R. P. BROWN.

PAPER BOX.

APPLICATION FILED JAN. 29, 1909.

1,052,564.

Patented Feb. 11, 1913.

2 SHEETS—SHEET 1.

FIG. 1.

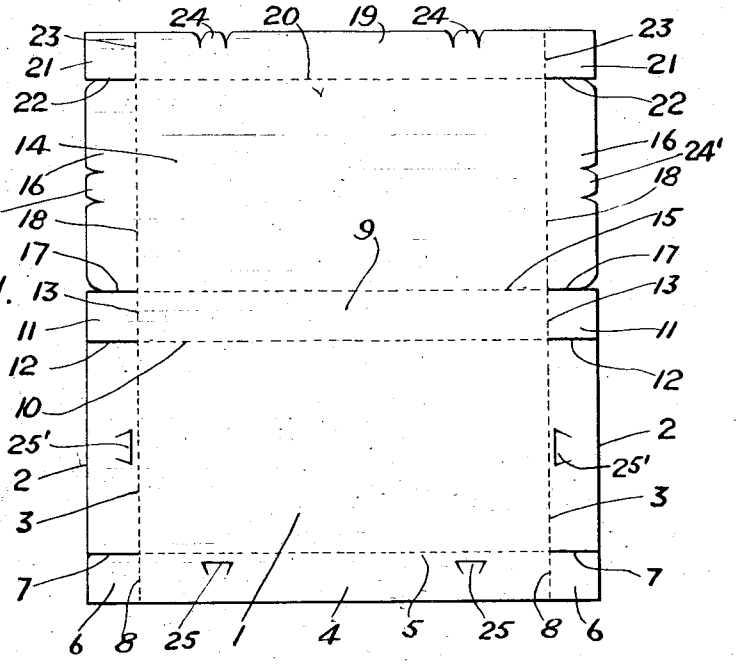


FIG. 2.

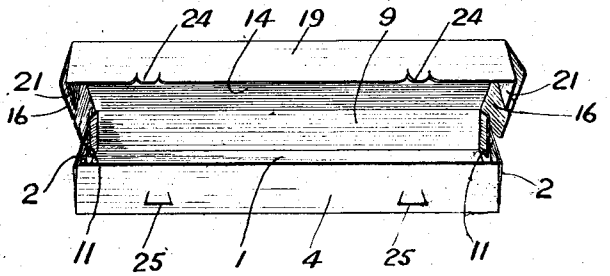


FIG. 3.

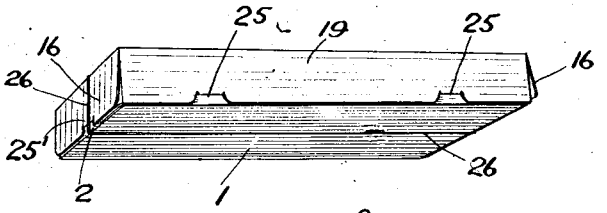
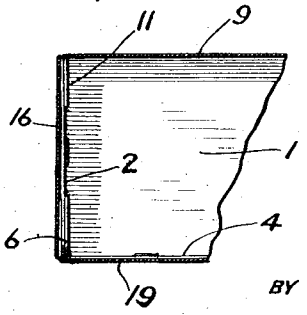


FIG. 4.



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2 SHEETS—SHEET 2.

FIG. 5.

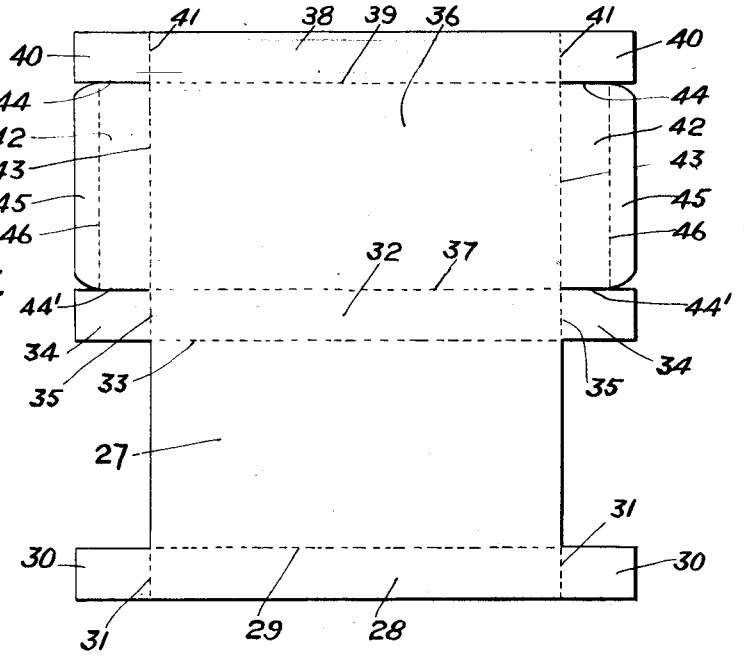


FIG. 6.

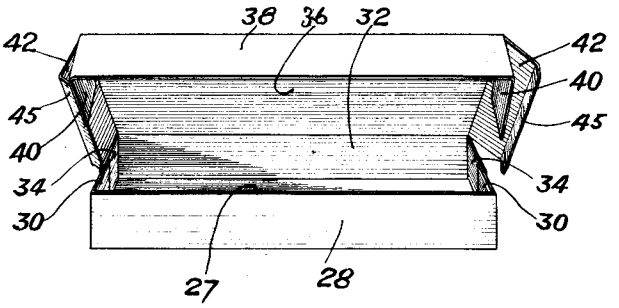


FIG. 7.

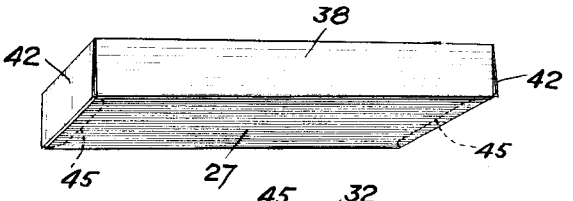
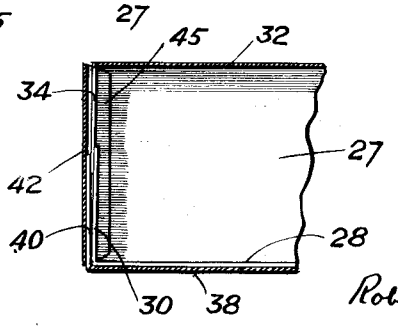


FIG. 8.



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PAPER BOX.

1,052,564. Specification of Letters Patent. Patented Feb. 11, 1913.

Application filed January 29, 1909. Serial No. 474,948.

To all whom it may concern:

Be it known that I, ROBERT P. BROWN, a citizen of the United States, residing in the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain Improvements in Paper Boxes.

My invention is a paper box made of a single sheet of material having integral parts hinged together so that the blank can be brought to form readily.

My object is to produce a simple, inexpensive, strong, efficient and readily assembled construction adapted for holding clothing.

In the drawings, Figure 1 is a plan view of a blank used in making a form of my improved box; Fig. 2 is a view of a partly closed box formed from said blank; Fig. 3 is a perspective view of the same box closed; Fig. 4 is a sectional view of an end of the box; Fig. 5 is a plan view of a blank used in making a second form of my improvements; Fig. 6 is a view of a partly closed box formed from the blank shown in Fig. 5; Fig. 7 is a perspective view of the second form closed; and Fig. 8 is a sectional view of an end of the second form of box.

Referring to Figs. 1 to 4, inclusive, the construction illustrated comprises the rectangular bottom section 1, the rectangular end sections 2 turning at right angles to the bottom along the creases or score lines 3, the rectangular side section 4 turning at right angles to the bottom along the score line 5, the rectangular corner sections 6 separated by the through cuts 7 from the ends 2 and turning along the score lines 8 to positions at right angles to the parts 1 and 4, the rectangular side section 9 turning at right angles to the bottom along the score line 10, the rectangular sections 11 separated by the through cuts 12 from the respective parts 2 and turning along the score lines 13 to positions at right angles to the parts 1 and 9, the rectangular top section 14 turning along the score line 15 so that it can be brought to position at right angles to the folded part 2 and parallel to the part 1, the end sections 16 separated by the through cuts 17 and turning along the score lines 18 so that they can be brought to position at right angles to the part 1 and overlapping the folded end members connected with the bottom and sides, the side section 19 turning along the crease line 20 so that it will overlap the part 4, and the parts 21 separated from the parts 16 by the through cuts 22 and turning along the score lines 23 so that they can be brought within the folded ends 16.

Ears 24 on the part 19 fit in the slots formed in the part 4 by the dovetailed cuts 25. Ears 24′ may be formed on the parts 16 and slots 25′ formed in the parts 2, the ears and slots engaging to hold the parts together. In lieu of or in addition to the ears, a cord 26 may be used to keep the parts in their assembled position and the box closed. It will be understood that the end flaps 6, 11 and 21, being disposed within the parts 2 and between the parts 1 and 14, act both to close the corners and stiffen the construction so that liability to crushing is reduced to a minimum. The flaps 6 and 21 being between the top and bottom of the box, they exert a lever like action to hold the sides 4 and 19 together.

Referring to Figs. 5 to 8 inclusive, the construction here represented comprises the rectangular bottom 27, the rectangular side 28 turning to a position at right angles to the bottom along the score line 29, the end sections 30 turning on the score lines 31 to position at right angles to the folded section 28, the rectangular side 32 turning on the score line 33 to position at right angles to the part 27, the end sections 34 turning on the score lines 35 so as to be brought to positions at right angles to the positioned parts 27 and 32, the rectangular top 36 turning on the score line 37, the side section 38 of the top turning on the score line 39, the end sections 40 of the part 38 turning on the score lines 41, the end sections 42 of the part 36 separated from the parts 34 and 40 by the respective through cuts 44 and 44′ and turning on the score line 43, and the flaps 45 on the parts 42 turning on the score lines 46. In the assembled or folded construction the end sections 30, 34 and 40 lie within the sections 42 and the flaps 45 slip between them and the bottom to hold the several parts together; the infolded end flaps 30, 34 and 40 closing the corners, stiffening the construction and holding the sides in place. With the flaps 45 resting on the bottom 27 and supporting the flaps 30 and 40 the latter flaps are prevented from springing down whereby the side 28 is held against inward movement and the side 38 against a tendency to spring outward from the side 28.

This second form of box may be provided with the slots and ears shown in the first form for holding the overlapping sides together. It will be understood that as the depth of each of the several parts 2, 4, 6, 9, 11, 16, 19 and 21 is the depth of the first form of the box, and as the parts 2, 4, 6, 11 and 23 are held vertically, between the bottom section 1 and the top section 14, by fastening down the ends, these interior sections all act to support the top of the box so that it will not crush while the loose parts 6 and 21 act as levers for preventing the parts 4 and 19 from springing out, without the use of nails, rivets or the like. And as the depth of each of the several parts 28, 30, 32, 34, 38, 40 and 42 is the depth of the second form of the box, and as such parts are held vertically in bearing relation to the top and bottom sections 27 and 36 and as the loose parts 30 and 40 act as levers to hold in the parts 28 and 38, the wrapper provides a strong box without the use of extraneous fasteners, such as rivets and staples, and the expense incident thereto.

Having described my invention, I claim:

1. A knock-down box, formed of a single sheet of material, comprising a bottom section, side sections of the same depth folded on scores whereby they are hinged to said bottom section, a top section folding along a score whereby it is hinged to one of said side sections, a second side section folding along a score whereby it is hinged to said top section, said last named side section lapping a side section aforesaid and being of the same depth, end flaps having the depth of said side sections and folding on scores whereby they are hinged to the ends of the respective side sections, and end flaps folding on scores whereby they are hinged to ends of the respective top and bottom sections, said end flaps on said side sections being disposed within the overlapping flaps of said top and bottom sections to support the top section and prevent the separation of the lapping side sections.

2. A knock-down box, formed of a single sheet of material, comprising a bottom section, side sections of the same depth folded on scores whereby they are hinged to said bottom section, a top section folding along a score whereby it is hinged to one of said side sections, a second side section folding along a score whereby it is hinged to said top section, said last named side section lapping a side section hinged to said bottom section and having the depth thereof, end flaps having the depth of said side sections and folding on scores whereby they are hinged to ends of the respective side sections, end flaps having the depth of said side sections and folding on scores whereby they are hinged to ends of said top section, said end flaps on said side sections being disconnected and held between said top and bottom sections by said end flaps on said top section, and means for holding in their folded position said end flaps on said top section.

In witness whereof I have hereunto set my name this 26th day of January, A. D. 1909, in the presence of the subscribing witnesses.

ROBERT P. BROWN.

Witnesses:

Jos. G. Denny, Jr.,

Robert James Earing.