

(No Model.)

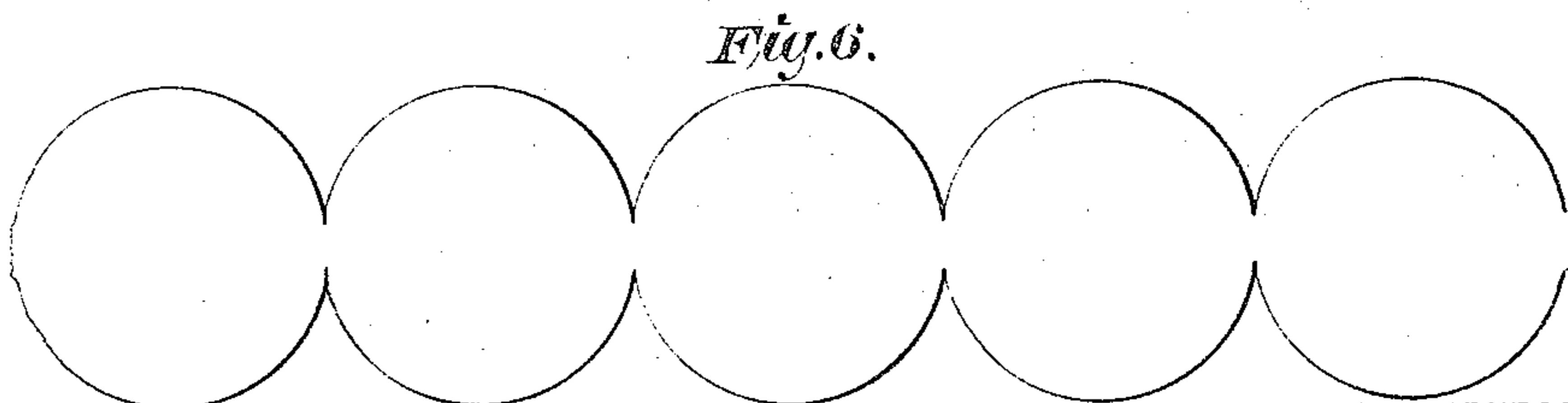
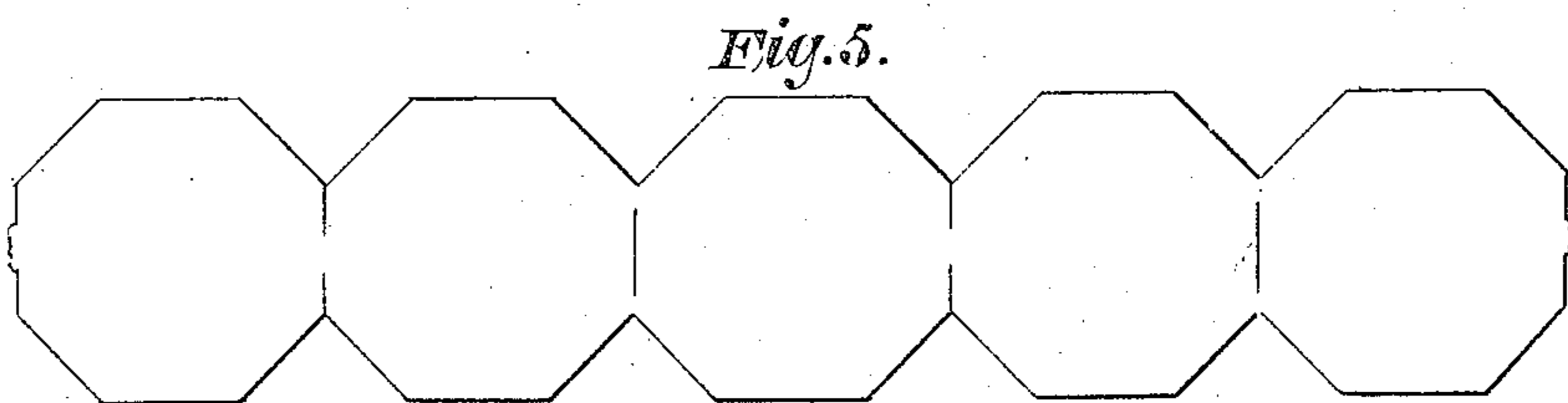
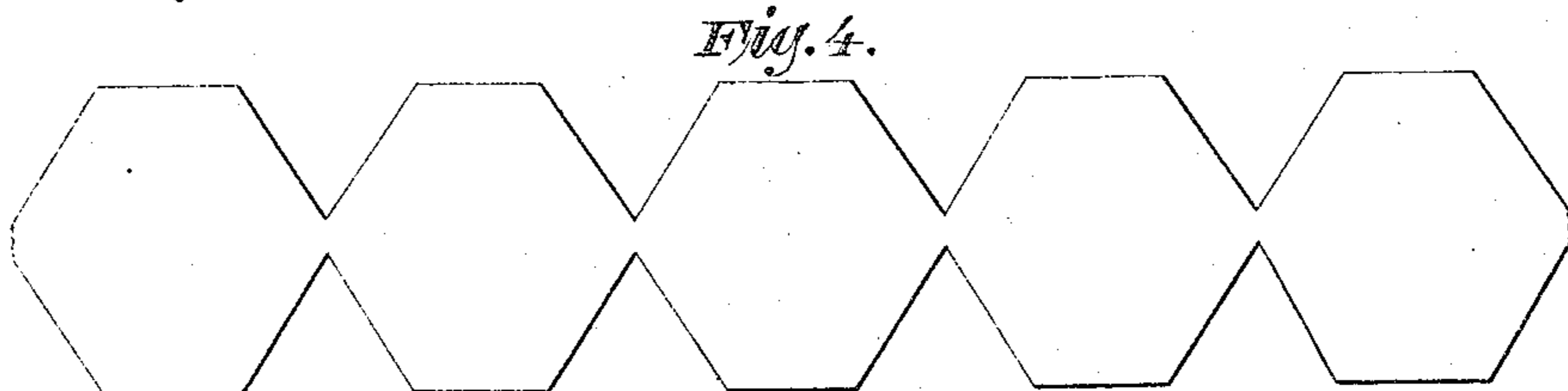
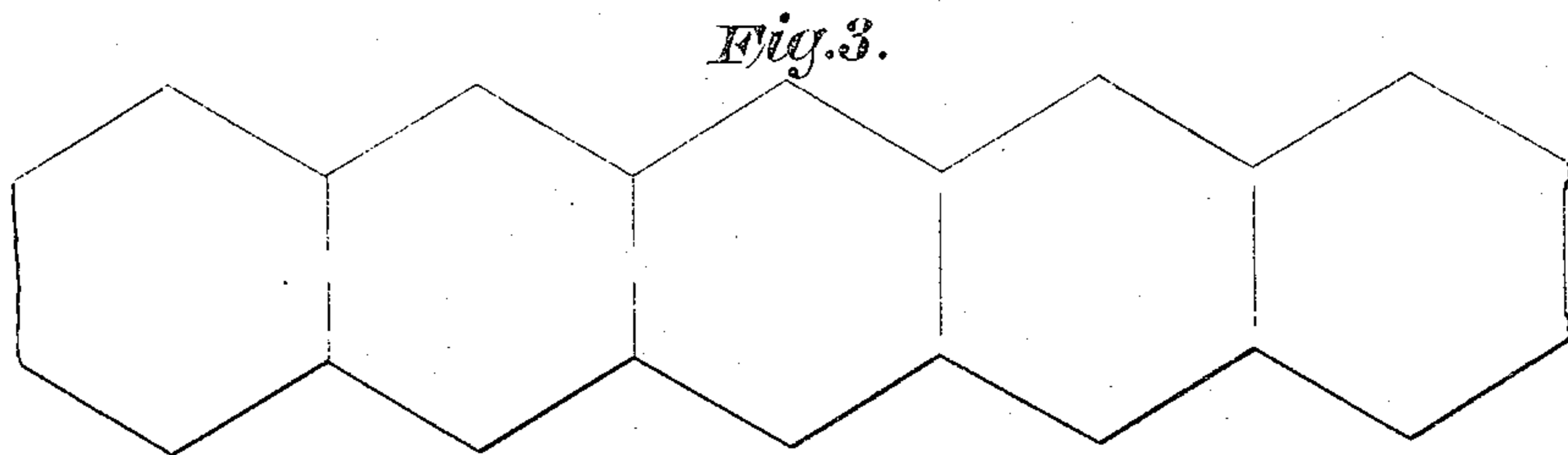
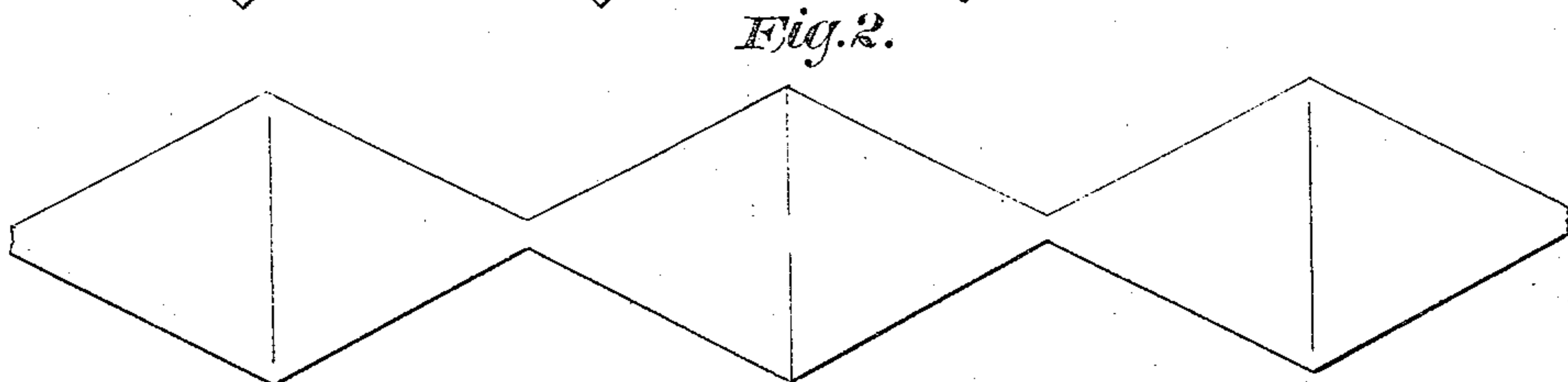
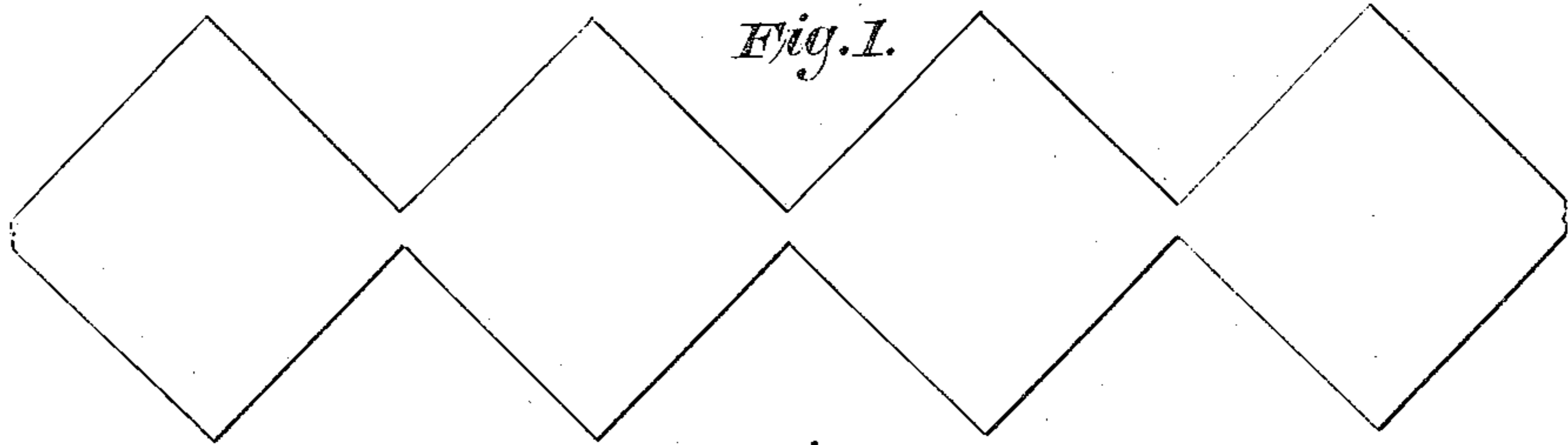
3 Sheets—Sheet 1.

S. WHEELER.

WRAPPING OR TOILET PAPER ROLL.

No. 361,603.

Patented Apr. 19, 1887.



WITNESSES:

Gustav Dietrich
Robt. H. Marshall.

INVENTOR

Seth Wheeler.

(No Model.)

3 Sheets—Sheet 2.

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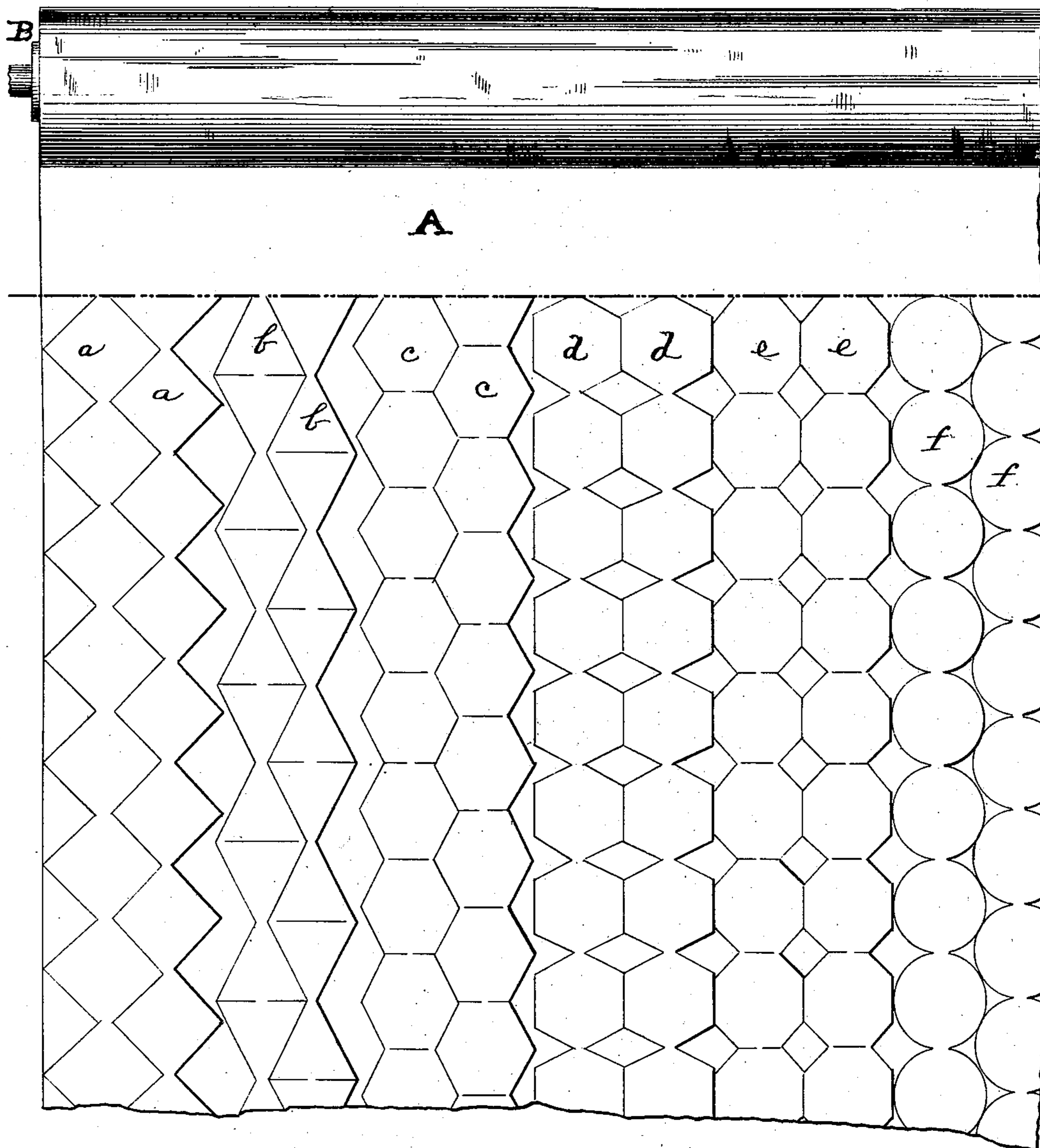


Fig. 7.

WITNESSES:

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3 Sheets—Sheet 3.

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Fig. 8.

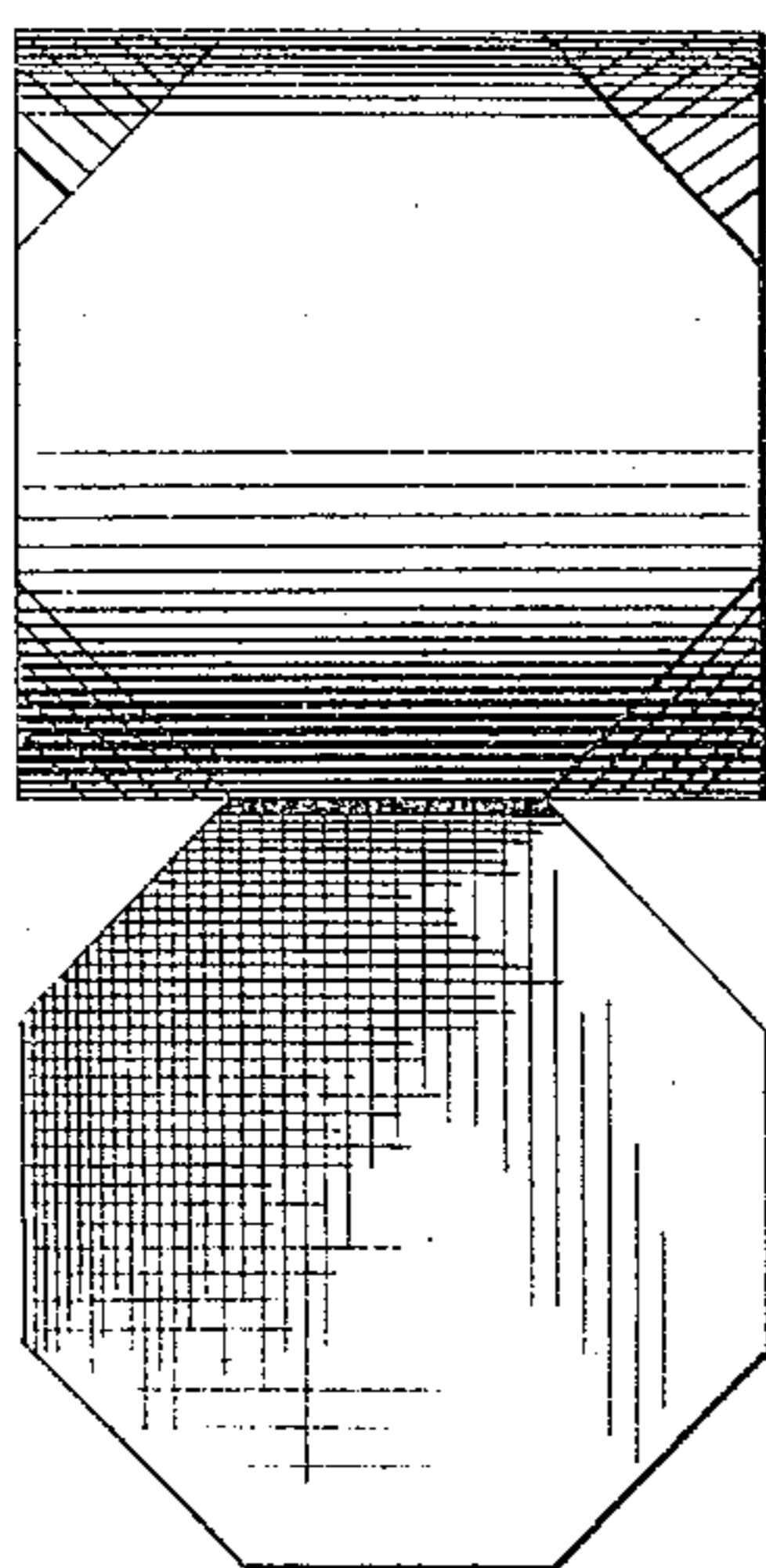
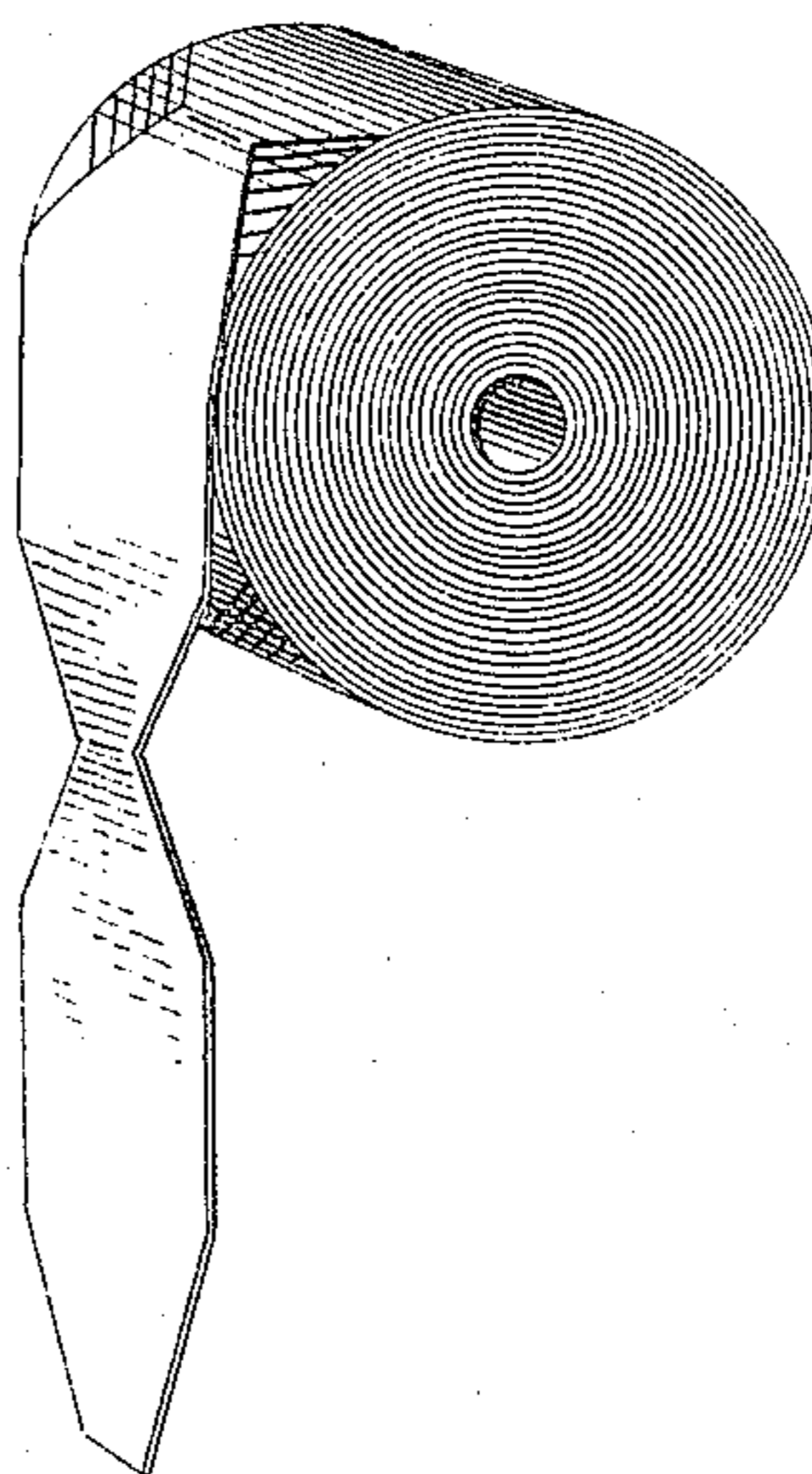


Fig. 9.



WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

SETH WHEELER, OF ALBANY, NEW YORK.

WRAPPING OR TOILET PAPER ROLL.

SPECIFICATION forming part of Letters Patent No. 361,603, dated April 19, 1887.

Application filed January 3, 1887. Serial No. 223,268. (No model.)

To all whom it may concern:

Be it known that I, SETH WHEELER, a citizen of the United States, and a resident of the city and county of Albany, in the State of New York, have invented a new and Improved Roll of Wrapping or Toilet Paper, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

This improvement relates to a new article of manufacture, consisting of a roll of wrapping or toilet paper with parallel ends composed of polygonal or curved sheets, the sides of each sheet having edges of broken or curved lines.

In the drawings, Figures 1 to 6 represent polygonal or curved sheets connected together, the sides of each sheet having edges consisting of broken or curved lines. In Fig. 1 such sides have broken lines in the form of right angles. In Figs. 2 and 3 such sides have broken lines in the form of an obtuse angle. In Fig. 1 the sheet will break away from the roll at the lines of weakness in the form of squares. In Fig. 2 they will break away in the form of triangles, due to there being two points of weakness in each sheet, one of the lines of weakness being a line of perforations. In Fig. 3 they will break away in the form of hexagons, there being, as in Fig. 1, but one line of weakness in each sheet. In Fig. 4 the sides of each sheet have broken lines in form of one-half of a hexagon. Each sheet, therefore, will break away from the roll in the form of a hexagon. In Fig. 5 the sides of each sheet have broken lines, each sheet containing three of the broken lines of an octagon, so that the sheet will break away from its line of weakness, giving an octagonal form. In Fig. 6 the sides of each sheet have curved or continuously-broken lines, giving each of the sheets the form of a semicircle, (or it may be an ellipse,) so that each sheet will break away from the roll in a semicircular or elliptical form. Fig. 7 represents the parent roll out of which are cut these various forms in any combination or number desired. Figs. 8 and 9 are views of the sheet made into a roll.

A is a section of the parent roll of paper, the whole roll being several feet in width. Through

this roll is placed a shaft, B, the journals of which shaft are inserted in the bearings of a paper-cutting machine. In front of this roll are placed paper-cutting knives, which will give the various cuts of paper seen in Figs. 1 to 6. The knives may be of the shape to give all the sheets any one form or any combination or number of these forms, or some of each form, as exhibited in Fig. 7 by the letters *a a*, *b b*, *c c*, *d d*, *e e*, and *f f*, which represent the cuts made by the knives constructed to cut the paper in the various forms shown in Figs. 1 to 6.

The end of the parent roll having passed through feed-rolls, it then passes through the proper series of knives and perforators, which cut and perforate in the forms desired. The end of the sheet then runs onto the rewinding mechanism of the machine, which delivers it in rolls, and separated from the parent sheet in form ready for use in the market.

By this improvement, as will be seen in Fig. 7, a great variety of forms can be obtained from the parent roll or web with a minimum of waste. In many of the forms there is no waste at all. In some of them, as seen in Figs. 4, 5, and 6, and in *d d*, *e e*, and *f f*, there is but little waste. The waste in these latter forms is more than compensated for by leaving off the corners of the individual sheets, which are necessarily left on in the ordinary form of toilet-paper now in the market. This small wastage of paper in the manufacture of some of these forms out of the parent roll goes back to the paper-mill, and is there exchanged for a new web of paper.

There is perfect uniformity in the rolls produced of cut paper by thus first giving form to the sheets in the parent roll of paper as it is unwound and then rewinding into the roll form on the rewinding mechanism.

I claim—

A new article of manufacture consisting of a roll of wrapping or toilet paper, the ends of which are parallel, and the edges of the series of sheets contained therein having broken or curved lines, substantially as described.

SETH WHEELER.

Witnesses:

ROBT. H. MARSHALL,
M. MORRIS.