

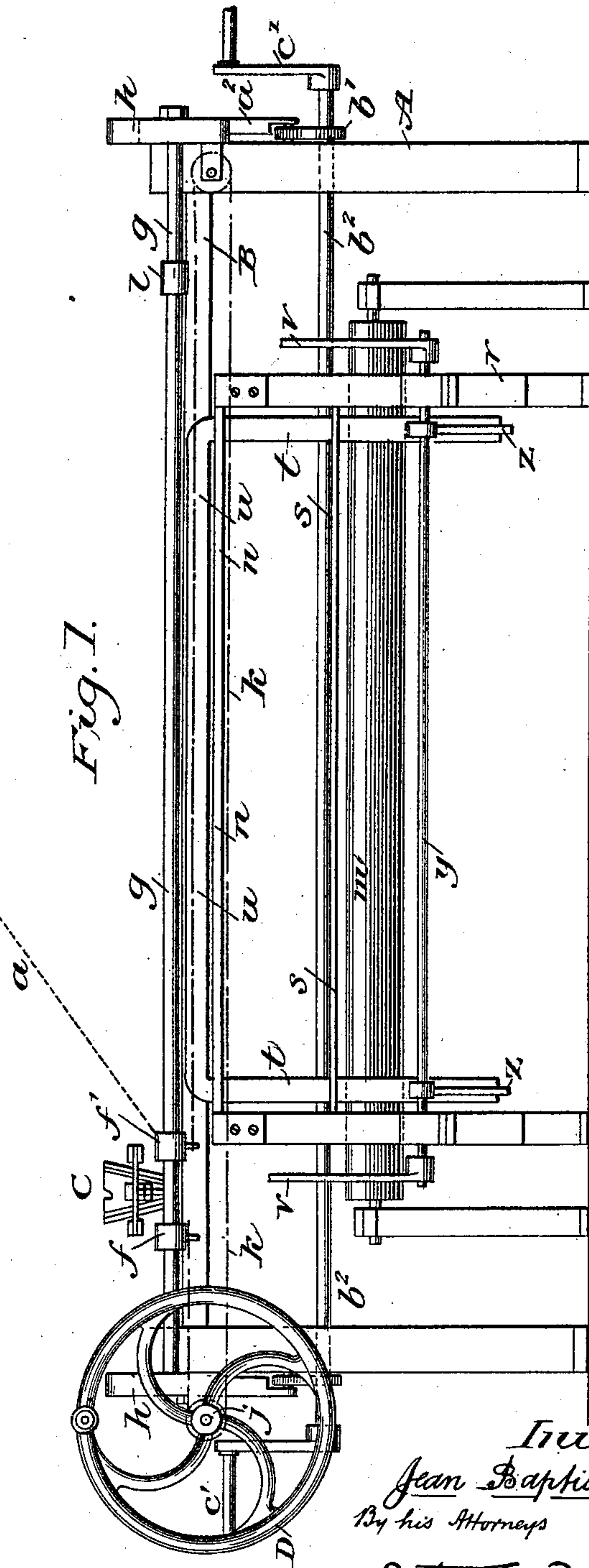
(No Model.)

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J. B. SCHWEITZER.
APPARATUS FOR DECORATING FABRICS.

No. 538,354.

Patented Apr. 30, 1895.

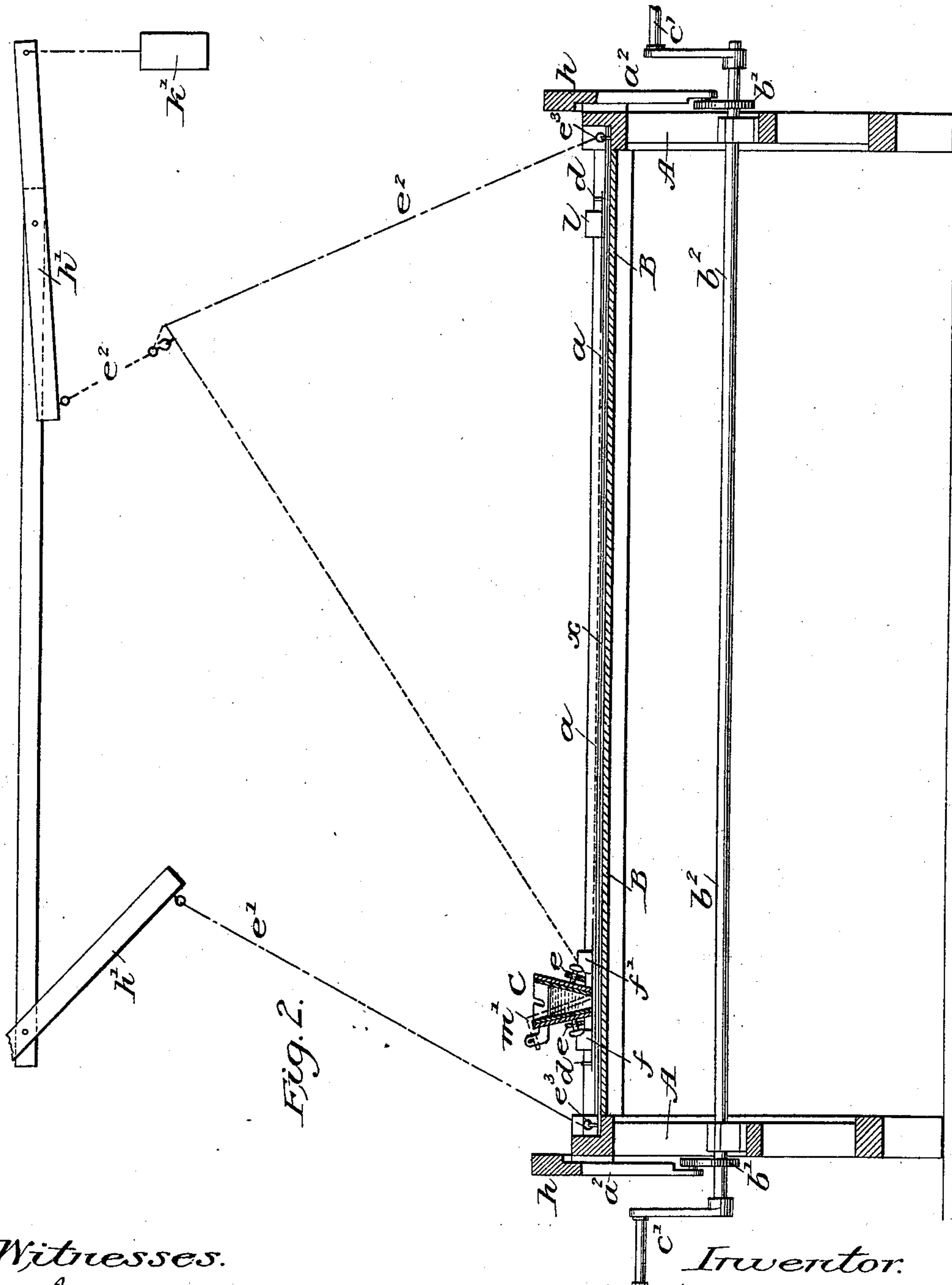


Witnesses.
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4 Sheets—Sheet 2.

Patented Apr. 30, 1895.



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(No Model.)

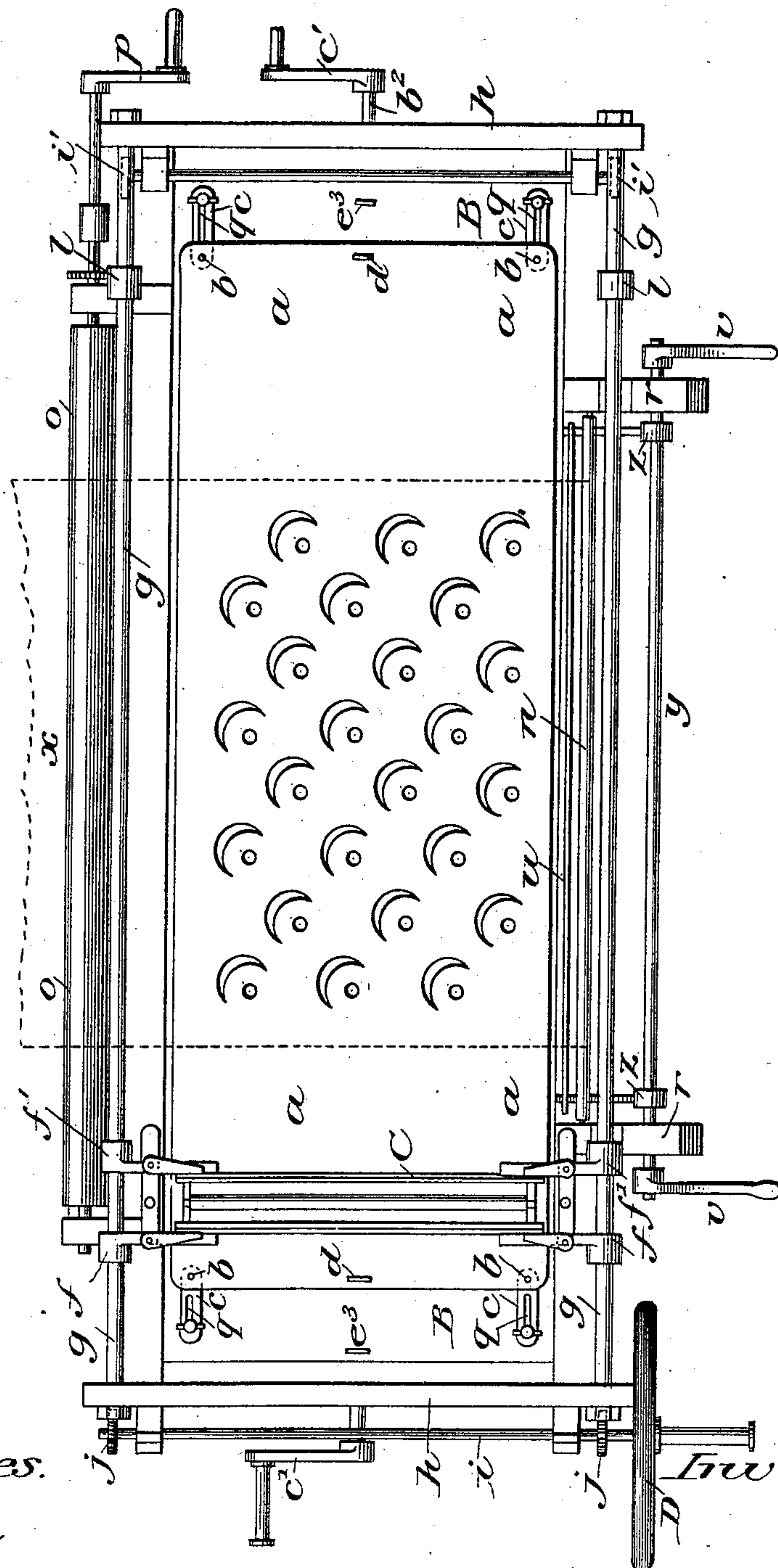
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Fig. 3.



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Fig. 5.

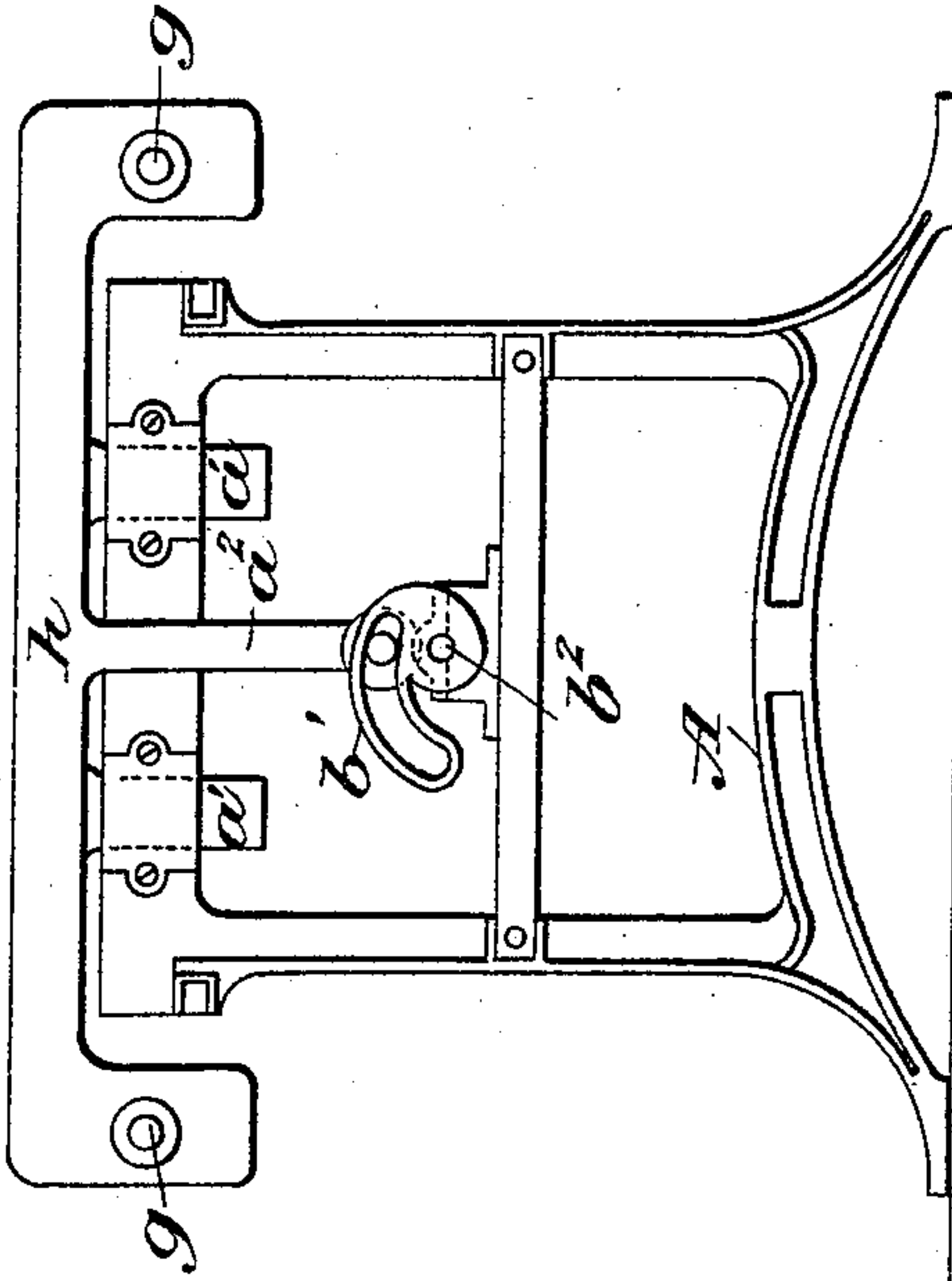
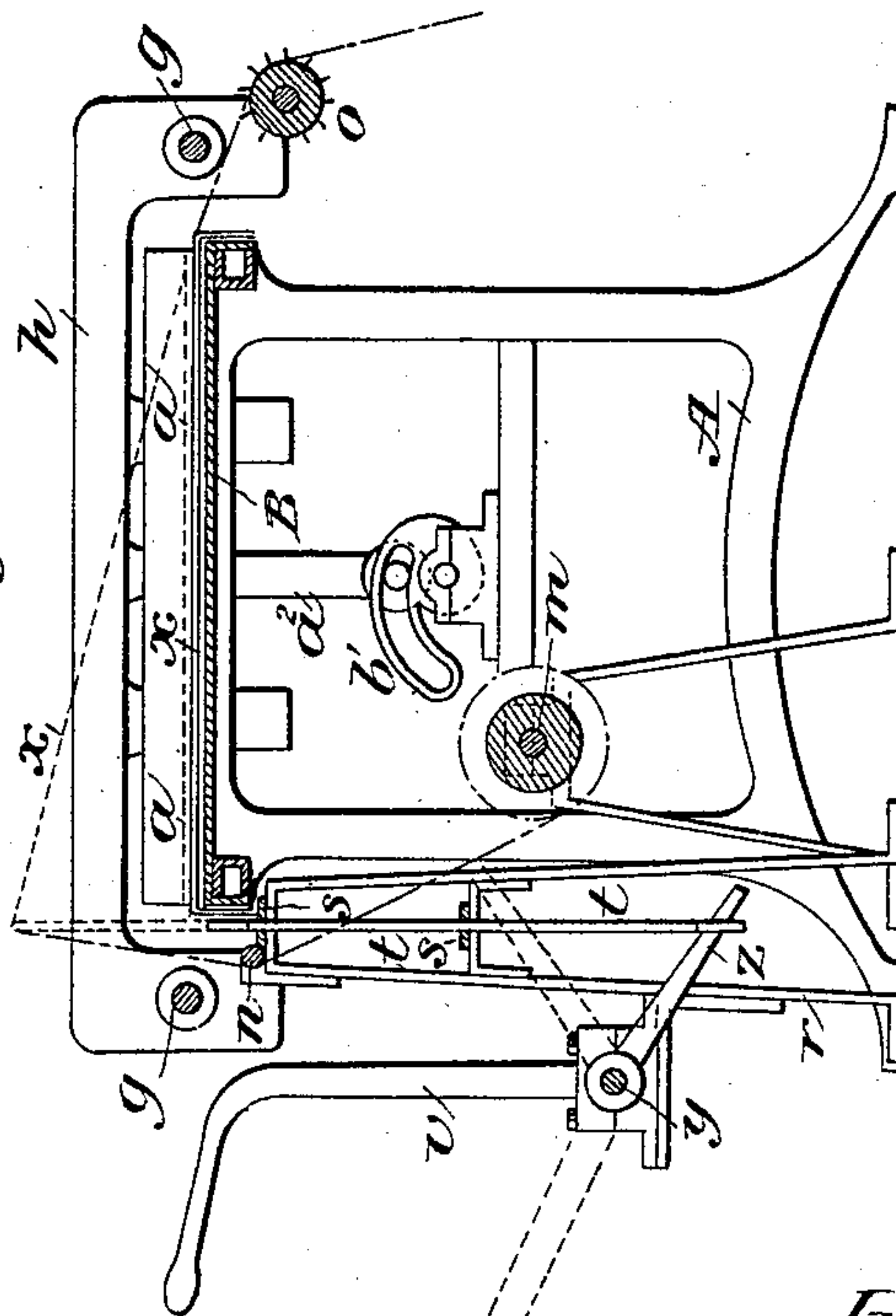


Fig. 4.



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UNITED STATES PATENT OFFICE.

JEAN BAPTIST SCHWEITZER, OF PARIS, FRANCE, ASSIGNOR TO THE SOCIÉTÉ
PROSPER ET CIE., OF SAME PLACE.

APPARATUS FOR DECORATING FABRICS.

SPECIFICATION forming part of Letters Patent No. 538,354, dated April 30, 1895.

Application filed March 18, 1891. Serial No. 385,554. (No model.)

To all whom it may concern:

Be it known that I, JEAN BAPTIST SCHWEITZER, a citizen of the Republic of France, residing in Paris, France, have invented certain new and useful Improvements in Apparatus for Decorating Fabrics, of which the following is a specification.

The object of this invention is an apparatus for the manufacture of fabrics adorned by means of figures formed by applying to the said fabric powders of colors or metals made adherent through the medium of an adhesive substance, glue, gum, &c., applied on the parts destined to form the figures, or ornaments, in following the outlines of the latter. The application of the fixing glue is effected by means of the apparatus which is the object of my invention, and which is specially destined for adorning light fabrics, such as press-
points, gauzes, &c., but it may also be employed for stronger or thicker fabrics.

My apparatus is represented in the annexed drawings, wherein—

Figure 1 is a front view; Fig. 2, a longitudinal section; Fig. 3, a plan; Fig. 4, a transverse section; and Fig. 5 a side view.

The apparatus consists of a framing A supporting a table B of cast iron, lined on its exterior face with felt or any other elastic material, which if desired may be covered by an oil-cloth or other similar material. The said lining acts as a cushion for the fabric x receiving the adhesive. It receives a thin metal plate a perforated and openworked constituting a stencil, the holes forming the flowers, figures or other ornaments which are to be obtained as a velveting or flock surface on the fabric.

In the perforated plate a are holes for receiving pins b fixed on metallic strips c provided with slots q , by means of which the position of the plate on the table B may be varied at will. The plate a also carries on each extremity an eye-bolt d working as hereinafter set forth.

On the perforated plate a rests a trough C containing the gluing matter, and having an

opening in its bottom (Fig. 2) so that when it is moved longitudinally of the apparatus it will apply the adhesive to the required parts of the fabric. It is therefore supported by a frame e , fixed on guides $f f'$, sliding on rods $g g$, the latter forming with the end pieces $h h$ a rigid frame.

The trough C is actuated by a wheel, or a crank D, the axle of which i carries two sprocket wheels j , acting on two chains k which extend to the other extremity of the table, over two pulleys i' . The two extremities of each chain are fixed respectively to the guides f and f' . Therefore when turning the wheel D to the right, the trough C will also slide to the right, and on reaching the abutment l , the wheel may be turned to the left for returning the trough to the same side. The fabric to be treated x is placed below the table wound on a roll m , (Fig. 4) and passes thence over a small roller n , and successively over the table B, and a roller o covered with pins, by which it is maintained in a stretched position. Said roller o is also provided with a ratchet wheel and pawl, and may be turned by means of a crank p .

In front of the apparatus is placed a fixed frame, the uprights of which r are connected by cross-pieces s in which two mortises are made for guiding the upright slides t of a vertically-movable frame having a horizontal bar u , which may be raised and lowered by means of levers v fixed on a shaft y on which are fixed two levers Z, the extremities of which enter notches made in the lower part of the uprights t . When one of the levers v is lowered, as indicated by the dotted lines Fig. 4, the bar u rises, lifting the fabric at the same time. The apparatus, moreover, admits an elevating motion of the frame, which carries the trough C, so that by raising this trough the plate a may be placed on the table B. For this purpose each of the end pieces h is provided with arms a' sliding in grooves of the framing A. A third arm a^2 provided with a roller bears against a cam b' , fixed on a shaft b^2 , which is supported by the framing and car-

ries two cranks c' . By turning these cranks, the frame may be raised, thereby permitting the plate a to be placed below the trough C and hooked on the table B.

5 The working of the apparatus is effected in the following manner: The fabric being placed as already explained and the perforated plate put over it, then—(the trough C being supposed to be on the right side)—the wheel D
10 is turned to the left, whereby the chains k will move the scraper to the same left side, and the adhesive will settle on the fabric in all places where the plate a is perforated. At the opposite ends of the course are hooked
15 two cords e' and e^2 respectively, one end of each having a hook for connecting it either to one of the eye-bolts d at the ends of the plate a , or to one of the fixed eye-bolts e^3 in the table, while their opposite ends are con-
20 nected each to a separate lever h' overhead, acted on by a weight k' . The weight k' causes the lever h' to turn, so that the plate a is drawn up as indicated by the broken lines Fig. 2. By lowering the lever v the bar u is
25 raised, lifting the fabric, which is then prevented from rubbing on the table B during the rotation of the roller o , which leads onto the table a new length of the fabric. The lever v is raised in order to lower the bar u ,
30 and the cord e^2 pulled to draw the perforated plate down again on the fabric. The cord is then unhooked from the eye-bolt d on the plate, and hooked to the fixed eye-bolt e^3 on the table. (See Fig. 2 at left.) The wheel D
35 is then turned, advancing the scraper to the right. At this point the cord e' on the left is hooked to the plate a . This latter being raised, the fabric is also lifted by the piece u and another length of fabric brought forward,
40 the operation being then recommenced in the same manner. After leaving the apparatus, the fabric is powdered in an ordinary machine serving for this purpose, and the powder applied to all parts of the fabric treated with the
45 adhesive.

In order to avoid a flow of the adhesive when the frame is raised and the plate a taken away, a plate m' is introduced obliquely into the trough C and closes the bottom, as
50 shown in dotted lines in Fig. 2.

When the apparatus is employed for treating full fabrics by means of the adhesive, the bar u is taken away with its frame, because it is not necessary in this case to lift the fab-
55 ric which may then rub on the table B without producing any inconvenience.

I claim as my invention the following-defined novel features, substantially as hereinbefore specified, namely:

60 1. The combination of a table, a flexible stencil plate thereover, a coating device for applying a substance through the openings in said plate, movable from end to end thereof, the said plate adapted to be lifted at one

end while said coating device rests on the 65 other end of the plate, and an overhead connection engaging the plate for lifting it.

2. The combination of a table, a stencil plate, a coating device for applying a sub- 70 stance through the openings in said plate movable over it from end to end, said plate connected to the table so as to admit of its being lifted at either end, and overhead connections with its respective ends, whereby when said coating device is moved to either 75 end of the plate the opposite end thereof may be tilted up by one of said overhead connections.

3. The combination of table B, stencil plate a , overhead levers h' h' over opposite ends 80 of the table, connectors e' and e^2 from said levers respectively, fixed eyes in the opposite ends of the table to which the respective connectors may be fastened, and eyes on opposite ends of the plate for engagement with 85 said connectors, whereby either end of the stencil plate may be lifted independently of the other, by engaging the corresponding connector to its eye, and at other times the connector is engaged with the fixed eye. 90

4. The combination of a table over which a fabric may be stretched, a stencil plate over- 95 lying said fabric, a coating device for applying a coating substance through the openings of said plate, overhead connections for lifting said plate clear of the fabric on said table, and a vertically-movable bar for elevating the fabric in order that the latter may be lifted clear of the table before being moved 100 along to bring a fresh length thereof upon the table for treatment.

5. The combination of a table B, means for directing a fabric from beneath upwardly to the edge of said table and thence over the lat- 105 ter, and means for elevating said fabric to lift it clear of the table consisting of a bar u extending along the edge of the table, vertical guides therefor, and an operating device for lifting said bar.

6. The combination of table B, means for 110 directing a fabric from beneath upwardly to the edge of said table and thence over the latter, bar u having uprights t t , operating lever v , shaft y , and arms z z engaging said uprights, whereby by vibrating said lever said bar u 115 may be elevated to lift the fabric clear of said table.

7. The combination with table B of a vessel C for applying a coating substance, slides en- 120 gaging said vessel, longitudinal guideways on which said slides are mounted whereby said vessel may be guided in its movement by said guideways, and a frame movable vertically relatively to the table and to which said guide- 125 ways are attached, and means for elevating said frame, whereby said vessel may be lifted above the table at will.

8. The combination of table B, vessel C,

longitudinal bars *g g* on which said vessel is mounted, end frames *h h* having vertical guides and to which said bars *g* are attached, cams *b'* engaging said end frames, and shaft
5 *b²* on which said cams are fixed, whereby by turning said shaft said end frames are simultaneously lifted or lowered, and thereby to lift or lower the vessel C.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JEAN BAPTIST SCHWEITZER.

Witnesses:

AUGUSTE BLOCH,
AUGUSTE MATHIEN.