J. A. SANDERS.

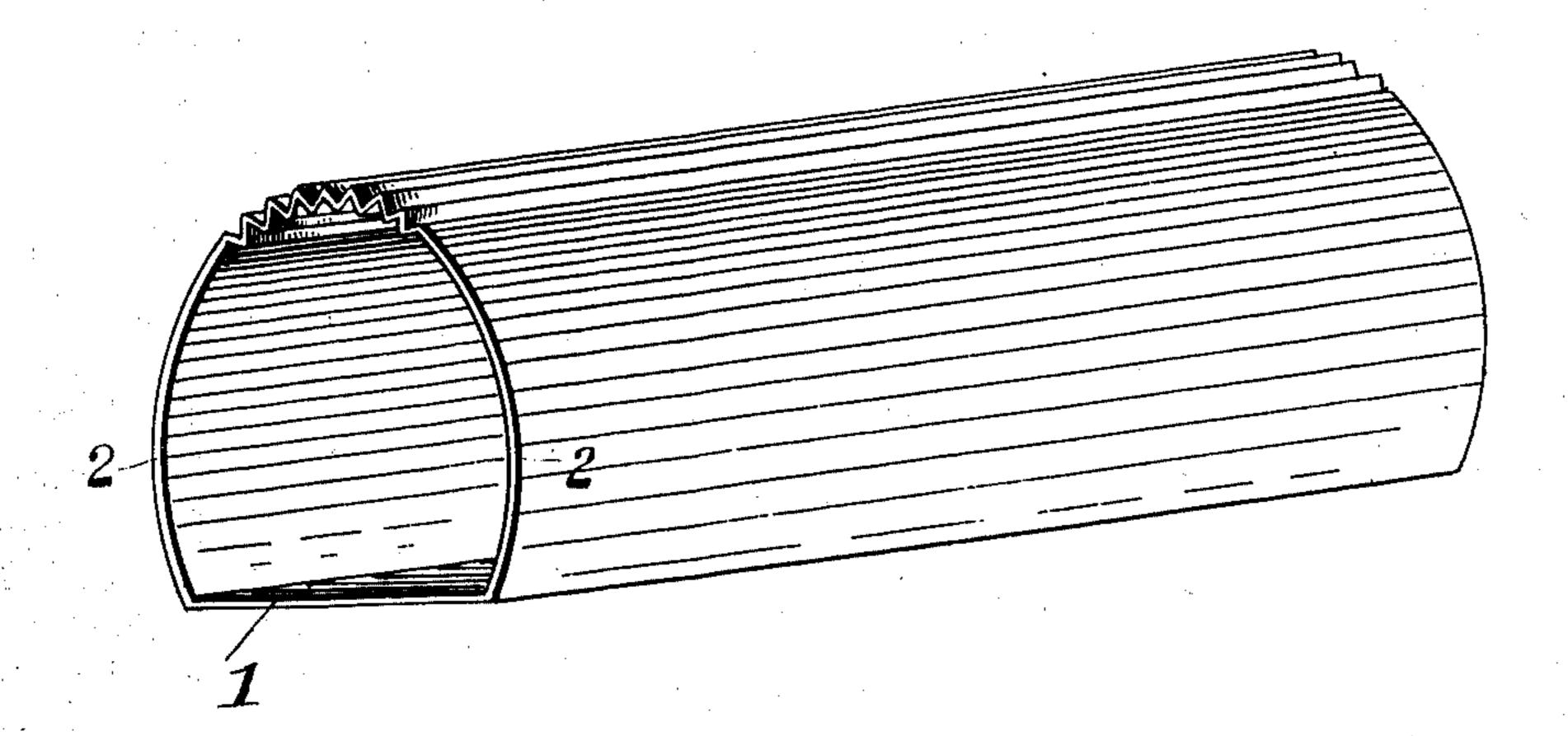
METAL DRAIN PIPE.

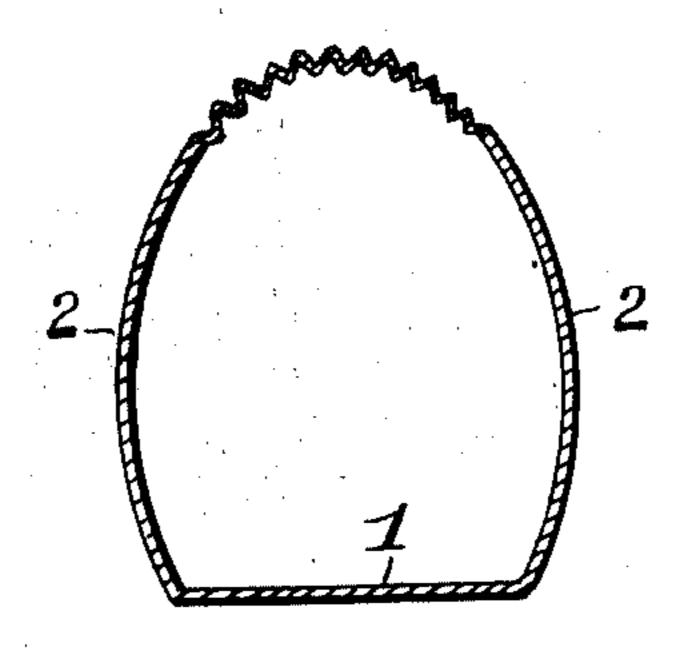
APPLICATION FILED OCT. 30, 1907.

909,027.

Patented Jan. 5, 1909.

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## UNITED STATES PATENT OFFICE.

JOSEPH A. SANDERS, OF CAYUGA, INDIANA.

## METAL DRAIN-PIPE.

No. 909,027.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed October 30, 1907. Serial No. 399,925.

To all whom it may concern:

Be it known that I, Joseph A. Sanders, a citizen of the United States, residing at Cayuga, in the county of Vermilion and 5 State of Indiana, have invented certain new and useful Improvements in Metal Drain-Pipes, of which the following is a specification.

My invention relates to an improvement 10 in metal drain pipes, and one object is to provide a pipe of such form that it will have the greatest possible carrying capacity considering the strength of the pipe.

Another object is to provide a pipe which 15 will preclude the lodgment of dirt or other

drift.

Still another object is to provide a pipe with a smooth flat bottom so the bottom of the trench can be finished for laying the 20 drain pipe with a smooth packed surface.

A further object is to provide a pipe having the greatest possible strength in the top surface and for the upper portion of the sides when the pipe is buried in a trench.

With the foregoing and other objects in view, my invention comprises a metal drain pipe having a flat bottom and convex sides and V-shaped corrugations at the top and upper portions of the sides extending 30 lengthwise of the pipe so that in cross-section the pipe has a general horse-shoe shape, which gives it the largest capacity and the greatest strength possible in consideration of its size.

My invention further consists in certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings:—Figure drain pipe. Fig. 2 is a transverse section.

The pipe is provided with the flat bottom 1, and the convex sides 2, 2, extending up-

wardly from the edges of the bottom at an angle slightly greater than a right angle, and 45 the top is in the form of a plurality of V-shaped corrugations extending longitudinally of the pipe. This longitudinal Vshaped corrugated convex top and upper sides afford an exceedingly strong support- 50 ing surface in those portions, and the general transverse shape is such that it gives the greatest space in the lower portion which has a tendency to keep the water from rising in the drain pipe or about the 55 entrance of the pipe. Thus the pipe has the greatest possible strength to resist pressure from without in proportion to its carrying capacity, it being reached at all points except the bottom which latter is adapted to 60 be supported on a solid foundation.

Slight changes might be resorted to in the form and arrangement of the several partsdescribed without departing from the spirit and scope of my invention, and hence I do 65 not wish to limit myself to the exact construction herein set forth, but:--

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A drain pipe having a flat bottom, smooth sides and longitudinally corrugated top.

2. A drain pipe having a flat bottom, smooth arched sides and a longitudinally 75 corrugated top.

3. A drain pipe having a flat bottom, smooth sides and a longitudinally corrugated top, said corrugations being V-shaped.

In testimony whereof I affix my signature 80 in presence of two witnesses.

## JOSEPH A. SANDERS.

Witnesses:

Edward Coates, Oscar B. Zell.