

No. 611,633.

Patented Oct. 4, 1898.

M. L. HORNING.
HAT BAG.

(Application filed Feb. 17, 1898.)

(No Model.)

2 Sheets—Sheet I.

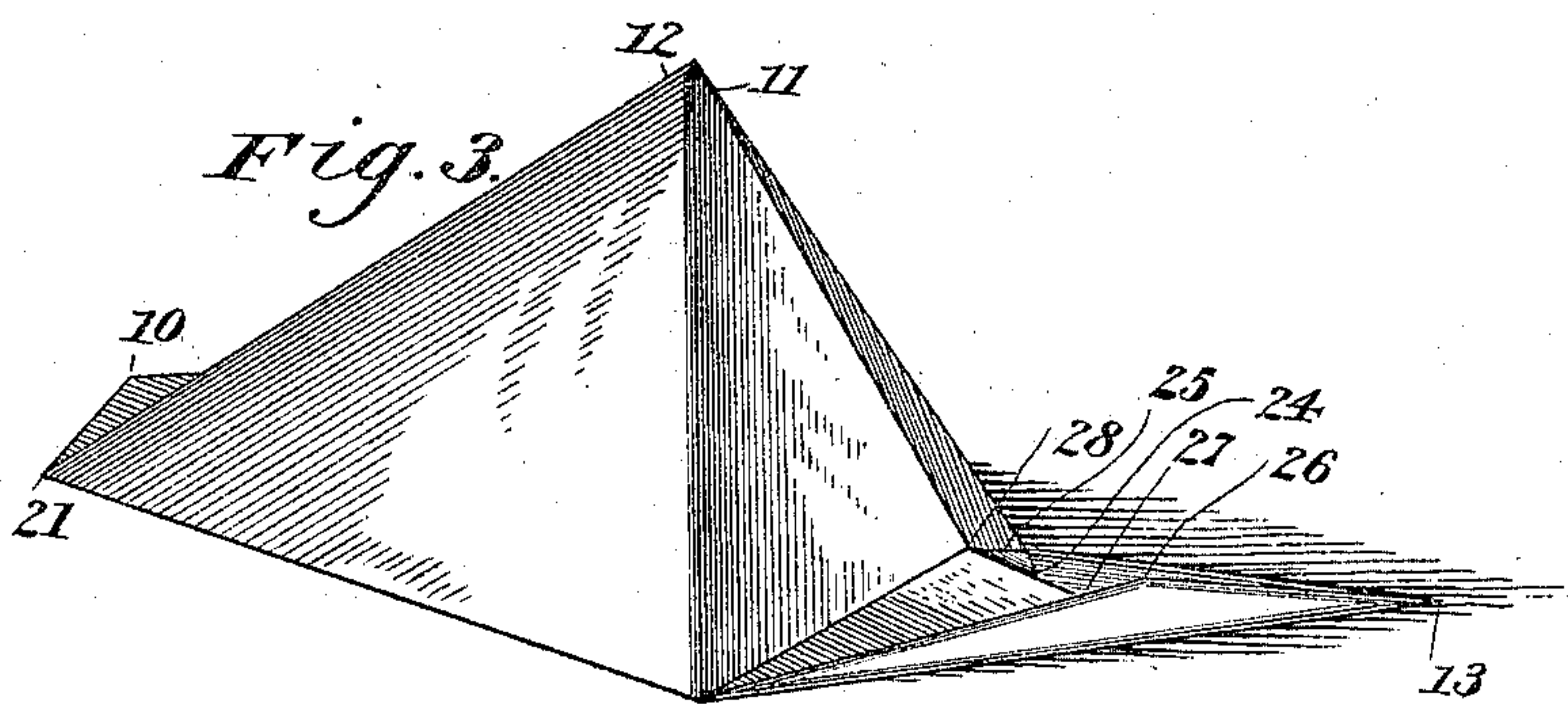
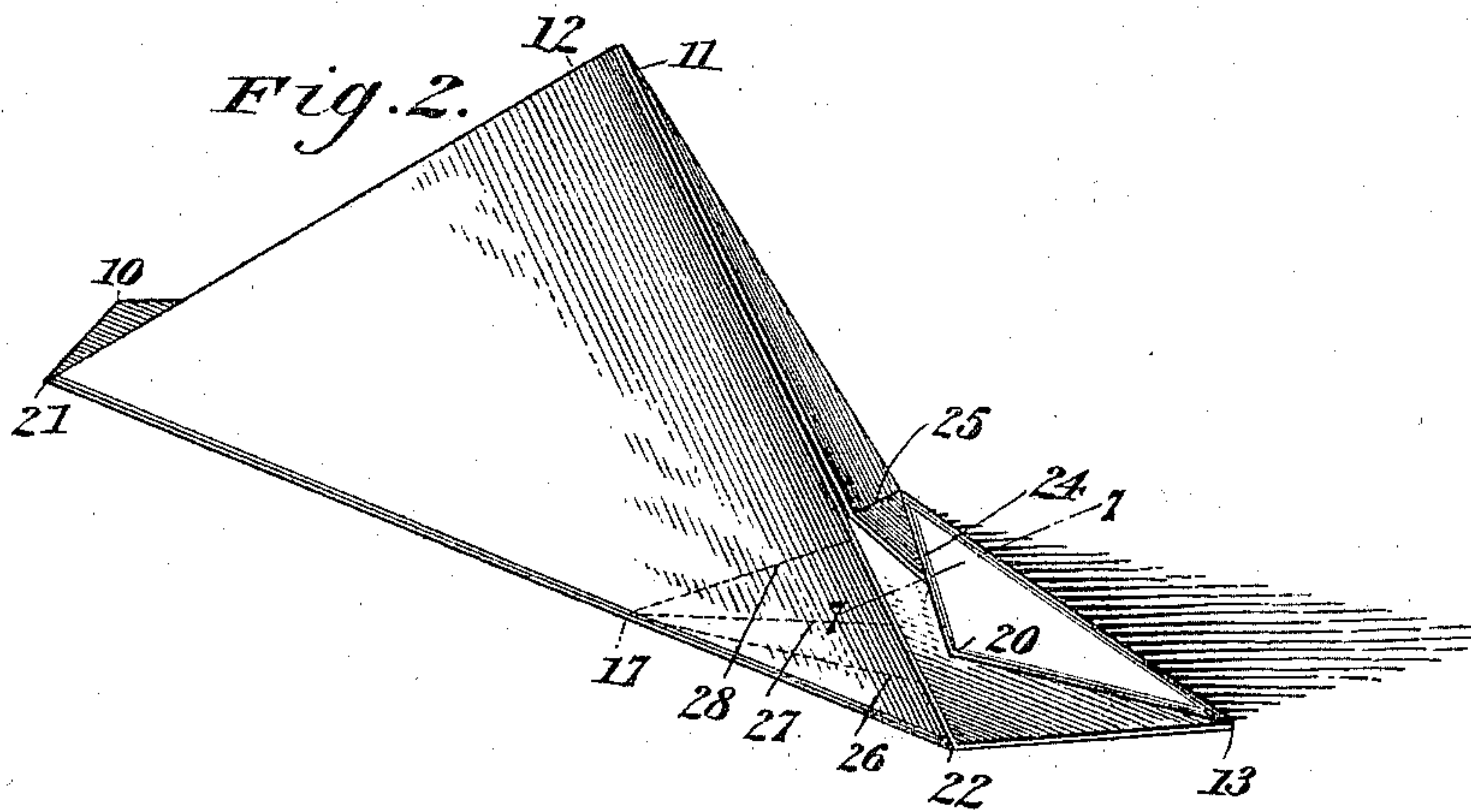
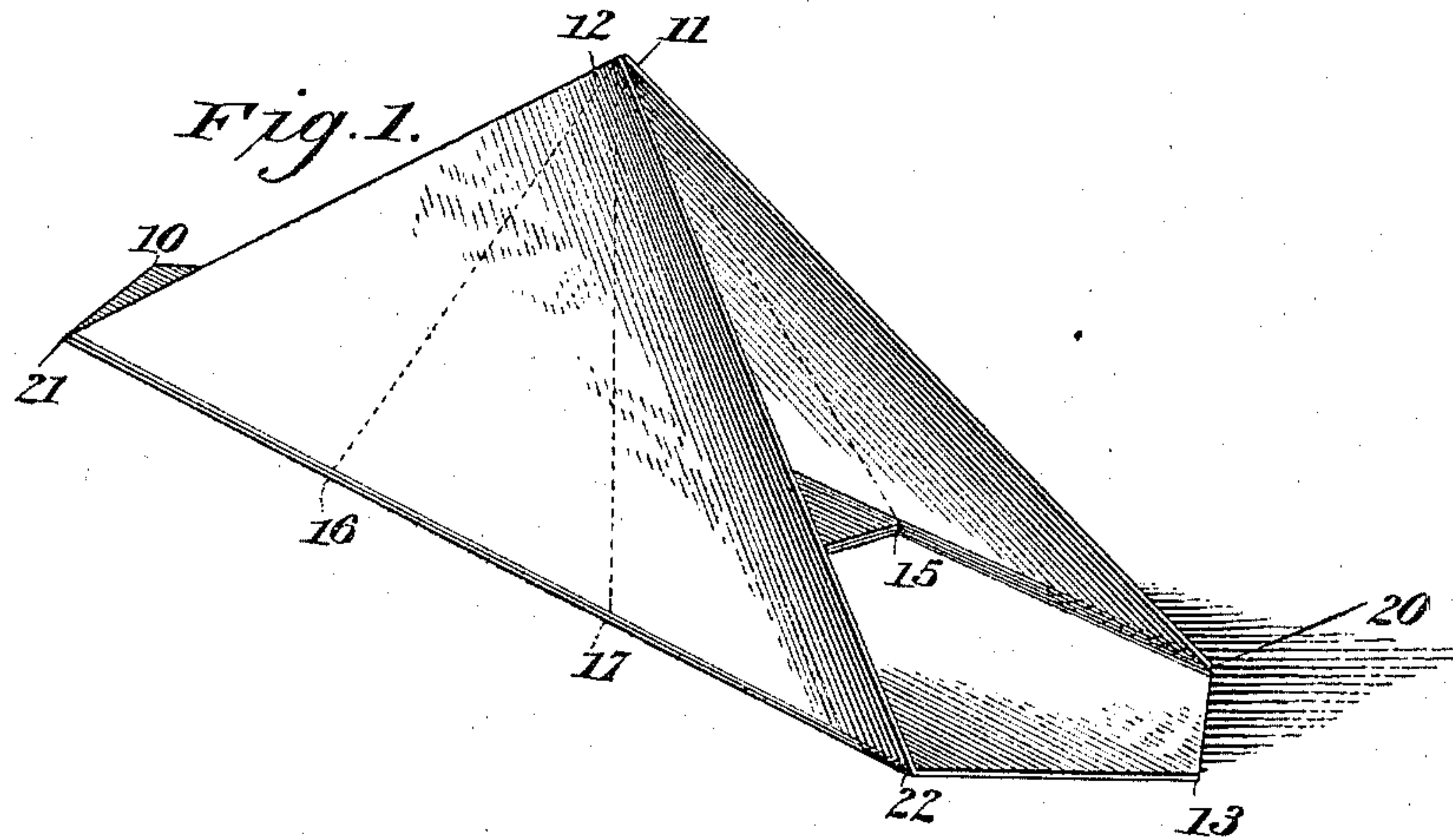
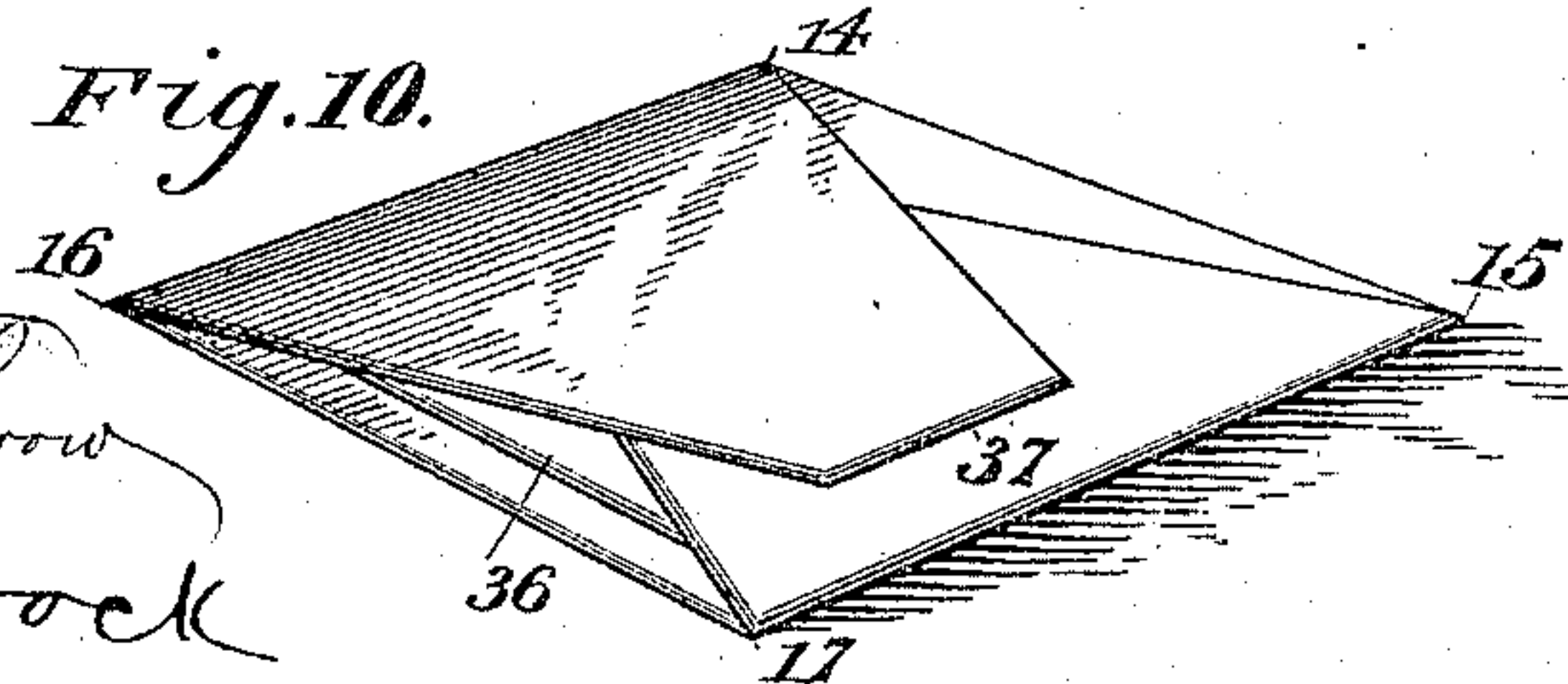


Fig. 10.



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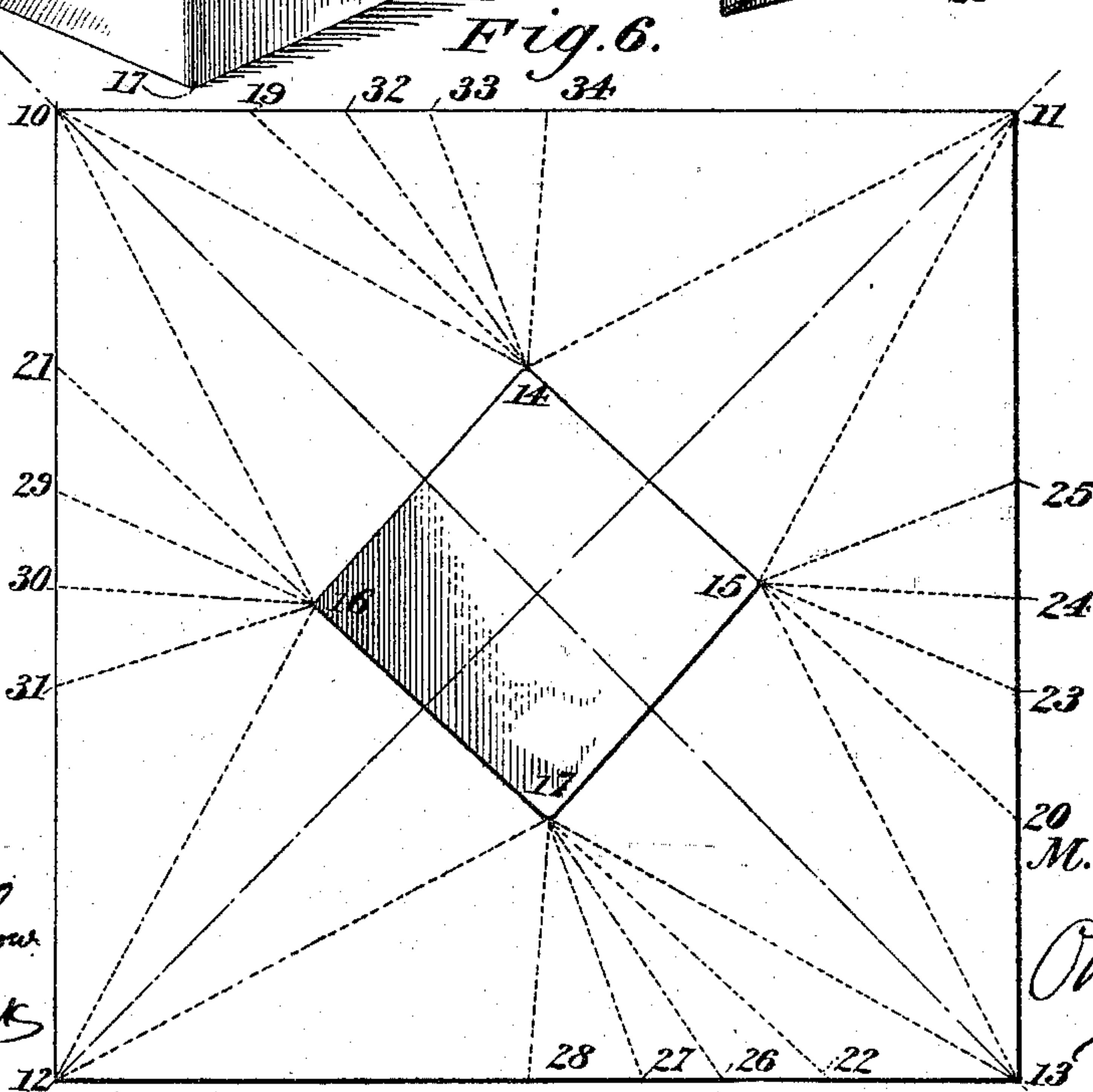
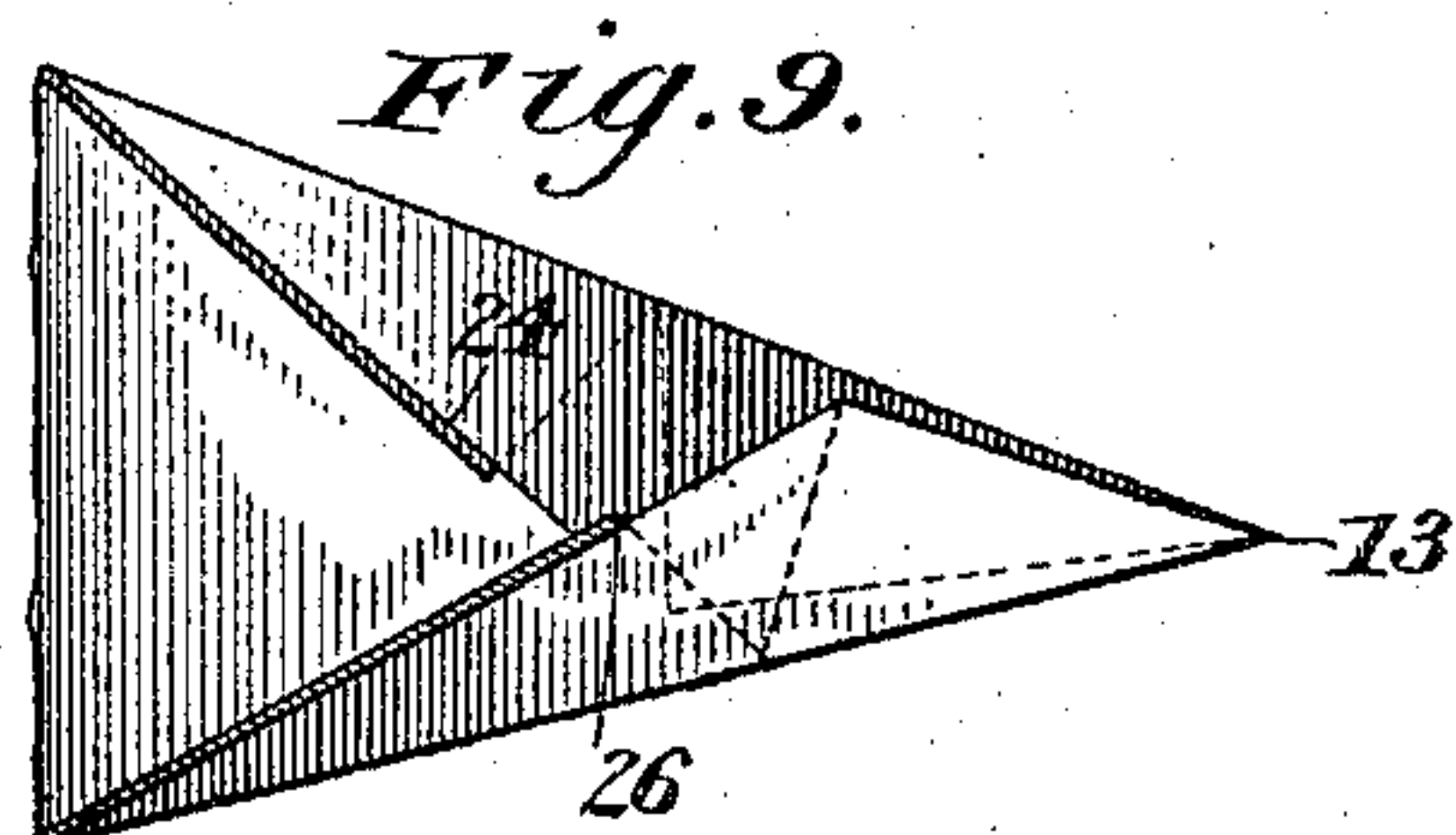
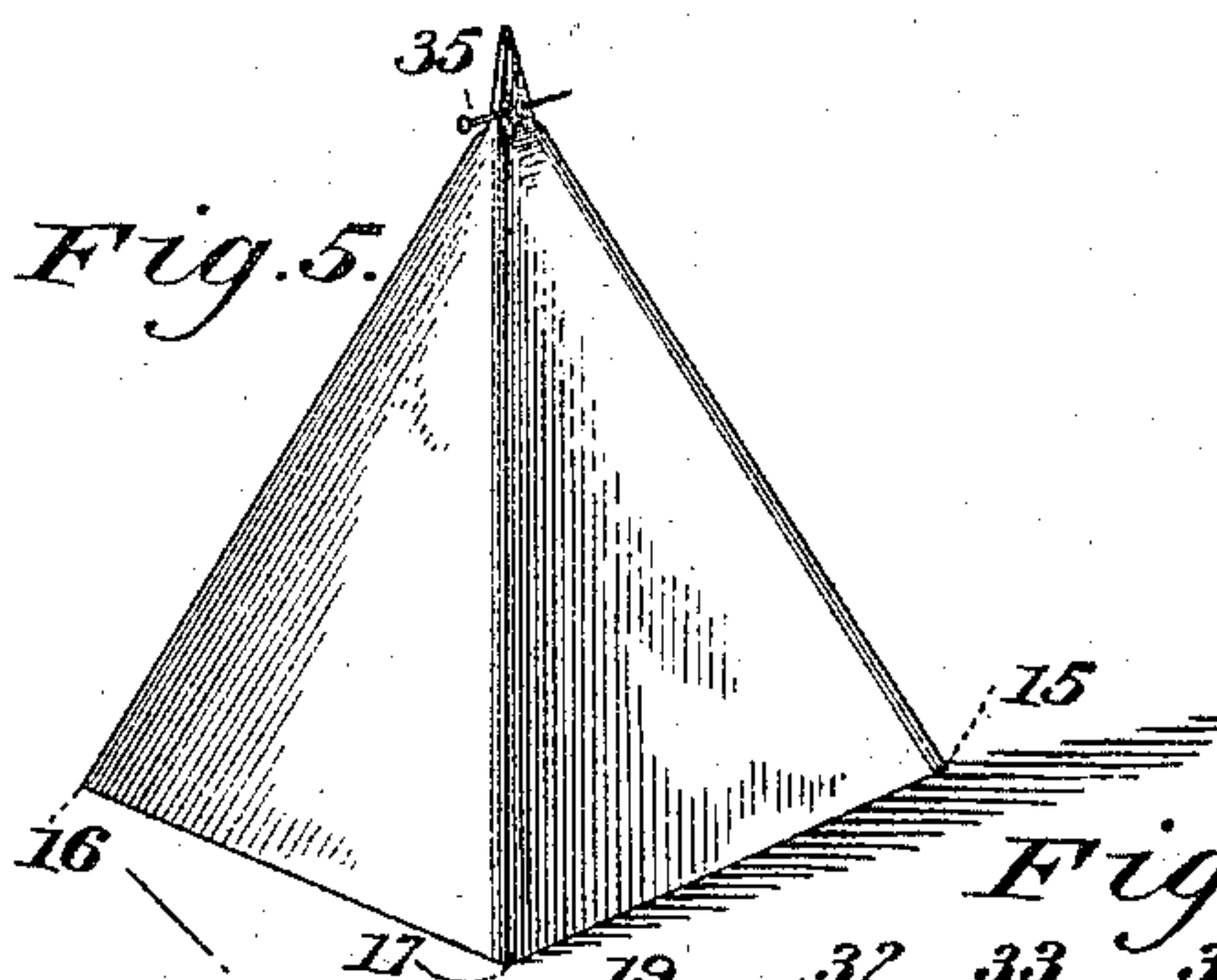
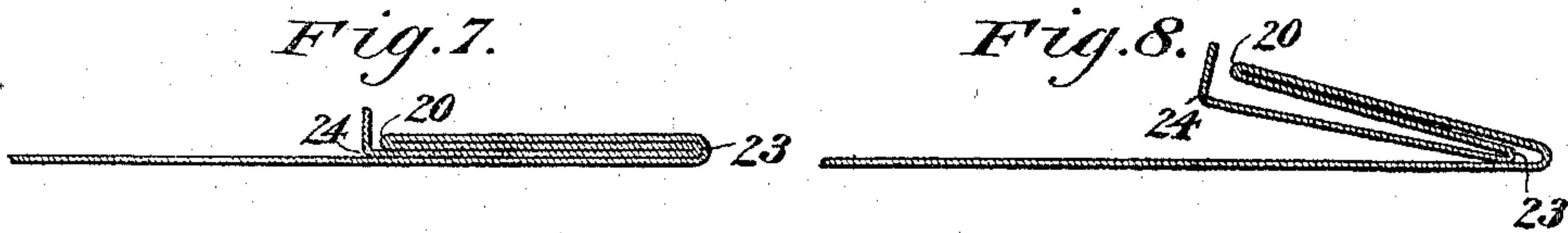
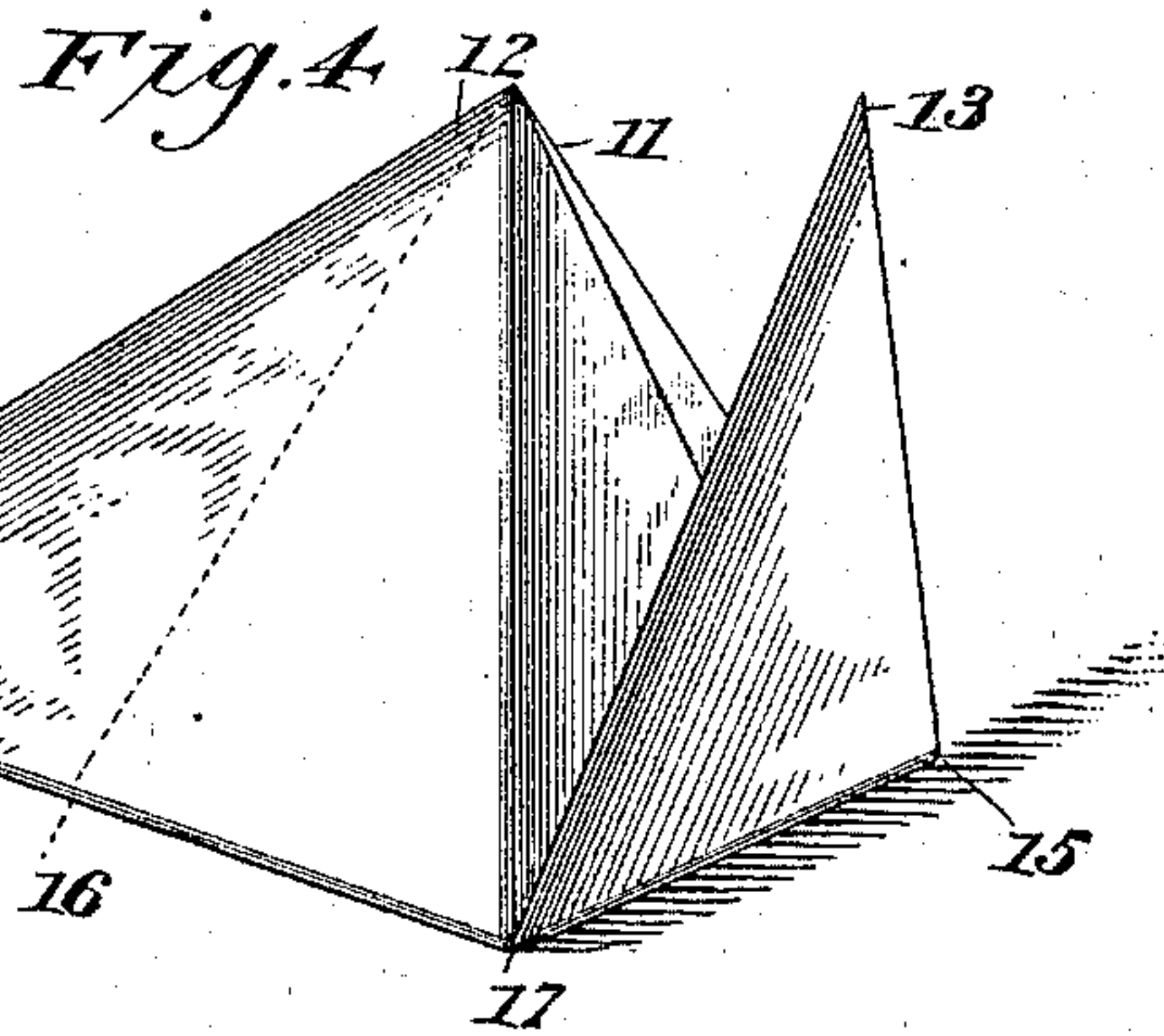
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

MARTIN L. HORNING, OF ALBION, MICHIGAN.

HAT-BAG.

SPECIFICATION forming part of Letters Patent No. 611,633, dated October 4, 1898.

Application filed February 17, 1898. Serial No. 670,720. (No model.)

To all whom it may concern:

Be it known that I, MARTIN L. HORNING, a citizen of the United States, residing at Albion, in the county of Calhoun and State of Michigan, have invented a new and useful Pyramidal Hat-Bag, of which the following is a specification.

My invention is in the nature of a pyramidal bag or paper box especially designed to receive a lady's trimmed hat, the object being to provide an unfolded or partially-folded bag or box which may be folded about a lady's trimmed hat or other delicate structure in the form of a pyramid to prevent injury to the contents.

With this object in view my invention consists in a square blank of paper provided with a centrally-located square of pasteboard on its upper surface, the angles of the paper blank being so placed with relation to the pasteboard square that the diagonals of one are substantially at angles of forty-five degrees to the diagonals of the other and the straight sides of the square of pasteboard substantially parallel with one of the diagonals of the paper blank.

My invention further consists in a pyramidal hat-bag formed of the paper blank and pasteboard square mentioned by folding the paper blank substantially as hereinafter fully described, and afterward specifically pointed out in the claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view illustrating the paper blank and pasteboard square of which my pyramidal hat-bag is composed in the form they assume at the end of the first operation of folding. Fig. 2 is a perspective view illustrating these parts with the second operation of folding performed upon one side of one end of the blank. Fig. 3 is a perspective view illustrating the device with both sides of one end folded. Fig. 4 is a perspective view illustrating the parts after the per-

formance of another step in the folding, with the folded end shown in Fig. 3 turned up nearly to its finished position. Fig. 5 is a perspective view of the pyramid hat-bag finished. Fig. 6 is a plan view of the blank with the pasteboard square in position thereon, the lines upon which it is folded being shown dotted. Fig. 7 is a transverse section on the line 7 7 of Fig. 2. Fig. 8 is a section similar to Fig. 7, with the folds partly separated to better illustrate them. Fig. 9 is a top plan view of the folded flap as illustrated in Fig. 3, partly in section. Fig. 10 is a detail perspective view of one form in which my invention is folded for shipment or storage.

Like numerals of reference mark the same parts wherever they occur in the various figures of the drawings.

In constructing a pyramid hat-bag in accordance with my invention I take a square sheet of paper 10 11 12 13, Fig. 6, of any suitable dimensions—say thirty-four inches on each side—and in the center thereof I secure a square of pasteboard 14 15 16 17—say twelve inches on each side—with the center of the pasteboard square in the center of the sheet of paper and with the sides 14 15 and 16 17 of the pasteboard nearly parallel with the diagonal 10 13 of the square sheet of paper and the sides 14 16 and 15 17 of the pasteboard in the same relation to the diagonal 11 12 of the paper, each of these sides being at a very slight angle to the diagonals, so that the lines 19 14, 15 20 and 21 16, 17 22, which are simply continuations of the sides 14 15 and 16 17 of the pasteboard to the edges of the paper sheet, will end, as shown, at points slightly different in distance from the corners 10 and 13 of the paper sheet. The first step in the folding of this paper to produce my hat-bag is to fold the corners 11 and 12 of the paper sheet on the lines 19 20 and 21 22, which extend along two sides of the pasteboard square, bringing these corners together, as shown in Fig. 1. The next step is to elevate the corner 13 toward the corners 11 and 12, which will cause the triangular portions of the paper contained between the lines 11 15 20 and 12 17 22 to bend inward and lie upon that portion of the paper contained within the

lines 15 17 22 13 20. The next step is to fold the double triangular portions on each side on the line 13 15 over upon the triangular portion of the paper contained between the lines 13 15 17, the result of this step being shown in Fig. 2 and its repetition on the other side of the triangle being shown in Fig. 3, in which the double triangular fold of the portion of the paper 13 17 26 upon the triangle 13 15 17 is illustrated. The triangle 13 15 17, with its folds upon it, is now raised, folding upon the line 15 17 along the edge of the pasteboard square until the corner 13 meets the corners 11 and 12 at the apex of the pyramid, forming the third side thereof, the parts being shown with the triangle 13 15 17 folded up nearly to its closed position in Fig. 4. During this folding of the triangle 13 15 17 with the folds superposed upon it, as before described, the line 15 24, dotted in in Fig. 6, marks the inside limit of the fold on one side, and the line 17 27 marks the inside limit on the other side, and the inner triangular portions 11 15 24 and 12 17 27 fold on the lines 15 25 and 17 28, so that these triangular portions will fit closely against the inside of the folded triangles superposed upon the triangle 13 15 17, forming the third side of the pyramid, and may be secured together by mucilage, if desired.

The fourth step of the pyramid, the outside of which will be the triangular portion 10 14 16, will be folded in the same manner upon the lines 10 14, 10 16, 16 21, 16 29, 16 30, 16 31, 14 19, 14 32, 14 33, and 14 34, the results being the same as hereinbefore described with relation to the third side of the pyramid, until the four points of the four sides of the pyramid are brought together, as shown in Fig. 5, where they may be secured by a pin 35 or in any other suitable manner.

The object attained by setting the central square of pasteboard with its sides slightly out of line with the diagonals of the paper sheet is to cause the folds 13 17 26 and 13 15 20 to be of unequal size, in order that they may not interfere with each other in the final folding of the sides of the pyramid, which would be the case if they were of equal size. This feature is best illustrated in Fig. 9 and will be readily understood without further description.

The result of the procedure of folding hereinbefore described is a hollow pyramidal bag or box specially designed to receive a lady's trimmed hat or any other article of merchandise liable to injury from contact with the bag in which it is placed, and it is my intention to furnish these to merchants and milliners properly marked in order to be folded, so that they will always be ready for use when required, the construction being so simple as to permit of their manufacture and sale at sufficiently low prices to admit of their general adoption.

I propose also to prepare my invention for

shipping or packing by folding it into the form shown in Fig. 10, in which the sides of the pyramid, of which 11 and 12 are the apices, have their points folded under and are folded down upon each other, the numeral 36 indicating the line upon which the apex 11 is folded, after which those sides of which 10 and 13 are the apices are folded with the apices doubled under and afterward folded down upon the other sides of the pyramid, the numeral 37 indicating the line upon which the apex 10 is folded under.

While I have illustrated and described what I consider to be the best means for carrying out my invention, I do not wish to be understood as restricting myself to the exact details of construction shown, but hold that any slight changes and variations such as might suggest themselves to the ordinary mechanic would properly fall within the limit and scope of my invention.

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

1. A pyramidal bag, box or receptacle formed of a square sheet of paper stiffened to form the bottom by means of a square of pasteboard or similar material secured centrally thereto, the center of the paper coinciding with the center of the pasteboard and the paper folded on the lines extending from the corners of the pasteboard to the points 10, 19, 32, 33, 34, 11, 25, 24, 23, 20, 13, 22, 26, 27, 28, 12, 31, 30, 29, and 21, and along the sides of the pasteboard, substantially as described.

2. A pyramidal bag, box or receptacle formed of a square sheet of paper stiffened to form the bottom by means of a square of pasteboard or similar material secured centrally thereto, the center of the paper coinciding with the center of the pasteboard and the paper folded to form triangular sides 10 14 16, 11 14 15, 13 15 17, and 12 16 17, the sections of paper between lines 10 11 14, 11 13 15, 12 13 17, and 10 12 16, being folded inwardly and inclosed by the triangular sides, substantially as described.

3. A pyramidal bag, box or receptacle formed of a square sheet of paper stiffened to form the bottom by means of a square of pasteboard or similar material secured centrally thereto, the center of the paper coinciding with the center of the pasteboard, the sides of the pasteboard lying substantially parallel with but at a slight angle to the diagonals of the sheet of paper and the paper folded on the lines extending from the corners of the pasteboard to the points 10, 19, 32, 33, 34, 11, 25, 24, 23, 20, 13, 22, 26, 27, 28, 12, 31, 30, 29, and 21, and along the sides of the pasteboard, substantially as described.

4. A pyramidal bag, box or receptacle formed of a square sheet of paper stiffened to form the bottom by means of a square of pasteboard or similar material secured centrally thereto, the center of the paper coinciding

with the center of the pasteboard the sides of the pasteboard lying substantially parallel with but at a slight angle to the diagonals of the sheet of paper, and the paper folded to
5 form triangular sides 10 14 16, 11 14 15, 13 15 17, and 12 16 17, the sections of the paper between lines 10 11 14, 11 13 15, 12 13 17, and 10 12 16, being folded inwardly and inclosed by the triangular sides, substantially as described.

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Witnesses:

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