

(No Model.)

R. GAIR.
PAPER BOX.

No. 519,451.

Patented May 8, 1894.

Fig. 2.

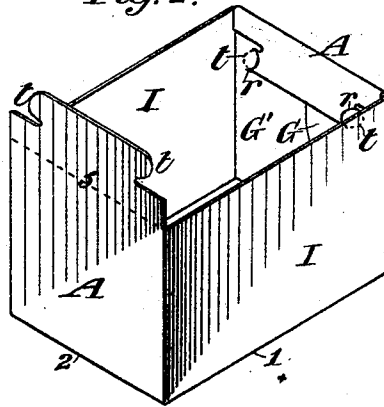


Fig. 3.

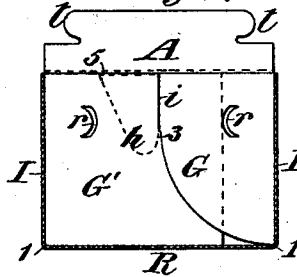
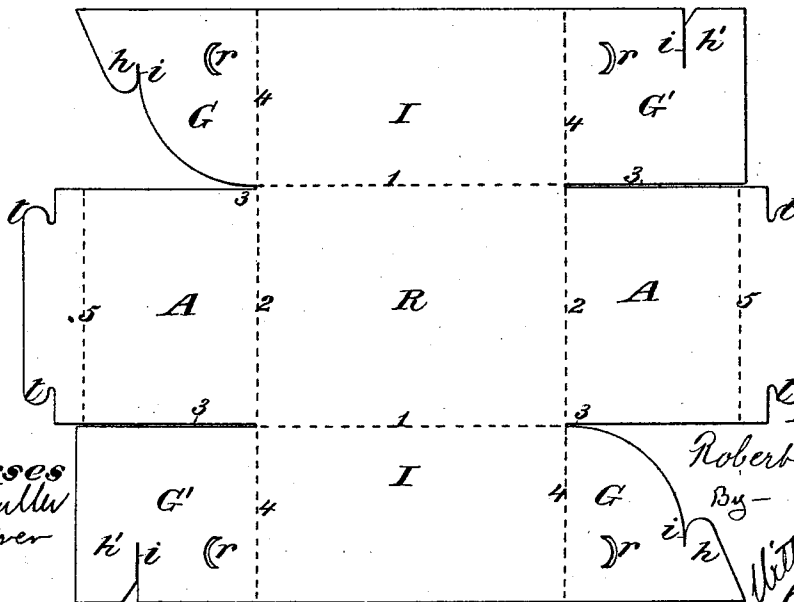


Fig. 4.



Fig. 1.



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UNITED STATES PATENT OFFICE.

ROBERT GAIR, OF BROOKLYN, NEW YORK.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 519,451, dated May 8, 1894.

Application filed November 15, 1892. Serial No. 452,023. (No model.)

To all whom it may concern:

Be it known that I, ROBERT GAIR, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Paper Boxes; 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.

This invention relates to that class of boxes generally known as "knockdown" boxes, which are formed from a blank cut in a single piece from paper, card or straw board and like materials and arranged to be set up and secured by causing the end flaps to engage slots in the turned-in portions of the sides.

My improvements comprise a new construction of such boxes, consisting in altering the position and shape of the slots in order that the end flaps may make a more secure connection with the turned-in parts, and also in arranging the turned-in parts to interlock and thereby, when the box is set up, the sides shall be held together positively by the turned-in pieces for additional strength and security.

In the drawings:—Figure 1 represents the blank for the box; Fig. 2, a perspective view of the box set up, but with one of the end flaps loose; Fig. 3, a view of the inside of one end of the box, the end flap being shown in its locked position. Fig. 4 represents a modification of the invention applicable to the covers of boxes, &c.

In the practical carrying out of my invention a blank is cut from paper, card-board or other suitable material whereby are formed a bottom part R, sides I, I, and end flaps A, A, having tongues *t t*. The blank is further provided with creased or scored lines 1 1 between the bottom and sides, creased or scored lines 2 2 between the bottom and end flaps, incised lines 3, 3, 3, 3, to separate end portions G, G, G', G', of the side flaps I, I, from the end flaps A, A from the creased lines outward, and creased lines 4, 4, 4, 4, between the parts G, G, G', G' and the side flaps. These creased or scored lines form hinges on which the parts are turned up at right angles to

each other, and the incised lines permit the parts G, G' to be turned inward at right angles to the sides and form the ends of the box. The said parts G, G' are also further cut out at their free ends to form hooks *h, h*, *h', h'* which are shaped and formed at such parts to engage each other by means of slots *i, i*, and thereby interlock when the box is set up. A creased or scored line 5 is also formed in the end flaps at such a point that the part outside of the said line can be turned over down and against the ends of the box in order that the tongues *t t* may be inserted into the vertical semi-circular or crescent shaped slots *r, r*, formed in the turned in end parts G, G'. The said slots are placed vertical in order that the tongues *t, t* may be thrust into the same with a side-wise motion instead of with a diagonal motion—the advantage being that thereby they hold the sides much more securely, as the pressure from the inside of the box having a tendency to throw the end parts upward and over, the bottom edge of the slot is caused to catch in the incut between the tongue and the adjacent edge of the flap and thus positively fasten the end piece. To set up the box from the blank the sides are turned up at right angles to the bottom, the end parts turned inward at right angles to the sides and the hooks caused to engage each other as shown in Fig. 2, then turning the end flaps over and downward against the inside of the interlocked end pieces G, G' and finally thrusting the tongues into the slots *r*, whereby the sides, ends and end flaps are locked together and the box held in shape.

The cover for the box is made and set up like the box itself, except that the end pieces G G' for the box being too short to meet and overlap have no hooks on their ends, and the end flaps and tongues engaging the slots are relied upon to hold the cover together, as shown in Fig. 4.

I claim—

In a paper box the combination of the bottom R, sides I I having end parts G G' respectively the said parts provided with hooks *h h'* and crescent shaped slots *r r*, end flaps A A having overlapping flaps provided with

laterally projecting tongues *tt*, whereby when the box is set up the two parts G G' at each end of the box are hooked together and the tongues on the overlapping flaps are thrust
5 into the crescent shaped slots, and the ends of the box thereby double locked together, substantially as specified.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

ROBERT GAIR.

Witnesses:

J. DUNCAN REILLY,
LAWRENCE BEATTIE, Jr.