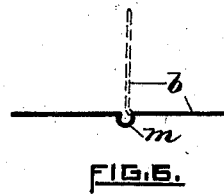
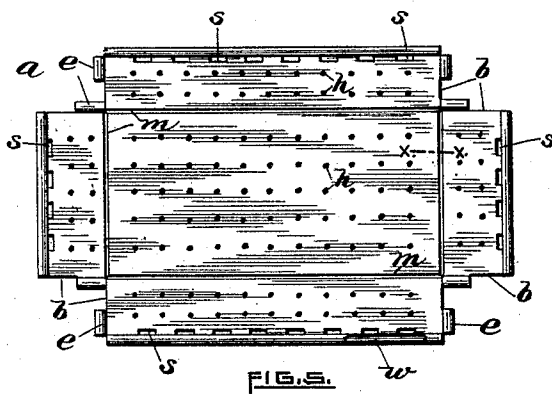
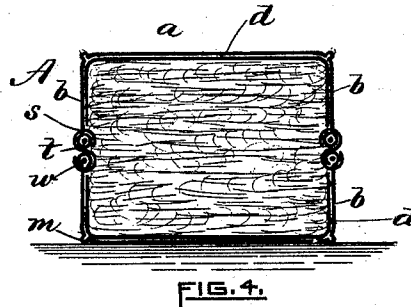
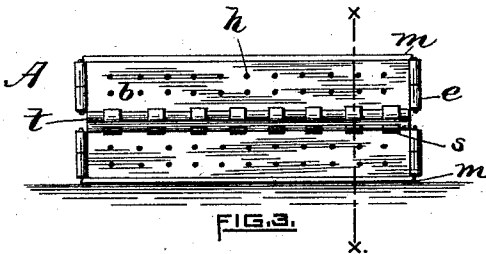
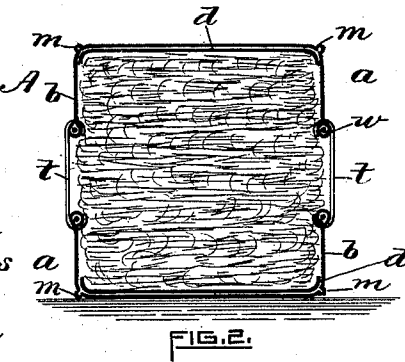
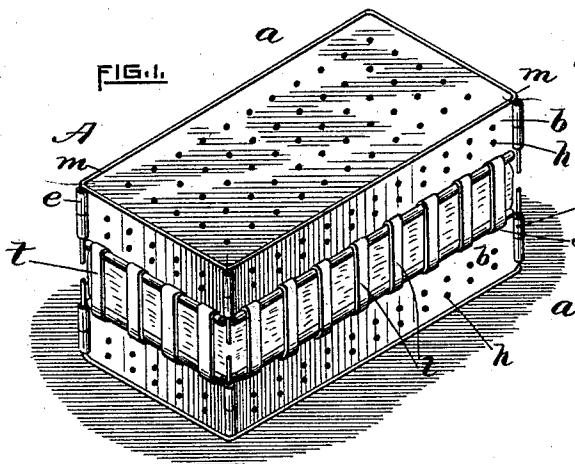


(No Model.)

G. B. HUSSEY.  
METALLIC BALE COVERING.

No. 474,046.

Patented May 3, 1892.



WITNESSES.

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Attys

# UNITED STATES PATENT OFFICE.

GEORGE B. HUSSEY, OF PROVIDENCE, RHODE ISLAND.

## METALLIC BALE-COVERING.

SPECIFICATION forming part of Letters Patent No. 474,046, dated May 3, 1892.

Application filed June 3, 1891. Serial No. 394,973. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE B. HUSSEY, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Metallic Bale-Coverings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In a companion application for United States Letters Patent, filed simultaneously with this, I have described and claimed a novel form of packing-case, the same being made of sheet metal, which is cut out in the form of a blank and having flexible sides, the edges of which are provided with hinges or eyes so arranged that when the sides are folded they form corner-hinges adapted to receive joint wires or pins.

My present invention also has relation to cases or coverings, but more especially to bale-coverings for cotton and other fibrous materials or products adapted to be transported from place to place—as, for example, in packing and baling cotton at the plantation, as well as at the compress.

There are objections to metallic bale-coverings as heretofore made, some of the disadvantages being as follows: They are not sufficiently flexible at the corners, they lack strength, especially along the fastening edges, and they are not ventilated along the sides to permit the escape of confined air and gases, and consequently the cotton is liable to become mildewed and thus impair its quality.

The object I seek to attain is to produce a bale-covering devoid of the objections above referred to. To that end my invention consists, essentially, of a thin metallic blank having integrally-formed perforated sides reinforced along the longitudinal edges and provided with hook-receiving slots, and, further, having the short or vertical edges provided with ears or hinges arranged when the sides are folded to receive at the adjacent corners or joints retaining-wires.

My invention further consists in the com-

bination of two of said blanks having the sides thereof folded and hinged together with a series of retaining-hooks having the ends thereof in engagement with the slots formed in the sides.

In the accompanying sheet of drawings, Figure 1 is a perspective view representing a bale of cotton provided with my improved covering as applied by the cotton-grower at the plantation. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a side elevation, in reduced scale, of the covered bale after being compressed. Fig. 4 is a cross-sectional view, enlarged, taken on line *xx* of Fig. 3. Fig. 5 is a plan view of one-half of a metallic blank or covering before the sides are folded together; and Fig. 6 is an enlarged cross-sectional view of a portion of the blank, taken on line *xx* of Fig. 3.

My improved bale-covering *a* is made of metal—as, for example, iron or low-grade steel—rolled into very thin sheets or plates. After the blank has been cut into shape the several sides are provided with a series of comparatively small holes *h*. These not only serve to reduce the weight, but also afford means for the escape of air and gases from the interior of the bale, particularly along the lateral edges and sides of the bale. The outer (or when folded the bottom) edges of the covering are reinforced by a wire *w*. (See Figs. 2, 4, and 5.) These edges are further provided with a series of openings or slots *s*, adapted when in use to receive the bent ends of suitable metallic hooks or ties. The vertical edges are provided with hinges or eyes *e*, adapted when in use to receive suitable joint-wires, thereby uniting the sides together at the corners.

Referring to Fig. 5, it will be seen that the four sides *b* of the blank or covering are integral with the top or center portion, the metal being creased, as at *m*, or otherwise indented at the junction of the sides with the center portion. This groove or crease not only materially stiffens and strengthens the corresponding edges of the covering when in use, but it permits the several sides to be repeatedly folded without injury. Fig. 6 shows how the sides *b* may be folded to a vertical position.

The perforated metallic blanks or semi-

coverings *a* are adapted to be shipped in a flat state to the cotton-grower. In baling the cotton he places a partly-bent blank in the bottom of the press and then gradually builds up the bale in layers, as usual. When the desired quantity has been thus placed in the press, he surmounts the whole by a similar but reversely-arranged blank, after which he presses the cotton and completely folds all the sides *b*, so that they stand substantially vertical, and inserts joint-wires through the ears *e* of the several corners, when, finally, the bent ends of suitable hooks or ties *t* are inserted into the respective slots *s*, formed along the outer edges of the sides and above the reinforcing-wires *w*, thereby completing the operation, the bale now being ready for shipment. (See Fig. 1.) In case, however, it is desirable to have the bale still further reduced in thickness, it is usual to subject it to more powerful pressing mechanism adapted to compress it to a much greater extent. In such case the original ties *t* have to be replaced by correspondingly-shorter ties *t*, the bale thus compressed and retied being shown in Fig. 3.

In order to render the bale fire-proof, the covering may be lined with fire-proof material *d*, as asbestos paper. This may be employed simply at the top and bottom, or it may extend along the sides of the covering, as indicated in Fig. 4.

By means of my improved bale-covering the loss of cotton while in transit is reduced to a minimum. The bales may be packed closer and more uniform than heretofore. The bale and its cover is rendered stronger by means of the roundabout corner-ribs *m*. The coverings may be repeatedly returned and reused, if desired.

I claim as my invention—

1. The sheet-metal blank, substantially as hereinbefore described, consisting of a center

portion having four lateral wings or sides integral therewith, the outer or free edges of said sides being reinforced and arranged to receive fastening devices and having the adjacent ends or edges of said sides non-lapping and arranged and adapted to be secured together when the sides are bent or folded in use.

2. The sheet-metal bale-covering, substantially as hereinbefore described, consisting of an upper section and a lower section, each having a perforated center portion and perforated folding sides integral with said center portion, hinge-eyes arranged to receive joint-wires formed at the vertical edges or corners of the covering, and detachable fastening devices uniting the two sections together.

3. The sheet-metal bale-covering blank *a*, hereinbefore described, consisting of a center or base portion, four folding sides *b*, integral therewith, each side having a crease *m* and a corresponding projection formed therein at its junction with the said base and having the outer or free edges of the sides reinforced and slotted to receive fastening-hooks, the end portions of the several sides arranged and adapted to be locked together when the sides are folded, substantially as set forth.

4. In a metallic bale-covering, the combination of two perforated semi-covering sections or blanks *a*, each consisting of a center or base portion having integrally-formed folding sides *b*, reinforced and slotted along their outer edges and having the adjacent edges or ends of the sides provided with eyes, adapted when the sides are folded to receive joint-wires, and hooks for securing the two sections together, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

GEORGE B. HUSSEY.

Witnesses:

CHARLES HANNIGAN,  
GEO. H. REMINGTON.