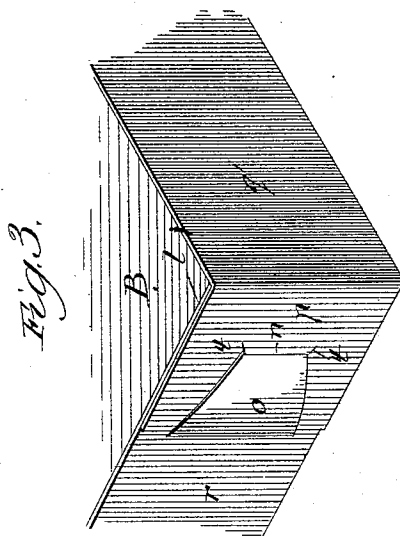
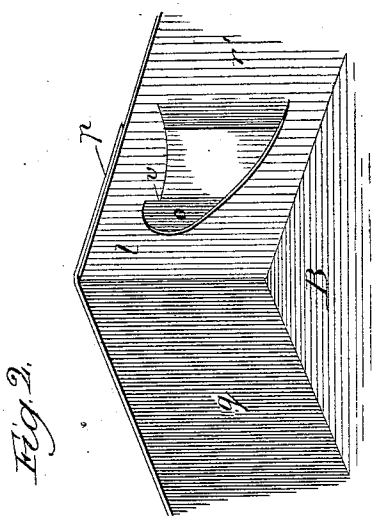
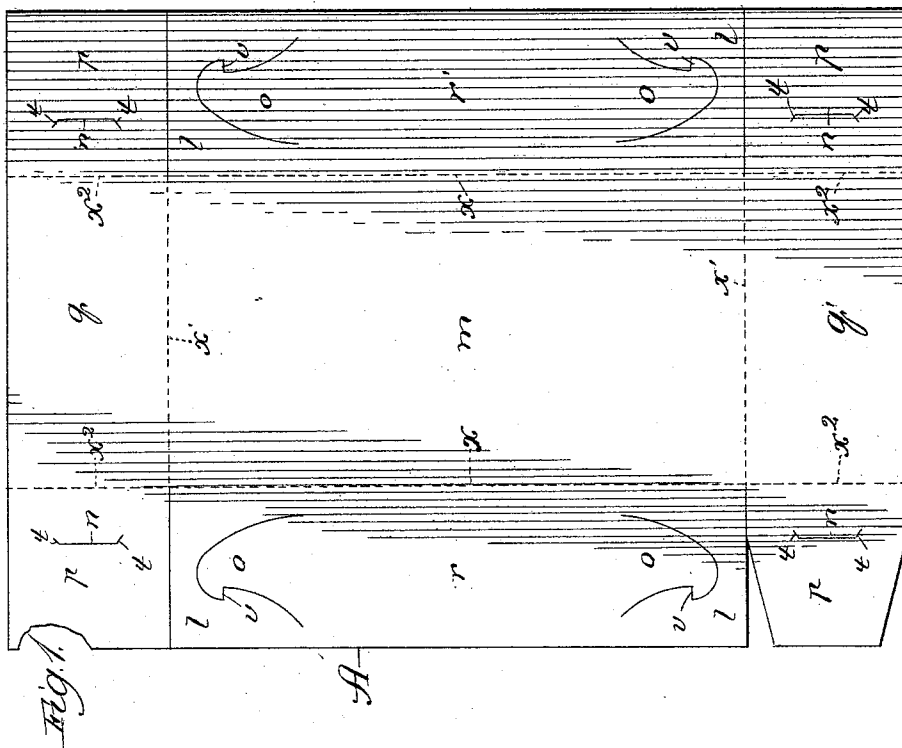


(No Model.)

O. H. HICKS.
PAPER BOX.

No. 487,528.

Patented Dec. 6, 1892.



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UNITED STATES PATENT OFFICE.

OLIVER H. HICKS, OF CHICAGO, ILLINOIS.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 487,528, dated December 6, 1892.

Application filed May 7, 1892. Serial No. 432,149. (No model.)

To all whom it may concern:

Be it known that I, OLIVER H. HICKS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Paper Boxes, of which the following is a specification.

My invention relates to an improvement in the class of paper boxes—such as those employed for holding suits of clothes, millinery, and the like—of angular construction, which are furnished originally as blanks provided near alternate corners with hooks cut from the material of the box and slots at the respectively-adjacent corners cut into the material to receive and engage the hooks, and thus hold up the sides of the box at the corner portions; and it relates, more particularly stated, to the construction of the fastening means for securing the corners of the box together.

The object of my invention is to provide a generally-better construction of hook-and-slot fastening means than has hitherto been provided on boxes of the class to which my improvement relates, and particularly to provide a stronger and otherwise more desirable fastening than one known to me, comprising a hook cut from an end piece of the box near one corner and having the surrounding material from which the hook is separated by the cutting operation entirely removed, the uncovered hook thus forming the projecting extremity of such end piece of the box to enter and engage a slot in the adjacent side piece near the corner. Among the objections to the construction of fastening means thus referred to as being old are that the portion of the material of the box removed in forming the blank from surrounding the hook leaves the latter when fastened by insertion into the co-operating slot projecting at the inner surface of the box, thereby forming an obstruction inside the same, which is not only hampering in the use of the box, but lays the hook liable to be broken or torn off; that the material so cut away is wasted, and its absence weakens the box at the corners, where it should be strongest, and, furthermore, that the material so cut away requires provision on the cutting-machine of means for remov-

ing the cuttings, which even then tend to clog the machine and make litter; besides, the severance by the cutting-machine is not usually complete, so that the waste material is generally left attached to the blank as the latter is delivered from the cutting-machine and has to be pulled off by hand, thereby requiring an additional handling.

My objects are, among others, to utilize the material surrounding the hooks and from which they are severed by forming them in the blanks as a protection for the hooks in packing and shipping the blanks and in their positions of use in a box formed from such a blank, and as reinforcement of the corner portions of a box formed from the blank.

In the accompanying drawings, Figure 1 is a plan view of a blank cut to provide the hook-and-slot corner-fastening means to afford a box of my improved construction. Fig. 2 is a broken perspective view of one inner corner portion of my improved paper box. Fig. 3 is a view like that presented in Fig. 2, but showing the exterior corner portion of the box.

A is the paper (pasteboard) blank, shown in the form suitable for an oblong rectangular box B, the side portions r and r' for which are defined by creases x , (indicated by dotted lines,) and the end portions q and q' by similarly-indicated creases x' . Toward the extremities of each end portion q and q' there should be creases x^2 (shown as continuations of the creases x) to define the bending lines of flaps p , which may or may not be trimmed or beveled to finish them on their lateral edges as shown of one of the flaps in Fig. 1.

In each end of each of the side pieces r and r' I cut out of the material a flat tongue-shaped hook o , which is severed from the material of the side piece on all sides except its base, the material of the side piece being left to surround the hook, thereby to protect it and serve to reinforce the corner portion it is employed to fasten, in the manner herein-after described.

In each flap p I provide a slit or slot n , which may extend parallel with the adjacent crease-line x^2 , or at any desired angle thereto.

To form a box B from the blank A, the side pieces r r' are bent at their crease-lines x to a right angle with the base portion m , and the

end pieces q q' are similarly bent. The flaps p are bent at their crease-lines x^2 to extend parallel with and along the outer surfaces of the side pieces, and in so adjusting each flap the adjacent hook o on a side piece is caused to be inserted into the slot n of the flap, and is then drawn backward far enough to produce engagement of its notched end v with a corner or end t of the slot, from which it cannot be separated without first forcing the tongue downward out of such engagement.

As will be seen, the construction thus described provides for shielding the hook o not only while in the flat blank, but also when in its corner-fastening position, because in the latter it does not protrude at the inner surface of the box, but is shielded, being slightly depressed or practically flush with relation to the unremoved surrounding material l , which thus forms with the hook an inner reinforcing thickness or layer for the corner portion of the box, where its strength should be greatest.

What I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described box, comprising, in combination, the bottom m , sides r r' , ends q q' , provided with flaps p , and hooks o and slots n for the box-corners in the said sides

and flaps, each hook being inserted into an adjacent slot from the exterior of the box and co-operating with the material surrounding it to embrace between them the adjacent ends of the slotted piece, whereby the box-corners are reinforced and the ends of the hooks are shielded, substantially as described.

2. The herein-described box, comprising, in combination, the bottom m , sides r r' , provided with hooks o in their end portions and surrounded by the material out of which they are cut, and ends q q' , having flaps p provided with slots n , each flap being folded to overlap the adjacent hook-containing end of a side at its exterior surface to form a box-corner and each hook being inserted from the exterior of the box into the slot in the adjacent flap and co-operating with the material surrounding it to embrace between them the end portions of the flap beyond its slot, whereby the box-corners are reinforced, the ends of the hooks are shielded, and the inner sides of the box are rendered practically flush, substantially as described.

OLIVER H. HICKS.

In presence of—

M. J. FROST,

W. NICHOLAS WILLIAMS.