(Model.)

M. PAYNE, W. P. FOUST & R. M. THOMAS

DRAIN AND IRRIGATING TILE.

No. 253,093. Patented Jan. 31, 1882.

Fig. 1.

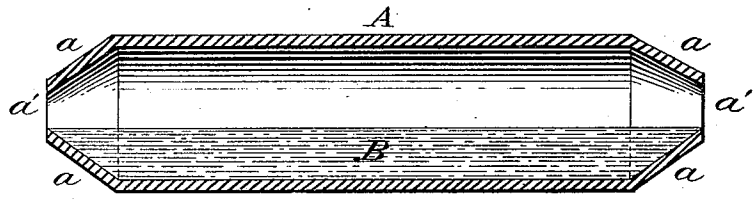


Fig. 2.

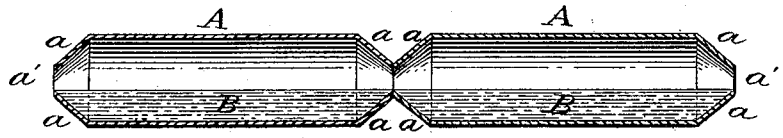


Fig. 3.

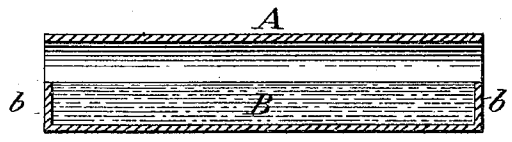
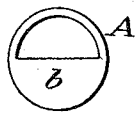


Fig. 4.



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UNITED STATES PATENT OFFICE.

MORGAN PAYNE, WILLIAM P. FOUST, AND ROBERT M. THOMAS, OF CARDINGTON, OHIO; SAID PAYNE ASSIGNOR TO MORGAN FOUST, OF SAME PLACE.

DRAIN AND IRRIGATING TILE.

SPECIFICATION forming part of Letters Patent No. 253,093, dated January 31, 1882.

Application filed April 22, 1881. (Model.)

To all whom it may concern:

Be it known that we, MORGAN PAYNE, WM. P. FOUST, and ROBT. M. THOMAS, citizens of the United States, residing at Cardington, in the county of Morrow and State of Ohio, have invented a new and useful Drain and Irrigating Tile, of which the following, when taken in connection with the accompanying drawings, is a full, clear, and exact description thereof.

Our invention relates to a combined drain and irrigating tile; and our invention consists of a tile having contracted ends, whereby a reservoir is formed in the interior of each tile of any required or desired dimension, as will be more fully set forth.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of our preferred form of tile. Fig. 2 is a view in perspective, showing the tiles as laid in position. Fig. 3 is a modification, and Fig. 4 is an end view of Fig. 3.

A is our improved tile, having the ends thereof contracted to form cone-shaped ends *a a*, with the opening *a'* at the apex. By contracting the ends as above described a reservoir, B, is formed, which is charged or filled with water during the wet seasons, and, when filled, the excess or surplus water is carried off through the openings *a'* to the next contiguous or abutting tile, and thereby effectually draining the land. In the dry season the water stored in the reservoirs is given off by evaporation or by filtering through the sides of the pipes to the surrounding earth, and thus the tiles are made to perform the double function of draining and irrigating the land.

The tiles are formed of clay in the usual manner. The upper portion, or part which is designed to lie uppermost, may be made porous and unglazed, while the lower portion may be glazed. We may, however, find it advantageous to make the entire tile porous, which may be done by mixing sawdust or pulverized charcoal or other finely-disintegrated inflammable substance with the clay, which will burn out during the process of firing or burning the tile and leave the body of the tile porous, while the under portion can be glazed or not, as desired.

In Fig. 3 we have shown a modification, which consists of forming dams *b* in both ends of an ordinary tile, thus providing reservoirs for the retention of water. Other forms than those herein set forth may be employed without departing from the spirit of our invention, the essence or essential feature of which is forming reservoirs or water-receptacles in drain-tiles, whereby a portion of the water is retained in draining the land, so as to be given off or utilized for irrigating purposes in dry seasons of the year.

We are aware that tiles and pipes for sewage purposes have been formed with reservoirs therein for holding water to form traps to prevent the passage of sewer-gas into buildings and rooms; but such is not our invention.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a draining and irrigating tile provided with a reservoir or liquid-holding compartment, as set forth.

2. A tile for draining and irrigating purposes, the same consisting of a plain cylindrical or other shaped tile or conduit, with contracted ends to form a reservoir therein, as set forth.

3. The process herein described of draining and irrigating land, the same consisting in forming the drain tiles or conduits with water-holding compartments or reservoirs, which are filled with water during the rainy or wet season, which evaporates or percolates into the soil to irrigate the same in the dry season.

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