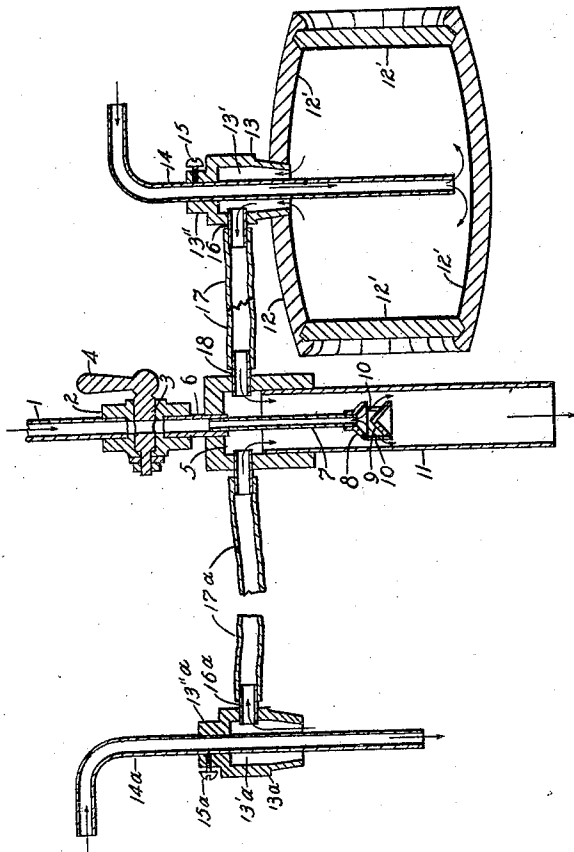


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PNEUMATIC SIPHONING SYSTEM FOR CIRCULATING AIR THROUGH BARRELS.
APPLICATION FILED MAY 10, 1909.

938,014.

Patented Oct. 26, 1909.



WITNESSES:

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To all whom it may concern:

Be it known that I, JEREMIAH F. McLAIN, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Pneumatic Siphoning Systems for Circulating Air Through Barrels, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in pneumatic siphoning systems, for circulating air through barrels, and has for its objects, the provision of a pneumatic siphoning system, composed of simple, substantial, durable and comparatively inexpensive devices, by the use of which, a large volume of pure air, may be rapidly and continuously drawn into a keg, cask, barrel or the like, be circulated throughout the entire interior of said barrel and be drawn therefrom; thereby providing means, by which the resinous, pitchy and oily gases, arising from the inner surface of a previously pitch-lined barrel are withdrawn, and the pitch-lining is thoroughly aerified; thus removing the properties of said pitch, which if left in said barrel, would cause any liquid stored or transported therein, to have an objectionable odor and taste, imparted thereto, from said pitch.

A further object is to so construct the parts of a pneumatic siphoning system, that kegs, casks, barrels and the like, may be attached to said system, have their interior surfaces thoroughly aerified thereby and be detached therefrom, with the utmost ease and rapidity.

I attain these objects by the devices illustrated in the accompanying drawing, which is a longitudinal section, cut vertically through the center of all the parts.

My invention comprises an air supply pipe 1, through which air is conducted under pressure, from any source of supply, not shown, such as an ordinary air compressor, or system of ordinary pipes, containing air under pressure. Air pipe 1 has its lower end secured in the upper side of cock body 2, provided with gate 3, operated by lever 4. The lower side of cock body 2 is secured to the upper end of vacuum chamber 5, by nipple 6, in the lower end of which is secured the upper end of jet pipe 7, on the lower end of which is secured the cone

mouth 8, from which depends the cone shaped air deflector 9, secured in place, to said cone mouth by rods 10, and adapted to outwardly and downwardly deflect air therefrom, in the central portion of outlet tube 11, the upper end of which is secured in the lower end of vacuum chamber 5.

In the bung hole of the ordinary barrel 12, (previously lined with pitch 12'), is inserted the metal bung 13, said bung is provided with bung chamber 13', formed therein, and with boss 13'' on its upper end, which is apertured for the reception of inlet air tube 14, slidable therethrough and adjustably secured therein by set screw 15. In bung 13, is secured the nipple 16, on the outer end of which is secured one end of the flexible tube 17, the opposite end of which is secured to the outer end of nipple 18, the inner end of which is secured in one side of vacuum chamber 5.

In the operation of my invention, a barrel 12, (having pitch 12', covering the interior surface thereof,) is rolled into position, with its bung hole upward, bung 13, carrying inlet tube 14, is inserted in said bung hole, as seen in the drawing; tube 14 is lowered until its lower end is near the lower interior surface of said barrel, and secured by set screw 15. Cock gate 3 is rotated to open position, seen; upon which, air under pressure passes from source of air, (not shown,) through pipe 1, cock body 2, cock gate 3, cock body 2, nipple 6, jet tube 7, cone mouth 8, past cone deflector 9, thence out through the outlet tube 11, thereby causing a partial vacuum in vacuum chamber 5, which partial vacuum is quickly filled by air from the interior of barrel 12, which passes therefrom, through bung chamber 13' nipple 16, flexible tube 17 and nipple 18, into said vacuum chamber, from whence said air passes out, through outlet tube 11. A partial vacuum is thus produced in barrel 12, which is readily filled by ordinary atmosphere, passing into said barrel, through inlet tube 14. Said passages of air are continued, until the operator deems their action has accomplished their purpose, after which bung 13 carrying tube 14, is manually lifted from the bung hole of barrel 12 and without further adjustment of tube 14, in said bung, another barrel of the same diameter, is served in like manner, and so on, until all the barrels of one diameter are treated, after which tube 14 is

adjusted, to any other diameter of barrel, as heretofore described, and the described operations are repeated.

While I have described but one bung 13, and its attached parts, it is evident that any number of such bungs could be connected with and be operated by one vacuum chamber 5, one of such other bungs being shown at 13^a, connected with said vacuum chamber by flexible tube 17^a.

From the previously described operation of my invention, it will readily be seen and understood that the resinous, pitchy and oily fumes, arising from pitch 12' in the interior of barrel 12, are quickly and completely removed therefrom, and that said pitch is thoroughly aerified thereby.

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

1. In a pneumatic siphoning system, the combination with air exhausting means, adapted to exhaust and discharge air therefrom of a bung, adapted to be inserted in the bung hole of an ordinary barrel, said bung being provided with a bung chamber formed

therein and with a boss on the upper end thereof; an inlet air tube, extending through said boss and said bung chamber; securing means in said boss, whereby said inlet tube is secured therein, and conducting means connecting said bung chamber with said air exhausting means, adapted to conduct air from said bung chamber into said exhausting means.

2. In a pneumatic siphoning system, a bung, adapted to be inserted in the bung hole of an ordinary barrel, said bung being provided with a bung chamber formed therein, and with a boss on the upper end thereof; an inlet air tube, extending through said boss and said bung chamber, and securing means, in said boss, whereby said inlet tube is adjustably secured therein, and conducting means, adapted to conduct air from said bung chamber.

In testimony whereof I affix my signature in the presence of two witnesses.

JEREMIAH F. McLAIN.

Witnesses:

JOHN J. HINTON,
LUKE E. HINTON.