

April 8, 1924.

1,489,274

J. PETTY

JOINT FOR STEEL AND OTHER PLATES

Filed May 19, 1923

Fig. 1.

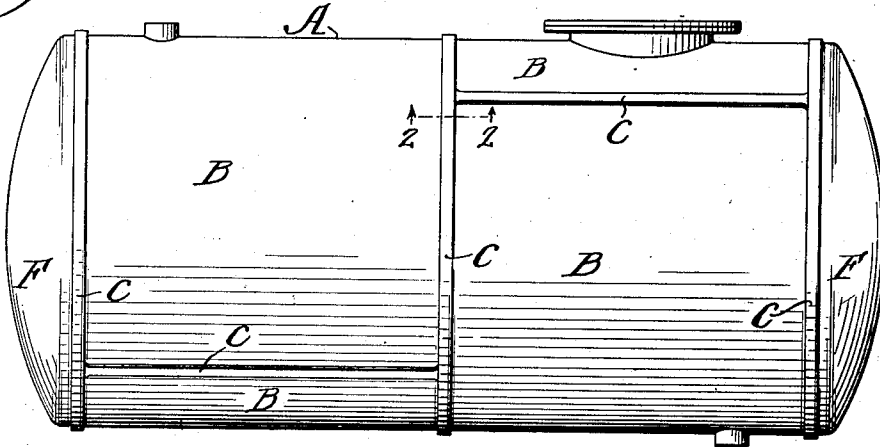


Fig. 2.

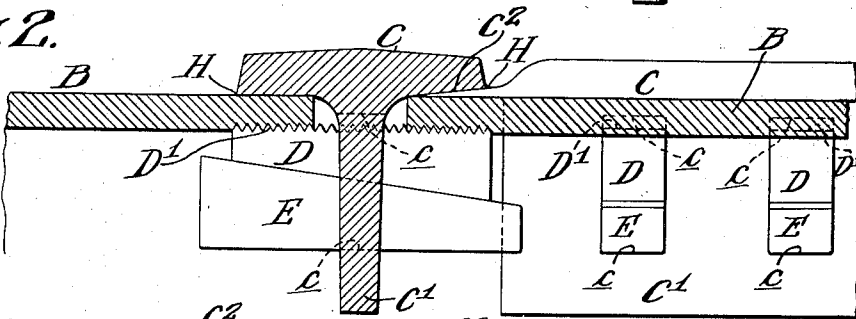


Fig. 3.

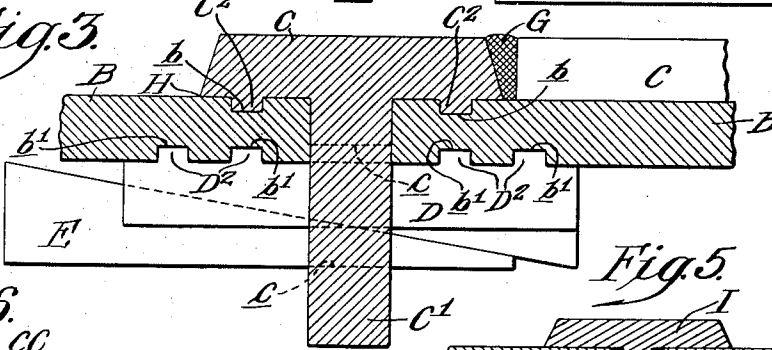


Fig. 6.

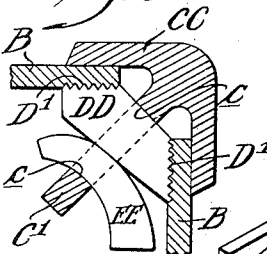


Fig. 4.

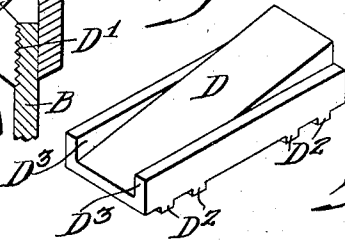
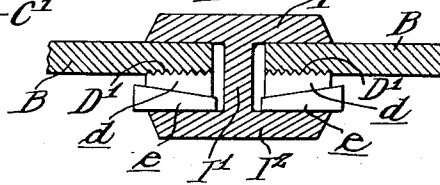


Fig. 5.



Inventor.
John Petty.

by James J. Chamberlain
his Attorney.

Patented Apr. 8, 1924.

1,489,274

UNITED STATES PATENT OFFICE.

JOHN PETTY, OF LEBANON, PENNSYLVANIA.

JOINT FOR STEEL AND OTHER PLATES.

Application filed May 19, 1923. Serial No. 640,190.

To all whom it may concern:

Be it known that I, JOHN PETTY, a citizen of the United States of America, and resident of Lebanon, county of Lebanon, State of Pennsylvania, have invented a certain new and useful Improvement in Joints for Steel and Other Plates, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to the construction of joints for holding adjacent plates of tanks or other structures together and has for its object to provide a joint for this purpose of simple and efficient construction and of such a character that it can readily be used in the erection of tanks and other structures in the field. The nature of my improvements will be best understood as described in connection with the drawings in which they are illustrated and in which—

Figure 1 is a side elevation of a cylindrical tank the plates of which are secured together by my improved joint.

Figure 2 is a cross sectional view taken as on the line 2—2 of Fig. 1.

Figure 3 is a view generally similar to Fig. 2, but showing a modification in the construction of the parts.

Figure 4 is a detail of the serrated clamping block shown in Fig. 3.

Figure 5 is a sectional view of a modification of my joint, and

Figure 6, still another sectional view showing another modification adapted for corner seams of rectangular tanks.

Referring first to the construction shown in Figs. 1 and 2, A is the tank. B, B, etc., the plates of which the tanks are made up. C, C, the flanges or T heads formed on stems C' in which stems are formed perforations extending from c to c. D, D, etc., indicating clamping blocks the upper edges of which are serrated, as indicated at D'. E, E, etc., are wedges.

In putting the tank together the stems C' of the T bars are inserted between adjacent edges of the plates B, B, and the T head C brought in contact with the edges of the plates. The serrated clamping blocks D are then inserted through the perforations in the stems so that their serrated faces lie against the opposite edges of the plates and the wedges E are then inserted in the perforations of the stem and driven in against the clamping blocks D with the result that

the plate edges are tightly gripped between the T head and the clamping blocks.

Where, as shown in Fig. 2, the seams intersect each other, the end of the T may be drawn down, as indicated at C², so that the T C lying at right angles will lie over it, as shown in Fig. 2, and in all cases it is advisable that the edges of the T indicated at H, H, should be caulked down against the plate.

In the modification illustrated in Fig. 3, the adjacent plates are formed with grooves, one groove on the upper edge of the plate being indicated at b, and two grooves on the lower edge of the plate being indicated at b'. In this construction the T head C is formed with projecting ledges C² which extend into the groove b and the clamping blocks D are formed with rectangular projections or serrations indicated at D², which extend into the grooves b'. The clamping blocks D are also in this construction illustrated as having guiding ledges D³ between which the wedges E are driven and the effect of which is to properly align the clamping blocks and wedges. I have illustrated in this modification a weld, shown at G, where the T heads and the seams intersect each other.

In the modification illustrated in Fig. 5, in place of using a T bar, an H-shaped bar is used, having heads I and I' and a connecting web or stem I'. The head I is placed against the edges of adjacent plates B, B, and clamping plates d, d, are placed against the inner edges of the plates and the parts drawn together to grip the plates by means of wedges indicated at e, e, these wedges acting against the head I' and the clamping blocks, as shown.

The modification illustrated in Figure 6 is an adaptation of my invention for use in the angular seams of rectangular or angular tanks. The web C' is here formed with an angular T head C, C, adapted to rest upon the edges of the adjacent but angularly set plates B, B, and the clamping blocks D, D, have their serrated edges, indicated at D', arranged at right angles to each other so as to rest firmly against the opposite sides of the plate edges. The wedges E, E, for this construction are preferably made of the curved form shown so that they can be more readily driven into place against the blocks D, D.

Having now described my invention, what

I claim as new and desire to secure by Letters Patent, is:

1. A plate joint comprising a stem adapted to extend between adjacent plates and having a T head adapted to rest against the edges of said plates, serrated clamping blocks adapted to rest against the opposite edges of the plates and wedges adapted when driven in to act against the clamping blocks and draw the stem in the opposite direction so as to clamp the plate edges between the T head and serrated blocks.

2. A plate joint comprising a T bar, the

head of which is adapted to rest on the edges of adjacent plates and the stem of which extends between the plate edges, said stem having a series of perforations formed through it, serrated clamping blocks extending through perforations in the stem and abutting against the edges of the plates and wedges also extending through the perforations and by means of which the head of the T bar and the serrated blocks are drawn against the plate edges.

JOHN PETTY.