C. A. UPSON.

PACKAGING WALL BOARD.

APPLICATION FILED APR. 17, 1916.

1,225,079. Patented May 8, 1917.

Fig. 1.

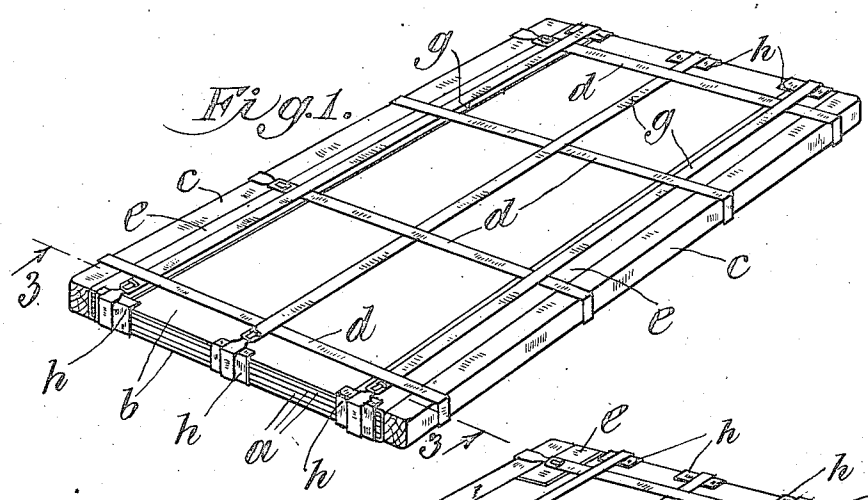


Fig. 2.

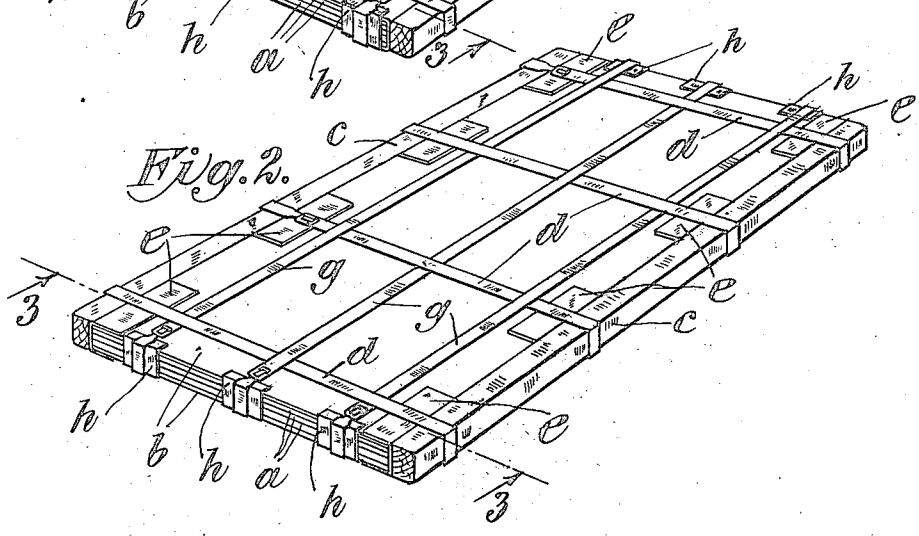
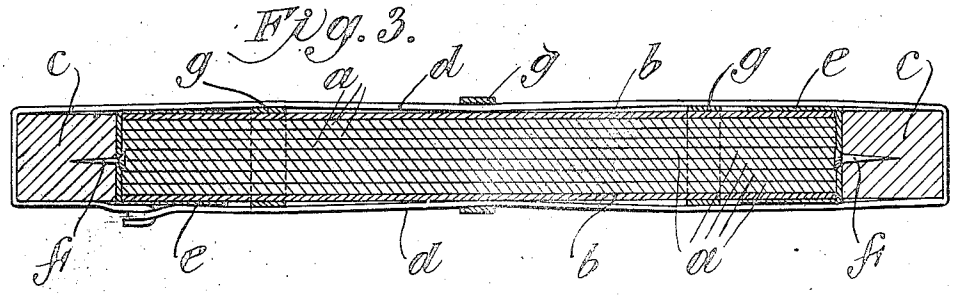


Fig. 3.



WITNESS

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PACKAGING WALL-BOARD.

1,225,079. Specification of Letters Patent. Patented May 8, 1917.

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To all whom it may concern:

Be it known that I, CHARLES A. UPSON, a citizen of the United States, and residing in the city of Lockport, county of Niagara, in the State of New York, have invented certain new and useful Improvements in Packaging Wall-Board, &c., of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to the packaging of wall-board and other materials which, being frequently shipped in relatively large sheets or panels and being relatively thin, must have their edges, and particularly their longitudinal edges, protected against abrasion and, being usually somewhat flexible should be prevented from bending in handling and in transportation. The object of the invention is to provide means, inexpensive in character, which shall effectively protect the edges of the sheets or panels from abrasion and shall give the package such rigidity as shall enable it to be handled readily. In accordance with the invention there is applied at each longitudinal edge of the bundle of sheets or panels a substantially rigid or inflexible stiffener. Straps are passed around the bundle and the stiffeners to hold the stiffeners snugly against the edges of the bundle, and means are provided which, in cooperation with the straps, prevent any separation of the several sheets or panels of the bundle and any tendency of any sheet or panel to slip away from the contacting face of the stiffener. The invention has been particularly designed with reference to its application to the packaging of sheets or panels of wall-board so as to prevent not only any abrasion of the edges of the sheets or panels, even if the bundle be dragged on edge over the floor, but also any possible mutilation of even the outer sheets or panels of the bundle by the straps, but it will be obvious that the invention is applicable to the packaging of any material which, for convenience in handling and for protection from injury at the edges, should be packed in a firm, compact and comparatively rigid bundle, with no danger of slipping of the sheets or panels one upon another, or of abrasion of the edges in any manner. The invention will be more fully explained hereinafter with reference to the accompanying drawing, in which it is illustrated and in which,—

Figure 1 is a perspective view of a bundle of sheets or panels of wall-board or similar material with the improved packing or holder applied thereto.

Fig. 2 is a similar view showing a slight modification.

Fig. 3 is a detail view on a larger scale, in section, on the plane indicated by the line 3—3 of Figs. 1 and 2, looking in the direction of the arrow.

As represented in the drawing, wall-board is usually shipped in bundles made up each of a number of sheets or panels *a*, *a*, laid one upon another with their edges in common planes. The outer sheets of the bundle may be of the same material as the other sheets or panels, or they may be of a different material, either better adapted as outside packing sheets or of cheaper material. The several sheets, whether of the same or of different materials, may be regarded as making up the bundle, and the outer sheets, whether of the same material or of a different material, may be regarded as packing sheets. Against each longitudinal edge of the bundle is placed a relatively rigid or inflexible stiffener *c* which is usually made of wood and has its thickness substantially equal to but not greater than the thickness of the bundle. Wall-board is usually packed in bundles of about two inches in thickness and for such a bundle each stiffener should have also a thickness of approximately two inches. Each stiffener extends the full length of the bundle. Around the bundle, including the stiffeners, are placed straps *d*, usually of

thin sheet iron, but of any other suitable material, which are drawn tightly so as to hold the stiffeners snugly against the edges of the bundle. As the thickness of the stiffeners does not exceed the thickness of the bundle the pressure of the straps tends to hold the sheets or panels tightly together. It will be obvious, however, that, without the provision of other means to prevent it, one or more of the outer sheets or panels of each bundle might slip between the straps and the sides of one or the other of the stiffeners thereby exposing the edges of such sheets to injury by contact with other objects and permitting the marring of such sheets at their edges by the straps themselves. In order to prevent these undesirable results and to prevent any slipping of the bundle with respect to the stiffeners or either of them, there is provided for each strap a protector or binder *e* which may either extend throughout the length of the bundle, as shown in Fig. 1, or may be made in short lengths, one for each strap *d*, as shown in Fig. 2. This binder, made of any suitable material, such as burlap, for example, but preferably a somewhat stiffer material, such as paper-board, having a width considerably greater than the thickness of the bundle, is secured to the inner or contacting face of each stiffener *c*, as by nails or tacks *f*, and its edges are lapped over the adjacent edges of the bundle. These binders are of course applied to the stiffeners before the stiffeners are applied to the bundle, so that the straps *d*, when applied as already described, hold the edge portions of the binders firmly against the sides of the bundle and thereby the binders, being themselves secured to the stiffeners, not only hold the sheets firmly together but prevent any slipping either of the bundle as a whole or of the outer sheets thereof from the contacting face of the corresponding stiffener.

As bundles of wall-board usually have a length much greater than their width and are therefore dragged over the floor of the warehouse or railway platform on one or the other of the longitudinal edges, it is practically necessary only that such longitudinal edges be protected in the manner described, but obviously the stiffeners might be applied to the ends of the bundle if desired. Furthermore, it is essential only that transverse straps be provided when stiffeners are applied at the longitudinal edges only, but if desired longitudinal straps *g* might also be provided, in which case binders or protectors *h* may be provided for the longitudinal straps at each end of the bundle.

It will be evident that by the application of the invention a firm and compact bundle is formed, with the several sheets or panels held closely together, with the edges of the sheets securely protected against abrasion from injury, and with a sufficient degree of stiffness or resistance to flexure to permit the bundle to be handled easily in loading and unloading and in transportation. The use of the stiffeners not only protects the longitudinal edges and stiffens the package, but it protects the corners against injury and renders unnecessary the use of corner protectors which have been used to some extent heretofore. The stiffener moreover forms a shoe or skid upon which the bundle may be drawn over the floor. Obviously, moreover, the new packaging, while thoroughly efficient in every respect is much less expensive than the crating which has hitherto been used, besides reducing the transportation charges as compared with the crated bundles.

I claim as my invention:

1. In combination with sheets or panels of wall-board and the like, packaging therefor comprising stiffeners for opposite edges of approximately no greater width than the thickness of the package, and straps passed tightly around the opposite stiffeners and the bundle of sheets or panels to hold the stiffeners tightly against the edges of the bundle and to press the sheets or panels closely together.

2. In combination with sheets or panels of wall-board and the like, packaging therefor comprising stiffeners for opposite edges of approximately no greater width than the thickness of the package, straps passed tightly around the opposite stiffeners and the bundle of sheets or panels, and binders interposed between the stiffeners and the adjacent edges of the bundle and having their edge portions overlapping the edge portions of the bundle.

3. In combination with sheets or panels of wall-board and the like, packaging therefor comprising stiffeners for opposite edges of approximately no greater width than the thickness of the package, straps passed tightly around the opposite stiffeners and the bundle of sheets or panels, and binders secured to the stiffeners between the stiffeners and the adjacent edges of the bundle and having their edge portions overlapping the adjacent edge portions of the bundle.

4. In combination with sheets or panels of wall-board and the like, packaging therefor comprising stiffeners of wood for opposite edges of the bundle having each a thickness approximately no greater than the thickness of the bundle, and straps passed tightly around the opposite stiffeners and the bundle of sheets or panels to hold the stiffeners tightly against the edges of the bundle and to press the sheets or panels closely together.

5. In combination with sheets or panels of wall-board and the like, packaging therefor comprising stiffeners of wood for opposite edges of the bundle having each a thickness approximately no greater than the thickness of the bundle, binders secured to the stiffeners between the stiffeners and the adjacent edges of the bundle and having their edge portions overlapping the adjacent edge portion of the bundle, and straps passed tightly around the opposite stiffeners and binders and the bundle.

This specification signed this 13th day of April, A. D. 1916.

CHARLES A. UPSON.