

No. 715,687.

Patented Dec. 9, 1902.

A. R. PHILLIPS.

APPARATUS FOR CARBONATING AND DISPENSING GINGER ALE.

(Application filed Jan. 13, 1902.)

(No Model.)

2 Sheets—Sheet 1.

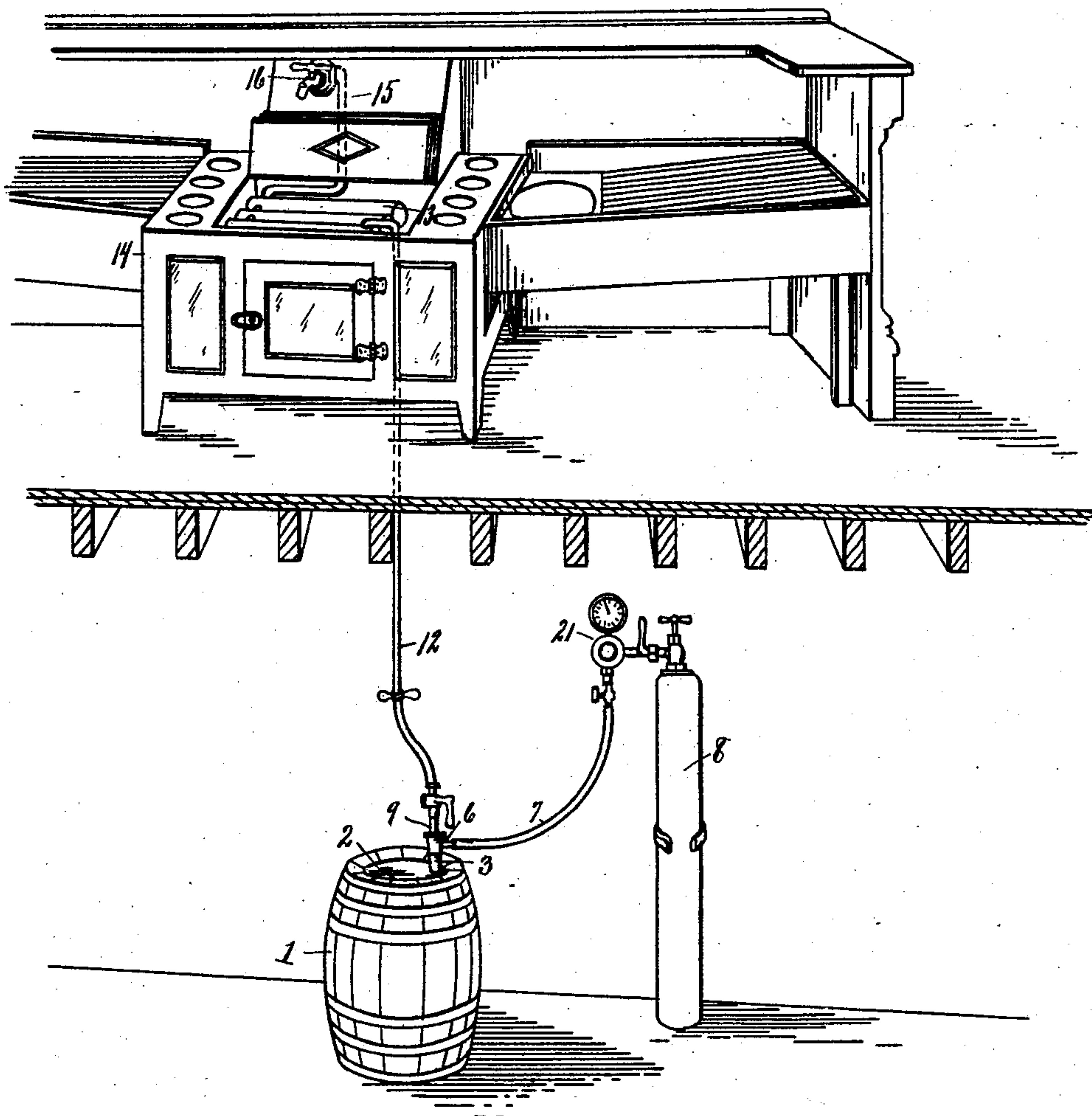


Fig. 1.

WITNESSES.

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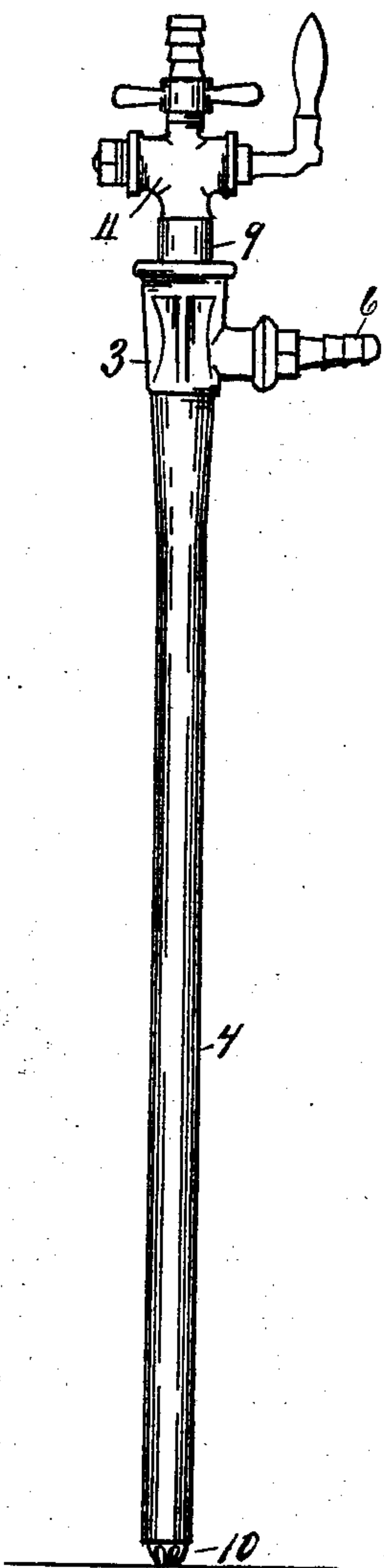
APPARATUS FOR CARBONATING AND DISPENSING GINGER ALE.

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(No Model.)

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Fig. 2.



WITNESSES.

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Fig. 4.

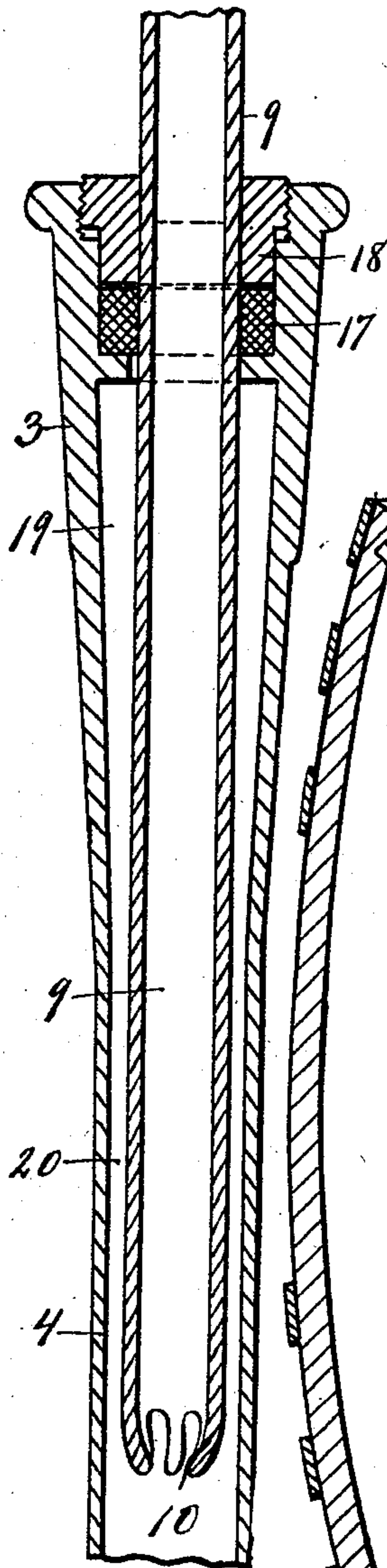
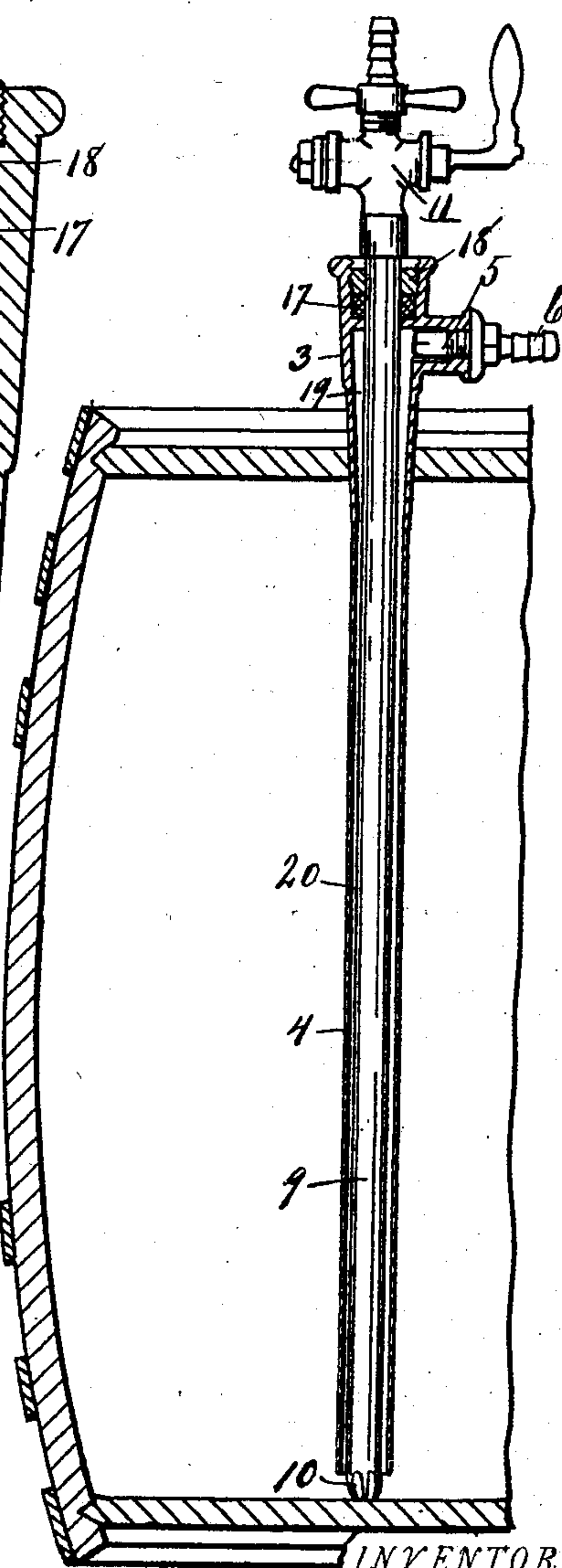


Fig. 3.



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# UNITED STATES PATENT OFFICE.

AUSTIN R. PHILLIPS, OF CORUNNA, MICHIGAN.

APPARATUS FOR CARBONATING AND DISPENSING GINGER-ALE.

SPECIFICATION forming part of Letters Patent No. 715,687, dated December 9, 1902.

Application filed January 13, 1902. Serial No. 89,418. (No model.)

*To all whom it may concern:*

Be it known that I, AUSTIN R. PHILLIPS, a citizen of the United States, residing at Corunna, in the county of Shiawassee, State of Michigan, have invented certain new and useful Improvements in Apparatus for Carbonating and Dispensing Ginger-Ale; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to apparatus for carbonating and dispensing ginger-ale; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to produce an apparatus of the character described in which the arrangement is such as to enable ginger-ale to be carbonated in and drawn from an ordinary cask or beer-keg, obviating the use of an expensive tank adapted to resist a high pressure and enabling a thorough carbonation of the beverage with an exceedingly low pressure, effecting a material saving in the cost of the apparatus and economy in the use of gas.

The above object is attained by the combination and association of parts illustrated in the accompanying drawings, in which—

Figure 1 is a general view illustrating the application of my invention for use in drawing ginger-ale in saloon trade. Fig. 2 is an elevation of the bung and sleeve with the inner tube inserted therein. Fig. 3 is a sectional view through a keg and the bung and sleeve, showing in elevation the inner tube within said sleeve and passing through said bung. Fig. 4 is an enlarged sectional view in detail of the bung and sleeve and the inner tube partially withdrawn therefrom.

Referring to the characters of reference, 1 designates a keg of the ordinary type for containing beer, in which the ginger-ale or other beverage to be drawn is placed. In the head 2 of said keg is inserted a bung 3, having formed integral therewith a depending sleeve 4, which extends into the keg to a point near the bottom thereof. Located in the side of

the bung 3 is a gas-valve 5 of the ordinary type, and communicating with said valve is the projected tube 6, adapted for attachment of a hose 7, which leads to the gas-cylinder 8, adapted to contain carbonic-acid gas.

Within the sleeve 4 is an inner tube 9, having openings 10 at its lower end and passing through the bung 3 at its upper end, where it is provided with a plug-valve 11 for the purpose of cutting off the flow of liquid through the tube when desired. Attached to the upper end of the tube 9 is a pipe 12, which leads upwardly through the floor to a suitable cooling-coil 13, located in the ice-box 14. From said cooling-coil a pipe 15 leads to the draft-faucet 16, whereby the beverage from the keg passes through the cooling-coil before it is drawn, which arrangement is common and well understood in the art.

At the upper end of the bung 3 is a compressible gasket 17, through which the inner tube 9 passes and which is compressed around said tube by the gland 18, which screws into the upper end of said bung.

In placing this apparatus in position the sleeve 4 of the bung is passed through the bung-hole of the keg, and the bung is made firm in said hole by driving or other suitable means. The tube 9 is then passed downwardly through the bung and sleeve, as shown in Fig. 3, and is secured centrally in position by means of the gland 18, thereby forming a gas-chamber 19 within said bung and a gas passage-way 20, extending downwardly from said chamber between the sleeve 4 and the tube 9. This gas space or passage-way 20 terminates at the lower end of the sleeve 4 adjacent to the openings 10 in the bottom of the tube 9. By this arrangement the gas is discharged into the beverage of the cask at the bottom thereof and passes upwardly through said beverage, which absorbs said gas, and whereby it becomes carbonated. By introducing the carbonic-acid gas at the bottom of the cask said beverage becomes much more readily carbonated than where the gas is introduced at the top and is mingled with the beverage by agitation. The introduction of the gas at the bottom of the keg enables the beverage to be carbonated under a much lower pressure, for the reason that it more readily mingles with the beverage when in-



introduced at that point, obviating the use of  
 an expensive metallic cask necessary to hold  
 the beverage where it is carbonated under a  
 high gas-pressure. The point of the dis-  
 5 charge of the gas from the passage-way 20  
 being adjacent to the intake-openings 10 at  
 the bottom of the tube 9, the gas is discharged  
 into said openings when a quantity of the bev-  
 erage is drawn off, so that at any time the  
 10 beverage is drawn, even in a small quantity,  
 it is thoroughly permeated with gas. It will  
 be understood that the pressure of the gas in  
 the chamber 19 and the passage-way 20 is  
 such as to force the liquid therefrom, so that  
 15 the gas is continually on the point of dis-  
 charging from the lower end of the sleeve and  
 does discharge therefrom whenever the pres-  
 sure in the keg is reduced by the operation  
 of drawing the beverage.  
 20 The gas-pressure is so low under which the  
 beverage is carbonated by the use of this ap-  
 paratus that a common keg may be readily  
 employed, and by means of this structure the  
 parts may be readily cleaned, as the tube 9  
 25 may be easily withdrawn from the sleeve 4  
 and the bung with which said sleeve is at-  
 tached. All the gas-pressure that is re-  
 quired is sufficient only to force the beverage  
 from the keg up to the draft-faucet and dis-  
 30 charge it therefrom, whereby the beverage  
 may be allowed to flow naturally into the gas,  
 obviating the excessive foam which is pres-  
 ent in the ordinary method of drawing gin-  
 ger-ale, because of the high pressure in the  
 35 tank in which the ale is carbonated.  
 Located in the pipe 7 leading to the gas-  
 cylinder is a gas-pressure regulator 21 of the  
 ordinary type, by means of which any de-  
 sired pressure in the keg may be maintained.  
 40 It will be understood that by the use of this  
 apparatus a great saving of gas is accom-  
 plished, owing to the fact that it is used at  
 such a greatly-reduced pressure from that or-  
 dinarily employed in ginger-ale-dispensing  
 45 apparatus.

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

1. In a device for the purpose set forth, the  
 50 combination of a beverage-containing cask,

a gas-cylinder, a dispensing-faucet, a bung  
 having a long sleeve integral therewith, said  
 bung being adapted to be secured in the head  
 of said cask with the sleeve depending ver-  
 tically therein to a point adjacent the bottom 55  
 of the cask so that its lower end is at all times  
 submerged, an inner tube having openings at  
 its lower end adapted to be passed centrally  
 through said sleeve and secured by a com-  
 pressible gasket within said bung, forming a 60  
 gas passage-way between the inner wall of  
 the sleeve and the outer wall of the tube  
 which extends to the openings at the lower  
 end of said tube, a pipe connecting said tube  
 with the dispensing-faucet, and a pipe con- 65  
 necting the gas-cylinder with said gas pas-  
 sage-way.

2. The combination of a beverage-contain-  
 ing cask, a bung seated in the head of said  
 cask and having an integral sleeve which de- 70  
 pends therein to a point adjacent the bottom,  
 an inner tube removably seated in said sleeve  
 having apertures adjacent the lower end of  
 the sleeve, and passing upwardly through said  
 bung, forming a gas-space within said tube 75  
 around said sleeve, a dispensing-faucet, a  
 pipe connecting said inner tube with said  
 faucet, a gas-cylinder and a pipe connecting  
 said cylinder with the gas-space within said  
 bung and sleeve. 80

3. In an apparatus for the purpose set forth,  
 the combination of a cask, a bung seated in  
 the head of the cask and having an integral  
 depending sleeve whose lower end extends to  
 the bottom of the cask, a tube passing through 85  
 said bung and sleeve, said tube having in its  
 lower end apertures formed therein on a plane  
 with the lower end of said sleeve, a gas-cham-  
 ber within said bung and a gas passage-way  
 within said sleeve around said tube commu- 90  
 nicating with said gas-chamber, a gas-cylin-  
 der, a pipe connecting the gas-chamber with  
 said cylinder, and a pipe connecting said tube  
 with a draft-faucet.

In testimony whereof I sign this specifica- 95  
 tion in the presence of two witnesses.

AUSTIN R. PHILLIPS.

Witnesses:

E. S. WHEELER,  
 E. C. DAVIS.