

J. H. SCHLAFLY.

CULVERT.

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1,055,806.

Patented Mar. 11, 1913.

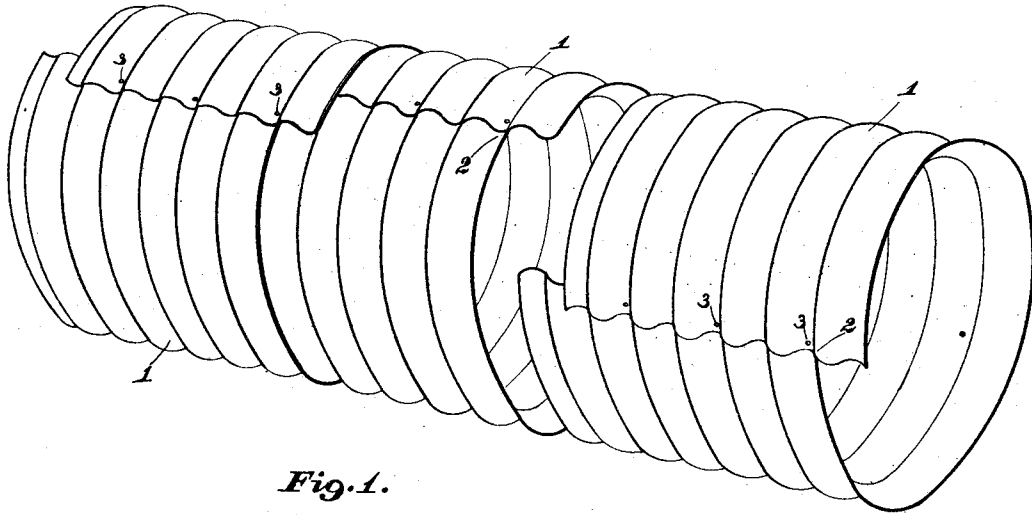


Fig. 1.

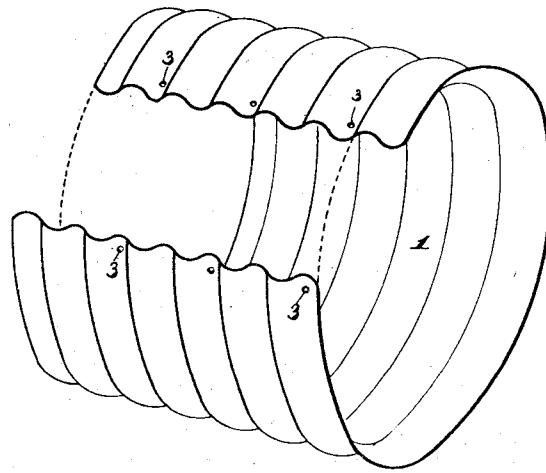


Fig. 2.

Witnesses

Harry O. Raschke
Sylvia Boron

By

Inventor
Julius H. Schlafly

Bond + Miller

Attorneys

UNITED STATES PATENT OFFICE.

JULIUS H. SCHLAFLY, OF CANTON, OHIO, ASSIGNOR TO THE CANTON CULVERT COMPANY, OF CANTON, OHIO, A CORPORATION OF OHIO.

CULVERT.

1,055,806.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JULIUS H. SCHLAFLY, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Culverts; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the numerals and figures of reference marked thereon, in which—

Figure 1 is a perspective view showing the sections of the culvert connected together and illustrating a section in position to be connected. Fig. 2 is a view of a culvert section before the lapped edges are connected together to produce a closed cylindrical section.

The present invention has relation to the peculiar manner of forming sewer pipe or culvert sections, and connecting their lapped edges together. The purposes of the invention are to provide a simple means whereby any desired number of sewer pipe sections can be connected together.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the culvert sections, which may be of any desired length reference being had to convenience in manufacture, which sections are corrugated transversely. The lapped edges of the culvert sections are so connected that the corrugations produce screw threads or in other words the corrugations are located at an angle to a line drawn at right angles diametrically through the culvert sections, which is produced by riveting the second corrugation from one end of the section to the first corrugation of the same end as illustrated at 2, Fig. 1, whereby the corrugations are so arranged that the culvert sections can be connected together in the same manner as ordinary screw threaded pipes are connected together.

It will be understood that by extending the corrugations at the opposite ends of the culvert sections beyond the lapped portion of the culvert section any desired number of sections can be connected together by a rotary movement of one section against an opposite or connected section held against rotation. It will also be understood that the

diameters of the various sections can be adjusted sufficiently to allow for one culvert section to enter an adjacent section simply by increasing the width of the lap at the end of the section designed to be entered into an adjacent section. This adjustment can be brought about by changing the position of the rivet apertures 3 with reference to the edges of the culvert sections 1.

It will be understood that the culvert sections can be easily produced, owing to the fact that the sheets while in a plain or unrolled condition can be corrugated the corrugations running parallel with the ends of the rectangular sheets and by staggering the corrugations at the lapped edges they are brought at an angle to a right angle transverse of the section, whereby any desired number of culvert sections can be easily connected together. It will also be understood that by askewing the body of the culvert section helical ends are produced, and the corrugations run parallel with the helical ends of the culvert section.

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

1. As an improved article of manufacture, a metal culvert section formed from a rectangular corrugated sheet, the sheet bent into cylindrical form and the corrugations of the lapped edges staggered, whereby the corrugations are brought at an angle to a plane transverse of the pipe.

2. A sheet metal culvert section formed from a rectangular sheet of metal, said sheet provided with a series of corrugations running from edge to edge, said corrugations being parallel with each other and with the end edges of said sheet, said corrugated sheet bent into tubular form with the corrugations running around said section, and the edges lapped and fastened to each other, the first corrugations of one edge located over the second corrugation of the other edge.

3. A metallic conduit section formed from a rectangular corrugated blank, the corrugations extending transversely in parallelism with the blank ends, and the series longitudinally throughout the entire sheet, the blank being bent into tubular form along lines transverse to the corrugations, and the meeting edges skewed substantially the distance of one corrugation, forming a

single spiral convolution extending throughout the section.

4. The herein described method of making metal culverts consisting in rolling a previously corrugated sheet of metal longitudinally of the corrugations to form a cylindrical body, overlapping the edges of the sheets at the ends of the corrugations, springing the overlapped edges laterally of the corrugations to form spiral screw threads, and securing the overlapped edges together.

5. The herein described method of making metal culverts consisting in rolling a previously corrugated rectangular sheet of metal longitudinally of the corrugations to form a cylindrical body overlapping the edges of the sheet at the ends of the corrugations, springing the overlapped edges laterally of the corrugations to form spiral screw threads and projecting guiding portions at the ends of the culvert, and securing the overlapped edges of the sheet metal together.

6. A culvert section consisting of a corrugated sheet rolled longitudinally of the corrugations and having overlapped edges secured together, the overlapped portions being sprung laterally of the corrugations to arrange the same spirally to form screw threads, and a seam formed by the overlapped edges being disposed spirally in a direction opposite the corrugations.

7. The method of making corrugated culvert sections which consists in taking a blank corrugating and bending the same into cylindrical form and then moving one longitudinal edge of the blank relatively to the other in the direction of the length of the section and fastening said edges together.

8. The method of making corrugated culvert sections which consists in taking a blank and forming a row of perforations in the opposite longitudinal edges thereof, corrugating and bending the blank into cylindrical form, moving one longitudinal edge of said blank relatively to the other in the direction of the length of the blank to cause the apertures in the adjacent edges of the blank to register and then inserting fastening devices in said registering apertures to rigidly secure said longitudinal edges in overlapped relation.

9. The herein described method of form-

ing a corrugated sheet metal pipe which consists of taking a flat corrugated sheet of metal and forming it cylindrical and forcing each side of the pipe in opposite directions to stagger the corrugation and then riveting them together whereby a spiral is formed.

10. In a corrugated pipe, the herein described method which consists in forming flat sheets of corrugated steel into a cylindrical form and then forcing the corrugations in staggered relation with reference to each other with the edges overlapping and then fastening them together, whereby a thread or spiral is formed which is adapted to be connected to a similar pipe.

11. A culvert formed from a sheet metal blank having corrugations arranged parallel with opposite edges of said blank, said corrugations assuming a spiral formation due to the twisting of the sheet metal blank.

12. An improved culvert, comprising a sheet metal body portion provided with corrugations throughout its length arranged parallel with opposite edges thereof, the longitudinal edges of said culvert being in overlapped position for a portion only of their length, whereby the corrugations in said body portion assume a spiral formation.

13. The method of forming a spirally corrugated culvert section, which consists in rolling into tubular form a blank having corrugations arranged parallel with the opposite transverse edges thereof, and twisting said blank in a longitudinal direction so that the corrugations in the completed culvert section assume a spiral formation.

14. The method of forming a spirally corrugated culvert section, which consists in rolling into tubular form a blank having corrugations arranged parallel with the opposite transverse edges thereof, overlapping the longitudinal edges of said blank, and twisting said blank so that the longitudinal edges overlap only for a portion of their length, whereby the corrugations in said blank assume a spiral formation.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JULIUS H. SCHLAFLY.

Witnesses:

E. C. LAUGENBACH,
PERRY M. HORNE.