

G. L. HESS.
METALLIC FLUME.
APPLICATION FILED APR. 18, 1910.

973,656.

Patented Oct. 25, 1910.
2 SHEETS—SHEET 1.

Fig. 1.

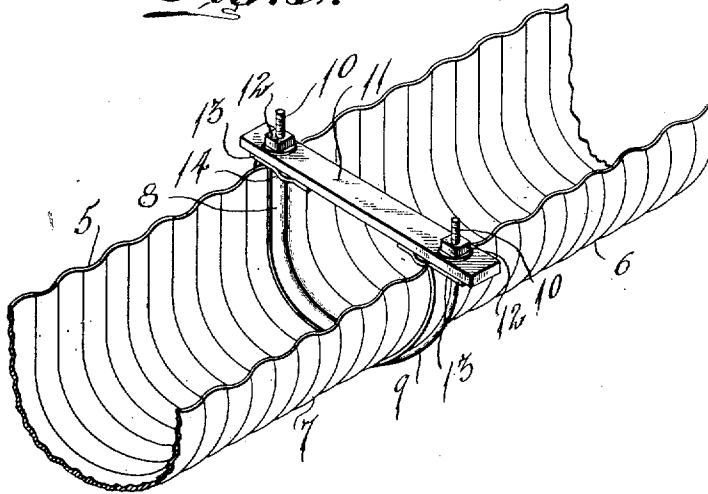
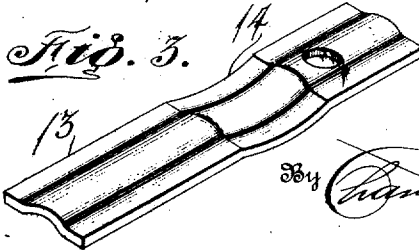
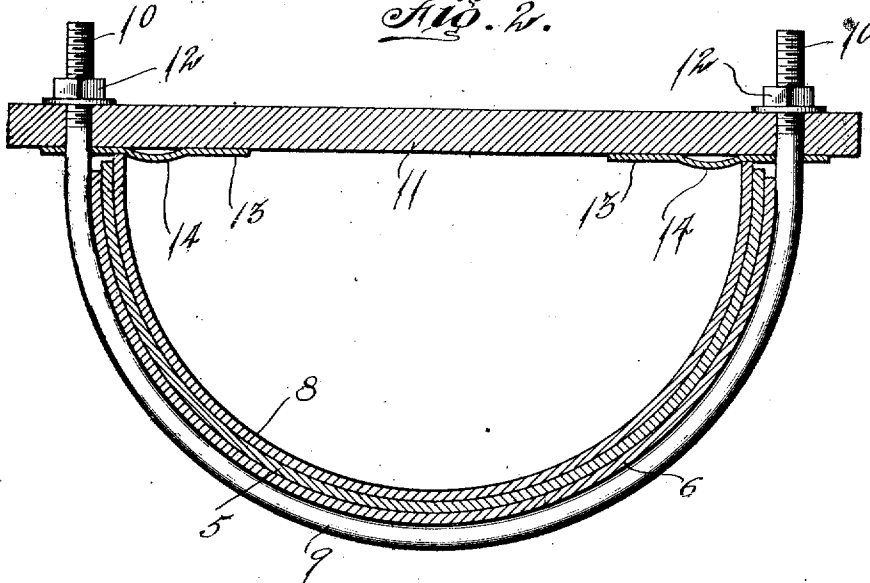


Fig. 2.



Witnesses
Jas. H. Grogan

A. O. Kaden

Inventor
George L. Hess.

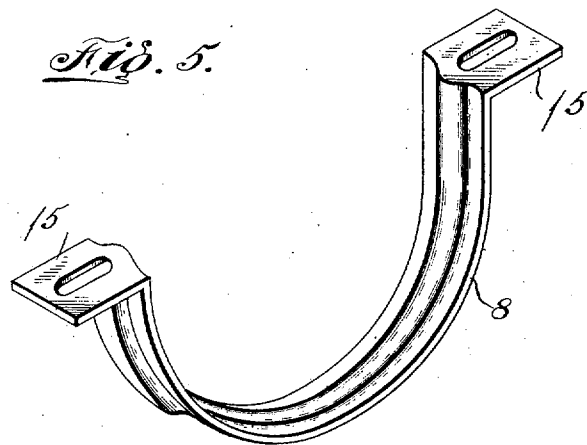
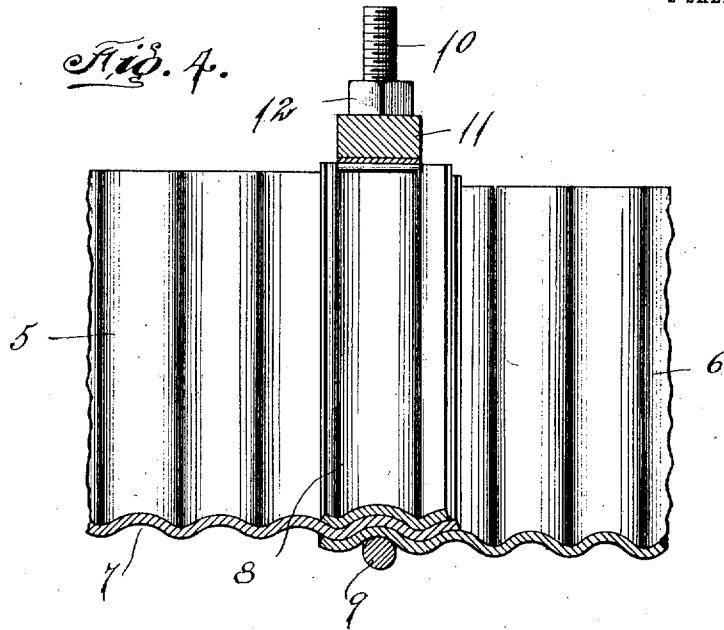
By *Charles C. Chas. C.*
Attorney

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2 SHEETS—SHEET 2.



Witnesses
Jos. G. Grogan

M. O. Anderson

Inventor
George L. Hess

By *Charles Chandler*

Attorney

UNITED STATES PATENT OFFICE.

GEORGE L. HESS, OF LA JUNTA, COLORADO.

METALLIC FLUME.

973,656.

Specification of Letters Patent.

Patented Oct. 25, 1910.

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To all whom it may concern:

Be it known that I, GEORGE L. HESS, a citizen of the United States, residing at La Junta, in the county of Otero, State of Colorado, have invented certain new and useful Improvements in Metallic Flumes; 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.

The invention relates to a flume and more particularly to the class of extensible water troughs or irrigation flumes and analogous conduits.

The primary object of the invention is the provision of a flume in which the sections thereof may be connected together, whereby the joint or splice will provide a water tight union and will not obstruct or retard the passage of water through the flume.

Another object of the invention is the provision of a flume of this character in which the sections are joined without the use of rivets or solder or analogous means and which sections may be readily separated should the occasion require.

A further object of the invention is the provision of a flume in which the sections may be readily and quickly joined or connected without possibility of leakage at the juncture or the separation of the sections and at the same time will enable the water to flow freely therethrough without retardation.

A still further object of the invention is the provision of a flume in which the sections thereof are constructed of corrugated metal plates bent to form circular shaped sections, the ends of the adjacent sections being firmly secured together by the overlapping of their adjacent ends in a manner to provide water tight juncture.

With these and other objects in view the invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described illustrated in the accompanying drawing, disclosing the preferred form of embodiment of the invention and pointed out in the claim hereunto appended.

In the drawings:—Figure 1 is a perspective view of a flume constructed in accordance with the invention. Fig. 2 is a transverse sectional view through the overlapping joints of the flume sections. Fig. 3

is a perspective view of one of the shoes. Fig. 4 is a fragmentary vertical longitudinal sectional view. Fig. 5 is a modified form of securing strip.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings by numerals 5 and 6 designate semi-cylindrical sections of sheet metal, preferably sheet steel the same being rolled or otherwise formed with transverse corrugations 7 and have their adjacent ends overlapped so that the corrugations will interfit with each other, whereby the sections will form a continuous water conduit, adapted to be employed in the construction of irrigation flumes, water troughs or analogous devices. The semi-cylindrical sections at their overlapped ends are firmly clamped together by exterior and interior clamping members as will be hereinafter more fully described.

The interior clamping member comprises a transversely corrugated semi-circular shaped metallic strip 8 the curvature of which conforms to the configuration of the sections at their inner faces. The exterior clamping member comprises a rod 9 bent into semi-circular shape so as to conform to the exterior or outer faces of the sections and contact with one of the same, at the overlapped ends thereof, the rod 9 being seated in one of the corrugations of the sections 6 and has its threaded ends 10 passed through suitable apertures formed near opposite ends of a cross beam 11 resting upon the upper longitudinal edges of the sections at their overlapped ends and engaging the threaded terminals 10 are adjustable nuts 12 the same working against the upper face of the cross beam 11 when the rod 9 is in clamping position.

Interposed between the upper longitudinal edges of the sections 5 and 6 at their overlapped ends and the cross beam 11 are shoes or plates 13 the same being provided with suitable openings adapted to register with the openings in the beam 11 and through which are passed the terminals 10 of the rod 9 whereby the said shoes or plates will be held against displacement. Each shoe or plate 13 is provided with a transverse outwardly directed bulge or corrugation 14 with which bulges 14 the upper ends of the inner clamping member 8 abut so that the said clamping member will be held secure

whereby upon tightening of the nuts 12 the strip 8 will be pressed tightly against the inner face of the section 5 at its end overlapping the section 6 while the rod 9 will be drawn tight against the section 5 to provide a water tight joint or connection between the said sections without the use of solder or rivets. In Fig. 5 there is shown a slight modification of the material clamping member the strip 8 thereof having its ends out-turned to form ears 15 containing suitable openings to receive the ends of the rod 9, the said ears being adapted to abut against the under face of the beam 11 when positioned in the flume at the overlapped ends of the sections forming the same.

What is claimed is:—

The combination with corrugated sections, the same being overlapped at their adjacent ends, of inner and outer clamping means,

the inner clamping means comprising a transversely corrugated strip fitted against the corrugations at the inner face of the overlapped end of one section, the outer clamping means comprising a rod engaged against the outer face of the overlapped end of the other section, a bridge beam engaging the ends of the outer clamp means, and shoes arranged beneath the beam engaging the ends of the outer clamping means and having abutments engaged by the ends of the inner clamping means to prevent displacement of the said ends of the latter.

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

GEORGE L. HESS.

Witnesses:

G. H. WINCHELL,

GEO. MCNEIL,

SAIDEE STEEN.