(Model.)

# C. M. ARTHUR.

## Paper Box.

No. 234,221. Patented Nov. 9, 1880.

fig. 5

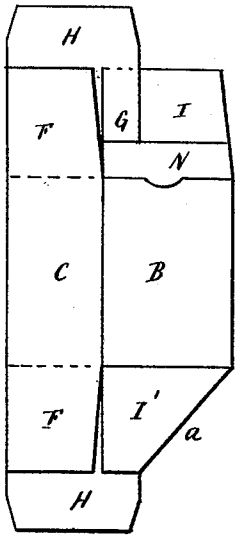



fig. 1

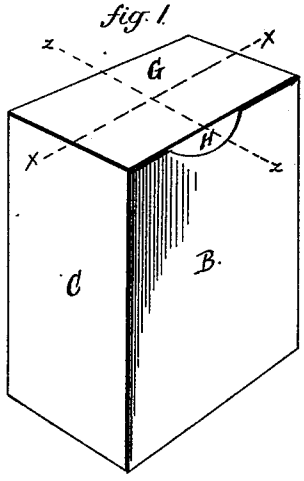



fig. 3

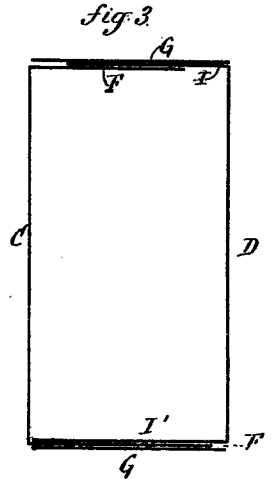



fig. 2

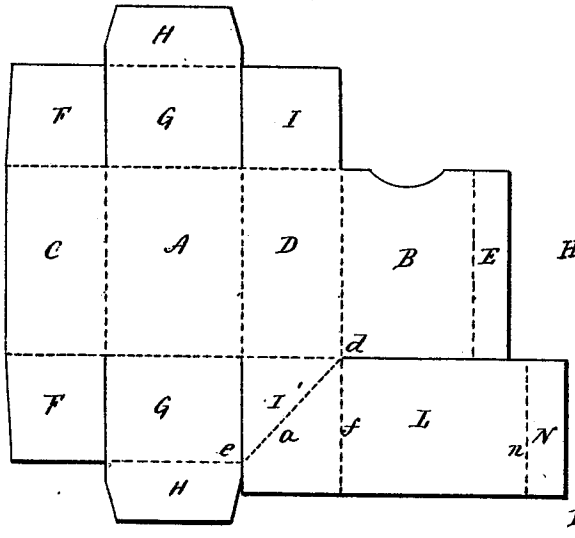
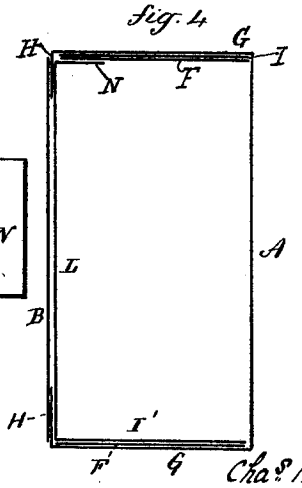



fig. 4




Witnesses.

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# UNITED STATES PATENT OFFICE.

CHARLES M. ARTHUR, OF ANSONIA, ASSIGNOR OF ONE-HALF TO SAMUEL H. LESSEY, OF BIRMINGHAM, CONNECTICUT.

## PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 234,221, dated November 9, 1880.

Application filed October 13, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES M. ARTHUR, of Ansonia, in the county of New Haven and State of Connecticut, temporarily residing at Brockville, Ontario, have invented a new Improvement in Paper Boxes; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the box complete; Fig. 2, the blank as prepared to form the box; Fig. 3, a vertical section of the box on line *x x;* Fig. 4, a transverse section on line *z z;* Fig. 5, the box collapsed, or in condition for shipment.

This invention relates to an improvement in that class of paper boxes which are made from a single piece of paper cut into shape so as to be folded and secure the box in its complete condition, and also so that the box may be collapsed to occupy very little space.

The object of the invention is to strengthen that portion of the box called the "closed end" or "bottom"—that is, the end which is not intended to be opened; and the invention consists in the blank cut and scored in the shape and manner as hereinafter described, and particularly recited in the claim.

The blank is cut in outline, as seen in Fig. 2, solid lines on the surface indicating cuts and broken lines scores for folding or bending.

That portion of the blank marked A is one side; B, the opposite side; C and D, the other two sides. The part B is extended to form a lip, E, which, when the parts are bent into shape, is pasted or otherwise securely attached to the corresponding edge of C. At each end of the part C is an extension, F, and at each end of the part A is an extension, G, terminating in a lip, H, and the part D has an extension, I, at one end, and at the other end an extension, I′.

Thus far the blank is of a common and well-known cut, except that usually the extension I′ has been less in length than the width of the box; but in my improved blank I make it in length equal to the width of the box. To the right the part I′ extends, as at L, in length equal to the height of the box, and terminates in a lip, N.

The scores (indicated by broken lines) between the parts A B C D and at the ends are the same as in the usual construction.

Diagonally across the part I′ a score, *a*, is run—that is, from the lower angle, *d*, of the part B to the score *e* between the parts G H—and is at an angle of forty-five degrees, because the length of the part G is equal to the width of the part D. The part L, from the score *f* to the score *n*, is equal to the height of the box, and in width corresponds to the sides A and B. When the box is folded into shape, as seen in Fig. 1, the score *a* has no office. The sides A B C D are brought to their proper positions and the lip E secured to the part C in the usual manner; then the part L is turned up inside the part B, bringing the part I′ across the bottom, as seen in Fig. 4; then the part F is turned onto the part I′; then the part G turned over the two parts F and I′ and the lip H tucked between the parts B and L, as seen in Fig. 4, which completes that end of the box, and by it the bottom I′ of the box is united, not only to the side D, but also to the side L, hence giving to this bottom a very much greater strength than when the part I′ is attached to side D only, as in the usual construction. When the lip E is pasted to the side C the box is complete, ready for shipment, and it is flattened into the shape shown in Fig. 5. This causes a fold to be made on the score *a* of the part I′, doubling that part upon itself, the part L lying beneath the part B; hence the necessity of the score *a*.

I claim—

The herein-described paper-box blank, cut and scored to form the sides A B C D, with the lip E on one side, the side A provided with extensions G H, the side C with an extension, F, the side D with an extension, I, at one end and extension I′ at the other end, equal to the width of the side A, and with the score *a* diagonally across it, and the part I′ provided with extensions L N, substantially as and for the purpose described.

C. M. ARTHUR.

Witnesses:
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WM. SHERWOOD.