

W. M. REYNOLDS.
FLUME.

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985,937.

Patented Mar. 7, 1911.

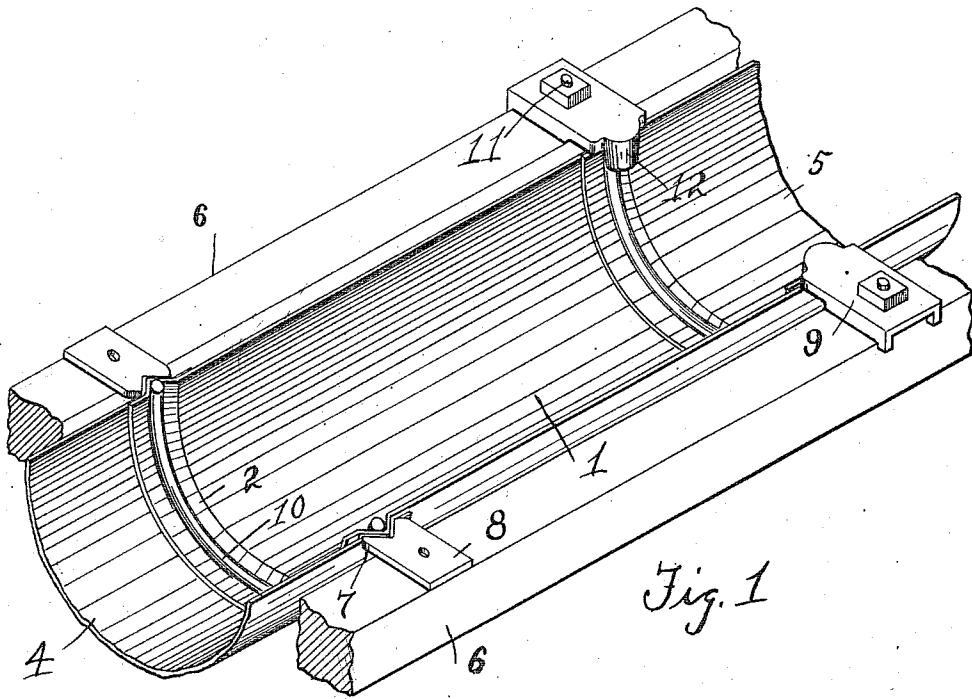


Fig. 1

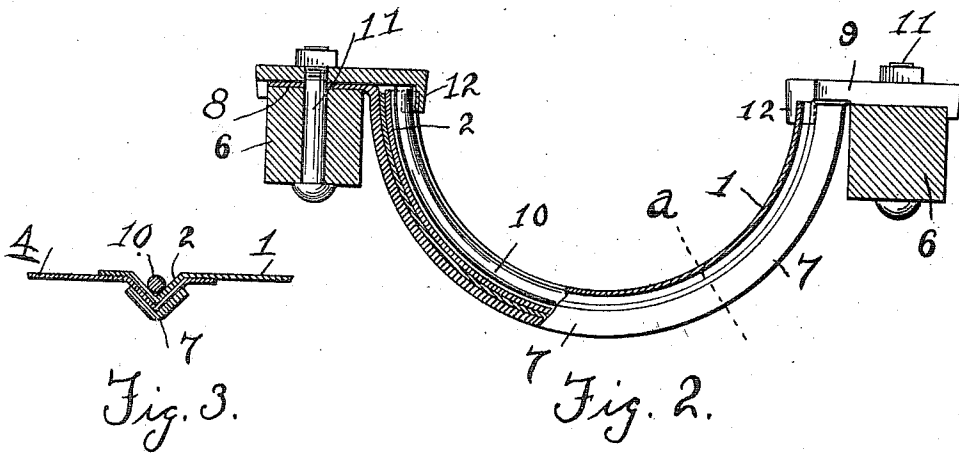


Fig. 2.

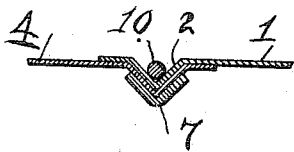


Fig. 3.

Witnesses

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WILLIAM M. REYNOLDS, OF MIDDLETOWN, OHIO, ASSIGNOR TO THE AMERICAN ROLLING MILL COMPANY, OF MIDDLETOWN, OHIO.

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Patented Mar. 7, 1911.

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To all whom it may concern:

Be it known that I, WILLIAM M. REYNOLDS, a citizen of the United States, residing at Middletown, Butler county, Ohio, have invented certain new and useful Improvements in Flumes, of which the following is a specification.

This invention, pertaining to improvements in flumes, will be readily understood from the following description taken in connection with the accompanying drawing in which:—

Figure 1 is a perspective view of a portion of a flume exemplifying my present invention: Fig. 2, a vertical transverse section of the same: and Fig. 3, a longitudinal section of one of the joints in the plane of line *a* in Fig. 2.

In the drawings—1, indicates one of the sections of the flume, the same being in the form of a semicircular metallic gutter: 2, a circumferentially extending crimp near one end of the section, this crimp forming an outwardly projecting bead and a corresponding inner recess, the crimp being best of V-shape in cross-section: 4, a flume-section joining the section 1, the bead of section 1 being seated in the recess of section 4: 5, a flume-section similarly joining the other end of flume-section 1: 6, supports at the sides of the flume at each joint, these supports taking, preferably, the form of suitably sustained continuous longitudinal timbers: 7, metallic saddles disposed below each joint in the flume, these saddles being crimped in cross-section to engage the outside beads at the joints: 8, ears projecting outwardly from the extremities of the saddles and resting on the supports 6: 9, clips secured to the tops of each support at each joint, these clips having portions projecting inwardly over the upper edges of the flume: 10, a curved rod, preferably circular in cross-section, lying within the inner crimp at each joint, in the flume, these rods extending entirely around within the flume and projecting above the edges of the flume and engaging under the inward projections of clips 9: 11, bolts engaging supports 6 and clips 9 and serving as means for forcing the curved rods down into the crimps and thus clamping the over-lapping ends of the flume-sections tightly together between the rods and the saddles: and 12, caps formed on the inward projections of the clips and engaging

around the inner portions of the ends of the curved rods.

The flume is supported by the saddles quite independent of the rods, but the rods, when forced down tightly by the clips, serve in making the joints tight, the bolts which draw the clips down serving at the same time to bind the saddles tightly to the timbers 6.

Under certain conditions of distortion of flume-sections or of the curved rods, due to inaccurate workmanship or to careless handling during shipping, the ends of the curved rods might be disinclined to retain proper position under the clips. The caps 12 insure the ends of the rods being held in correct position.

I claim:—

1. A flume comprising, supports at the sides of the flume, saddles disposed at each joint in the flume and curved to fit the exterior of the flume and having their ends connected with said supports, a metallic gutter resting its joints in said saddles, curved rods disposed within the gutter at each joint and over the saddles, clips secured to said supports at each side of the gutter at each joint and having inward projections engaging over the ends of said curved rods, and means for drawing said clips downwardly, combined substantially as set forth.

2. A flume comprising, supports at the sides of the flume, saddles disposed at each joint in the flume and curved to fit the exterior of the flume and having their ends connected with said supports, a metallic gutter resting its joints in said saddles, curved rods disposed within the gutter at each joint and over the saddles, clips secured to said supports at each side of the gutter at each joint and having inward projections engaging over the ends of said curved rods, means for drawing said clips downwardly, and caps formed on the inward projections of said clips and engaging around the ends of the rods, combined substantially as set forth.

3. A flume comprising, metallic gutter-sections with over-lapping ends to form joints, a saddle disposed under each joint and having outwardly projecting ends, a curved rod disposed within the gutter over each joint and having its ends projecting above the edges of the gutter, clips overlying the outwardly projecting ends of the saddles and engaging the ends of the rods,

bolts serving to draw the clips and the ends of the saddles toward each other, and supports for the outer ends of the saddles, combined substantially as set forth.

- 5 4. A flume comprising, metallic gutter-sections with over-lapping ends to form joints, a saddle disposed under each joint and having outwardly projecting ends, a
10 curved rod disposed within the gutter over each joint and having its ends projecting above the edges of the gutter, clips overlying the outwardly projecting ends of the

saddles and engaging the ends of the rods, bolts serving to draw the clips and the ends of the saddles toward each other, caps carried by the inner ends of the clips and engaging around the upper ends of the rods, and supports for the outer ends of the saddles, combined substantially as set forth. 15

WILLIAM M. REYNOLDS.

Witnesses:

OLAF HELMER,
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