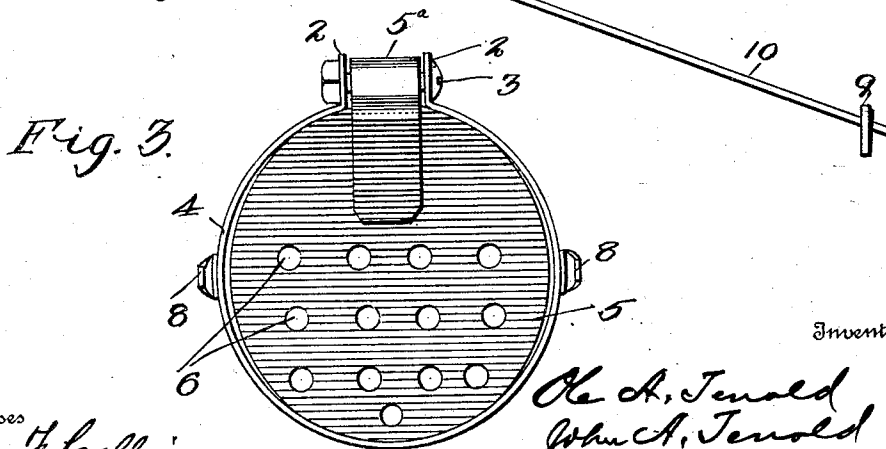
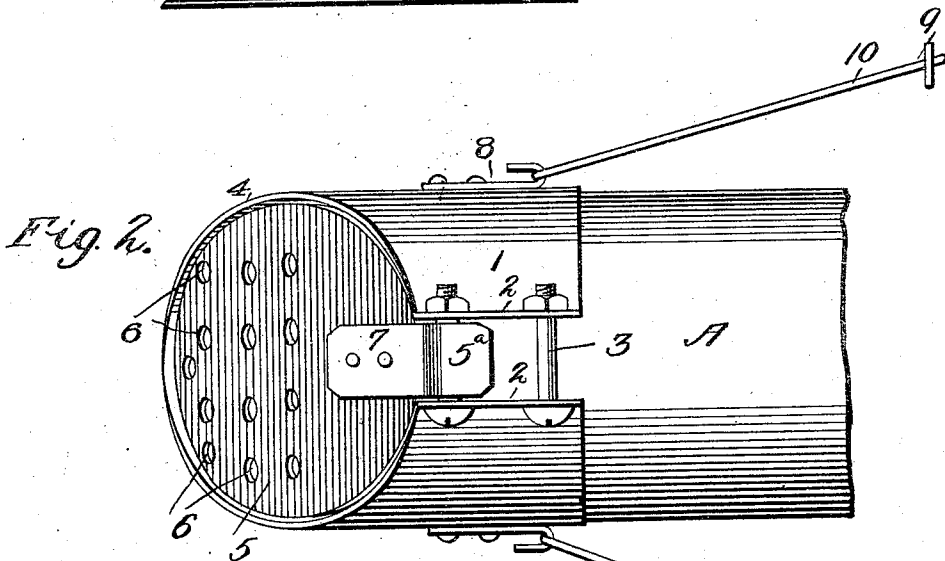
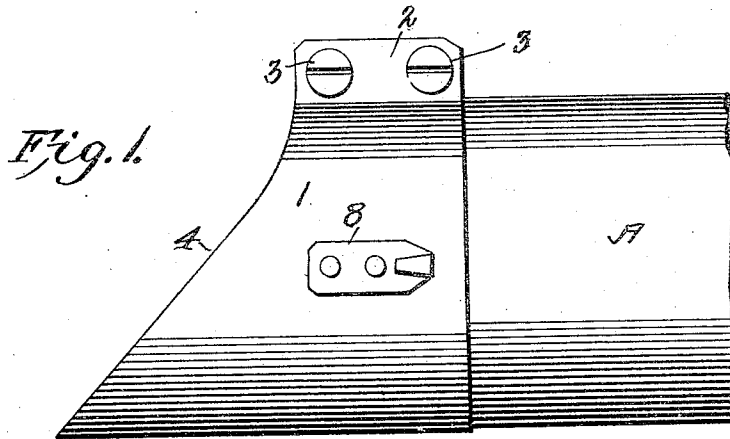


O. A. & J. A. TENOLD.
SEWER AND DRAIN TILE OUTLET PROTECTOR.
APPLICATION FILED MAR. 9, 1909.

929,514.

Patented July 27, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

OLE A. TENOLD AND JOHN A. TENOLD, OF NORTHWOOD, IOWA.

SEWER AND DRAIN-TILE OUTLET PROTECTOR.

No. 929,514.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed March 9, 1909. Serial No. 482,285.

To all whom it may concern:

Be it known that we, OLE A. TENOLD and JOHN A. TENOLD, citizens of the United States, residing at Northwood, in the county of Worth and State of Iowa, have invented certain new and useful Improvements in Sewer and Drain-Tile Outlet Protectors, of which the following is a specification.

Our invention relates to the protection of the outlets of drain tiles and sewers from vermin and has for its object the provision of a device that is capable of being readily attached to and removed from the drain tile, that is reasonable in cost of manufacture, and effective in operation.

Our invention consists essentially of an open sleeve having flanged ends secured together by bolts, the outer end of the sleeve being oblique, and having an elliptically shaped gate mounted therein and pivoted on the forwardmost bolt used to secure the sleeve on the tile.

Our invention will be described in detail hereinafter and illustrated in the accompanying drawings in which—

Figure 1 is a side view of the end of a drain tile or sewer outlet with our improved protector in place thereon, Fig. 2, a top plan view, and Fig. 3, a front view.

In the drawings similar reference characters indicate corresponding parts in the several views.

A indicates a sewer pipe or drain tile to which our improved outlet protector is removably and replaceably secured, said protector consisting of an open sleeve 1 having its meeting edges formed with flanges 2 through which are secured bolts 3 to hold the sleeve in position on the end of the pipe or tile A. The delivery end of sleeve 1 is formed obliquely as shown at 4 and has a gate 5 therein pivotally secured by means of hinge 5^a to the forwardmost of the bolts 3. The gate 5 is made elliptical in shape and provided with a number of holes 6 that will permit the egress of a moderate flow of water from the tile or pipe A, without disturbing the gate, but should the flow increase the gate will be raised thereby to permit it to flow and when the flow lessens the gate will return to its normal position by gravity and serve to prevent vermin from entering the tile or pipe.

7 indicates a plate secured to the gate 5 and having its free end secured and extended around hinge 5^a and outwardly to form a

stop to limit the upward movement of the gate.

8 indicates hooks on the sides of the sleeve 1 to which are secured anchors consisting of plates 9 and chains or cables 10 connecting the plates and the hooks.

Having thus described our invention what we claim is —

1. A sewer and drain tile outlet protector consisting of a sleeve open at one side and having outwardly extending flanges, said sleeve being adapted to fit over the outside of the end of a drain tile, bolts secured through the flanges to adjust the sleeve on the tile, and a gate pivotally secured to the end bolt between the flanges.

2. A sewer and drain tile outlet protector consisting of a sleeve open at one side and having outwardly extending flanges, said sleeve being adapted to fit over the outside of the end of the drain tile, bolts secured through said flanges to adjust the sleeve on the tile, a gate pivotally secured to the forwardmost bolt, and a stop extending from the pivotally secured portion to engage the end of the drain tile and limit the upward swing of the gate.

3. A sewer and drain tile outlet protector consisting of a sleeve shaped to fit over the outside of the end of the sewer or drain tile and having outwardly extending flanges, bolts secured through said flanges, the front of the sleeve being inclined, and a perforated gate pivotally secured to the forwardmost bolt and resting in the inclined opening in the sleeve, said gate being elliptical in shape to fit said opening.

4. A sewer and drain tile outlet protector consisting of a sleeve open at its top and having outwardly extending flanges, said sleeve being adapted to fit over the outside of the end of the drain tile and having its front end inclined, bolts secured through said flanges to adjust the sleeve on the tile, a gate mounted in the inclined opening of the sleeve and hinged to the forwardmost bolt, and a stop extending from the pivotally secured portion to engage the end of the drain tile and limit the upward swing of the gate.

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

OLE A. TENOLD.

JOHN A. TENOLD.

Witnesses:

R. H. DOUGLAS,

W. A. WESTFALL.