W. D. WOOD.

CASES FOR PACKING METAL SHEETS

No. 183,356. Patented Oct. 17, 1876.

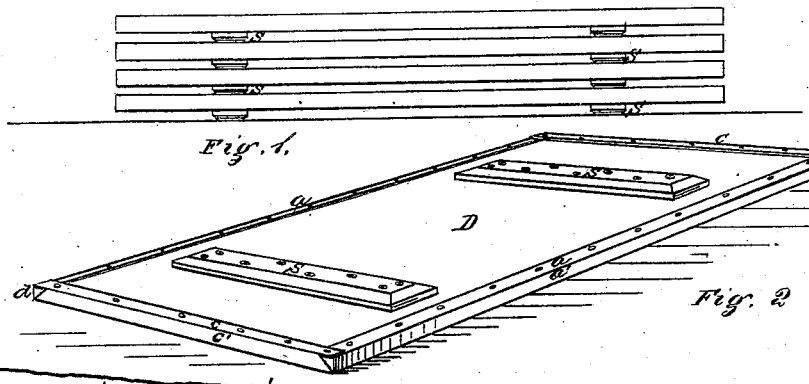

Fig. 1.

Fig. 2

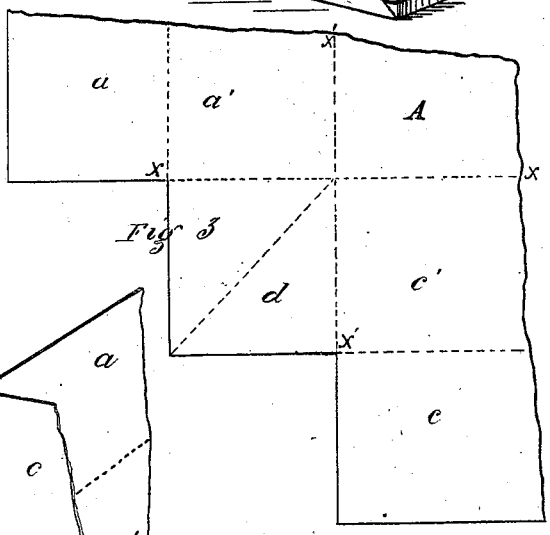

Fig. 3

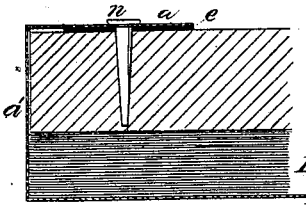

Fig. 5.

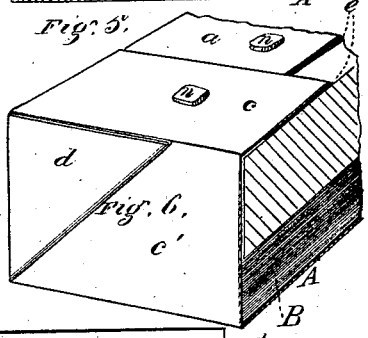

Fig. 6.

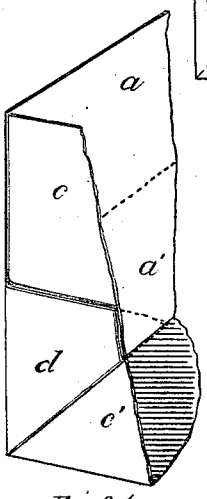

Fig. 4.

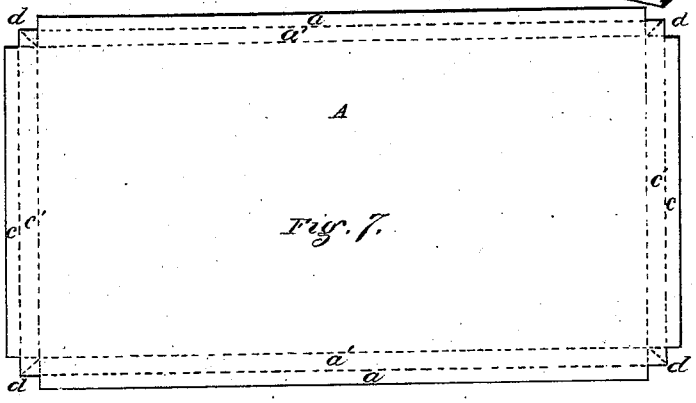

Fig. 7.

Witnesses: Thomas L. Clark, Henry A. Weaver

Inventor: W. Dewees Wood, By George H. Christy, his Atty

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN CASES FOR PACKING METAL SHEETS.

Specification forming part of Letters Patent No. **183,356**, dated October 17, 1876; application filed October 2, 1876.

To all whom it may concern:

Be it known that I, W. DEWEES WOOD, of Pittsburg, county of Allegheny, State of Pennsylvania, have invented or discovered a new and useful Improvement in Cases for Sheet-Metal Packages; and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—like letters indicating like parts—

Figure 1 shows a pile of my improved packages, illustrating their positions with reference to each other, and the floor on which they rest when stored or *in transitu*. Fig. 2 is a perspective view of a single package complete. Fig. 3 is a diagram of one corner of the sheet-metal part of the case unfolded, and nearly or about its full ordinary size. Fig. 4 shows in perspective the sheet of Fig. 3 bent and folded to receive the pack or bundle. Fig. 5 is a sectional view of one edge of the complete package. Fig. 6 is a perspective sectional view of one corner of the complete package; and Fig. 7 is a reduced diagram of the sheet-iron part of the case, showing the lines of cut and bend.

In the handling and transportation of sheet metal, and more especially the finer qualities, such as Russia sheet-iron, planished sheet-iron, &c., great loss results not only from the bending and bruising of the sheets, but more especially from tarnishing and oxidation, caused by handling or by water, or by moisture in the air. This is a serious evil in shipments by sea, lake, or river, and also on railway-cars, since the roofs of cars on which this class of freight is commonly carried are frequently leaky, and railway companies now take such sheet metal only at owner's risk. To guard against this loss various means have been resorted to, such as bundling with straps and outer sheets of an inferior quality, sewing up the bundle in a canvas covering, and also inclosing the bundle in a tight metallic case. None of these methods have proved satisfactory.

In making my improved case—say, for a bundle of twenty-four sheets twenty-eight by fifty-six inches each—I take a sheet, A, of the same or an inferior quality, about five inches longer and wider than the bundle. Each corner of this sheet I cut as indicated more particularly in Fig. 3. The side edge $a\,a'$ is then bent up by a crease along the line $x\,x$, and the end edge by a crease along the line $x'\,x'$, and the corner-piece d is folded along its diagonal, bent around against the end or side and soldered or riveted, the corner of the sheet then being as represented in Fig. 4. This is done at each corner. The sheets B, which constitute the bundle, are then put in the box thus made, as represented in Figs. 5 and 6, and a wooden or board cover, D, of the same length and width as the bundle, is then placed on top. This cover should be thick enough to stiffen the pack, and also to nail to, say, three-fourths of an inch, more or less. The projecting edges $a\,c$ are then folded down onto the cover D, and secured thereto by nails or screws n, with or without an interposed packing, e, of india-rubber, fibrous, or other suitable material, with or without luting, such as will make a water-tight joint. If the cover is made of two or more boards, their joint or joints are preferably luted, and necessarily so if a perfectly water-tight case is desired. Across or along the outer face of the cover D I fasten two or more wooden or metallic cleats, s, the upper faces of which are somewhat above the level of that face of the package. These cleats not only hold, stiffen, and strengthen the cover, but also (the package then being inverted for storage or transportation) afford a slightly elevated support for the package to rest on. The packages are then piled one on top of another, as represented in Fig. 1.

With packages thus incased it will not be necessary, for warehouse storage or for railway shipment, to pack or lute the joints. The package, when thus inverted, has a close sheet-metal top, sides, ends, and corners, so that no water can get in from a leaky roof. The packages are so far apart, and the lower one is so far from the floor that no water can get into any package from below, and also far enough apart for the workmen readily to get hold of them in loading and unloading.

In giving the numbers, measurements, and proportions above specified, I do not mean to limit myself thereto, since they may be varied at pleasure to a considerable extent without any substantial departure from the invention.

For some purposes it will answer to omit the folds *a c*, and nail the edge folds *a' c'* directly to the edges of the cover D.

I claim herein as my invention—

1. A case for metallic sheets, consisting of sheet A, closed at the corners, and secured to a wooden cover, D, the latter being provided with raised cleats *s*, substantially as and for the purposes set forth.

2. A water-tight case for metallic sheets, composed of a metallic sheet, A, folded as described, in combination with wooden cover D, with luted or packed joints, and cleats *s*, substantially as set forth.

In testimony whereof I have hereunto set my hand.

W. DEWEES WOOD.

Witnesses:

J. J. McCORMICK,

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