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N. HUBBARD

1,892,618

PACKING FOR JOINTS

Filed Feb. 3, 1928

Fig. 1.

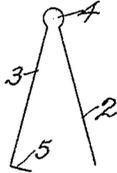


Fig. 2.



Fig. 3.

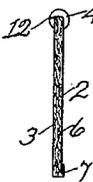


Fig. 4.

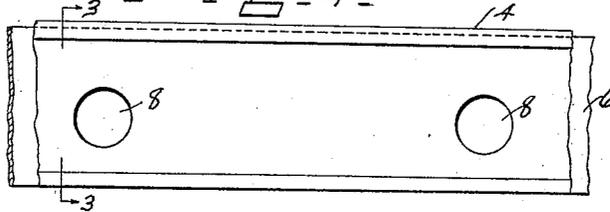


Fig. 5.

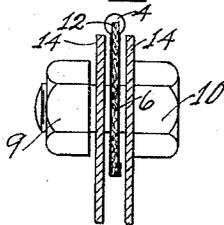


Fig. 6.

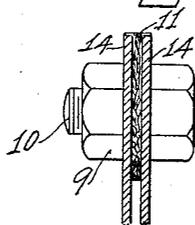


Fig. 7.

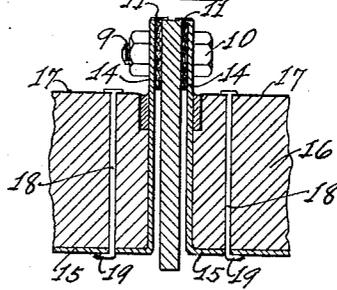


Fig. 8.

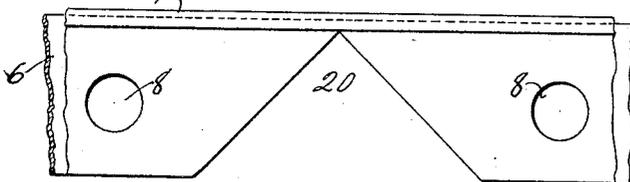


Fig. 10.

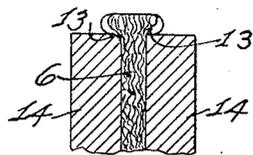
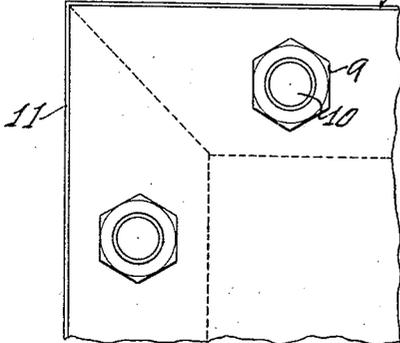


Fig. 9.



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## PACKING FOR JOINTS

Application filed February 3, 1928. Serial No. 251,503.

This invention relates to a fabricated packing strip or device that is especially suitable for being placed in the joints between flanges of sections of a boiler casing, but it is to be understood that the invention is not restricted to this particular use.

The invention will be understood from the description in connection with the accompanying drawing, in which Fig. 1 is an end view of a metal component of any required length; Fig. 2, an end view of the metal component with a compressible core inserted therein; Fig. 3, an end view of the fabricated packing strip; Fig. 4, a side view of same; Fig. 5, a sectional view of a method of mounting the packing strip between two plates; Fig. 6, packing strip clamped between two plates in its finished condition; Fig. 7, an application of packing strips to a conventional boiler casing; Fig. 8, side view illustrating a method of preparing the strip to bend around a corner; Fig. 9, a corner of a conventional boiler casing showing a strip in position; Fig. 10, an enlarged section of the strip in position between two plates with the bead partially flattened.

In the drawing, reference characters 2 and 3 indicate diverging sides of the metal component connected by a circular bead 4 and with a flange 5 at the outer edge of side 3, adapted to be bent around the edge of a packing core 6 and the outer edge of side 2, as shown at 7 when the sides are brought to contact with packing 6 as shown in Fig. 3. The packing 6 may be of any comparatively soft compressible material, as for example, asbestos.

Holes 8 may be pierced through the fabricated strip for the passage of bolts to clamp on packing strip, as indicated in Figs. 4, 5 and 6. When the packing strip is placed between flanges 14 of plates that make up the casing of a boiler so as to prevent leakage at the joint, the strip is installed as shown by Fig. 5 and clamped by screwing up of nuts 9 on bolts 10 passing through the holes 8 and corresponding holes in flanges 14 of the casing after which the bead is flattened as shown at 11 by the use of a roller or blunt instrument.

It will be noted that the packing strip 6 is wider than the length of the legs 2 and 3 so that it projects into the circular bead 4 as shown at 12, Figs. 2, 3 and 5; the purpose of the projecting portion of packing strip is that as the bead 4 is flattened the projecting portion 12 of the packing strip 6 is spread in a manner to fill the bead and as the flattening of the bead progresses, this projecting portion 12 of the packing 6 becomes a medium for transferring the pressure applied to the bead to the metal component where it contacts with the edges 13 of the plates 14, Fig. 10, so as to force or drive the metal of the sheath into every inequality of the edges 13 of the plates 14 to provide a gas or air tight joint.

In the design of boiler casing illustrated by Fig. 7 flanges 14 are formed on the boiler casing plates 15, insulating material 16 and cover plates 17 are applied and secured by small metallic members 18, such as wire nails, for example, passed through the insulation and casing plates to be bent over on the inside of the latter, as indicated at 19. By means of the small area of the members 18 compared to their relatively great length, such heat as is conducted from the casing plates 15 into the holding members 18 is dissipated in the insulating material 16, thus preventing the outer plate 17 being heated in the region of the members as is usual in cases where bolts or other members of large diameter are used.

In the modification shown in Figs. 8 and 9 a notch 20 is cut from the fabricated strip inside of the bead so that the strip may be bent at right angles to fit around a corner leaving the bead continuous as a means to close the corner air or gas tight.

I claim:

1. A packing member comprising a compressible layer and a ductile sheath therefor, said sheath having formed at one edge thereof a bead adapted to be flattened over the edges of the joint when the packing is in place.

2. In a joint between parts having edge portions in alignment, a packing member adapted to be positioned between said parts and comprising a layer of compressible mate-

rial and a sheath therefor of ductile metal, said sheath having a hollow bead formed at one edge thereof and adapted to be flattened over the aligned edge portions of said parts  
5 when the packing member is in position.

3. In a joint between parts having edge portions in alignment, a packing member adapted to be positioned between said parts and comprising a layer of compressible material and a sheath therefor of ductile metal  
10 and having a hollow bead formed at one edge thereof, one edge of said compressible material projecting into but not filling said bead, and said bead being adapted to be flattened  
15 over the aligned edge portions of said parts when the packing member is in position.

4. In a joint between parts having corresponding edge portions in alignment, a packing member adapted to be positioned between  
20 said parts and comprising a compressible body portion and a bead of ductile metal connected to said body portion at one edge thereof and adapted to be flattened over the aligned edge portions of said parts when the packing  
25 member is in position.

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