F. A. LANE.

PUMP COUPLING.

APPLICATION FILED FEB. 12, 1920.

1,338,739. **Patented May 4, 1920.**

Fig. 1

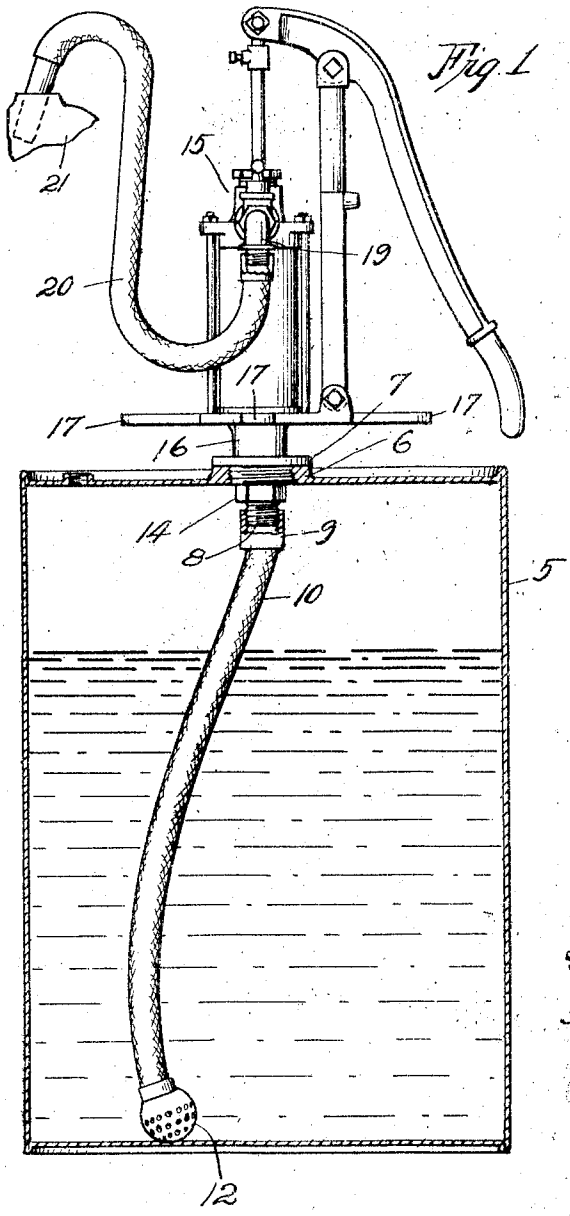


Fig. 2

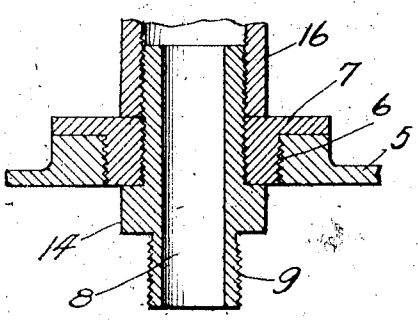
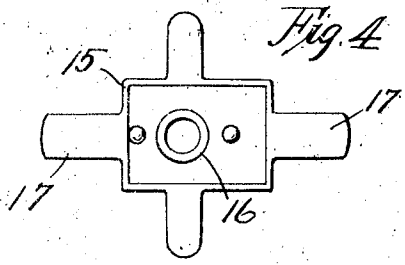


Fig. 4



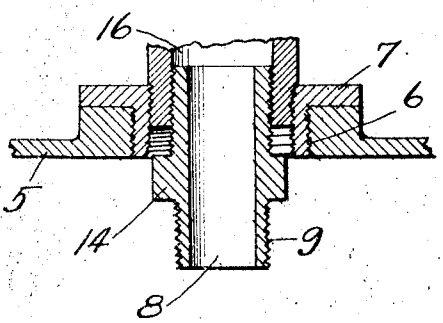


Fig. 3

Witness:

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UNITED STATES PATENT OFFICE.

FRANK A. LANE, OF MENDON, MISSOURI.

PUMP-COUPLING.

1,338,739 Specification of Letters Patent. Patented May 4, 1920.

Application filed February 12, 1920. Serial No. 358,287.

To all whom it may concern:

Be it known that I, FRANK A. LANE, a citizen of the United States of America, and resident of Mendon, Chariton county, Missouri, have invented a certain new and useful Improvement in Pump-Couplings, of which the following is a complete specification.

The present invention relates to pumping devices, and aims to provide an improved form of attachment for pump whereby the same may be quickly and conveniently attached to barrels, tanks or the like for permitting the contents thereof to be pumped out into other receptacles.

Accordingly I have devised a simple and convenient form of coupling structure for adapting the base of the pump to be mounted in the barrel or tank opening and permitting a suitable hose connection to be attached to the coupling and passed down into the contents of the barrel or other container.

It is also sought to devise a construction of the character described which will be adapted to have a portion thereof made in different sizes for adapting the structure to be associated with different sizes of barrel or tank openings.

With these general objects in view, the invention will now be described by reference to the accompanying drawing illustrating one form of construction which I have devised for embodying the proposed improvements, after which the novel features therein will be particularly set forth and claimed.

In the drawing—

Figure 1 is a sectional elevation of a tank having a pump mounted thereon and provided with a coupling structure embodying the present improvement;

Fig. 2 is an enlarged sectional detail view showing the coupling structure between the pump and tank;

Fig. 3 is a similar sectional view illustrating a modified form of construction; and

Fig. 4 is an inverted plan view of the base of the pump.

Referring now to the said drawing in detail, the same illustrates the improved form of coupling structure in relation to a tank 5 the head of which is provided with a threaded opening 6 for filling purposes as well as for the attachment of the means for discharging the contents of the tank. In the present case I provide a suitable form of flanged bushing 7 having an external thread for fitting the thread in the opening 6, as illustrated in Figs. 1, 2 and 3. In the preferred form of the construction, shown in Fig. 2, I provide the bushing 7 with an internal thread adapted for engagement with an external thread formed on the upper end of a hose coupling member 8. The lower end of this coupling member 8 is also provided with an externally threaded portion 9 of relatively smaller diameter for the attachment of a hose 10 which is of flexible form and of suitable length for extending to the bottom of the tank 5 where the hose is provided with a suitable type of strainer element 12, as shown in Fig. 1.

Intermediate its end the coupling member 8 is provided with an enlarged wrench-collar portion 14 adapted for wrenching purposes in screwing the parts 8 and 7 together, thereby bringing the collar portion 14 to abutting engagement with the lower face of the bushing 7. When assembled in this manner, the length of the upper end of the coupling 8 is such as to extend beyond the outer face of the bushing 7 for the purpose of allowing a suitable form of pump 15 to be applied to said coupling, the base portion of the pump being provided with an internally threaded socket 16 adapted to fit over the upper projecting end of said coupling 8. For convenience in attaching the pump in this position, the base portion is preferably provided with a plurality of handles 17, as illustrated in Figs. 1 and 4.

The modification of the structure shown in Fig. 3 differs from the foregoing only in that the bushing 7 is interiorly threaded for fitting the exterior of the pump socket 16 instead of the exterior of the coupling 8, the latter accordingly having no direct connection with the bushing 7.

The invention is particularly useful in providing for the convenient attachment of pumps to tanks or the like for the elevation of the contents thereof by the pump action to receptacles occupying so much higher a position as to render it inconvenient to fill the same by other means. For example, the filling of the tanks of tractors and the like has always been somewhat difficult because of the elevation of the fuel tank and its inaccessible position, so that the opera-

tion of filling the same is awkward and laborious to say the least. In making use of the present invention, it is only necessary to apply the hose coupling 8 to the bushing 7 and insert the latter into the threaded opening 6 of the tank, and then attach the base of the pump 15 to the upper end of the coupling 8. The nozzle 19 of the pump 15 is fitted with a suitable flexible hose 20 of appropriate length for the desired purpose, Fig. 1 of the drawing showing the free end of said hose 20 fitted into the receptacle 21 to be filled, which in the contemplated use of the invention may be the fuel tank of the tractor. The filling of the receptacle 21 is thus rendered a simple and easy operation, the tank 5 being located at any desired point where the user may wish to maintain a supply of the liquid fuel for tractor use. Where the threaded openings 6 of the tanks may vary to a certain extent in size, it may merely be necessary to make the bushing 7 in a few different sizes as regards the outside diameter thereof for taking care of this range of sizes of openings 6, the internal diameter of the bushing being maintained the same for fitting the same size of couplings 8.

It will thus be apparent that I have provided a simple and efficient coupling structure for fulfilling the desired object of the invention, and while I have illustrated what now appears to be the preferred construction thereof I desire to reserve the right to make such changes as may fairly fall within the scope of the appended claims.

What I claim is:

1. The combination with a container provided with a threaded opening, a bushing externally threaded to fit said opening, a hose coupling threaded through said bushing, and a pump having its base portion formed with a threaded socket screwed onto the outer end of said coupling.

2. The combination with a container provided with a threaded opening, a bushing externally threaded to fit said opening, a hose coupling threaded through said bushing, and provided with an annular shoulder abutting against said bushing, and a pump having its base portion formed with a threaded socket screwed onto the outer end of said coupling.

3. The combination with a container provided with a threaded opening, a bushing externally threaded to fit said opening, a pump having a base portion formed with a threaded socket, and a hose coupling threaded into said socket, said bushing being also internally threaded for the attachment of the coupled portions of said pump and hose coupling.

4. The combination with a container provided with a threaded opening, a bushing externally threaded to fit said opening, a pump having a base provided with handle portions and also formed with a threaded socket, and a hose coupling threaded into said socket, said bushing being also internally threaded for the attachment of the coupled portions of said pump and hose coupling.

In witness whereof I hereto affix my signature.

FRANK A. LANE.