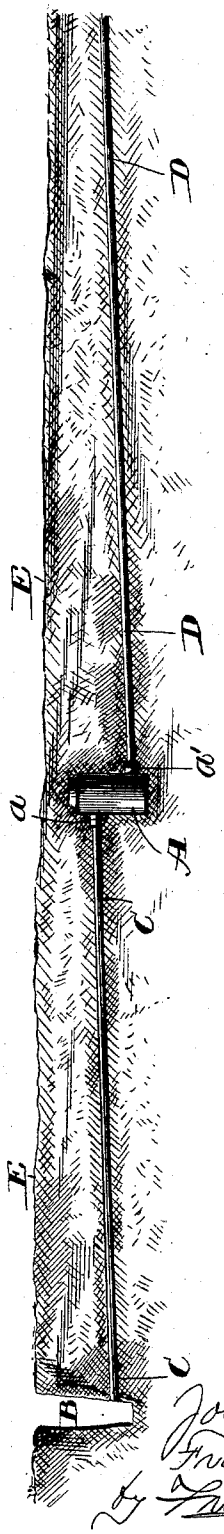
(No Model.)

J. & F. H. NICHOLSON.

SYSTEM OF DRAINAGE.

No. 483,236. Patented Sept. 27, 1892.

Fig. 1.



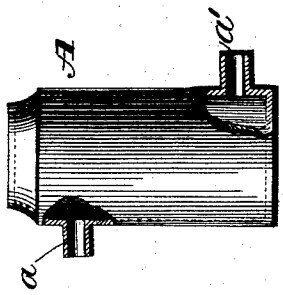


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

JOSIAH NICHOLSON AND FRANCIS H. NICHOLSON, OF BELVIDERE, NORTH CAROLINA.

SYSTEM OF DRAINAGE.

SPECIFICATION forming part of Letters Patent No. 483,236, dated September 27, 1892.

Application filed May 9, 1892. Serial No. 432,347. (No model.)

To all whom it may concern:

Be it known that we, JOSIAH NICHOLSON and FRANCIS H. NICHOLSON, citizens of the United States, residing at Belvidere, in the county of Perquimans and State of North Carolina, have invented certain new and useful Improvements in Systems of Drainage; and we do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

It is a well-known fact that in some countries and in some portions of the country where it is desirable and sometimes necessary to drain the land the fall is so slight as to render it impossible to drain the land by ordinary means and ordinary tile, as the fall is not sufficient to permit of satisfactory carrying off of the water. In such places it has sometimes been proposed to resort to pumps for forcing the water in some instances into a receptacle or receptacles situated intermediate the part to be drained and the place of deposit of the water. This has been found too expensive, and, besides, it requires the attendance and attention of one or more persons to manipulate the pump or pumps.

The object of this invention is to drain such lands by simple and cheap yet efficient means which shall be in a measure automatic in their action and by which the land shall be effectually drained, even where the fall is very slight. We have in practical operation a system in conformity with this invention draining over two hundred feet, in which the fall is about sixteen inches; yet the results are perfectly satisfactory. No pumps are required, and the land is effectually drained without the attention of any person. It is automatic in its action. It is very simple and cheaply constructed. It requires the work of only ordinary workmen and does not require skilled workmen. Hence it can be readily constructed by any ordinary farmer.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation showing one form of apparatus for carrying out our invention. Fig. 2 is a side elevation of the receptacle detached.

Like letters of reference indicate like parts in both of the views where they occur.

In carrying out our invention we place the receptacle A, which may be of any suitable shape, size, and material, at any desired distance from the lead ditch or drain B, and from the outlet-nipple *a* of this receptacle leads the pipe or tile C, which is slightly inclined from the said outlet to the drain. The receptacle is set vertically in the ground, as shown, and near its bottom it has an inlet-nipple *a'*, with which is connected the pipe or tile D, which is slightly inclined, as shown, and which may, if desired, in turn be connected with another like receptacle. (Not shown.) The letter E designates the surface of the ground being drained.

The operation will be readily understood. The tile or pipes are laid with sufficient inclination to give enough fall to allow the water to run easily, which, however, will not be great, and the tile C not only conducts away or takes off the water running into itself, but also the water entering the tile D, which runs into the receptacle or vessel A and is forced up into the said vessel, the top of which is below the upper end of the pipe D, and thus the water from the tile D is forced out through the tile C to the ditch.

It will thus be seen that the operation is practically automatic, that no pump is required, and no attention necessary on the part of an attendant. With this system low ground can be cheaply and easily drained, where it would be impossible to do so by the ordinary methods.

What is claimed as new is—

The combination, with a submerged receptacle having inlet and outlet nipples at top and bottom upon opposite sides, of piping communicating with said nipples and extending therefrom in opposite directions in oppositely-inclined parallel planes, with the inlet end of one above the outlet ends of both, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSIAH NICHOLSON.
FRANCIS H. NICHOLSON.

Witnesses:
O. C. COPELAND,
THOS. N. WHITE.