2 2 of Fig. 1. Fig. 3 is a section similar to Fig. 2, showing a change in connections. Figs. 4 and 5 are vertical sections on the lines 4 4 and 5 5, respectively, of Fig. 1. Fig. 6 is a detail vertical section showing a modified form of construction.

The main object of my invention is to provide means for varying the pressure on the liquid to be drawn to increase or diminish the same, as required, by the manipulation of a single valve which is disposed within reach of the bartender, who is enabled thereby to control the pressure at will. To this and other ends, my said apparatus comprises a high-pressure pipe A and a low-pressure pipe B, said last-named pipe being connected at its ends with pressure-reducers C and D, connected at their other ends with high-pressure pipes E, which said pipes E are connected with valve-chambers F, controlled by valves G and having connection, by means of pipes H and I, with sources of supply of air or gas under pressure. Said last-named pipes H and I communicate with said pipes A and E through a T-shaped opening in the valve G, one arm of said opening being adapted by turning said valve G to connect said pipes H or I with both said pipes A and E or shut off said pipes H or I from communication therewith, as may be desired. Connecting said pipes A and B are a plurality of vertical pipes J and K, interposed in which are valves L, each provided with an L-shaped opening or passage M establishing communication between said pipes J and K and the rear end portion N of the valve-casings, the latter being connected, by means of pipes O, with the kegs or barrels, and the casing of said valve in the pipe K being connected, by means of a pipe P, with a pressure-gage Q. On each of said pipes O a blow-off cock R is provided, by means of which pressure in the keg or barrel may be relieved at any time in an obvious manner. On said portions of each of the valves L extending into the portion N of the valve-casings I provide rubber check-valves S, which serve to prevent the compressed gas from returning, and thus prevent rising of foam from a freshly-tapped keg or barrel into said pipes O and into said pipes A or B.

It is desirable sometimes to employ compressed carbonic-acid gas and sometimes to employ compressed air, and as the former is delivered normally at very much higher pressure than the air the pressure-reducing valve D must necessarily be of somewhat-different construction than the pressure-reducer C, and my apparatus is therefore designed for employment of either of these fluid-pressure agents.

In drawing beer the pressure is varied according to the purpose for which the same is drawn—that is to say, in drawing such beer to be sold in glasses at the bar it is preferable to employ low pressure, and when drawing said beer in bulk to fill workingmen's pails it is preferable to use high pressure, the high pressure serving to prevent the release of carbonic-acid gas from the liquid and maintaining the beer in better condition than the low pressure.

The operation of my device is as follows: Assuming that the pipes O are connected with two kegs or barrels at low pressure, one at high pressure, and with one empty, two of the said valves L controlling the communication of the pipes A and B with the kegs or barrels would be so set as to connect the same with the low-pressure pipe B, and one of same would be turned to connect said keg or barrel with the high-pressure pipe A, while the fourth would be turned so as to shut off all communication between the barrel or keg

and either of said pipes A or B. The valve controlling the pipe K may be turned to connect either of the pipes A or B with the pressure-gage to connect either the high or low pressure pipes therewith. The low pressure may be changed or varied at any time by manipulating the milled head of the member T of the pressure-reducer. When a fresh barrel is tapped, the valve L, controlling communication between the same and the fluid-pressure, is opened only after the initial pressure due to the sudden release of the carbonic-acid gas has been reduced, or it may be opened immediately after such barrel has been tapped in order to prevent as far as possible the release of the carbonic-acid gas; but in either event it will be obvious that the foam produced by the release of such gas cannot rise in the said pipes O to reach the said valves L, and thus clog the same or find its way into either of said pipes A or B. In the event that it is desired to increase or decrease the pressure in any particular barrel or keg the valve L, controlling the connection of the pipes A and B therewith, may obviously be reversed.

My said apparatus may be mounted on a part of the bar adjacent the faucets or on the wall behind the same, and the connections with the barrels or kegs may be made by means of the downwardly-extending pipes O, or the latter may be cut off and capped immediately below the blow-off cocks and pipes U, connected with the rear ends of the portions N of the valve-casings of the valves L, as shown in Fig. 3, such pipes U passing directly through the wall behind the bar, where a refrigerating-chamber is usually located, and thus connected with the barrels or kegs in the latter.

I desire to direct particular attention to the simplicity of operation of my device, the ease with which the pressure may be controlled, the compactness of the device, and its relatively low cost, a particular point of advantage being the employment of a single pressure-gage and the means for connecting the same with either the high or low pressure pipe to ascertain either pressure.

In Fig. 6 I have shown a modified form of construction of a valve, the casing V thereof being connected with both the high and low pressure pipes A and B and having a single passage at its other end communicating with the barrel or keg, the valve W being provided with a lateral passage X, communicating with said single passage, and a Z-shaped passage Y adapted to communicate with the passages connecting said valve-casing with the pipes A and B, said passage Y communicating between its ends with the passage X.

I claim as my invention—

1. In a device of the kind specified, the combination with a source of supply of fluid under pressure, of substantially parallel pipes connected with said source of supply, one of said pipes having a pressure-reducing valve interposed therein and forming a low-pressure pipe, a single valve interposed in the connections of said pipes with said source of supply and adapted to connect both of said pipes therewith, a valve-casing, connections between said high and low pressure pipes and said valve-casing, means for connecting said valve-casing with a barrel or keg and a valve in said casing controlling said connections to place either of said pipes in communication with said barrel or keg.

2. In a device of the kind specified, the combination with a source of supply of fluid under pressure, of substantially parallel pipes connected with said source of supply, one of said pipes having a pressure-reducing valve interposed therein and forming a low-pressure pipe, a single valve interposed in the connections of said pipes with said source of supply and adapted to connect both of said pipes therewith, a valve-casing, connections between said high and low pressure pipes and said valve-casing, means for connecting said valve-casing with a barrel or keg, and a valve in said casing controlling said connections to place either of said pipes in communication with said barrel or keg, and a check-valve interposed in the connection between said pipes and said barrel or keg.

3. In a device of the kind specified, the combination with a source of supply of fluid under pressure, of substantially parallel pipes connected with said source of supply, one of said pipes having a pressure-reducing valve interposed therein and forming a low-pressure pipe, a single valve interposed in the connections of said pipes with said source of supply and adapted to connect both of said pipes therewith, a valve-casing, connections between said high and low pressure pipes and said valve-casing, means for connecting said valve-casing with a barrel or keg, and a valve in said casing controlling said connections to place either of said pipes in communication with said barrel or keg, and a check-valve interposed in the connection between said pipes and said barrel or keg, a second valve-casing similarly connected with said high and low pressure pipes, a pressure-gage connected with said valve-casing, and a valve controlling said connections to place either of said pipes in communication with said gage to ascertain the high or low pressure.

4. In a device of the kind specified, the combination with a source of supply of fluid under pressure, of two pipes having connection therewith, a single valve controlling the connection of both pipes therewith, a pressure-reducing valve in one of said pipes, means for connecting the low-pressure end of said last-named pipe and the other pipe with a barrel or keg, a valve controlling said connections to shut off one pipe when the other

is connected, a valve-casing connected with both of said pipes, a single pressure-gage connected with said valve-casing, and a valve in the latter adapted to connect said pipes alternately with said pressure-gage to indicate either the high or low pressure on the latter.

5. In a device of the kind specified, the combination with a source of supply of fluid under pressure, of two pipes having connection therewith, a single valve controlling the connection of both pipes therewith, a pressure-reducing valve disposed in one of said pipes, cross-pipes connecting the low-pressure end of said last-named pipe with the other pipe, a valve disposed in each of said cross-pipes having an L-shaped passage, a casing for each of said valves and a pipe connecting the casing of each of said valves with the point of delivery for said fluid under pressure and adapted to be connected with one of said pipes through said L-shaped passage in said valve.

6. In a device of the kind specified, the combination with a source of supply of fluid under pressure, of two pipes having connection therewith, a single valve controlling the connection of both pipes therewith, a pressure-reducing valve disposed in one of said pipes, cross-pipes connecting the low-pressure end of said last-named pipe with the other pipe, a valve disposed in each of said cross-pipes having an L-shaped passage, a casing for each of said valves and a pipe connecting the casing of each of said valves with the point of delivery for said fluid under pressure and adapted to be connected with one of said pipes through said L-shaped passage in said valve, and a check-valve mounted upon the delivery end of each of said cross-pipe valves.

In testimony whereof I have signed my name in presence of two subscribing witnesses.

FREDERICK STICKEL.

Witnesses:
RUDOLPH WM. LOTZ,
ARTHUR C. LOTZ.