

(No Model.)

2 Sheets—Sheet 1.

J. T. CRAW.
KNOCKDOWN PAPER BOX.

No. 564,594.

Patented July 28, 1896.

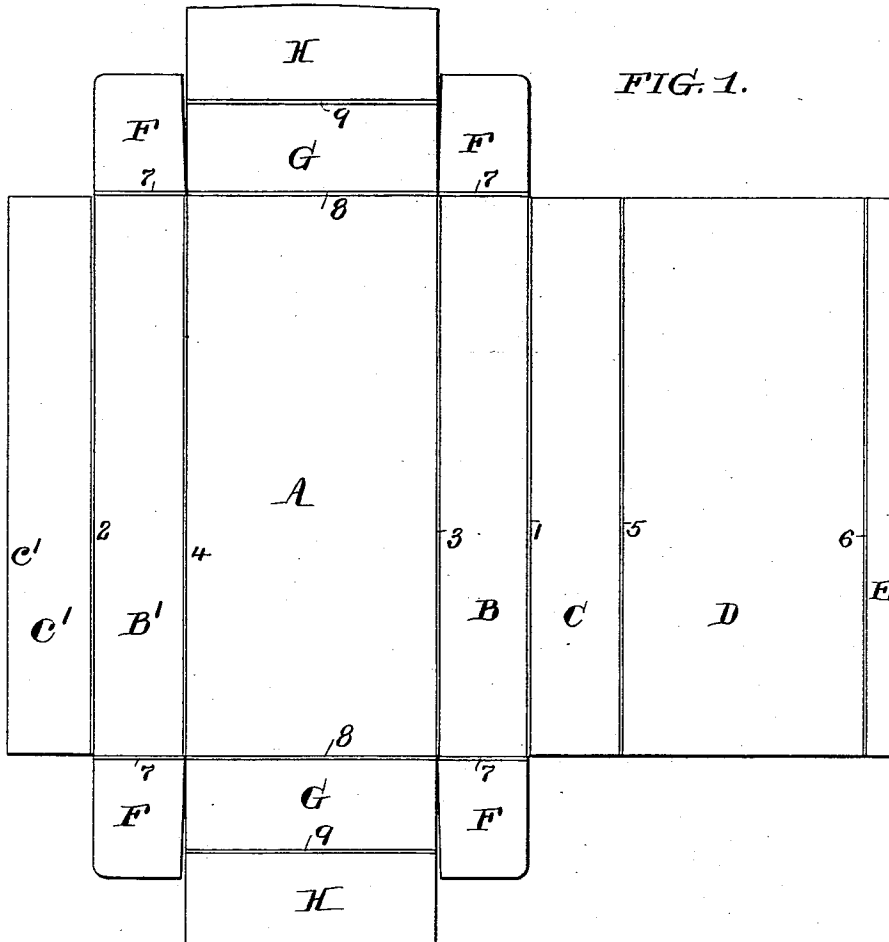


FIG. 1.

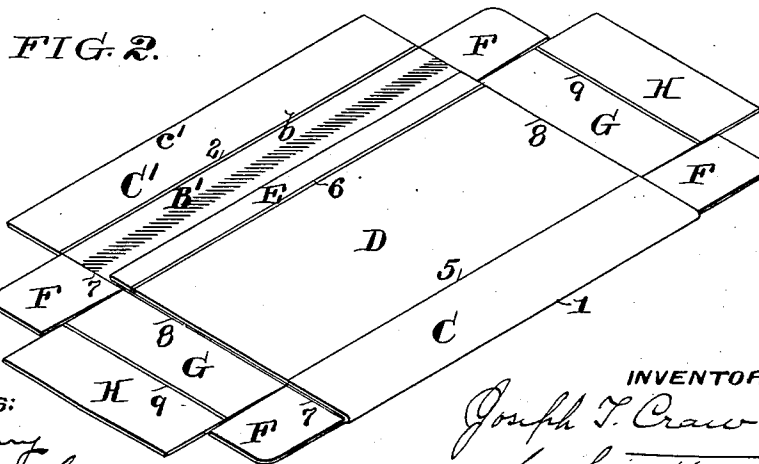


FIG. 2.

WITNESSES:

Henry Denny
A. J. Back

INVENTOR:

Joseph T. Craw
by his atty.
Francis T. Chambers

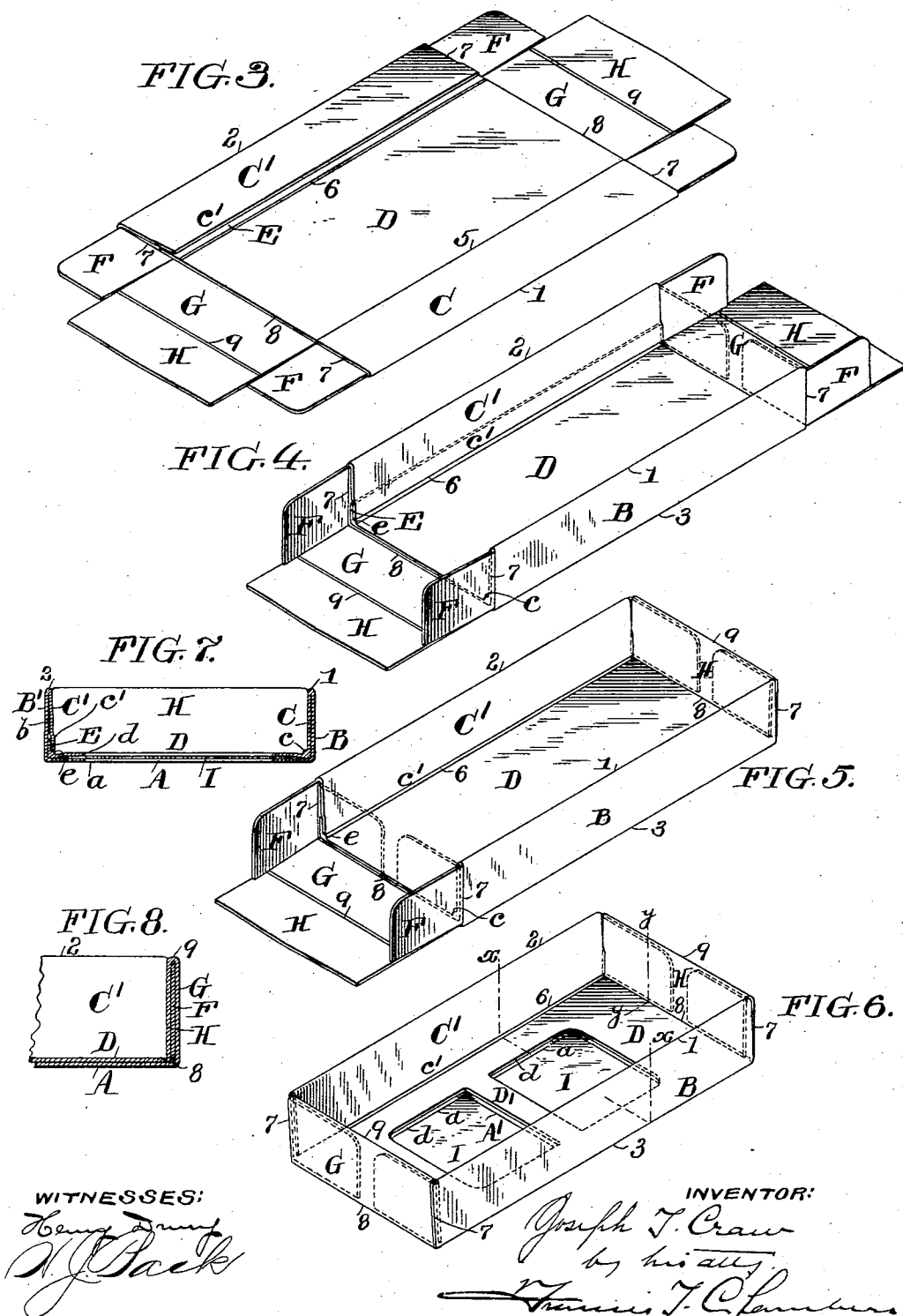
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

JOSEPH T. CRAW, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO HIMSELF,
ROBERT P. BROWN, AND EDWARD L. BAILEY, OF PHILADELPHIA,
PENNSYLVANIA.

KNOCKDOWN PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 564,594, dated July 28, 1896.

Application filed October 5, 1895. Serial No. 564,720. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH T. CRAW, a citizen of the United States, residing in Jersey City, county of Hudson, State of New Jersey, have invented a certain new and useful Improvement in Knockdown Paper Boxes, of which the following specification is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to the construction of knockdown paper boxes and of the blanks from which such boxes are erected, and has for its object to provide a strong, simply-constructed, and sightly box of the kind in question.

The nature of my improvements will be best understood as described in connection with the drawings in which they are illustrated, and in which—

Figure 1 is a view of the blank formed with folds and score-lines properly arranged for the construction of the improved box. Fig. 2 is a perspective view showing what is preferably the first fold. Fig. 3 is a similar perspective view showing the first and second folds and illustrating the condition in which I prefer to put my box-blanks upon the market; that is to say, Fig. 3 represents the box-blank as it should be shipped to dealers and consumers. Figs. 4, 5, and 6 are perspective views showing the various steps taken in erecting the box from the blank of Fig. 3, Fig. 6 also indicating a preferred construction of the box and box-blank whereby sight-holes are formed through it. Fig. 7 is a cross-section on the line *x x* of Fig. 6, and Fig. 8 a longitudinal section on the line *y y* of Fig. 6.

A indicates the bottom of the box or the part of the blank which forms the bottom of the box.

B and B' are the sides proper of the box; C and C', folds of paper adapted to be folded down on the inside of the sides B' and form reinforcements to such sides.

D is a fold connected with the fold C and adapted to lie upon the bottom A of the box, forming an inner or false bottom, while E is

a short fold extending from the outside of the fold D and adapted to fold up against the side B' of the box.

F F F F are flaps or folds extending out from the ends of the side folds B B'.

G G are the end folds of the box, and H H extension-folds adapted to fold down on the inside of the end folds G.

The first fold made in the blank is preferably made on the score-line 1, the folds C being pressed down against the fold B, the fold D lying upon the bottom A and the fold E lying, as indicated in Fig. 2, partly upon the bottom A and partly against the fold B'. The second fold is made by turning the fold C' over on the score-line 2, so that it will lie upon the fold B' and over the end of the fold E. The upper parts of the folds C' and B' are fastened together in any convenient way, preferably by a line of paste, as indicated at *b* in Fig. 2, the paste or other fastening device being sufficiently high up on the fold B' to permit the fold E to move freely between the ends *c'* of the folds C' and the inner part of the fold B'.

Where it is decided to use the box as a box-cover and to expose the contents of the box to view without removing the cover, I form perforations or openings through the bottom A and the fold D, as indicated at *a* and *d* in Figs. 6 and 7, the perforations being so placed that they will register with each other when the box is erected, and I then insert between the bottom A and the fold D a sheet of isinglass or other transparent material, as indicated at *I* in Figs. 6 and 7.

In erecting the box the folds B C should be turned up at right angles to the folds A D, first of all hinging on the score-lines 3 and 5. This pushes the score-line 6 over until it registers in proper position with the score-line 4, and the folds B', C', and E are then turned up at right angles, as indicated in Fig. 4, hinging on the score-line 4 and 6. The end lines F F, &c., are then turned in at right angles to the sides of the box, the end folds G turned up at right angles so as to lie against the outside flaps F, and the terminal folds H then turned down so as to inclose the flaps F

between the folds G and H. The score-lines H should be arranged to come somewhat outside of the line of the ends of the folds C', C, and D, so that the fold H can be tucked down 5 between the flaps F and the ends of the folds C', C, and D, as is indicated, for instance, in Fig. 8 of the drawings.

Having now described my invention, what I claim as new, and desire to secure by Letters 10 Patent, is—

1. A knockdown-box blank made up of a bottom A, side folds, B and B', a fold C adapted to fold down on the inside of fold B and having a fold D extending from its edge 15 and adapted to form an inner or false bottom for the box, said fold D having a short fold E extending from its edge and adapted to fold up against the lower edge of fold B', a fold C' extending from the top of side fold B' and 20 adapted to fold down against the inside of fold B' and over fold E, ends folds F F extending out from the side edges of folds B B', end wall-folds G G extending from the ends of bottom A and having folds H H adapted 25 to fold down against the inside of folds G G, all said folds being separated by score-marks as specified.

2. A knockdown-box blank having a bottom A and folds B B' C C' D E F, F, F, F, G, 30 G, and H, H, separated by scores and relatively arranged as specified, the fold C' being folded down on fold B' and secured thereto near the score connecting said folds and so as to leave a lock-edge *c'* to engage the fold E.

3. A knockdown-box blank having a bottom A and folds B B' C C' D E F, F, F, F, G, 35 G, and H, H, separated by scores and relatively arranged as specified, the fold C' being folded down on fold B' and secured thereto

near the score connecting said folds, and the 40 folds C D E being folded down on the score-line 1 and so that the fold E lies beneath the lock-edge *c'* of the fold C'.

4. A knockdown-box blank having a bottom A and folds B B' C C' D E F, F, F, F, G, 45 G, and H, H separated by scores and relatively arranged as specified, the bottom A and fold D having one or more openings as *a* and *d* adapted to register with each other when the box is set up.

5. A knockdown box having a bottom A, 50 sides B and B', the side B having extension-folds C adapted to lie against the inside of side B, D adapted to form an inner bottom lying on bottom A and a short lap E adapted 55 to lie against the side B' and the side B' having an extension-fold C' adapted to lie against the inside of side B' and overlap E, said side folds having also end extensions F and said box having also ends G G provided with ex- 60 tension-folds H, H adapted to fold down on the inside of the end folds and to inclose the extensions F, and means for securing the fold C' to the upper end of side B'.

6. A knockdown box having a bottom A 65 and folds B B' C C' D E F F F F G G and H H, relatively arranged as described, the fold C' secured at the top to the fold B' and the bottom and fold D having one or more regis- 70 tering openings as *a* and *d* in combination with a sheet or sheets of transparent material as I inserted between the bottom A and fold D.

JOSEPH T. CRAW.

Witnesses:

C. L. MALCOLM,
J. H. BELL.