

No. 714,716.

Patented Dec. 2, 1902.

F. LAPPIN.
COMBINED CURB AND CONDUIT.

(Application filed May 12, 1902.)

(No Model.)

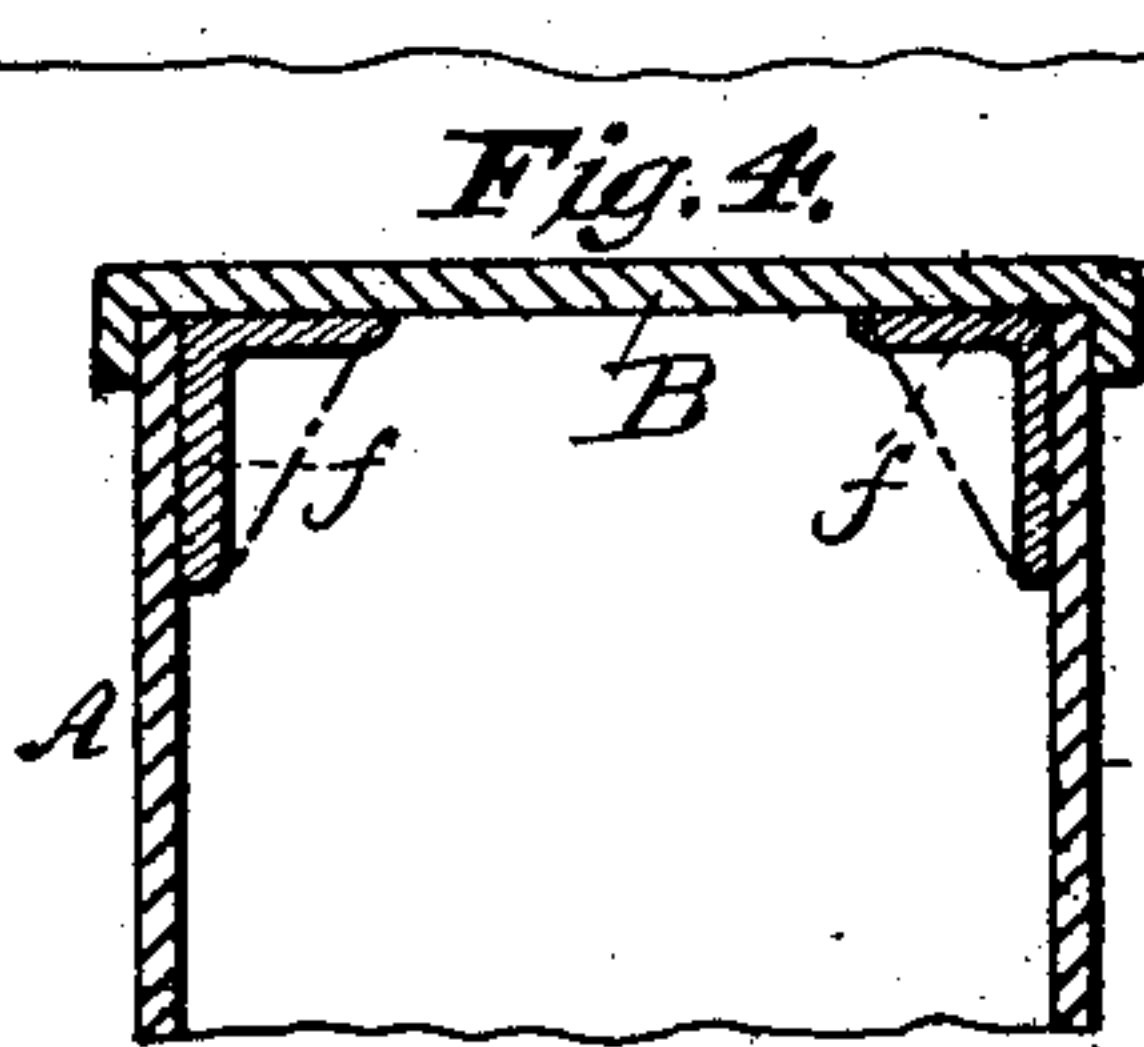
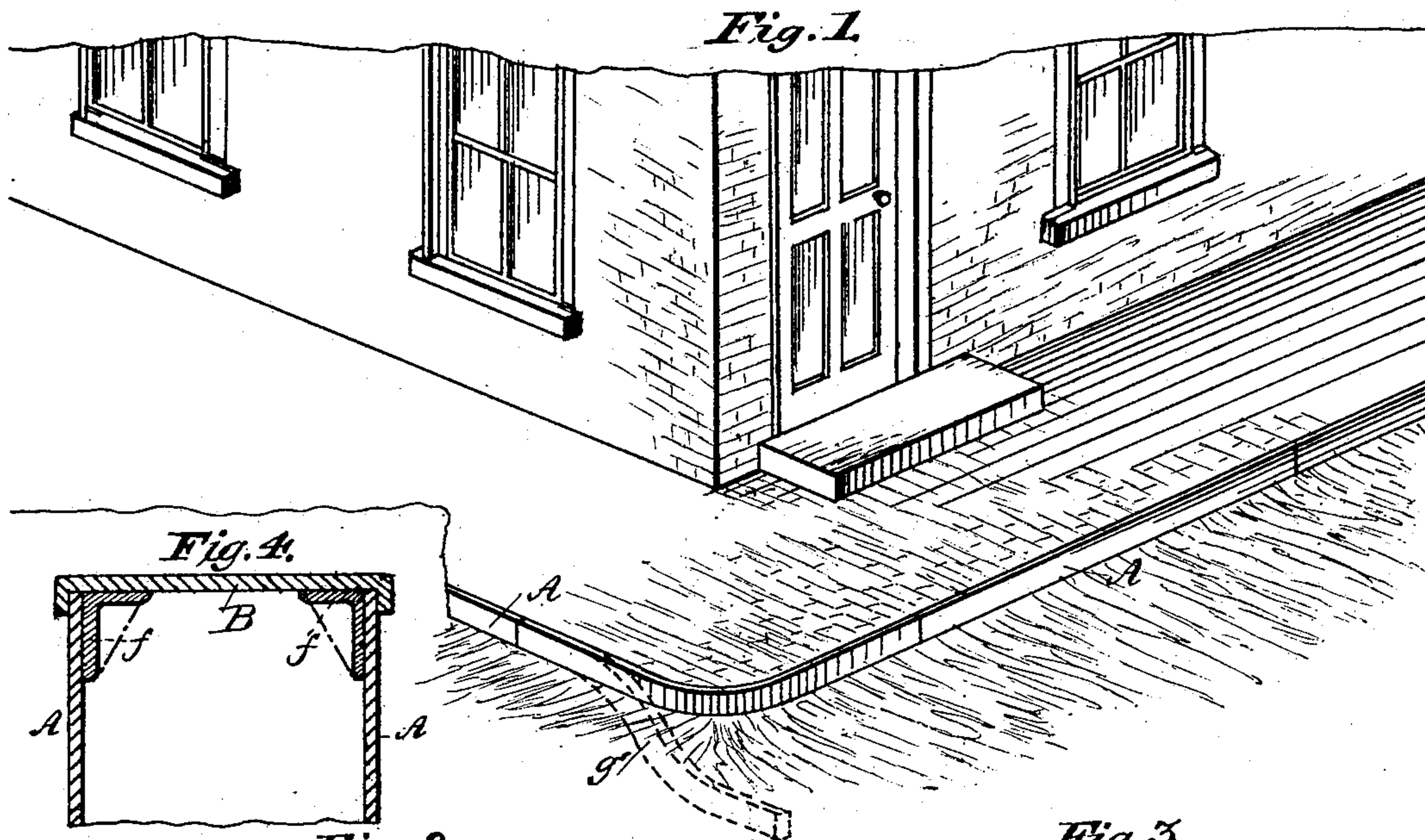


Fig. 2.

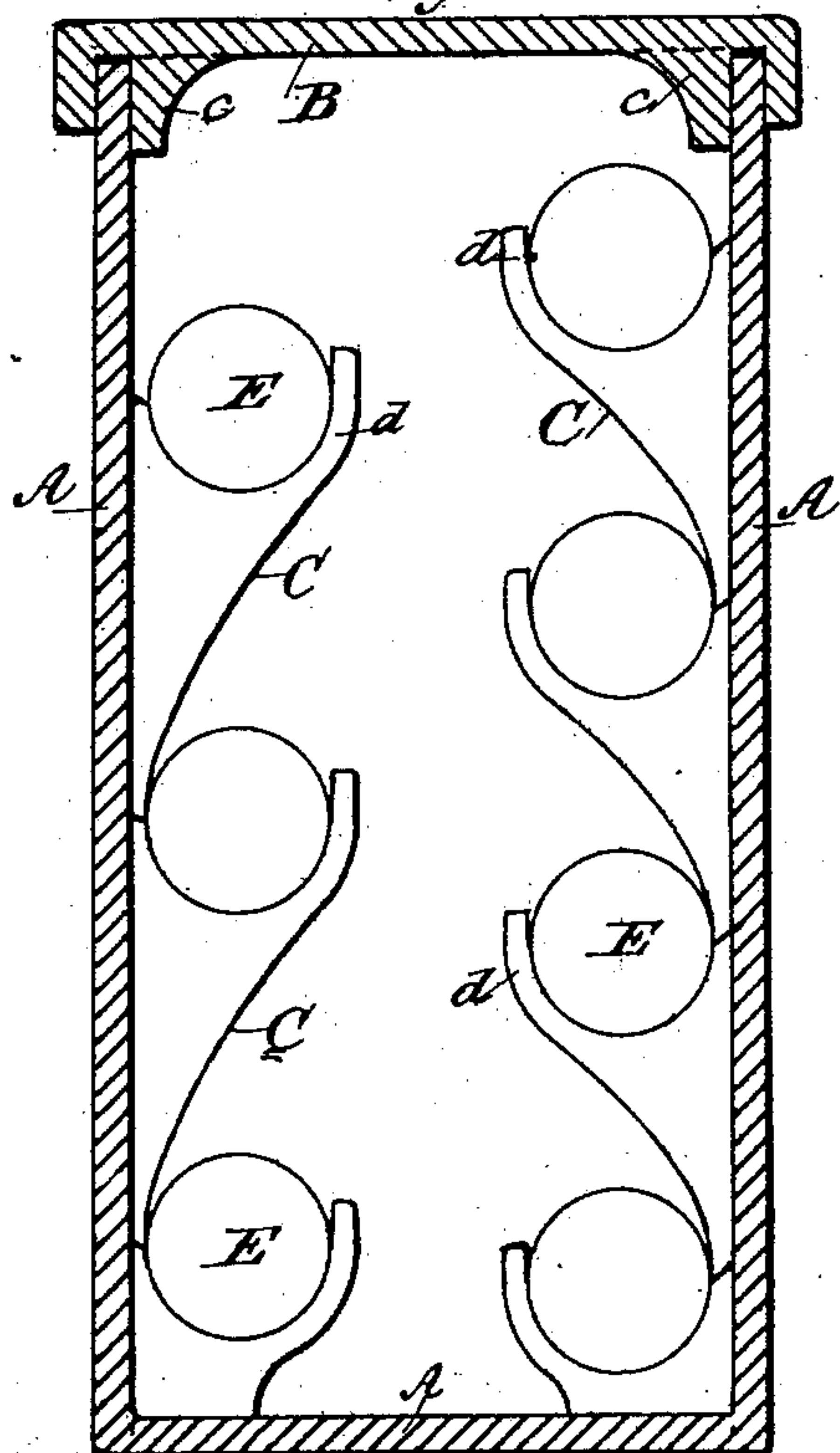
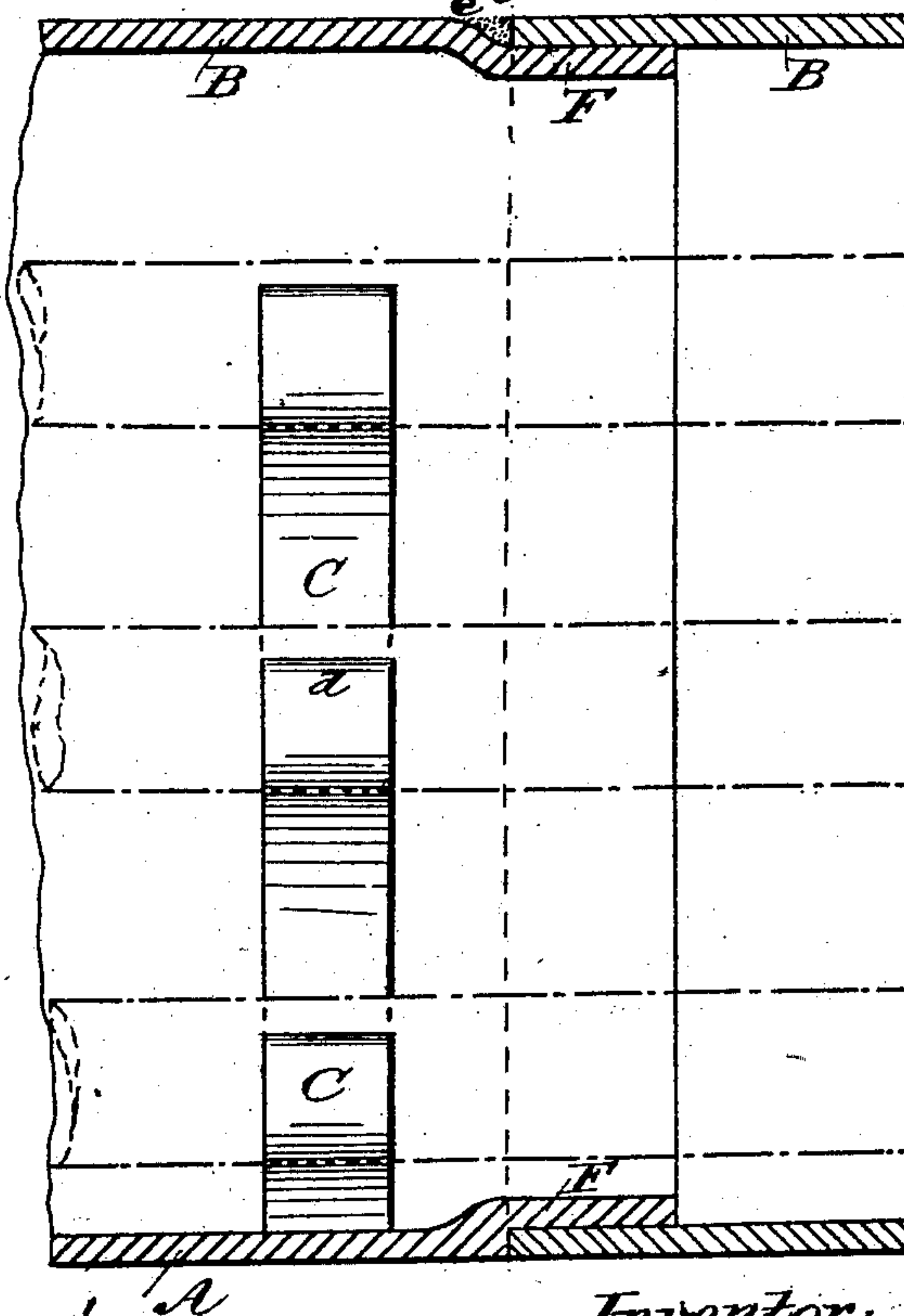
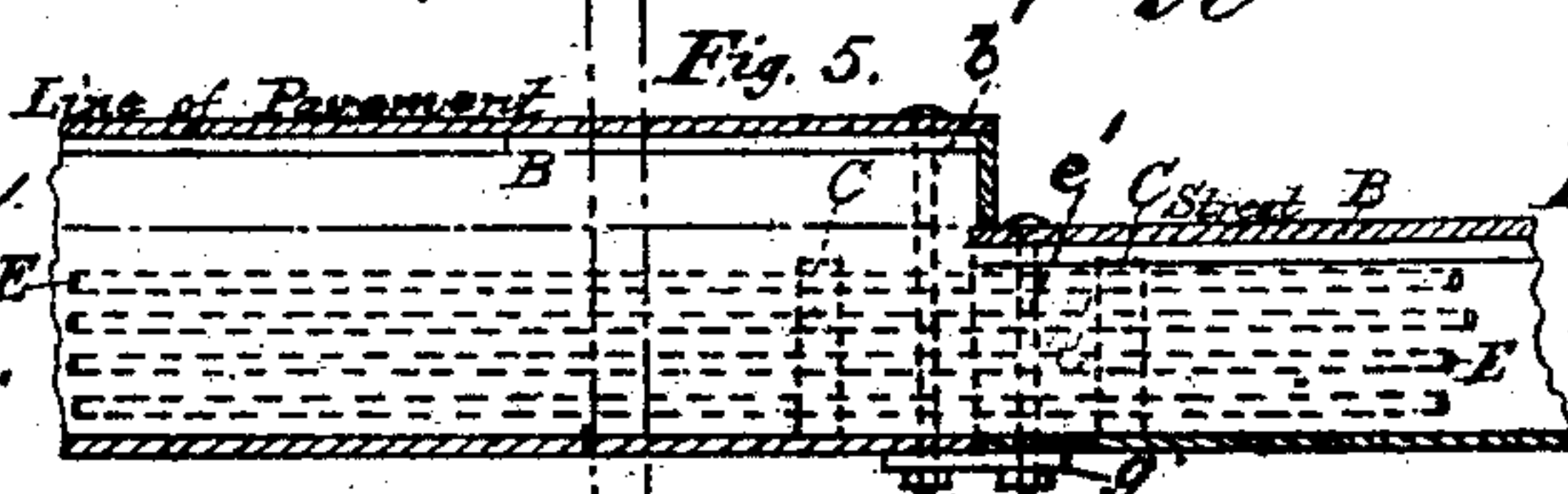


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK LAPPIN, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF ONE-HALF TO JOHN J. WEED, OF WASHINGTON, DISTRICT OF COLUMBIA, AND EDWARD D. N. WHITNEY, OF MINNEAPOLIS, MINNESOTA.

COMBINED CURB AND CONDUIT.

SPECIFICATION forming part of Letters Patent No. 714,716, dated December 2, 1902.

Application filed May 12, 1902. Serial No. 106,926. (No model.)

To all whom it may concern:

Be it known that I, FRANK LAPPIN, a citizen of the United States, residing at Washington, in the District of Columbia, have invented
5 certain new and useful Improvements in a Combined Curb and Conduit; and I do 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 ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in
15 the class of combined curb and conduit used for electric wires for telegraph, telephone, and for other purposes.

The object of the invention is to produce a combined curb and conduit for electric wires
20 for telegraph or telephone wires or cables, but also applicable to other purposes, also that such curb and conduit shall be of very simple construction and manipulation, also that it can be easily and readily placed in position
25 to form the curbs now in general use as a dividing-line between the foot-pavement and the bed of the street; furthermore, that it can be manufactured and placed in position at a very moderate expense, and, finally, that the
30 wires or cables can be readily accessible or can be easily replaced or repaired when desired.

With these objects in view my invention consists of a metal trough of the general construction of the ordinary curbstones now in
35 use and provided with a lid or top removable to gain access to the interior.

It also consists in arranging in this trough suitable brackets for supporting the wires or cables.

40 It finally consists in the peculiar construction of details, as well as the novel arrangement of parts, as will be more fully described hereinafter and specifically pointed out in the claims, reference being had to the accompanying drawings and the letters thereon.

In the drawings, Figure 1 represents a street-corner with my invention in place. Fig. 2 is an enlarged cross-section of the curb and conduit. Fig. 3 is a longitudinal section of Fig.

2. Fig. 4 is a cross-section of a modification. 50 Fig. 5 is another modification.

In the drawings, A represents a trough, of preferably rectangular cross-section, of suitable dimensions to conform to the general configuration of the ordinary curbstone now
55 in use. This trough is provided with a cover or lid B for gaining access to the interior of the trough. The cover B has at each side flanges c, projecting inward and serving to not only hold said cover, but also to strengthen
60 the sides of the trough and form a brace, so as to resist any violent shocks against the curb. Within the trough are placed at suitable distances the brackets C, having hooks d in which the cables E are supported. There
65 may be any number of these brackets to support any required number of wires or cables, according to the size and depth of the curb. At the ends of each trough, that may be of any proper lengths, are arranged matched
70 mouths F, so that one length can be slipped into another, and the joints can be made perfectly tight by a waterproof material e. (Shown in Fig. 3.) At the street-crossings the
75 troughs are arranged to dip down under the streets by curving said troughs, as shown by the dotted lines at g' in Fig. 1. In this case the troughs are made of cast-iron; but if it is desirable the said troughs can be made of wrought-iron or steel. If made of wrought-
80 iron or steel, the troughs can be strengthened at the tops by angle-irons f, (shown in Fig. 4,) or depending flanges may be rolled on them to embrace the tops of said troughs, similar as in Fig. 2. The brackets are preferably
85 made of hard wood—such as ash, oak, yellow pine, &c.—but they may be cast in position, although I prefer them of wood to prevent the abrasion of the cables. As is well known, they are usually inclosed in rubber or vulcan-
90 ite, and being liable to movement lengthwise they are liable to wear.

In Fig. 5 is a detail section of the conduit at a street-corner and the road-bed. In this modification is shown the method of securing
95 the abutting ends, so as to prevent sagging of either end in case the foundation upon which they rest from some cause should be-

come depressed. One or more bolts *b'* are passed through the cover B and one or more bolts *e'* through the adjoining section of conduit, and both bolts *b'* and *e'* then pass
5 through a butt-plate *g*, extending across the joint of the conduit and then are secured by nuts. If desired, however, the butt-plates *g* may be tapped to receive the screw ends of the bolts, which are then screwed into them.
10 The bolt-heads may be countersunk in the cover, if desired, and a depression to receive them is then required. It will be noticed that the conduit is in this instance level or in a straight line on the bottom, and the cover
15 is level with the road-bed. Said cover must then be roughened by corrugating or otherwise to prevent slipping of the horses. The curb is formed as shown in Fig. 5, and the curb must be arranged so as not to interfere
20 with the sewer-opening now usually formed under the cast-iron cover at the corners.

I am aware that a combined curb and conduit for receiving electric and telephone cables is, broadly, not new, and I disclaim such
25 broadly; but,

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

1. The combined curb and conduit herein described, consisting of rectangular metal
30 troughs, having covers with depending flanges, fitting into the upper ends of the troughs, and provided with roughened surfaces, said troughs having flanges at their
35 ends, for bolting them together, and hooks on their inner sides to receive the electric cables, in combination with the bolts and butt-plates *g*, to secure the ends of the troughs together, for preventing sagging of either end
40 of said troughs, all arranged as set forth.

2. The combination of a series of rectangular metallic troughs, having flanges at their
45 ends to bolt them together, and telescoped with their mouths, and provided with brackets C and hooks *d* to receive the cables, the covers B, roughened on their upper surfaces, and
50 having flanges *c* to enter the troughs, the packing *e*, with the bolts and butt-plates *g*, to prevent sagging at the ends, all arranged as shown.

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

FRANK LAPPIN.

Witnesses:

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A. H. NOFSINGER.