

No. 645,718.

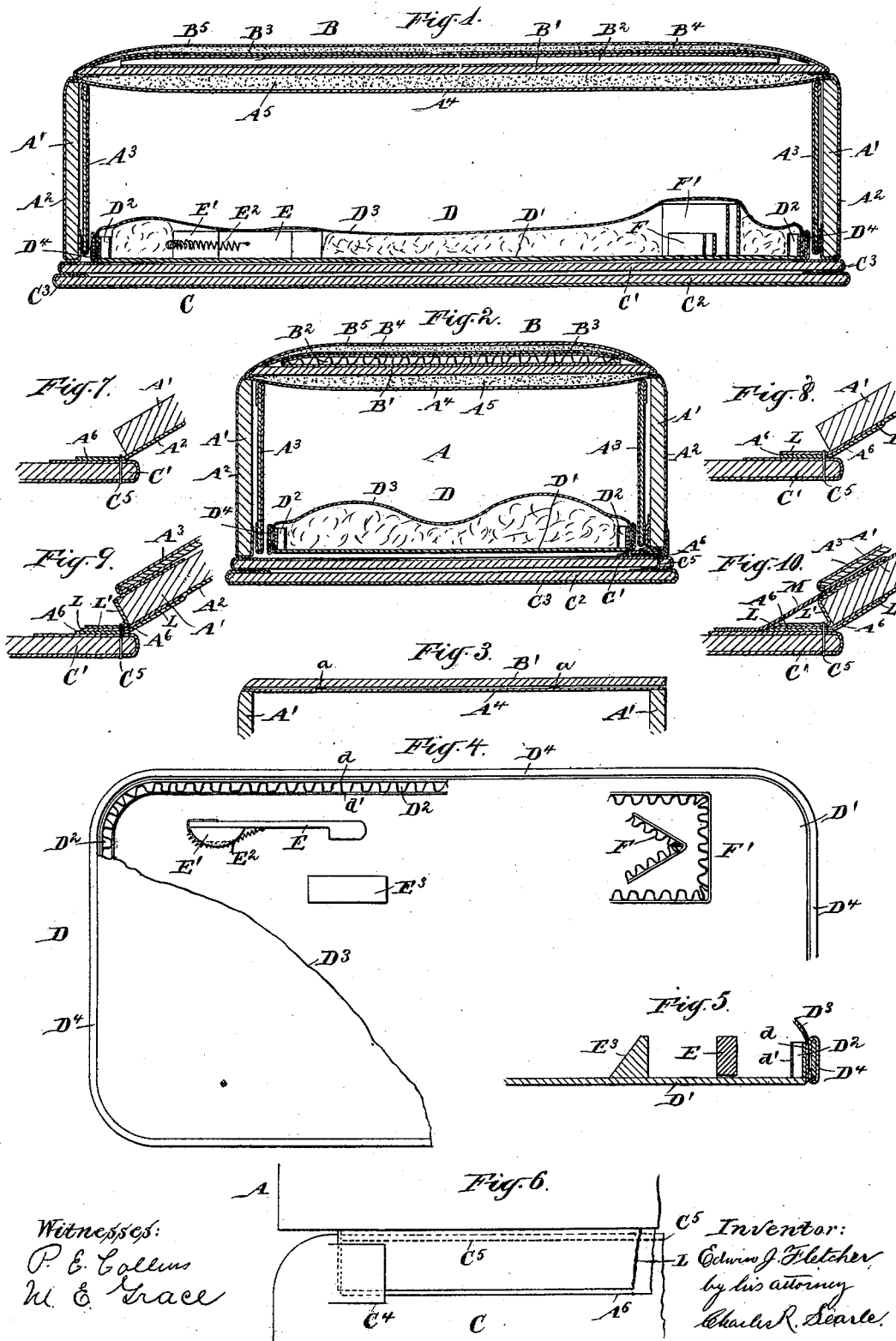
Patented Mar. 20, 1900.

E. J. FLETCHER.

CASE OR BOX.

(Application filed Sept. 20, 1898.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWIN J. FLETCHER, OF NEW YORK, N. Y., ASSIGNOR TO THE PATENT CASE COMPANY, OF SAME PLACE.

CASE OR BOX.

SPECIFICATION forming part of Letters Patent No. 645,718, dated March 20, 1900.

Application filed September 20, 1898. Serial No. 691,418. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. FLETCHER, a citizen of the United States, residing in New York city, in the county and State of New York, have invented a certain new and useful Improvement in Cases or Boxes, of which the following is a specification.

The cases or boxes are intended more particularly for inclosing and displaying silverware, jewelry, and like expensive goods; and the object of the invention is to provide a case which shall be light but strong, rich and neat in appearance, and not expensive to manufacture.

The invention is based on patents to me dated June 2, 1896, No. 561,384; July 7, 1896, No. 563,581, and March 23, 1897, No. 579,320; and it consists in certain novel features and details of construction relating particularly to the top, body, bed, and hinge, to be hereinafter described.

The accompanying drawings form a part of this specification and show the invention as I have carried it out.

Figure 1 is a longitudinal vertical section through the case or box, and Fig. 2 is a corresponding transverse section. Fig. 3 is a similar view through certain portions, showing the manner of shaping the edges of those parts before final assembling. Fig. 4 is a plan view of the bed alone, with certain parts broken away or removed to better show the construction. Fig. 5 is a transverse vertical section through a portion of the bed. Fig. 6 is a plan view of a portion of the base and hinge. The remaining figures are on a larger scale and show several forms of the hinge-joint. They are vertical transverse sections through a portion of the base and body and adjacent parts on the line of junction. Fig. 7 shows the hinge in simple form. Fig. 8 shows the same with a single reinforce. Fig. 9 shows two reinforcing-strips, and Fig. 10 shows the same with the addition of a stay or brace to support the body and relieve the hinge from strain.

Similar letters of reference indicate like parts in all the figures.

The body A is formed of a rectangular hoop A', having rounded corners, covered on its outer faces and edges with ornamental paper

A² and having its open upper face covered by a sheet A⁴ of ribbed or other ornamental paper stretched taut and cemented to the edges. The margins of the several coverings are concealed by a lining-strip A³, covered with paper.

B is the top, consisting of a thick foundation-sheet B' of book-board or other strong and light material, its outline matching the upper face of the body, and a thickening-piece B² of corrugated paper or felt, smaller than the sheet B', above which is placed a shaping-sheet B³ of thin pasteboard or heavy paper reaching nearly or quite to the edges of the sheet B' on all sides, and a thin pad B⁴ of wadding or cotton-batting to give softness to the upper face of the top. The whole is covered with an envelop B⁵, of ornamental paper, preferably similar to that upon the body, drawn tightly over the margins and cemented to the under face of the sheet B'. A pad A⁵ of cotton-batting is placed upon the stretched sheet A⁴, and the finished top is then carefully placed upon the body and cemented thereto along the upper edges of the latter, the pad A⁵ forcing downward the middle portion of the sheet A⁴, producing a puffed or cushioned appearance on the interior under face of the top, and thus affording an attractive finish.

Excepting the construction of top, the invention so far as yet described does not differ greatly from that shown and described in the patent dated March 23, 1897, above referred to.

It has been shown by experience that excessive care must be exercised in shaping the sheets B' and hoops A' that each shall match exactly to the other in order that the junction of the top and body shall be regular and uniform on all sides and produce the neat appearance necessary to success. Practice has demonstrated that it is so difficult to make these parts separately and have them conform to the requirements when assembled as to be almost impossible. In the present improvement this difficulty is avoided by the following means: The sheet A⁴ is first applied to the hoop and tightly stretched across its open top before the ornamental paper A² is applied, and the approximately-shaped sheet B' is then lightly tacked by cement at two or more points

a to the upper face of the sheet A⁴, and is thus secured in position relatively to the hoop. The two thus joined are then subjected to the action of an abrading-machine, having the cutting or grinding surface properly shaped, which smoothly rounds off the edges of both at the same time and insures that the curve shall be uniform and continuous on all sides. The hoop A' and sheet B' are then taken by the operator and again separated by breaking the slight bond at the cemented points and the parts assembled and covered, as before described, care being taken to replace the sheet B' in the same position it occupied when treated by the machine. The result is a practically-continuous curve from the flat upper face of the top to the vertical sides of the body, broken only by the slight angle at the line of junction between the covering material for the two parts. By this means the unavoidable discrepancies or inequalities in size and shape between the hoop and top, due to slight differences in manufacture and which appear greatly magnified in the finished product, are entirely corrected, and though by this process there should be any slight irregularities the defect in outline is the same in both and therefore not apparent, even on close inspection.

The base C is formed of two or more sheets C' C² of heavy book-board, having the edges and exposed surfaces covered with the ornamental paper C³ and superposed and cemented together. It is joined to the body by a hinge peculiarly formed and consisting, essentially, of a continuation of the covering material A² on the body, sewed to the upper face of the base. A⁶ is such continuation extending along a considerable portion of the lower rear edge of the body and forming a flap, which is stitched to the uppermost sheet of book-board C' before covering and before the lowermost is attached along a line C⁵ as close as practicable to the lower rear edge of the body. If the covering material be of sufficient strength, the hinge thus formed will be strong enough to withstand the strains of ordinary usage, especially if the case be small; but I prefer, particularly in larger cases, to reinforce the hinge by inserting a strip L of strong thin fabric, as linen or strong paper, between the flap A⁶ and the rear face of the hoop, as shown, extending about the width of the flap and cemented to the hoop. A similar strip L' is cemented between the lining-strip A³ and the hoop and to the adjacent lower face of the latter. The covering material C³ of the base is preferably cut, as shown in Fig. 6, and raised to form wings C⁴, beneath which the corners of the several strips and flap are secured and cemented and the whole then stitched as before. A stay or brace M, of silk or other rich and strong fabric, is also applied between the hoop and lining-strip, with its free edge cemented to the base along the proper line to provide sufficient slack to allow the body to be turned back to the required angle, but

prevent straining the hinge-joint, and also to support the body when the case is in the open condition. It also serves to conceal the junction of the flap and its reinforcements with the body and base. The hinge-joint thus formed is in appearance at least a continuation of the covering of the body and shows simply as a crease or break in the material, and is peculiarly neat and workmanlike, besides avoiding the labor and expense of carefully attaching metal or other separately-formed hinges.

The bed D, on which the articles to be incased are supported, consists of a shallow tray formed of a sheet D' of strong stiff paper or board cut to conform to the shape of the case and lie upon the base within the body when the case is closed. Along the margin on all sides is set a narrow strip of corrugated paper D², with the corrugations standing vertically and the plane face outermost and flush with the edge of the sheet D', thus forming a light but very stiff and strong ledge on all sides of the latter. The tray is covered with a loosely-distended rich fabric D³, cemented to the plane face of the strip D², the raw edge at the line of junction being concealed by the band D⁴, encircling the bed and covered with ornamental paper. The plane face of the ledge D² affords ample surface for attaching the covering, and by avoiding the necessity of cementing the latter to the base the tray may be completely finished and subsequently secured in place, thus lessening the danger of soiling or otherwise defacing the rich fabric during the process of assembling the case. The fabric D³ may be puffed or distended by a filling of cotton to produce the shape desired in supporting any article to be inclosed or to produce any effect in ornamentation desired.

E is an arm hinged to a block E', cemented to the bed and provided with a spring, as E², tending to hold it in contact with the block and serving, with a fixed stop E³, as a clamp to engage and hold any article inserted between the arm and stop. As shown, the clamp is adapted to grasp the handle of a knife or similar article, the point of the blade being supported upon a rest F, formed of corrugated paper bent into V shape and cemented to the bed with the corrugations vertical, and F' is a guide, similarly constructed, partially inclosing the rest F, but shaped to conform to the outline of the article to be received. The rest and guide are by reason of their corrugated construction easy to shape, as required, in the fingers and attached to the bed at the desired point by cementing, but are extremely strong and rigid when so attached. The clamps and rests are of course concealed beneath the fabric D³ and may be of any size or shape to meet the requirements. An important advantage attained by this clamp is due to the fact that it opens in a plane parallel with the upper surface of the bed and lies close to the latter, so that any given article to be supported lies as near the base as prac-

ticable and enables me to correspondingly reduce the height of the body, and thus effect a considerable saving in material as well as in storage-room, and also presents a neater and less bulky appearance without in the least detracting from the richness of the display when the case is open.

The bed is cemented upon the upper face of the base, effectually concealing the hinge-flap and reinforcements and also the wings C⁴ and raw edge of the stay M.

The whole thus constructed forms a light strong case of exceptionally - attractive appearance and which may be manufactured in quantities at a very low cost. The several sheets to be used in a certain size and style of box are cut by dies, preferably in numbers, and all the parts are similarly prepared ready to be assembled. Hence highly-skilled labor is not essential to successful manufacture.

The construction of the top is important in that by reason of the shaping-sheet B³, supported throughout its middle portion by the thickening-piece B², but overhanging the edges of the latter, the unsupported margins yield readily to the strain of the tightly-drawn envelop B³ and by bending downward, as shown, in contact, or nearly so, with the foundation-sheet B' produce a smoothly-rounded contour not easily attained by other means.

I have shown the strip D² of corrugated paper as having a thick facing *d* on one side and a thinner facing *d'* on the other. The strip is mounted on the sheet D,' with the thicker facing *d* outward to aid in strengthening the strip and afford a surface for attaching the rich covering, while the thin facing *d'* on the inner face is easily crushed or "upset" in bending at the corners, but contributes somewhat in stiffening the whole. The thin facing may be omitted, if desired.

Modifications may be made in the forms and proportions, and parts of the invention may be used without the whole. One or both the reinforcements L L' for the hinge may be omitted, as may also the wings C⁴, or other forms of hinge may be substituted. For some classes of goods the clamps E E³ will not be required, their places being taken by suitably-shaped guides corresponding to F F' and serving as cavities in which the articles will be held. The thickness of the top may be increased by adding one or more layers of corrugated paper, as set forth in the patent dated March 23, 1897, above referred to, and the massiveness of the base may be increased. The materials employed may be varied. I have described the covering as paper and consider such generally preferable; but leather, leatherette, fabrics of all descriptions, or any material suitable for the purpose may be substituted. Although I have described the case as intended to inclose silverware, it will be understood that it may be used for any purpose to which it is adapted. The clamp E may be varied in shape and in construction, the spring E² may be replaced by a flat spring,

or a simple rubber band may serve, and the clamp may be secured by nails driven from the opposite face of the sheet D', either with or without the addition of cement. The corrugated strip D² may be omitted from one or more sides of the sheet D' in certain constructions. The stitching described in securing the body to the base and forming the hinge will be understood to include any attaching means in which the thread or its equivalent passes through the flap into the base and is fastened to the latter.

I claim—

1. In a case or box of the character set forth, a hoop forming part of the body, a sheet stretched across the open upper face of said hoop and secured to the upper edge of the latter, and a top adapted to serve with the body and temporarily joined to said sheet by easily-broken bonds serving to hold said hoop and top relatively to each other while the adjacent abutting surfaces of each are shaped and a subsequently-applied covering on said hoop, all combined substantially as herein specified.

2. In a case or box of the character set forth, a hoop forming part of the body, a sheet stretched across the open upper face of said hoop and secured to the upper edge of the latter, and a top adapted to serve with the body and temporarily joined to said sheet by easily-broken bonds serving to hold said hoop and top relatively to each other while the adjacent abutting surfaces of each are shaped, the said sheet also serving as a finish for the lower face of said top in the completed case and a subsequently-applied covering on said hoop, all combined substantially as herein specified.

3. The hoop A', the sheet A⁴ stretched across the open upper face of said hoop with its edges attached directly to the upper edge of the hoop, the covering-sheet A² cemented to said hoop and to the portion of the said sheet upon the top edge of the hoop, and a top comprising an upper and a lower sheet with the edge of the upper sheet in contact with the said covering upon the top edge of the hoop.

4. The hoop A' sheet A⁴ stretched across the open upper face of said hoop and cemented to its edges, the covering-sheet A² cemented to said hoop and overlapping and cemented directly to the margins of said sheet and overlapping upon the latter, and the lining-strip A³ within said hoop, in combination with a top B comprising the sheet B', corrugated sheet B² thereon, sheet B³ larger than the latter, the pad B⁴, and covering-sheet B⁵ drawn over said pad and cemented to the under face of said sheet B', all substantially as herein specified.

5. The hoop A', covering-sheet A² and flap A⁶ forming a continuation of said covering-sheet, combined with a base, an independent reinforce extended beyond the lower edge of the hoop in both directions, a reinforce over the other edge of the hoop, and fastening

means passed through the covering-sheet, reinforces and base, substantially as specified.

6. The hoop A', lining-strip A³, covering-sheet A² and flap A⁶ forming a continuation
5 of said covering-sheet, in combination with the reinforce L within said flap, the reinforce L' extending from between said hoop and lining-strip, and the base C' and line of stitches C⁵ extending through said flap and reinforces
10 into said base to form a hinge, and the stay M independent of said flap and extending from said base to said hoop, all substantially as herein specified.

7. The hoop A', lining-strip A³, covering-sheet A² and flap A⁶ forming a continuation
15 of said covering-sheet, in combination with the base C' and wings C⁴ cemented upon said flap, the line of stitches C⁵ connecting said flap to said base to form a hinge, and the bed
20 D secured to said base and concealing said wings and flap, all substantially as herein specified.

8. In a case or box, the bed D comprising the sheet D', corrugated strip D² arranged
25 with its corrugations vertical to said sheet and with its plane face outward, the covering D³ secured to said plane face, and the strip D⁴ covering the margins of said covering, substantially as herein specified.

9. In a case or box, a rest formed of corrugated paper bent to shape and cemented in
30 place with its corrugations vertical to the base, and a guide of similar material similarly

set, adapted to support an article inclosed in said case or box, in combination with said
35 base and a covering-sheet concealing said rest and guide, all substantially as herein specified.

10. The base C, bed-sheet D', block E', arm E hinged to said block, spring E² attached to
40 said arm and fixed stop E³ on said bed-sheet, the rest F and guide F' secured thereto, in combination with the covering-sheet D³ inclosing and concealing said bed-sheet and the said parts thereon, all substantially as herein
45 specified.

11. The top described, consisting of a foundation-sheet, a thickening-piece thereon
smaller than said sheet, a shaping-sheet larger than said piece and lying upon the latter, and
50 an enveloping sheet drawn tightly over the whole and attached at its margins to the under face of said foundation-sheet, all combined substantially as herein specified.

12. The foundation-sheet B', thickening-piece B² smaller than said sheet, the shaping-sheet B³ larger than said piece, the pad B⁴,
55 and envelop B⁵, all combined substantially as herein specified.

In testimony that I claim the invention
60 above set forth I affix my signature in presence of two witnesses.

EDWIN J. FLETCHER.

Witnesses:

WM. B. JAMES,
CHARLES R. SEARLE.