

No. 825,693.

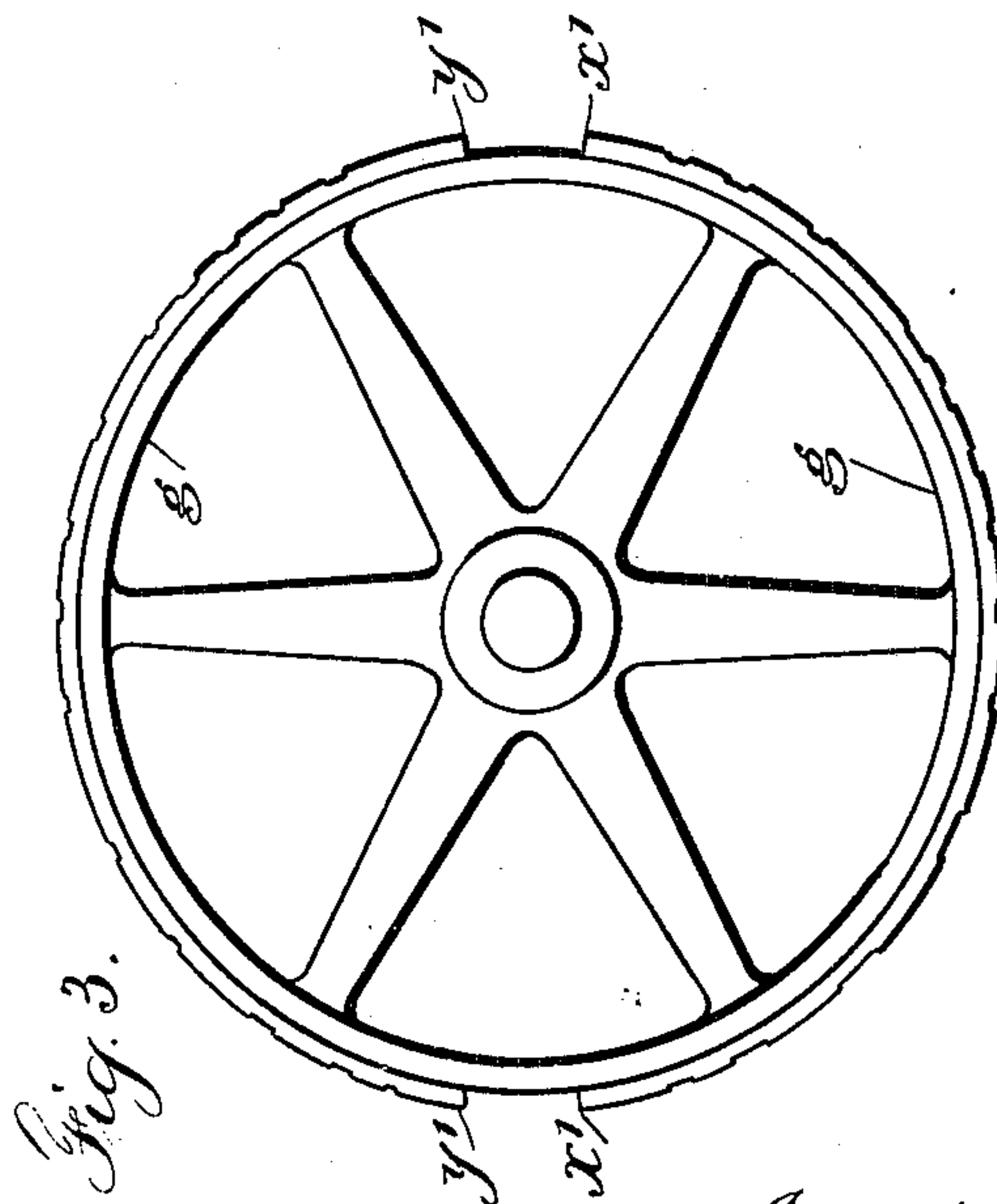
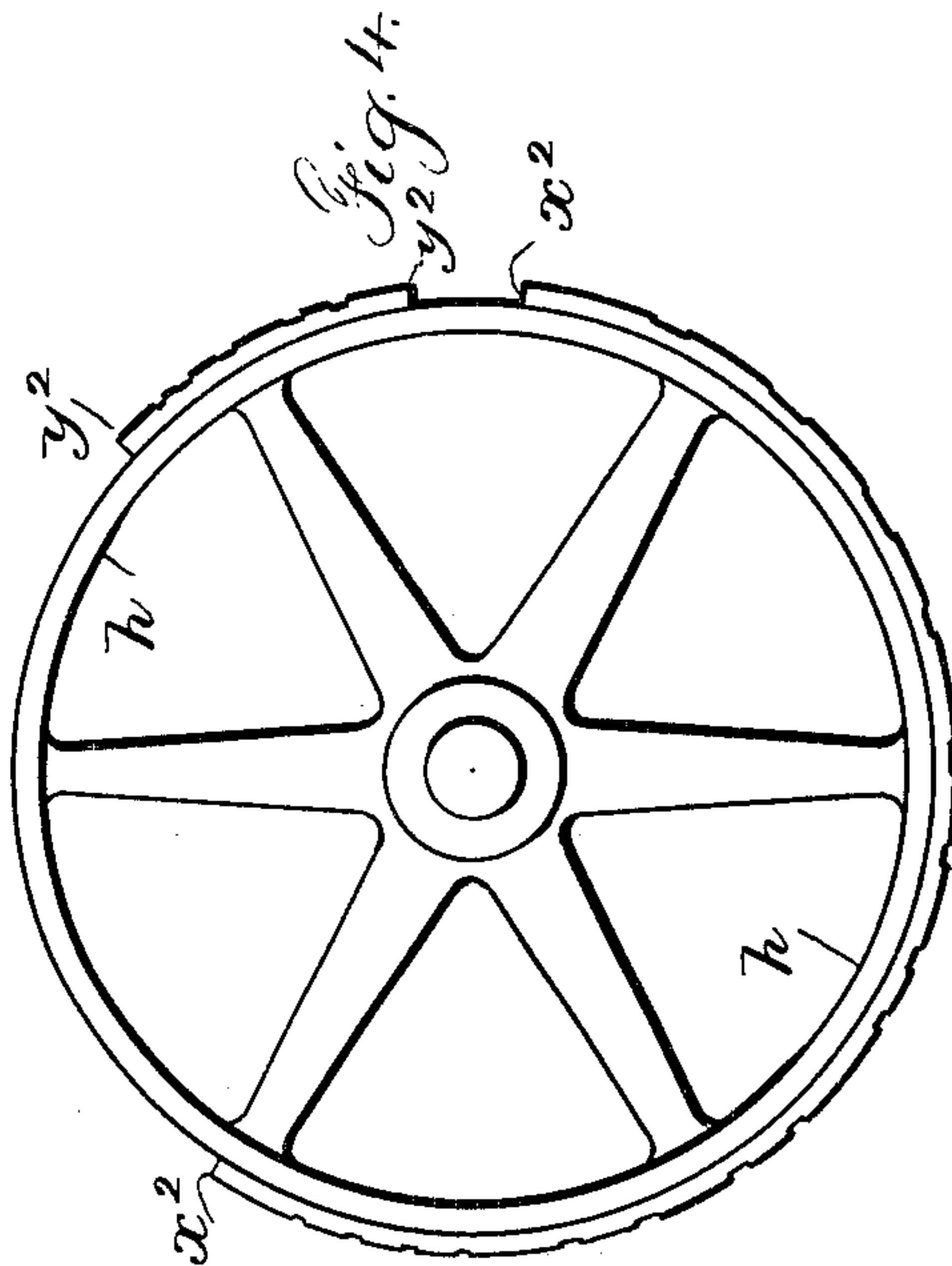
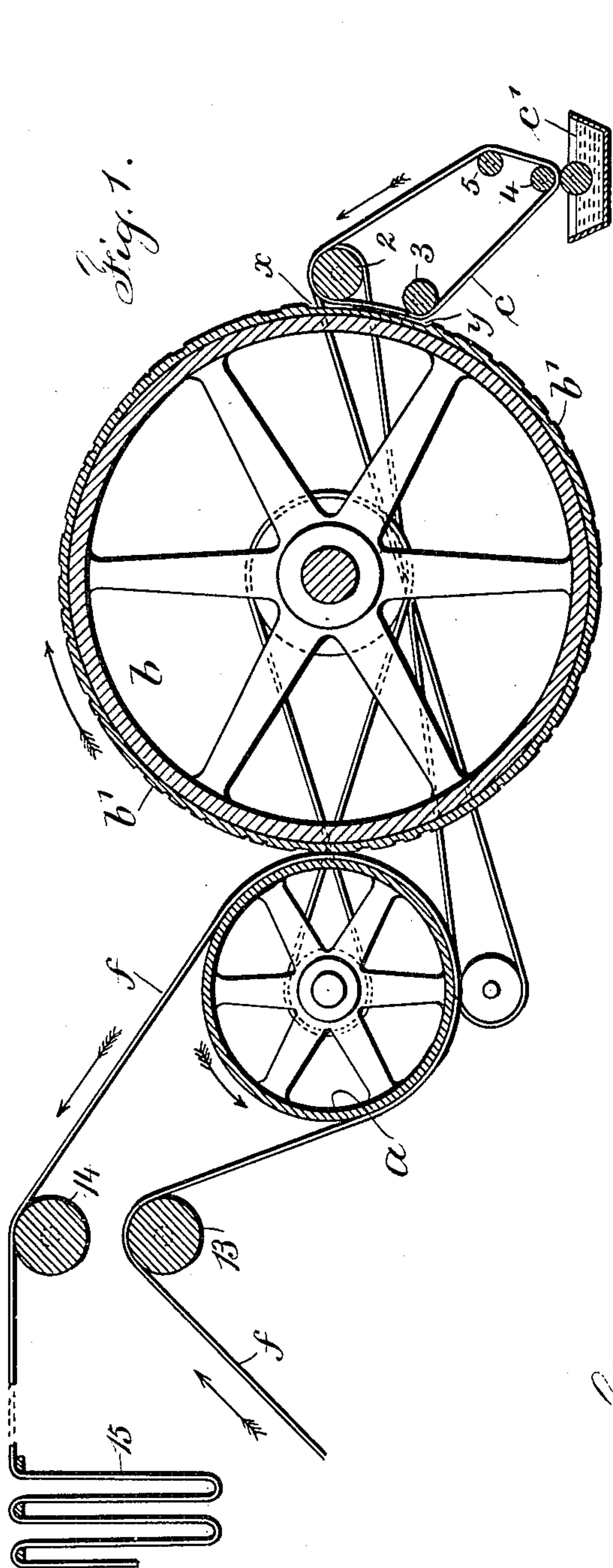
PATENTED JULY 10, 1906.

E. C. BAECK & R. R. BERTELLI.

MACHINE FOR PRINTING DECORATIVE MATERIALS AND WALL COVERINGS.

APPLICATION FILED DEC. 16, 1904.

2 SHEETS—SHEET 1.



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att

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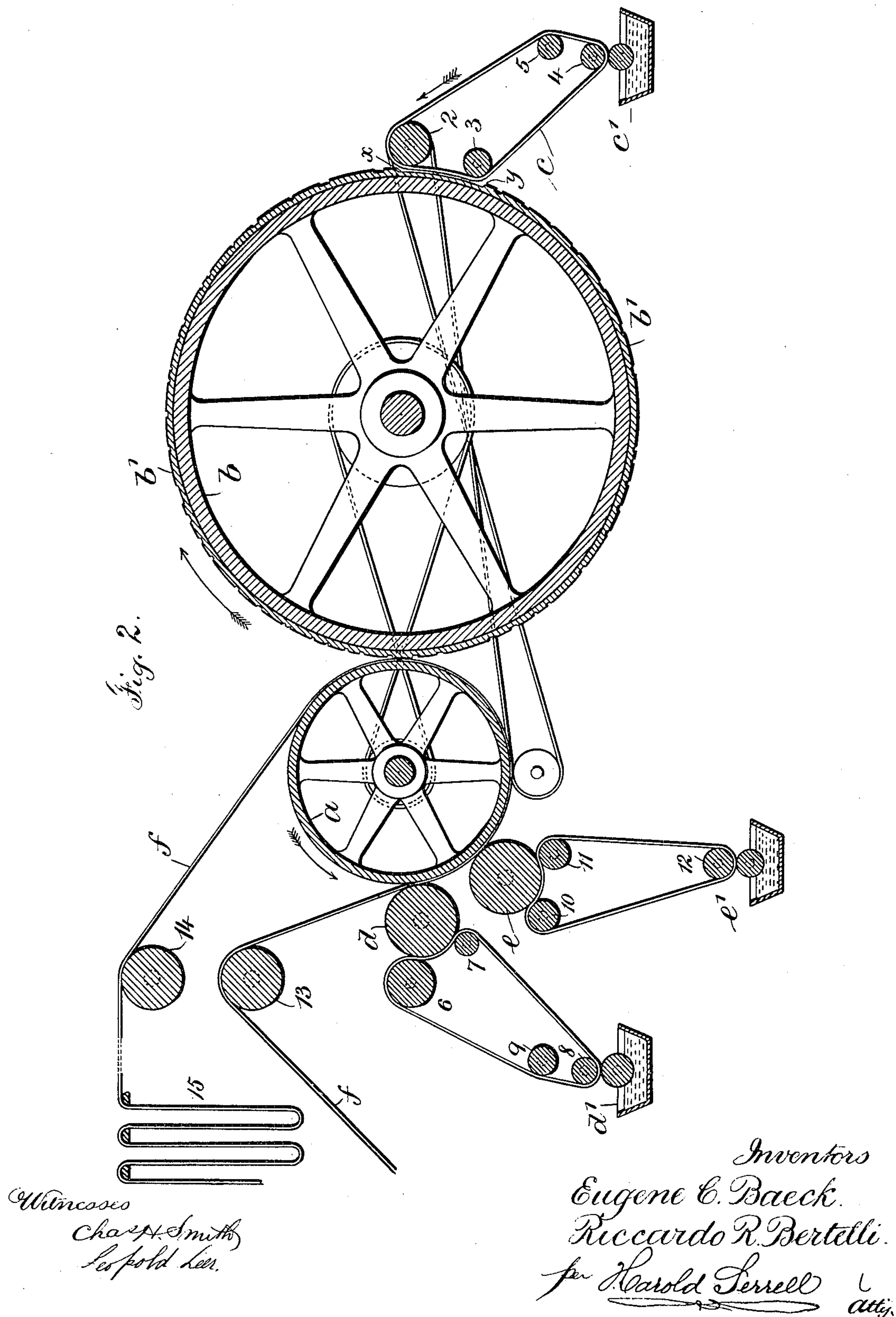
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2 SHEETS—SHEET 2.





# UNITED STATES PATENT OFFICE.

EUGENE C. BAECK AND RICCARDO R. BERTELLI, OF NEW YORK, N. Y.,  
ASSIGNORS TO BAECK WALL PAPER COMPANY, OF NEW YORK, N. Y.,  
A CORPORATION OF NEW YORK.

MACHINE FOR PRINTING DECORATIVE MATERIALS AND WALL-COVERINGS.

No. 825,693.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed December 16, 1904. Serial No. 237,078.

*To all whom it may concern:*

Be it known that we, EUGENE C. BAECK, residing in the borough of Brooklyn, county of Kings, and RICCARDO R. BERTELLI, residing in the borough of Manhattan, county of New York, city and State of New York, citizens of the United States, have invented an Improvement in Machines for Printing Decorative Materials and Wall-Coverings, of which the following is a specification.

Decorative materials or wall-coverings as at present manufactured are usually figured in ornamental designs which are applied to such materials by pattern-rollers of about eighteen to twenty-four inches in circumference. Hence the design applied is in repeated sections or multiplying figures that substantially match but present a sameness foreign to hand decoration and the effect of which is less pleasing.

The object of our invention is to simulate in machine-decorated wall-coverings or decorative materials the continuous and unitary designs of handwork.

Our invention relates to the combination, in a machine for printing decorative materials having an impression-cylinder over and around which a context web or strip of suitable material to be printed upon is caused to pass, of a printing-roller of relatively large size containing a complete continuous design suitable for so much of the wall or other surface of a room as is to be covered with single lengths of decorative material, together with a device for applying suitable coloring matter or materials to the surface of said printing-roller. The design upon the surface of this printing-roller is complete and continuous and of unpeated parts and of a predetermined length sufficient to extend from a base or dado to a frieze or ceiling. This predetermined length of decorative material or wall-covering may have on one end a design of maximum or minimum extent and the other end may be substantially plain. This predetermined length of decorative material or wall-covering may be made with an indistinct background of a different color over its entire length or over part of its length or it may be made with a shading of color to the background, or there may be on one end a maximum or minimum extent of design and on the other end a design or part of a frieze, and the

maximum or minimum design on one end may connect with the frieze by prolonged parts of the design continued thereto, the said modifications not in any sense departing from the spirit of our invention.

In the drawings, Figure 1 is a diagrammatic view of so much of a machine for printing decorative materials or wall-coverings as is essential to illustrate our invention. Fig. 2 is a view similar to Fig. 1, but of slightly-increased extent, while Figs. 3 and 4 are diagrammatic elevations or end views of design-rollers of modified form to those shown in Figs. 1 and 2.

Similar characters of reference are employed in the respective figures to denote similar parts.

The impression-roller *a* is suitably mounted, and the decorative material or wall-covering upon which the design is to be printed or impressed, as *f*, passes over the roller 13, around the impression-roller *a*, over the roller 14, and preferably into loops 15 to be dried, as is usual in this art.

*b* represents the design-printing roller in Figs. 1 and 2.

In Figs. 1 and 2, *c* represents an endless color-band, and *c'* the color-receptacle. The band passes around the rollers 2, 3, 4, and 5 and between the rollers 2 and 3 bears upon the periphery or outer surface of the design-printing roller *b*.

In Figs. 1 and 2, *b'* represents the design or ornamental configuration upon the periphery of the roller *b*, starting at *x* and continuing all around the periphery of the roller to *y*, while between *x* and *y* the narrow strip is advantageously plain. The color is transferred to the design and plain surfaces by the color-band *c*, and in the direction of rotation indicated by the arrow the surface of the material *f* is printed or impressed with the design. This design is complete and of uninterrupted parts harmonious throughout its entire length and is to be of a predetermined length, so as, for instance, to extend from the base or dado of a wall to a frieze or ceiling, the plain portion that will be printed at the end thereof leaving a cutting margin of reasonable width for trimming for precise lengths.

In Fig. 2 we have shown rollers *d* *e* and associated with the roller *d* a color-receptacle *d'* and color-band passing over the rollers 6, 7,



8, and 9 and against the surface of the roller *d*, which takes up the color from the band. With the roller *e* we have shown associated a color-receptacle *e'* and an endless color-band 5 passing around or over the rollers 10, 11, and 12, so as to transfer the color from the color-receptacle *e'* to the roller *e*. These rollers *d* *e* may be pattern-rollers or either one of them may be a pattern-roller and the other a plain 10 roller, and while not shown in the drawings these rollers *d* *e* and the smaller rollers 6, 7, 10, and 11, directly associated therewith, may, as is common in this art, be connected to a swinging device or devices timed to 15 bring the same into contact with the material *f*, passing around the impression-roller *a*, or which devices hold said rollers away from contact with the said material *f*. As an illustration, the roller *d* may be a plain roller 20 and in its timed movement be capable of placing upon the surface of the material *f* to a predetermined extent a color lighter or darker than the background color, and the roller *e* may be a pattern-roller adapted to 25 place upon the surface of the material *f* an indistinct background pattern over the entire surface of the material or in its timed movement over a predetermined extent of surface.

30 Referring to Fig. 3, the design-printing roller *g* is shown as having upon its surface two design-printing surfaces that are complete and of unrepeatd parts, one being between the parts *x'* *x'* and the other between 35 the parts *y'* *y'*.

Referring to Fig. 4, the design-printing roller *h* shown therein is provided with a continuous design for an entire strip of decorative material or wall-covering adapted to 40 reach, as an illustration, from a base to a ceiling and in which the part from *x*<sup>2</sup> to *x*<sup>2</sup> is a maximum length of design above the floor, while the part from *y*<sup>2</sup> to *y*<sup>2</sup> is the frieze, and the space between *x*<sup>2</sup> and *y*<sup>2</sup>, of appreciable 45 length, indicates a space of blank color in the strip of design, while the short space at the right hand of the figure from *y*<sup>2</sup> to *x*<sup>2</sup> the margin at which the strip is to be severed.

These lengths of decorative material or 50 wall-coverings with the unitary design are to be of predetermined length—for instance, six, eight, ten, or twelve feet—or in lengths of every foot, according to the conditions that may be required in trade and use, it being the object of our invention to provide for 55 sale strips of decorative material of suitable and required lengths to reach from a base to a ceiling, from a base to a frieze, from a dado to the ceiling, or from a dado to a frieze, and 60 where the lengths reach from the base to the ceiling or from a dado to the ceiling the strips will in all probability have the frieze thereon, and the design thereof will not be of matched multiplying figures or repeated sections, but 65 a continuous unitary design of such charac-

ter that no part can be taken from the other without destroying the whole, and it is quite apparent that where a design-printing roller be of sufficient size for a twelve-foot strip with the end trimmings a similar roller 70 might have on its periphery two six-foot designs with the end trimmings or design-printing rollers of slightly-different diameter might be made to have on the surface a single ten-foot design for a ten-foot strip or a 75 design for a strip of any predetermined length, it being, however, essential that the roller should have on it at least a single continuous design, so as to avoid waste of printed or impressed material. We have 80 shown both in Figs. 1 and 2 a pulley upon the shaft of the design-printing roller *b* and a pulley upon the shaft of the impression roller or cylinder *a*. A crossing-belt extends between and around these pulleys for driving 85 the impression-cylinder and printing-roller together, and the said pulleys are of such sizes that the said impression-cylinder and printing-roller are driven in unison and at the same surface speed, which is essential for the 90 perfect operation of this device.

In an application for Letters Patent filed December 16, 1904, Serial No. 237,077, we have described and shown the design-pattern strip hereinbefore referred to. 95

We claim as our invention—

1. In a machine for printing decorative materials or wall-papers, the combination with an impression-cylinder over and around which a continuous web or strip of material 100 is caused to pass, and rollers over which the same is guided, of a printing-roller of relatively large size containing a complete continuous design suitable for so much of the wall of a room as is to be covered with single 105 lengths of material, and a device for applying coloring material to said printing-roller.

2. In a machine for printing decorative materials or wall-papers, the combination with an impression-cylinder over and around 110 which a continuous web or strip of material is caused to pass, rollers over which the same is guided, and means for applying to said material a background of any desired character, of a printing-roller of relatively large size 115 containing a complete continuous design suitable for so much of the wall of a room as is to be covered with single lengths of material, and a device for applying coloring material to said printing-roller. 120

3. In a machine for printing decorative materials or wall-papers, the combination with an impression-cylinder over and around which a continuous web or strip of material 125 is caused to pass, and rollers over which the same is guided, of a printing-roller of relatively large size containing a complete continuous design suitable for so much of the wall of a room as is to be covered with single lengths of material, a device for applying 130



coloring material to said printing-roller, and a belt and graduated pulleys therefor for driving the impression-cylinder and printing-roller in unison with the same surface speed.

5 4. In a machine for printing decorative materials or wall-papers, the combination with an impression-cylinder over and around which a continuous web or strip of material is caused to pass, rollers over which the same  
10 is guided, and means for applying to said material a background of any desired character, of a printing-roller of relatively large size containing a complete continuous design suitable for so much of the wall of a room as

is to be covered with single lengths of material, a device for applying coloring material to said printing-roller, and a belt and graduated pulleys therefor for driving the impression-cylinder and printing-roller in unison with the same surface speed. 15 20

Signed by us this 25th day of November, 1904.

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