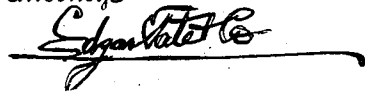


Patented Feb. 25, 1919.
2 SHEETS—SHEET 1.



1,295,824.

Patented Feb. 25, 1919.

2 SHEETS—SHEET 2.

FIG. 5.

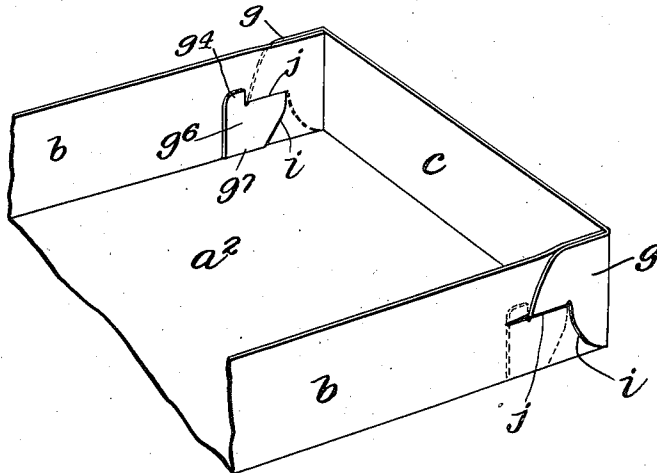


FIG. 6.

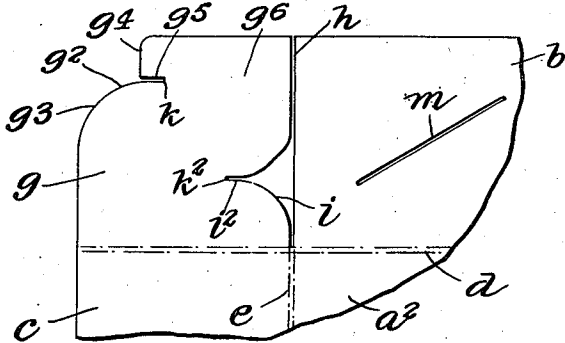


FIG. 7.

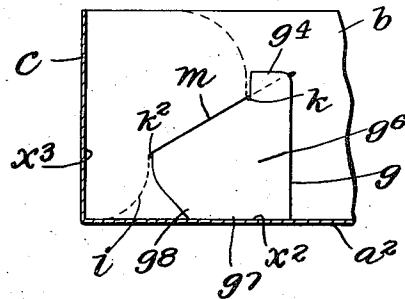


FIG. 8.

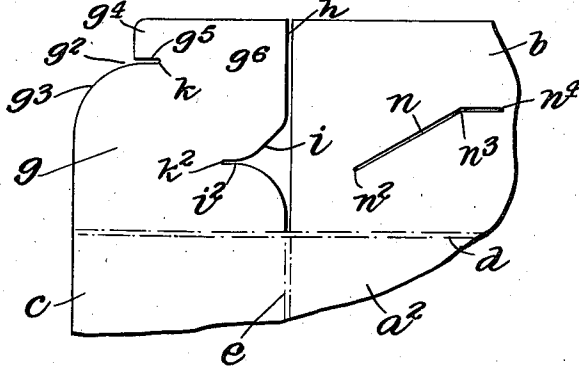
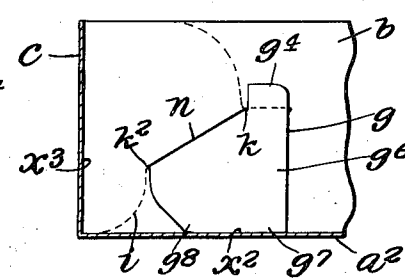


FIG. 9.



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ALEXANDER W. BEERS, OF NEW YORK, N. Y.

FOLDING PACKAGE-BOX.

1,295,824.

Specification of Letters Patent.

Patented Feb. 25, 1919.

Application filed December 20, 1918. Serial No. 267,650.

To all whom it may concern:

Be it known that I, ALEXANDER W. BEERS, a citizen of the United States, and residing at New York, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Folding Package-Boxes, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to what are known as folding or knockdown package boxes of the class used by tailors and others in packing or shipping clothes or other articles, one of which is shown and described in U. S. Letters Patent No. 1,032,645 granted to me July 16, 1912, and the object of this invention is to provide a box of the class specified, composed of top and bottom parts which are exactly the same in form and construction, except that the top part is slightly larger than the bottom part to permit of the bottom part being inserted therein, or the top part being passed down over the bottom part, which parts are also adapted to be folded compactly together and which are similar in form when so folded and approximately of the same dimensions; a still further object being to provide a box of the class specified which is stronger and more durable than other boxes of its class, and which is composed entirely of fibrous material and which has no metallic fastening or securing devices of any kind or class; and with these and other objects in view the invention consists in a box of the class specified, constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Figure 1 is a plan view of a blank form used in the construction of my improved box, or the separate parts thereof, the said form or blank being used for making each part of the box, or the top and bottom parts thereof;

Fig. 2 a similar view but showing only one corner portion of the blank and showing said corner portion on an enlarged scale;

Fig. 3 a view showing one corner portion of one part of the box in section and indicating the method of folding the separate

parts of the blank to form a part of the box;

Fig. 4 a view similar to Fig. 3 but showing said parts completely folded;

Fig. 5 a perspective view of one end portion of a part of a box;

Fig. 6 a view similar to Fig. 2 but showing a modification of the construction shown therein;

Fig. 7 a view similar to Fig. 4 but indicating the blank form shown in Fig. 6 completely folded;

Fig. 8 a view similar to Fig. 6 but showing another modification; and,

Fig. 9 a view similar to Fig. 7 but indicating the blank shown in Fig. 8 completely folded.

The invention described and claimed herein is an improvement on that shown and described in application No. 240,720 filed by me June 19, 1918 and, in the practice of my invention, as hereinbefore set out each part of my improved box, or the top and bottom members thereof, are made from blanks of the same form and construction, one of which is shown at *a* in Fig. 1, and this blank is stamped or cut from cardboard or similar material used in making boxes of this class, and said blank is oblong and rectangular in form and comprises a central body portion *a*², two parallel side members *b* and two parallel end members *c*, and the body *a*² and side members *b* are separated by score or folding lines *d*, while the body and end members *c* are separated by score or folding lines *e*, and these lines cross each other at *f* and form corner and lock members *g* which are integrally connected with the end members *c* but are separated from the side members *b* by slots *h* which extend from the edges of the side members *b* to the folding lines *d* and as thus constructed the corner and lock members *g* are free to fold on the end members *c* but are independent of the side members *b*.

In this construction the outer corners of the corner members *g* are cut out to form recesses *g*², the inner walls of which are beveled or rounded as shown at *g*³ to form short projecting tongue-shaped lock members *g*⁴ separated from the body portion of the corner and lock members *g* by short recesses *g*⁵.

The corner and lock members *g* are also provided adjacent to the score or folding lines *d* and at right angles thereto with V-

shaped recesses i having inwardly directed slot-shaped extensions i^2 which are parallel with the score or folding lines d and communicate with the slots h , and formed in the end portions of the parts b adjacent to the corner and lock members g are slots j which range longitudinally of the parts b and centrally thereof, and in this connection attention is called to the fact that the transverse dimensions of the corner and lock members g in both directions are the same as the transverse dimensions of the side members b and end members c .

It will be understood that in folding a blank, such as that shown and described, to form the separate parts of my improved box, or the top and bottom thereof, the central body portion a^2 of the blank forms the bottom or body portion of said part or parts and the side members b and end members c of the blank form the side and end walls thereof, and in the operation of folding the blank to form one of said parts, the side members b are first folded upwardly and inwardly after which the end members c are folded upwardly and inwardly, and in this operation the parts g^6 of the corner and lock members g are passed inwardly through the slots j , as clearly indicated in Figs. 3 and 4.

When this operation is fully completed as shown in Fig. 4, the edges g^7 of the parts g^6 rest on the bottom or body portion a^2 of the box member or part, while the recesses g^5 in the corner members g fit in the outer end portions of the slots j in the parts b , and the inner end portions j^2 of the slots j fit in the recesses i and the extensions i^2 thereof in the parts g , and it will be understood that the distance between the points k and k^2 , as shown in Figs. 2 and 4, or the dimensions of the corner and lock members g along this line is less than the length of the slots j and this permits of the free passage of the parts g^6 of the corner and lock members g through said slots j .

The corner and lock members g , or the parts g^6 thereof are provided with corner portions g^8 , and said corner portions at x as well as the edges g^7 of the parts g^6 bear on the bottom or body portion of the box member as shown at x^2 in Fig. 4 in order to secure the proper operation of the corner and lock members g and to prevent the tilting thereof and to secure a positive lock action between the points k and x^2 as well as between the points k^2 and x^3 as shown in Fig. 4 of the drawing.

In the construction shown in Figs. 6 and 7 the corner and lock members g are substantially of the same form as that shown in Figs. 1 to 5 inclusive, except that the recesses g^2 and i thereof are not as deep as the corresponding recesses shown in said other figures, and in place of the slots j which range

longitudinally of the side members b as shown in Figs. 1 to 5 inclusive, I provide diagonally arranged slots m through which the parts g^6 and lock members g^4 of the corner and lock members g are adapted to pass in the same manner as illustrated in Fig. 3 of the drawings to lock the side and end members b and c together as shown in Fig. 7.

In Figs. 8 and 9 of the drawings the corner and lock members g are of the same form as shown in Figs. 6 and 7, but in place of the diagonally arranged slot m I provide a combination slot n which is diagonally arranged from the points n^2 to n^3 and arranged longitudinally of said side members b from the points n^3 to n^4 ; and with the form shown in Figs. 8 and 9, the parts g^6 and lock members g^4 are passed through the slot n in the same manner as illustrated in Fig. 3 of the drawings to lock the side and end members b and c together as shown in Fig. 9.

In all of the forms of construction shown, the corner and lock members g are cut out at the opposite sides thereof to form recesses which form between the points k and k^2 the part or tongue g^6 having the lock members g^4 integral therewith and in all the forms of construction, the parts g^6 and lock members g^4 are passed through the slots $j-m-n$ to lock the side and end members b and c together as shown in Figs. 4, 7 and 9, in which figures it will be noted that the corner and lock members g are held against vertical movement on the side members b between the points x^2 and k , and said corner and lock members are also held against longitudinal movement on the side members b between the points x^3 and k^2 , as hereinbefore set out. It will also be noted that the transverse width of the parts g^6 of the corner and lock members, in all of the forms of construction shown, is the same or slightly less than the length of the slots $j-m-n$ to permit of the passage of the parts g^6 therethrough.

From the foregoing description it will be noted that the chief difference between the construction shown in this application and that of applicant's prior patent lies in the lock members g^4 formed integral with the parts g^6 of the corner and lock members g , and which form an absolute corner lock for the connection of the side and end members b and c ; and with the construction shown in Figs. 1 to 5 inclusive, another distinctive difference lies in the slot j which ranges longitudinally of the side members b instead of diagonally as shown in applicant's prior patent, and in the construction shown in Figs. 6 and 7 of this application. In Figs. 8 and 9 I have shown another form of slot which combines the diagonal and longitudinal slots, but while I have shown different forms of slots in the side members b , it will

be understood that my invention is not limited to the particular form thereof as the corner and lock members *g* formed in the manner herein set out may be used in connection with any form or arrangement of slot through which said lock members are able to pass, and while I have shown but one part of a box it will be understood that both of said parts may be formed in the same manner and the corner and lock members *g* may be formed integral with, or be foldably connected with either the side members *b* or end members *c*, of the body *a*, and various other changes in and modifications of the construction herein shown and described may be made, within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

20 Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A box member of the class described composed of a blank having a central body portion, and folding side members and folding end members, the ends of one set of said parts, the side members or the end members, being provided with folding corner and lock members and the ends of the other set of said parts being provided with slots, said corner and lock members being provided in the inner edges thereof which are at right angles to the parts to which they are attached with recesses, and the said corner and lock members being also provided in the free outer corners thereof with recesses which form at their outer edges and parallel with the parts to which they are attached tongue-shaped lock members, said tongue-shaped lock members and that part of the corner and lock members with which they are connected being adapted to be passed through said slots to lock the side and end portions of the blank together to form a complete lock member.

2. A box member of the class described composed of a blank comprising a central body portion, a pair of folding side members and a pair of folding end members, the ends of one of said pairs of members being provided with folding corner and lock members and the ends of the other pair of said members being provided with slots, the corner and lock members being provided in their outer free corners with recesses which form in their edges parallel with the ends of the parts to which they are attached projecting tongue-shaped lock members and said corner and lock members being also provided in the inner edges thereof which are at right angles to their attaching lines with recesses, said tongue-shaped lock members and that part of the corner and lock members to which they are attached being adapted to be passed through said slots to lock the side and end

portions of the blank together and to prevent lateral or vertical movement of the corner and lock members in the slotted portions of the box member.

3. A box member of the class described composed of a blank having folding side and end portions, the ends of one of which are provided with folding corner and lock members and the ends of the other of which are provided with slots, the corner and lock members being provided adjacent to the attached end thereof with recesses, one of the free corner portions of each of said lock members being recessed to form between said recess and said first named recess tongue portions having tongue-shaped lock members, said tongue portions with said tongue-shaped lock members being adapted to be passed through said slots to lock the side and end portions of the box member together.

4. A box member of the class described composed of a blank having folding side and end portions, the ends of one of which are provided with folding corner and lock members and the ends of the other of which are provided with slots, the corner and lock members being provided in opposite side edges with recesses between which is formed in one of the free corner portions of each of said lock members tongue portions having tongue-shaped lock members, said tongue portions with said tongue-shaped lock members being adapted to be passed through said slots to lock the side and end portions of the box member together in such manner as to prevent vertical or lateral movement of the corner and lock members on the slotted portion of the box member.

5. A box member of the class described composed of a blank having folding side and end portions, the ends of one of which are provided with folding corner and lock members and the ends of the other of which are provided with slots, the corner and lock members being provided in opposite side edges with recesses between which is formed in one of the free corner portions of each of said lock members tongue portions having tongue-shaped lock members, said tongue portions with said tongue-shaped lock members being adapted to be passed through said slots to form a lock between one of the recesses of each corner and lock member and the bottom of the box member and between the other recess in each of said corner and lock members and the corner portion of the box member.

6. A box member of the class described composed of a blank having folding side and end portions, the ends of one of which are provided with folding corner and lock members and the ends of the other of which are provided with slots arranged longitudinally thereof, said corner and lock members being provided adjacent to the attached end there-

of with substantially V-shaped recesses, one of the free corner portions of each of said corner and lock members being cut out to form recesses, to form between said recesses 5 and the first named recesses tongue portions having tongue-shaped lock members, said tongue portions with said tongue-shaped members being passed through said slots to lock the side and end portions of the box 10 member together in such manner as to prevent vertical and lateral movement of the corner and lock members on the slotted portion of the box member.

7. A box member of the class described 15 composed of a blank having folding side end portions, the ends of one of which are provided with corner and lock members and the ends of the other of which are provided with slots, the corner and lock members being 20 provided in opposite side edges with recesses between which is formed in one of the

free corner portions of each of said lock members tongue portions, said tongue portions being adapted to be passed through 25 said slots to lock the side and end portions of the box member together, and means integral with said tongue portions and adapted to be passed through said slots to lock said side and end portions of the box member together in such manner as to prevent 30 vertical and lateral movement of the corner and lock members on the slotted portion of the box member.

In testimony that I claim the foregoing as my invention I have signed my name in 35 presence of the subscribing witnesses this 18th day of December, 1918.

ALEXANDER W. BEERS.

Witnesses:

C. E. MULREANY,
H. E. THOMPSON.