(No Model.)

M. B. MORRIS & F. N. WILSON.

PAPER BOX.

No. 590,159. Patented Sept. 14, 1897.

Fig. 3.

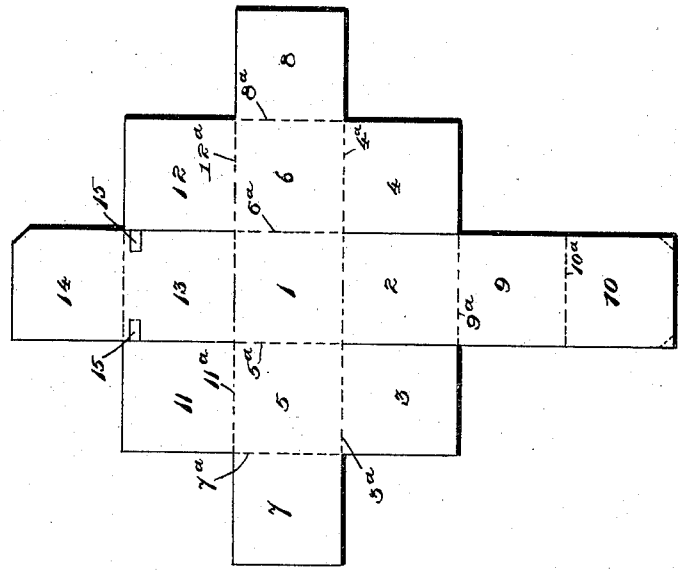


Fig. 1.

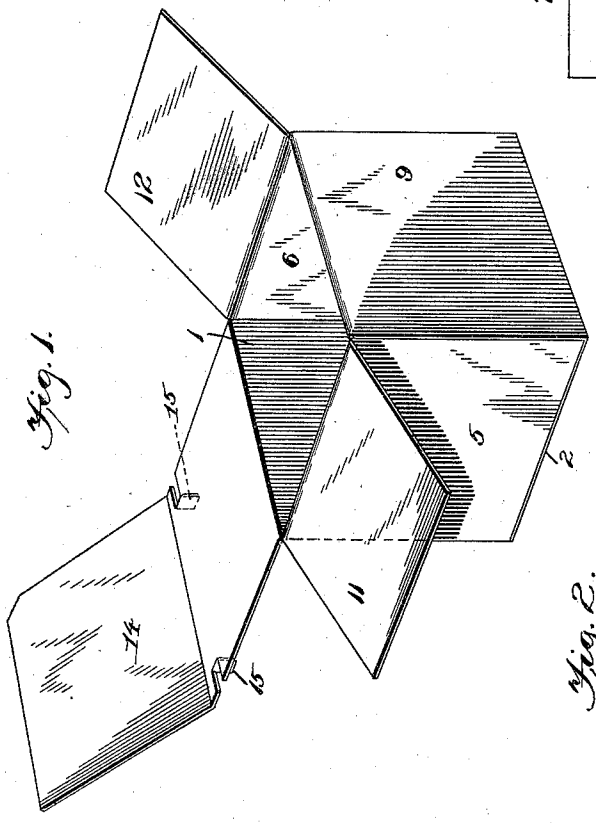
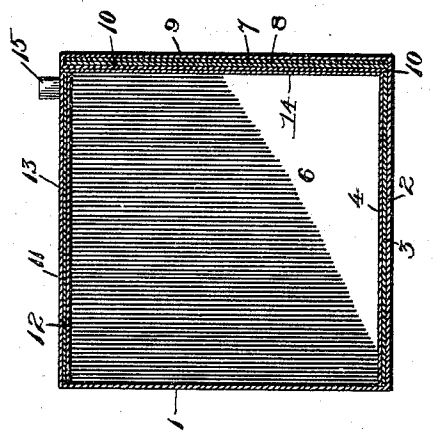


Fig. 2.



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UNITED STATES PATENT OFFICE.

MARK B. MORRIS AND FRANK N. WILSON, OF LOGANSPORT, INDIANA.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 590,159, dated September 14, 1897.

Application filed October 31, 1896. Serial No. 610,744. (No model.)

To all whom it may concern:

Be it known that we, MARK B. MORRIS and FRANK N. WILSON, citizens of the United States, residing at Logansport, in the county of Cass and State of Indiana, have invented a new and useful Paper Box, of which the following is a specification.

Our invention relates to paper boxes of "knockdown" construction; and it has for its object to provide a box which is adapted to be held in operative position without the use of clips, paste, or other securing devices.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a box constructed in accordance with our invention, the lid and covering-flaps being thrown back or open. Fig. 2 is a vertical central section of the box in its folded or operative position. Fig. 3 is a plan view of the blank from which the box is constructed.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the main or back fold, and 2 the bottom fold, over which are adapted to fold the bottom flaps 3 and 4, which are attached to and carried by the side folds 5 and 6. The side folds 5 and 6 are connected with the back fold 1 and are adapted to be arranged at right angles to the plane thereof when the box is set up, the dotted lines 5^a and 6^a indicating the crease-lines upon which the material forming the box is bent to arrange the side folds at right angles to the back fold. In the same way crease-lines 3^a and 4^a are located between the side folds and the bottom flaps, upon which the latter are bent to lie parallel with each other and with the plane of the bottom fold 2.

Formed as extensions of the side folds 5 and 6 are front flaps 7 and 8, which are arranged parallel and in contiguous planes at the front of the box, and hence parallel with the back fold 1, crease-lines 7^a and 8^a being formed between the side folds and said front flaps, and formed as an extension of the bottom fold 2 is a parallel-sided tongue forming the alined front fold 9 and securing-flap 10, the former of which is folded outside of and parallel with the front flaps 7 and 8 and the latter of which is folded inside of and parallel with the same, whereby the front flaps 7 and 8 are inclosed between the fold 9 and the flap 10, the terminal edge of the latter being located contiguous to the plane of the bottom fold, as shown in Fig. 2, when the box is set up. The folded edge of the former at the crease-line 10^a is thus located at the upper edge of the front wall of the box, and thus covers the free edges of the front flaps 7 and 8, while the crease-line 9^a between the front fold 9 and the bottom fold 2 allows the former to be arranged at right angles to the plane of the latter.

Formed as upward extensions of the side folds 5 and 6 and adapted to fold in parallel planes over the top of the box are the covering-flaps 11 and 12, connected with the side folds upon the crease-lines 11^a and 12^a, while the box is closed by means of a top fold 13, terminating in a locking-flap 14. The top fold 13 is adapted to close over the covering-flaps 11 and 12, while the locking-flap 14 is inserted between the front edges of said covering-flaps and the front wall of the box, said top fold being provided with integral upstruck ears or projections 15, which may be grasped to facilitate the withdrawal of said locking-flap, and hence the raising of the top fold to open the box.

From the above description it will be seen that from the central fold 1 of the blank extends an upper tongue 13 14, forming, respectively, the top fold and locking flap and the lower tongue 2 9 10, which forms the bottom and front folds and the securing-flap. It will be seen also that extending laterally from said main central fold 1 are tongues 5 7 and 6 8 forming, respectively, the side folds and front flaps and carrying upwardly and downwardly extending ears 11 12 and 3 4, which respectively form covering-flaps and bottom flaps.

In the drawings we have illustrated a blank constructed to form a cubical box, but it will be understood that by extending the front, side, and back folds and the members which overlap the same the box may be extended to receive a bottle or similar article. In the same way the proportions of the box may be changed, as required, to suit articles of dif-

ferent sizes and shapes, provided always that the intersecting lines, upon which the members of the box are folded, are arranged perpendicular to each other.

When completed, the parts of the box are so interlocked, particularly by means of the securing-flap 10, which holds the front flaps 3 and 4 in their proper relative positions, that disarrangement is prevented even without the use of paste, clips, or other fastening devices, although it is obvious that the locking-flap 14 may, if preferred, be arranged outside of the box and secured by any of the means well known in this art for that purpose. When not in use, the blank forming the box may be spread or arranged in a flat position, as illustrated in Fig. 3, to facilitate storing and packing for transportation; also, a fold or crease line is arranged at each angle of the box, thus excluding air and preventing the escape of the contents. Furthermore, this construction serves to reinforce the device and prevent the opening thereof at the angles in case the box is collapsed by compression. Furthermore, it will be understood that any suitable flexible material, such as paper, wood, sheet metal, or the equivalent thereof, may be employed in the construction of the box embodying our invention and that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

It will be seen that in connection with the box as shown and described we employ bails, one or more, as desired, to facilitate the carrying thereof when the box is uesd for berries and similar products, the construction of such bails being, however, as in the ordinary practice and therefore forming no part of our our invention.

Having described our invention, what we claim is—

The herein-described box, the same consisting of a back fold 1, a bottom fold 2, side folds 5 and 6, bottom flaps 3 and 4 carried by the side folds and adapted to overlap parallel with the plane of the bottom fold, front flaps 7 and 8 adapted to overlap in planes perpendicular to the bottom fold, a front fold 9 adapted to be arranged outside of the front flaps, a securing-flap 10 formed as an extension of the front fold and adapted to fold over the front flaps within the box, covering-flaps 11 and 12 adapted to overlap at the top of the box, a top fold 13 to overlap said covering-flaps, and a locking-flap 14 for insertion between the front edges of the covering-flaps and the front wall of the box, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

MARK B. MORRIS.
FRANK N. WILSON.

Witnesses:
ELI GREENSFULLER,
LEWIS EPSTINE.