

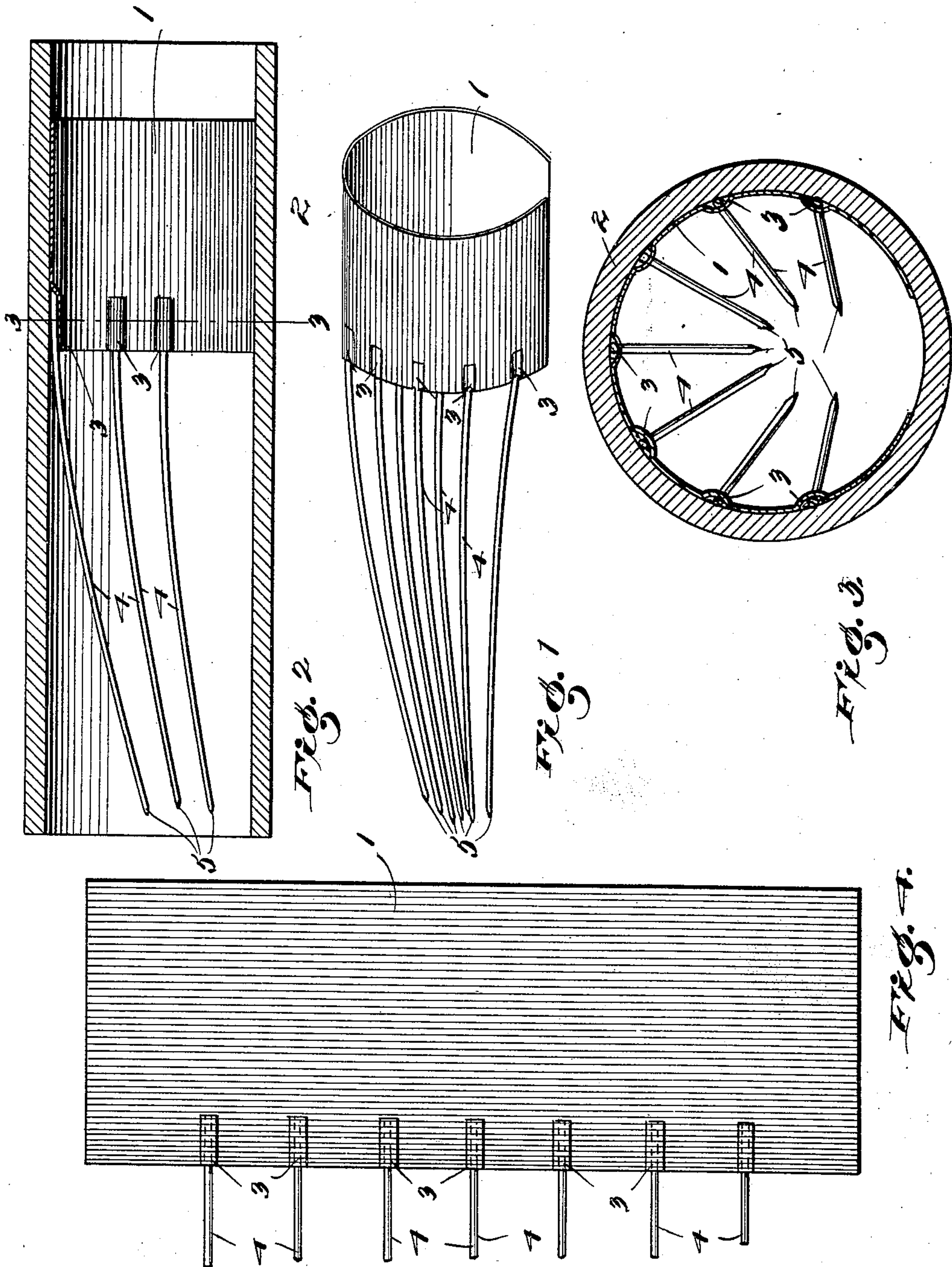
M. N. HAGAMAN, L. V. SMILEY & G. W. HALL.

TILE AND SEWER DRAIN PROTECTOR.

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999,106.

Patented July 25, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

MARTIN N. HAGAMAN, LUTHER V. SMILEY, AND GEORGE W. HALL, OF LA FAYETTE,
INDIANA.

TILE AND SEWER-DRAIN PROTECTOR.

999,106.

Specification of Letters Patent. Patented July 25, 1911.

Application filed October 15, 1910. Serial No. 587,265.

To all whom it may concern:

Be it known that we, MARTIN N. HAGAMAN, LUTHER V. SMILEY, and GEORGE W. HALL, citizens of the United States, residing
5 at La Fayette, in the county of Tippecanoe and State of Indiana, have invented certain new and useful Improvements in Tile and Sewer-Drain Protectors, of which the following is a specification, reference being had
10 therein to the accompanying drawing.

This invention relates to protectors or guards for sewer, drain, and other pipes, and the principal object of the same is to provide a device of the character stated that can be
15 readily placed in a pipe, tile or sewer drain and which will prevent animals entering the same without interfering at all with the customary use of the pipe, tile or sewer drain.

In carrying out the objects of the invention generally stated above it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of
25 which is shown in the accompanying drawings, wherein:—

Figure 1 is a detail perspective view of the improved guard. Fig. 2 is a longitudinal sectional view of a pipe showing the
30 practical application of the guard. Fig. 3 is a transverse sectional view taken on the line 3—3, Fig. 2. Fig. 4 is a detail plan view of the improved guard as it appears before being rolled for insertion in a pipe,
35 tile or sewer drain.

Referring to the accompanying drawings by numerals, it will be seen that the improved guard has been shown as composed of a body 1 that is formed of resilient sheet
40 metal which can be rolled into cylindrical form to facilitate the placing of the same in a pipe, tile or sewer drain 2. Said body being resilient, it will be seen that the same will expand and bind upon the inner sur-

face of the pipe so that water and the like 45 passing through the pipe will not dislodge the body.

The forward edge of the body 1 is provided with a plurality of regularly spaced crimps 3 which forms seats for the inner 50 ends of the impaling pins or prongs 4. Said pins or prongs are soldered or otherwise fastened to the seats 3. The pins or prongs 4 are resilient and their free ends 5 drop toward the lower portion of the pipe tile or 55 sewer drain so that if an animal attempts to enter the pipe, tile or sewer drain, the sharpened points of the pins or prongs will injure the animal so that it will quickly leave the pipe, tile or sewer drain. And the pins 60 or prongs being resilient, it will be seen that waste matter passing through the pipe, tile or sewer drain will lift the free ends of the pins or prongs so that clogging of the pipe, tile or sewer drain is prevented. 65

What we claim as our invention is:—

1. A tile and sewer drain protector comprising a body formed of a strip of sheet metal having one end edge provided with regularly spaced seats, said body being 70 adapted to be rolled into tubular form, and penetrating prongs or pins carried by and projecting from said seats.

2. A tile and drain protector comprising a body formed of resilient material adapted 75 to be rolled into cylindrical form, said body having seats formed on the outer surface of one end thereof, and penetrating prongs carried by said seats.

In testimony whereof we hereunto affix 80 our signatures in presence of two witnesses.

MARTIN N. HAGAMAN.
LUTHER V. SMILEY.
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Witnesses:

F. M. READ,
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