No. 851,097. PATENTED APR. 23, 1907.

A. T. KRUSE.

SHEET METAL PACKING CASE.

APPLICATION FILED SEPT. 20, 1905.

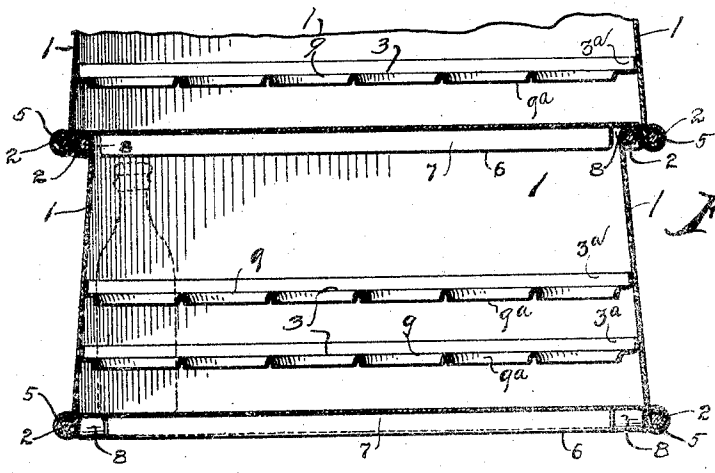

Fig. 1.

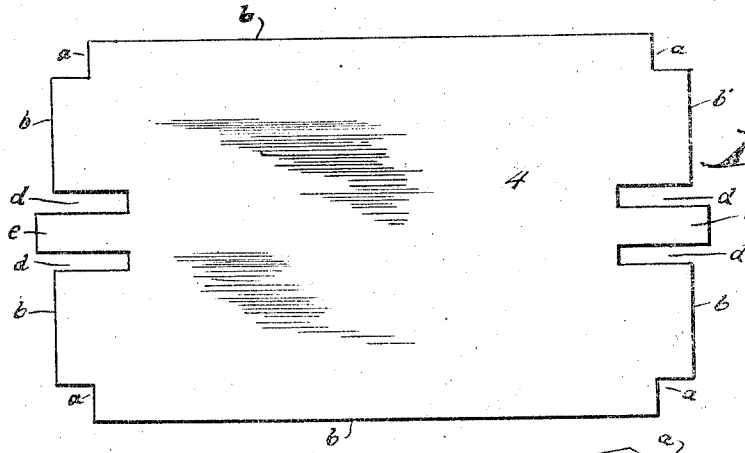

Fig. 2.

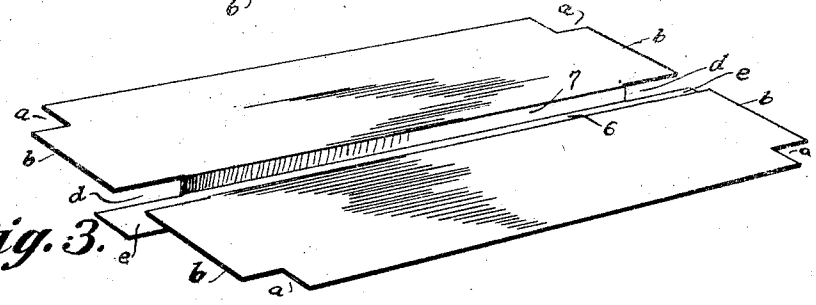

Fig. 3.

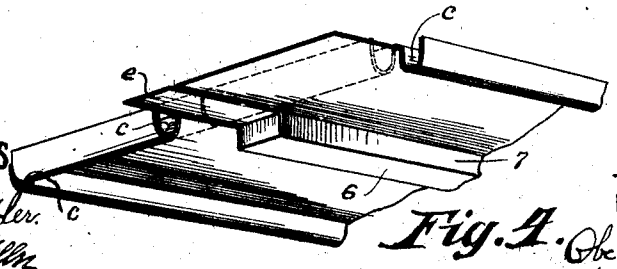

Fig. 4.

WITNESSES

Jos. J. Hosler.

Miller Green

INVENTOR

Alfred T. Kruse.

BY

Obed B. Billman

His ATTORNEY

UNITED STATES PATENT OFFICE.

ALFRED T. KRUSE, OF DEFIANCE, OHIO, ASSIGNOR TO THE AMERICAN STEEL PACKAGE COMPANY, OF DEFIANCE, OHIO, A CORPORATION OF OHIO.

SHEET-METAL PACKING-CASE.

No. 851,097. Specification of Letters Patent. Patented April 23, 1907.

Application filed September 20, 1905. Serial No. 279,262.

To all whom it may concern:

Be it known that I, ALFRED T. KRUSE, a citizen of the United States, residing at Defiance, in the county of Defiance and State of Ohio, have invented new and useful Improvements in Sheet-Metal Packing-Cases, of which the following is a specification.

The invention relates particularly to that class of sheet-metal packing-cases which are without a lid or cover and are known as "stacking cases," that is, the sides and ends are tapered or inclined so that the cases may be "stacked" one above the other, the annular beading formed about the sides and ends of the case being adapted to take over the annular beading formed about the upper edges of the case upon which is "stacked" or supported.

The paramount object of the invention is to produce a generally improved case of this class which will possess great strength and durability and better adapted to its intended purposes than any other device of the same class with which I am acquainted.

Another object is to produce an improved bottom for packing cases of this class, which, by reason of the particular construction of the metal, and its manner of attachment to the sides and ends of the case will possess great strength and durability and add much to the general stability and wear of the case as a whole.

With these ends in view, the invention consists in the novel construction, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring now to the accompanying drawings, forming a part of this specification, Figure 1, is a longitudinal sec ional view of a packing-case, of the class hereinbefore referred to, showing the manner of "stacking." Fig. 2, is a plan view of a blank of sheet metal for the improved bottom as blanked out preparatory to being formed into proper shape for attachment to the sides and ends of the case. Fig. 3, is a perspective view of the same crimped to form a downwardly-extending supporting-panel. Fig. 4, is a perspective view of the same with the marginal sides and end bent into proper form preparatory to attachment to the case.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

It will be seen upon reference to the drawings that the case, in the present instance, is of rectangular form and consists, essentially, of the tapered or inclined sides and ends 1, having their upper and lower edges bent over and about a wire to form a beading 2. Mounted and interposed between the sides and ends are horizontally-arranged supporting-plates 3, provided about their edges with strengthening-flanges 3^a, and having openings 9 and annular inclined downwardly-extending flanges 9^a, formed about said openings and adapted to support the bodies of the bottles.

By reason of the taper or incline of the sides and ends of the case, it will be seen that the base of the case is wider and longer than the top so that the beading 2, formed about the lower edges thereof is adapted to take over the beading formed about the upper edges of the case as shown most clearly in Fig. 1, of the drawings.

Referring now to the improved bottom for the case, it will be seen upon reference to Fig. 2, of the drawings that the bottom is formed from a blank of sheet metal 4, having its corners notched, as at "*a*," and of a depth corresponding to the width of the marginal sides and ends "*b*," which are first bent over and about to form the marginal channel grooves "*c*," as shown most clearly in Fig. 4, adapted to take over the beading 2, to form a second or double beading 5, as shown in Fig. 1, of the drawings. In order to further strengthen and support the bottom and provide a friction-bearing surface for the same upon the conveyer frequently employed in transporting cases of this kind, a downwardly-extending supporting-panel 6, is formed with the bottom 4, extending lengthwise thereof, and, in the present instance, at its center. It will be understood, however, that a number or series of supporting-panels may be formed in the bottom, if found necessary or desirable.

It will be observed that the bottom or friction-bearing surface of the supporting-panel is formed in alinement with the lower edge of the double beading 5, hereinbefore referred to.

The sides 7, formed with the supporting-panel are of a depth corresponding to the thickness of the second or double beading formed at the bottom of the case, and in order to provide an opening or recess 8, for the reception of said second or double beading, as shown most clearly in Fig. 1, notches or

elongated recesses "*d*" (see Figs. 2 and 3) are formed in the ends of the bottom opposite where the sides 7, of the supporting panel 6, are to be formed and of a width substantially corresponding with the depth of the sides. There is thus formed between the notches or elongated recesses "*d*," a long tongue or extension "*e*," of the friction-bearing surface of the supporting-panel, adapted to be bent over and about the beading 2, formed at the lower edges of the ends of the case. As this tongue or extension has to be first bent up and about to form the recess 8, (see Fig. 1) it has to be extended beyond the adjacent marginal ends "*b*," as shown most clearly in Fig. 2, so as to completely cover the beading 2, when bent over and about the same as shown in Fig. 1 of the drawings. It will thus be seen that the rear or inner edges of the notches or recesses "*d*" extend beyond the inner side of the marginal ends of the bottom, as indicated by the depth of the notches "*a*," and that the ends of the tongue or extension "*e*," of the supporting-panel, extend beyond the outer edges of said marginal ends.

Having thus described my invention, without having attempted to set forth all the forms in which it may be made, I declare that what I claim and desire to secure by Letters Patent, is—

1. In a sheet-metal packing-case, the combination with inclined sides and ends secured at the corners of the case and provided with a beading enclosing a wire at the upper and lower edges thereof; of a bottom secured thereto and provided with a downwardly-extending supporting-panel extending lengthwise thereof, sides formed with said panel and having the ends thereof cut away tongues formed at the ends of said supporting-panel, said tongues being bent across the ends of the panel and beads formed on the outer ends of said tongues in alinement with the beading around the lower edges of the case so as to form a groove between the ends of the panel and the beading around the lower edge of the case.

2. A bottom for sheet-metal packing-cases, consisting of a sheet of metal provided with a beading about its marginal edges, a downwardly-extending supporting-panel formed therein and having the ends of its sides cut away, and tongues or extensions formed at the ends of the bottom of said supporting-panel said tongues or extensions being bent across the ends of the panel and a bead formed on the outer ends of said tongues thus forming a groove between the ends of said panel and the beads.

3. A bottom for sheet-metal packing-cases, consisting of a sheet of metal provided with a marginal beading, a supporting-panel formed therein with tongues bent across the ends of the panel, and a bead formed on the outer ends of said tongues thus forming a groove between the ends of said panel and the beads.

4. A bottom for sheet-metal packing-cases, consisting of a blank of sheet metal bent to form a supporting-panel provided with side walls having the ends thereof cut away and tongues at the ends of the bottom of said panel said tongues being bent across the ends of the panel and a bead formed on the outer ends of said tongues thus forming a groove between the ends of said panel and the beads.

5. A bottom for sheet-metal packing-cases, consisting of a blank of sheet metal provided with a beading about its edges, and a downwardly-extending supporting-panel formed therein and having the ends of its sides cut away and tongues on the ends of the panel which are bent to close the ends of the panel and beadings on the ends of said tongues in alinement with the beadings about the edges of the bottom thus forming a groove between the end of the panel and said beadings.

6. A bottom for sheet-metal packing-cases, consisting of a sheet of metal provided with a supporting-panel having tongues or extensions bent over and about forming a beading and providing a recess adacent to and within said beading.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

ALFRED T. KRUSE.

Witnesses:
CURTIS M. WILLOCK,
MAY PARTEE.