

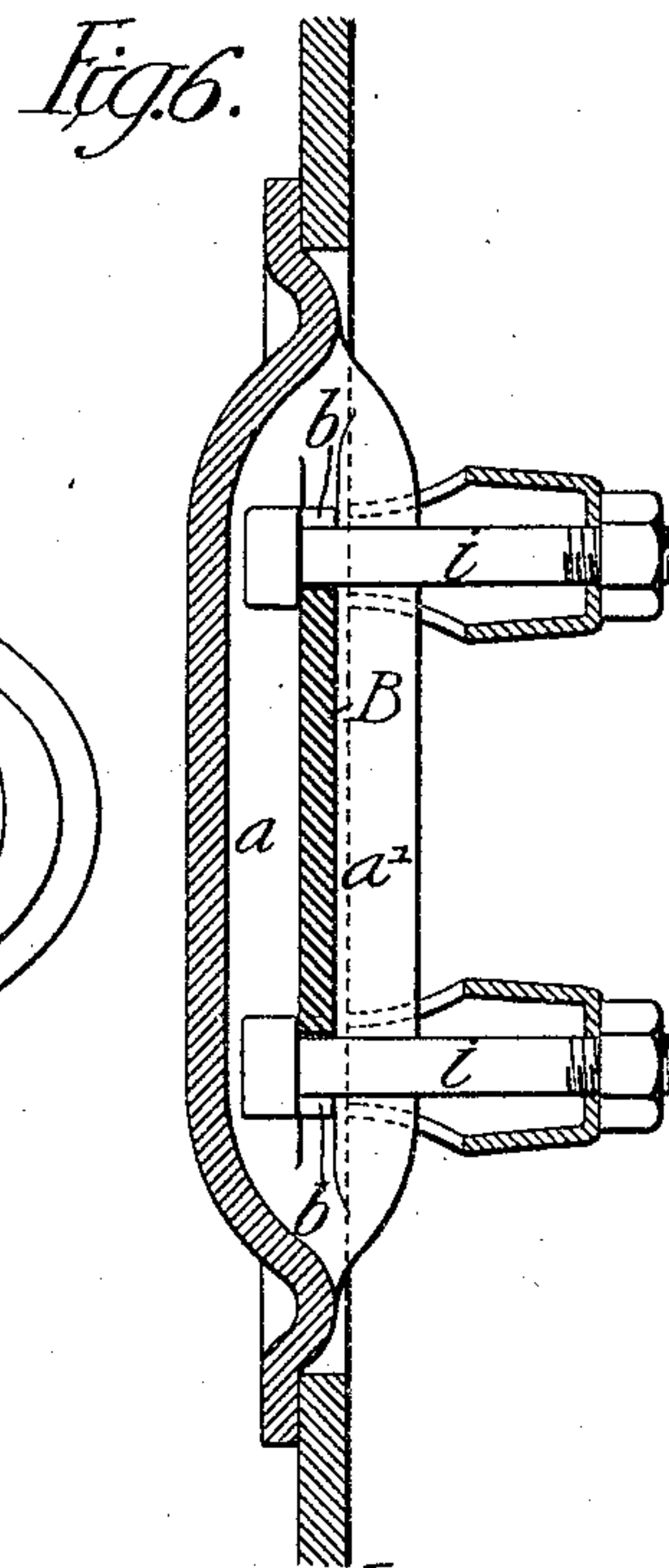
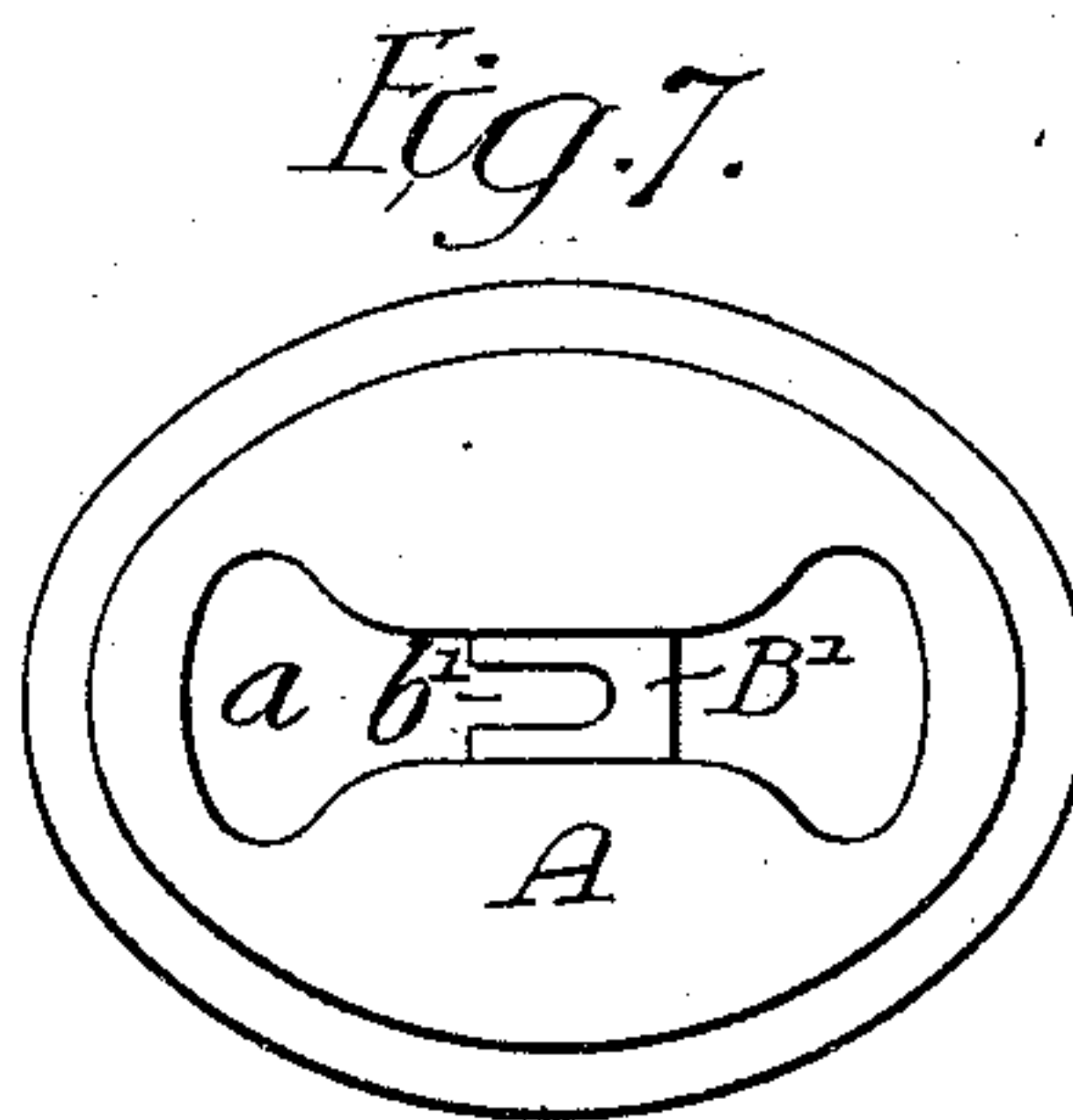
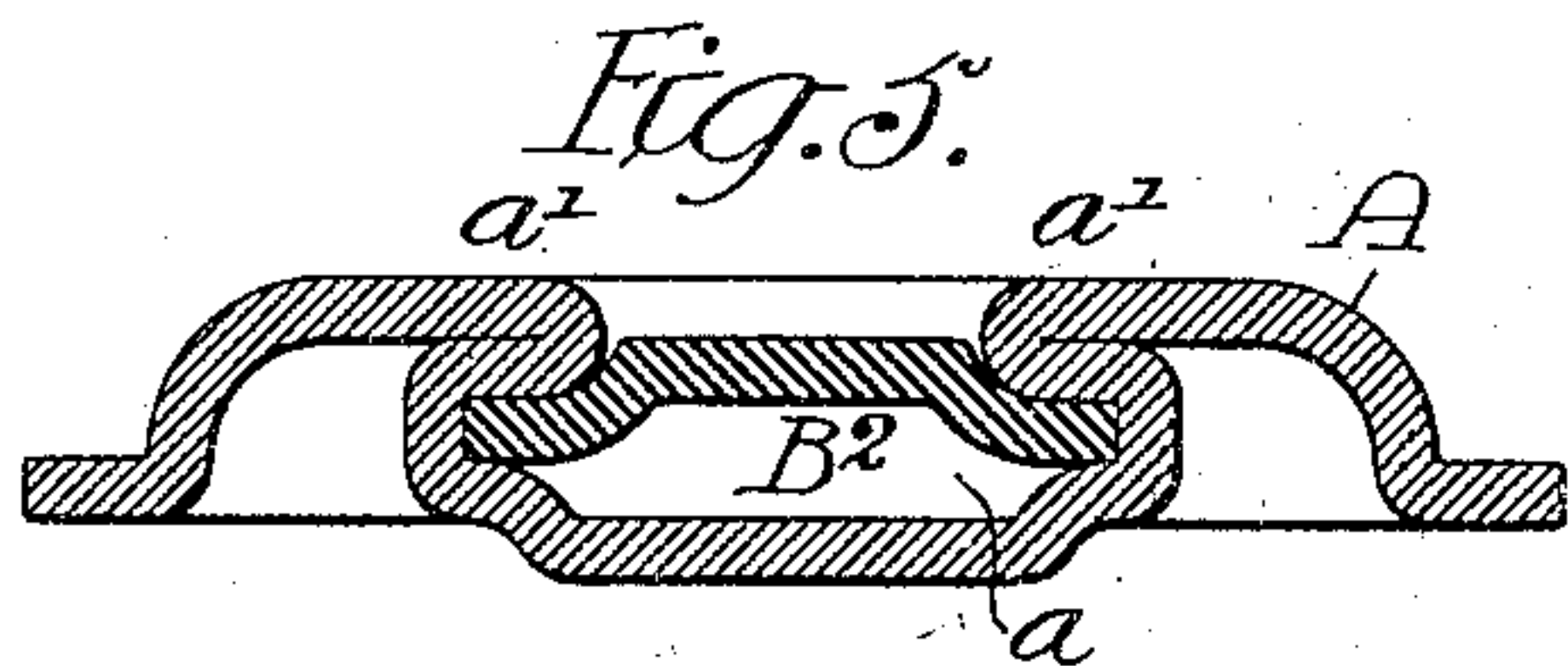
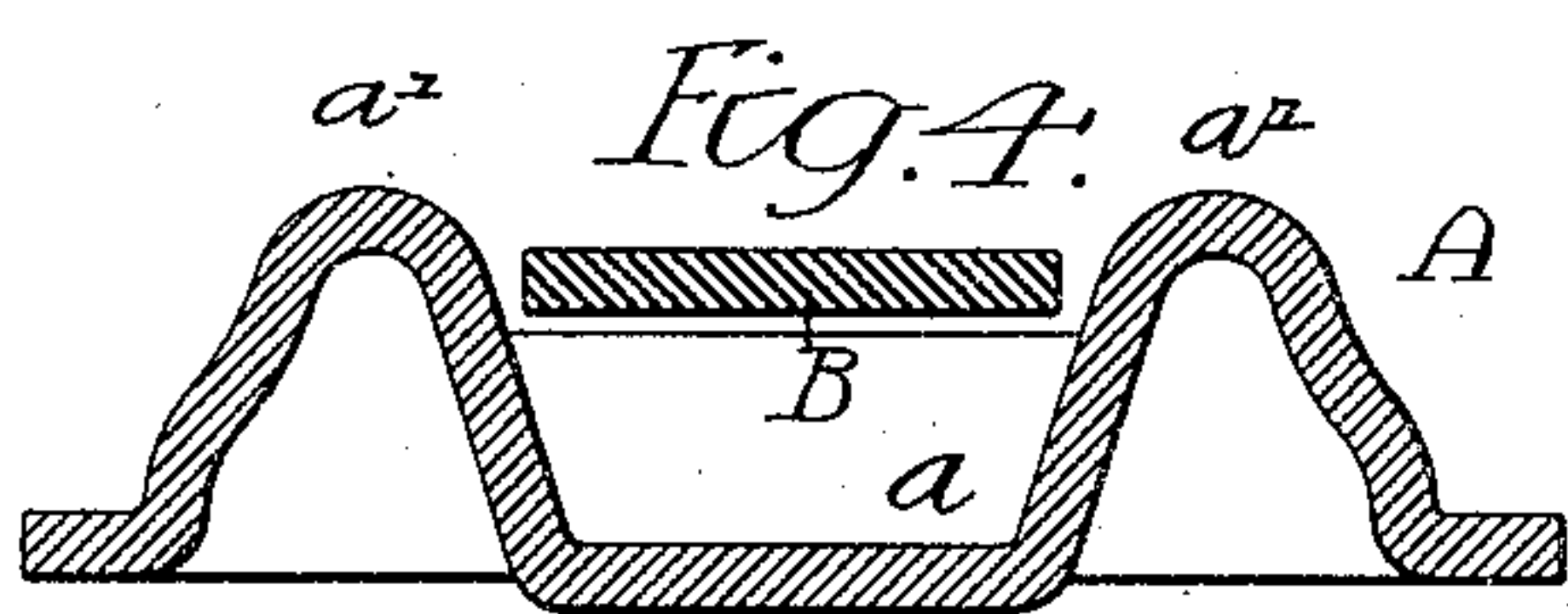
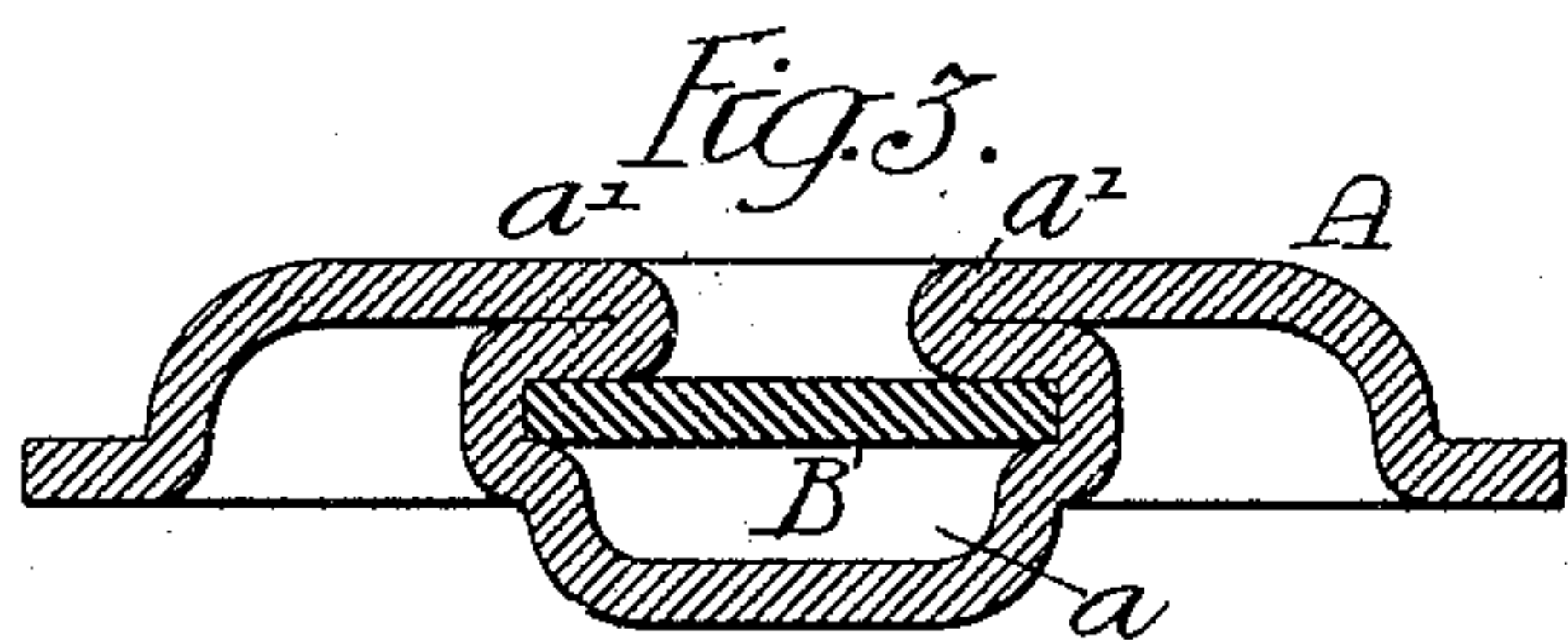
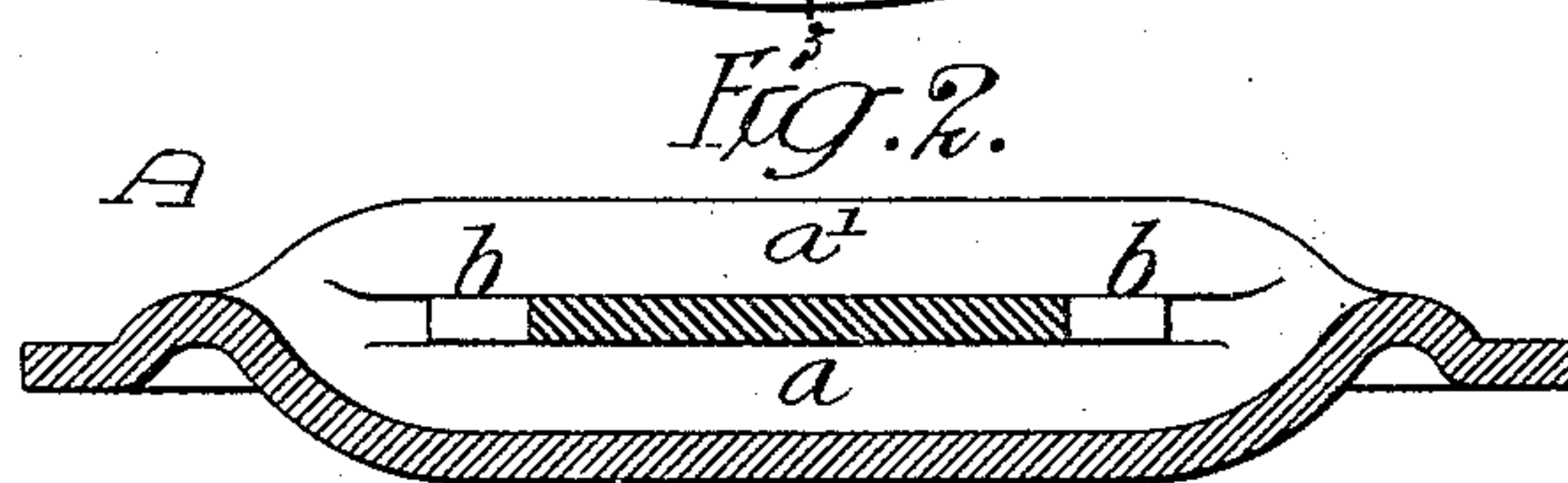
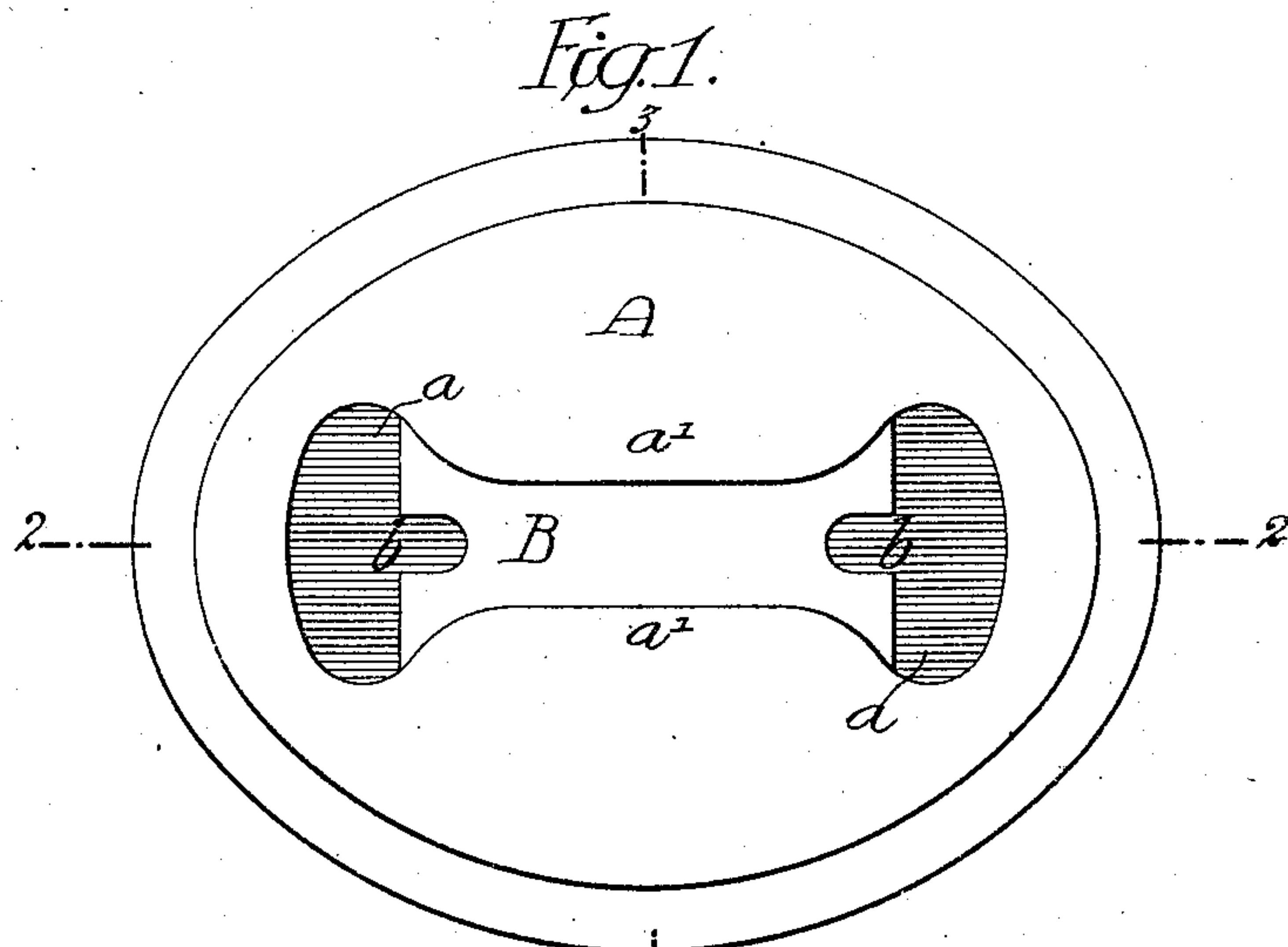
No. 788,441.

PATENTED APR. 25, 1905.

J. H. VANDERSLICE.

MANHOLE COVER.

APPLICATION FILED JAN. 18, 1905.



Witnesses:
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UNITED STATES PATENT OFFICE.

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MANHOLE-COVER.

SPECIFICATION forming part of Letters Patent No. 788,441, dated April 25, 1905.

Application filed January 18, 1905. Serial No. 241,679.

To all whom it may concern:

Be it known that I, JOHN H. VANDERSLICE, a citizen of the United States, residing at Coatesville, Pennsylvania, have invented certain Improvements in Manhole-Covers, of which the following is a specification.

The object of my invention is to provide a manhole-cover with means by which the cover is secured to the shell of the boiler or other container without passing the bolt through the cover. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of my improved manhole-cover. Fig. 2 is a longitudinal sectional view on the line 2 2, Fig. 1. Fig. 3 is a transverse section on the line 3 3, Fig. 1. Fig. 4 is a view showing the blank after the first step in the process of manufacture and before the blank is turned down over the plate. Fig. 5 is a view of a modification. Fig. 6 is a view showing my improved manhole-cover attached to a boiler-shell, and Fig. 7 shows the plate with a single recess for a bolt.

A is a struck-up sheet-metal cover having a depression *a* and projecting portions *a'*. These portions *a'* extend on each side of the plate and are of such a height that when the blank is pressed in the first step in the process of manufacture, as shown in Fig. 4, they can be turned over the edges of a plate B, as shown in Fig. 3, thus clamping the plate rigidly and permanently to the cover A. This plate I prefer to notch at *b b* to receive the bolts *i i*, by which the cover-plate is secured to the boiler, the heads of the bolts, as illustrated in Fig. 6, resting back of the plate and in the depressed portion *a* of the cover.

In Fig. 7 I have illustrated a plate B' with a single notch *b'*, placed centrally in respect to the cover-plate, and in Fig. 5 I have illustrated a construction in which the plate B² is bent so as to allow room for the head of the bolt, the depressed portion of the cover-plate being not as deep as the construction shown in Fig. 3.

By the construction above described I am enabled to make a very substantial cover-plate

for the manholes of steam-boilers or other containers without perforating the cover and without relying on the cover itself to grasp the heads of the bolts. Thus I am enabled to use common stock-bolts and do not have to provide bolts with special heads for the improved cover, so that in the event of a breakdown any headed bolts of the proper diameter and length can be used to make the repair, and by providing a plate such as shown in the drawings I am enabled to get a firm bearing of the head of the bolt upon the plate and an extended bearing of the plate upon the flanged portion of the cover.

I claim as my invention—

1. The combination of a manhole-cover with a plate secured thereto by an overlapping portion of the cover, substantially as described.

2. The combination of a manhole-cover, having a depression and side flanges, with a plate recessed for the reception of a retaining-bolt, said plate being permanently secured to the cover by the overlapping side flanges thereof, substantially as described.

3. The combination of a manhole-cover, having a depression and side flanges, with a plate situated between the side flanges and secured to the cover by the overlapping portions of said flanges, said plate having notches in each end for the reception of retaining-bolts, substantially as described.

4. The combination of a manhole-cover, having a central longitudinal depression, and flanges at each side of the depression, with a plate notched at each end to receive securing-bolts, said plate being mounted between the side flanges of the cover and sufficiently above the bottom of the depression to allow the heads of the bolts to pass under the plate, the plate being secured to the cover by the overlapping side flanges, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. VANDERSLICE.

Witnesses:

WILL. A. BARR,
JOS. H. KLEIN.