Nov. 2, 1926. 1,605,901

J. H. O'NEIL

DEVICE FOR PACKING SHEET METAL PLATES

Filed Jan. 27, 1926 2 Sheets-Sheet 1

FIG. 1.

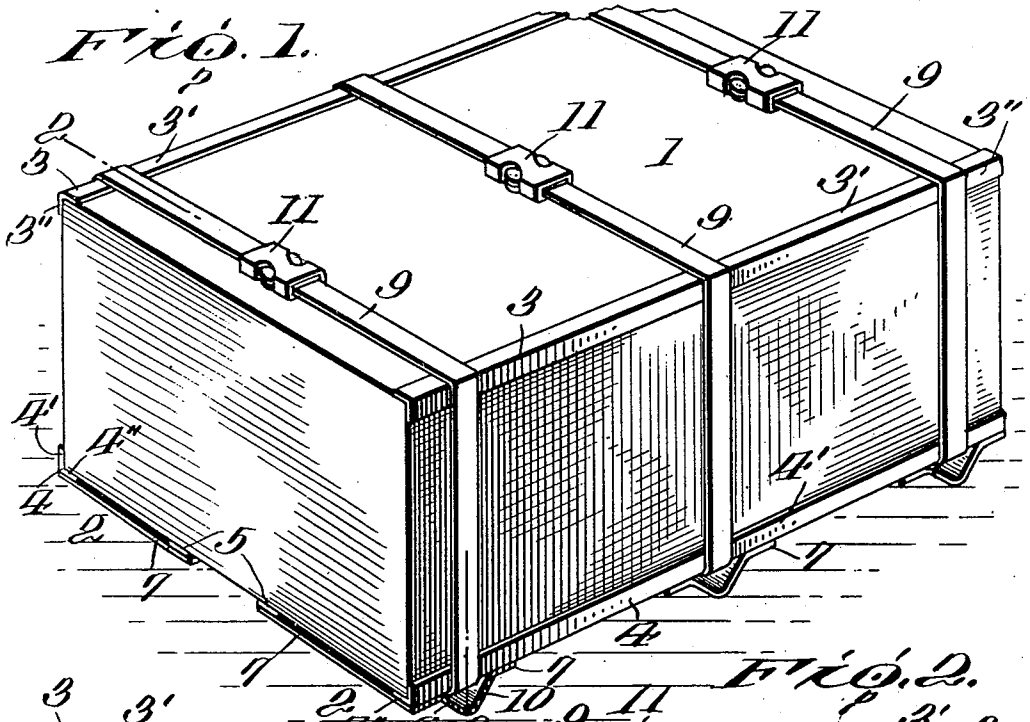


FIG. 2.

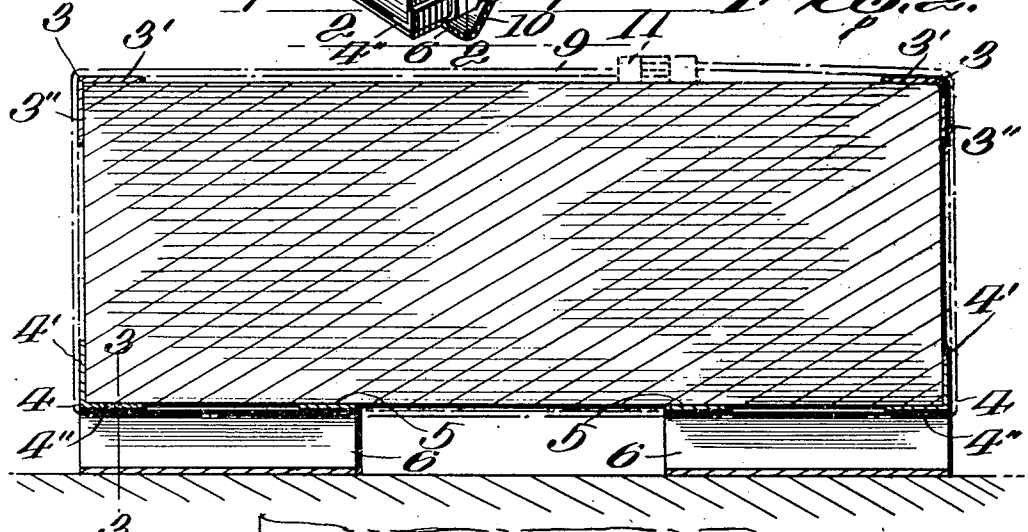
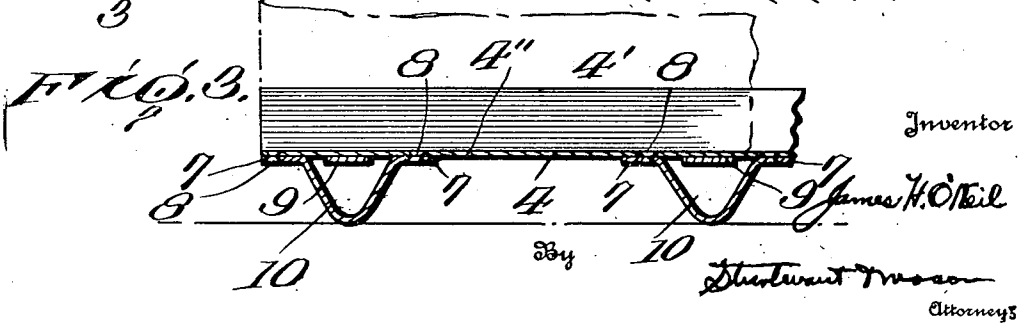


FIG. 3.



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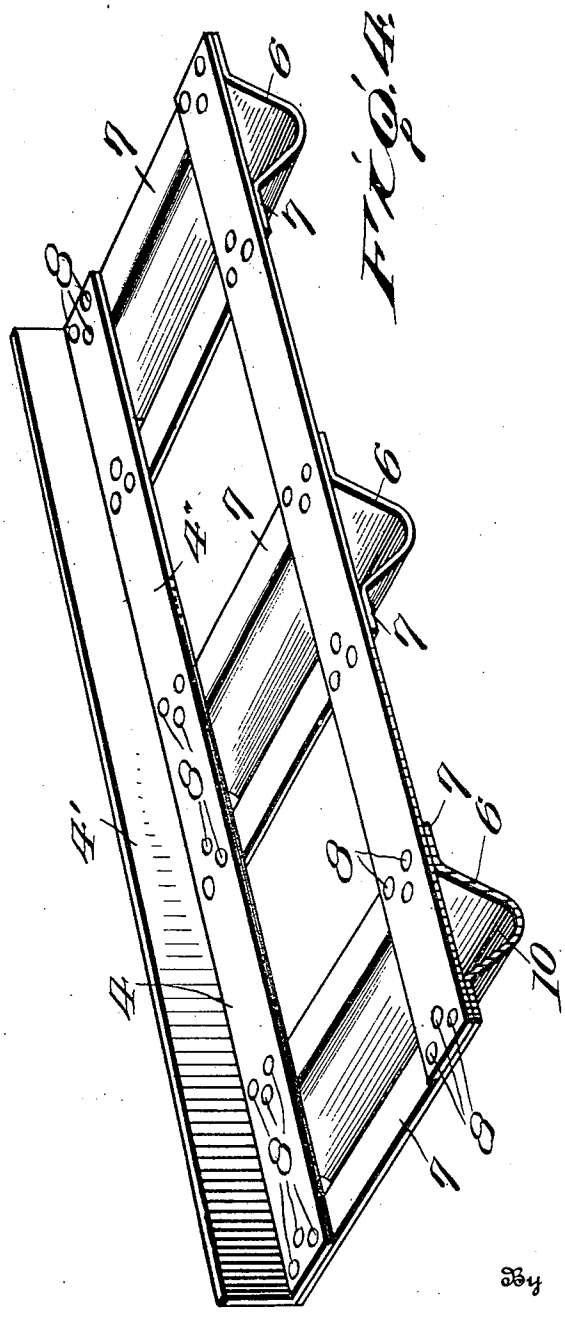


Fig. 4.

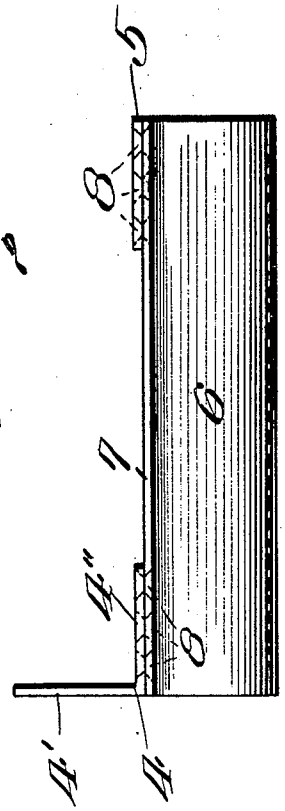


Fig. 5.

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Patented Nov. 2, 1926. 1,605,901

UNITED STATES PATENT OFFICE.

JAMES H. O'NEIL, OF SYRACUSE, NEW YORK, ASSIGNOR TO CONTINENTAL CAN COMPANY, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

DEVICE FOR PACKING SHEET-METAL PLATES.

Application filed January 27, 1926. Serial No. 84,113.

The invention relates to new and useful improvements in packing devices for sheet metal plates, and more particularly sheets of tin plates.

An object of the invention is to provide a packing device for a stack of sheet metal plates which can be applied to stacks of different heights and widths without requiring any adjustments of connections or the like.

A further object of the invention is to provide a packing device of the above type which, when the parts are removed from the stack, can be nested together and returned for re-use in connection with other stacks.

A further object of the invention is to provide a packing device of the above type wherein the parts thereof are made from metal rolled, bent and cut to suitable lengths.

A still further object of the invention is to provide a sheet metal packing device which, when applied to the stack, supports the stack at a distance from the floor, so that the supporting arms of a transfer truck can be readily passed beneath the stack; the stack lifted and transported from one place to another.

Another object of the invention is to provide a packing device of the above character for stacked sheet metal plates, which is so constructed as to provide a protection for the edges of the sheets in the stack when in transit and during handling of the same in the transfer truck, and also to protect the bottom sheet from surface damage when the stack is engaged by the supporting arms of the transfer truck.

These and other objects will in part be obvious and will in part be hereinafter more fully described.

In the drawings which show by way of illustration one embodiment of the invention:

Figure 1 is a perspective view showing a stack of sheet metal plates packed in my improved construction of packing device;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a sectional view on the line 3—3 of Fig. 2;

Fig. 4 is a perspective view of one of the bottom portions of the crate, and

Fig. 5 is an end view thereof.

The invention is directed broadly to a packing device for shipping a stack of sheet metal plates such as sheets of tin or the like. The packing device is made of metal and consists of four corner members, and suitable metallic binding or bailing members. These corner members are preferably made of angle irons and flat metal plates. The angle iron members are placed at the corners of the stack so as to engage the side and top portions, or the side and bottom portions of the stack. These angle iron members preferably extend the full length of the stack. They are entirely independent of and disconnected from each other. This permits the angle iron members to be placed at the corners of stacks of different heights and different widths.

The bottom angle iron members are provided with supporting legs made of metal and riveted to the angle iron members at the lower sides. These legs are spaced from each other so that when the stack is crated, it will rest on these legs and the stack be supported a sufficient distance from the floor to permit the arms or supports of a truck to be inserted beneath the stack for lifting and transporting it.

Referring more in detail to the drawings, my improved packing device is shown applied to a stack of sheet metal plates indicated at 1. There are four angle iron corner members 2, 2 and 3, 3. The members 3, 3 are merely plain angle irons having the two faces 3′ and 3″ arranged at right angles to each other. The lower angle iron members 2 are similar in construction and each includes an angle iron bar 4 having a side member 4′ and a bottom member 4″. At a short distance from the bottom member 4″ is a sheet metal plate 5. This angle iron bar 4 and the sheet metal plate 5 are connected together by sheet metal legs 6. These legs are similar in construction and each leg consists of a U-shaped sheet metal strip, the upper edges of which are turned at an angle as indicated at 7, 7, so that the parts 7, 7, are substantially in the same plane.

These parts 7, 7 of the U-shaped leg members are riveted to the sheet metal plate 5 and the angle bar 4 by rivets indicated at 8 on the drawings.

It is noted that the sheet metal legs 6 are spaced from each other and they extend in a direction at right angles to the axis or the length of the angle bar 4. As noted above, these angle members 2, 2 are similar in construction. They are placed on the

floor and a stack can be formed on these angle members as a support. The members 2, 2 are placed a distance apart so that the side faces 4, 4 of the angle bars engage the side edges of the stack sheets. When the sheets have been piled up to a sufficient height to form the stack, then the angle bars 3, 3 are placed on the upper corners of the stack.

After these angle bars have been placed, then the bailing or binding bands 9 are placed about the stack. The sheet metal legs 6 provide an open space 10 through which the bailing band can be inserted. This enables the stack to be formed and the angle bars placed at the upper corners thereof, after which the bailing bands can be applied to the stack.

I have shown three bailing bands applied to the stack. These bailing bands are of the usual construction, and the ends of the bands are secured after they are drawn tightly about the stack by securing ties 11 of usual construction. It will be understood, of course, that any other well known form of bailing band or device may be used in place of the flat band shown in the drawings.

When it is desired to open the packing device all that is necessary is to break the bailing bands or release the ends thereof. These angle bars can be removed from the stack and nested very compactly together for return so that they can be re-used for packing another stack of sheet metal plates.

It is not necessary that the angle bars extend the full length of the sheets in the stack, and therefore, by the use of angle bars of two or three different lengths, a great many different lengths of sheets can be packed. The angle bars can be readily used for sheets of different widths as they are independent of each other, and can be placed relative to each other so as to accommodate any width of sheet.

It will be noted from the above that I have provided a very simple form of packing device which can be made from metal rolled, bent and cut in suitable lengths. The packing device is entirely free from wood and is therefore very durable. The parts are entirely free from connected adjusting links or the like, which greatly reduces the cost of manufacture of the packing device and increases the service use of the same.

It is obvious that minor changes in the details of construction may be made without departing from the spirit of the invention as set forth in the appended claims.

I claim:

1. A packing device for stacked sheet metal plates comprising independent members for supporting the stack, said members being adapted to engage the corners of the stack, metallic bailing devices encircling said members and the stack for firmly binding said members to the stacked sheets and thus packing the stack for shipment, said members at the bottom of the stack having spaced depending legs for supporting the packed stack so that the arms or supporting members of a transferring truck may be inserted beneath the stack for lifting and conveying the same.

2. A packing device for stacked sheet metal plates comprising independent angle members for supporting the stack, said angle members being adapted to engage the bottom and side faces of the stack, independent angle members for engaging the upper side corners of the stack, said angle members engaging the top and the side faces of the stack, and metallic bailing devices encircling said angle members and the stack for firmly binding said angle members to the stack, thus packing the stack for handling, said angle members for the bottom of the stack having spaced depending legs for supporting the packed stack so that the arms or supporting members of a transporting truck may be inserted beneath the stack for lifting and conveying the same.

3. A packing device for stacked sheet metal plates comprising independent angle members for supporting the stack, said angle members being adapted to engage the bottom and side faces of the stack, independent angle members for engaging the upper side corners of the stack, said angle members engaging the top and the side faces of the stack, metallic bailing devices encircling said angle members and the stack for firmly binding said angle members to the stack, thus packing the stack for handling, said lower angle members having U-shaped depending legs rigidly secured thereto and spaced, said U-shaped legs being attached to said angle members so as to provide a passage extending at right angles to the longitudinal axis of the angle member whereby the bailing devices may be inserted through the said passages after the sheets are stacked and ready to be securely bound by the bailing members.

4. A packing device for stacking sheet metal plates including angle members for supporting the stack, each angle member comprising an angle bar for engaging the lower side corners of the stack, a sheet metal plate extending parallel to the angle bar and spaced therefrom and U-shaped legs having their upper edges bent so as to lie in the same plane, said bent portions being rigidly secured to the angle bar and the sheet metal plate with the leg members extending in a direction at right angles to the longitudinal axis of the angle bar and sheet metal plate.

5. A packing device for stacking sheet metal plates including angle members for supporting the stack, each angle member comprising an angle bar for engaging the lower side corners of the stack, a sheet metal

plate extending parallel to the angle bar and spaced therefrom and U-shaped legs having their upper edges bent so as to lie in the same plane, said bent portions being rigidly secured to the angle bar and the sheet metal plate with the leg members extending in a direction at right angles to the longitudinal axis of the angle bar and sheet metal plate, angle bars for engaging the upper side corners of the stack and bailing bands adapted to pass through said leg members and about the stack and angle bars for securely binding said angle bars to the stacked sheets and thus packing the stack.

In testimony whereof, I affix my signature.

JAMES H. O'NEIL.