

No. 654,435.

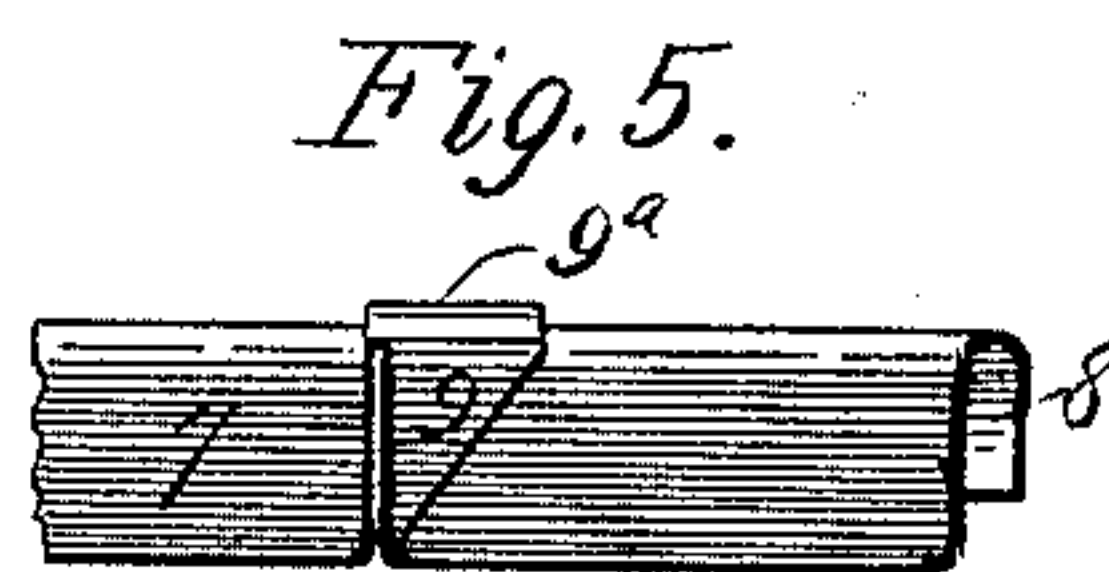
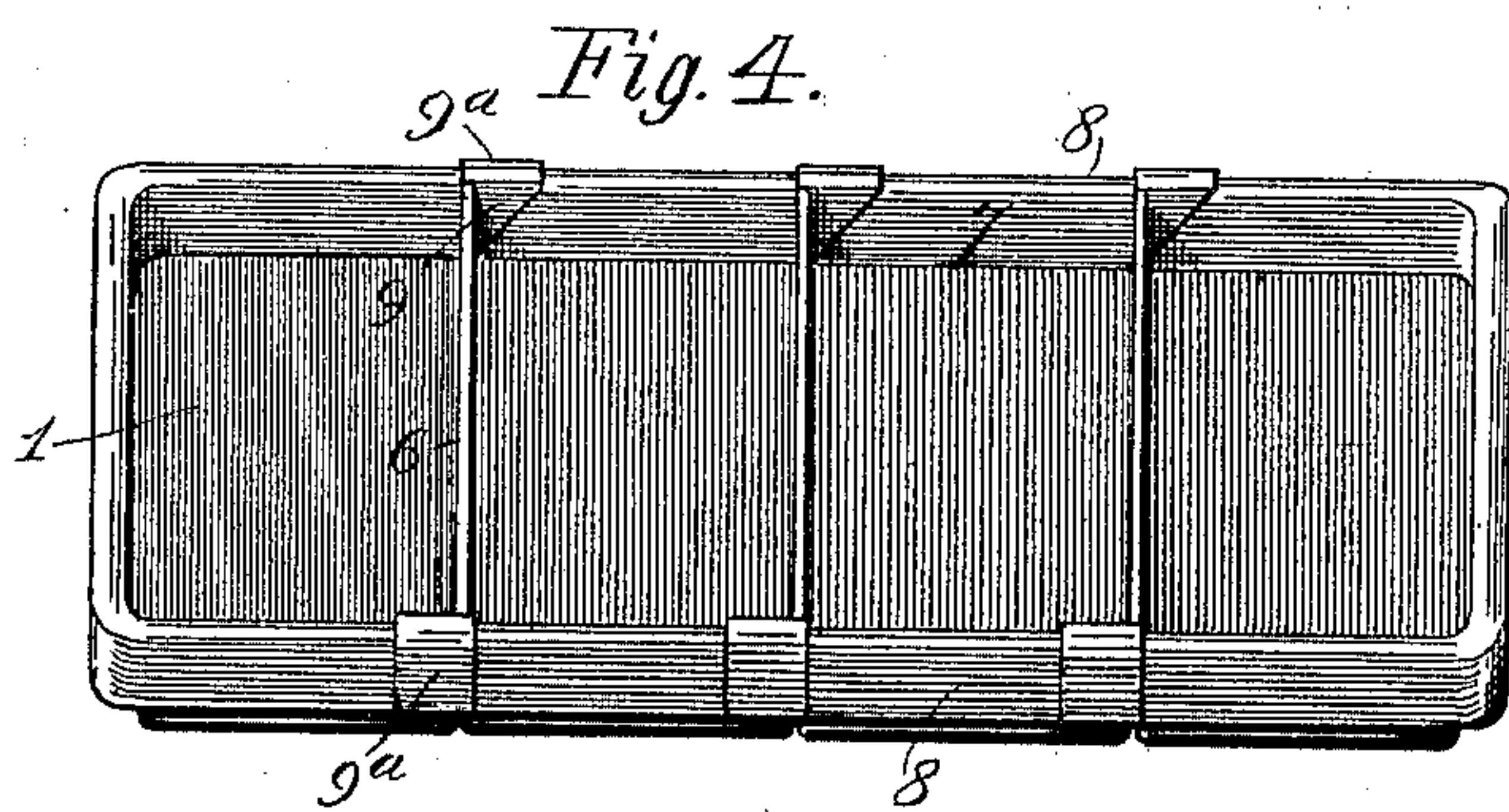
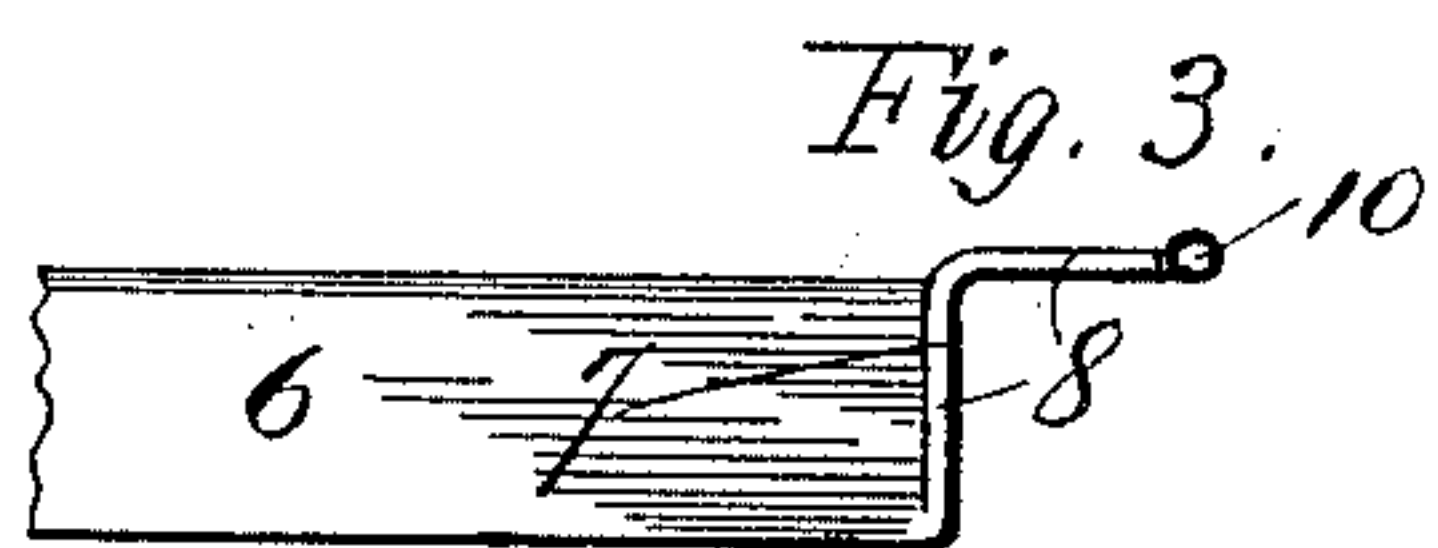
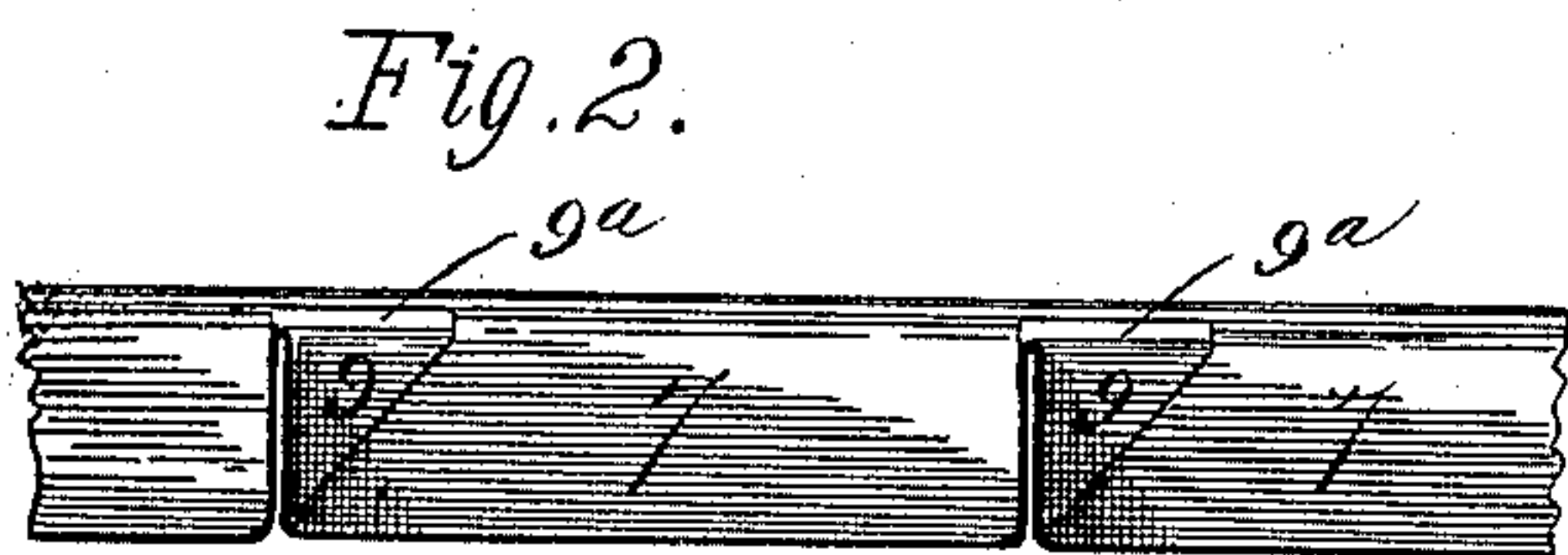
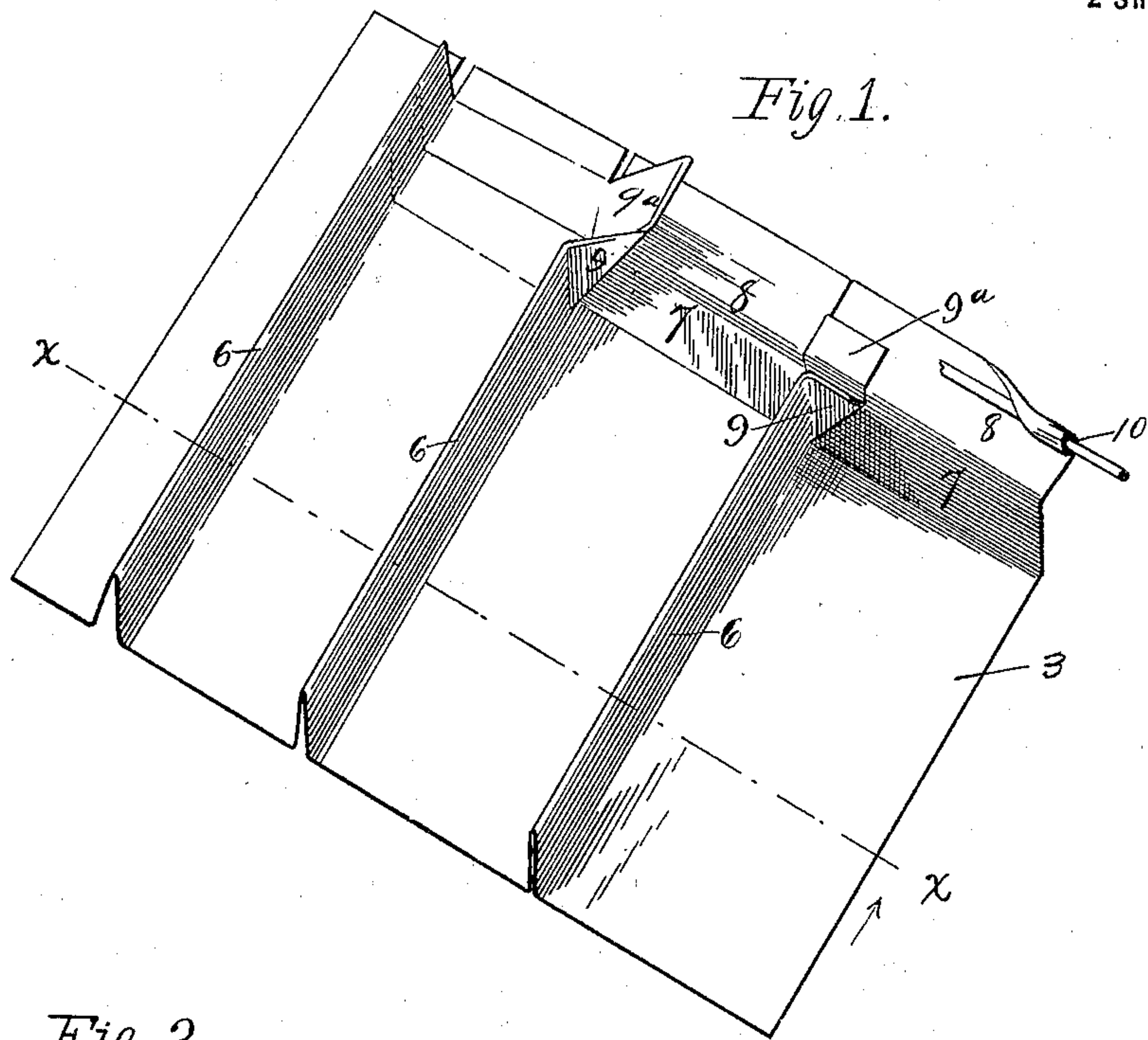
Patented July 24, 1900.

L. O. BROWN.
COFFIN CASE.

(Application filed June 2, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

David C. Walter
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INVENTOR.

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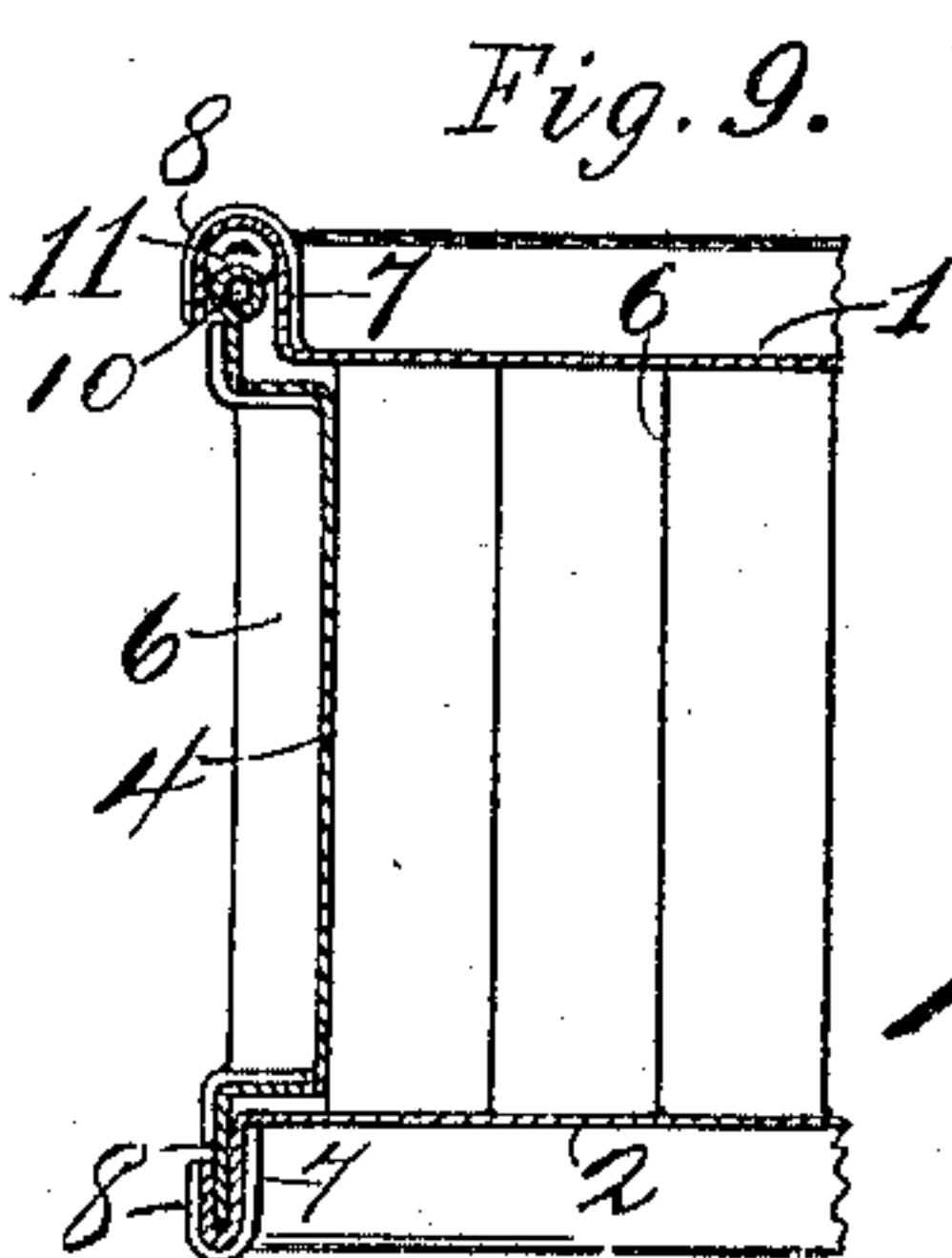
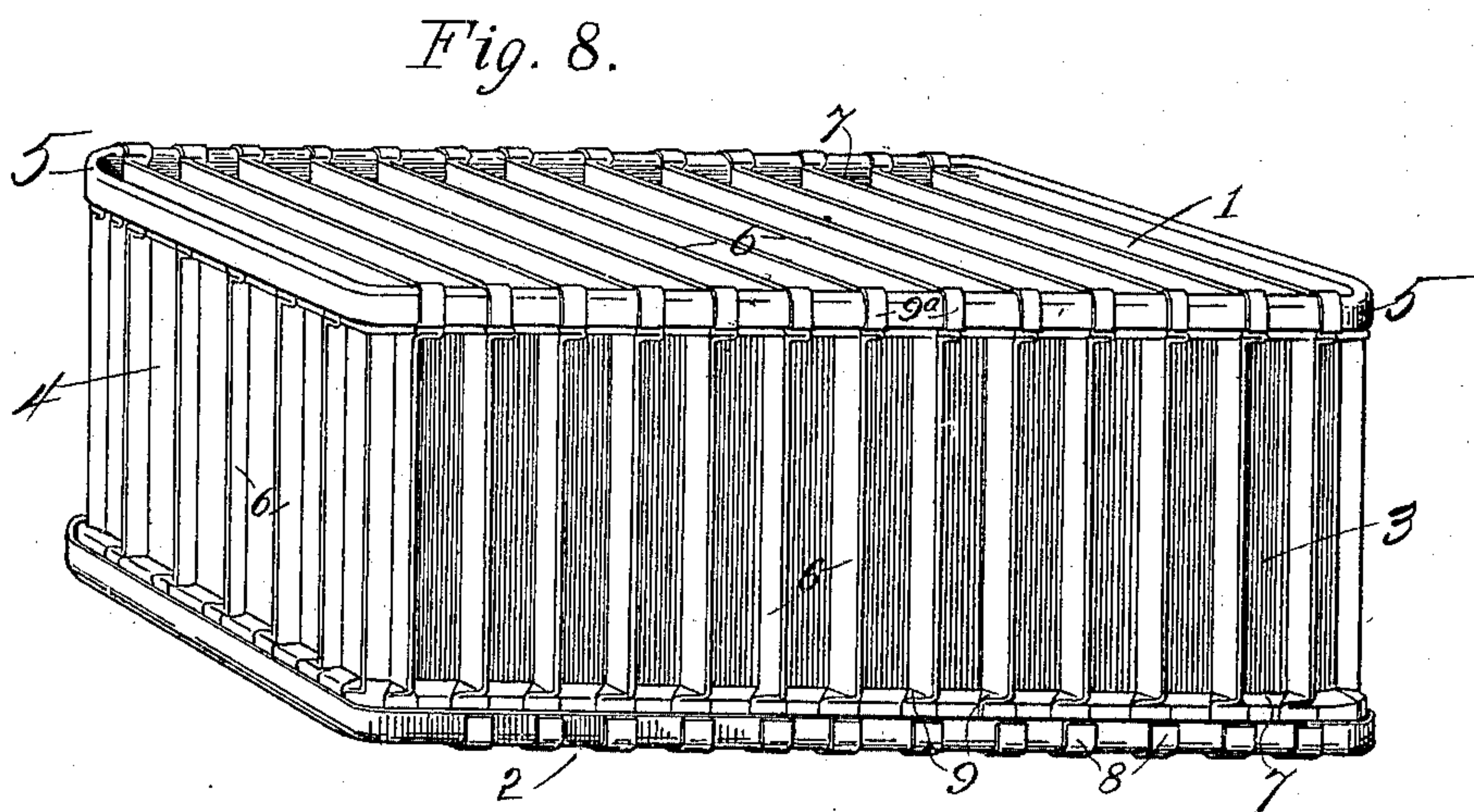
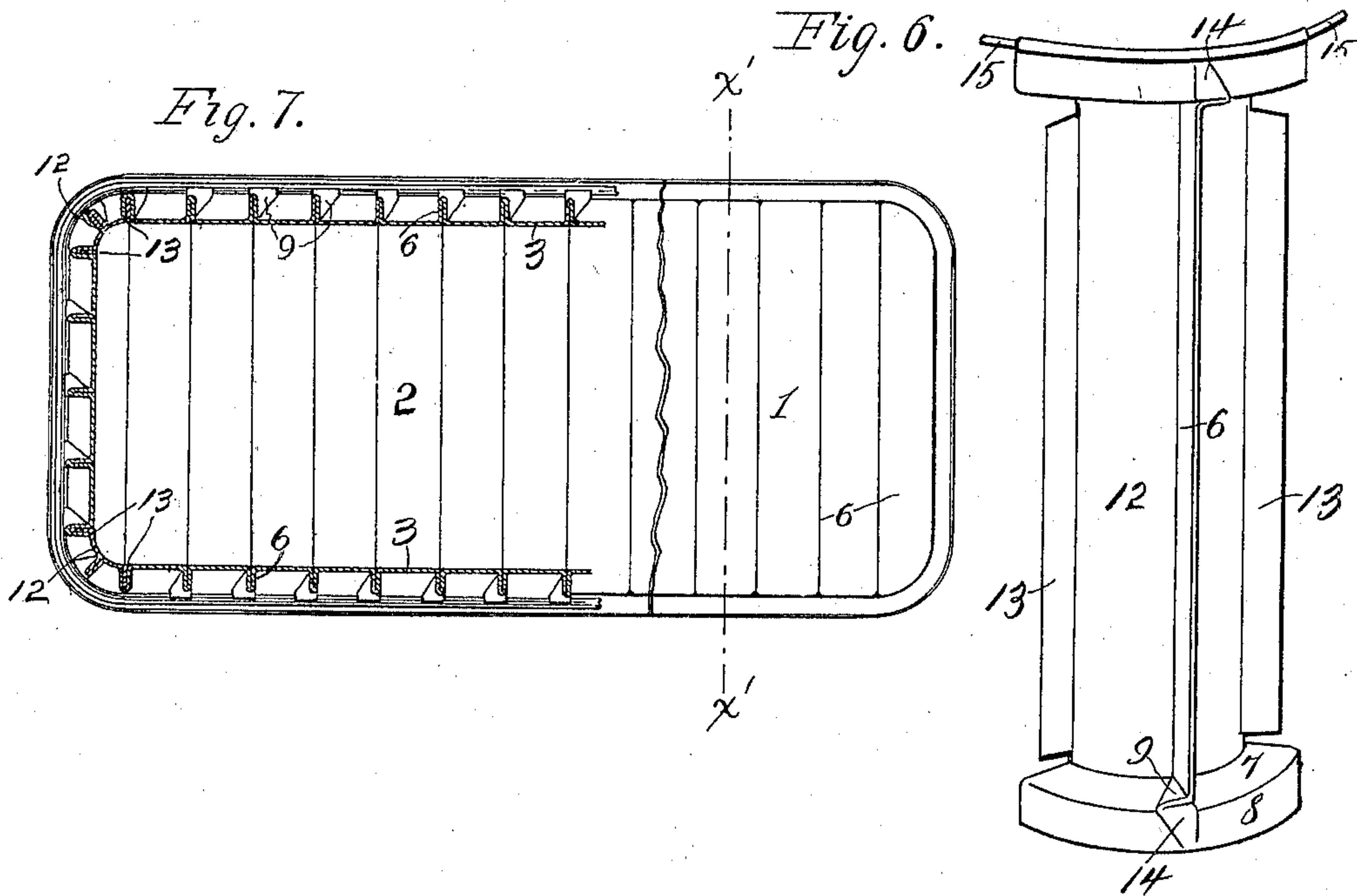
Patented July 24, 1900.

L. O. BROWN.
COFFIN CASE.

(Application filed June 2, 1900.)

(No Model.)

2 Sheets—Sheet 2.



WITNESSES:

David C. Walter.
L. Brown.

INVENTOR.

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UNITED STATES PATENT OFFICE.

LEWIS O. BROWN, OF TOLEDO, OHIO, ASSIGNOR TO THE BROWN OIL CAN COMPANY, OF SAME PLACE.

COFFIN-CASE.

SPECIFICATION forming part of Letters Patent No. 654,435, dated July 24, 1900.

Application filed June 2, 1900. Serial No. 18,820. (No model.)

To all whom it may concern:

Be it known that I, LEWIS O. BROWN, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Coffin-Cases; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to sheet-metal coffin-cases of the class shown in United States Letters Patent granted to me April 18, 1899, No. 623,273, and is designed to improve the construction shown in said patent, and more particularly to dispense with cutting the sheet metal in forming the marginal right-angled flanges shown in the patent referred to, and to thereby facilitate the construction of a case which shall be air-tight and water-tight.

A further object of my invention is to simplify and cheapen the manufacture of this class of cases by a construction which in their manufacture permits the convenient and economical use of dies and presses. The construction hereinafter shown and described does away with heavy cumbersome joints and presents a neat and workmanlike appearance.

My case is composed of sheet metal, preferably sheet-steel, of suitable thickness and consists of vertical sides and ends and a horizontal top and bottom. These parts are on their exterior provided with ribs consisting of outwardly-projecting pleats, crimps, or folds formed in the sheet metal, which ribs in the top, bottom, and sides coincide with each other and lie in the same parallel planes, thus imparting great strength to the case. The ends are formed in the same manner and are connected with the sides by means of corner-pieces vertically ribbed to correspond with the sides and ends and curved in transverse horizontal section.

A further object of my invention is to utilize the cross crimps or folds of the sides and

ends as means for interlocking and securing these parts with the corner-pieces.

Figure 1 is a perspective view of a sheet of metal forming a portion of the side or end of my case, showing three crimps or folds in successive stages of formation; Fig. 2, an edge elevation of the same finished, taken on line $x x$, Fig. 1; Fig. 3, an end view of a portion of the same seen from the right in Fig. 1; Fig. 4, a perspective view of the top of the lid of my case; Fig. 5, a perspective view of a portion of the rim of the same; Fig. 6, an enlarged perspective view of one of the corner-pieces of my case, hereinafter referred to; Fig. 7, a top plan view of my case with a portion of the lid broken away and a portion of the sides and ends in horizontal section; Fig. 8, a perspective view of my case complete; and Fig. 9 a vertical transverse sectional elevation of one of the sides of my case, taken on line $x' x'$, Fig. 7.

In the drawings, 1 is the top, 2 the bottom, 3 3 the sides, 4 4 the ends, and 5 5 the rounded corners, of my case. Each of these parts is composed of a separate sheet. Across each of these sheets at a right angle to its side margins is a series of pleats, crimps, or folds 6, the two thicknesses of which lie side by side, in contact with each other, and project at a right angle to the plane of the sheet. The first step in forming these crimps or folds is illustrated at the left of Fig. 1. Each of the sheets composing my case at its margin has an outwardly-turned flanged portion 7, intersected by the crimps or folds 6. This flanged portion projects from the plane of the sheet about the same distance as the crimps or folds 6. The flange 7 at top is turned outwardly at a right angle, as at 8. In making the two right-angled turns 7 and 8 it becomes necessary to dispose of the ends of the crimps or folds 6, and to do this without cutting the metal. This is accomplished as shown in the second and third crimps or folds illustrated in Fig. 1. The cross-crimps having been formed, as shown in the first crimp to the left in this figure, in the next step, as the two right-angled turns are made in the margin of the sheet, the crimp or fold is

caused to form a triangular flap or fold 9 which is disposed at a right angle to the crimp or fold 6 and with its side against the flanged part 7. In this triangular flap are four thicknesses of metal. The outer end of the crimp or fold 6 is now closely pressed flatwise upon the flanged portion 8 and forms a small rectangular flap 9^a. It will be understood that each end of all the crimps is treated in the manner above described.

The construction thus far described applies to all of the pieces composing the top, bottom, ends, and sides. In case, however, it is desired to wire either of the margins of either of the plates, the flange 8 is made sufficiently broad to furnish metal for this purpose, and in this case the ends of the crimps are cut off, as shown in Fig. 1, so that when the metal is turned around the wire, as at 10, there will be but a single thickness of metal, thus obviating the difficulty which I have heretofore encountered in wiring the margin of these flanges in which the crimps or folds are entire.

The plates or sheets which form the bottom and top of my case have their flanged portions 8 bent upon the flange 7 in a return-bend, in U shape, as illustrated in Fig. 5. The lower margins of the sides and ends rest in this up-turned U-shaped recess, (see Fig. 9,) and the three thicknesses of metal are stamped or crimped so closely together as to form a tight joint. The top margin of the sides and ends is wired, as at 10, and the inverted-U-shaped recess around the margin of the top slips over the wired portion, as shown in Fig. 9. In the recess in the flange of the top may be placed a packing 11, and thus when the top is secured in place by clamps, rods, or otherwise the packing will form a tight joint.

The sides and ends of the case are somewhat shorter than the length and breadth of the top and bottom, which latter parts are rounded at their corners, as illustrated in Figs. 7 and 8. The sides and ends are connected at the corners by means of curved pieces. (Illustrated in Fig. 6.) These pieces in transverse section are formed in the arc of a circle and have radially-projecting crimps 13, formed in the same manner as above described, except that the flat rectangular flap or fold 9^a now becomes triangular, as at 14, this formation being due to the stretching of the flanges into curvilinear form. In practice I prefer to furnish the piece 12 with three of the radial crimps or folds 13 and to form the two outer crimps or folds of but single thicknesses. These are slipped outwardly into the space between the two thicknesses of the crimps 6 at the ends of the side and end pieces, as seen in section at the left of Fig. 7, these crimps being left open for that purpose. When the corner-crimps are set up tight, the parts are interlocked, and the connection between the corner pieces and the end and side pieces here described form tight joints. The

top flange of the corner-piece 12 is wired, as at 15, and the projecting ends of the wire fit into corresponding sockets in the flanges of the neighboring end and side pieces, which sockets are formed by omitting for a short distance the wire 10.

It will be seen that the box here described has a smooth interior and strongly-ribbed exterior and that the excess of metal at the intersection of the cross-crimps and the flanges of the parts from 1 to 5, inclusive, is disposed of without cutting the metal or making openings in the case. It will also be seen that the separate rounded corners are attached and secured without breaking or impairing the joints.

It will be understood that in practice this case is heavily galvanized inside and out and that by this means tight joints are further insured.

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

1. In a sheet-metal case, a sheet of metal, flanges at opposite margins of the sheet turned at a right angle to the plane of the sheet, a series of projecting cross crimps or folds extending from flange to flange, and a triangular flap or fold at each end of each of said cross-crimps, lying at an angle to the cross-crimps and against the flanges.

2. In a sheet-metal case, a sheet of metal, a series of cross crimps or folds in said sheet, a marginal flange for said sheet, which flange is formed by two right-angled bends, triangular flaps or folds in the cross-crimps between the two marginal bends and flat rectangular flaps or folds in the cross-crimps next to the margin of the sheet.

3. In a sheet-metal case, a sheet of metal, a series of cross-crimps in said sheet, the metal of which crimps is cut away at the margin of the sheet, a wire which is wrapped with the parts of the metal between the cut-away portions, a flange for said sheet at a right angle to the cross-crimps, and triangular flaps or folds in the cross-crimps at their intersection with the flange.

4. In a sheet-metal box or case, sheets of metal composing the sides and ends thereof, sheets of metal curved in horizontal section composing the corners of the case, and projecting vertical crimps or folds in the side pieces and end pieces interlocked with corresponding portions on said corner-pieces.

5. In a sheet-metal case, a corner-piece curved in transverse section, a curved flange at top and at bottom of said corner-piece having two right-angled bends, a crimp or fold extending from flange to flange, a triangular flap in said crimp between the two bends and a triangular flap 14 in said crimp next to the margin of the piece.

6. In a sheet-metal case, a lid, lateral folds or crimps extending between opposite mar-

gins of the lid, a flange for said lid having a
return-bend whereby a marginal recess is
formed in said lid for the reception of the top
of the case, combined with triangular flaps or
5 folds at each end of each of said cross-crimps
formed by the intersection of said cross-
crimps with said flange.

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

LEWIS O. BROWN.

Witnesses:

F. M. DOTSON,
L. BROWN.