Dec. 4, 1923. 1,476,654

N. ST. PETER

COLLAPSIBLE BOX

Filed Oct. 16, 1922

Fig. 1.

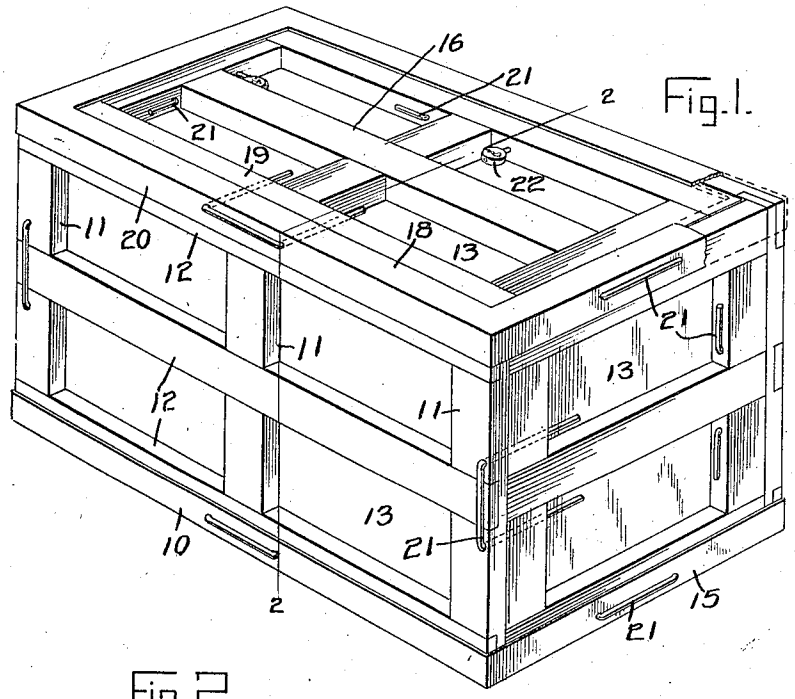


Fig. 2.

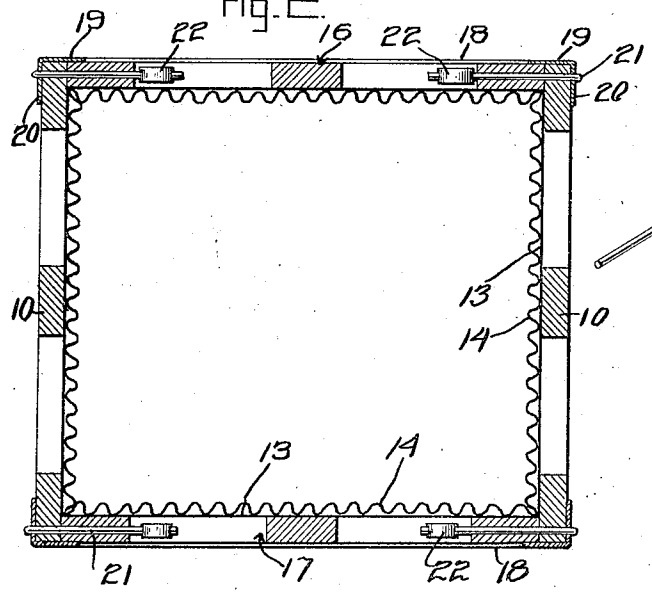
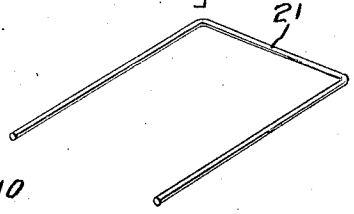


Fig. 3.



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Patented Dec. 4, 1923. 1,476,654

UNITED STATES PATENT OFFICE.

NAPOLEON ST. PETER, OF FAIRFIELD, MAINE, ASSIGNOR OF ONE-HALF TO FREDERICK E. HANDY, OF PORTLAND, MAINE.

COLLAPSIBLE BOX.

Application filed October 16, 1922. Serial No. 594,917.

To all whom it may concern:

Be it known that I, NAPOLEON ST. PETER, a citizen of the United States, residing at Fairfield, in the county of Somerset and State of Maine, have invented certain new and useful Improvements in Collapsible Boxes, of which the following is a specification.

My said invention relates to a collapsible or knock-down box and it is an object thereof to provide a box which can readily be taken apart for shipping or storage and which can be put together with very little trouble.

Another object of my invention is to provide a box of the character described which shall be very light and strong.

Referring to the accompanying drawings which are made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a perspective of my box as set up in complete form and ready for shipment.

Figure 2, a section on line 2—2 of Figure 1, and

Figure 3 a detail of a fastening device.

In the drawings reference character 10 indicates a side member of the box, this side member comprising three vertical members 11 and three longitudinal members 12 connected by joints of ordinary form as shown at the corner in Figure 1. These parts may be secured by nails or cement or other conventional means. Cemented or otherwise secured thereto at the inner side is a flat layer of pasteboard 13 and a second layer of corrugated board 14 attached to the flat layer. Either layer may be used by itself and the material may be varied by substituting sheet metal or other material according to the nature of the service required of the box. The end members 15 are made in similar form to the side members, the intermediate upright being omitted. The top 16 and bottom 17 are also similar to the side members and fit inside the rectangle formed by the connected side and end members.

Preferably I provide the box with re-enforcing means 18 at the top and bottom, said re-enforcing means consisting of a pair of sheet metal members extending respectively about the top and bottom of the box. Each of them has a horizontal portion 19 resting against the top or bottom of the box and a portion 20 bent at right angles thereto and extending round about the sides and ends of the box. By this means the corners and edges of the box are effectively protected.

For holding all these parts in place I have devised a staple-like holding means 21 which may be utilized as shown in the drawing. Each staple extends through registering holes in two or more parts of the device and a sufficient number are used to hold the parts securely in position and prevent them from coming apart in use. The legs of the staple fit snugly in the openings to prevent loss of the same and I may form them of slightly resilient material with a tendency to spring together or apart to a slight degree to further insure against accidental withdrawal, or the ends may be bent as indicated.

I may, if desired, provide a seal 22 on the ends of all the staples or on a sufficient number thereof. This seal is made of lead in an ordinary manner and is used for the ordinary purpose of preventing surreptitious breaking of the package and disturbance or removal of its contents.

It will be seen that this box can be taken apart and packed in a very small compass for shipment or for storage until required for use. When required it can readily be set up by unskilled labor and the parts fastened together. Even if not provided with the re-enforcing means at the top and bottom it remains a relatively strong, simple and light device and if these re-enforcing means are provided it is particularly safe from breakage through ordinary causes.

Various modifications of this device will occur to those skilled in the art and therefore I do not limit myself to the exact device shown in the drawings and described in the specification but only as indicated in the appended claims.

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

1. A collapsible box comprising separable top, bottom, side and end members, said members having a plurality of holes adapted to register with corresponding holes in contacting members and staples having legs adapted to be inserted in registering holes and frictionally retained therein, substantially as set forth.

2. A collapsible box comprising separable members, a plurality of holes in one of said members, a plurality of holes in another of said members adapted to register therewith

and connecting members having legs adapted to enter the registering holes, said legs being of such length to project beyond said holes whereby the projecting portions may be bent for holding the parts in assembled position, substantially as set forth.

3. A collapsible box comprising separable top, bottom, side and end members, means for connecting them in assembled position, and separable re-enforcing means formed to extend about the edges of the top or bottom of the box, said re-enforcing means being held in place by said connecting means, substantially as set forth.

4. A collapsible box comprising separable top, bottom, side and end members and a re-enforcing device formed to extend about and protect the edges and corners of the top or bottom of the box and means for holding said device in place, said means serving also as a means for holding the parts of the box in assembled position, substantially as set forth.

5. A box comprising separable members, each member having a frame-work of wood, a thin flat layer of light material extending over the inside of said part and a layer of corrugated material attached to the inner side of said first named layer, substantially as set forth.

6. A collapsible box comprising separable top, bottom, side and end members, re-enforcing devices embracing the top and bottom of the box respectively to protect its corners and edges, contacting portions of said members and said re-enforcing devices having registering holes and staples adapted to be inserted in such registering holes, substantially as set forth.

7. A collapsible box comprising separable top, bottom, side and end members, re-enforcing devices embracing the top and bottom of the box respectively to protect its corners and edges, contacting portions of said members and said re-enforcing devices having registering holes, staples adapted to be inserted in such registering holes, and seals attached to a plurality of said staples to prevent withdrawal thereof, substantially as set forth.

8. A collapsible box comprising separable members having registering holes, staples having legs engaging therein and projecting therebeyond, and seals attached to some of the projecting parts of the legs to prevent withdrawal thereof, substantially as set forth.

In witness whereof, I have hereunto set my hand and seal at Fairfield, Maine, this 25th day of April, A. D. nineteen hundred and twenty-one.

NAPOLEON ST. PETER. [L. S.]

Witnesses:
E. L. REED,
DAVID KING.