

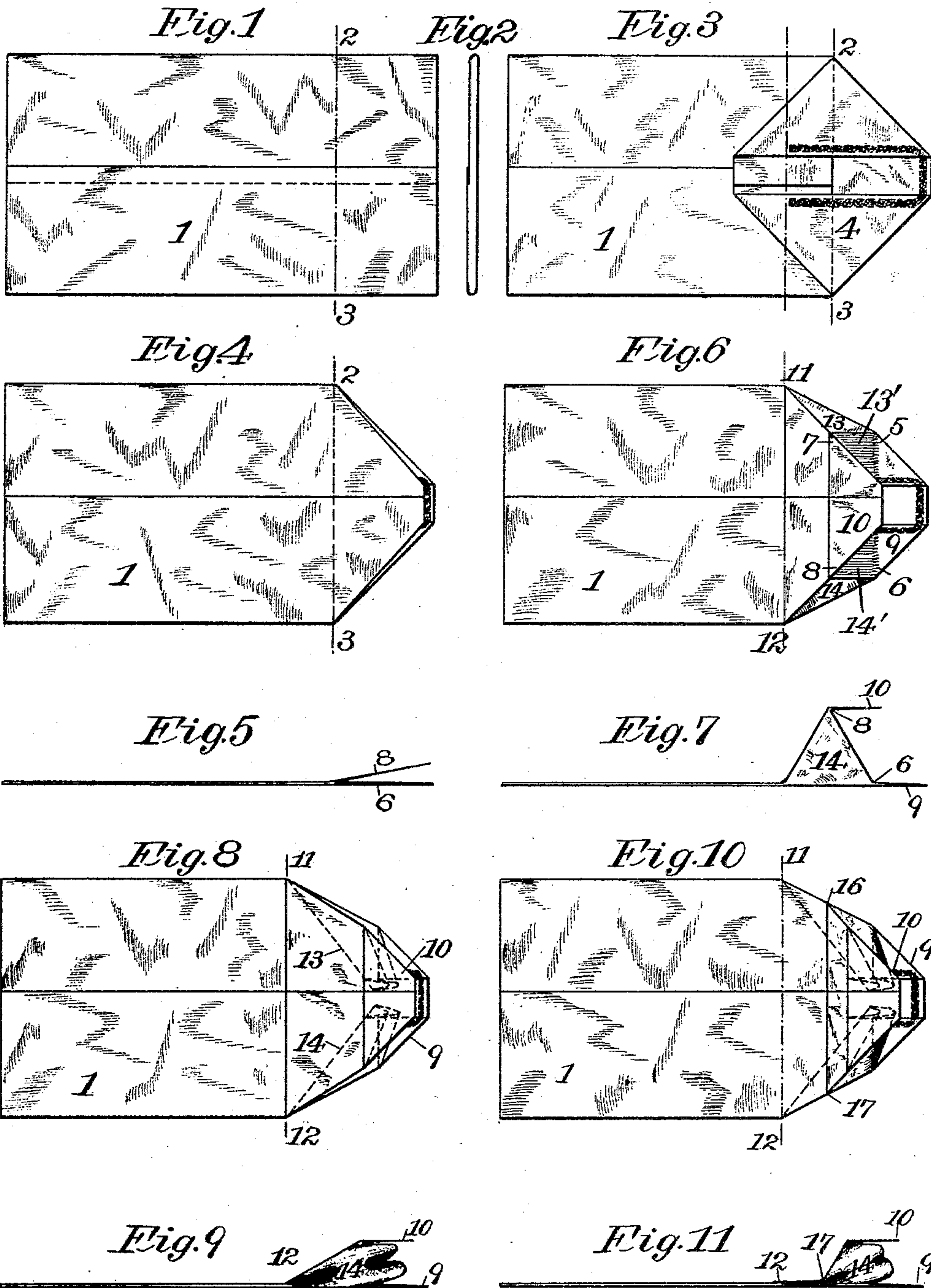
(Model.)

3 Sheets—Sheet 1.

E. E. CLAUSSEN.
PAPER BAG.

No. 414,679.

Patented Nov. 12, 1889.



Witnesses:
William A. Lorenz.
Albert H. Walker

Inventor:
Edward E. Claussen.

(Model.)

3 Sheets—Sheet 2.

E. E. CLAUSSEN.
PAPER BAG.

No. 414,679.

Patented Nov. 12, 1889.

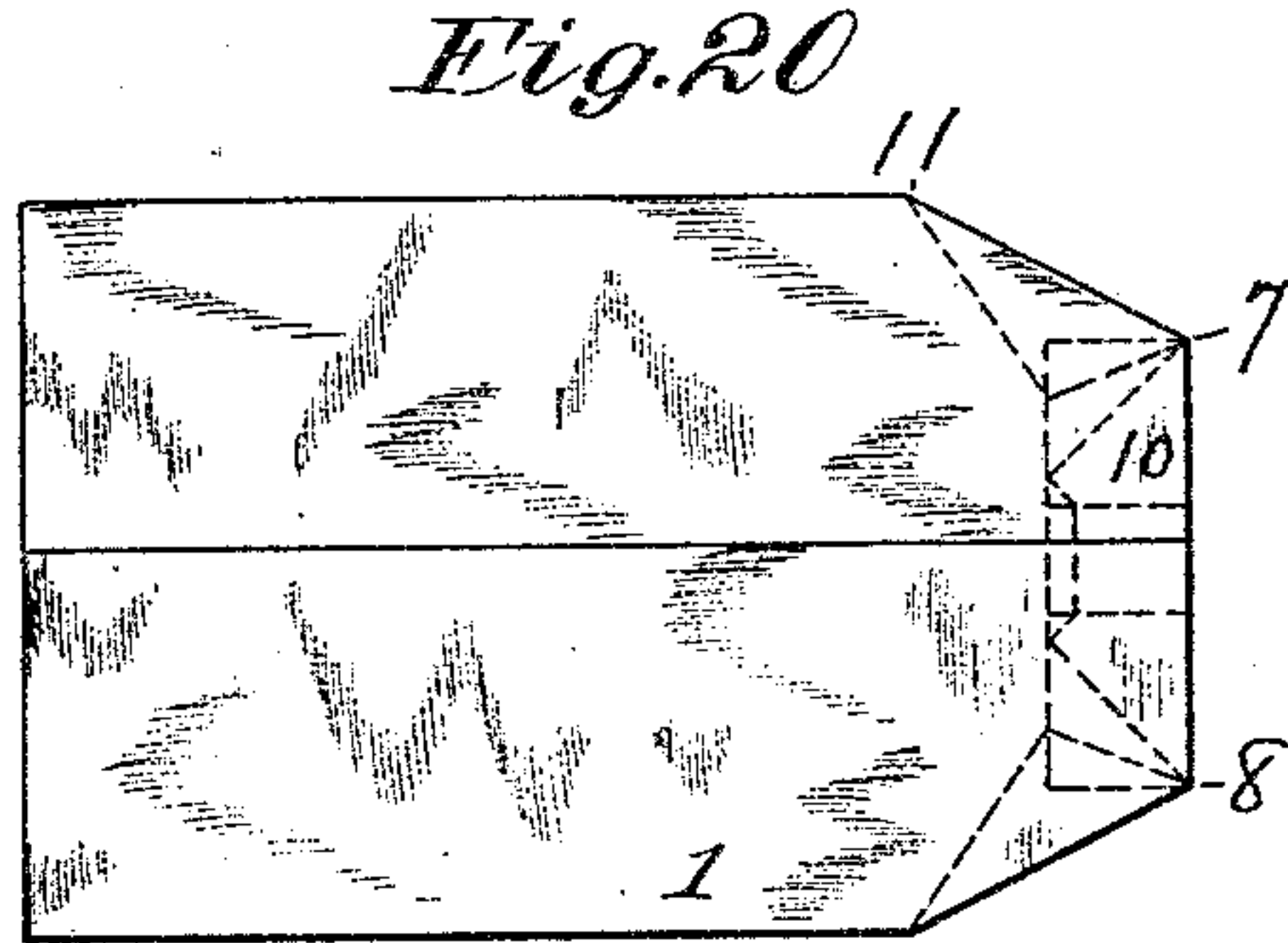
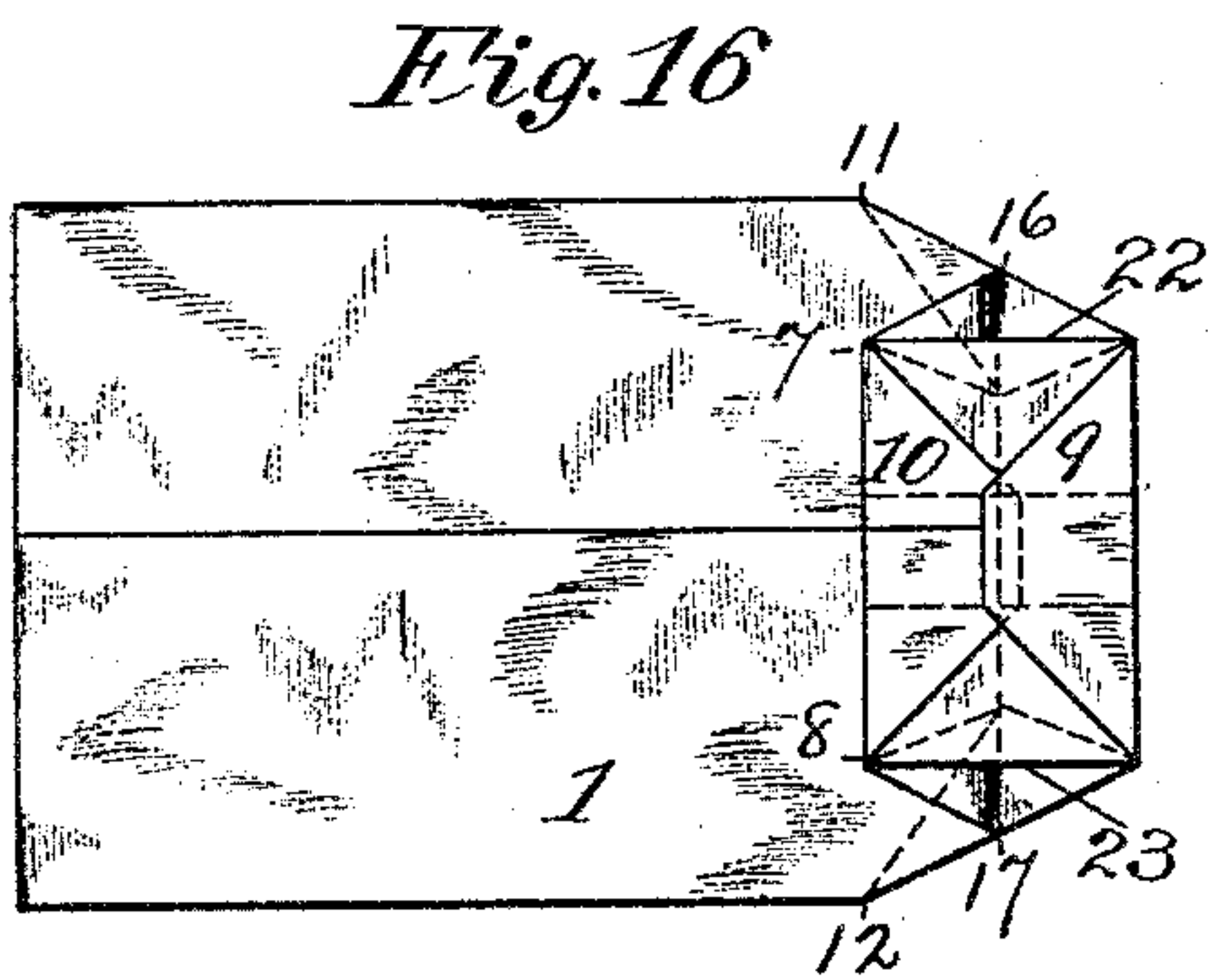
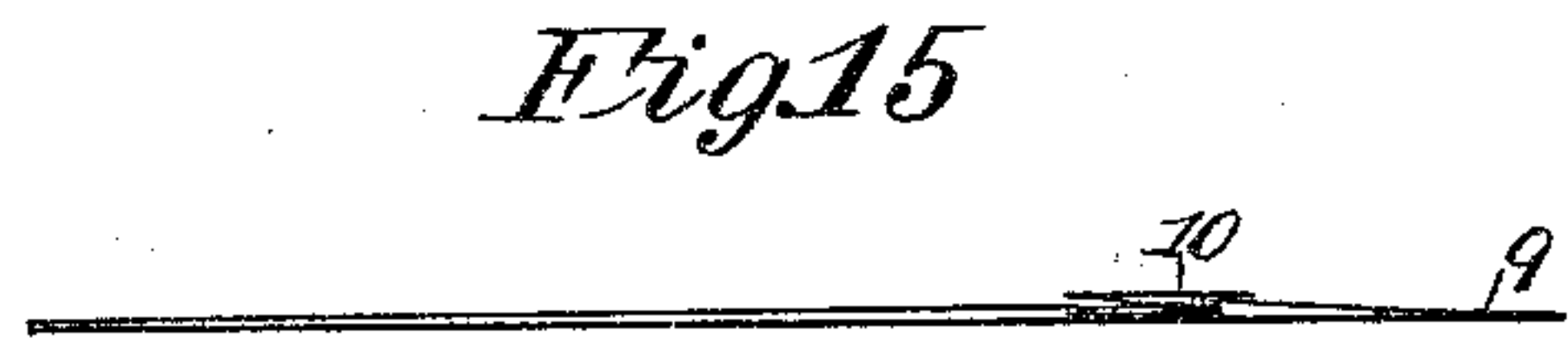
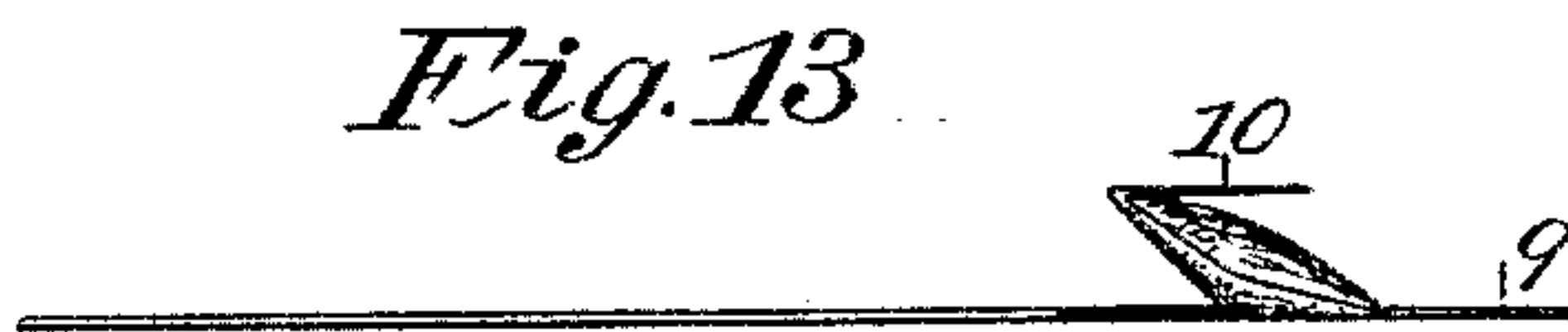
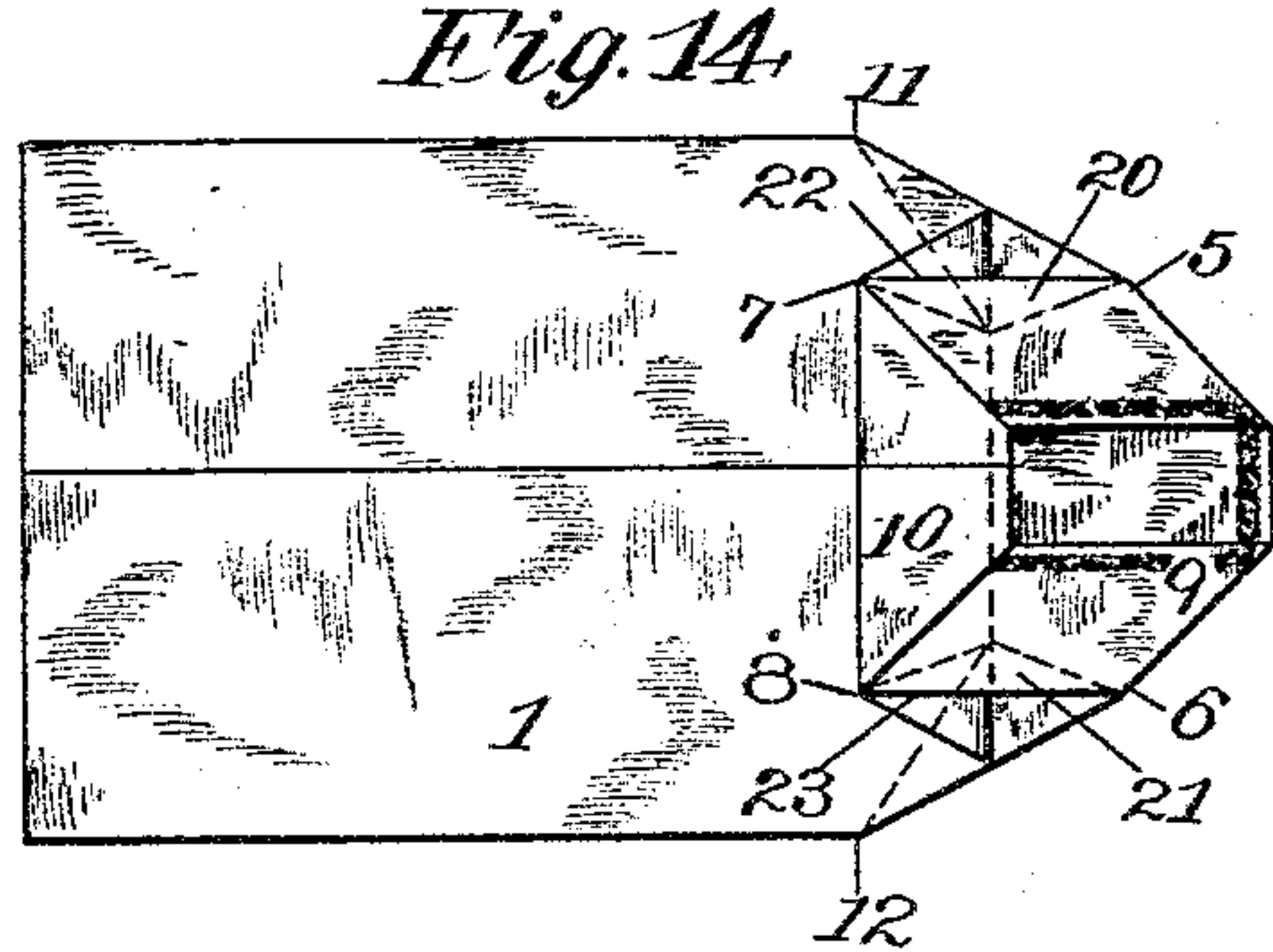
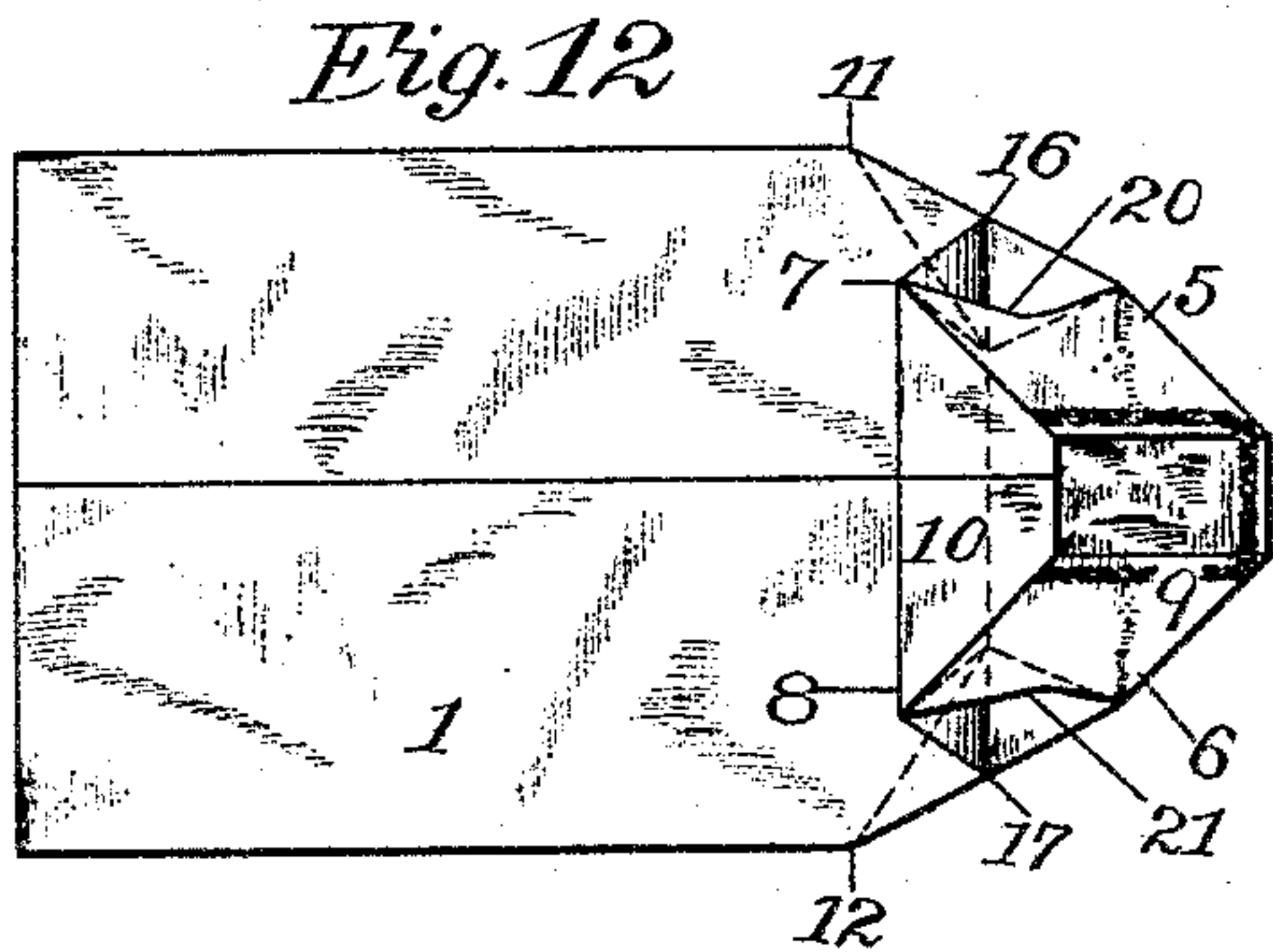


Fig. 18

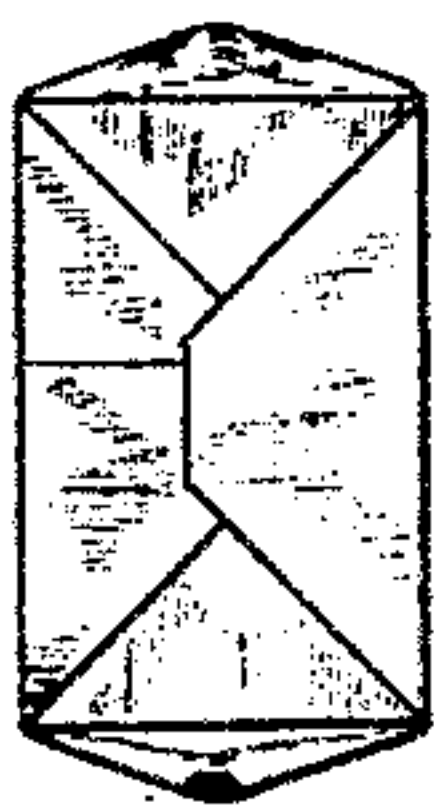


Fig. 17

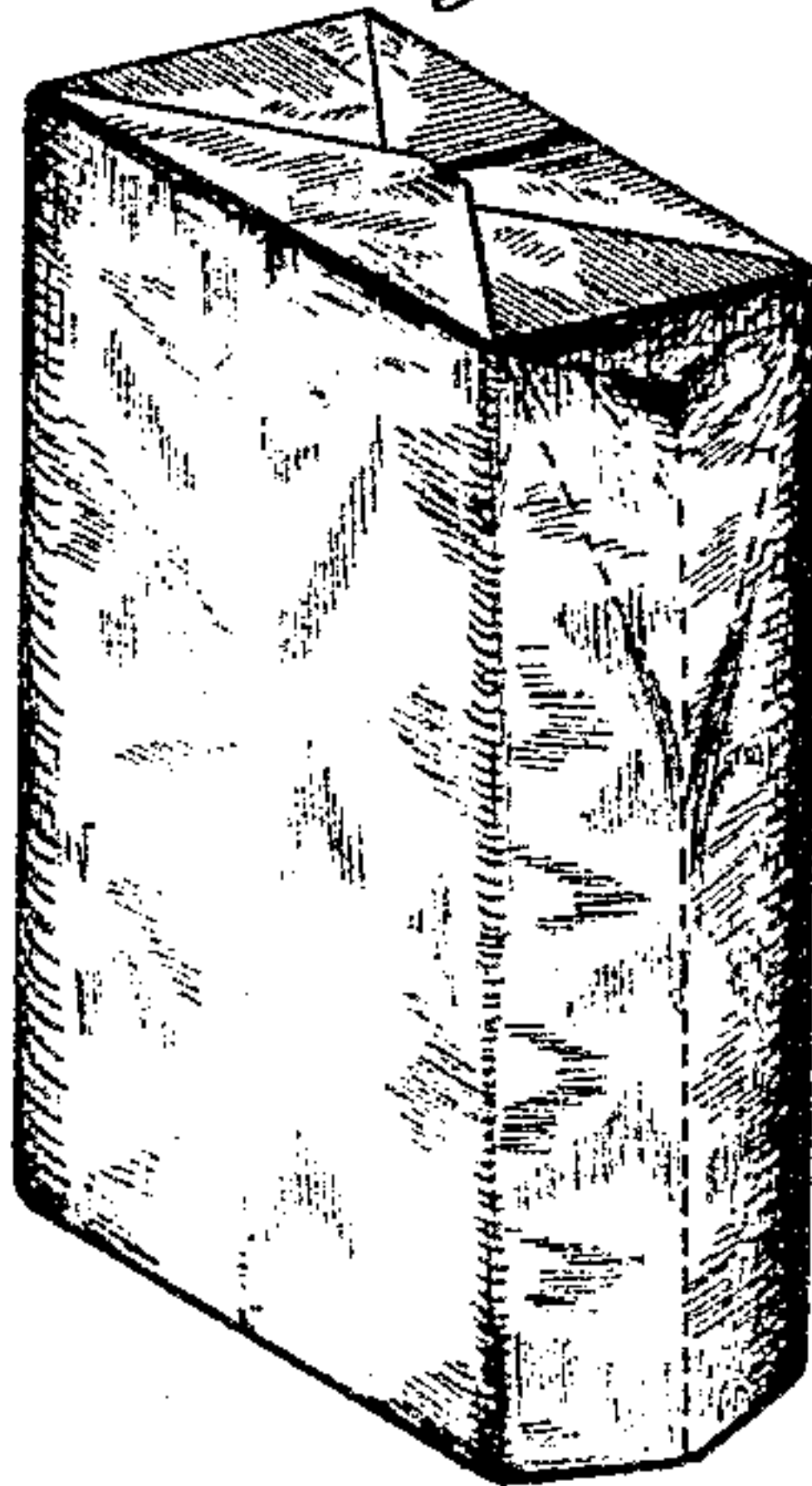


Fig. 19



Witnesses:
William A. Lorenz.
Albert H. Walker

Inventor:
Edward E. Claussen.

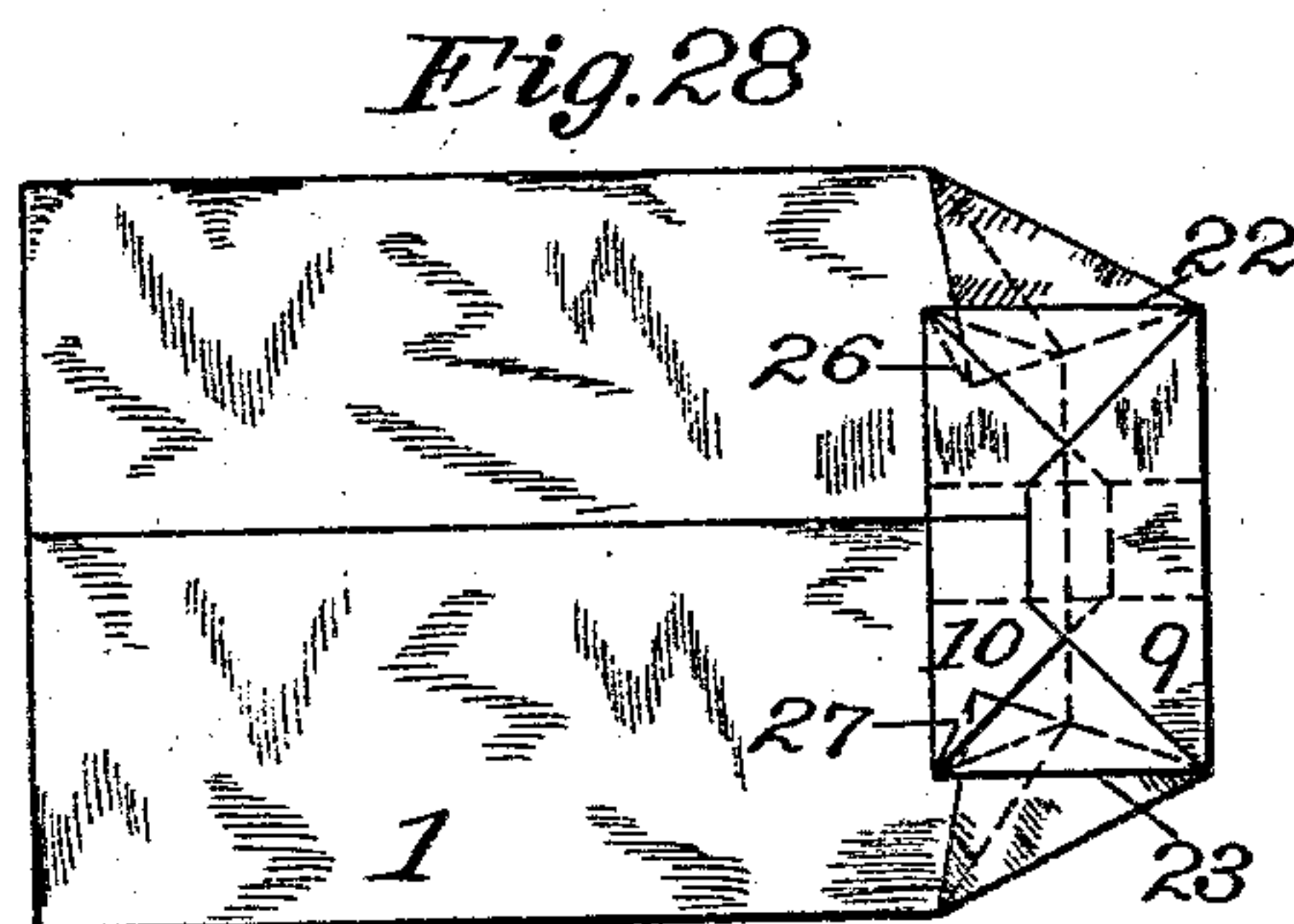
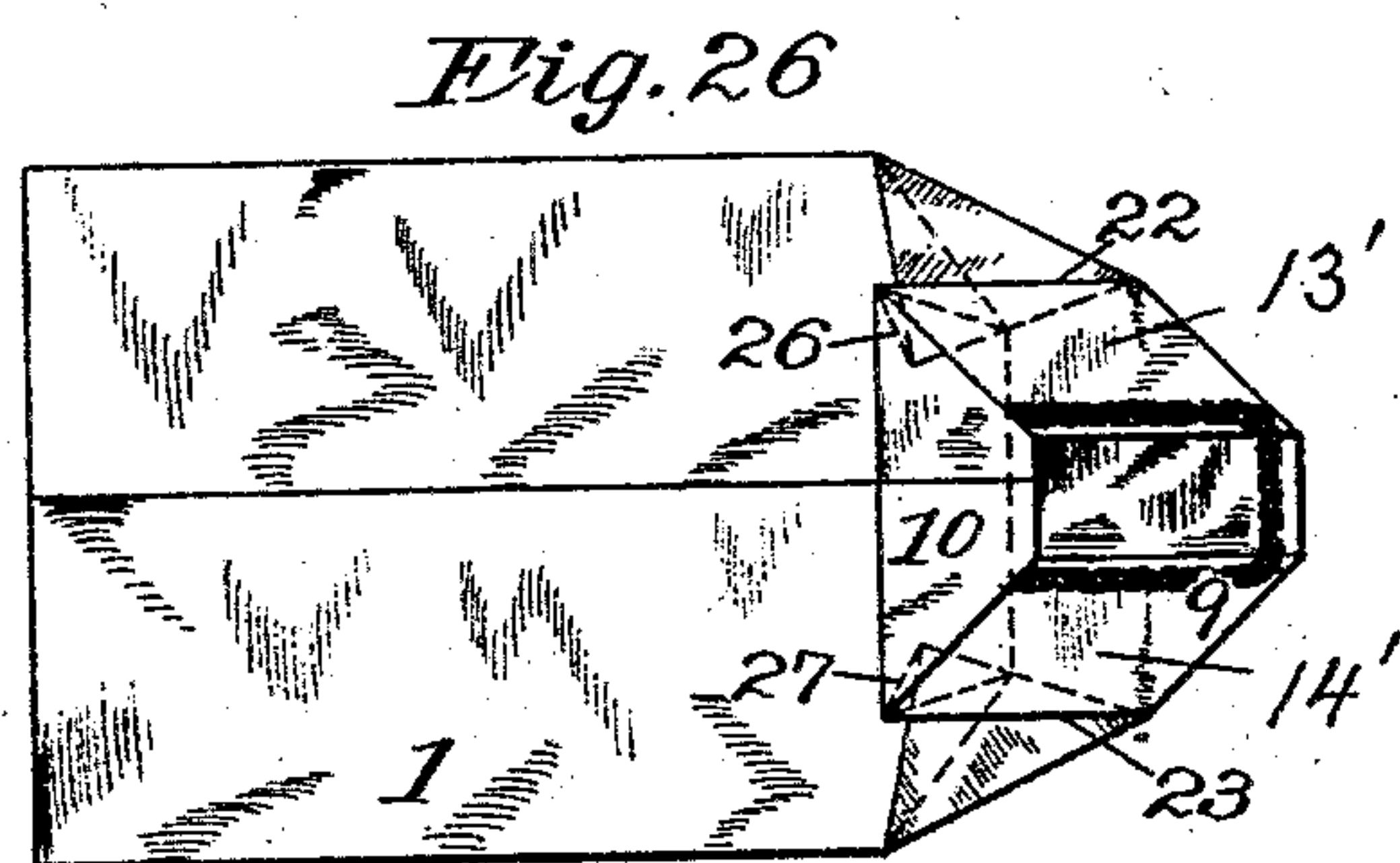
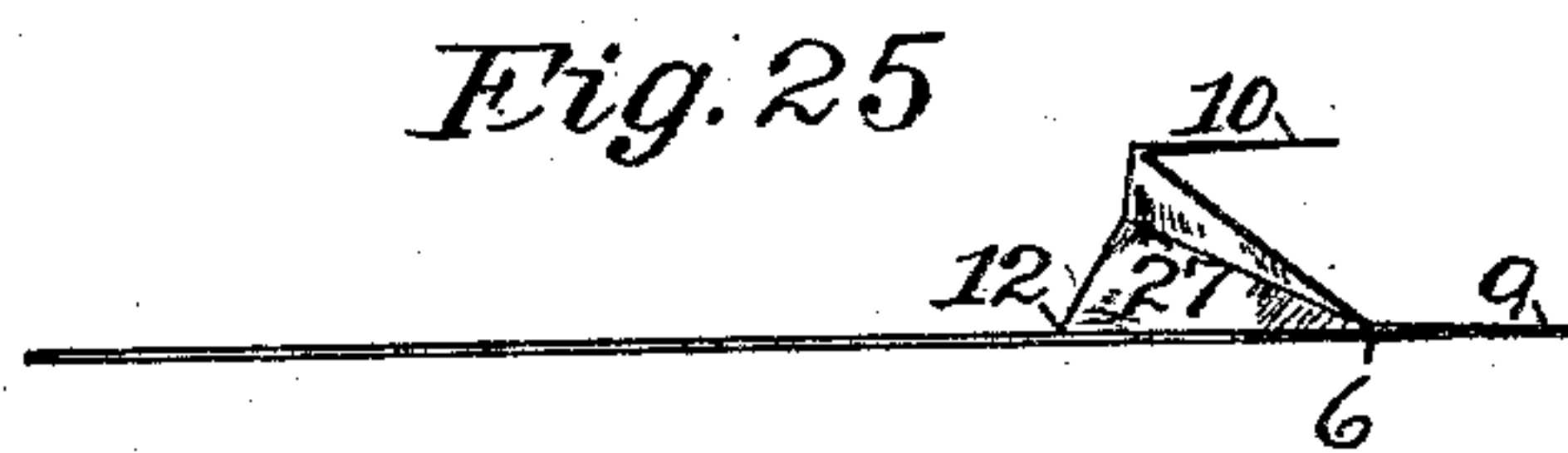
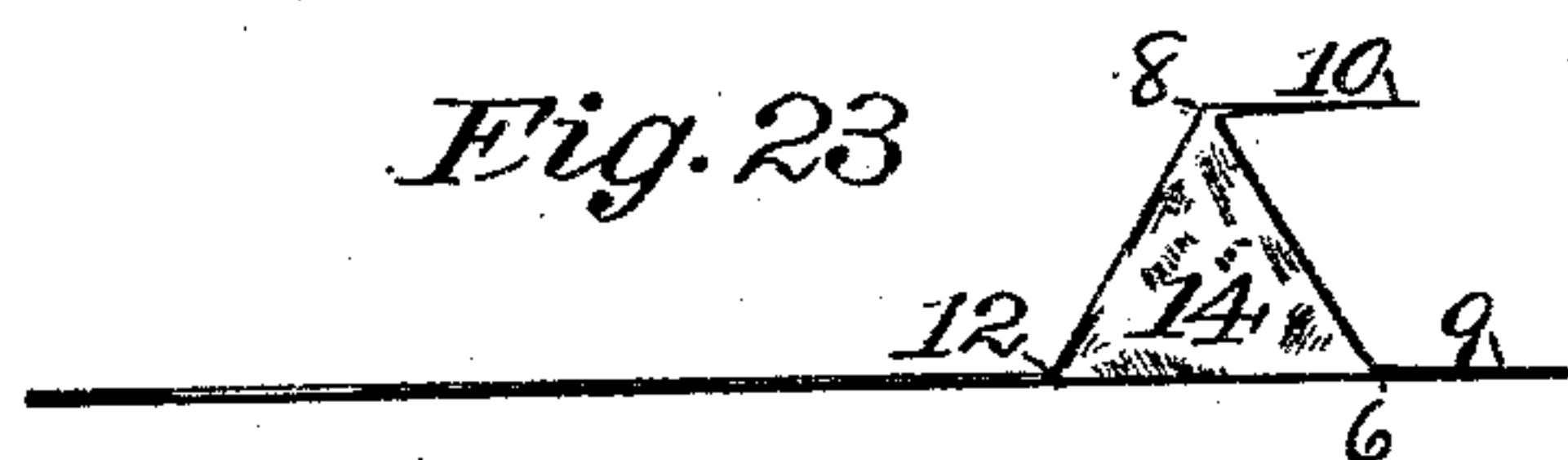
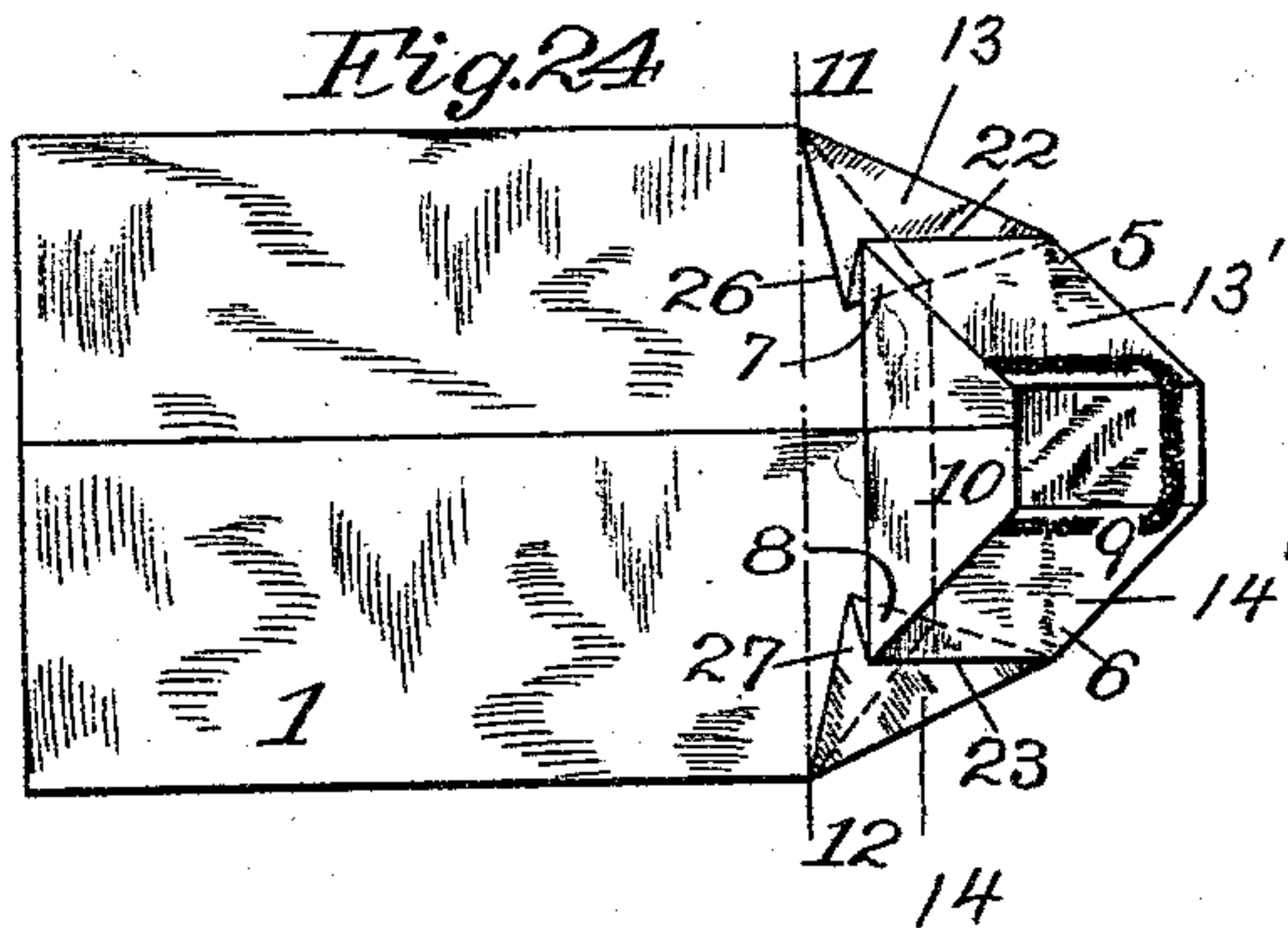
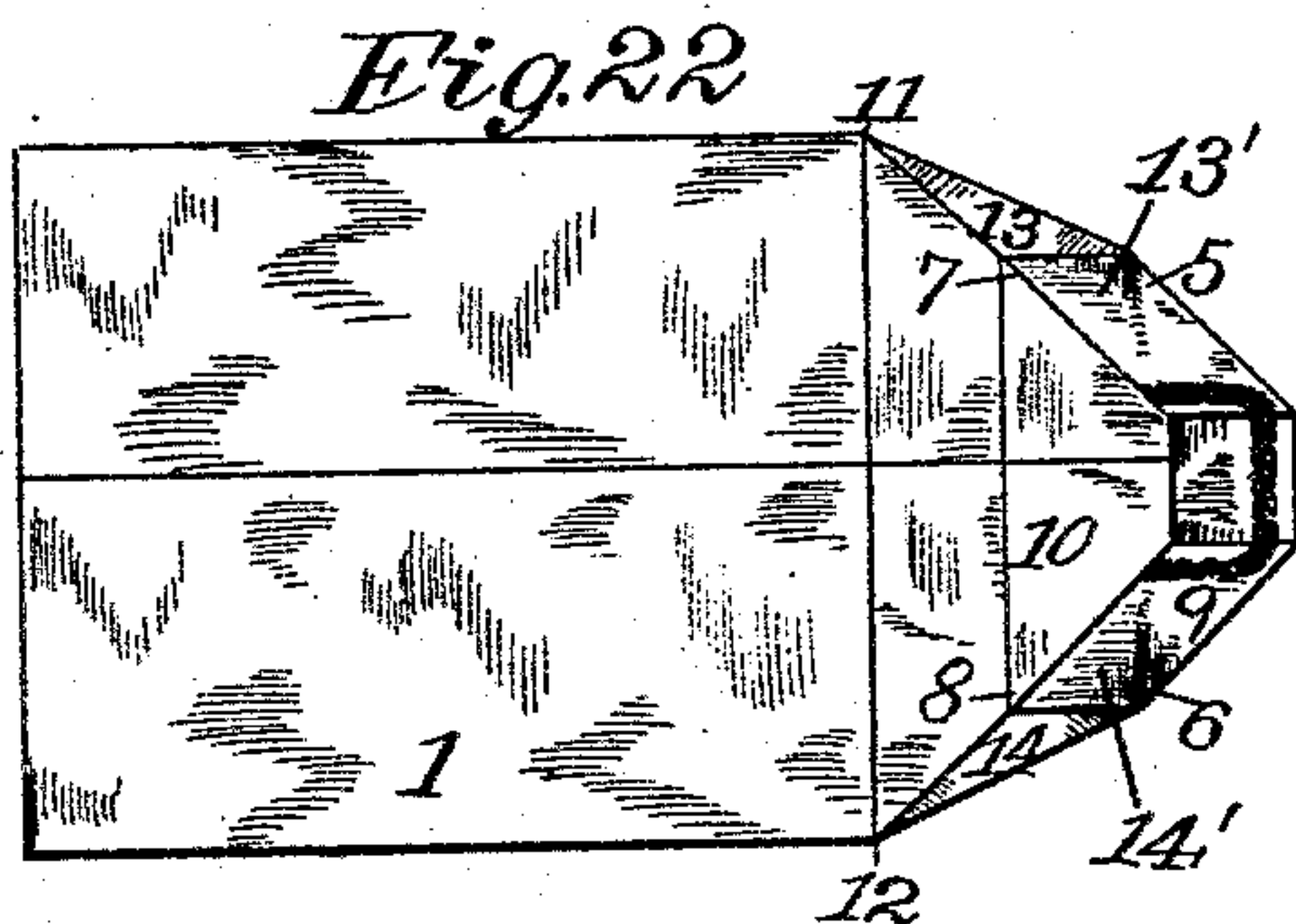
(Model.)

3 Sheets—Sheet 3.

E. E. CLAUSSEN.
PAPER BAG.

No. 414,679.

Patented Nov. 12, 1889.



Witnesses:
William A. Lorenz
Albert H. Walker:

Inventor:
Edward E. Claussen.

UNITED STATES PATENT OFFICE.

EDWARD E. CLAUSSEN, OF HARTFORD, CONNECTICUT, ASSIGNOR OF ONE-HALF TO WILLIAM A. LORENZ, OF SAME PLACE.

PAPER BAG.

SPECIFICATION forming part of Letters Patent No. 414,679, dated November 12, 1889.

Application filed June 26, 1889. Serial No. 315,653. (Model.)

To all whom it may concern:

Be it known that I, EDWARD E. CLAUSSEN, of Hartford, Connecticut, have invented a new and useful Paper Bag, of which the following description and claim constitute the specification, and which is illustrated by the accompanying three sheets of drawings.

This invention is a novel paper bag which has a flat rectangular bottom in combination with two flat sides, and it is made from a plain flat paper tube instead of being made from a tucked paper tube, such as have heretofore been generally used for making paper bags with flat rectangular bottoms.

Figures 1 and 2 of the drawings are a side view and an end view of a flat paper tube. Fig. 3 is a view of the blank of Figs. 1 and 2, with one end opened out and folded down into a diamond form. Figs. 4 and 5 are a plan and an edge view respectively of the blank of Fig. 3, with the left-hand half of the diamond form of that blank folded forward toward the right-hand half thereof, so as to be directly over it. Figs. 6 and 7, 8 and 9, 10 and 11, 12 and 13, and 14 and 15 are five pairs of views of the blank of Figs. 4 and 5 at five successive stages of its subsequent manipulation in the process of folding. Fig. 16 is a view of the completed bag which results from the next and last step of the process of folding. Fig. 17 is an isometric perspective view of the bag of Fig. 16 opened out with its bottom upward. Fig. 18 is a view of the exterior of the bottom of the bag of Fig. 17, and Fig. 19 is a view of the interior of that bottom. Figs. 20 and 21 are a plan and an edge view respectively of the bag of Fig. 16 with the left-hand half of the bottom thereof folded forward over the right-hand half of that bottom, with a view to being packed with others such bags in a bundle. Figs. 22 and 23, 24 and 25, and 26 and 27 are three pairs of views of the blank of Figs. 4 and 5 at three successive stages of its subsequent manipulation toward producing the modified form of my new bag which is shown in Figs. 28 and 29, Figs. 22 and 23 being identical with Figs. 6 and 7, respectively. Fig. 30 is an isometric perspective view of the completed bag of Figs. 28 and 29 opened out and bottom upward.

The process of making the bag of Fig. 16 is as follows: The flat paper tube 1 of Fig. 1 is opened out at one end into the diamond form shown in Fig. 3 by folding the upper ply thereof backward on the line 2 3, so as to produce the diamond form 4. Paste is then applied to that diamond form at the locations indicated by the stippled surface. The left-hand half of the diamond form is then folded forward above the right-hand half thereof. The forward or lower half thereof is then held down upon any suitable flat surface at the places 5 and 6, and the upper half thereof is gripped at the places 7 and 8, and the blank at those places is raised upward and backward through an arc of a circle, of which the line 11 12 is the axis, as far as to the position shown in Figs. 6 and 7, thus producing the truncated triangular flaps 9 and 10, and the flat triangular diagonal sides 13 and 14, and the flat rectangular end surfaces 13' and 14', which latter extend from base to base of the truncated triangular flaps 9 and 10. The diagonal side 13 and the rectangular end surface 13', and also the corresponding side and surface 14 and 14', are then bent inward along their mutual longitudinal centers respectively, while the upper flap 10 is lowered somewhat to permit that inward bending, and the blank is thus folded into the form shown in Figs. 8 and 9. Thereupon the blank is pressed and held down upon the flat surface beneath it by any straight-edged implement placed thereon immediately to the left of the line 16 17. Then the upper flap 10 is carried upward and backward through an arc of a circle, of which the line 16 17 is the axis, to the position shown in Figs. 12 and 13, and thence still farther to the position shown in Figs. 14 and 15. The effect of this operation is to produce the pockets 20 and 21, which are bounded on one side by the bends 22 and 23, respectively, and those bends constitute the defining-lines of the ends of the rectangular bottom of the bag when the bag is completed. That completion consists in folding the end of the flap 9, as it appears in Figs. 14 and 15, over upon the end of the flap 10, as shown in Fig. 16. The completed bag may then be packed in a bundle with others; or, if desired, the left-hand half of its rectan-

gular bottom may first be turned over upon the right-hand half thereof into the position shown in Figs. 20 and 21.

The process of making the bag of Figs. 28 and 29 is identical with that of making the bag of Fig. 16 as far as the stage shown in Figs. 6 and 7, and also shown in Figs. 22 and 23; but in this case, after that stage is reached, the blank, at the places 7 and 8, is carried backward and downward in an arc of a circle, the axis of which is coincident with the line uniting the places 5 and 6. This latter trans- action maintains the flatness of the rectan- gular end surfaces 13' and 14', and it folds the paper at the outer boundaries of those surfaces and between them and the trian- gular diagonal sides 13 and 14, respectively, and thus produces the defining-lines 22 and 23 at the ends of the rectangular bottom of the bag, and it also folds each of those trian- gular diagonal sides inward in two unequal triangular parts, so that the smaller of those parts and a portion of the larger of those parts lie under the adjacent rectangular end surface, and so that those triangular diagonal sides are made to constitute the folds 26 and 27, respectively, of the completed bag.

The special utility of the paper bags cov- ered by this specification resides in the fact that they combine such a square bottom as that shown in the Honiss patent, No. 353,307, of November 30, 1886, with substantially such a flat body as has long been present in so-called "flat" paper bags and in so-called "satchel-bottom" paper bags, and in the consequent result of presenting a much larger printing-surface than that of the Honiss bag, and in the other consequent result of having only two weakening longitudinal creases, instead of six, in the main part of the body of the bag.

I claim as my invention—

A paper bag having a flat body, a flat rect- angular bottom, and folded triangular folds extending from the ends of the bottom toward the center of the bottom and then reversed and extending to the two edges of the flat body, respectively, all substantially as de- scribed.

Hartford, Connecticut, June 18, 1889.

EDWARD E. CLAUSSEN.

Witnesses:

ALBERT H. WALKER,
PHEBIE A. PHELPS.