

Aug. 8, 1933.

D. T. MORGAN

1,921,768

JOINT FOR BARRELS AND THE LIKE

Filed July 3, 1931

2 Sheets-Sheet 1

Fig. 1.

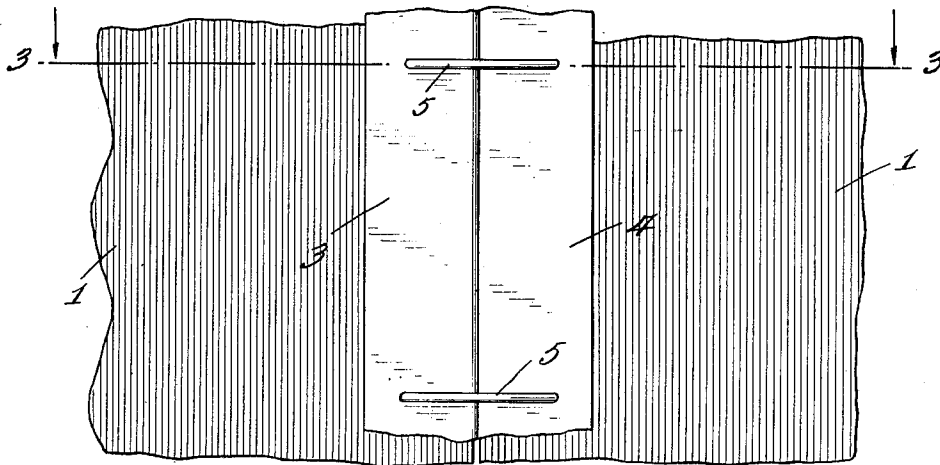
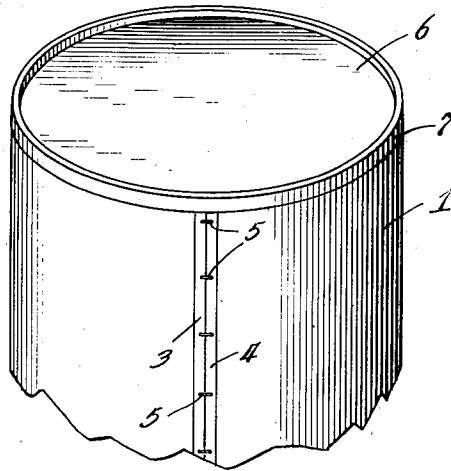


Fig. 2.

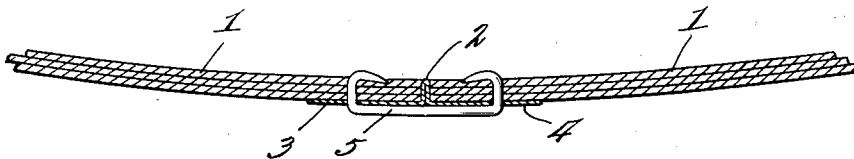


Fig. 3.

INVENTOR
DAVID T. MORGAN
BY *Knight Bros*
ATTORNEYS

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Fig. 4.

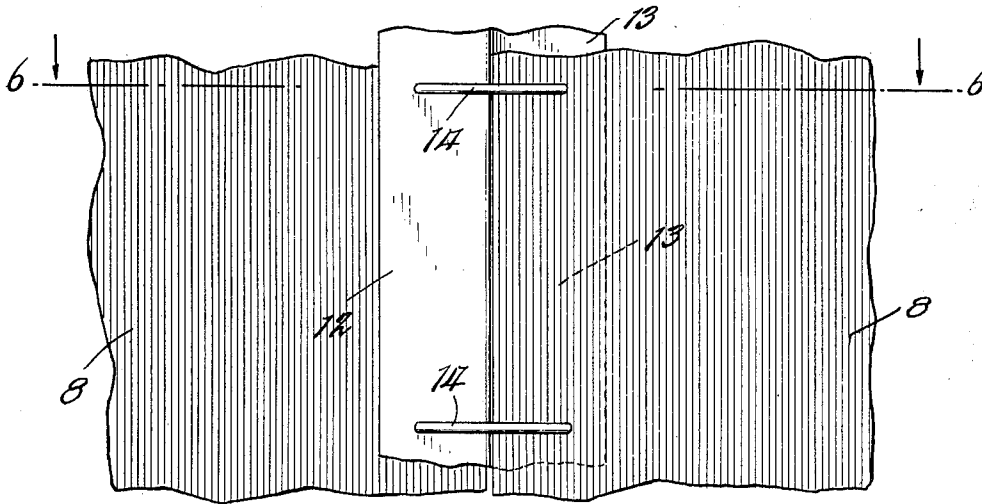
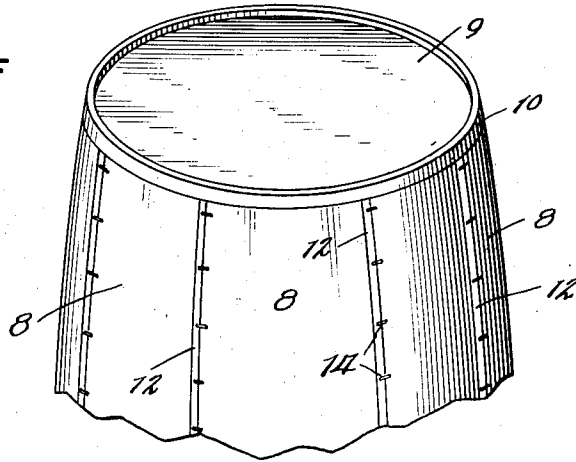


Fig. 5.

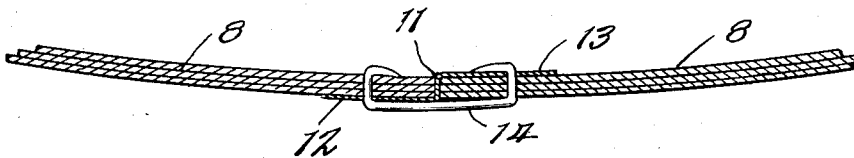


Fig. 6.

INVENTOR
DAVID T. MORGAN
BY *Knight Brey*
ATTORNEYS

UNITED STATES PATENT OFFICE

1,921,768

JOINT FOR BARRELS AND THE LIKE

David T. Morgan, Elizabeth, N. J., assignor to The
Steel-Clad Products Company, Inc., New York,
N. Y., a Corporation of New York

Application July 3, 1931. Serial No. 548,574

3 Claims. (Cl. 217—1)

This invention relates more especially to joints for barrels, drums, and other containers constructed of light inexpensive materials for shipping materials of various kinds without injury or loss.

The primary object of my invention is to provide an improved construction and arrangement of parts in a device of this nature for interlocking the adjoining edges of a butt joint between the meeting edges of a cylindrically formed sheet of material constituting the body of a barrel, drum or the like and for providing an effective closure for the butt joint between said adjoining edges. My improved butt joint and closure may also be applied advantageously to other structures of a similar nature such, for example, as a barrel or the like with a body made up of staves or slats with their edges abutting.

Particular objects of my invention reside in certain features of construction described in the specification and recited in the appended claims, reference being had to the accompanying drawings which show two adaptations of my invention employing a three-ply laminated material.

In the drawings—

Figure 1 is a perspective view of one end of a barrel, the body portion of which is constructed of a single sheet of laminated material and in accordance with the underlying principle of my invention.

Figure 2 is an enlarged side elevation of a fragmentary portion of the butt joint formed between the meeting edges of the cylindrical body-forming sheet of said barrel.

Figure 3 is a transverse section on the line 3—3 of Figure 2, with the interlocking means in the form of a staple shown in plan.

Figure 4 is a perspective view similar to Figure 1 showing another type of construction in which the body portion of the barrel is made up of staves joined together and closed along their longitudinal edges by my improved device in another form.

Figure 5 is an enlarged fragmentary side elevation of this form of my improved joint.

Figure 6 is a transverse section on the line 6—6 of Figure 5.

The present invention is peculiarly valuable though not exclusively limited to barrels having their body portions constructed of a single sheet of cylindrically formed multiply veneer material or of staves constructed of such material, and provides a simple inexpensive construction for the butt joints formed between the longitudinal edges thereof for producing a comparatively light

shock-proof structure capable of withstanding the rough handling to which containers of this kind are commonly subjected. My invention further provides a non-sifting closure of improved construction for the butt joints adapted to serve as a reenforcement for the joined edges of the material without being subjected to the strains tending to rupture the container circumferentially.

According to the embodiment of my invention shown in Figures 1, 2 and 3, the container is provided with a circumferential wall 1 constructed of three-ply material which, after being cylindrically formed, is connected along its abutting edges to provide a substantially closed cylindrical wall. Interposed between the adjoining edges of the material is the folded intermediate portion 2 of an imperforate web which is preferably constructed of sheet metal, the oppositely presented flanges or lateral edge portions 3 and 4 of said web being arranged to overlap the adjoining portions of the wall. Extending transversely across each of the butt joints are a plurality of inextensible connections which press the flanges 3 and 4 into close contact with the outer surface of the material along opposite sides of the joint. In the form shown on the drawings, these connections are in the form of staples 5, said staples being driven through the flanges 3 and 4 and clinched to the inner wall 1 after the adjoining edges have been pressed together into clamping engagement with the interposed fold 2 of the imperforate web. The cylindrical body portion thus formed, is provided at opposite ends with barrel-heads 6 (only one being shown), said barrel-heads being preferably constructed in the form of steel disks provided with integrally-formed skirts or circular bands 7 which encompass and bind the ends of the cylindrical body portion of the barrel. Such a barrel head is shown and described in U. S. Patent No. 1,517,087 to Mittinger.

Referring now to Figures 4, 5 and 6, the modified embodiment of my invention shown therein contemplates stave sections 8 united at opposite ends to the heads 9 preferably of the form shown and described in U. S. Patent No. 1,517,087 (only one being shown on the drawings). As shown best in Figure 6, an intermediate portion 11 with but a single thickness of metal is clamped between the adjoining longitudinal edges of the stave sections 8, the oppositely presented flanges 12 and 13 being pressed against the outer surface of the left-hand stave section and the inner surface of the right-hand stave section respectively. A series of staples 14 extends transverse-

ly across each of the stave joints, said staples being driven through the stave sections and flanges 12 and 13 and anchored in said stave sections after said stave sections have been pressed into clamping engagement with the intermediate portion 11 of the imperforate web and clinched down onto the inner surface of the stave section on one side of the joint and against the flange 13 on the other side thereof. The outer flange 12 of the imperforate strip extends to opposite ends of the adjoining staves and has its extreme ends clamped in position by the integrally constructed flange or skirt 10 of the metal barrel-heads 9.

I claim:—

1. A receptacle having a lateral wall provided with a butt joint, an imperforate strip overlapping the material of which the side wall is constructed on opposite sides of the butt joint and having an intermediate portion interposed between the abutting edges of said material, and inextensible fastening means extending across said butt joint and through the imperforate strip on opposite sides of said butt joint, said inextensible fastening means being anchored in the material of said lateral wall on opposite sides of said butt joint for clamping said imperforate strip to the adjoining portions of said lateral wall and for securing the abutting edges of said adjoining portions in positive clamping engagement with the intermediate portion of said imperforate strip.

2. A receptacle having a lateral wall constructed of laminated material, adjoining portions of the laminated material being connected together with a butt joint, an imperforate strip applied to the exterior surface of said lateral wall and overlapping said adjoining portions of laminated material on opposite sides of the butt joint, a closely folded intermediate portion of said imperforate strip being interposed between the abutting edges of said adjoining portions, and inextensible fastening means extending across said butt joint and through the imperforate strip on opposite sides of said butt joint, said inextensible fastening means being anchored in said adjoining portions of the lateral wall on opposite sides of said butt joint for clamping said imperforate strip to the adjoining portions and for securing the abutting edges of said adjoining portions in positive clamping engagement with the closely folded intermediate portion of said imperforate strip.

3. A receptacle having adjoining portions of its lateral wall arranged edgewise with respect to each other to form a butt joint, an imperforate strip having an intermediate portion interposed between the abutting edges of said adjoining portions of said lateral wall, one edge portion of said imperforate strip being arranged to overlap the inner surface of one of said adjoining portions on one side of said butt joint and the other edge portion of said imperforate strip being arranged to overlap the outer surface of the other adjoining portion on the other side of said butt joint, and staples arranged across said butt joint and driven through said adjoining portions of the lateral wall and said imperforate strip on opposite sides of said butt joint, the points of said staples being clinched to the inner wall of the receptacle for clamping said imperforate strip to the inner and outer surfaces of said adjoining portions and for securing the abutting edges of said adjoining portions in positive clamping engagement with the intermediate portion of said imperforate strip.

DAVID T. MORGAN.

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