

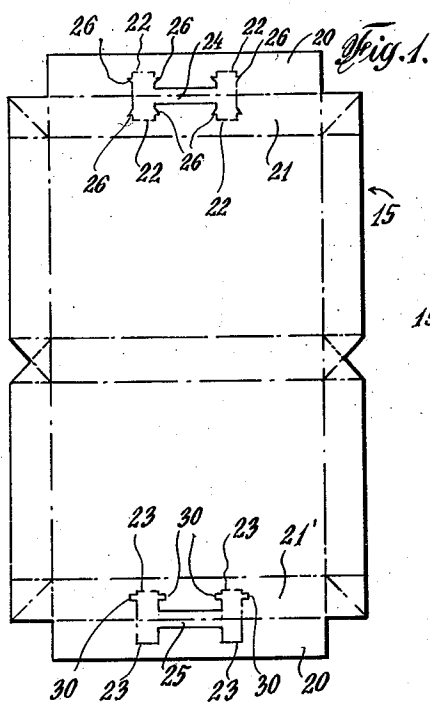
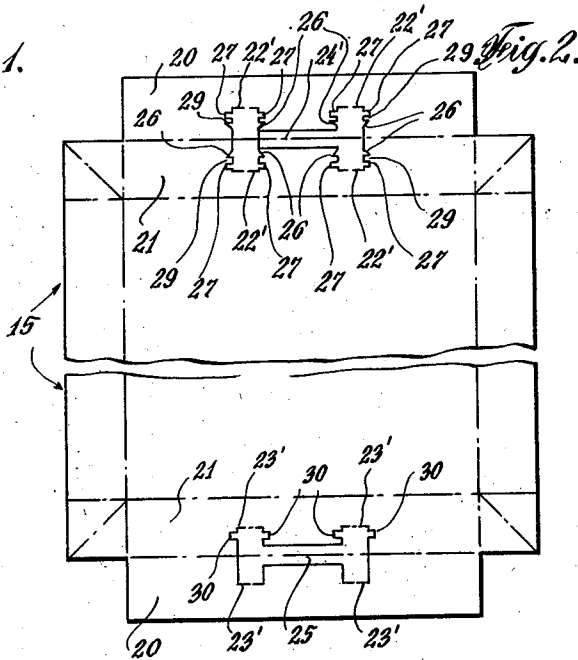
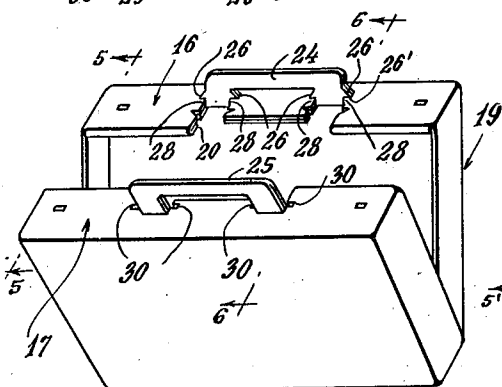
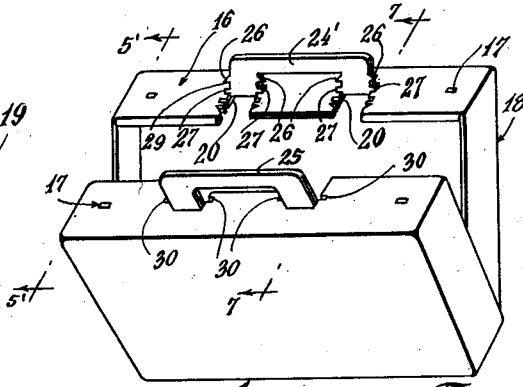
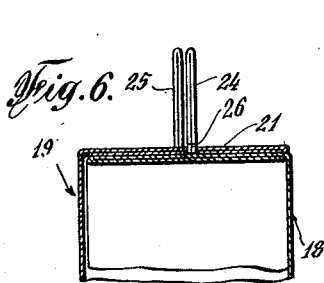
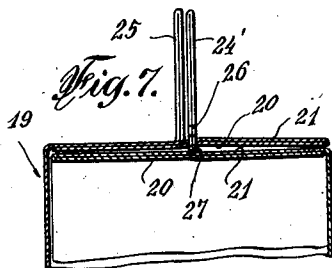
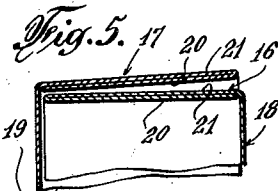
Jan. 6, 1942.

G. SCHEER

2,268,906

BOX

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INVENTOR
George Scheer
BY *[Signature]*
ATTORNEY

UNITED STATES PATENT OFFICE

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BOX

George Scheer, New York, N. Y.

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3 Claims. (Cl. 229—52)

My present invention relates to paper boxes which are preferably produced from a single blank folded to form a pair of hinged sections, one of which fits into the other whereby the box is closed, and more particularly to the type provided with handles and locks.

An object of this invention is to provide a box of the character mentioned of novel and improved construction, which is materially reinforced and provided with a handle of substantial strength and bulk, all formed out of a single blank.

A further object hereof is to provide a box adapted to be locked of novel and improved construction, formed from a single blank.

A further object hereof is to provide a box adapted to maintain itself shut, of novel and improved construction, formed out of a single blank.

Another object of the present invention is to provide a novel and improved handled box with automatic locking means, all formed out of a single blank.

Still another object hereof is to provide a novel and improved box of the type mentioned which is cheap to manufacture, easy to use and efficient in carrying out the purposes for which it is designed.

Other objects and advantages gained will become manifest as this disclosure proceeds.

In the accompanying drawing forming a part of this application, similar characters of reference indicate corresponding parts in all the views.

Fig. 1 shows a blank for forming a box embodying the teachings of this invention.

Fig. 2 shows a modification of said blank.

Fig. 3 is a perspective view showing the box formed by folding the blank shown in Fig. 1.

Fig. 4 is a perspective view of the box formed by folding the blank illustrated in Fig. 2.

Fig. 5 is a section taken at line 5—5 in Fig. 3, or at line 5'—5' in Fig. 4, when the respective boxes are in closed condition.

Fig. 6 is a section taken at line 6—6 in Fig. 3, with the box in closed condition, and

Fig. 7 is a section taken under similar condition at line 7—7 in Fig. 4.

In the drawing, the numeral 15 designates generally a blank cut out of cardboard, paper or other suitable sheet material, foldable in the usual manner to form a one-piece box, but the upper sides 16 and 17 of the hinged box sections 18 and 19 respectively, are each provided with an additional flap 20, of size to form a full second ply for each of said upper sides. These flaps 20,

are stitched, stapled, glued or otherwise suitably secured, preferably at their ends to their related box parts 21. Slits indicated in the figures showing the blanks 15 and 15', permit the material to be bent up from the box upper ends 16 and 17, about lines 22 and 23 as axis in one instance, and about lines 22' and 23' in the other; such bending being done from the free edges of said upper ends, to form a double-ply handle extending upwardly from each of said upper sides 16 and 17; said handles being designated by the numerals 24, 25 and 24' respectively.

The numerals 26 and 27 are lugs or tab pieces extending outwardly from the handle components of handles 24 and 24', which are of the box sections 19 constituting the inside box sections, while the cut outs 28, 29 and 30 are notches. Lines 22, 23, 22' and 23' are at such position, that when the box is in closed condition, the two double-ply handles of each box are in abutment, that is, one up flat against the other, to provide a substantial handle for the box proper. The full double-ply upper sides 16 and 17, substantially strengthen the entire structure and provide substantial foundation for the handles.

Due to the natural buckling of the blank material when folded, or else the blank is so cut, that the box closes in such manner that the upper side 17 of the outside section 18, extends slanted upwardly towards the free edge of said side. In closing the box, it comes necessary to press down this free edge of said side, in order that notches 28 receive it. The lower edge 26' of the lugs or tabs 26, will therefore be in frictional contact with the upper face of this upper side 17 and act to keep the box closed. To insure locking, the notches 30 may be provided, into which the tabs 26 may fall, and come to rest against the inner ply 20 of 17.

In the modification shown in Fig. 4, in closing the box in said figure shown, it is necessary to press the free edge of the upper side 17, less than in the box of Fig. 3, in order that notches 29 receive said edge. Of course, the frictional contact resulting is less than in the former instance, and yet sufficient to maintain the box in closed condition. It is also easier to shut the box.

For boxes to have only the locking and shutting features taught herein, it is evident that handles 25 may be omitted as well as the horizontal "holding" portions of the other handles 24 or 24' as the case may be, in which event, only the upwardly extending members of the handles 24 or 24' will remain.

This invention is capable of numerous forms

and various applications without departing from the essential features and teachings of this invention. It is therefore intended and desired that the embodiments shown and explained herein be deemed illustrative and not restrictive and that the patent shall cover whatever patentable novelty is herein disclosed; reference being had to the following claims rather than to the specific descriptions herein to indicate the scope of this invention.

I claim:

1. A closable box formed of a blank, comprising a pair of box sections hinged at their bottom end and adapted to enter one into the other; the upper end portion of the outer section being slantingly distended from the upper end portion of the inner section, handle members formed in each of said upper end portions, adapted to be bent up, inwardly from the free edges of said portions; a part of said free edges forming the top edge of said handles respectively, and when said handles are bent up, slots are formed in said upper end sections whereby the handle of one section may enter the slot in the other section whereupon said handles lie in surface abutment when the box is closed, a lug extending outwardly from the handle formed on the inner box section; the lower edge of said lug being above the surface of the upper end portion of the inner box section, and a flap extending from the upper end portion of the outer box section, adapted to be folded to form a double wall part for said end portion; whereby upon closing the box, said lower edge of the lug will be in frictional contact with the outer surface of the upper end portion of the outer box section to maintain the box shut; said flap constituting an end of the blank and said upper end portion being provided with a slot in its outer ply into which the lug may enter and rest on the inner ply of said end portion when the box is closed, to lock the box.

2. A closable box formed of a blank, comprising a pair of box sections hinged at their bottom end and adapted to enter one into the other; the upper end portion of the outer section being slantingly distended from the upper end portion of the inner section, handle members formed in each of said upper end portions, adapted to be bent up, inwardly from the free edges of said portions; a part of said free edges forming the top edge of said handles respectively, and when said handles are bent up, slots are formed in said upper end sections whereby the handle of one section may enter the slot in the other sec-

tion whereupon said handles lie in surface abutment when the box is closed, a lug extending outwardly from the handle formed on the inner box section; the lower edge of said lug being above the surface of the upper end portion of the inner box section, and a second lug extending directly below the first lug outwardly from the handle formed on the inner box section; the upper edge of said second lug being spaced from the lower edge of the first lug, whereupon closing the box, the upper end portion of the outer box section will enter the space between the lugs whereby the lower edge of the first lug will be in frictional contact with the outer surface of the upper end portion of the outer box section to maintain the box shut.

3. A closable box formed of a blank, comprising a pair of box sections hinged at their bottom end and adapted to enter one into the other; the upper end portion of the outer section being slantingly distended from the upper end portion of the inner section, handle members formed in each of said upper end portions, adapted to be bent up, inwardly from the free edges of said portions; a part of said free edges forming the top edge of said handles respectively, and when said handles are bent up, slots are formed in said upper end sections whereby the handle of one section may enter the slot in the other section whereupon said handles lie in surface abutment when the box is closed, a lug extending outwardly from the handle formed on the inner box section; the lower edge of said lug being above the surface of the upper end portion of the inner box section, and a second lug extending directly below the first lug outwardly from the handle formed on the inner box section; the upper edge of said second lug being spaced from the lower edge of the first lug, whereupon closing the box, the upper end portion of the outer box section will enter the space between the lugs, whereby the lower edge of the first lug will be in frictional contact with the outer surface of the upper end portion of the outer box section to maintain the box shut, and a flap extending from the upper end portion of the outer box section, adapted to be folded to form a double wall part for said end portion; said flap constituting an end of the blank; said upper end portion being provided with a slot in its outer ply into which the upper lug may enter and rest on the inner ply of said upper end portion to maintain the box in locked condition.

GEORGE SCHEER.