C. S. HOWARD.

IRRIGATION DEVICE.

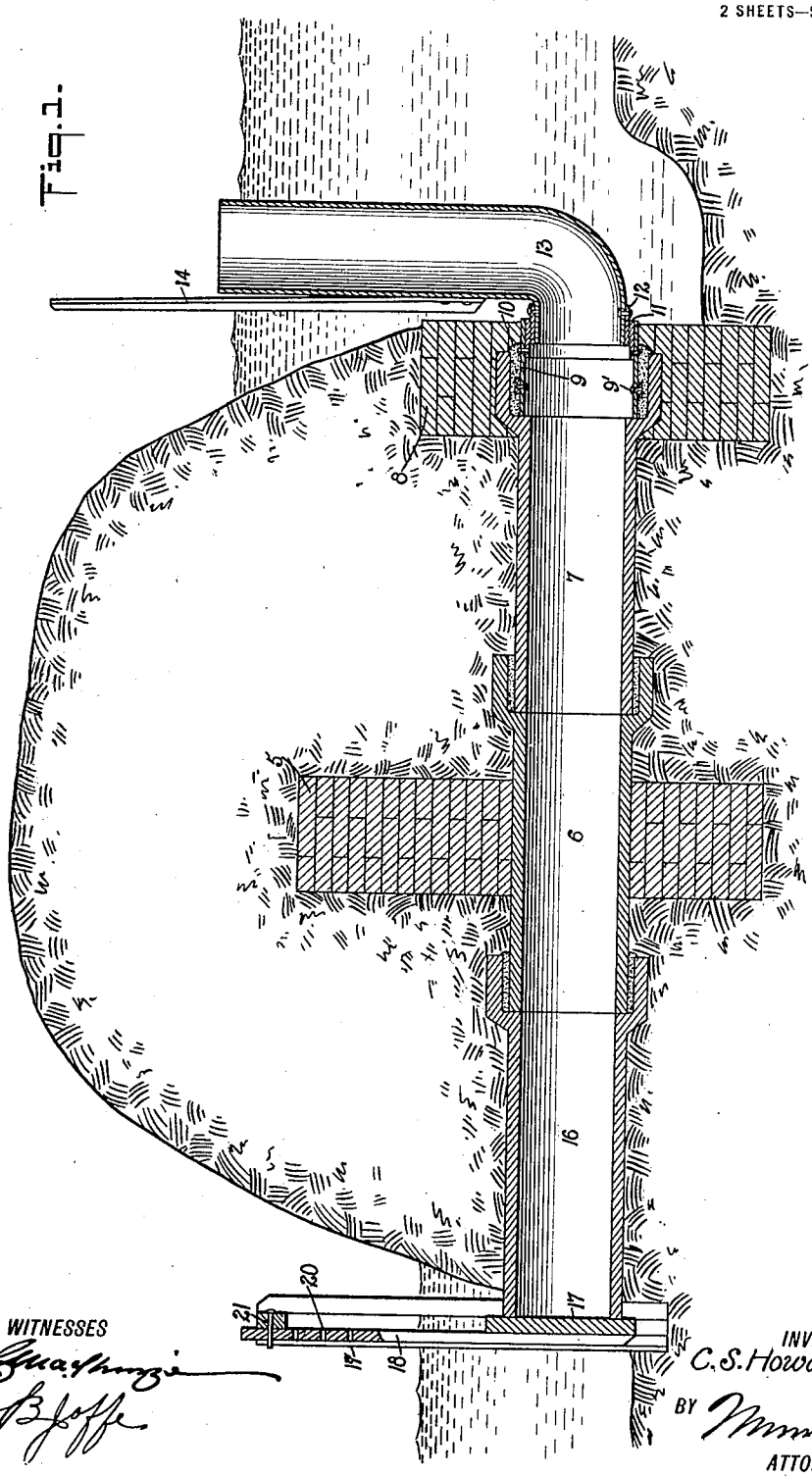
APPLICATION FILED JUNE 23, 1917.

1,281,008.

Patented Oct. 8, 1918.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

INVENTOR

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2 SHEETS—SHEET 2.

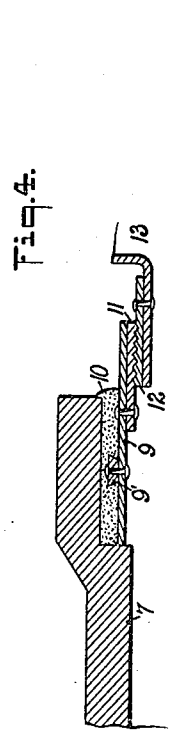


Fig. 4.

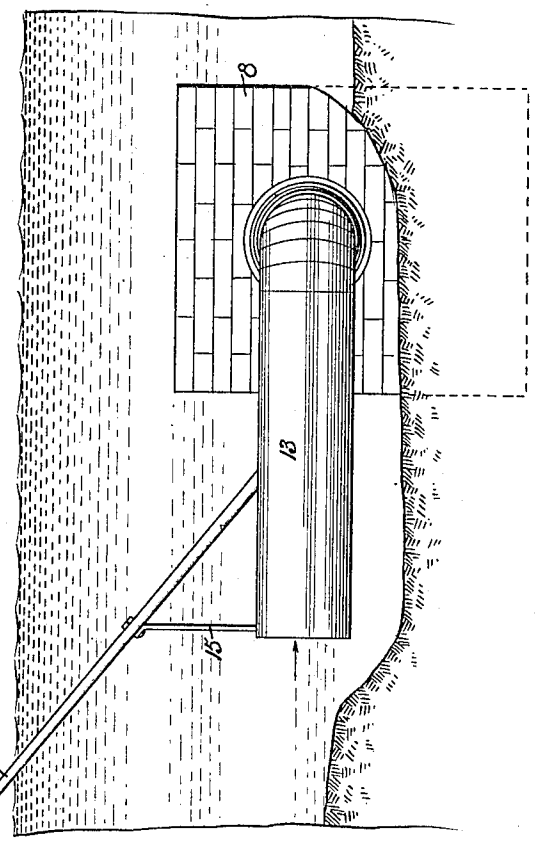


Fig. 3.

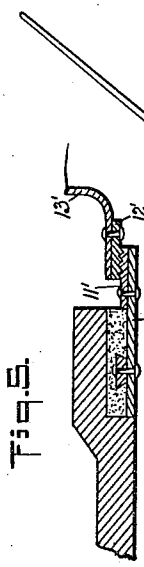


Fig. 5.

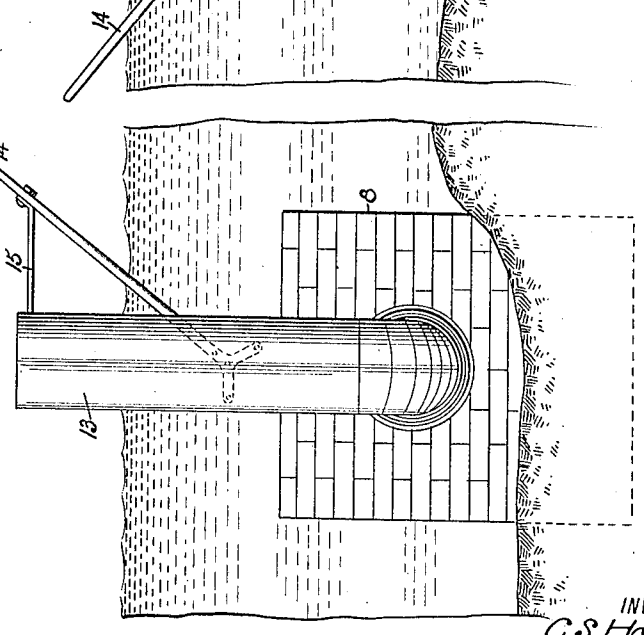


Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES SAMUEL HOWARD, OF BROWNSVILLE, TEXAS.

IRRIGATION DEVICE.

1,281,008. Specification of Letters Patent. Patented Oct. 8, 1918.

Application filed June 23, 1917. Serial No. 176,520.

To all whom it may concern:

Be it known that I, CHARLES S. HOWARD, a citizen of the United States, and a resident of Brownsville, in the county of Cameron and State of Texas, have invented a new and Improved Irrigation Device, of which the following is a full, clear, and exact description.

My invention relates to an irrigation device comprising a swivel joint whereby the inlet may be quickly placed into operative or into inoperative position and thereby the flow controlled.

An object of the invention is to provide a simple and inexpensive arrangement which is water tight and which can be easily manipulated.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

In the accompanying drawings, forming part of the application, similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal section through the device showing the same in inoperative position;

Fig. 2 is an end elevation of the device;

Fig. 3 is a similar elevation showing the device in the operative position;

Fig. 4 is an enlarged section through the swivel joint; and

Fig. 5 is a section similar to that shown in Fig. 4, showing a modified way of securing the elbow.

Referring to the drawings, 5 is the retaining wall of the canal through which protrudes a tube 6, preferably of earthenware, the female end of the pipe being directed toward the canal to receive the end of a similar pipe 7 which has its female part anchored in a brick pier 8. A tubular member 9 extends from the female part of the earthenware tube 7 to which said tubular member 9 is anchored by a layer of cement 10 which forms a seal. To insure the anchoring of the tubular member 9, lugs 9′ are provided on the outer surface of the tubular member 9 within the tube 7 by riveting the same to the tubular member or otherwise connecting it. In consequence when the cement joint is formed in the female part of the tube 7 it will engage the lugs 9′ and, therefore, lock the tubular member 9 to the tube 7. This seal prevents leakage between the junction of the tubular member and the earthenware tube 7. The outer end of said tubular member receives interiorly a threaded tubular portion 11 which is secured thereto by rivets as shown, or in any other suitable way.

A portion 12 threaded into the portion 11 is, in turn, secured to the shorter arm of an elbow 13. A bar 14 is secured to the longer arm of the elbow. This bar is adapted to protrude above the level of the liquid in the canal at any position of the elbow. The bar is preferably at an angle of 45° to the longer arm of the elbow in the end elevation of the device. A brace 15 binds the bar to the end of the elbow to increase the rigidity of the structure. The members 11 and 12 are preferably made of copper, while the tubular portion and elbow are preferably made of galvanized iron.

The male end of the tube 6 engages an earthenware tube 16, the structure of which forms the outlet end. At this end a gate 17 is provided whereby the outflow may be controlled. This gate is secured to slides 18 which are guided by a framework 19. These slides have perforations 20 at suitable intervals through which a pin 21 of the frame is adapted to protrude and whereby the gate 17 may be maintained at different levels so as to vary the outlet aperture of the tube 16.

The length of the longer arm of the elbow 13 is such that whenever it is in the vertical position it is always above the maximum water level in the canal, therefore the device is in inoperative position. By moving the longer arm of the elbow to the horizontal position, or to that shown in Fig. 3, it is brought into the operative position, and in that position it has a maximum head.

In the structure shown in Fig. 5 the elbow 13′ has the threaded ring portion 12′ secured to the inner surface of the shorter arm of the elbow. On the other hand, the threaded annular portion 11′ is secured to the outer surface of the tubular member 9′.

I claim:

In an irrigation device of the class described, an earthenware tube having a male

end and a female end, a metallic tubular member, lugs on the outer surface of said metallic tubular member, said metallic tubular member with the lugs adapted to enter the female part of said tube, a cement joint anchoring the tubular member to the earthenware tube, a threaded member secured to the metallic tubular member, an elbow in threaded engagement with said threaded member, a bar secured to the nonsecured end of the elbow whereby the elbow may be operated substantially as and for the purpose set forth.

CHARLES SAMUEL HOWARD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."