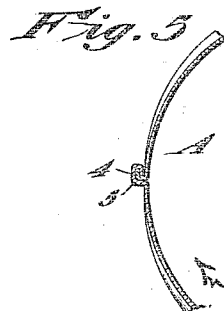
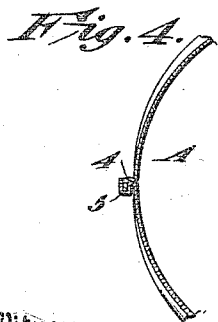
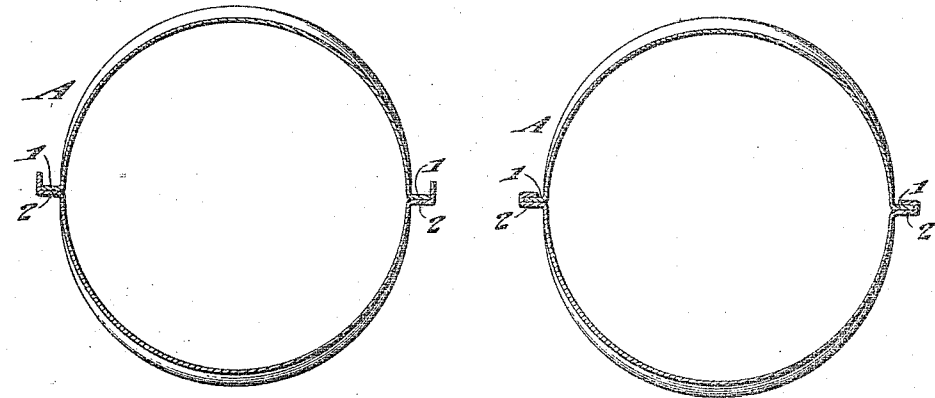
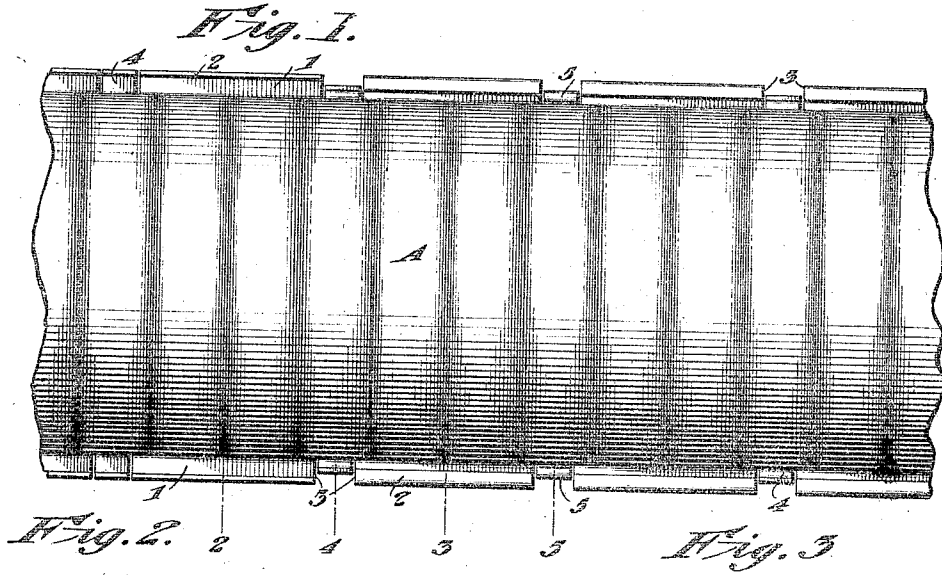


M. A. QUINN & L. C. STEWART.
CULVERT.

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995,180.

Patented June 13, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

MARSHALL A. QUINN AND LYMAN C. STEWART, OF ROANOKE, VIRGINIA.

CULVERT.

995,180.

Specification of Letters Patent. Patented June 13, 1911.

Application filed March 7, 1911. Serial No. 612,754.

To all whom it may concern:

Be it known that we, MARSHALL A. QUINN and LYMAN C. STEWART, citizens of the United States, residing at Roanoke, in 5 county of Roanoke and State of Virginia; have invented certain new and useful Improvements in Culverts, of which the following is a specification.

Our invention relates to an improvement 10 in culverts, and the object is to provide a nestable culvert so that it can be shipped and hauled in a knock-down condition.

A further object is in the provision of means for fastening the two sections of the 15 culvert together, which is accomplished by means of flanges which are bent together, and then bent to a vertical position, thereby preventing any possibility of the two half sections spreading or springing apart.

20 The 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 25 1 is a top plan view showing the two half sections placed together, Fig. 2 is a sectional view on the line 2 of Fig. 1, Fig. 3 is a sectional view on the line 3 of Fig. 1, Fig. 4 is a sectional view on the line 4 of Fig. 1, and 30 Fig. 5 is a sectional view on the line 5 of Fig. 1.

A, represents the culvert sections, which are made preferably of circular, corrugated 35 metal. The uppermost section is provided with its edges 1 extending outwardly, and the lower section has its edges 2 extending outwardly, but the outwardly-extending edges are of greater width than the width of the edges 1 of the upper sections. The out- 40 wardly-extending edges 2 of the lower section are bent upwardly as indicated in Fig. 2, and then bent over upon the edges 1 of the upper section, as indicated in Fig. 3. At predetermined distances, preferably a foot 45 apart, the edges are slitted, as at 3, 3, forming lips or tongues 4 and 5 on the upper and lower sections respectively. The lips or tongues are folded in the same manner that the edges 1 and 2 of the two sections are 50 folded. The lips are then bent to a vertical position, either up or down, as indicated in Figs. 4 and 5. Certain of the lips will be bent upwardly, and others bent downwardly. In this way, the danger of the sections springing apart is obviated, and a 55

tighter and firmer connection is formed between the two sections of the culvert. The arrangement of the flanges can vary; for instance, two lips might be bent vertically, 60 as indicated in Fig. 5; the next two, downwardly, or they could be alternately arranged to suit the conditions or purposes for which the culvert is to be used, or in fact all one side of the section could be bent in one 65 direction, and the other side in the opposite direction. With the edges 1 and 2 being fastened together, and then by the provision of lips which are formed in the same manner that the edges are folded together, and 70 then bending the lips to a vertical position, the two sections of the pipe section will be securely connected together.

In the joining of several pipe sections together, the sections would be preferably arranged in staggered relation so that sections 75 could be joined together, as for instance assuming that an upper section was overhanging a lower section, and the joining of a lower section was made to the lower section, 80 the circular corrugations would allow for the overlapping of the ends of the two lower sections, and the lips or flanges 5 of the new lower section could be brought into relation with the lips 4 of the overhanging upper 85 section, whereby the lips 4 and 5 could be joined for fastening the new section to the overhanging upper section; and this would be carried out in applying an upper section to a lower section.

Having fully described our invention, 90 what we claim as new and desire to secure by Letters Patent, is:—

1. A culvert comprising two sections having outwardly-extending edges and lips, 95 said parts being folded together edge to edge and lip to lip.

2. A culvert comprising two sections having outwardly-extending edges and lips, 100 said parts being folded together edge to edge and lip to lip, and the lips being bent at an angle to the edges.

3. A culvert comprising two sections having outwardly-extending edges and lips, the edges and lips of one section being wider 105 than the edges and lips of the other section, and the wider edges and lips being folded over and upon the narrower edges and lips.

4. A culvert comprising two sections having outwardly-extending edges and lips, the edges and lips of one section being wider 110

than the edges and lips of the other section,
and the wider edges and lips being folded
over and upon the narrower edges and lips,
said lips extending at an angle to the edges.

5 5. A culvert comprising two sections hav-
ing outwardly-extending edges and lips, the
edges and lips of one section being wider
than the edges and lips of the other section,
and the wider edges and lips being folded
10 over and upon the narrower edges and lips,

said lips bent to a vertical position, some ex-
tending upwardly, and others downwardly.

In testimony whereof we affix our signa-
tures, in the presence of two witnesses.

MARSHALL A. QUINN.
LYMAN C. STEWART.

Witnesses:

J. T. DAVENPORT,
E. M. TINSLEY.