No. 659,651. Patented Oct. 16, 1900.

A. B. COWLES.

BOX FORMED OF PAPER, CARDBOARD, &c.

(Application filed Nov. 19, 1897.)

(No Model.) 4 Sheets—Sheet 1.

Fig. 1.

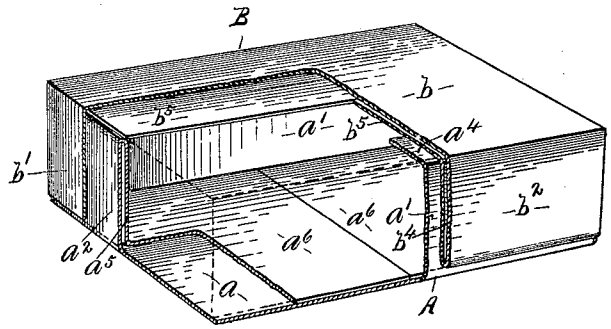
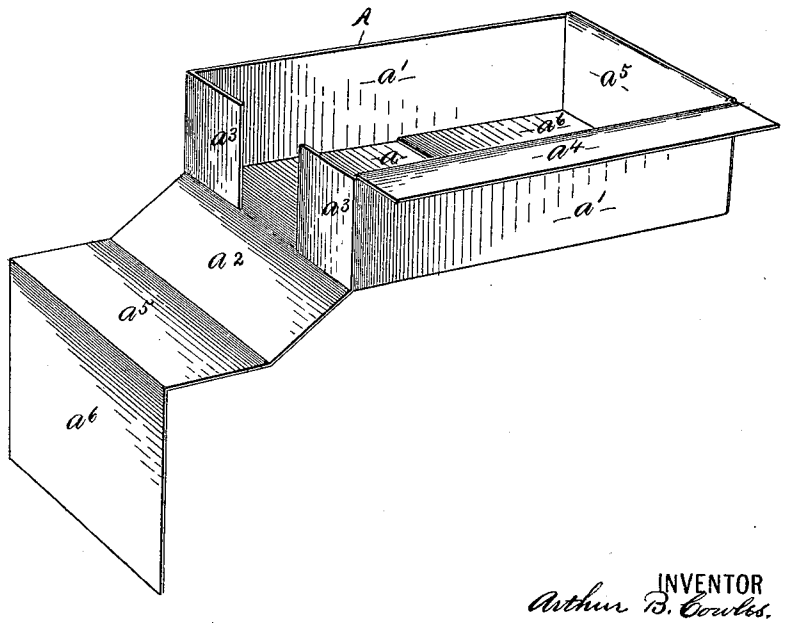


Fig. 2.



WITNESSES:
H. E. Chase.
M. D. Lewis.

INVENTOR
Arthur B. Cowles.

BY
Hoyt & Parsons.
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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Fig. 3.

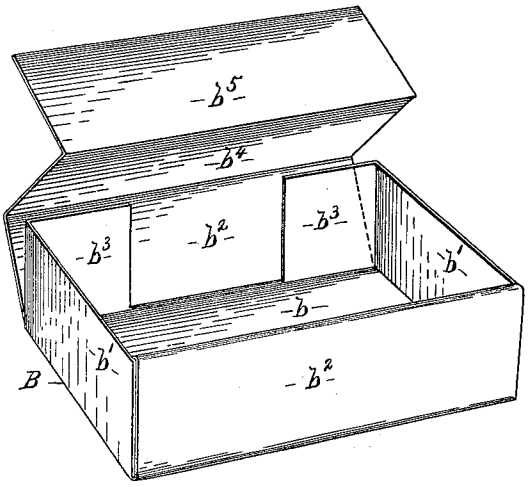
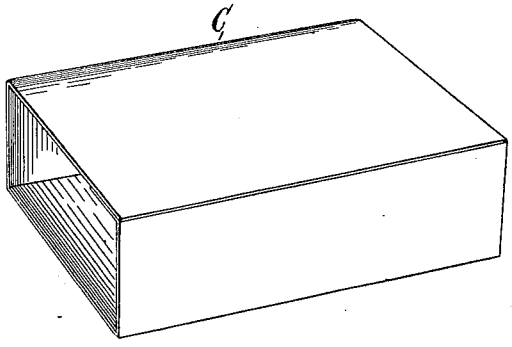


Fig. 6.



WITNESSES:
H. C. Chase,
M. D. Lewis.

INVENTOR
Arthur B. Cowles,

BY
Bosworth & Parsons
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

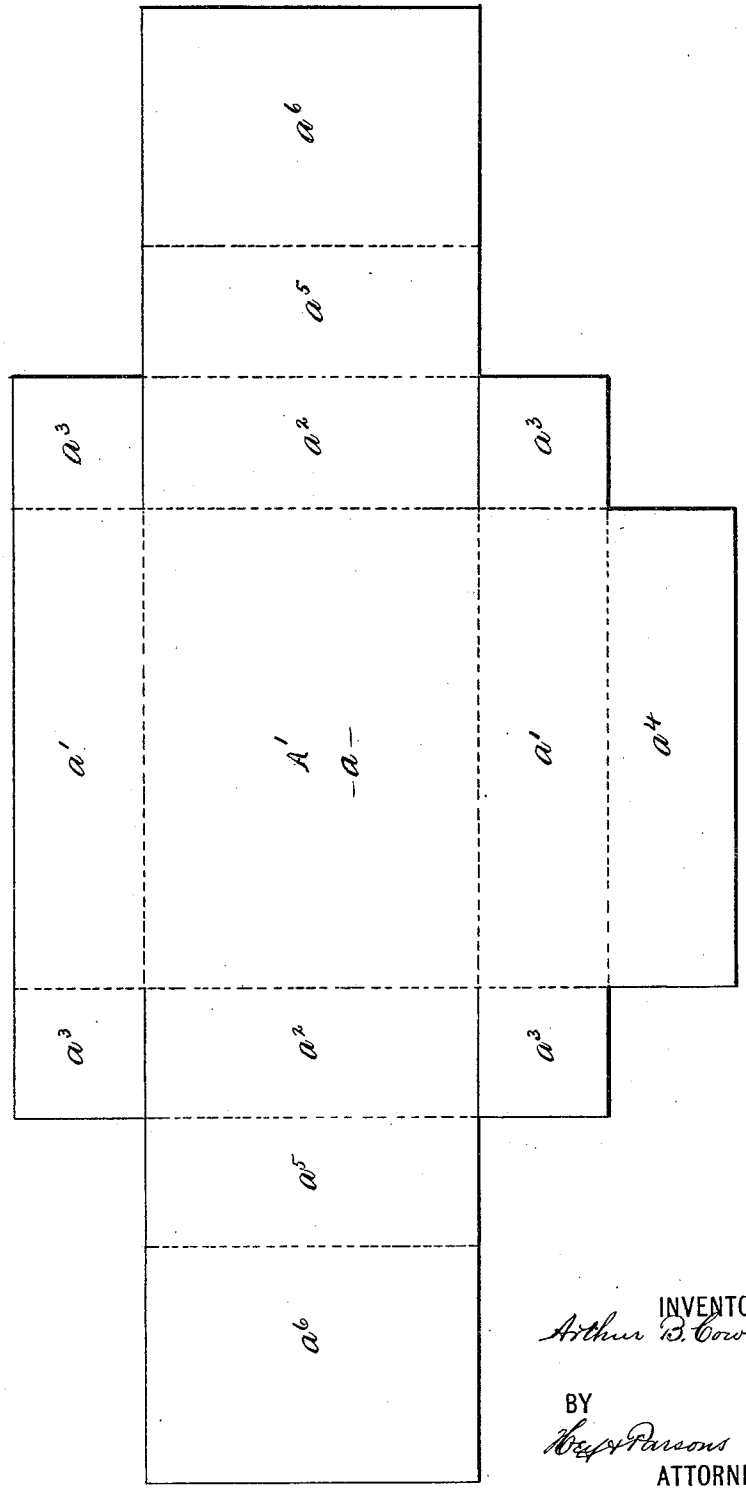
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A. B. COWLES.

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(No Model.) 4 Sheets—Sheet 3.



WITNESSES:
H. Bohaer,
M. D. Lewis.

INVENTOR
Arthur B. Cowles.

BY
Wright Parsons
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

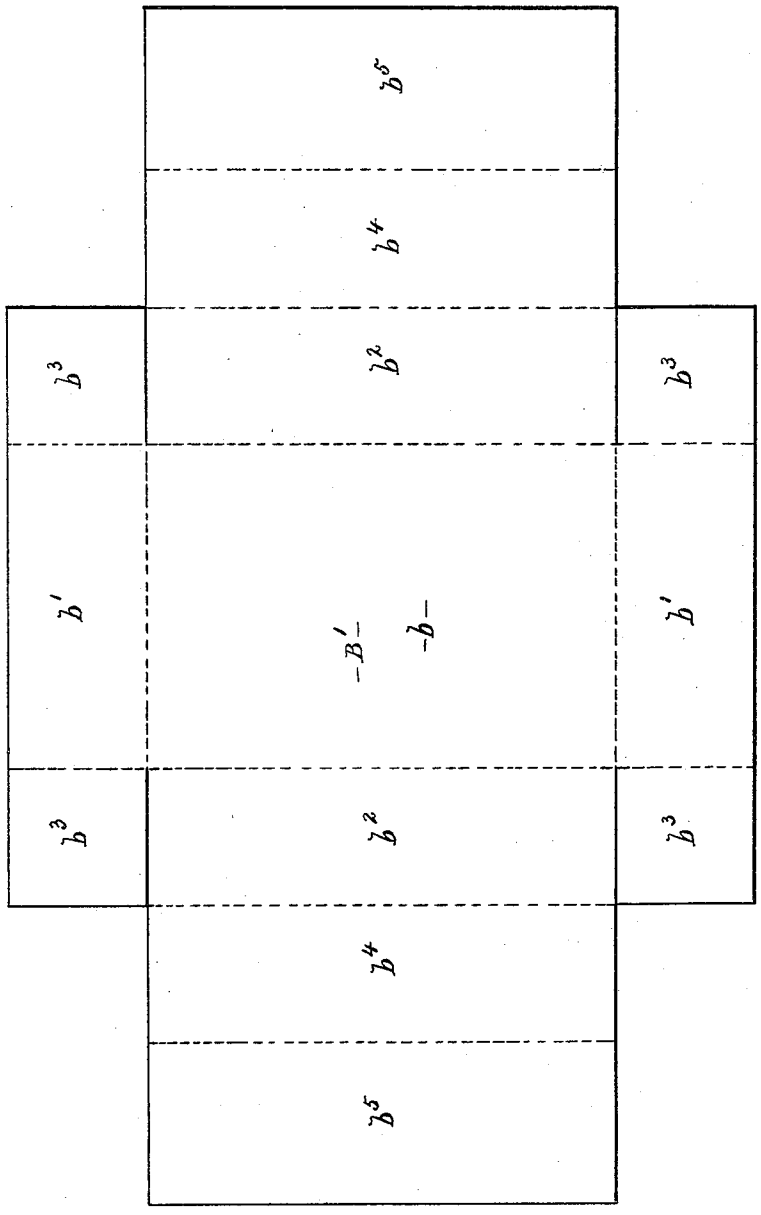
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WITNESSES:
H. C. Chase,
M. D. Lewis.

INVENTOR
Arthur B. Cowles,
BY
Hoyt & Parsons.
ATTORNEYS,

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR B. COWLES, OF ROCHESTER, NEW YORK.

BOX FORMED OF PAPER, CARDBOARD, &c.

SPECIFICATION forming part of Letters Patent No. 659,651, dated October 16, 1900.

Application filed November 19, 1897. Serial No. 659,081. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. COWLES, of Rochester, in the county of Monroe, in the State of New York, have invented new and useful Improvements in Boxes Formed of Paper, Cardboard, and Similar Materials, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in boxes formed of paper, cardboard, and similar materials, and has for its object the production of a knockdown box which is particularly simple in construction, is readily assembled in operative position, and is strong and durable in use; and to this end it consists in the combination, construction, and arrangement of the parts of a box, all as hereinafter described, and pointed out in the claims.

Figure 1 is an isometric view, partly broken away, of my improved box. Figs. 2 and 3 are isometric views of the lower and upper sections of the box, said sections being illustrated as partly unfolded and the upper section being shown as inverted. Figs. 4 and 5 are plan views of the blanks for forming the sections of the box, and Fig. 6 is an isometric view of a rectangular shell which may be used in connection with either of said sections.

My improved box consists of telescoping sections A B, each of which may be used as an open box, if desired. The section A is preferably composed of a single blank A', Fig. 4, and comprises a bottom a, side-wall flaps a' a', and end-wall flaps a^2 a^2. The side-wall flaps a' a' are provided at their opposite ends with supplemental flaps a^3, which form part of the end walls of the box-section A, and one of said side-wall flaps is usually provided at its longitudinal edge with an inwardly-folding supplemental flap a^4, which is normally arranged substantially parallel with the bottom a for preventing displacement of articles disposed crosswise in said section. The end-wall flaps a^2 a^2 are each formed with supplemental flaps a^5 a^6, arranged one in advance of the other. The flaps a^2 a^2 fold upwardly against the outer faces of the supplemental flaps a^3, the flaps a^5 a^5 fold inwardly and downwardly against the inner faces of said flaps a^3, and the flaps a^6 a^6 lap upon the bottom a. The flaps a^6 a^6 are usually formed of sufficient length so that their adjacent end edges are engaged with each other for locking said flaps in position, and thus holding the flaps a^5 a^5, a^3 a^3, a^2 a^2, a' a' securely in place.

The box-section B is usually composed of a single blank B', and comprises a top b, end-wall flaps b' b', and side-wall flaps b^2 b^2. The end-wall flaps b' b' are substantially similar to the side-wall flaps a' a' of the section A and are provided with supplemental flaps b^3 b^3, which form part of the side walls of the section B. The side-wall flaps b^2 b^2 are substantially similar to the end-wall flaps a^2 a^2 of the section A and are each formed with supplemental flaps b^4 b^5. The flaps b^2 b^2 fold downwardly against the outer faces of the supplemental flaps b^3 b^3, the flaps b^4 b^4 fold inwardly and upwardly against the inner faces of the flaps b^3 b^3, and the flaps b^5 b^5 lap upon the top b. The adjacent end edges of the supplemental flaps b^5 b^5 are normally engaged with each other for holding the flaps b^4 b^4, b^3 b^3, b^2 b^2, b' b' in position.

The described construction of box-section B is particularly applicable for use with the described construction of box-section A; but it will be obvious that said sections A B may be identical in construction. It will also be obvious that either of said sections may be used as a slide for a rectangular shell, as the tube C. (Seen in Fig. 6.) The construction of my improved box will now be readily understood upon reference to the foregoing description and the accompanying drawings.

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

1. A knockdown-box section having a bottom a, side-wall flaps a' a' provided with supplemental flaps a^3 a^3 forming part of the end walls of the box-section, and end-wall flaps a^2 a^2 each provided with supplemental flaps a^5 a^6, the flaps a^2 a^2 being folded upwardly against the outer faces of the flaps a^3 a^3, the flaps a^5 a^5 being folded inwardly and downwardly against the inner faces of the flaps a^3 a^3 and the flaps a^6 a^6 being lapped upon the bottom a and having their adjacent end edges arranged in substantially the same plane and normally engaged with each other,

substantially as and for the purpose described.

2. A knockdown-box section having a bottom a, side-wall flaps a' a' provided with supplemental flaps a^3 a^3 forming part of the end walls of the box-section, one of said side-wall flaps being provided with a supplemental flap a^4 projecting from its upper longitudinal edge in a plane above the bottom and substantially parallel therewith, and end-wall flaps a^2 a^2 each provided with supplemental flaps a^5 a^6, the flaps a^2 a^2 being folded upwardly against the outer faces of the flaps a^3 a^3, the flaps a^5 a^5 being folded inwardly and downwardly against the inner faces of the flaps a^3 a^3 and the flaps a^6 a^6 being lapped upon the bottom a and having their adjacent end edges arranged in substantially the same plane and normally engaged with each other, substantially as and for the purpose specified.

3. A knockdown-box section having a top b, end-wall flaps b' b' provided with supplemental flaps b^3 b^3 forming part of the side walls of the box-section, and side-wall flaps b^2 b^2 each provided with supplemental flaps b^4 b^5, the flaps b^2 b^2 being folded downwardly against the outer faces of the flaps b^3 b^3, the flaps b^4 b^4 being folded inwardly and upwardly against the inner faces of the flaps b^3 b^3 and the flaps b^5 b^5 being lapped upon the top b and having their adjacent end edges arranged in substantially the same plane and normally engaged with each other, substantially as and for the purpose set forth.

4. In a knockdown box, the combination of a box-section A having a bottom a, side-wall flaps a' a' provided with supplemental flaps a^3 a^3 forming part of the end walls of the box-section, and end-wall flaps a^2 a^2 each provided with supplemental flaps a^5 a^6, the flaps a^2 a^2 being folded upwardly against the outer faces of the flaps a^3 a^3, the flaps a^5 a^5 being folded inwardly and downwardly against the inner faces of the flaps a^3 a^3 and the flaps a^6 a^6 being lapped upon the bottom a and having their adjacent end edges arranged in substantially the same plane and normally engaged with each other; with a box-section B having a top b, end-wall flaps b' b' provided with supplemental flaps b^3 b^3 forming part of the side walls of the box-section, and side-wall flaps b^2 b^2 each provided with supplemental flaps b^4 b^5, the flaps b^2 b^2 being folded downwardly against the outer faces of the flaps b^3 b^3, the flaps b^4 b^4 being folded inwardly and upwardly against the inner faces of the flaps b^3 b^3 and the flaps b^5 b^5 being lapped upon the top b and having their adjacent end edges arranged in substantially the same plane and normally engaged with each other, substantially as and for the purpose described.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Rochester, in the county of Monroe, in the State of New York, this 16th day of November, 1897.

ARTHUR B. COWLES.

Witnesses:

HAMPDEN HYDE,

K. H. THEOBALD.