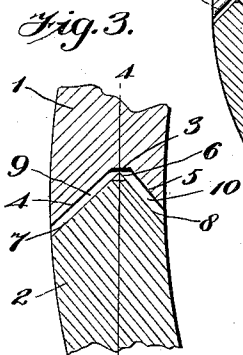
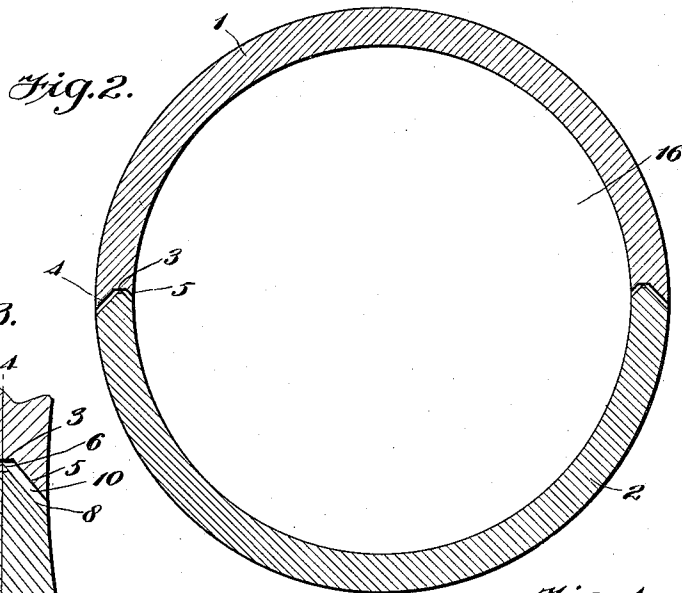
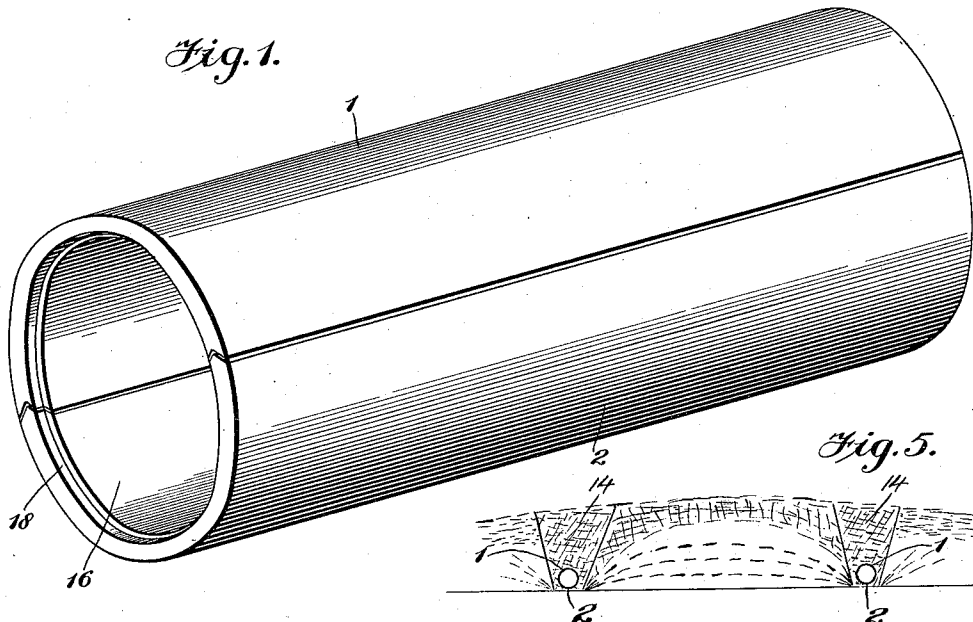


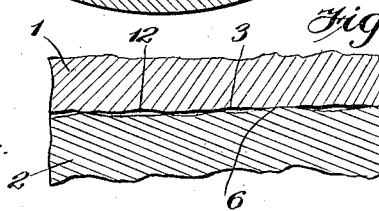
J. M. WILSON.
DRAIN TILE.
APPLICATION FILED OCT. 9, 1911.

1,014,549.

Patented Jan. 9, 1912.



Witnesses
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Declar. W. Helwig



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UNITED STATES PATENT OFFICE

JOHN M. WILSON, OF LOTTIE, LOUISIANA.

DRAIN-TILE.

1,014,549.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed October 9, 1911. Serial No. 653,624.

To all whom it may concern:

Be it known that I, JOHN M. WILSON, a citizen of the United States, residing at Lottie, in the parish of Pointe Coupee and State of Louisiana, have invented certain new and useful Improvements in Drain-Tiles; 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 drain tiles and has for its object to produce tiles of this nature, which will be efficient in carrying off the surplus water of the soil, and yet will not fill up with silt or sand as readily as the tiles now in use.

With these ends in view the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals designate like parts in all the views:—Figure 1 is a perspective view of a tile built in accordance with my invention; Fig. 2 is an enlarged cross sectional view of the parts shown in Fig. 1; Fig. 3 is an enlarged detail sectional view of the joint employed in my tile; Fig. 4 is a longitudinal section taken on the line 4—4 of Fig. 3; and, Fig. 5 is a diagrammatic cross section of the soil showing my tiles in use.

1 represents the top body portion made of any suitable material, but preferably of baked clay, cement, or analogous material, and 2 the bottom portion of a tile made of similar material. The edges of the top portion 1 are provided with inverted V-shaped grooves having a bottom 3, an outer surface 4, and an inner surface 5, as shown. The edges of the bottom portion 2 are provided with complementary surfaces 6, 7 and 8 respectively, but the space between the surfaces 4 and 5 is made larger than the space occupied by the surfaces 7 and 8, so that an upwardly inclined passage 9, and a downwardly inclined passage 10 is provided between the edges of the said parts 1 and 2, as indicated.

In addition to the above, the edges 3 of the V-shaped grooves in the upper portion 1, and the extreme edges 6 of the lower portion 2 are more or less uneven, as is shown on an exaggerated scale in Fig. 4, and there-

fore slight passages 12 are provided. It results therefore from the construction just disclosed that when the tiles are buried in the ground 14, as illustrated in Fig. 5, water may pass upwardly through the passage 9, horizontally through the smaller passages 12, and downwardly through the passages 10, and into the main channel 16 of the tile where it will be drained off. On the other hand, any sand, silt, or other material which would be otherwise carried into the tile will be stopped first by the passage 9, owing to the fact that the said material is heavier than water, and will naturally not be carried upwardly through said passage 9 against the action of gravity, and the passage of said silt or sand will be further stopped by the passages 12, while water is provided with a free passage into the interior. It therefore results from the structure disclosed that drain tiles provided with my passages 9, 12 and 10 will be less liable to fill up with silt, sand or sediment than would tiles provided with straight passages as has been hertofore proposed. Another important feature of my invention resides in the fact that no passages occur in the top portion of my tile. That is to say, the top portion is impervious to water, and the water of necessity must drain down around the sides of the tile and move upwardly before it can enter the same.

Any suitable joint such as 18 may be provided in the tile for connecting it with the next section.

It is obvious that those skilled in the art may vary the details of construction and the arrangement of parts without departing from the spirit of my invention, and therefore I do not wish to be limited to the above disclosure except as may be required by the claims.

What I claim is:—

1. A drain tile having upwardly and downwardly extending passages through its body portion, adapted to permit water to enter the tile, but sufficiently small to retard under the action of gravity the passage of material heavier than water, substantially as described.

2. A drain tile having an impervious top portion, and upwardly extending passages through its side portions, adapted to admit water into the tile and to retard the passage of material heavier than water, substantially as described.

3. A drain tile comprising a top semi-cylindrical portion having inverted V-shaped grooves on its edges; and a similar bottom portion the edges of which are provided with angularly disposed surfaces adapted to coact with said grooves to form upwardly and downwardly extending passages adapted to permit the passage of water into the tile, but to retard the passage

of material heavier than water, substantially 10 as described.

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

JOHN M. WILSON.

Witnesses:

T. L. JEWELL,

A. J. MATHERNE.

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