

(No Model.)

OFFICIAL FOR.

No. 542,804.

Patented July 16, 1895.

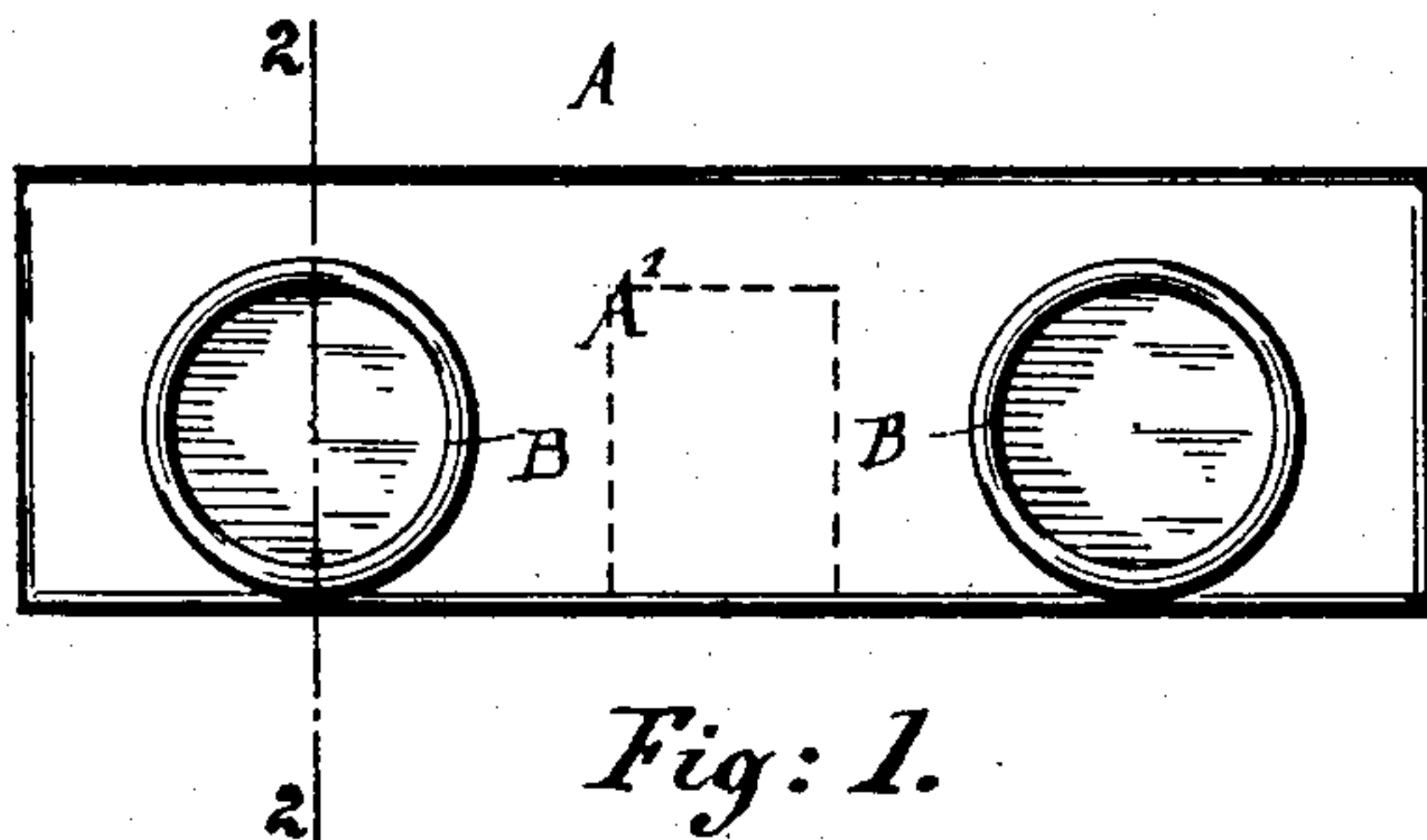


Fig: 1.

*manipulating
by prisms
no lenses.*

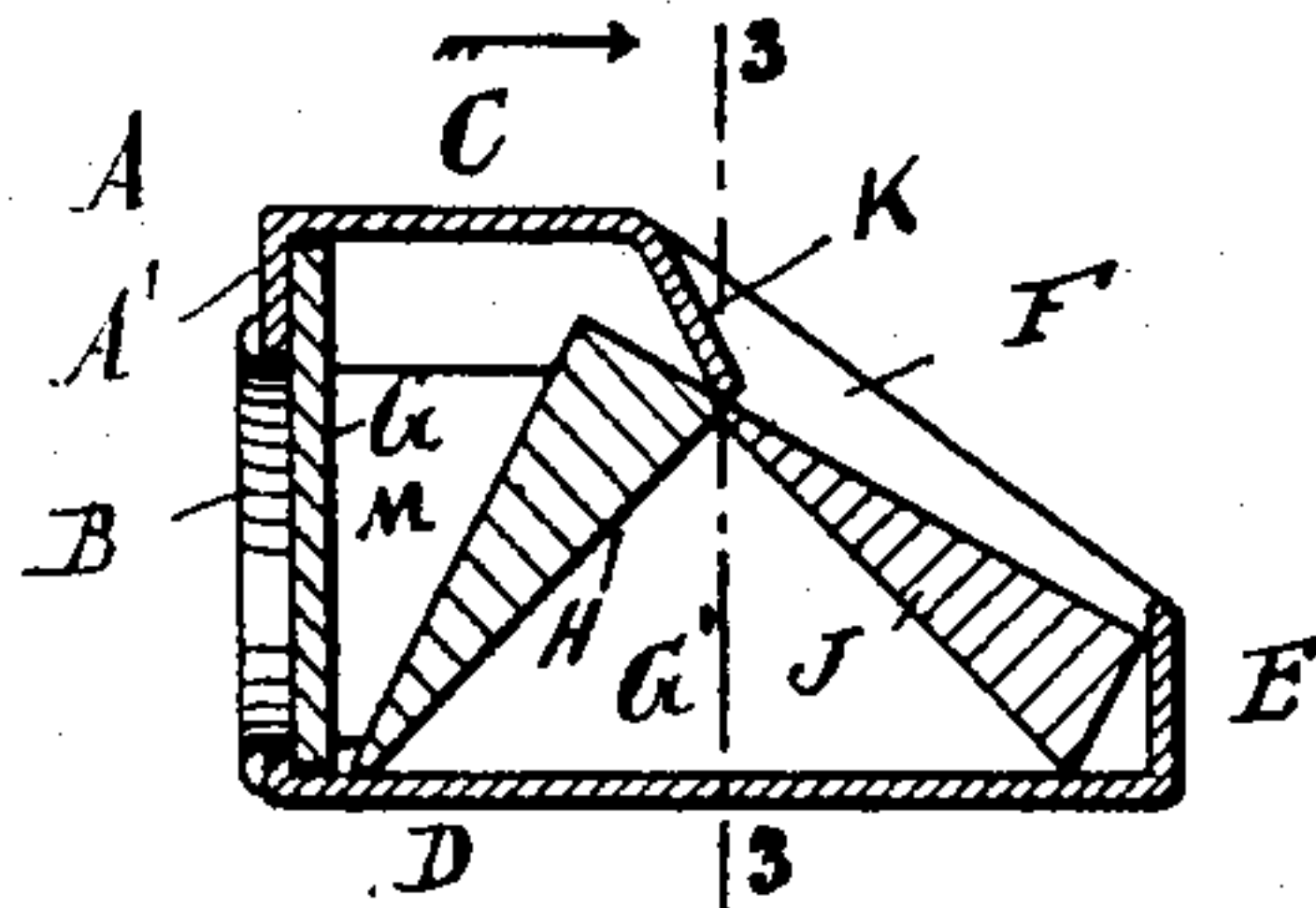


Fig: 2.

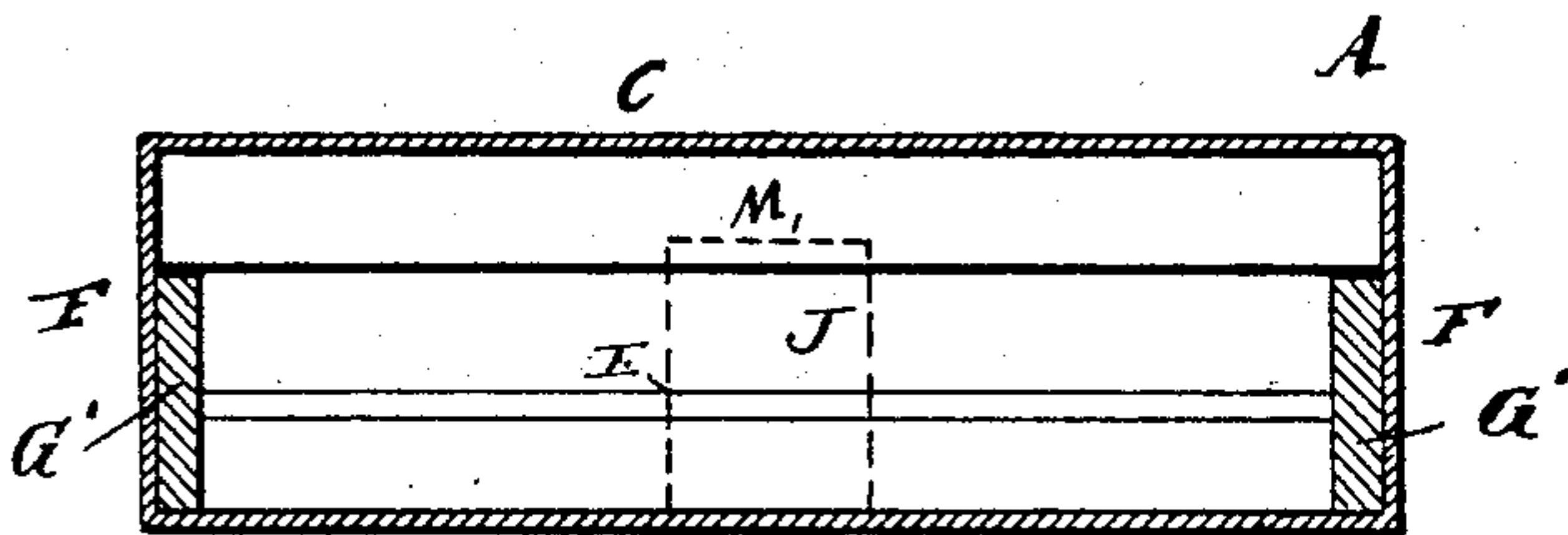


Fig 3.

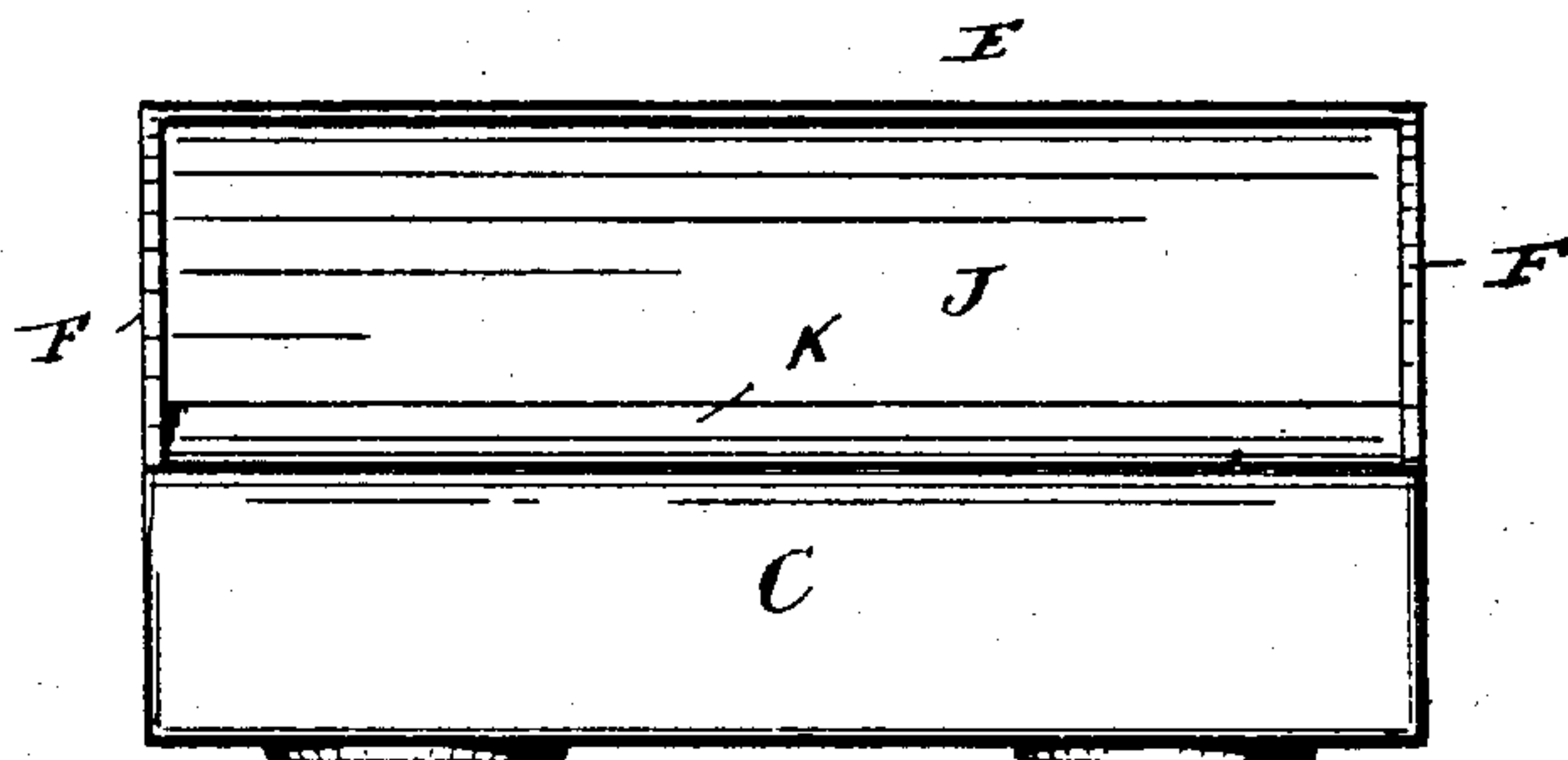


Fig: 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

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OPTICAL TOY.

SPECIFICATION forming part of Letters Patent No. 542,804, dated July 16, 1895.

Application filed April 3, 1895. Serial No. 544,234. (No model.)

To all whom it may concern:

Be it known that I, HENRY V. PIAGET, a citizen of the United States, and a resident of Jersey City, in the county of Hudson, in the State of New Jersey, have invented certain new and useful Improvements in an Optical Toy, of which the following is a specification.

The object of my invention is to provide a new and improved optical toy, which is so constructed that objects, persons, &c., when viewed through the same appear greatly lengthened in the horizontal direction, thus producing comical and amusing effects.

The invention consists in the combination, with a casing having sight-openings and also having part of its top uncovered, of two prisms held at an angle in said casing in such a manner that objects can be viewed through the two prisms by looking through the sight-openings on the casing.

The invention also consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and finally pointed out in the claims.

In the accompanying drawings, forming a part of this specification, and in which like letters of reference indicate like parts in all the figures, Figure 1 is a front view of my improved optical toy. Fig. 2 is a vertical transverse sectional view of the same on the line 2 2 of Fig. 3. Fig. 3 is a vertical longitudinal sectional view of the same on the line 3 3 of Fig. 2. Fig. 4 is a plan view of the same.

The casing A, which may be made of pasteboard, wood, or metal, is provided in its front A' with two openings B, having their centers from each other a distance equal to the distance between the centers of the eyes.

The top C of the casing is about only one-half the width of the bottom D and is connected with the upper edge of the front A', as shown in Fig. 2. The remaining portion of the top of the casing is open and the back E of the casing is made quite low, the edges of the ends F of the casing being inclined from the inner edge of the top C to the top edge of the back E.

A piece of plain glass G is placed against the inner surface of the front A' and is cemented in place for the purpose of closing the openings B to keep out dust or moisture

and at the same time not to interfere with the vision.

A triangular piece G', of pasteboard or wood, is placed and secured against the inner surface of each end piece F of the casing, as shown in Figs. 2 and 3, and on the edges of said pieces F the end parts of two polished prisms H and J are rested.

The prisms in cross-section have the shape of a triangle, and the prisms are so arranged that the base of the prism H nearest the front of the casing is at the apices of the triangular pieces G' and adjacent to the ridge or apex of the other prism J, the base of which is adjacent to the back E of the casing.

A flange K at the inner edge of the top C of the casing has its bottom edge rested upon the top of the prism J, along the line of contact of said prism with the prism H, as shown in Figs. 2 and 3. The object of said flange K is to prevent the rays of light from passing over the tops of the prisms into the eyes of the persons viewing objects by means of the device and to hold the prism J in place.

A wedge M is inserted between the prism H and the plain glass G to hold the prism H in place.

To use the optical toy the same is placed in front to the eyes in such a manner that the observer can look through the openings B, the open side and top of the casing facing the object to be viewed. The two prisms when arranged and combined in the manner shown break the rays of light in such a manner that all objects viewed through them appear greatly reduced in size vertically and greatly extended in size horizontally, whereby most comical and entertaining effects are produced.

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

1. In an optical toy, the combination with a casing of two prisms located in the same, both being triangular in cross section and held at an inclination to each other, the base of one prism being along the apex of the other prism, substantially as herein shown and described.

2. In an optical toy, the combination with a casing, provided in one face with sight openings and having part of its top uncovered, of two prisms held in said casing at an inclina-

tion to each other, both prisms being triangular in cross section and one prism having its base along the apex of the other prism, substantially as herein shown and described.

5 3. In an optical toy, the combination with a casing having sight openings in one wall and having part of its top uncovered, of triangular pieces secured to the inner faces of the ends of the casings, two prisms, each triangular in cross section, rested upon the edges of said triangular pieces the base of one prism being along the apex of the other prism, substantially as herein shown and described.

15 4. In an optical toy, the combination with a casing provided with sight openings in one wall, of a plain piece of glass placed against the inner surface of the wall provided with said openings, two prisms held at an angle to each other within said casing, and a wedge interposed between one of said prisms and the

piece of plain glass, substantially as herein shown and described.

5. In an optical toy, the combination with a casing provided with sight openings in one wall and provided with a top of about half 25 the width of the casing and connected with the top of the wall having the openings, of two prisms held at an inclination to each other in said casing and a flange on the free edge of said top, the bottom edge of said flange 30 resting against the top parts of the prisms, substantially as herein shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 7th day of November, 1894. 35

HENRY V. PIAGET.

Witnesses:

OSCAR F. GUNZ,
D. PETRI PALMEDOZ.