

Nov. 6, 1928.

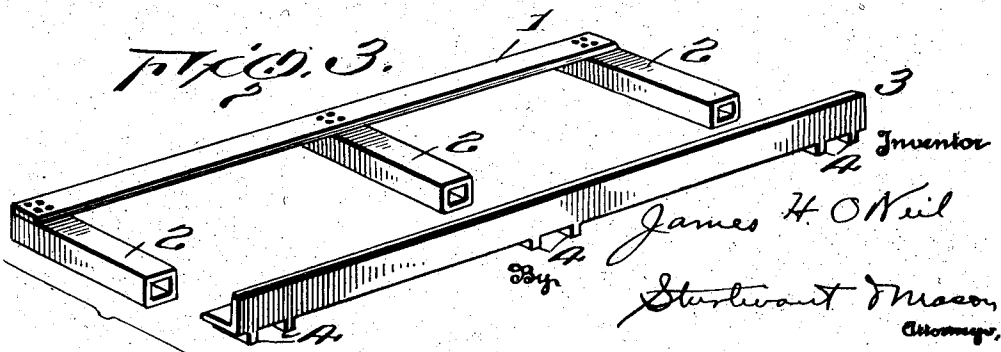
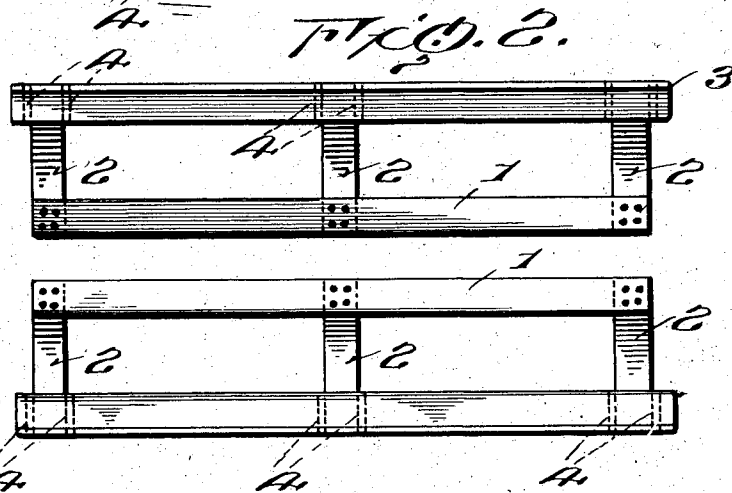
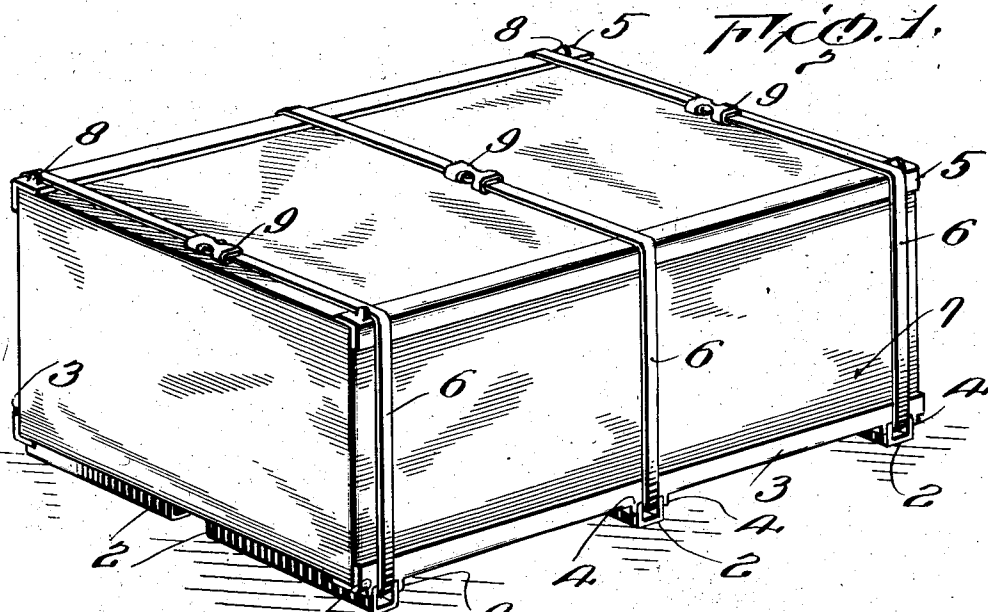
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J. H. O'NEIL

PACKAGING DEVICE FOR METAL SHEETS

Filed Aug. 9, 1926

2 Sheets-Sheet 1



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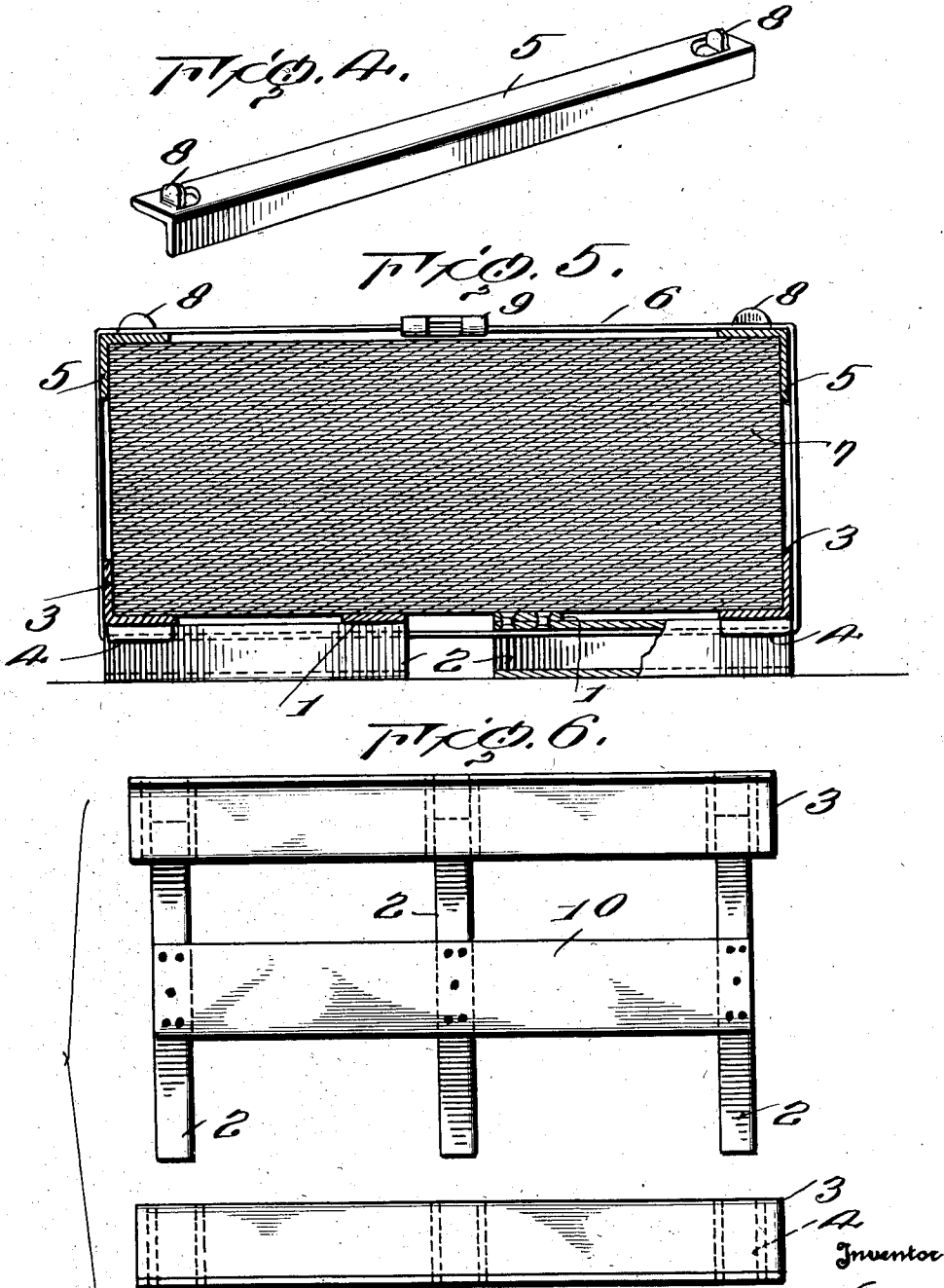
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PACKAGING DEVICE FOR METAL SHEETS

Filed Aug. 9, 1926

2 Sheets-Sheet 2



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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.

PACKAGING DEVICE FOR METAL SHEETS.

Application filed August 9, 1926. Serial No. 128,147.

The invention relates to new and useful improvements in packaging devices for metal sheets and more particularly to packaging devices for packing metal sheets for shipment.

An object of the invention is to provide packaging devices which include a supporting means having legs permanently attached thereto and having detachable angle members which together form an adjustable supporting base on which the metal sheets may be stacked, and to which base the stacked sheets are bound by baling means for shipment.

A further object of the invention is to provide packaging devices of the above character which also include angle members for the side edges at the top of the stacked sheets and wherein means is provided for preventing the angle member of the supporting base from endwise movement on the supporting means therefor.

A further object of the invention is to provide packaging devices of the above character wherein means is provided for preventing the baling means slipping endwise of the stack.

In the drawings:

Fig. 1 is a perspective view of a package of metal sheets formed by the use of my improved packaging devices.

Fig. 2 is a plan view of the supporting base ready for stacking the sheets thereon.

Fig. 3 is a perspective view of one of the members of the supporting means and one of the angle members to be associated therewith.

Fig. 4 is a perspective view of one of the upper angle members.

Fig. 5 is a transverse sectional view through the package as shown in Fig. 1.

Fig. 6 is a plan view showing a slightly modified form of supporting base, one of the angle members being separated from the supporting means therefor.

In my copending application Ser. No. 84,113 filed January 27, 1926, I have shown and described packaging devices which include a supporting means having legs permanently attached thereto on which the metal sheets may be stacked. When the stack is completed, the sheets are bound to the supporting means by baling bands so that the legs

become a part of the package and are transportable therewith, always holding the package raised from the floor to permit the arms of a transporting truck to pass beneath the package for lifting and transporting the same.

The present invention relates to improvements in packaging devices of the character referred to and consists in providing a supporting base on which the sheets are stacked wherein the supporting means carrying the legs are independent of the angle members for the bottom of the stack; thus while supporting the angle members, permitting the same to be adjusted for sheets of different widths and also allowing said members to be moved into close contact with the side edges of the sheets during stacking. The invention also consists in providing means for preventing the angle member from sliding endwise of the stack, and in providing means for preventing the baling bands from sliding endwise of the angle members.

Referring more in detail to the drawings, the preferred form of supporting base as shown in Figs. 1 to 5 consists of two supporting members 1, 1 each of which is provided with three legs 2, 2, 2; each leg is shown as tubular in form and rectangular in cross section. The legs may be made of any form desired. These legs are permanently secured to the member 1 by riveting, welding or in any other well known way. The parts of my packaging devices are preferably all made of metal, so that the devices may be returned for reuse.

Associated with the supporting members 1 are angle members 3, one for each supporting member when two supporting members are used. The angle members 3 are provided with spaced lugs 4, 4, one pair for each leg on the supporting members. The supporting members are placed on the floor as shown in Figure 2 and then the angle member placed on the supporting members with the lugs 4 alongside of the legs with which they are associated. This forms the supporting base on which the sheets are stacked and the supports and the angle members are so positioned that the upright portions of the angle members engage the side edges of the sheets. Inasmuch as the members 3 are detachably connected to the supporting mem-

bers carrying the legs, they can be moved toward each other and into contact with the side face of the stack after the sheets at the bottom of the stack are placed, if found necessary.

Angle members 5, 5 are provided for the upper side edges of the stack after it is completed. These are placed so as to engage the side face of the stack and thus protect the side edges of the topmost sheets in the stack.

After the stack is finished baling bands 6, 6 are passed through each hollow leg, and around the supporting base, the angle members 5, 5 and the stacked sheets which are indicated at 7 in the drawings. The baling bands may be of wire, or flat members as shown, or of any suitable means for securing the packaging devices to the stacked sheets and the sheets together for shipment. The angle members 5 are provided with lugs 8 which prevent endwise movement of the angle member or lateral movement of the baling bands. When flat baling bands are used the ends thereof may be secured by any form of bale tie 9.

The lugs 4, 4 prevent the angle members from sliding endwise of the stack, and the legs 2 prevent the baling bands from sliding laterally at the bottom of the stack. It will be understood that metal sheets of different widths, within certain limits, may be packed and shipped by the same packaging devices. The legs are of sufficient height so that the arms of a transporting truck may be passed beneath the stack and the stack lifted and transported.

The angle members 3, 3 not only protect the side edges of the lowermost sheets from being bent or indented by the baling bands, but also protect said edges from being bumped by the transport truck when passing the arms thereof beneath the stack.

In Fig. 6 of the drawings I have shown a modified form of supporting base wherein there is only one supporting member 10 attached to the legs 2, 2, 2 intermediate the ends thereof. The angle members 3, 3 are the same

in construction as above noted and are used in the same manner in making up the supporting base. The supporting base is used precisely the same as the supporting base shown in Fig. 2 in making up the package.

When the package reaches its destination the baling bands are removed and discarded, while the supporting means and angle members are nested and returned for reuse in packaging sheets. My improved packaging devices are designed for use in packing and shipping metal sheets such as tin plates, and each package may include several base boxes of tin plate.

It will be understood of course that the packaging devices may be used for packing sheets of any character where it is desired to bale the sheets after they are stacked and where it is desirable to protect the edges of the sheets from being bent or indented by the packaging devices and particularly the baling means.

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

I claim:

Packaging devices for metal sheets comprising a supporting means having legs permanently attached thereto and transportable with the package, angle members independent of the supporting means and forming therewith a supporting base on which the metal sheets may be stacked with said angle members disposed at the sides and with one portion of the members extending along the side face of the stack and the other portion beneath the stack, spaced lugs formed on the said angle members adapted to lie on opposite sides of the legs for preventing the angle members from moving endwise of the base, and baling means adapted to pass about the stacked sheets for securing the sheets to the base.

In testimony whereof, I affix my signature.

JAMES H. O'NEIL.