## C. M. SKILLEN.

## IRRIGATING APPARATUS.

No. 291,947.

Patented Jan. 15, 1884.

Fig. 1. Inventor: Witnesses: J. Henry Kaisel. Charlie Moza Skillen
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Mercut Intue Geo Thallwood.

# United States Patent Office.

#### CHARLIE MOZA SKILLEN, OF PASADENA, CALIFORNIA.

#### IRRIGATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 291,947, dated January 15, 1884. Application filed August 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLIE MOZA SKIL-LEN, a citizen of the United States, residing at Pasadena, Los Angeles county, State of Cali-5 fornia, have invented new and useful Improvements in Irrigating Apparatus, of which the following is a specification.

My invention relates to certain new and useful improvements in irrigating apparatus.

The object of my invention is to provide an apparatus which may be successfully employed for subsoil irrigation and fertilizing, which shall be simple and economic of construction, and requiring no skilled information 15 in its use; and with these ends in view my invention consists of a suitable portable reservoir provided with means for handling the same, and having at any convenient point in its base a downwardly-projecting nozzle com-20 municating with the interior of the reservoir, tapered at its lower end, and provided with proper exit-holes, and adapted to receive a vertically-movable bar or rod designed to serve as a means for making an advance chan-25 nel for the passage of the nozzle into the earth, all as will be hereinafter more fully set forth.

In order that those skilled in the art to which my invention appertains may know how to make and use the same, I will proceed to 30 describe the construction and method of using, referring by letters to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved irrigating apparatus, with a portion of 35 one side broken away; and Fig. 2 is a vertical section, taken at a line passing centrally through the projecting nozzle.

Similar letters indicate like parts in both

figures. A represents a reservoir made of any suitable material and proportions, and provided with carrying-handles B. At any suitable point in the bottom of the reservoir is arranged a downwardly-extended nozzle or tube, C, 45 the lower end of which is tapered, as shown, to facilitate its movement in the earth. This nozzle is hollow, as shown, to communicate with and conduct the contents of the reservoir, and is provided with suitable outlet-passages, I tially as and for the purpose set forth.

a, in its side and its bottom end, as clearly shown, the one in the lower end serving to permit the passage of an earth-penetrating bar or rod, D, which is provided at its upper end with a suitable handle or knob, and which has its lower end reduced to a point, so as to facilitate its passage into the earth. This rod or bar is of such dimensions as to freely pass through the lower end of the nozzle or tube C, and breaks or opens the earth in advance of the tube or nozzle C, so that the latter may be readily forced downward into the earth. The orifices or holes a in the nozzle, as will be seen by reference to Fig. 2, are beveled on the inside, so as to facilitate the egress of any fluid contained in the reservoir, and at the same time guard against the ingress of dirt. In placing the irrigator in position adjacent to the plants to be treated, the tube or nozzle C is forced into the earth with the assistance of the opening rod or bar D and the reservoir A, filled with water or fluid fertilizing material, after which the rod D is withdrawn and the contents of the reservoir permitted to gradually flow through the tube and find its exit through the orifices a. When the nozzle is properly disposed in the ground, the reservoir will have a firm seat upon the surface of the earth, and consequently the apparatus will not be subject to any undue strain. It will be understood that by the use of my improved apparatus, the water or fertilizing-fluid is applied at the point where it will do the most good, and with great economy of material.

In the use of my improved apparatus I do not wish to be confined to any special design or capacity, or to any particular material, as it may be varied in any or all of these particulars without departing from the spirit of my invention.

What I claim as new, and desire to secure by

Letters Patent, is— 1. The reservoir A, provided with suitable means for handling the same, and provided at some point in its base with a downwardly-projecting rigid tube or nozzle, C, adapted to be inserted into the earth, perforated, as described, to permit the egress of fluid, substan-

2. The nozzle C, perforated laterally, as described, and provided at its lowest extremity with a vertical orifice, in combination with the rod or bar D, whereby the earth may be opened in advance of the tube or nozzle, substantially as hereinbefore set forth.

3. The combination and arrangement of the reservoir A, nozzle C, and rod D, substantially

as and for the purpose set forth.

In testimony whereof I have hereunto set 10 my hand in the presence of two subscribing witnesses.

### CHARLIE MOZA SKILLEN.

#### Witnesses:

A. Brunson,

G. WILEY WELLS.