Feb. 20, 1940. C. E. GREENING 2,191,142

TANK PACKING

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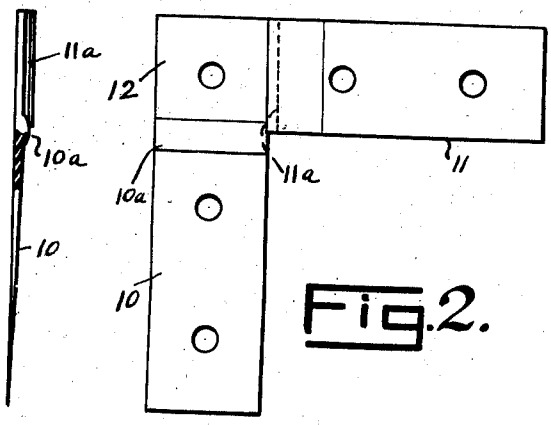


Fig. 2.

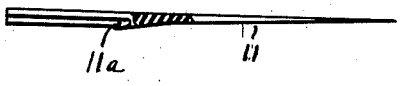


Fig. 4.

Fig. 3.

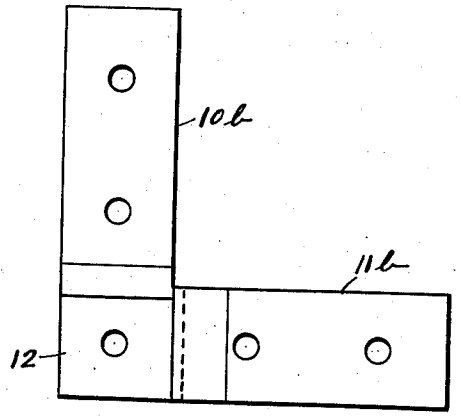


Fig. 5.

Fig. 1.

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TANK PACKING

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2 Claims. (Cl. 288—33)

This invention relates to a tank packing.

An object of the invention is to provide a tank packing or gasket formed of rubber or similar resilient material and shaped to fit snugly between the overlapping parts of the metal plates, of which a tank is formed, and to fit closely into the angle between the vertical wall and the horizontal flange of the tank.

Another object of the invention is to provide a packing or gasket formed with angularly disposed wings one of said wings being adapted to lie between the overlapping margins of the vertical wall plates and the other wing being adapted to assume a horizontal position and to lie between the coinciding horizontal flanges of the adjacent wall plates.

It is a further object of the invention to provide a tank packing or gasket formed of resilient material and having wings united at one end and extended at approximately right angles to each other, one of said wings being adapted to be fitted between the overlapping margins of the vertical wall plates and having a transverse rib to fit into the angle between the vertical wall plate and the horizontal flange thereof. The other wing being adapted to be fitted between the coinciding flanges of adjacent wall plates and being provided with a transverse undercut groove to receive the opposing end margin of the adjacent flange.

It is a further object of the invention to provide a tank packing or gasket having an intermediate thickened portion provided with an undercut transverse groove and shaped to be fitted between the overlapping ends of the horizontal wall flanges, said groove being arranged to receive the opposing end margin of the adjacent flange.

With the above and other objects in view the invention has particular relation to certain novel features of construction, arrangement of parts and use, an example of which is given in this specification and illustrated in the accompanying drawing, wherein:

Figure 1 shows a fragmentary, side elevation, partly in section, of a tank wall showing the packing or gasket applied.

Figure 2 shows a plan view of the packing.

Figure 3 shows an edge view, shown partly in section.

Figure 4 shows an edge view taken at right angles to the view shown in Figure 3 and shown partly in section, and

Figure 5 shows a plan view of the gasket constructed reversely to the construction illustrated in Figure 2.

Referring now more particularly to the drawing wherein like numerals of reference designate the same parts in each of the figures, the numerals 1, 2 designate adjacent wall plates of a tank whose margins overlap and are secured together by bolts as 3. Between these overlapping margins there is a packing strip or gasket 4 formed of resilient material and extending from top to bottom of the overlapping margins. The plates 1, 2 have the marginal, external flanges 5, 6 extending out horizontally therefrom. The plates 1, 2 form part of a series of plates which extend entirely around the tank and the numeral 7 designates a wall plate of the series beneath. The plates of each series also have the external top flanges as 8 extending outwardly in a horizontal direction therefrom. The flanges at the bottom of one series of plates coincide with the flanges at the top of the series beneath as illustrated in Figure 1 and between these coinciding flanges there is a gasket of resilient material as indicated by the numeral 9. The end of the flange 6 of the plate 2 which overlaps the adjacent end of the flange 5, of the plate 1, has the slightly elevated portion 6a.

It is very difficult to pack the joint between the overlapping ends of these flanges as well as the joint formed at the angle between the overlapping portions of the flanges and the overlapping portions of the vertical wall plates and a special form of gasket has been provided which constitutes the invention disclosed herein and which will now be described:

The gasket is in the form of an L having the wings 10, 11. These wings taper, in thickness, toward their free ends, as shown more clearly in Figures 3 and 4. At their juncture the wing 10 has a transverse, oval rib 10a and the wing 11 has a transverse, thickened portion provided with an undercut groove 11a facing in a direction away from the free end of said wing 11. In assembling the wall plates of a series, during the process of erecting the tank the gasket is applied with the wing 10 fitted between the overlapping margins of the wall plates and with the rib 10a fitted into the angle between the wall plate and its corresponding horizontal flange. The remaining portion of the gasket including the wing 11 is turned outwardly into a plane at right angles to the plane of the wing 10 and fitted between the adjacent, overlapping wall flanges. That is, as shown in Figure 1, the wing 10 is fitted between the overlapping margins of the plates 1, 2 and the

wing 11 is fitted between the overlapping flanges 6, 8 with the adjacent end of the flange 5 fitting into the groove 11*a* with the section 12, which unites the wings, lying between the elevated portion 6*a* of the flange 6 and the corresponding end of the flange 5 underneath. The rib 10*a* thus forms a very close fit in the angle making a fluid tight seal at that point and the thickened portion of the wing 11 forms a very tight seal between the overlapping ends 5, 6*a* particularly in view of the fact that the free end of the flange 5 is fitted closely into the transverse groove 11*a*. As may be noted from an inspection of Figure 2 the gasket is provided with suitable bolt holes which register with the bolt holes through the overlapping margins of the plates and flanges to receive the securing bolts 3.

As hereinabove stated the wings 10, 11 taper toward their free ends. As clearly shown in Figure 1 the complementary portions of the packing strips 4, 9 are reversely tapered so that the combined thickness of these complementary tapered portions will be the same as the maximum thickness of the packing strips 4, 9.

In some situations the wing 10 is not necessary and may be either cut off leaving only the wing 11 and the portion 12 or in the manufacture of the article some of the gaskets may be formed without the wing 10.

At the top of each tier and underneath the coinciding flanges the wing 10*b*, Figure 5, will be extended downwardly between the overlapping margins of adjacent wall plates instead of upwardly as shown in Figure 1 and the wing 11*b* will be extended horizontally. The gaskets used for this purpose, that is, for packing the joints at the top of each tier of staves, or wall plates, are therefor constructed in a reverse manner with respect to the construction shown in Figure 2.

The drawing and description disclose what is now considered to be a preferred form of the invention by way of illustration only, while the broad principle of the invention will be defined by the appended claims.

What I claim is:

1. A packing gasket having wings joined together at one end and whose other ends extend out at an approximately right angle to each other and are tapered toward their free ends, one of said wings having a transverse rib and the other wing having a transverse groove on the same side of the gasket as the rib.

2. A packing gasket formed of yieldable material and having wings joined together at one end and extending in angular relation to each other, one of said wings having a transverse thickened portion on one side at the juncture of the wings and the other wing being thickened at said juncture and having a transverse groove on the same side of the gasket as the thickened portion.

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