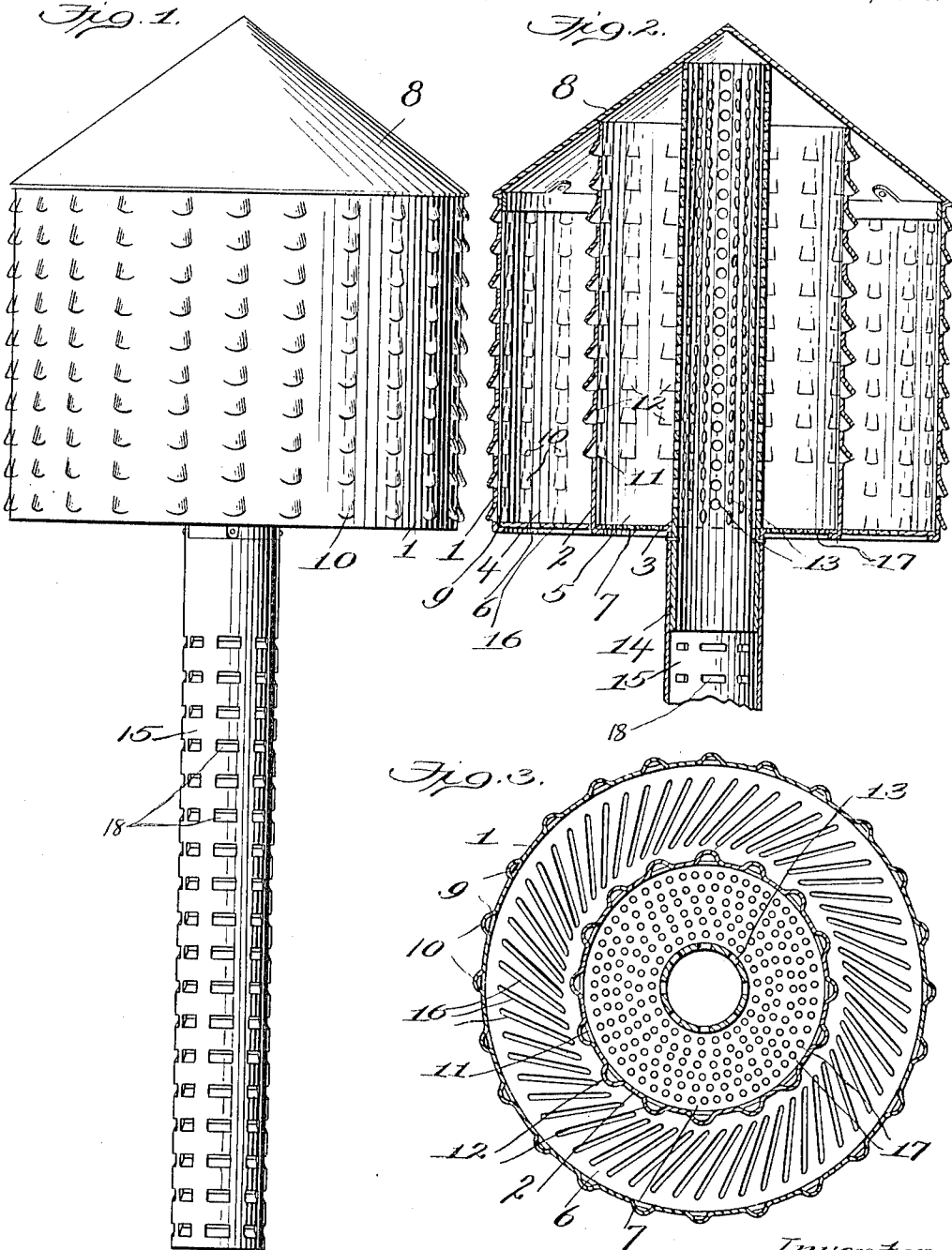


J. M. PETERSEN.
DRAIN HEAD.
APPLICATION FILED MAY 3, 1913.

1,079,262.

Patented Nov. 18, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHANNES M. PETERSEN, OF CLINTON, IOWA.

DRAIN-HEAD.

1,079,262.

Specification of Letters Patent.

Patented Nov. 18, 1913.

Application filed May 3, 1913. Serial No. 765,359.

To all whom it may concern:

Be it known that I, JOHANNES M. PETERSEN, a citizen of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented new and useful Improvements in Drain-Heads, of which the following is a specification.

This invention relates to improvements in drain heads for use in effecting the drainage of water from wet lands or other places wherein there is a tendency for water to accumulate, and the drainage of such water is desired. The construction proposed is of that type wherein a number of concentrically related screens are provided, which define filtering chambers through which the water flows, and the principal object of the present invention is to provide an arrangement of the character stated, in which the water is delivered to the drain tile virtually free from dirt or solid matter of such character as would tend to interfere with the drainage of the land, and in which there is a maximum capacity for drainage.

The object above stated is achieved by the provision of screening openings of such size that they will effectually take care of the water lying at the inner surface, and will not become clogged by solid matter, and by the provision of means for preventing solid matter, for the most part, from passing through said openings, and of means for disposing of any solid matter that may pass through the openings before the water reaches the drain tile.

Other objects and advantages will appear as the description proceeds.

An embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is an elevation of a drain head in which the features of the invention are incorporated; Fig. 2 is a vertical central sectional view thereof; Fig. 3 is a horizontal sectional view thereof.

Similar characters of reference designate corresponding parts throughout the several views.

In the embodiment shown, the drain head comprises an outer cylindrical wall 1, an intermediate cylindrical wall 2, and an inner cylindrical wall 3, these walls defining outer and inner filtering chambers 4 and 5, which are to be filled with gravel or some other

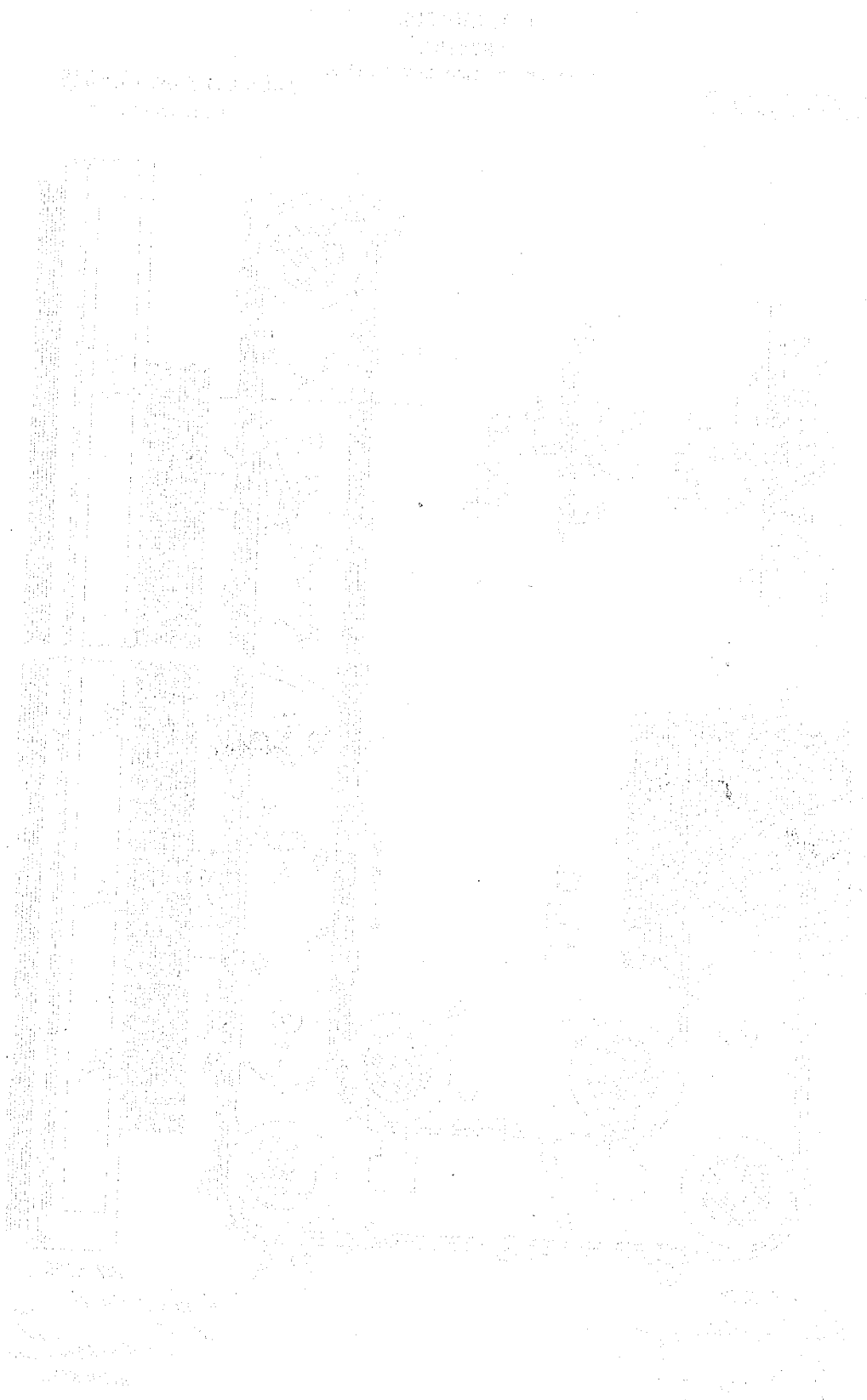
agent suitable for the purposes in view; bottom plates 6 and 7 for the chambers 4 and 5; and a conical top 8 which forms a common closure for the chambers 4 and 5 and for the upper end of the wall 3. The walls 1, 2, and 3 are preferably of progressively increasing height, and their upper edges engage the top 8 and furnish support therefor. It is preferred to employ a conical top, since a top of such form aids in preventing dirt from packing around the drain head and facilitates the flow of water into the dirt surrounding the head.

The wall 1 is provided with openings 9 through which water flows into the filtering chamber 4. The openings 9 are of relatively large dimensions, and are relatively closely associated. The essential characteristic of said openings is that they are overhung by downwardly and outwardly inclined lips 10 which prevent the passage into the chamber 4 of the greater percentage of dirt which would otherwise pass into said chamber with the water, were said lips not provided.

The wall 2 is formed with openings 11 which, in consideration of the facts that the wall 2 is of smaller diameter than the wall 1 and must pass all the water which passes through the wall 1, are preferably of greater dimensions than the openings 9, and also more closely associated. The openings 11 may be, and preferably are, formed with lips 12, similar to the lips 10, and having for their purpose the prevention of the passage of dirt or solid matter into the filtering chamber 5.

The wall 3 is provided with closely associated apertures 13, through which the water passes into the interior of said wall from the chamber 5. The openings 13 are formed throughout the extent of the wall 3 between the conical cover 8 and the bottom plate 7. The wall 3 has an extended portion 14 below the bottom of the drain head, by means of which the drain head may be attached to the tile 15, used for carrying the water to a suitable depth in the ground and to a strata of rock, gravel, or the like.

The bottom plates 6 and 7 are provided with openings 16 and 17, through which any dirt that may be carried by the water into the filtering chambers 4 and 5, and which is precipitated to the bottom of the chambers, may pass into the ground. In



ing lips and the inner wall having its openings of greater dimensions than the openings in the outer wall.

5 9. A drain head comprising concentric walls provided with drainage openings and defining inner and outer filtering chambers, the outer and intermediate walls having their openings provided with outwardly projecting overhanging lips.

10 10. A drain head comprising concentric walls provided with drainage openings and defining inner and outer filtering chambers, the outer and intermediate walls having

their openings provided with outwardly projecting overhanging lips, and the open- 15 ings in the intermediate wall being of greater dimensions than the openings in the outer wall.

In testimony whereof I have hereunto set my hand in presence of two subscribing 20 witnesses.

JOHANNES M. PETERSEN.

Witnesses:

JOHN L. WOLFE,

CASSIE LYONS.

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