L. P. REXFORD.

PACKING BOX.

APPLICATION FILED MAR. 27, 1909.

925,382. Patented June 15, 1909.

2 SHEETS—SHEET 1.

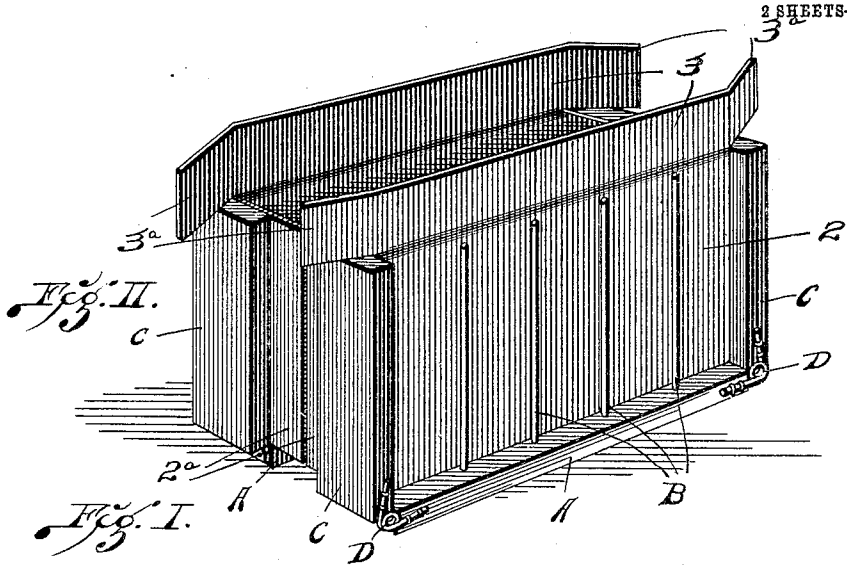
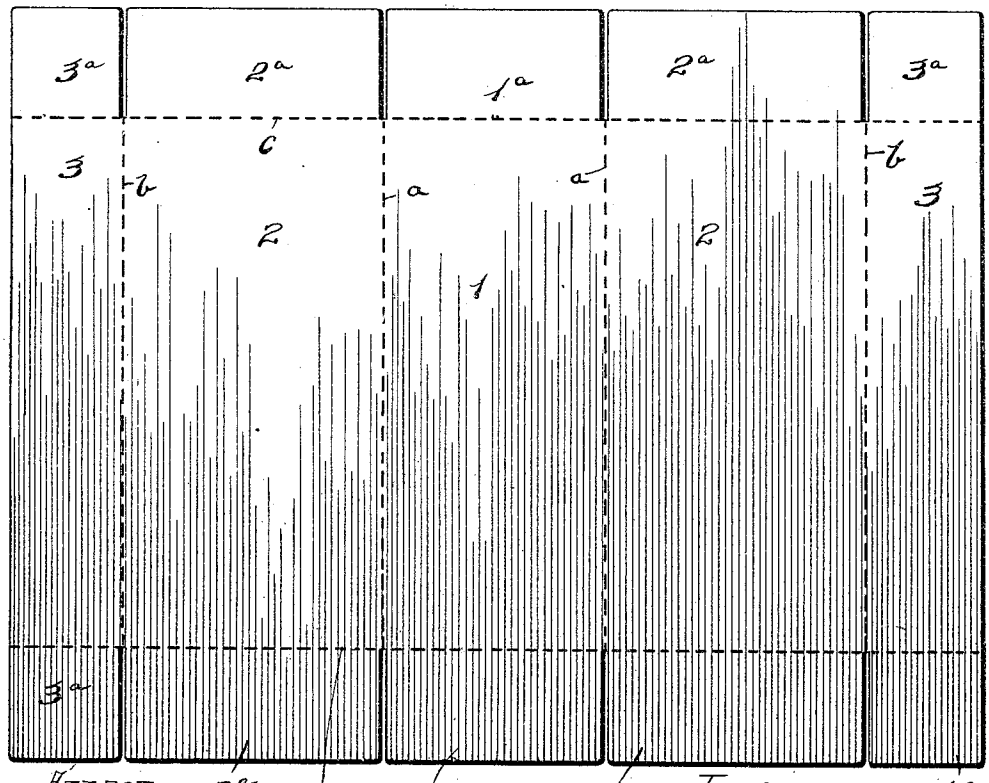


FIG. II.

FIG. I.



ATTEST.

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2 SHEETS—SHEET 2.

Fig. III.

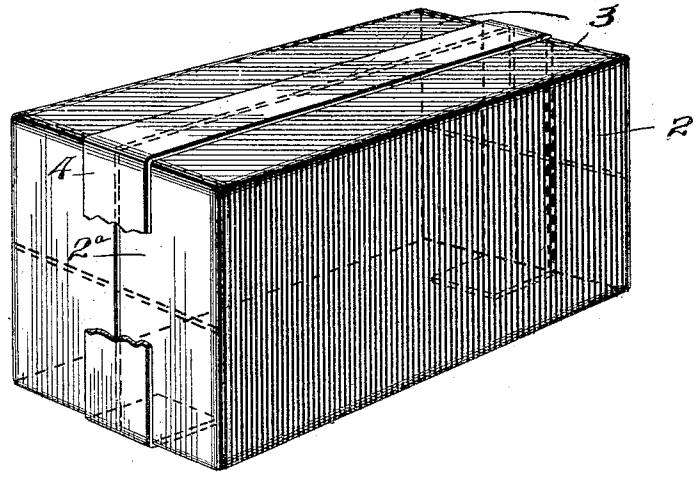


Fig. IV.

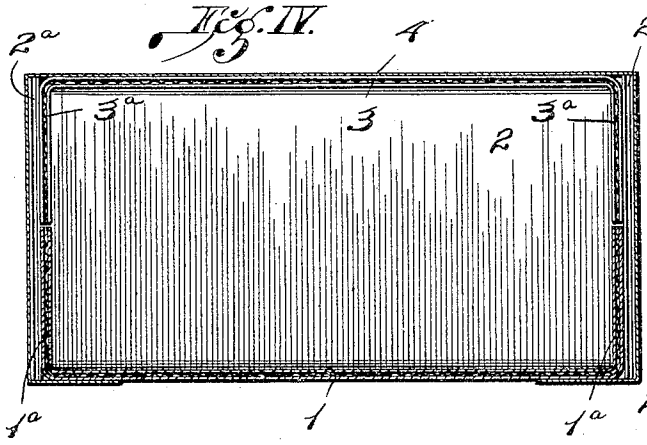


Fig. V.

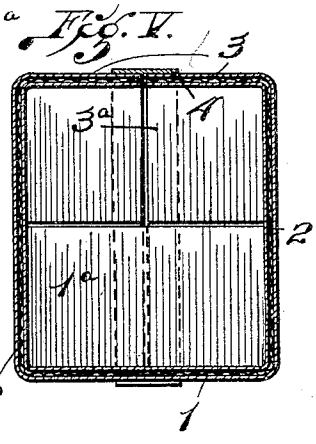
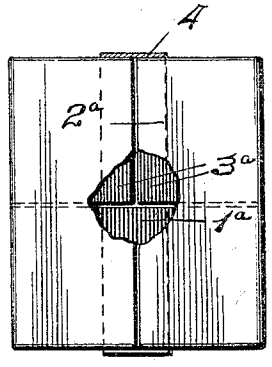


Fig. VI.



Attest.

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UNITED STATES PATENT OFFICE.

LEY P. REXFORD, OF ST. LOUIS, MISSOURI, ASSIGNOR TO AMERICAN PAPER CUTTER & MANUFACTURING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION.

PACKING-BOX.

No. 925,382. Specification of Letters Patent. Patented June 15, 1909.

Application filed March 27, 1909. Serial No. 486,268.

To all whom it may concern:

Be it known that I, LEY P. REXFORD, a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Packing-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a packing box and it has for its object the production of an extremely simple packing box comprising a scored sheet having a plurality of sections to constitute the bottom, side walls, and top of the box and which are provided with end flaps, the scored sheet being capable of being fitted into a jig or holder therefor after it has been partially folded in order that the box may be filled previous to the sealing or closing thereof in any manner.

A further object of my invention is to provide for the closing and sealing of the box in an extremely simple manner after it has been filled and while it remains in position in the jig occupied by it while being packed.

Figure I is a view of the blank from which my box is produced. Fig. II is a perspective view of the box blank in position in a jig ready to be filled. Fig. III is a perspective view of the box after it is closed and sealed, a portion of the sealing tape being broken out to afford a better view of the portions of the box back of it. Fig. IV is a longitudinal section taken centrally through the box. Fig. V is a cross section of the box. Fig. VI is an end view of the box with portions broken out.

In the accompanying drawings:—1 designates the bottom section of my box, 2 the side sections, and 3 the top sections, the latter being each equal in width, or approximately so, to one-half of the width of the bottom section in order that when they are brought together at the top of the box their combined area will be equal, or approximately equal, to the area of the bottom of the box beneath them. The box blank sheet is scored longitudinally at *a a* at the junctions of the bottom section 1 and the side sections 2 to provide flexible hinges, in order that the side sections may be moved into upright positions, and the sheet is also scored longitudinally at *b b* to provide flexible hinges to permit of the top sections 3 being bent over into horizontal positions and at right angles to the side sections. The box blank sheet is also scored transversely at lines *c c* to provide end flaps 1^a at the ends of the bottom section, end flaps 2^a at the ends of the side sections, and end flaps 3^a at the ends of the top sections.

The box blank to be used in the construction of my box is necessarily mounted in a suitable jig or holder when it is to be filled, in order that the sections of the box may be properly held in their relative positions during the period of filling the box and before its sections are held together in any permanent manner. I therefore use a jig of which an example is illustrated in the drawings and in which the partially folded box may be inserted to provide for its being filled, in order that it will not collapse during the act of filling. The jig illustrated in the drawings, (see Fig. II,) comprises bottom pieces A in which are seated side posts B, and to the ends of which bottom pieces are secured end pieces C, these end pieces being preferably hinged to the bottom pieces and being normally held in upright positions by springs D. No invention is herein claimed for this jig, which is made the subject matter of another application for patent filed March 27, 1909, Serial Number 486,269.

In preparation for the filling of my box, I first fold the end sections 1^a of the bottom section 1 upwardly and then fold the side sections 2 upwardly, after which I fold the end sections 2^a of said side sections inwardly to the upturned end section of the bottom section, thereby producing a rectangular box body which is introduced into the jig that is to receive it, as illustrated in Fig. II, the top sections 3 and their end flaps being at this time disposed vertically, with the result of leaving the top of the box open, in order that the merchandise to be packed therein may be readily and quickly deposited in the box, notwithstanding the fact that the folded side sections and their end flaps are unsecured to each other. After the box has been filled, I fold the end flaps 3^a of the top sections inwardly and then fold said top sections downwardly into horizontal positions so that their end sections will enter into the box body and rest against the upper portions of the end flaps 2^a of the side sections above the end flaps 1^a of the bottom

section. The box is at this time closed except for the parting line between the top sections and the parting line between the end flaps of the side sections 2, and it is obvious that the various sections of the box would become separated if the box were removed from the jig at this time. To provide for the closure of the box and the sealing of it, I apply to it a single strip 4 of gummed tape that spans the parting lines between the top sections 3 and the end flaps of the side sections and which overlaps onto said top sections and end flaps, as seen in Figs. III, V, and VI, the tape being continued beneath the bottom of the body of the box and serving to effectually close any gaps between the top sections and end flaps of the side sections while performing the office of holding the sections of the box from separation.

The box herein described is preferably made of corrugated paper board, but it may be made of other stiff paper or material, and it will be readily appreciated that when the box is completed, including the sealing of it by the gummed tape, it constitutes a very rigid container and one that is practically air tight. A feature of marked merit in my box is that the box blanks may be transported in flat condition and readily folded into shape to form the box bodies to be held in such shape, while merchandise is being placed therein by introduction of the folded box body into a jig, thereby permitting of the merchandise being placed directly into the box without first placing it in a jig, as is commonly done, to assemble the merchandise, and afterward placing it in a packing box.

It is to be observed that there are no broken joints at the corners of my packing box such as are common in paper boxes wherein the box sections are united at their corners by tapes, or other means of connection, and that, as a consequence, the strength of the body of sheet material is preserved at such corners with the result of affording a much more marked degree of resistance than is usual where the sections of the boxes are united at their corners. In the use of paper boxes, the greatest strain is imposed upon the corners of the boxes, and by making these corners in my box continuous with the body of paper and joining the sheet of paper intermediate of the sides of the box, I produce a box that is capable of resisting more severe strain than is the case in the connection of the sections of a box sheet at the points of greatest strain, namely, the corners.

I claim:

1. A paper packing box, comprising a bottom section having foldable end flaps, a pair of side sections foldably connected to said bottom section and having foldable end flaps, a pair of top sections foldably connected to said side sections and adapted to meet intermediate of the sides of the box, and means whereby said top sections are held from separation.

2. A paper packing box, comprising a bottom section having foldable end flaps, a pair of side sections foldably connected to said bottom section and having foldable end flaps, a pair of top sections foldably connected to said side sections and having foldable end flaps, the top sections being adapted to meet intermediate of the sides of the box, the flaps of said top sections being adapted to be introduced into the ends of the box body to occupy positions against the inner faces of the flaps of the side sections, and means whereby said top sections are held from separation.

3. A paper packing box, comprising a bottom section having foldable end flaps, a pair of side sections foldably connected to said bottom section and having foldable end flaps, a pair of top sections foldably connected to said side sections and adapted to meet intermediate of the sides of the box, and a tape whereby said top sections are held from separation.

4. A paper packing box, comprising a bottom section having foldable end flaps, a pair of side sections foldably connected to said bottom section, and having foldable end flaps, a pair of top sections foldably connected to said side sections and having foldable end flaps, the top sections being adapted to meet intermediate of the sides of the box, the flaps of said top sections being adapted to be introduced into the ends of the box body to occupy positions against the inner faces of the flaps of the side sections, and a tape whereby said top sections are held from separation.

5. A paper packing box, comprising a bottom section having foldable end flaps, a pair of side sections foldably connected to said bottom sections and having foldable end flaps mating with each other at the ends of the box, a pair of top sections foldably connected to said side sections and adapted to meet each other intermediate of the sides of the box, and a sealing member applied to said top sections and the end flaps of said side sections to hold them from separation.

6. A paper packing box, comprising a bottom section having foldable end flaps, a pair of side sections foldably connected to said bottom sections and having foldable end flaps mating with each other at the ends of the box, a pair of top sections foldably connected to said side sections and adapted to meet each other intermediate of the sides of the box, and a sealing tape extending longitudinally of the box connecting said top sections, and vertically at the ends of the box and connecting the flaps of said side sections.

7. A paper packing box, comprising a bottom section having foldable end flaps extending vertically from said bottom section, a pair of side sections foldably connected to said bottom section and extending vertically therefrom, end flaps foldably connected to said side sections and resting against the end flaps of the bottom section, a pair of top sections foldably connected to said side sections and mating with each other at lines at which the end flaps of said side sections meet, and means applied to said top sections and the end flaps of said side sections whereby said members are held from separation.

8. A paper packing box, comprising a bottom section having foldable end flaps extending vertically from said bottom section, a pair of side sections foldably connected to said bottom section and extending vertically therefrom, end flaps foldably connected to said side sections and resting against the end flaps of the bottom section, a pair of top sections foldably connected to said side sections and mating with each other at lines at which the end flaps of said side sections meet, and a tape applied to said top sections and the end flaps of the side sections, said tape spanning the lines of division between said top sections and flaps.

LEY P. REXFORD.

In the presence of—
H. G. Cook,
E. B. Linn.