

(No Model.)

C. INGLEY.
FOLDING BOX.

2 Sheets—Sheet 1.

No. 598,344.

Patented Feb. 1, 1898.

Fig. 1.

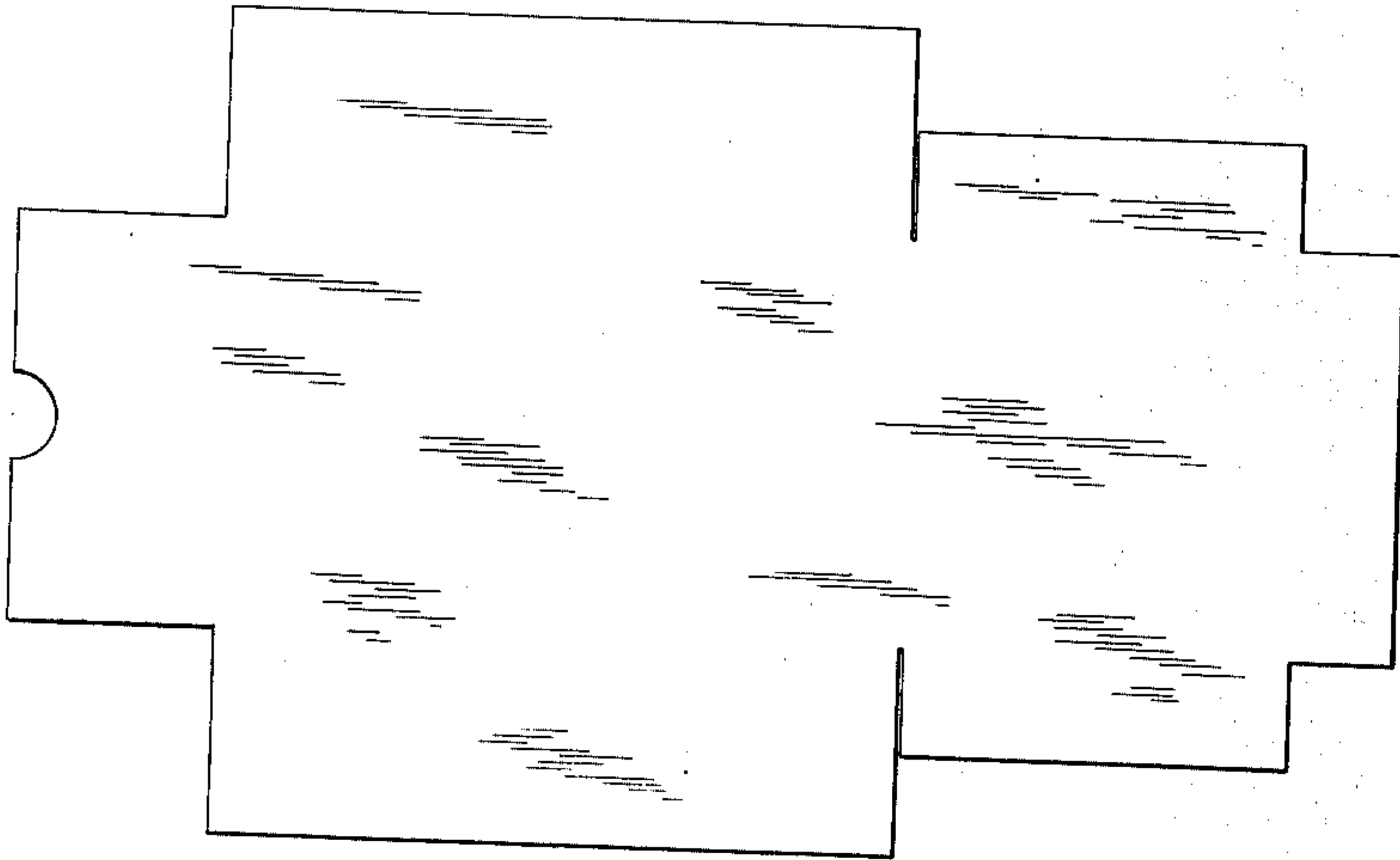
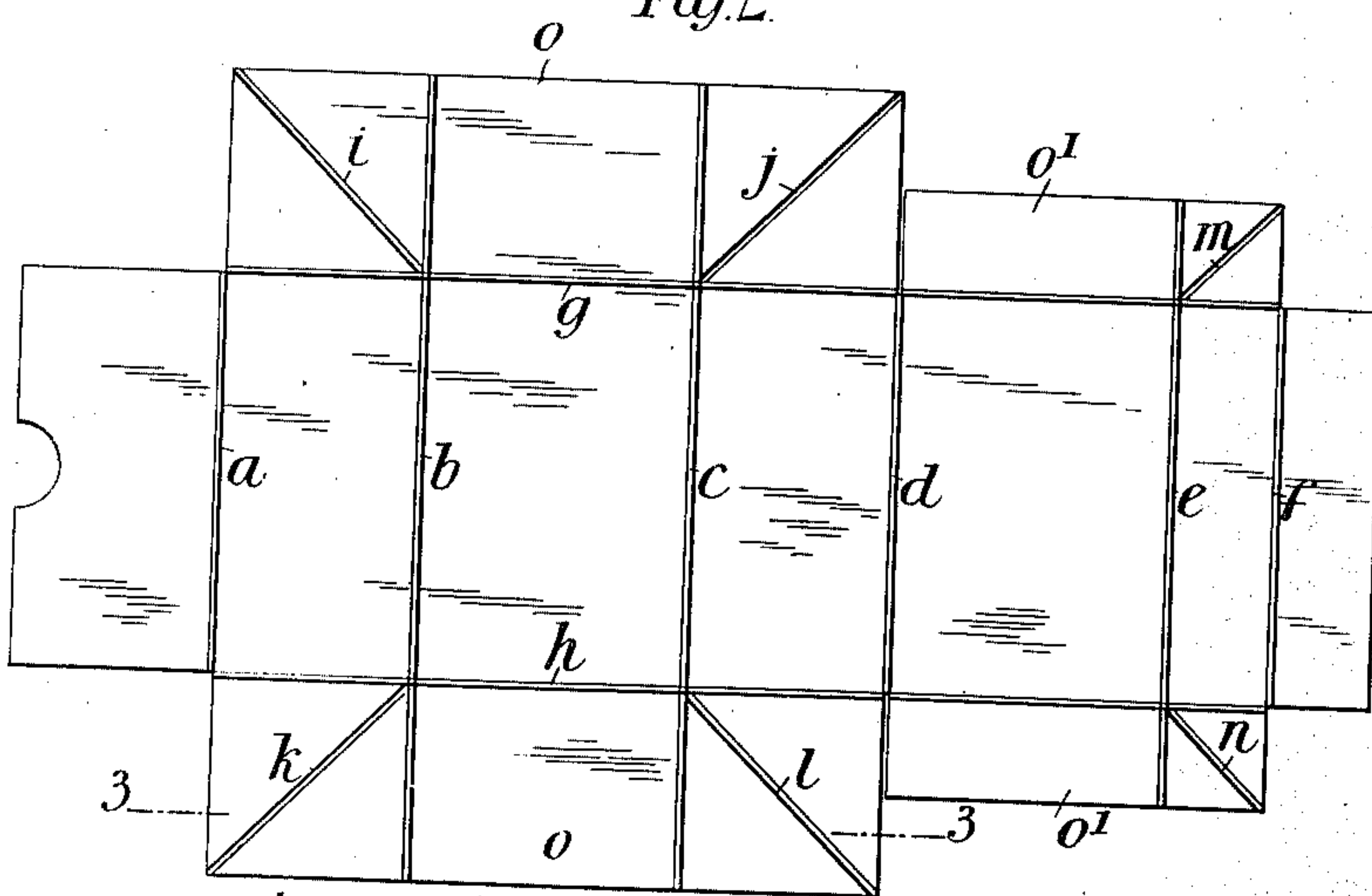


Fig. 2.

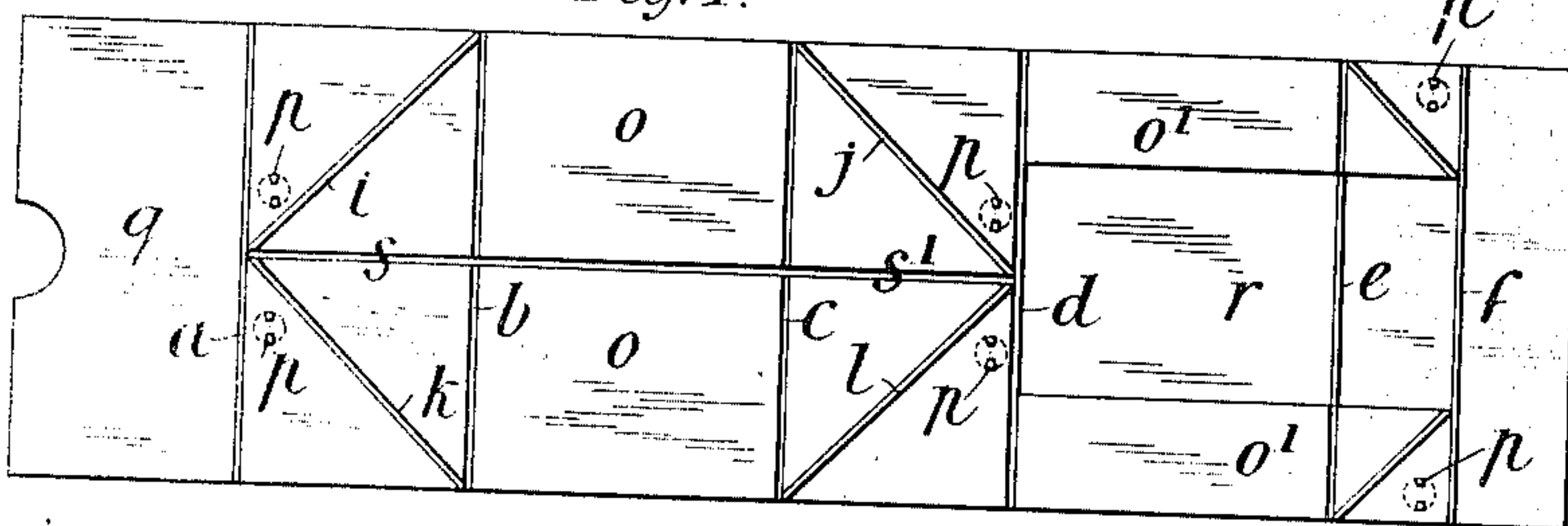


3 3 o' 3 o'

k b c l

Fig. 3.

Fig. 4.



q r

Fig. 5.

Witnesses

J. H. Keaton
John E. Dousfield.

Inventor.

Charles Ingley

(No Model.)

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Fig. 6.

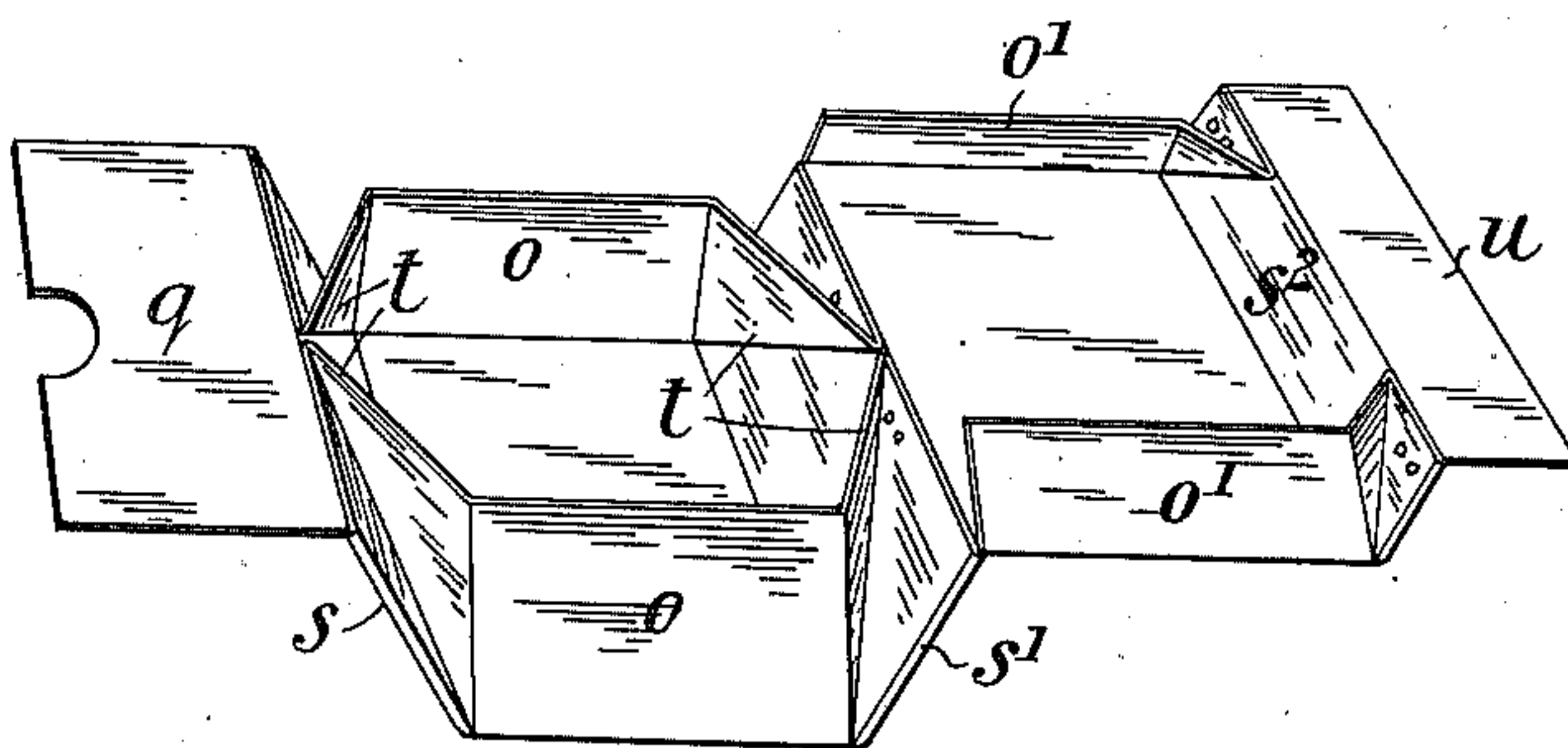


Fig. 7.

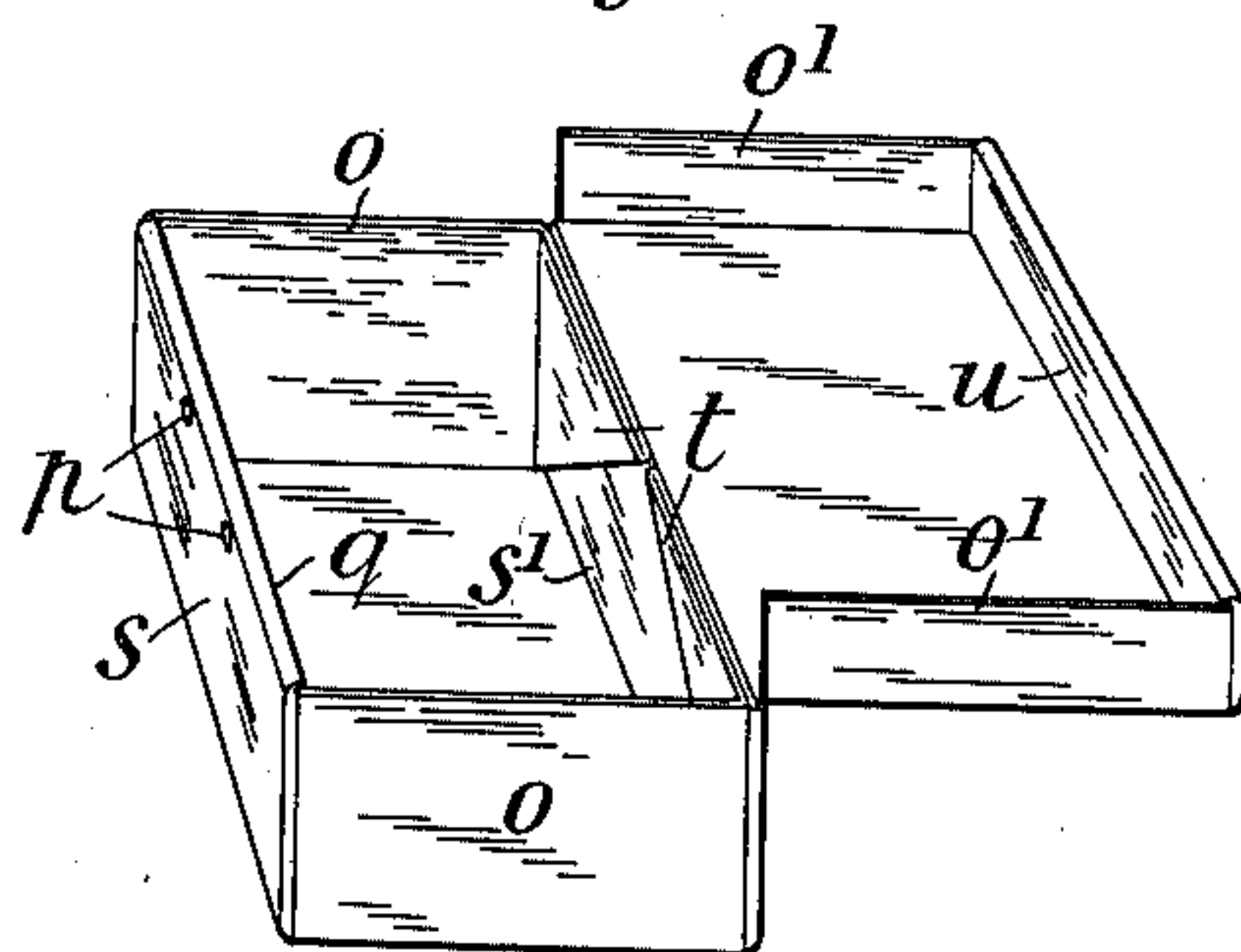
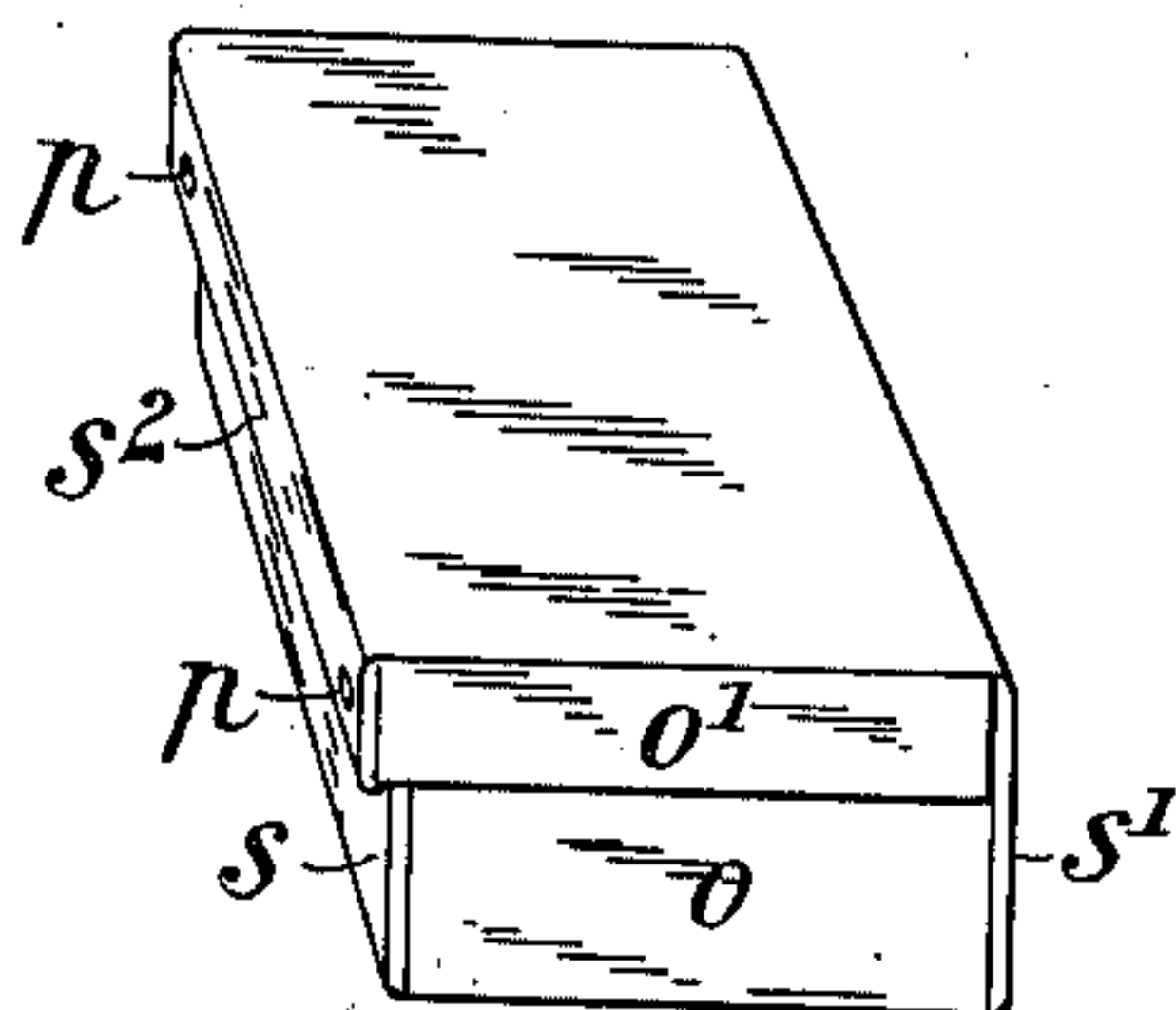


Fig. 8.



Witnesses.

G. D. Redfern
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Inventor.

Charles Ingley

UNITED STATES PATENT OFFICE.

CHARLES INGREY, OF LONDON, ENGLAND.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 598,344, dated February 1, 1898.

Application filed March 15, 1897. Serial No. 627,659. (No model.)

To all whom it may concern:

Be it known that I, CHARLES INGREY, a subject of the Queen of Great Britain, residing at London, England, have invented new and useful Improvements in Folding Boxes, of which the following is a specification.

This invention relates to a novel and simple construction or manufacture of folding boxes of cardboard, mill-board, or the like, such as are used by drapers and others, my improved box when opened out for use being rigid and self-supporting without requiring clips, laces, or other means of retaining the sides, ends, or bottoms thereof in position, as has been the case with this class of folding boxes as hitherto constructed. When the box is not required for use, it can be folded up and, with its lid, will be perfectly flat, so as to occupy but a very small space for storing or transport.

In order to enable my invention to be readily understood, I will describe the same by reference to the accompanying drawings, in which—

Figure 1 illustrates a blank for the box; Fig. 2, the same when creased in the proper lines for folding; Fig. 3, a horizontal section in the line 3 3 of Fig. 2. Fig. 4 shows the side parts of Fig. 2 folded over on their several creases; Fig. 5, an end view showing the end parts folded over on the other flat folded parts; Fig. 6, a perspective view showing the parts partially folded at their creases in bringing the whole to its ultimate closed or box form; Fig. 7, a perspective showing the box closed and its lid ready to be closed upon it, and Fig. 8 shows the box and its lid finally closed.

In carrying out my invention I first cut from a sheet of cardboard, mill-board, or other similar material a blank of the shape shown in Fig. 1. I then, by means of a suitable machine, such as a bending-machine, groove, score, or crease one side of the blank transversely at *a*, *b*, *c*, *d*, *e*, and *f* and longitudinally at *g* and *h*, as shown at Fig. 2, and then also groove, score, or crease the other side of the blank diagonally at *i*, *j*, *k*, *l*, *m*, and *n*—that is to say, it is essential that the said diagonal grooves, scores, or creases be made on the opposite side to the grooves, scores, or creases *a* to *f*, as clearly shown at

Fig. 3, which is a horizontal section on the line 3 3 of Fig. 2. The parts *o o* and *o' o'* are then folded over at the grooves *g* and *h*, as shown in Fig. 4, the said folded-over parts being then advantageously connected to the part on which they are folded by studs or rivets, such as *p p*, or by means of cement, or in any other suitable manner. The box with its lid thus formed out of one piece of material is now complete, and if not required for use the parts *q* and *r* can be folded over at the grooves *a* and *d*, respectively, as shown in the edge view at Fig. 5, for storage or transport.

When required for use, the box can be opened out by raising the parts *s* and *s'* into a vertical position, when the parts *o o* (forming the ends of the box) will be raised, the diagonal grooves *i j k l* causing the corner-pieces to fold in the form of plaits, as clearly shown in the perspective view at Fig. 6. The part *s²* of the lid is also raised to a vertical position, thereby raising the parts *o' o'*. The front and back and the ends of the box being brought into the vertical position, the part or flap *q* is folded down over the inside of the part *s*, forming the front of the box, and the flap *u* over the inside of the part *s²*, forming the front of the lid, as shown in the perspective view at Fig. 7. Fig. 8 is a view showing the box closed.

From the preceding description it will be seen that I produce a folding box and lid from one piece of cardboard or like material in a simple, expeditious, and economical manner, such box being, as already stated, very rigid when opened out and lying perfectly flat when folded.

My improved boxes also possess the further advantage of having double fronts and backs, the corners being formed without any raw edges.

I have described and illustrated my invention as applied to the manufacture of a folding box and lid from one piece of material, this being the construction I prefer. It will, however, be obvious that the box can be formed separate from the lid, in which case the blank, Fig. 1, without the lid portion, would be formed with a flap, such as *q*, at both ends, so that the back of the box would be identical with the front part. The lid would

be practically another box made a little larger than the box proper, so as to fit over the latter.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. A folding box and lid made all in one piece, and having the described diagonal creases *i, j, k, l, m, n*, and also the transverse creases *a, to f*, and the longitudinal creases *g* and *h*, all substantially as and for the purposes described.

2. A folding box and lid made all in one piece, and having the described diagonal

creases *i, j, k, l, m, n*, and also the transverse creases *a, to f*, and longitudinal creases *g*, and *h*, and having fastenings at *p*, all substantially as and for the purposes described.

3. A folding box made all in one piece and having the described diagonal creases *i, j, k, l, m, n*, and also the transverse creases *a, to f*, and longitudinal creases *g, to h*, and having a flap like *q*, at each end, and also having fastenings at *p*, all as set forth.

CHARLES INGLEY.

Witnesses:

G. F. REDFERN,

JOHN E. BOUSFIELD.