

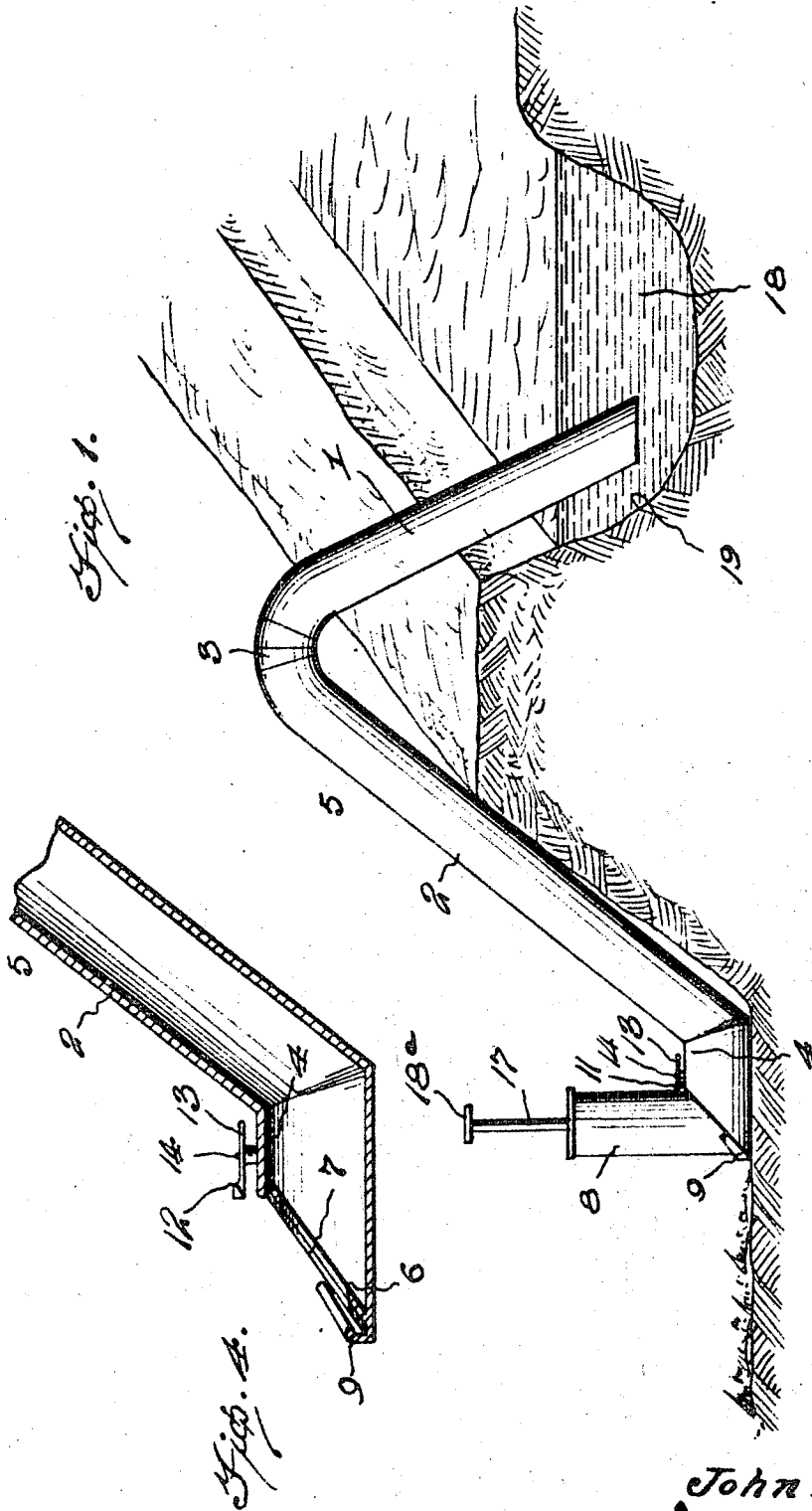
J. F. BROWN.
SIPHON.

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Patented Oct. 2, 1917.

2 SHEETS—SHEET 1.

1,241,916.



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1,241,916.

Patented Oct. 2, 1917.
2 SHEETS—SHEET 2.

Fig. 2.

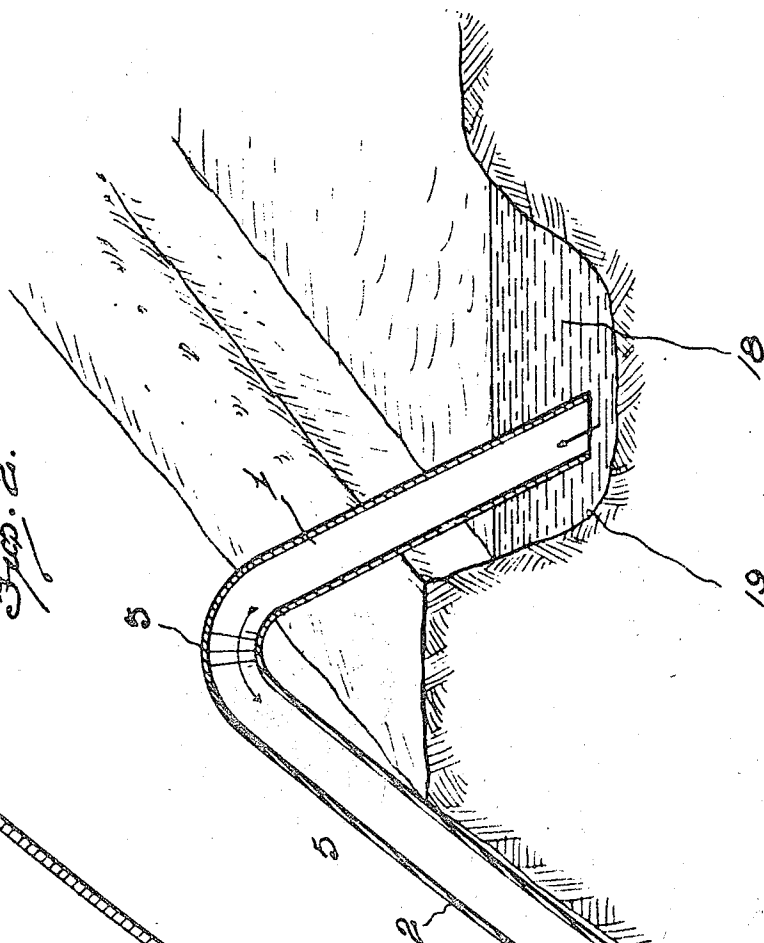
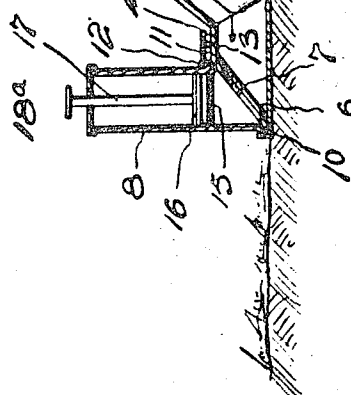
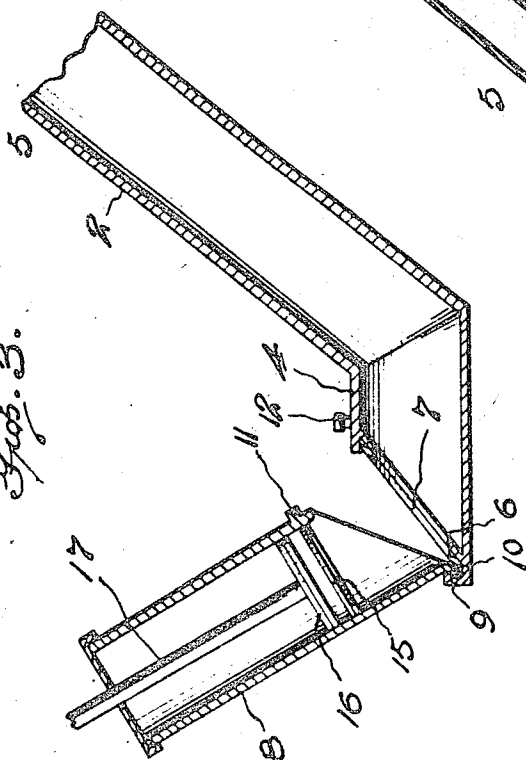


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SIPHON.

1,241,916.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN F. BROWN, a citizen of the United States, residing at Casa Grande, in the county of Pinal and State of Arizona, have invented certain new and useful Improvements in Siphons; 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.

This invention relates to siphons and more particularly to a portable siphon especially designed for irrigating purposes to conduct water from the irrigating ditches to the land to be irrigated.

The invention has for its object to provide a novel and efficient type of siphon especially designed for irrigating purposes and including a pump and means for detachably connecting the pump cylinder to the effluent end of the siphon, whereby the air may be exhausted from the latter and water drawn therein.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts as will be hereinafter specifically described, claimed and illustrated in the accompanying drawing, in which:

Figure 1 represents a side elevation of the improved siphon, illustrating the same operatively positioned relatively to a ditch and the land to be irrigated.

Fig. 2 represents a longitudinal sectional view through the siphon.

Fig. 3 represents a fragmental enlarged longitudinal sectional view through the siphon.

Fig. 4 represents an enlarged detail sectional view through the effluent leg of the siphon, the pump cylinder being removed.

Referring to the drawing in detail, the numeral 5 indicates the siphon generally which consists of an influent leg 1 and an effluent leg 2, the legs, as usual, being disposed at an angle to each other and connected at their adjacent extremities by a curved portion or elbow 3. The lower or outlet extremity of the effluent leg 2 is extended angularly, as indicated at 4, so as to lie approximately in a horizontal position when the siphon is in use, as illustrated in Figs. 1 and 2.

The terminal or outlet end of the horizontally disposed portion 4 of the effluent leg

is cut or beveled at an angle of approximately forty-five degrees and is provided, in spaced relation to the extreme end thereof, with an internal flange 6 providing a seat for an annular gasket 7 upon which is engaged the lower beveled extremity of the pump cylinder 8. The lower portion of the beveled edge at the outlet end of the horizontally disposed portion 4 of the effluent leg is formed with an angular flange retaining member 9 adapted to engage the outwardly turned portion 10 of the adjacent beveled end of the pump cylinder 8 to form a pivotal connection, so that the pump can be swung into position to form an air tight joint with the effluent leg. A lug 11 is formed integral with the lower portion of the pump cylinder 8 at a point diametrically opposite the lip or outwardly curved edge portion 10 thereof and is adapted to be engaged by the lower cam surface formed upon the head 12 of a locking member 13 pivotally secured at 14 to the upper portion of the horizontally disposed end 4 of the effluent leg.

A suitable type of inwardly closing check valve 15 is arranged in the pump cylinder adjacent the lower beveled extremity thereof, and a piston 16 is reciprocably mounted within said cylinder above the check valve. A piston rod 17 is secured to the upper surface of the reciprocable piston 16 and is provided at its opposite extremity with a suitable handle 17 whereby the piston may be conveniently operated.

The siphon and pump cylinder are preferably formed of relatively light sheet metal, whereby it may be conveniently transported from place to place over land to be irrigated, and in use, the siphon is set up in the position illustrated in Figs. 1 and 2, so as to immerse the inlet end of the influent pipe 1 in the water 18 contained in the ditch 19, the outlet end of the effluent leg 2 being supported upon the land by the horizontally disposed end 4 thereof. The piston 16, subsequent to immersion of the inlet end of the effluent leg 1 in the water, is reciprocated, thus exhausting the air within the siphon and filling the latter with water drawn therein from the ditch 19. When the siphon has been completely filled with water, the locking member 13 is swung upon its pivotal axis 14, thus disengaging the cam surface of the head 12 from the lug 11 and the free end of the pump cylinder

der 8 is swung downwardly and outwardly, as illustrated in Fig. 3, from the effluent leg 2 to the lip or outwardly curved edge 10 thereof and is disengaged from the angular flange 9 at the outlet end of the leg 2, thus permitting the siphon to operate in the usual manner.

What I claim is:

In combination, a siphon including influent and effluent legs, said effluent leg having an angular lower end for supporting it in operative position, an angular retaining flange formed on the lower portion of the edge of the angular end, a vertically disposed pump, said pump having an angular

end and an outwardly curved portion on the lower edge of the angular end adapted to engage the angular retaining flange on the effluent leg, whereby said pump can be swung downwardly, and means carried by the angular end of the effluent leg opposite the retaining flange for engagement with the upper edge of the angular end of the pump to lock the pump in position.

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

JOHN F. BROWN.

Witnesses:

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