

H. I. STANDLEY.
CULVERT.

APPLICATION FILED JAN. 30, 1912.

1,025,327.

Patented May 7, 1912.

Fig. 1.

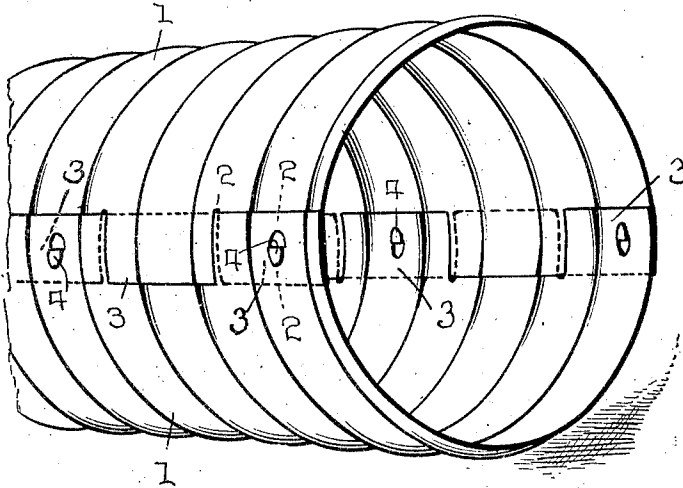


Fig. 2.

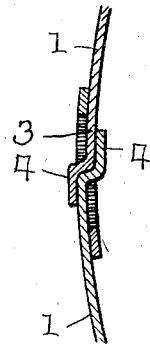


Fig. 3.

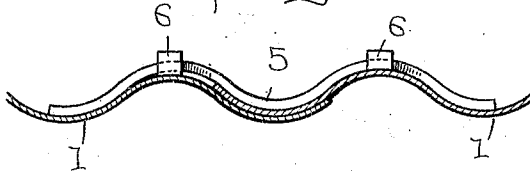


Fig. 4.

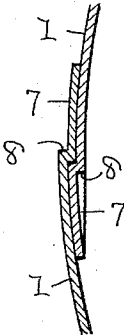


Fig. 6.

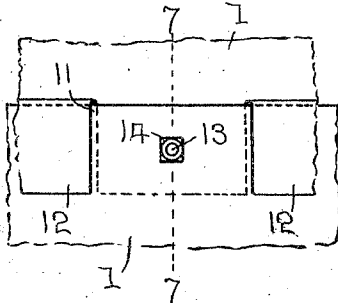


Fig. 5.

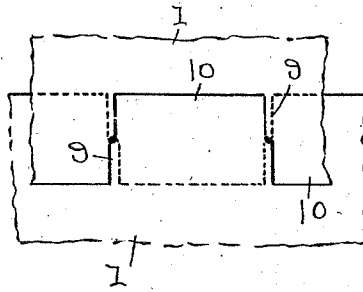
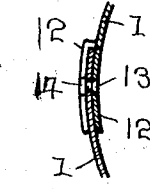


Fig. 7.



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CULVERT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY I. STANDLEY, a citizen of the United States, residing at Hope, in the county of Steele and State of North Dakota, have invented certain new and useful Improvements in Culverts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to culverts and more particularly to that class of culverts known as sectional steel culverts.

15 An object of the invention is to provide a sectional culvert of corrugated steel and means for securely fastening the sections together.

20 Other objects and advantages will be hereinafter set forth and pointed out in the specification and claim.

In the accompanying drawings which are made a part of this application, Figure 1 is a perspective view of a portion of one of the sectional culvert pipes, Fig. 2 is a sectional view on the line 2—2 of Fig. 1, showing the means for locking the sections together, Fig. 3 is a longitudinal sectional view showing the manner in which the ends of the culvert pipes are connected, Fig. 4 is a sectional view showing a second form of means for securing the sections of pipe together, at the point 2—2, Fig. 1. Fig. 5 is a fragmentary side elevational view showing the overlapping edges of both pipe sections slotted to produce interlocking tongues. Fig. 6 is a view similar to Fig. 5, showing another manner of securing the overlapping edges of the sections together, and, Fig. 7 is a vertical sectional view on the line 7—7 of Fig. 6.

Referring more particularly to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 represents the lower and upper sections of the culvert pipes, said sections being of substantially semi-circular form in cross section and having transverse corrugations.

50 In the preferred form I have shown each section as having one straight smooth edge while its opposite edge is provided with suitable slots 2 at spaced distances to produce the tongues 3, the tongues 3 of each section being adapted for engagement over

the straight smooth edge of the opposite section, said tongues being positioned alternately upon opposite sides of the smooth straight edge. The sections are provided with interlocking lugs 4 near their edges, said lugs being pressed out of the sections, as clearly shown in Figs. 1 and 2, the lugs carried by the tongues 3 and the opposite lugs positioned along the straight smooth edge of the other section being adapted for interlocking engagement with one another, the lugs of each section projecting through the openings formed in the other section by pressing out the tongues of said section. By thus overlapping the edges of the lower and upper sections of each culvert pipe and locking the sections together, circular strong pipes are produced and it is impossible for either section to move independently of the other after the sections have been locked together.

The pipes may be secured to one another by inserting the last corrugation of one pipe into the adjacent end of the next pipe, forcing the fastening wire 5 through the perforated ears 6 carried by each pipe and bending the wire against the interior surface of the corrugated pipes, thus preventing movement of either pipe independently of the pipe to which it is secured. If desired, the lower sections of the pipe may be secured together in the manner just described and the upper sections secured to one another before the upper sections are placed upon the corresponding lower sections.

If desired, the edges of the upper and lower sections may be offset, as shown at 7, to produce the shoulders 8 for engagement against one another while the offset portions 7 of each section are engaged against the opposite section, inwardly of its shoulder 8. In this form, the sections will be securely held together after being pressed into engagement with one another.

In Fig. 5 I have shown the edges of both sections 1 as being slotted, as shown at 9, to produce the tongues 10, the tongues of the opposite sections interlocking with one another. The tongues of each section engage alternately against the inner and outer surfaces of the opposite section and prevent longitudinal movement of either section independently of the other.

In Figs. 6 and 7 I have shown one of the sections 1 as having a straight smooth edge

while the corresponding edge of the opposite section is provided with slots 11 to produce the tongues 12 for alternate engagement against the opposite sides of the first section along its straight edge, certain of the tongues 12 being secured in position by means of bolts 13 passed therethrough and through the first section near its straight edge, with nuts 14 positioned upon the threaded ends of the bolts 13.

It will be seen that I have provided a sectional culvert pipe which may be formed of thin corrugated material of comparatively light weight to produce a culvert, each pipe of which is formed in sections locked together to produce a strong and durable culvert, the pipes of which are also secured to one another. It will further be seen that I have provided a novel locking means for the

edges of the sections and for the ends of the pipes.

What I claim is:—

A culvert pipe formed of longitudinal sections, each section having a straight smooth edge, each section having a plurality of tongues for engagement with the straight smooth edge of the opposite section, and means carried by each section and adapted for engagement through the opposite section near the edges of said sections to lock the latter together.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY I. STANDLEY.

Witnesses:

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J. D. FOLEY.