F. A. Pratt,

Pump Cylinder.

No. 40,276. Patented Oct. 13, 1863.

Fig: 1.

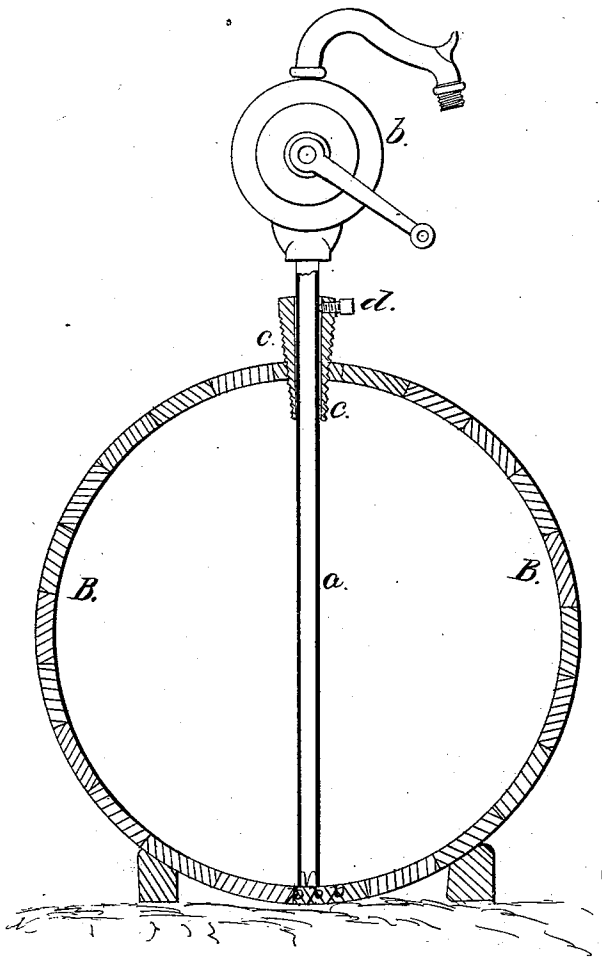
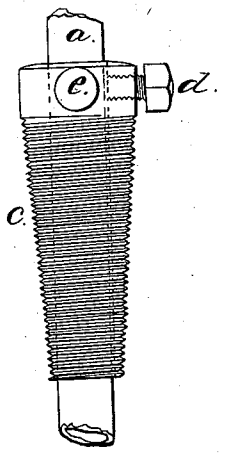


Fig: 2.



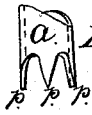
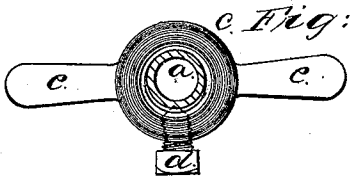


Fig: 4.



Fig: 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANCIS A. PRATT, OF HARTFORD, CONNECTICUT, ASSIGNOR TO PRATT, WHITNEY & CO.

IMPROVEMENT IN APPARATUS FOR ATTACHING PUMPS TO BUNGS OF BARRELS.

Specification forming part of Letters Patent No. **40,276**, dated October 13, 1863.

To all whom it may concern:

Be it known that I, FRANCIS A. PRATT, of the city and county of Hartford, in the State of Connecticut, have invented a certain new and useful Fastening for Barrel-Pumps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 represents a cross-section of a barrel with my invention applied thereto as a means of fastening for a rotary pump. Fig. 2 shows a side view of the apparatus. Fig. 3 is a plan of the same, and Figs. 4 and 5 show, respectively, a side and end view of the lower part of the suction-pipe of the pump.

Similar letters of reference denote the same part in the several figures.

My invention relates to an improved mode of securing to a barrel a pump by which the contents of the barrel may be removed.

Previous to my invention the inconvenience and loss of time and power in pumping from barrels by portable pumps have been great, on account of the inefficient means which have been used to fasten the pump to the barrel.

It is the object of my invention to furnish a secure fastening for the rigid suction-pipe of a pump in the bung-hole of a barrel which shall firmly secure the said pump to the barrel in such a manner as to render the pump sufficiently steady to permit its being rapidly and advantageously worked, and which shall be applicable to various sizes of barrels; and to these ends my said invention consists in the employment of a conical sleeve applied to the rigid suction-pipe of a pump, the conical exterior surface of the said sleeve having a screw-thread cut thereon, or being provided with other equivalent means of forcing and holding it in the bung-hole of a barrel, in combination with a clamp-screw or an equivalent therefor for clamping the suction-pipe firmly within the sleeve, substantially as hereinafter clearly set forth; and my invention further consists in forming the end of the suction-pipe of a pump into one or more sharp points capable of penetrating into the sides of a barrel, and thus holding the end of the pipe from slipping, in combination with a clamp for securing the pipe to the bung-hole of the barrel, substantially as hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to a description thereof.

In the accompanying drawings, *a* represents the rigid suction-pipe of a pump, *b*. *c* is a sleeve which surrounds the said pipe and slides loosely upon it, except when clamped thereto in the manner hereinafter described. The exterior of the sleeve *c* is of a tapering form, its extreme lower end being of suitable size to enter the bung-hole of a small barrel, while its upper or larger part is made sufficiently large to fill the bung-hole of a larger barrel. The taper of the sleeve may be made to accommodate as great a range of sizes as may be deemed best.

A screw-thread is cut upon the exterior conical surface of the sleeve *c*, so that the said sleeve may be screwed into the bung-hole of a barrel, B. (See Fig. 1.) The threads of the screw-sleeve *c* will thus be forced into the sides of the bung-hole, and the said sleeve be thereby firmly fastened into the hole, so that it can neither be shaken nor drawn out. Two projections, *e e*, formed on the upper end of the sleeve *c*, form a wrench, by which it may be turned.

d is a set-screw tapped through the side of the bushing or sleeve *c* in such a manner that its point may be made to press against the suction-pipe *a* of the pump, and thus clamp the pipe within the said sleeve. By means of this clamp *d* the pump may be secured firmly to the barrel when the sleeve is screwed into the bung-hole; but in order that greater steadiness may be insured, I form the end of the suction-pipe *a* into one or more sharp points, *p*, by cutting away the substance of the pipe in places, as shown in Figs. 4 and 5. These points *p* may be made to enter the wood on the inside of the barrel opposite to the bung-hole, and will thus steady the lower end of the pipe *a*.

The sleeve *c* may be forced into and held in the bung-hole of the barrel by other means than by the screw-thread upon its surface—as, for example, by hooked bolts the lower hooked ends of which may enter the barrel and catch under the edge of the bung-hole, while nuts upon the upper ends of the said bolts and bear-

ing on the top of the sleeve will serve to force the tapering sleeve into the bung-hole; but this and other equivalent devices will come within the scope of my invention when used in combination with the clamp-screw *d*, for the purpose specified.

Having described my invention, I disclaim the cutting away of the lower end of the suction-pipe in the manner sometimes done to form passage-ways for the liquids which are being pumped, except when the points are sharpened so as to enter the wood of the barrel, and are used in combination with a clamp for securing the pipe in the bung-hole, substantially as described; but

What I claim, and desire to secure by Letters Patent, is—

1. The employment, in combination with the suction-pipe of a pump, of a tapering sleeve, *c*, and of a screw-clamp, *d*, or their respective equivalents, so constructed and arranged as to secure the said pipe in the bung-hole of a barrel, substantially in the manner hereinbefore specified.

2. Forming the end of the suction-pipe into one or more sharp points, in combination with a clamp for securing the said pipe in the bung-hole of a barrel, substantially as and for the purpose hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 16th day of September, 1863.

FRANCIS A. PRATT.

In presence of—

WILLIAM RUSSELL,

CHAS. C. SHULTAS.