E. J. CADY.

PACKAGING DEVICE.

APPLICATION FILED MAR. 27, 1915.

1,200,467. Patented Oct. 10, 1916.

Fig. 3

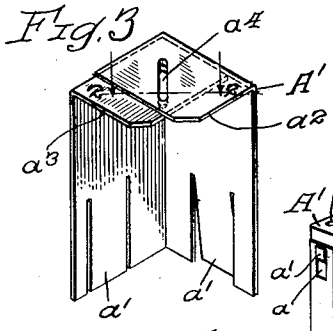


Fig. 1

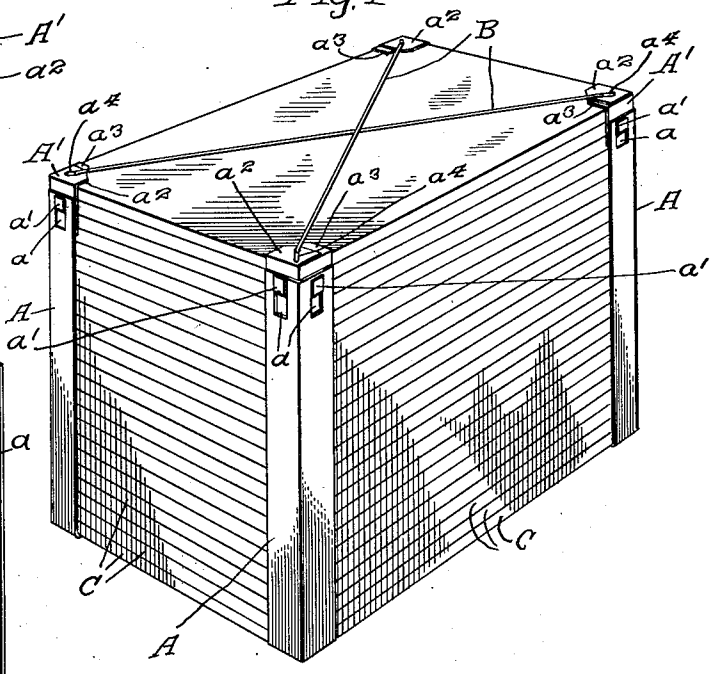


Fig. 4

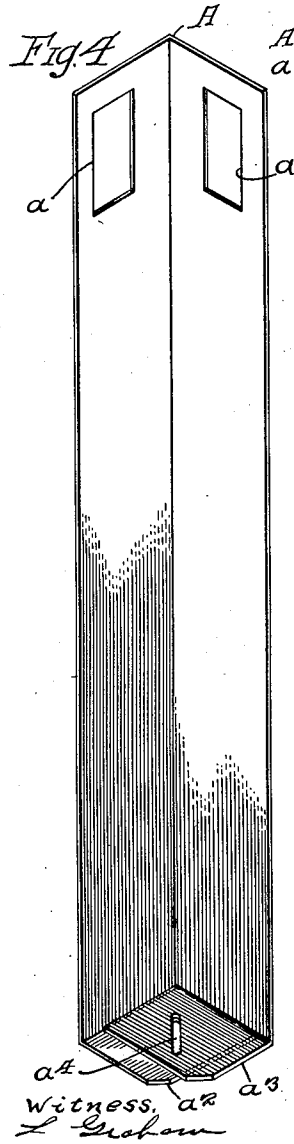


Fig. 5

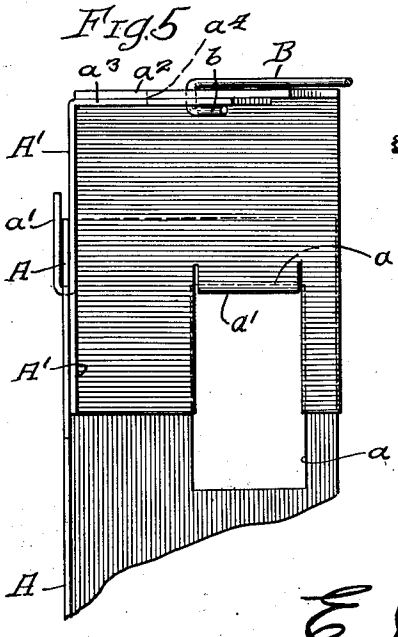
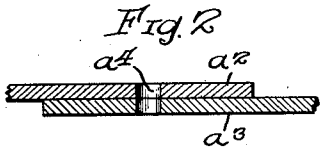


Fig. 2



Witness,
L Graham

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his Att'y.

UNITED STATES PATENT OFFICE.

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PACKAGING DEVICE.

1,200,467. Specification of Letters Patent. Patented Oct. 10, 1916.

Application filed March 27, 1915. Serial No. 17,326.

To all whom it may concern:

Be it known that I, ELISHA JESSE CADY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Packaging Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to packaging devices and particularly to such devices for securing in bundles objects such as shingles and similar materials, and consists in the matters hereinafter described and then pointed out in the appended claims.

In the accompanying drawings Figure 1 is a perspective view of a bundle of shingles with a packaging device constructed in accordance with my invention assembled on the corners thereof; Fig. 2 is a detail sectional view on the line 2—2 of Fig. 3; Fig. 3 is a detail view of the overlapping end of one of the sections of one of the fastening strips of Fig. 1; Fig. 4 is a similar view of the overlapping end of the other section of the strip; and Fig. 5 is a detail view of the joint between said sections.

In the drawings the reference letters A and A′ refer to the sectional parts of the strips forming the sides of the device, and the sections of each strip are provided with interlocking means, preferably by providing tongues on the sides of one of the sections adapted to interlock with slots in the sides of the associated section, and in practice I prefer to provide the slots a near the ends of the longer sections and the tongues a' in the ends of the shorter sections. When the sections are united to form a strip the end of the short section provided with the tongue is assembled in position behind the end of the associated long section having the slot so that the tongue is exposed more or less at the slot of the latter, and then by any suitable means the tongue is bent outward through the slot and back on the end of the long section as shown in Fig. 1, the slot and tongue being sufficiently long to allow the completed strip to be of different lengths according as the free end of the tongue is bent through the slot at various distances from its base. The sections are provided at their free ends with inwardly bent wings to which suitable connections forming the top and bottom of the complete packaging device are secured, and for this purpose I prefer to employ suitable length of wire B having hooks b at their ends to detachably engage the wings.

The strips may be of any suitable shape or contour, and in the preferred form illustrated in the drawing they are in the shape of angular channel strips so as to form corner-strips to provide protection for the corners of angular objects. For example, I show a bundle of superposed shingles C, there usually being about ninety shingles in each bundle, with the angular strips assembled on their corners, and in this form of the device the wings are provided by the ends a^2 and a^3 of the webs of the strips being bent or folded to overlapping position at substantially right angles to the webs. The infolded wings are provided with holes or slots a^4 for the hooks b of the tie-wires, so that the opposite strips are held in position and the webs of each section are held against undue spreading.

In applying my device the tie-wires to form the bottom of the devices are connected to the wings of the long sections of an opposite pair of strips, and the tie-wires to form the top of the device are connected to the wings of a pair of the short sections; the objects to be packaged are then nested or superposed on each other on the bottom tie-wires within the area provided by the long sections, which are vertically disposed for convenience of operation, the number of objects assembled being sufficient to extend above the long sections, and then the tie-wires to form the top are placed in position on the upper object with their short sections A′ inserted behind the long sections, and suitable pressure (by a press or otherwise) is applied to press the objects into compact relation. The height of the various objects to be packaged will be such that when the short sections of the strips are in their final positions their tongues will be exposed more or less at the slots in the long sections, and then by any suitable means the exposed portions of the tongues are bent outwardly through the slots and back upon the ends of the long sections to securely fasten the sections together.

In the practical application shown in Fig. 1 four strips are shown, one at each corner of the package, and the opposite pairs of strips are connected by the tie-wires whose hooked ends pass into the holes in the overlapping ends forming the wings, and when

such angular strips are employed they form corner guards to protect the corners of the objects from injury and their webs are held against undue spreading by the interlocking of the tie-wires with their infolded ends. The tie-wires form a convenient handle for the package, and as the joint between the ends of the sections of the strips formed by the tongues and slots allows slight play or movement the package has enough flexibility to yield to undue strains. The strips are formed being flexible material, preferably of thin metal strips, and so the webs at the corners can be flexed outwardly to allow the edges of a protecting panel or plate to be inserted between them and the packaged material to provide protection for the sides and ends of the latter. The tie-wires are detachable from the strips so that the device may be shipped in knockdown form.

While I have shown my invention associated with a plurality of flat objects, such as shingles, it is obvious that it may be used as a packaging device for boxes, cartons, etc., and also that it may be varied in shape and form to be used with articles of different shapes.

I claim:

1. A packaging strip composed of sections adapted to overlap, one of the sections having a slot at its overlapping end, and the other section having a tongue at its overlapping end adapted to be bent through the slot when the sections are assembled, and each section having a wing at its free end.

2. A packaging strip composed of sections adapted to overlap, each section having angular webs, one of the sections having a slot in each web at its overlapping end, and the other section having a tongue in each web at its overlapping end adapted to be bent through the slot of its associated web when the sections are assembled, and each section having a wing at its free end formed by the inturned ends of its webs.

3. A packaging device comprising an opposite pair of strips, each strip composed of sections adapted to overlap, one of the sections having a slot at its overlapping end, and the other section having a tongue at its overlapping end adapted to be bent through the slot when the sections are assembled, each section having a wing at its free end, and tie-wires connecting the wings.

4. A packaging device comprising an opposite pair of strips having angular webs, each strip composed of sections adapted to overlap, one of the sections having a slot in each web at its overlapping end, and the other section having a tongue in each web at its overlapping end adapted to be bent through the slot of its associated web when the sections are assembled, each section having a wing at its free end formed by the inturned ends of its webs, said inturned ends having registering holes, and a tie-wire having hooks engaging said registering holes.

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

ELISHA JESSE CADY.

Witnesses:
J. McRoberts,
Edith Wilcox.