

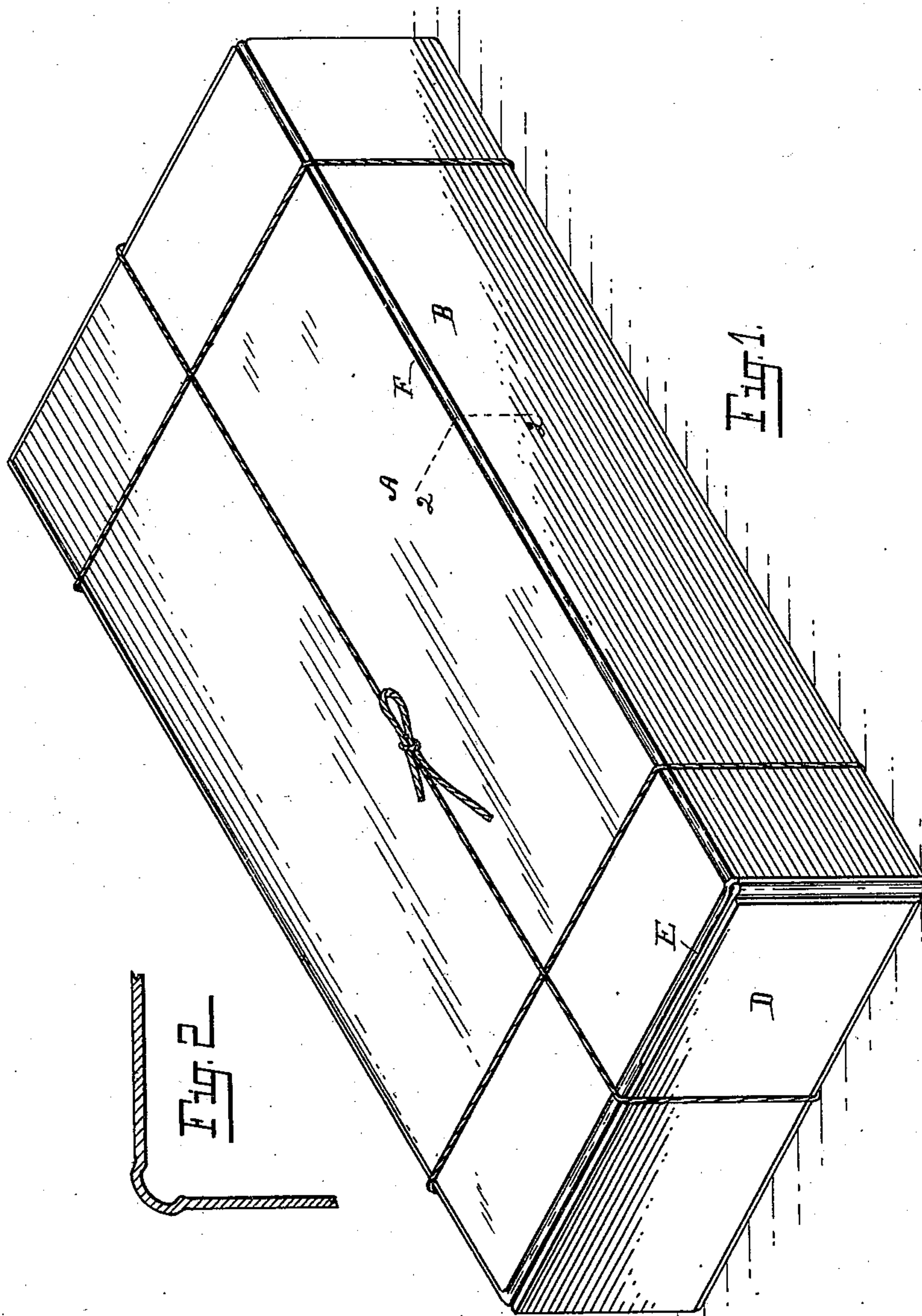
(No Model.)

2 Sheets—Sheet 1.

S. J. DUNKLEY.
CELERY PACKAGE.

No. 546,463.

Patented Sept. 17, 1895.



Witnesses:

Walter S. Wood
Marian Longyear

Inventor,

Samuel J. Dunkley
By *Chas. L. Chappell*
Att'y.

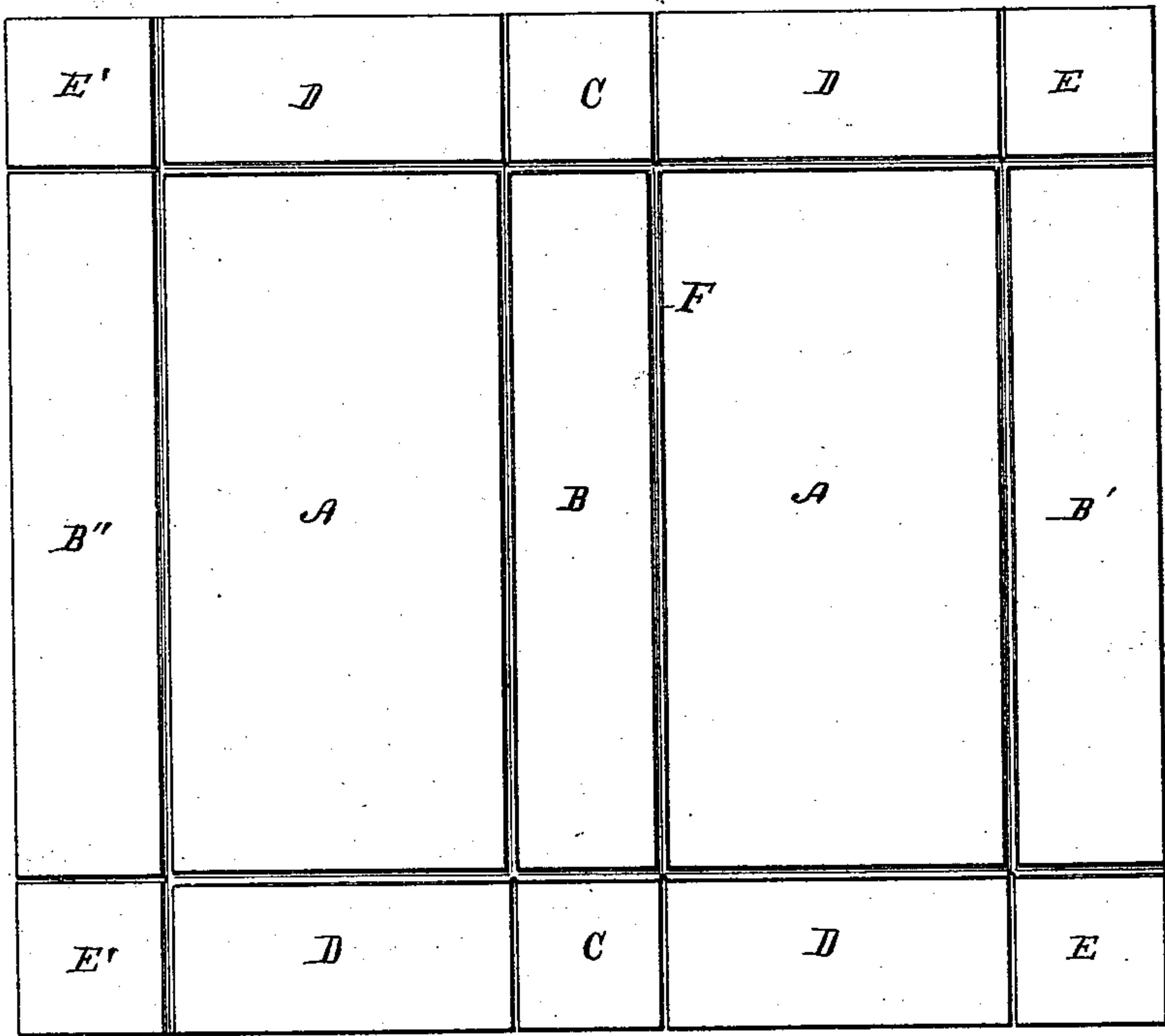
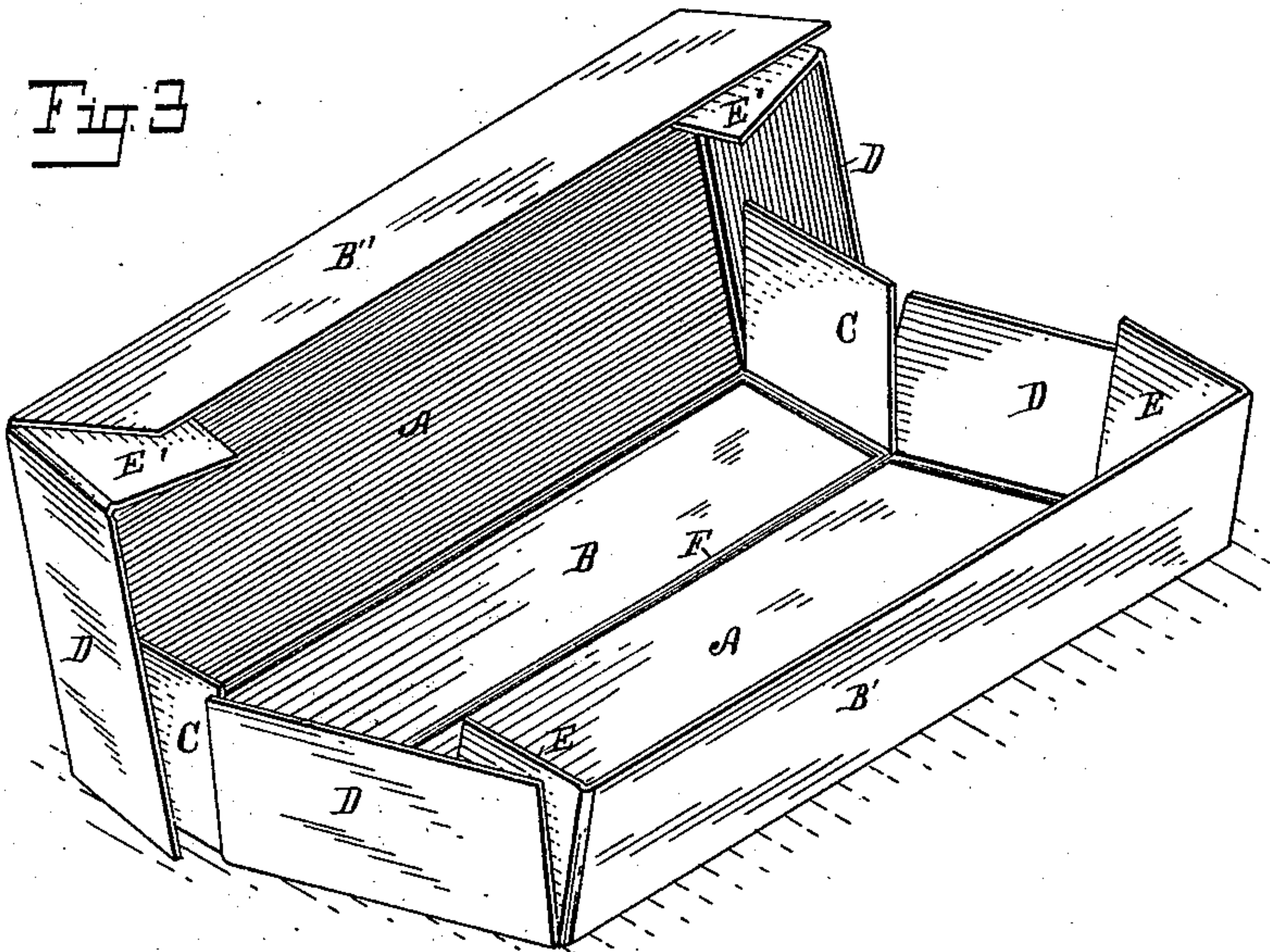
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UNITED STATES PATENT OFFICE.

SAMUEL J. DUNKLEY, OF KALAMAZOO, MICHIGAN.

CELERY-PACKAGE.

SPECIFICATION forming part of Letters Patent No. 546,463, dated September 17, 1895.

Application filed April 19, 1895. Serial No. 546,338. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. DUNKLEY, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a certain new and useful Celery-Package, of which the following is a specification.

My invention relates to improvements in celery-packages.

In the shipment and transportation of celery it is very liable to become injured from frost. Celery is very likely also to become wilted in warm dry weather, and in summer weather is likely to decay from the intense heat and moisture. Taking these facts into consideration, I have overcome the objections thereto by the use of the box I have shown.

The objects of my invention are to provide a package for celery which shall protect the same against frost or heat and prevent evaporation, which induces wilting.

Other minor objects are in the construction of the package to provide a paper package which shall be strong and durable, which shall be easily accessible for the purpose of packing celery therein, and one in which, by a special folding of material, an almost perfectly air-tight package is produced.

Another feature is the provision, in a paste-board or straw board or tar board box, of an improved corner for the same where it is made of very heavy material, to prevent breakage from weakening of the material at the corners.

Another object is to provide a box of prepared paper which shall make the same practically waterproof, so that damp celery may be carried in it safely.

I accomplish these objects of my invention by the device shown in the accompanying drawings, in which—

Figure 1 shows a perspective view of my improved package, closed. Fig. 2 is a sectional view on line 2 2 of Fig. 1, showing the formation of the corner folds. Fig. 3 is a perspective view showing the box partially opened. Fig. 4 is a view showing the same laid out flat and showing the folding of the corners and also the incisions which make the parts of the box to fold together so compact and strong as to be almost air-tight and very durable.

Similar letters of reference refer to similar parts throughout the several views.

My improved box is constructed of paste-board, tarboard, juteboard, strawboard, or any similar material desired. Strawboard or paper material, or whatever material is used for the construction of the box, is prepared by coating the same with a solution of alum and resinous material, either one of which will be found to be quite effective, though I prefer to use both together. Other waterproofing material can be used for the purpose that may be known to the art as oleaginous substances or gums, but the ingredients especially mentioned will be found the most economical. These ingredients may be applied to the paper after it has been manufactured or may be incorporated in the pulp during the process of manufacture. The incorporation of the pulp with the ingredients is the process preferred. In the construction of the same a rectangle of the material is taken and it is laid off into the portions A A, which form the top and bottom of the box, the portion B, being one side of the box, which lies between the top and bottom, the parts B' B'', which form the opposite side, which is double, and the end portions D D D D, which also lap onto each other and form double ends. To each end of the side B is an incision through the material, which forms an extension to the corner, creasing to each side of the part B and leaves a little square C at each end of the side B. To the end of the piece B' is also extended a similar incision by the end D, leaving a square E attached to the portion B'. A similar incision is made, which is an extension of the creasing between the part A and D, extending between the portion B'' and E', which leaves a square E' E' attached to the ends D D of that portion of the box.

The folding-lines between the parts A A, B B' B'', and D D can be formed by scoring; but it is preferred to stamp into the paper by means of a roller or other suitable means, as indicated in Fig. 2, which forms a joint which will fold very easily without the abrading of the paper, the corner portion being formed by a little rounded groove. The parts of the box or package are preferably caused to fold in this way by little rounded grooves stamped or rolled into the same.

In folding the box the parts C C are first folded up to substantially right-angles to the

portion B. The top and bottom A are then folded up, the portions E E folded down at right-angles to the part B' between the end pieces D D on that side, the portion B' folded at right-angles to the part A, the portions D of the opposite side shut on the outside of the piece C and folded over the side B', and part B' closed down over the whole. Then a string or other fastening is placed around the same and holds the box securely closed. It will be noticed that by this construction wherever the parts of the box are folded together so that there will be an opportunity for entrance of air the portions are doubled, so that to form a circulation of air through the same the air must pass through between the broad flat portions or the corners, and these fold so tight as to be practically air-tight. It will be noted that in this construction the ends are double and the corners triple the thickness, which makes it possible to construct a package in this way out of comparatively light material, and it will have sufficient strength to withstand the usage which it receives as a shipping-package for celery. Its shutting up perfectly tight prevents evaporation of moisture from the celery and consequently preserves it in perfect condition. The paper being almost a perfect non-conductor of heat leaves the celery cool in the hottest weather and prevents it freezing in the coldest weather, retaining the heat from the celery or keeping out the cold and thus maintaining the temperature inside substantially the same as when the goods were packed.

The treatment of the paper or pasteboard or other material with a suitable waterproofing prevents moisture from the celery saturating the package to cause it to break from this cause.

I desire to state that the construction of my improved package can be considerably varied without departing from my invention. So long as the waterproof material is employed the package can be satisfactorily folded in other forms and answer the purpose very well, although the exact construction I have shown possesses very great merit on account of the fact that it doubles the particular portions that are required to stand the strain, and makes it possible to produce a package available for the purpose of transportation of celery which weighs only one-third ($\frac{1}{3}$) of the amount that the ordinary celery-box used for the purpose weighs. This amounts to a very great saving to the celery-shipper from the reduced transportation-charges, and with the better preservation of the goods from liability to injury makes the device a very desirable one.

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

1. A paper board or paste board package for celery constructed from a single piece of

water-proofed paper laid out into the parts A, A, B, B', B'', D, D, D, D, E, E, E', E', C, C, with the corners between the same formed by compressing the material into a rounded form to prevent abrading of the material and cut to form a square, C, C, at each end of the part, B, and squares, E, E, at each end of the part, B' and continuous therewith; and squares, E', E', at the end of the parts, D, D, and continuous therewith lying opposite the part, B'', formed into a package by folding the parts, C, C, at right-angles to the part, B, doubling the parts, A, A, to a vertical position folding the parts, E, E, to right-angles to the part, B', shutting the portions, D, over the parts, E and C, with the part, D, bearing portion, E', at the outside folding the portion, E', over the part, B', and the portion, B'', over the parts, E', E', and B', and securing the same together by a suitable cord, all substantially as described for the purpose specified.

2. A paper board or paste board package for celery constructed from a single piece laid out into the parts, A, A, B, B', B'', D, D, D, D, E, E, E', E', C, C, and cut to form a square, C, C, at each end of the part, B'; and squares, E, E, at each end of the part, B'; and squares, E', E', at the end of the parts, D, D, lying opposite the part, B'', formed into a package by folding the parts, C, C, at right-angles to the part, B, doubling the parts, A, A, to a vertical position folding the parts, E, E, to right-angles to the part, B', shutting the portions, D, over the parts, E, and C, with the part, D, bearing the portion, E', at the outside, folding the portion, E', over the part, B', and the portion, B'', over the parts, E', E', and B', and securing the same together by a suitable cord, all substantially as described for the purpose specified.

3. A paper board or pasteboard package for celery constructed from paper or pasteboard suitably waterproofed to prevent absorption of moisture to dry the celery constructed in the form of a box, the corners of which are formed by compressing the same into a circular mold so that the same will fold easily and smoothly without abrading the material to preserve its full strength on the corners, as specified.

4. A package for celery constructed of water-proofed paper board or straw board material folded to form a substantially air tight package, to protect the celery from injurious temperatures and prevent evaporation of its moisture as specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

SAMUEL J. DUNKLEY. [L. S.]

Witnesses:

WALTER S. WOOD,
MARIAN I. LONGYEAR.