

No. 756,019.

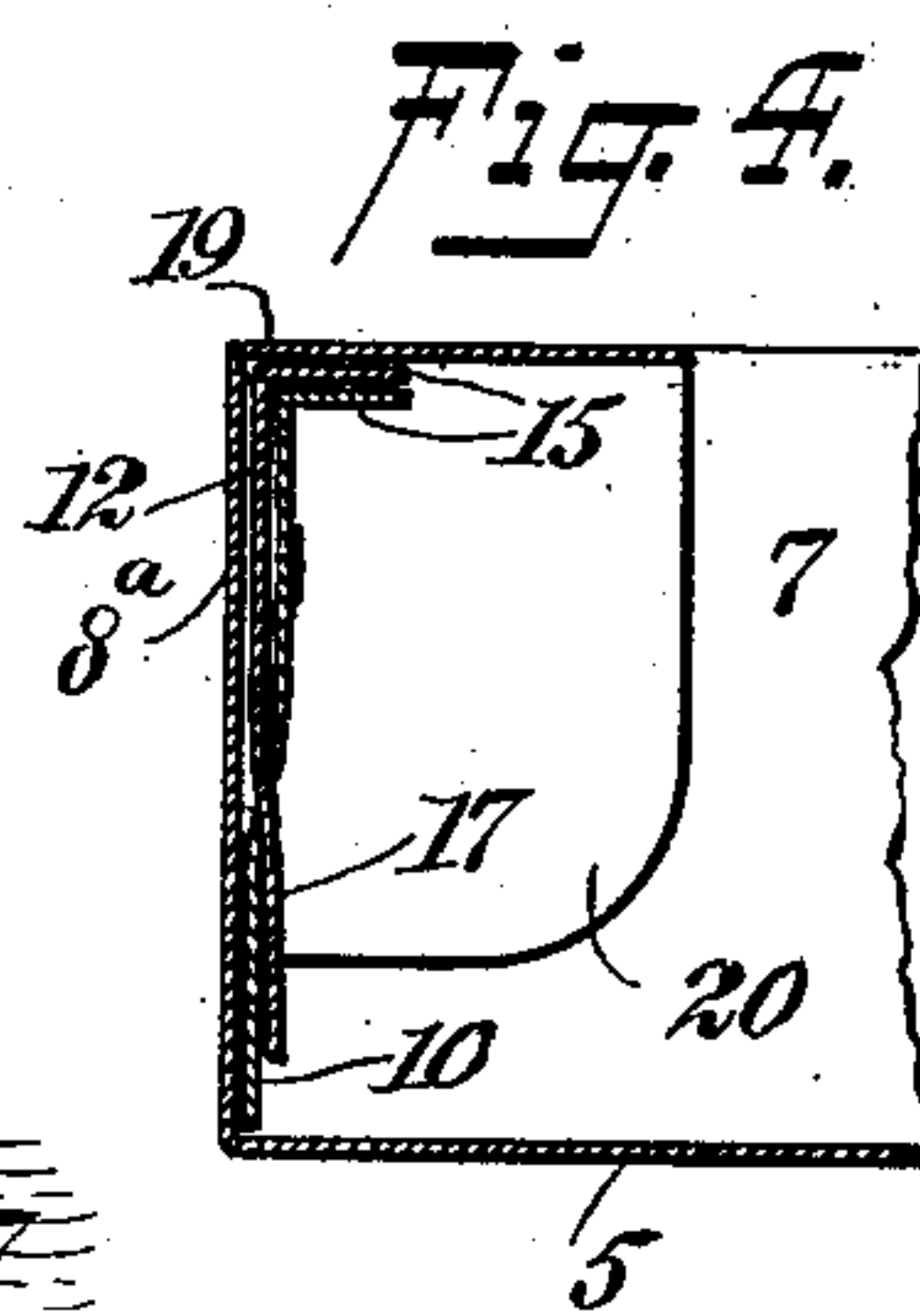
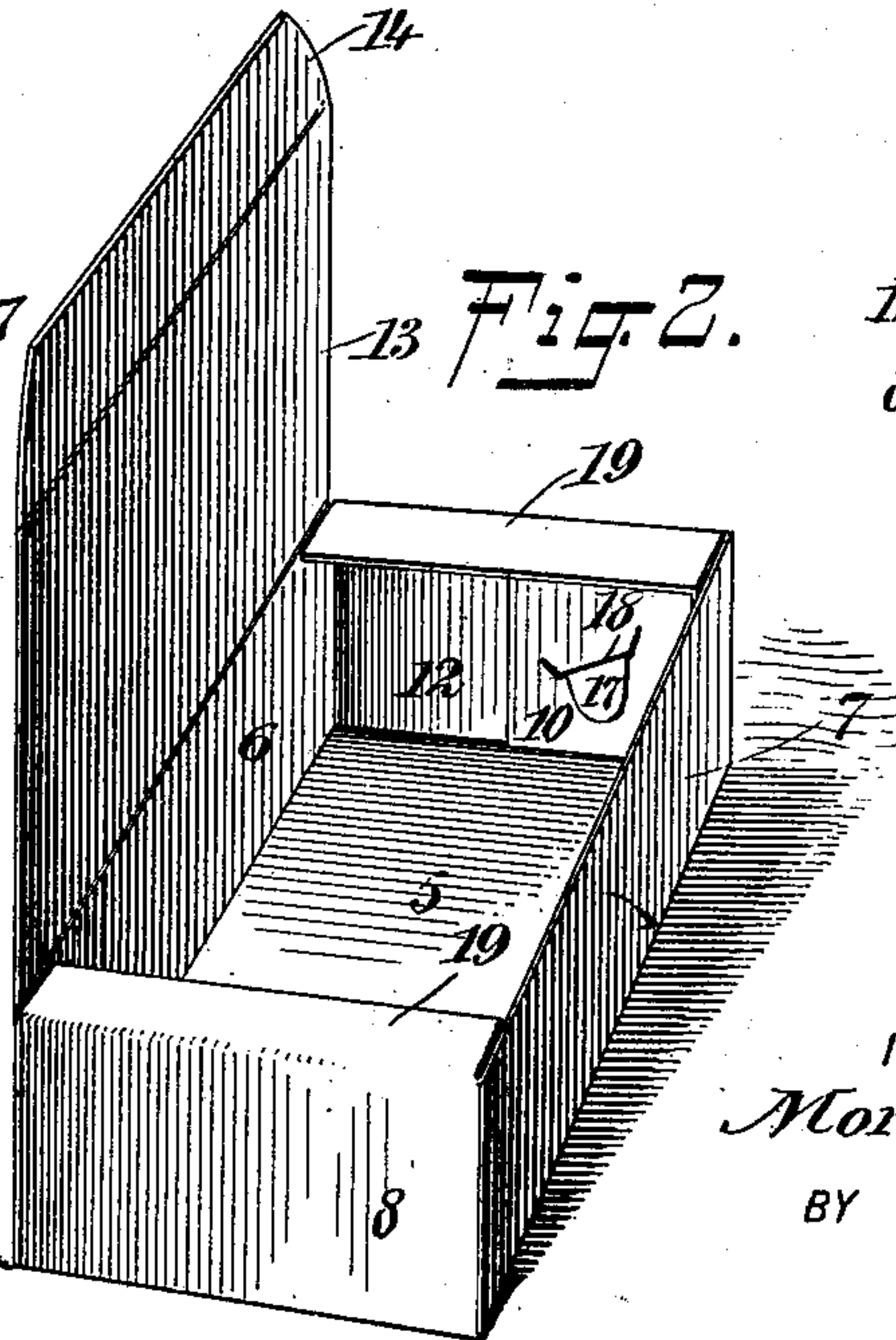
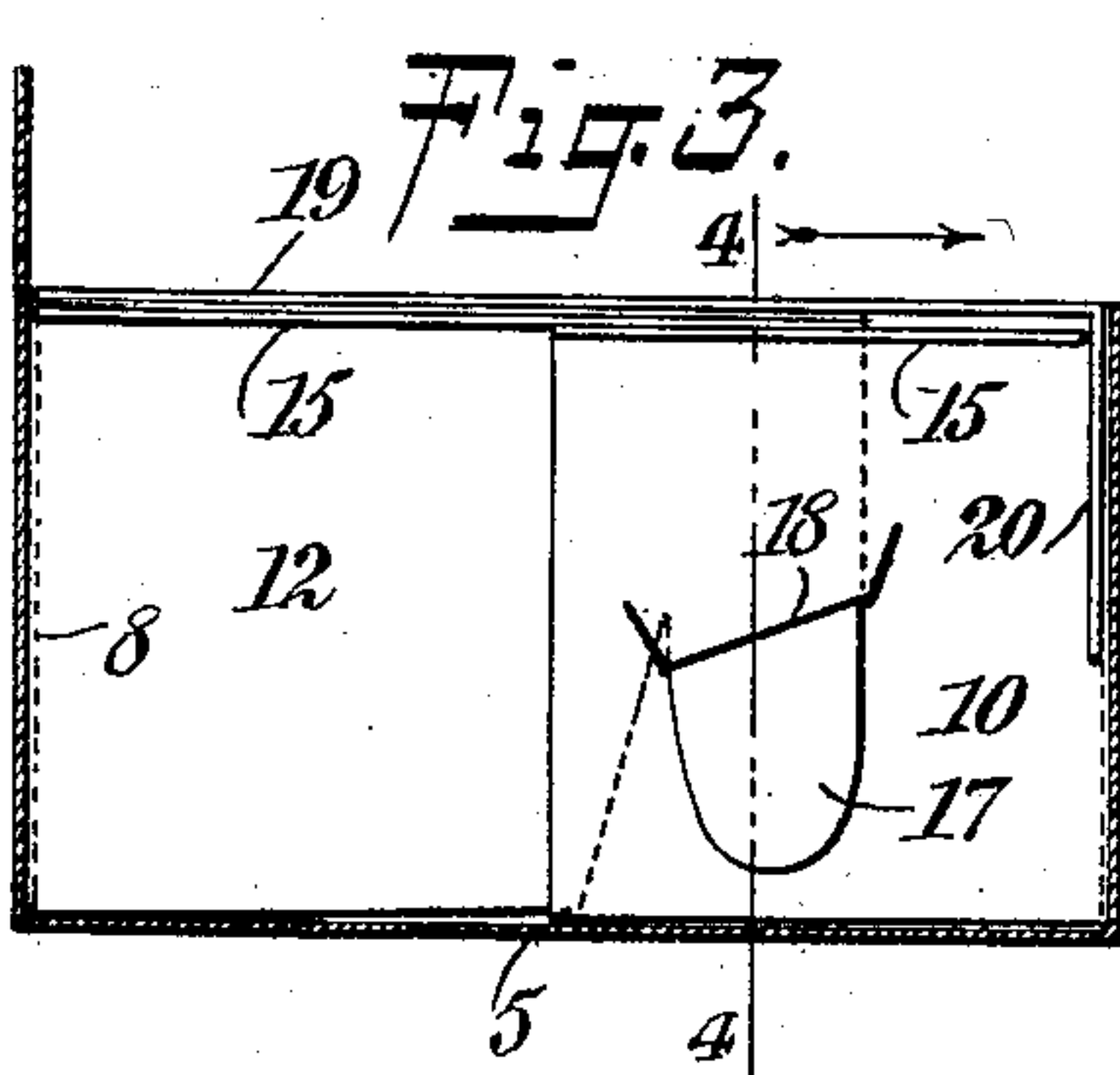
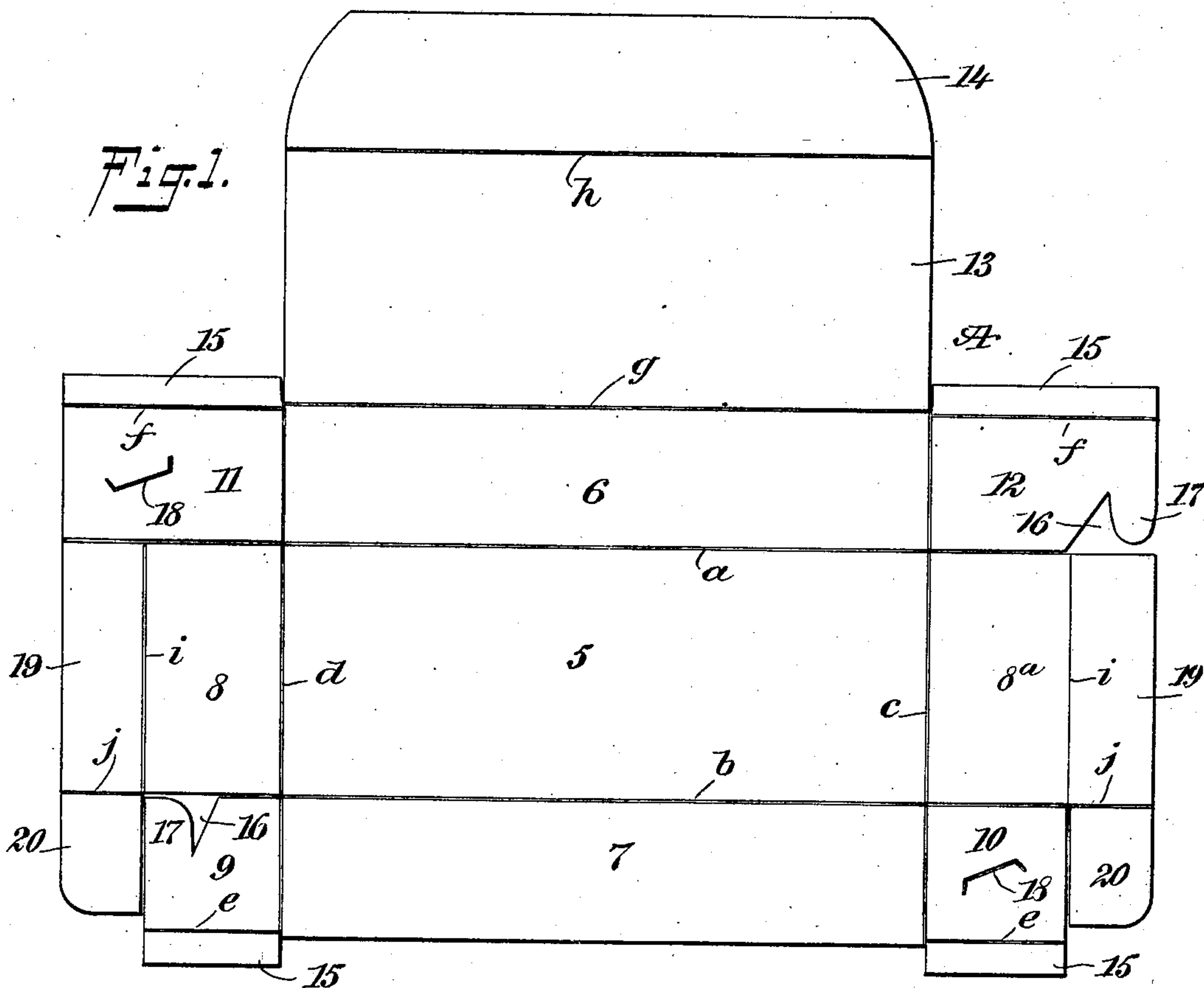
PATENTED MAR. 29, 1904.

M. HIRSCH.
FOLDING BOX.

APPLICATION FILED SEPT. 25, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

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H. A. Benckhoff

INVENTOR

Morris Hirsch

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2 SHEETS—SHEET 2.

Fig. 5.

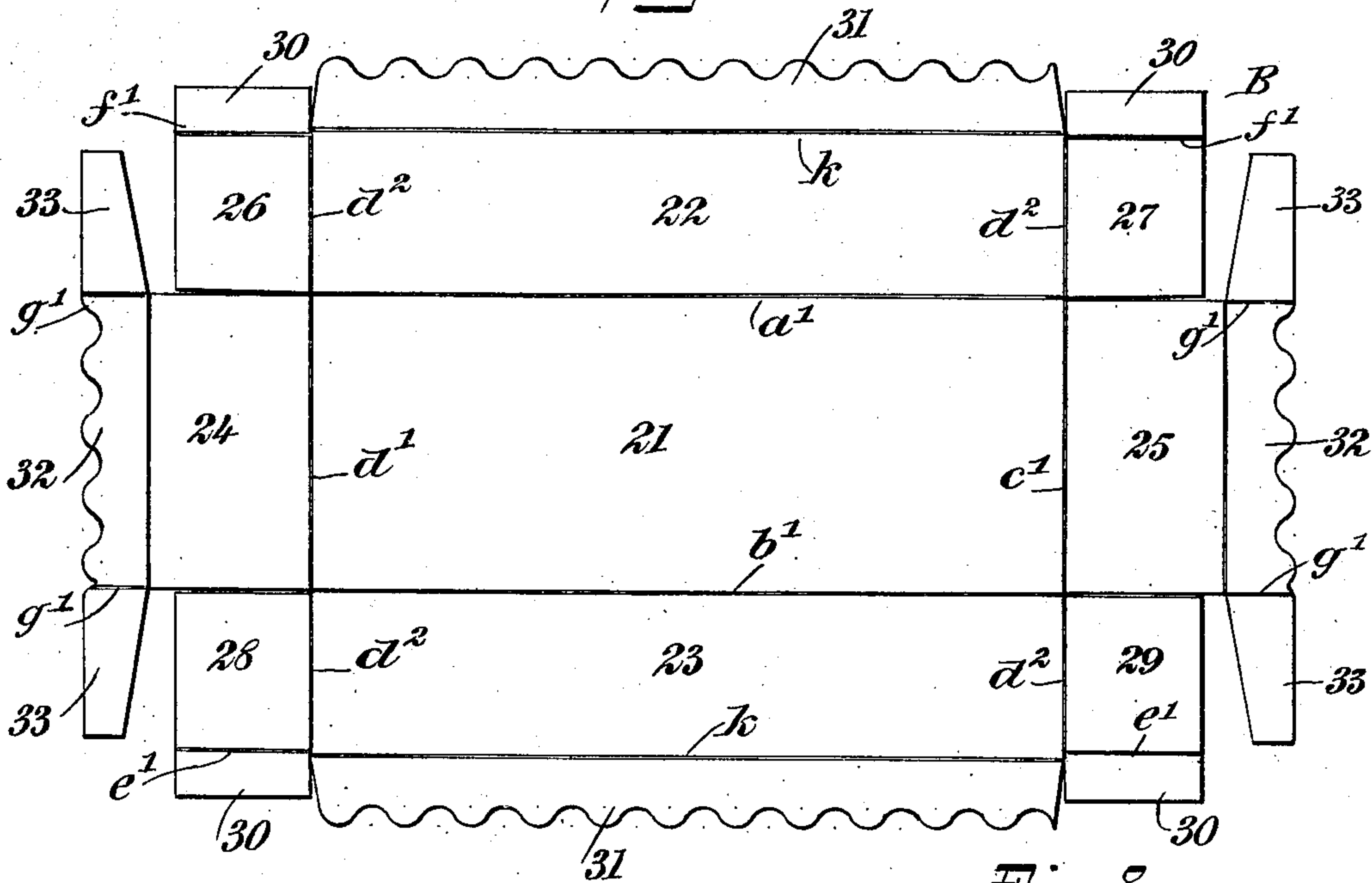


Fig. 6.

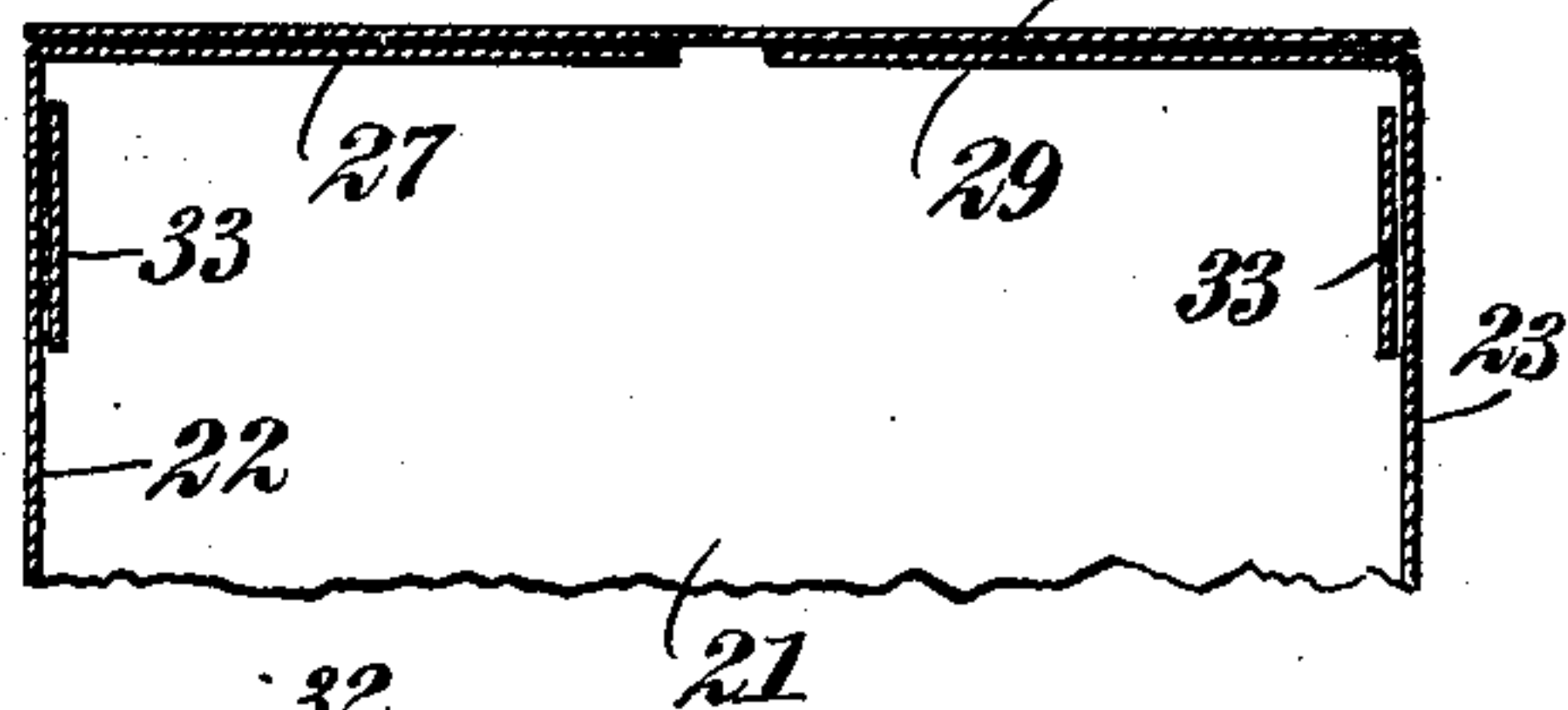


Fig. 7.

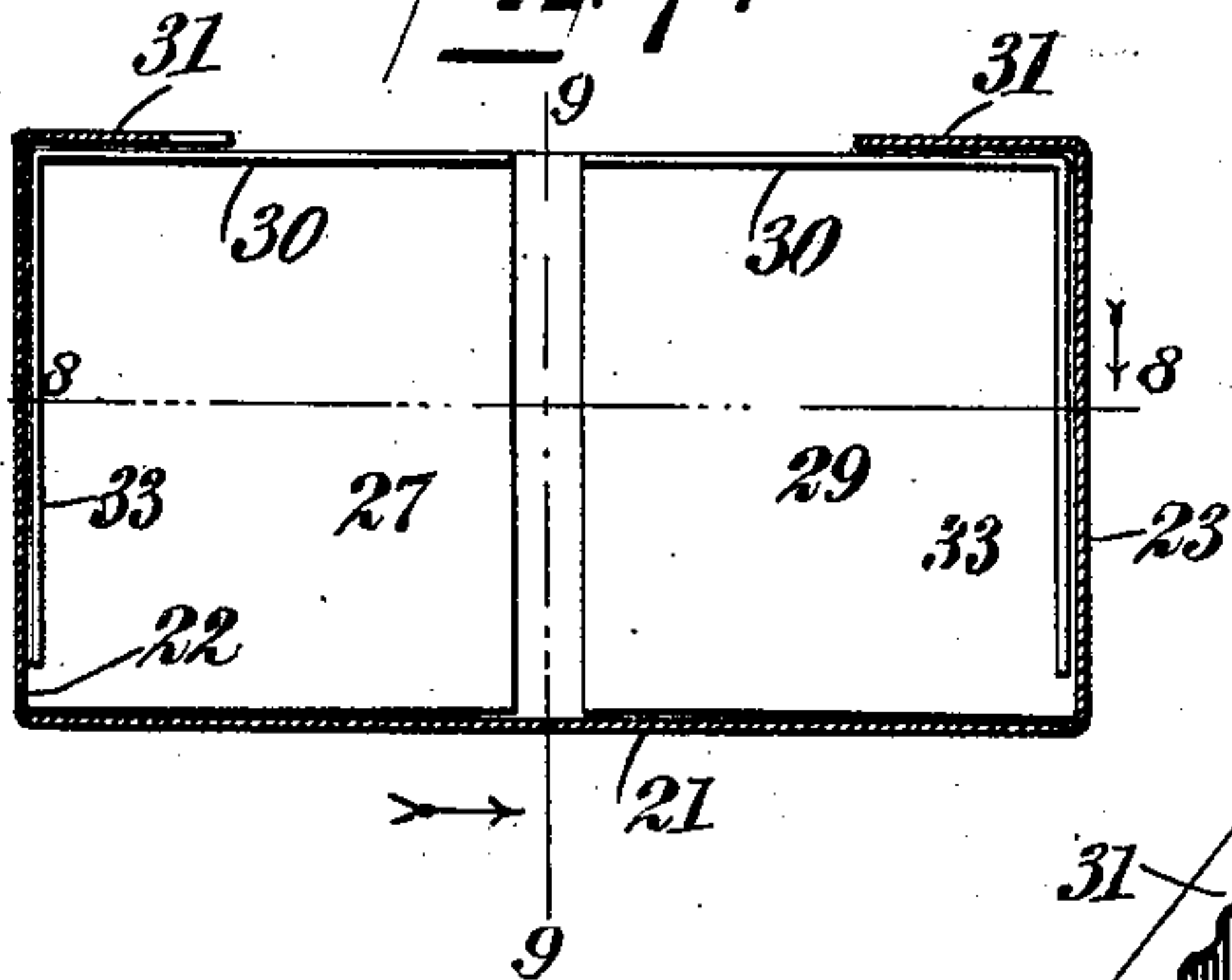


Fig. 8.

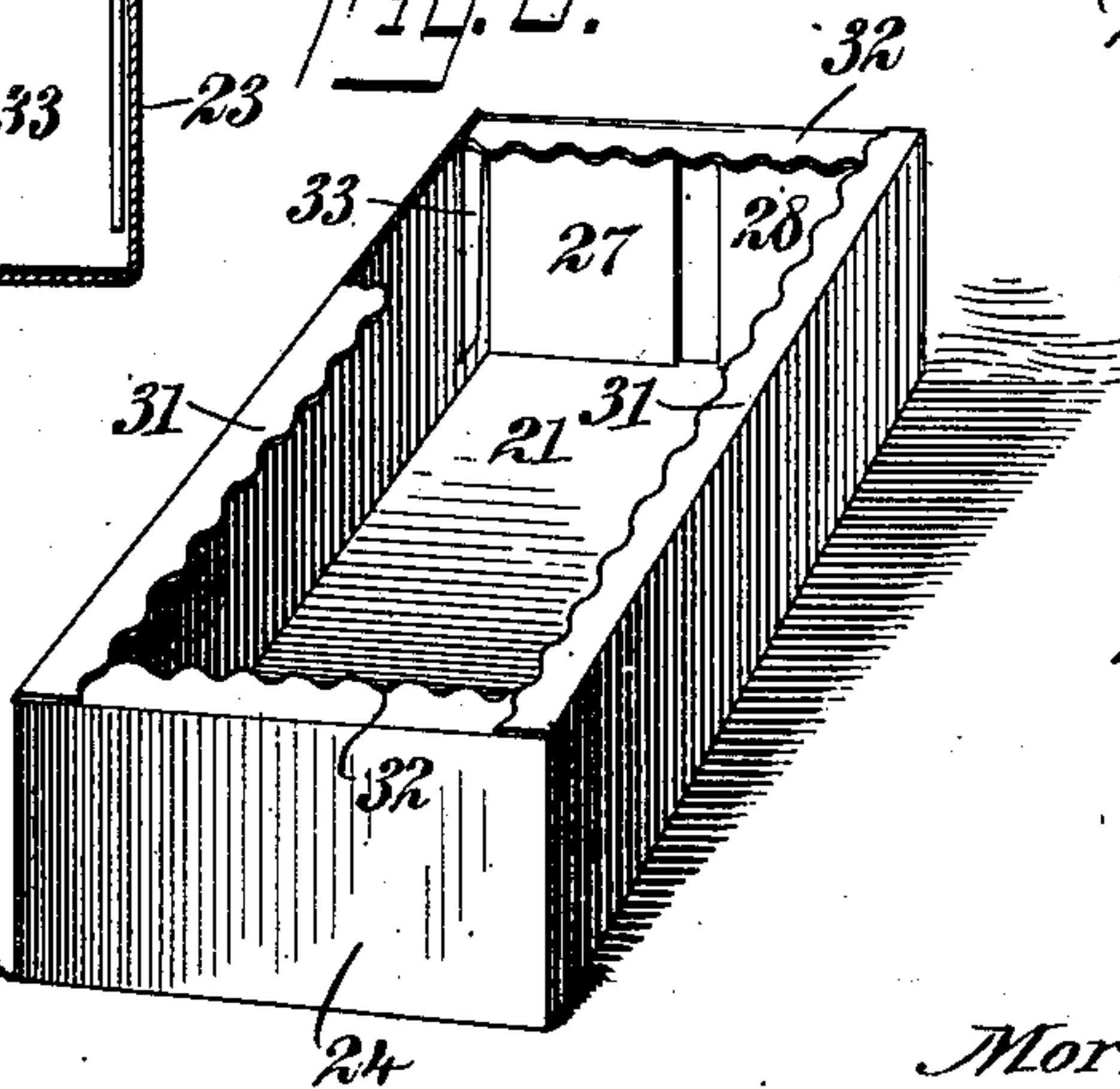
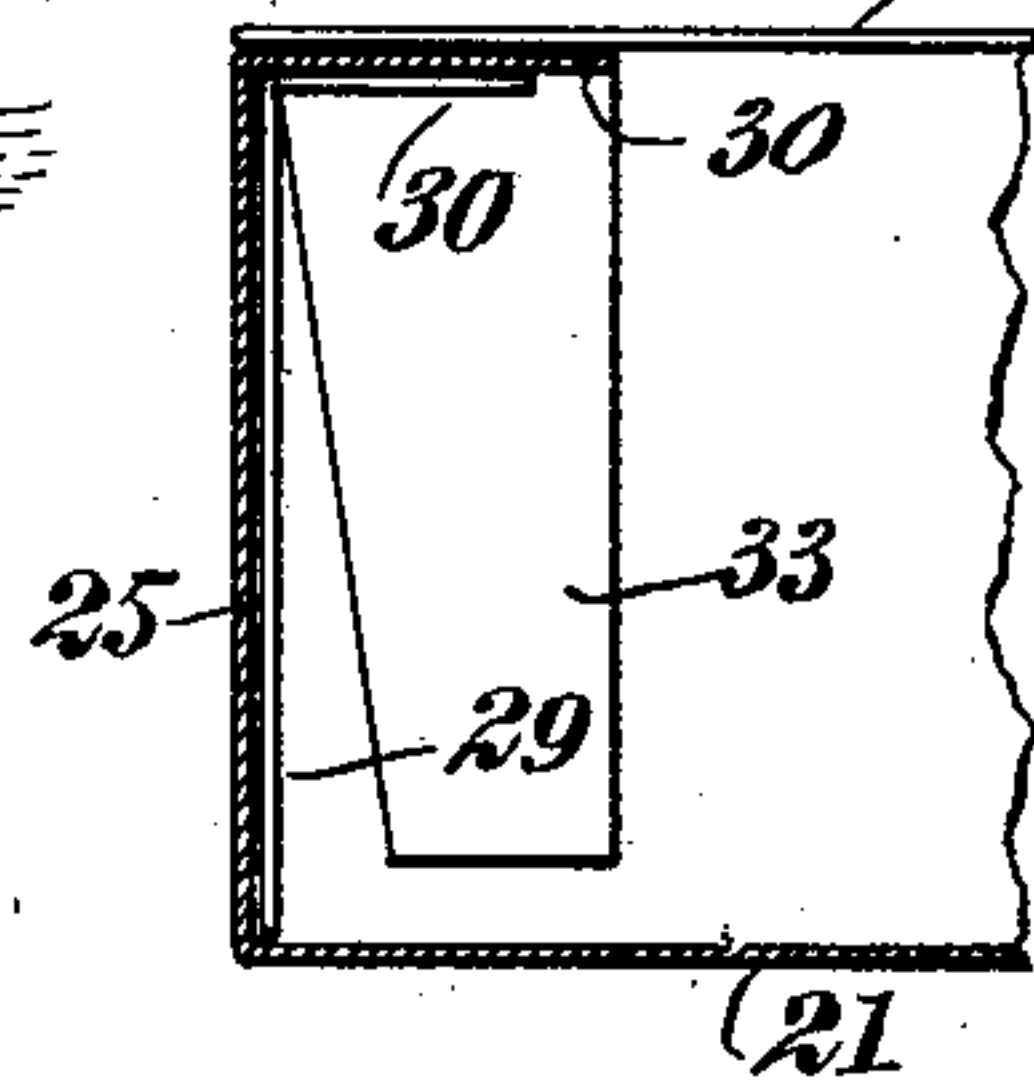


Fig. 9.



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UNITED STATES PATENT OFFICE.

MORRIS HIRSCH, OF NEW YORK, N. Y.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 756,019, dated March 29, 1904.

Application filed September 25, 1903. Serial No. 174,582. (No model.)

To all whom it may concern:

Be it known that I, MORRIS HIRSCH, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Folding Box, of which the following is a full, clear, and exact description.

My invention relates to improvements in foldable paper boxes; and one of the objects that I have in view is the provision of a one-piece blank adapted to be cut or stamped from suitable paper-stock without waste of material, said blank being bendable into the shape of a complete box without pasting or gluing any of its parts.

A further object is to so fashion the blank that when bent into shape the several elements of the box are held in place against displacement and collapsing during the operation of filling the box and before the closure thereof by the adjustment or application of the cover.

Further objects and advantages of the invention will appear in the course of the subjoined description, and the actual scope thereof will be defined by the annexed claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a box-blank constructed in accordance with one embodiment of the invention. Fig. 2 is a perspective view of a box made by bending the blank of Fig. 1. Fig. 3 is a cross-section through the box shown by Fig. 2, and Fig. 4 is a detail sectional elevation on the line 4 4 of Fig. 3 looking in the direction of the arrow. Fig. 5 is a plan view of another form of the box-blank adapted to produce the box shown by Fig. 6. Fig. 6 is a perspective view of the box made by folding the blank of Fig. 5. Fig. 7 is a cross-section through the box shown by Fig. 6. Fig. 8 is a section on the line 8 8 of Fig. 7, and Fig. 9 is a sectional elevation on the line 9 9 of Fig. 7.

The embodiment of the invention shown by Figs. 1 to 4, inclusive, contemplates the pro-

vision of a blank A, which is of such construction as to produce a box having a top flap and a fastening extension on said top flap. This blank includes in its construction a body portion 5, the side folds 6 7, and the end folds 8 8^a, said blank being scored or creased on the lines *a b c d*. The side fold 7 of the blank is provided with side flaps 9 10, each of which is provided with a score or crease line *e*, the latter being out of alinement with the edge of the flap 7. The other side fold 6 is provided with other flaps 11 12, which are also scored or creased, as at *f*, these score-lines being out of line with the crease-line *g* between the fold 6 and the top flap 13, the latter flap having a fastening-flap 14, which is scored or creased at *h*. The side flaps 11 12 of the side fold 6 are considerably longer than the corresponding flaps 9 10 of the side fold 7, and the crease-lines *e f* of the side flaps 9 10 11 12 provide flanges 15 at the free edges of the four side flaps. The side flaps 9 12 at the diagonally opposite corners of the blank are notched or recessed at 16 to provide the tongues 17, whereas the other flaps, 10 11, at the remaining corners of the blank are provided with slits 18. The end folds 8 8^a of the blank are scored or creased at *i*, so as to produce the end flaps 19, one edge of each end flap being coincident with the corresponding edge of the end folds, whereas the other ends of the end flaps are extended or prolonged alongside of the side flaps 9 10 on the fold 7. Each end flap 19 is scored or creased at *j*, so as to produce an arm 20, which is foldable on the line *j* and is adapted to extend at an angle to the plane of the end fold and the end flap.

To fold the blank A and produce the complete box, (shown by Figs. 2, 3, and 4 of the drawings,) I proceed as follows: The side folds 6 7 are turned upwardly on the lines *a b*, and the side flaps 9 11 and 10 12 are turned inwardly to have overlapping relation and for the tongues 17 of the flaps 9 12 to fit into the slits 18 of the flaps 10 11, thereby interlocking the side flaps across the end portions of the body 5 and holding the side folds and said side flaps in the desired position. The flanges 15 of the side folds 9 10 11 12 are now turned

inwardly, so that the upper edges of the side flaps will lie below the corresponding edges of the side folds. The end folds 8 8^a are now turned upwardly on the crease-lines *c d* into lapping relation to the pairs of interlocked or connected side flaps, and the end flaps 19 are turned over on the crease-lines *i i*, and the arms 20 of these flaps are turned on the crease-lines *j*, whereby the arms are adapted to project into the box and to fit between the side fold 7 and the end edges of the flanges 15. By creasing the side flaps 9 10 11 12 on the lines *e f*, which are out of alinement with the top edges of the side folds 6 7, the flanges 15, when folded inwardly, as shown by Figs. 3 and 4, are adapted to form notches at the upper corners of the box which will receive the arms 20, as shown by Fig. 3, said arms 20 serving to retain the end folds 8 8^a in their turned-up adjusted positions. The box may now be filled with merchandise, and the top flap 13 may be folded on the score-line *g* over the box, after which the fastening-flap 14 can be depressed into the box alongside of the fold 7.

In the construction shown by Figs. 5 to 9, inclusive, I employ a one-piece blank which embodies the generic features of the box shown by Figs. 1 to 4, inclusive, except that the top flap and the tucking-flap are omitted, it being necessary to modify the construction of the locking devices somewhat when the box of Fig. 6 is used as the bottom member of a two-part or telescopic box. This box of Fig. 6 is made from the blank B, (shown by Fig. 5,) wherein the body 21 is provided with the side folds 22 23 and end folds 24 25. The blank is scored or creased at *a' b' c' d'*. The side folds 22 23 are provided with side flaps 26 27 28 29, the same being foldable on the crease-lines *d''*. The side flaps 26, 27, 28, and 29 are provided with flanges 30, which are foldable on the crease-lines *e' f'*, which are out of alinement with the edges of the side folds 22 23. The side folds 22 23 are provided with scalloped flaps 31, which are foldable on the score-lines *k*, and the end folds 24 25 are provided with flaps 32, which are scored at *g'* and are extended to form the arms 33, each end flap 32 being provided with oppositely-extending arms 33.

To fold the blank shown by Fig. 5 and form the box member, the side folds 22 23 are turned upwardly on the score-lines *a' b'*, and the side flaps 26 28 and 27 29 are turned inwardly on the score-lines *d''*, so as to rest upon the body 21, said pairs of flaps lying adjacent to each other, but not having the overlapping and the interlocked relation described in connection with the blank and the box shown by Figs. 1 to 4, inclusive. The flanges 30 of the side flaps are now turned inwardly, and the end folds are raised against the inwardly-turned side flaps, after which the arms 33 are turned inwardly and thrust into the notches

which are formed in the upper edges of the side flaps. The arms 33 fit in the space between the side folds 22 23 and the end edges of the flanges 30, as shown by Figs. 7 and 9 of the drawings, and these arms serve to lock the several parts of the box in their assembled positions. The arms may be thrust only part way in the box when the merchandise is placed therein, and in this position of the parts the arms serve to hold the several walls of the box in position and against outward movement under the pressure of the contents of the box. After the merchandise shall have been placed in the box so as to fill the same the flaps 32 may be pressed downwardly in order to force the arms to the positions shown by Figs. 7 and 9, and finally the scalloped flaps 31 are folded over the flaps 32, so as to complete the box, as shown by Fig. 6, and impart an ornamental appearance thereto.

In the form of construction of the box shown by Figs. 5 to 9, inclusive, of the drawings the arms on the end flaps perform two functions by being adjustable to two positions. First, on the assemblage of the parts comprising the box the arms 33 of the end flaps may first be fitted in the notched corners, so as to extend into the box in a horizontal or inclined position along the inside of the flaps 31 and prevent collapsing of the walls thereof by the side walls or the end walls, or both side and end walls, spreading outwardly under the weight of the contents, thus allowing the ornamental or edge flaps 31 and also the end flaps 32 to be kept in raised or spread condition during the operation of filling the box, and, secondly, the arms may thereafter be turned downwardly to vertical positions inside of the box, as shown by the drawings, after the box shall have been filled and the edge flaps closed, thus securely locking the several parts in their assembled or folded positions.

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

1. A box-blank comprising a body portion, side folds, end folds, side flaps at the ends of the side folds, each side flap being of less width than the side fold so that the side edge of the flap is out of line with the corresponding edge of the side fold, and arms projecting beyond the end edges of the end folds; said side flaps and side folds being bendable at right angles to each other for the side edges of the flaps to lie below the edges of the folds, and the arms being fitted in the notched angles or corners formed by the side folds and flaps.

2. A box-blank comprising a body portion, side and end folds, side flaps on the ends of the side folds, each side flap being of less width than the side fold, and each side flap being provided at its side edge with a flange which is bendable at an angle to the flap, and

arms projecting beyond the ends of the end folds and bendable at an angle thereto, said arms being adapted to fit in notches produced between the side folds and the flanges on the side flaps.

5 3. A box having a body portion, side and end folds, side flaps provided with flanges arranged with respect to the side folds to produce notches at the corners of the box, narrow flaps on said folds, and arms extending inwardly from the end folds and fitting in said notches; said arms being movable to two positions, in one of which the arms confine the folds and side flaps in assembled conditions
10 while permitting the narrow flaps to be lifted or opened, and in the other position of the arms they are fitted wholly inside of the box for locking the several parts in their closed conditions.

20 4. A foldable box having side and end folds,

side flaps provided with flanges bendable on lines below the edges of the side folds, and arms on the end folds, said arms being adjustable into engagement with the side folds and the flanges of the side flaps.

25 5. A box-blank having a body, side and end folds, side flaps provided with flanges bendable on scored lines which lie at one side of the edges of the side folds, and end flaps on the end folds, said end flaps being extended beyond the end folds and forming arms adapted to lock the parts in their assembled condition.

30 In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MORRIS HIRSCH.

Witnesses:

JNO. M. RITTER,
H. T. BERNHARD.