

(No Model.)

2 Sheets—Sheet 1.

H. HUBBELL.

DEVICE FOR FEEDING AND DELIVERING TOILET PAPER.

No. 369,855.

Patented Sept. 13, 1887.

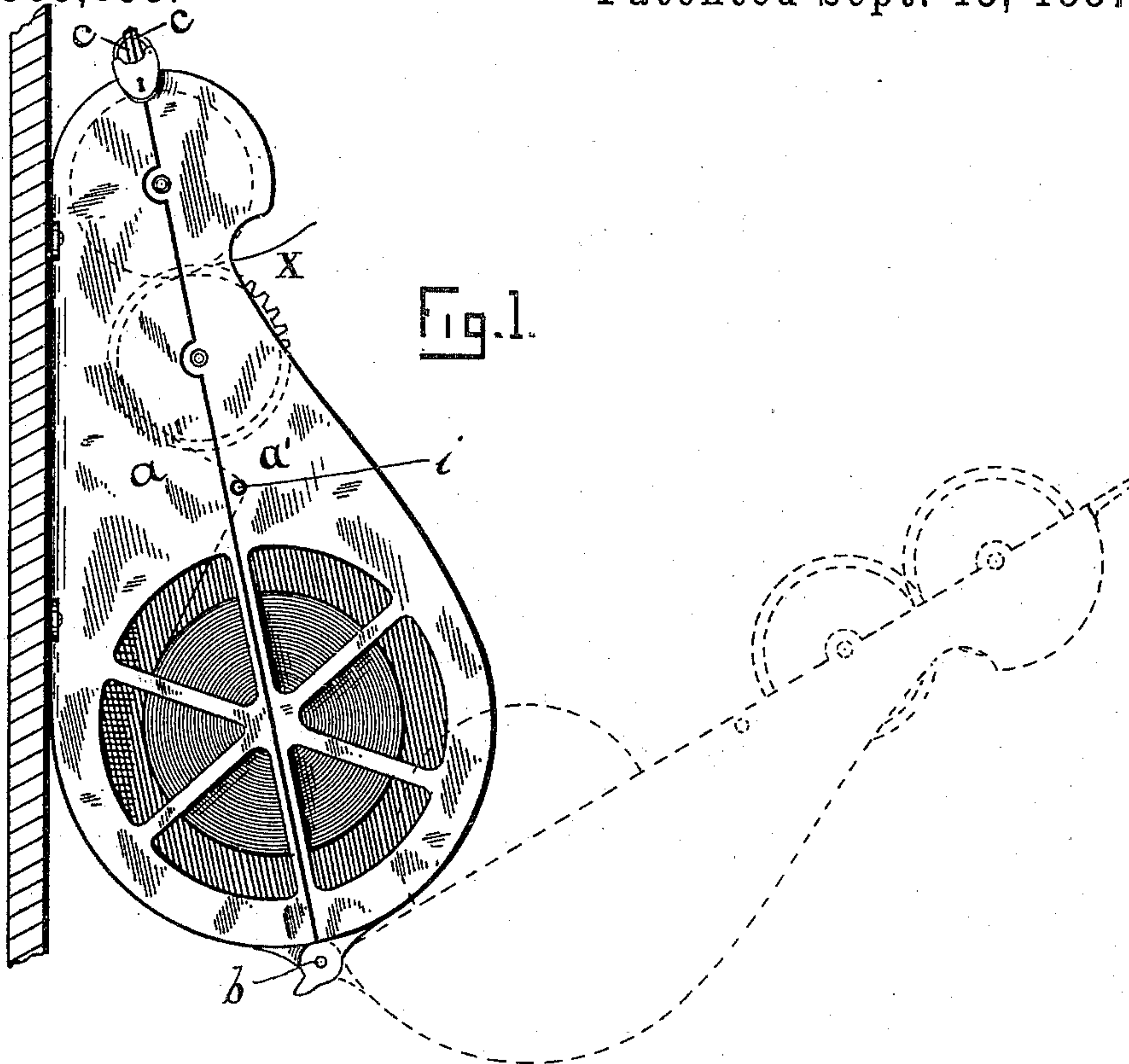
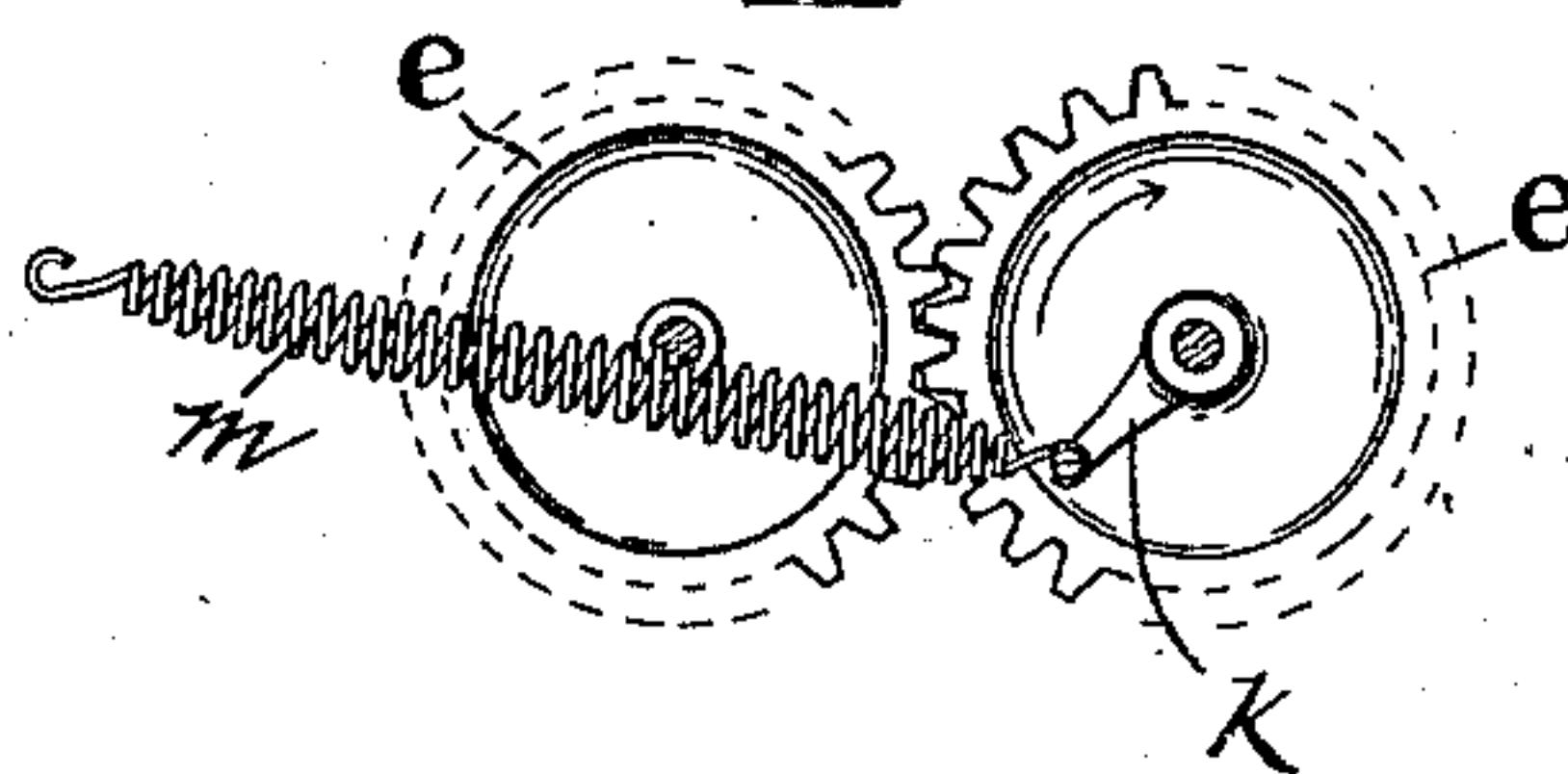


Fig. 2.



Witnesses:

Fred. N. Lathrop

Allen Tenny.

Inventor:—

Harvey Hubbell

By his Attorney

Frank A. Allen

(No Model.)

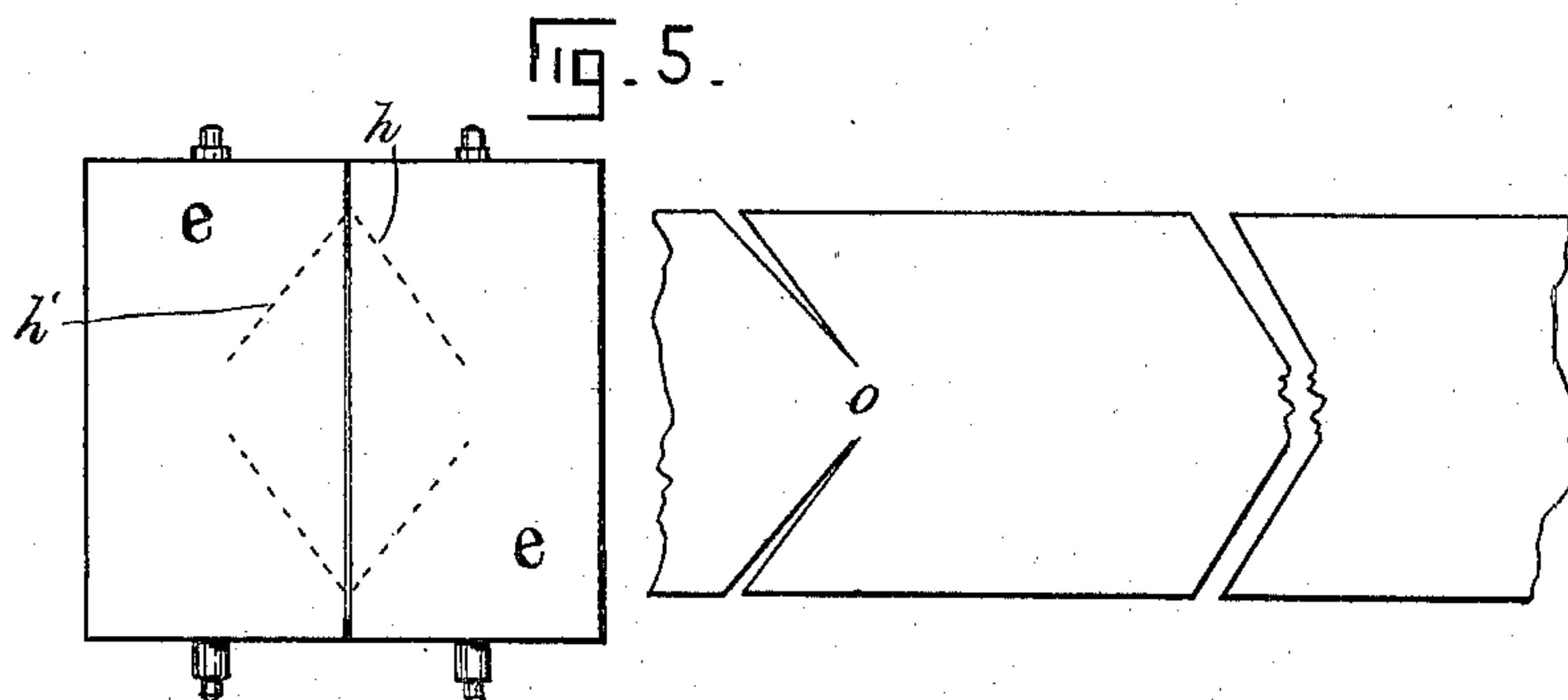
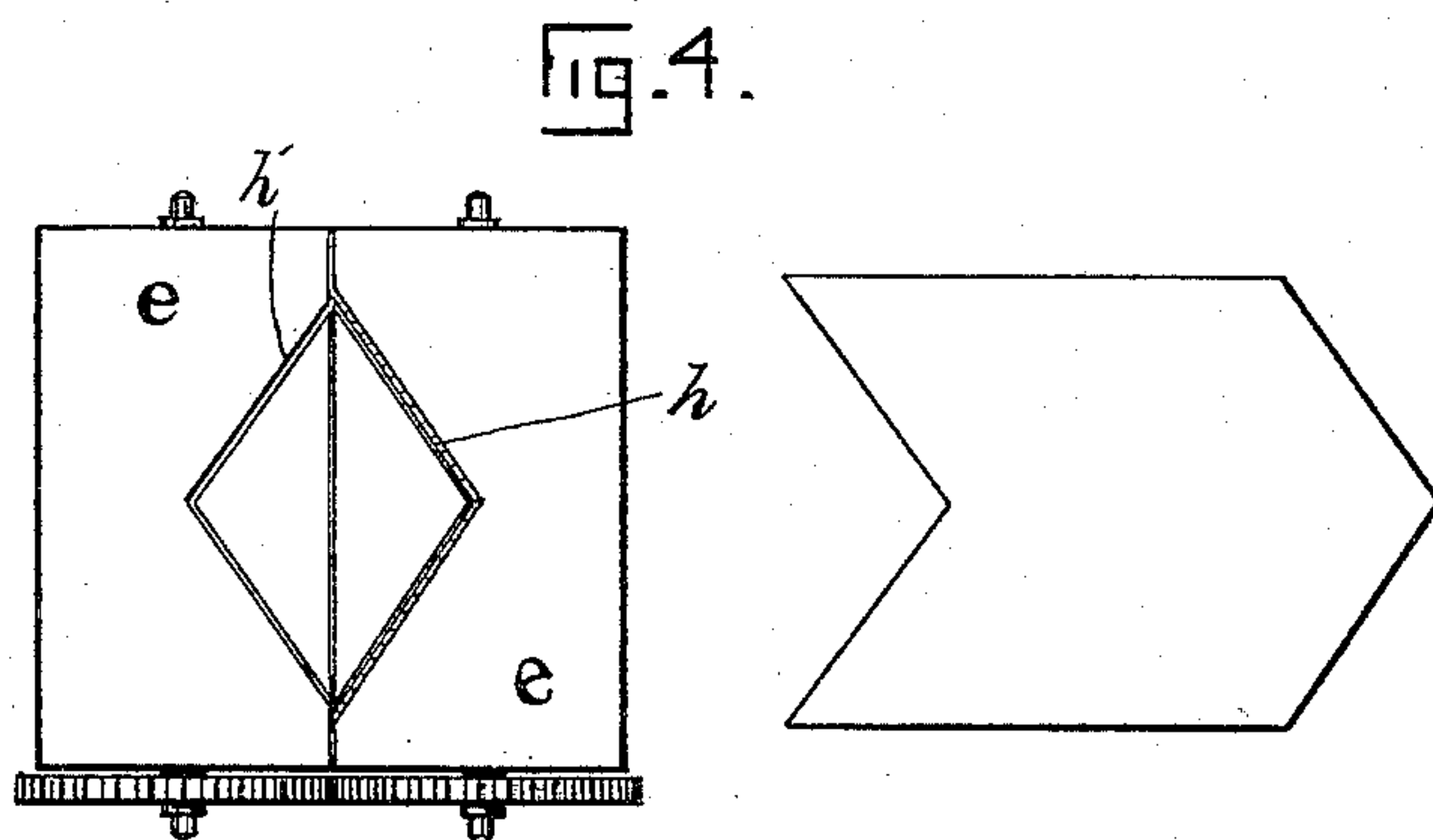
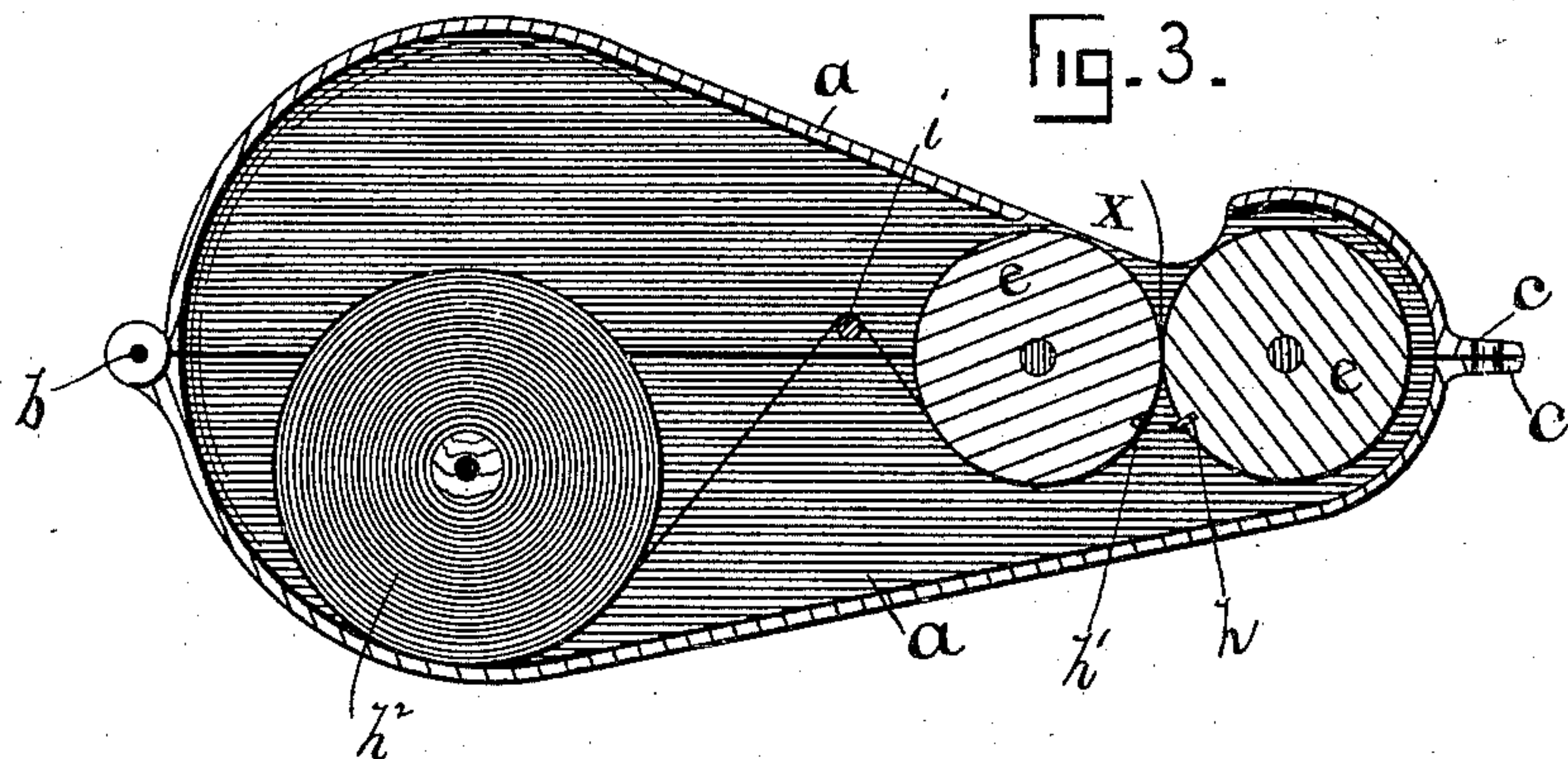
2 Sheets—Sheet 2.

H. HUBBELL.

DEVICE FOR FEEDING AND DELIVERING TOILET PAPER.

No. 369,855.

Patented Sept. 13, 1887.



Witnesses:-
Fred H. Lathrop
Allen Tenny.

Inventor:-
Harvey Hubbell
By his Attorney
Frank H. Allen

UNITED STATES PATENT OFFICE.

HARVEY HUBBELL, OF NORWICH, CONNECTICUT.

DEVICE FOR FEEDING AND DELIVERING TOILET-PAPER.

SPECIFICATION forming part of Letters Patent No. 369,855, dated September 13, 1887.

Application filed April 16, 1887. Serial No. 235,107. (No model.)

To all whom it may concern:

Be it known that I, HARVEY HUBBELL, a citizen of the United States, residing in the city of Norwich, county of New London, and State of Connecticut, have made certain new and useful Improvements in Devices for Holding and Delivering Toilet-Paper, which improvements are fully set forth and described in the following specification, reference being had to the accompanying sheet of drawings, in which—

Figure 1 is a side elevation of my said device, showing also in dotted lines the relative position of the outer half part when opened to receive a new roll of paper. Fig. 2 is a view of the feed-rolls detached from the case, and illustrates the mechanism by which said rolls may be partially rotated after each cut to leave the end of the paper projecting outward, as hereinafter described. Fig. 3 is a central longitudinal section of my device. In Figs. 4 and 5 I have shown the feed-rolls *e e* with different forms of cutting-knives, together with sections of the paper as cut by said knives.

My invention relates to devices for supporting a continuous strip or roll of toilet-paper; and it consists of certain combinations of simple mechanical elements by means which of said paper can be removed only a single sheet at a time. It has been an almost universal practice heretofore to furnish toilet-paper of this class in packages of cut sheets, or in a continuous roll, from which it may be unwound and removed at will. When so provided for public use—as at hotels, railway-stations, mills, and other institutions wholly or in part opened to the public—large quantities of such paper are carried away (virtually stolen) by the frequenters of such places.

The object of my invention is to prevent this expensive and annoying practice by inclosing said paper in a suitable case from which, as above stated, only one sheet or section of the paper can be removed at a time.

Referring to the drawings, the letters *a a'* indicate the case of my device, made preferably of light cast metal, hinged together at one end, as at *b*, and having projecting lugs *c* at the opposite end formed with coincident holes through which the loop of a padlock may be passed to lock the sections *a a'* together.

Hung in suitable bearings in one half of the case are contact-rolls *e e*, geared together substantially as shown in Figs. 2 and 4, one of said rolls being provided with a knife, *h*, which engages a corresponding groove, *h'*, in the companion roll to sever the paper at each revolution of said rolls, as more fully described hereinafter. The case is cut away adjacent to the delivery side of the feed-rolls, as at *x*, to allow the paper unobstructed egress as it is fed from between said rolls.

One end of the inclosing-case is made large enough to receive a roll of paper, *h²*, which may be supported on a central shaft or may be simply laid in the case, as in Fig. 3. When a new roll is placed in the case, the end of the paper is carried around a tension-wire, *i*, and is then passed between rolls *e e*. Now, by grasping the end of said paper and drawing it outward the rolls are caused to rotate until the knife comes into contact with the paper and severs it, the section thus severed being equal in length to the circumference of the feed-rolls.

It will be obvious that when a straight knife is used and a square sheet delivered some means must be provided for feeding the end of the paper forward a short distance after each cut, so that it may be grasped when it is desired to remove another section. This I accomplish in a simple manner by attaching to the shaft of one of the feed-rolls a crank, *k*, whose free end is connected to a spring, *m*. The opposite end of the spring is secured to the inner side of the case. Crank *k* is so located relative to the revolving knife that when said knife has effected a cut the crank will have passed the center, and spring *m* will then act to keep the rolls in motion about one-third of a revolution, or far enough to carry the paper forward and leave the end projecting slightly beyond the case.

In Figs. 4 and 5 I have shown cutting-knives set at an angle to the roll instead of parallel with its axial center. The construction shown in Fig. 4 is such that when the knives finish cutting the angular end of the uncut strip projects beyond the rolls a distance sufficient to enable one to grasp it easily.

In order to prevent any tendency on the part of the paper to stick in the knives and refuse to feed outward, the knives may also be left a

quarter of an inch, or thereabout, apart, as in Fig. 5, in which case sufficient stock, as at *o*, will be left uncut in the middle of the strip to cause the paper to feed regularly. This uncut
5 portion *o*, when the knives have completed the cut, is easily torn apart, leaving the end of the strip projecting.

The means which I have adopted for severing the paper at stated distances is, so far as I am
10 acquainted with the state of the art, new in this class. The knife *h* does not engage one of the side walls of the groove *h'* to produce an actual shearing cut to sever the paper, but rather acts as a punch and die and tears apart said paper
15 on the line of the knife, the paper being meanwhile strained taut by the act of drawing it forward by hand. The knives may be very dull and yet perform their office perfectly.

Having described my invention and the manner in which it is to be operated, I claim—
20

1. In combination with a two-part case hinged as described and having at one end a paper-receptacle, contact-rolls pivoted in said case, one of said rolls being grooved in a direc-

tion transverse to the line of rotation, the com- 25
panion roll being provided with a knife adapted to engage said groove, substantially as and for the purpose specified.

2. In combination, a paper-inclosing case, contact-rolls *ee*, pivoted in said case, carrying
30 a knife and groove, as described, for severing the paper at each revolution, crank *k*, secured to the journal of one of said rolls, and a spring connecting the wrist-pin of said crank and the inclosing-case, substantially as and for the
35 object specified.

3. In combination with an inclosing-case having one end formed as a paper-receptacle, contact feed-rolls pivoted in said case, as described, said feed-rolls being provided with
40 paper-severing knives broken in their length to leave an uncut section of paper, substantially as and for the object specified.

HARVEY HUBBELL.

Witnesses:

FRANK H. ALLEN,
F. L. ALLEN.