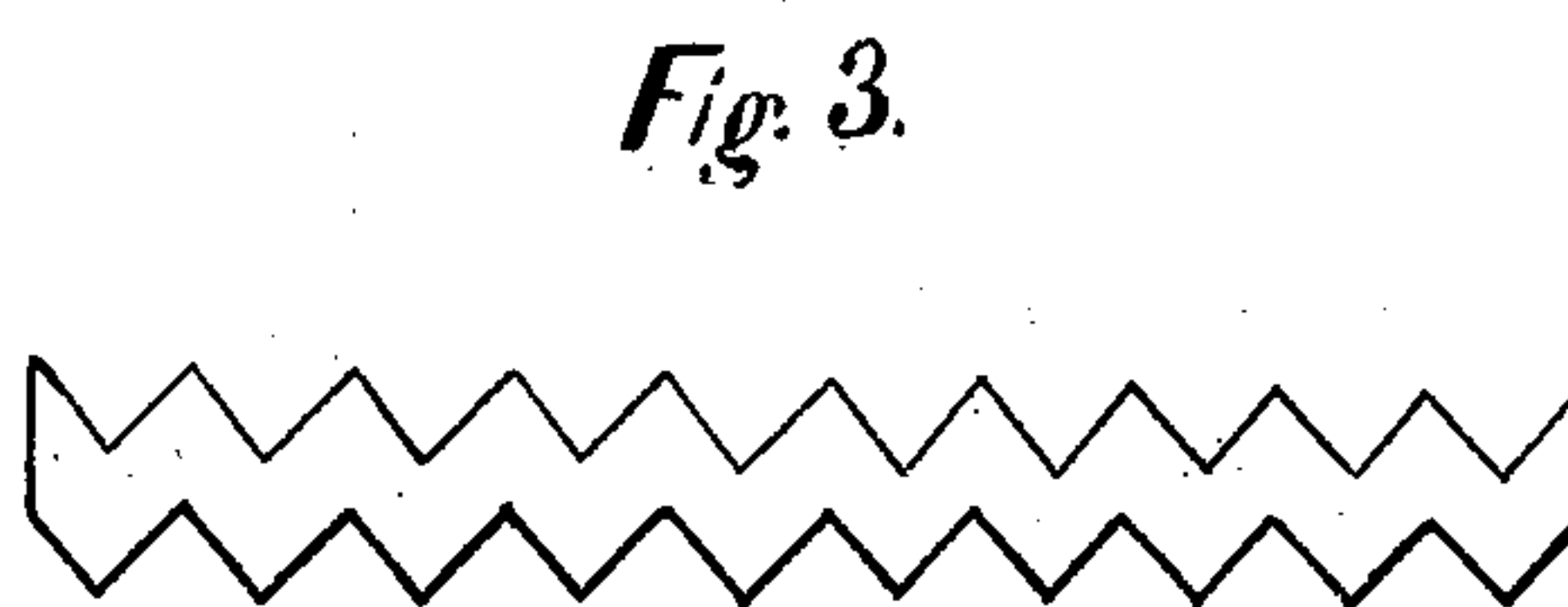
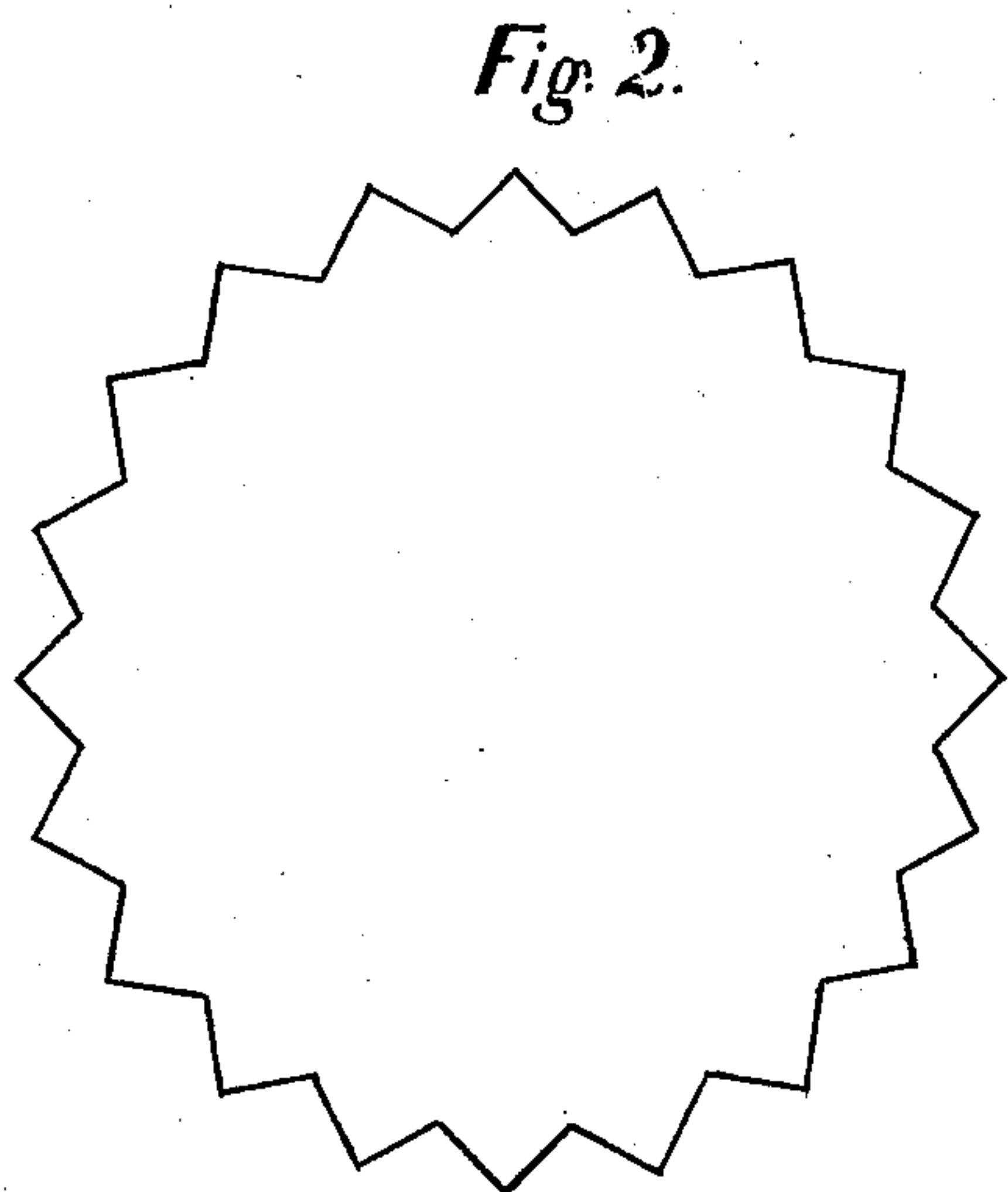
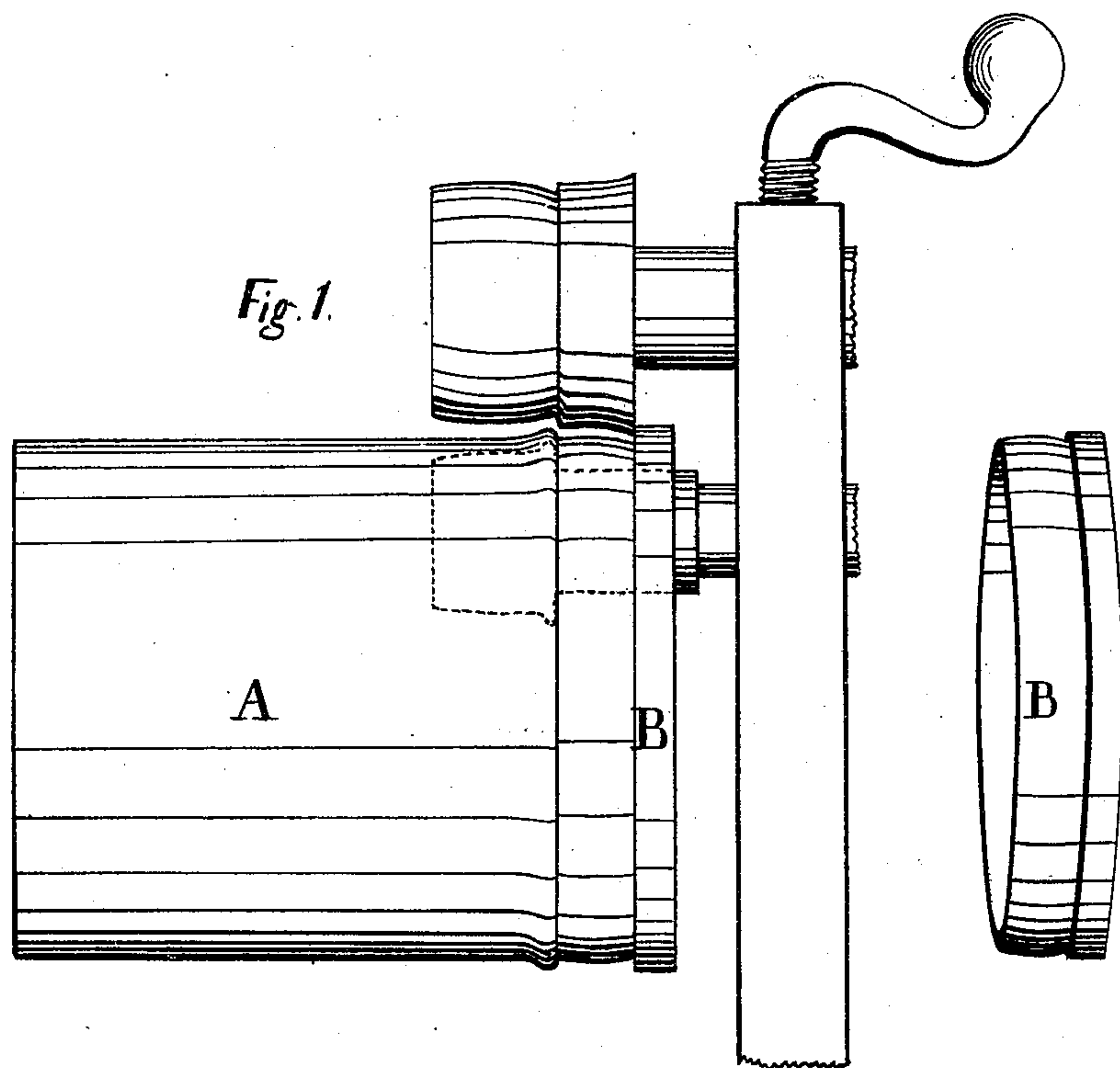


C. A. YOUNG.

Paper Box

No. 167,723.

Patented Sept. 14, 1875.



WITNESSES

*Christian M. Nestell.*  
*W. T. Spencer.*

INVENTOR

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# UNITED STATES PATENT OFFICE

CHARLES A. YOUNG, OF PROVIDENCE, RHODE ISLAND.

## IMPROVEMENT IN PAPER BOXES.

Specification forming part of Letters Patent No. **167,723**, dated September 14, 1875; application filed December 17, 1874.

*To all whom it may concern:*

Be it known that I, CHARLES A. YOUNG, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Paper Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to the manufacture of paper boxes; and it is designed to so form or compress the top or rim of such boxes that in raising a bead for the adapting of a cover the rim may be made uniform in circumference, being free from wrinkles, and, at the same time, pressed firm to retain the desired shape for the fitting of the size-cover.

Heretofore, in making round paper boxes, the pressing or raising of a bead from the stock of the box, so far as my knowledge, it has not been done, and experiment has demonstrated that in the ordinary way of raising a bead, as on metals, the paper is liable to stretch more or less, as the pressure may be, making the top edge uneven, rough, and varying in size, requiring special covers for each box. This adds expense, and makes it tedious in selecting the proper cover for each box, and, in fact, it is imperfect in manufacturing for the market.

To overcome these difficulties, and to make a strong and durable box having a neat appearance, and at less expense, is the object of my present invention, which I accomplish by the use of a metallic ring, in connection with rollers, on an ordinary beading-machine for forming the rim, and by securing the top end to the cover, and the bottom to the box, firmly in their places by a new-formed tip, which, at the same time, makes an ornamental finish.

In making round-top boxes of paper I roll or coil on an arbor strips of any desired width, coated with paste or a compound to unite the surface of said paper as rolled two or more thicknesses. This forms the body A, Fig. 1. To form the rim of the box I employ a metal-

lic ring, B, represented in the drawings, which ring is inserted into one end of the body A, and held there while turning between two rollers, the inner surface of the ring B running upon the lower roller of the beading-machine, a portion of said roller being turned off to receive it. At the same time I form the bead upon the box by a raised edge upon the lower roller, which bead turns into a crease in the upper roller. By the use of the metallic ring B I am enabled to hold the edge from crimping, at the same time, in connection with the two rollers, compress and form the rim of a uniform size for the fitting of the size-cover, and contract the edge of said rim for easily applying the cover.

I make a tip, Fig. 2, with cuts from the outer edge toward its center, said tips being larger than the cover or box on which they are to be used, so that the cut edge may be lapped over upon the side of the cover from its top in securing the end, and the under tip lapped on the side of the box in strengthening the bottom. In forming these tips I remove sufficient stock that the edges of the cuts may not lap one upon the other, as it would give a clumsy appearance. Strips of paper may be cut, as represented in Fig. 3, and used for the same purpose as a round tip, the principle being the same in strengthening the cover or the bottom of the box. With this manner of tip the cover and bottom of boxes made of thin wood can be much strengthened and improved thereby; therefore I do not confine myself entirely to paper boxes in the use of the tip. Said tips may be cut with different designs on the edge, as desired, for ornamenting.

What I claim as new is—

1. A paper box provided with the projecting bead and having a compressed rim, substantially as described.

2. The ring B, in combination with rollers, arranged substantially as herein described, and for the purpose specified.

CHARLES A. YOUNG.

Witnesses:

SANFORD C. HOVEY,  
JOHN C. PURKIS.