

(No Model.)

M. B. CLAFF.
FOLDING BOX.

No. 604,228.

Patented May 17, 1898.

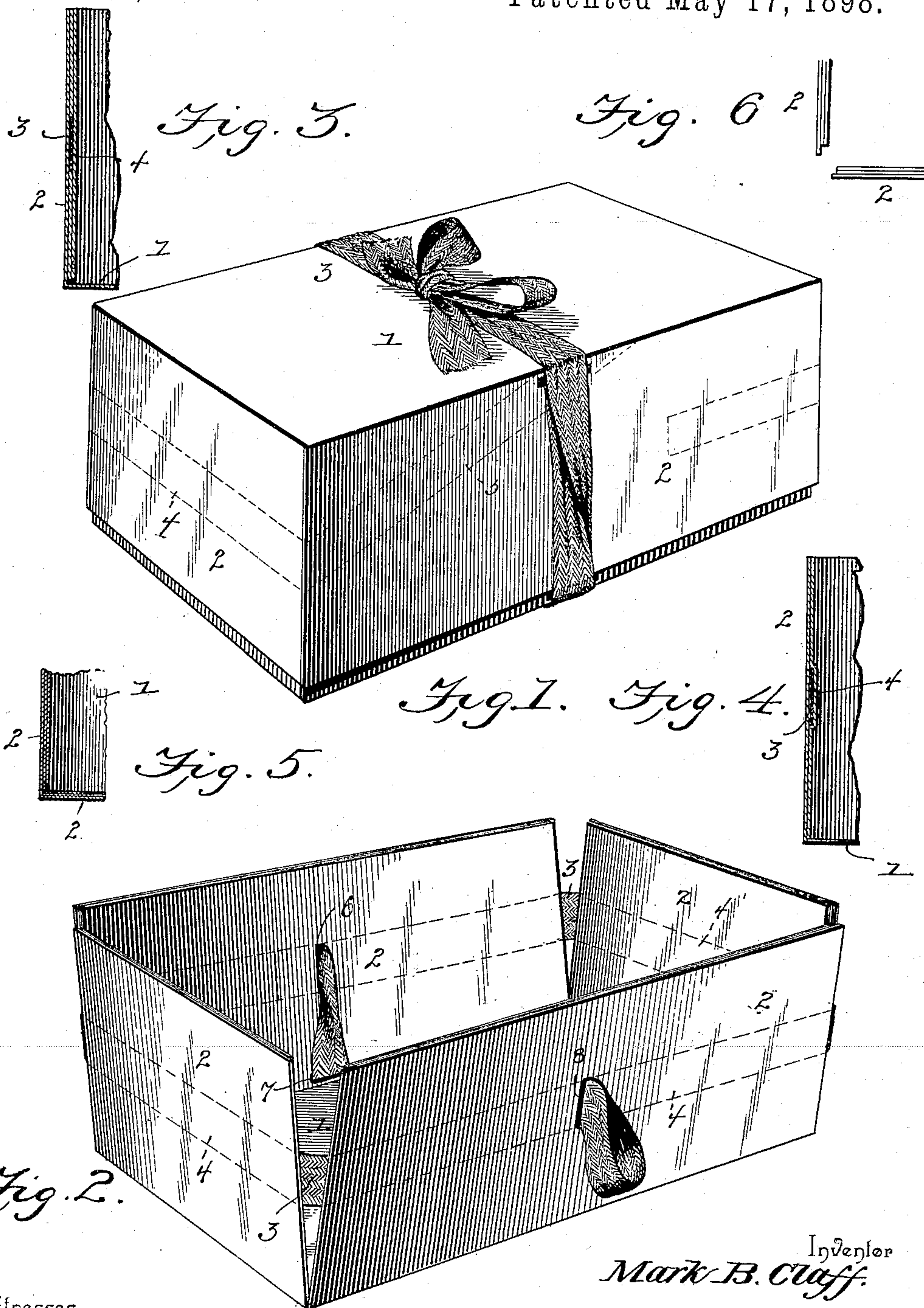


Fig. 2.

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Witnesses

E. N. Monroe. By his Attorneys,
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UNITED STATES PATENT OFFICE.

MARK B. CLAFF, OF PERRY, NEW YORK.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 604,228, dated May 17, 1898.

Application filed January 20, 1897. Serial No. 619,961. (No model.)

To all whom it may concern:

Be it known that I, MARK B. CLAFF, a citizen of the United States, residing at Perry, in the county of Wyoming and State of New York, have invented a new and useful Folding Box, of which the following is a specification.

This invention relates to paper or paste-board boxes which are constructed so as to admit of their readily folding so as to occupy a minimum amount of space and to be shipped and stored in a comparatively small compass and which when required for use can be quickly placed in condition for service to receive the article, goods, or thing to be placed therein.

In collapsible or folding boxes of this type the side and end sections are generally perforated, and tapes or cords are rove through the perforations and serve as means for connecting the sides at the corners, said cords or tapes projecting and being exposed on the inner and outer faces of the sides of the box, thereby interfering with the packing of the boxes and the placing of the box and cover section together. Moreover, the perforations weaken the box and require the same to be made of stouter material. The principal object of this invention is to conceal the connecting means and to protect the same, and to this end the sides of the box are composed of layers which are cemented or otherwise secured together and have channels or passages formed between the layers intermediate of the top and bottom edges thereof.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a box, showing it as it will appear when in service. Fig. 2 is a detail view in perspective of a section of the box, showing the sides partially open and a different manner of running the loose end of the tape. Fig. 3 is a transverse section of a side of the box, showing one manner of

providing the channel or passage for the tape.

Fig. 4 is a view similar to Fig. 3, showing a different manner of providing the passage. Fig. 5 is a detail view of a corner. Fig. 6 is a detail view of contiguous ends of adjacent sections.

Corresponding and like parts are referred to in the following description and indicated in the several views of the drawings by the same reference characters.

The box is composed of telescoping sections, each section being the duplicate of the other. Hence a detailed description of the one will be sufficient for a clear understanding of the invention.

The box or each telescoping section thereof comprises a base or cover 1 and sides 2, the latter being attached to the edges of the base or cover, so as to fold, thereby admitting of the boxes being stored or shipped either nested or flattened out, and also provides for the box being reduced to a compact form when not required for immediate use. Each side is composed of a number of layers, between which a longitudinal passage is formed for the reception of a tape, cord, or strand 3. This longitudinal passage may be formed in various ways, either by channeling a layer, as shown in Fig. 3, or by pressing one of the layers, as indicated in Fig. 4, or in any way found most convenient, the channeling avoiding any surface projection and being preferred for this reason. Where a side is composed of three or more layers, as indicated in Fig. 3, an intermediate layer may have a middle portion omitted, thereby providing the longitudinal passage or channel. The longitudinal passages or channels 4 are formed at the same distance from the base or cover, so that their opposing ends will meet and come opposite, thereby admitting of the tape or cord 3 running freely therethrough, whereby the sides may be spread to loosen the tape sufficient to admit of their folding and whereby when drawing upon the tape the sides will be advanced and the corners securely fastened. The inner layers terminate short of the outer layers, so as to admit of the adjacent ends of the side pieces overlapping, whereby a stiff and bracing joint is secured to resist pressure from without. The tape or cord 3 is permanently attached to a side of the box, and after

passing the tape through the channels in the other sides its loose end portion is passed through an oblique channel or passage 5 in the side to which the end is rigidly attached, said oblique passage extending from the end of the side opposite that to which the tape is rigidly attached to a point midway between the ends and adjacent to the base or cover and the tape extending through an opening formed at such point, so as to be drawn upon for securing the sides together at their angles, and adapted to be passed around the box and tied to the corresponding tape from the other section, as clearly indicated in Fig. 1. The oblique passage 5 brings the loose end of the tape or cord to a central point and on a line corresponding with the plane of the base or cover, which is of advantage when securing the box when packed.

In some instances the oblique passage 5 may be dispensed with and the tape brought to a central or intermediate point and passed through an opening 6 in the inner layer and out through an opening 7 at the bottom of the box. This construction is shown in Fig. 2.

In boxes of large size one or more sides may be provided with an opening 8, leading from the channel or passage, to enable the tape to be grasped at an intermediate point in the length of the side, thereby facilitating its movement when drawing the sides together. This opening may extend through one face or both faces, as desired.

As previously intimated, each section of the box is similarly constructed, and when placing the sections together care should be observed to see that they are arranged so that the loose ends of the tapes or cords come upon opposite sides, thereby admitting of such loose ends being passed about the box in opposite directions and tied, as clearly indicated in Fig. 1 of the drawings.

Having thus described the invention, what is claimed as new is—

1. A folding box composed of a number of plies, and having the inner plies of the folding sides terminating short of the extremities of the outer plies to provide matching corners, and having longitudinal channels formed be-

tween the plies of the folding sides intermediate of their top and bottom edges and extending the entire length thereof, and a tape or like connection passing loosely through the said longitudinal channels and concealed and protected thereby when the box is folded, said tape having its loose end passing outwardly through an opening midway the ends of a side and adjacent to the fold between the said side and bottom, substantially as and for the purpose specified.

2. In a folding box, the combination with the folding sides having longitudinal passages formed in three of the sides intermediate of their top and bottom edges and extending the entire length thereof, and having an oblique passage in the fourth side, of a tape or similar connection secured at one end to the side having the oblique passage and passing loosely through the passages of the other sides and through the said oblique passage and out through an opening communicating therewith and in line with the base or cover, substantially as set forth for the purpose described.

3. A folding box composed of telescoping sections similarly constructed, each section having its folding sides composed of a series of layers having longitudinal passages formed between them, and having the inner layers terminating short of the outer layers, whereby the adjacent ends of contiguous sides overlap, and one of the sides having an oblique passage, and a tape or like connection secured at one end to the side having the oblique passage and passing loosely through the passages of the other sides and through the said oblique passage and out through an opening communicating therewith and about in line with the base or cover, substantially as set forth for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MARK B. CLAFF.

Witnesses:

W. H. HERRON,
J. C. LILLIBRIDGE.