

No. 804,283.

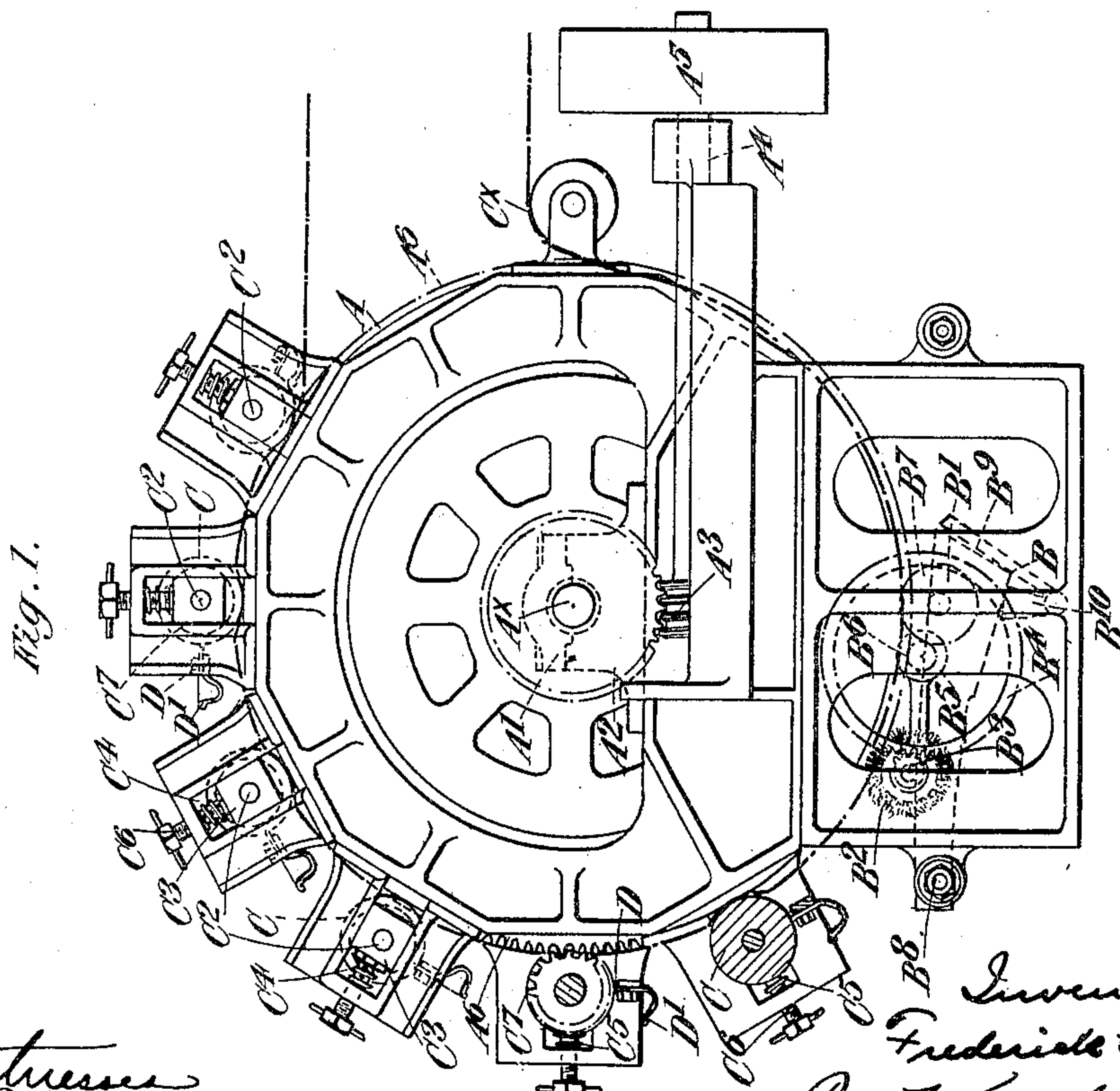
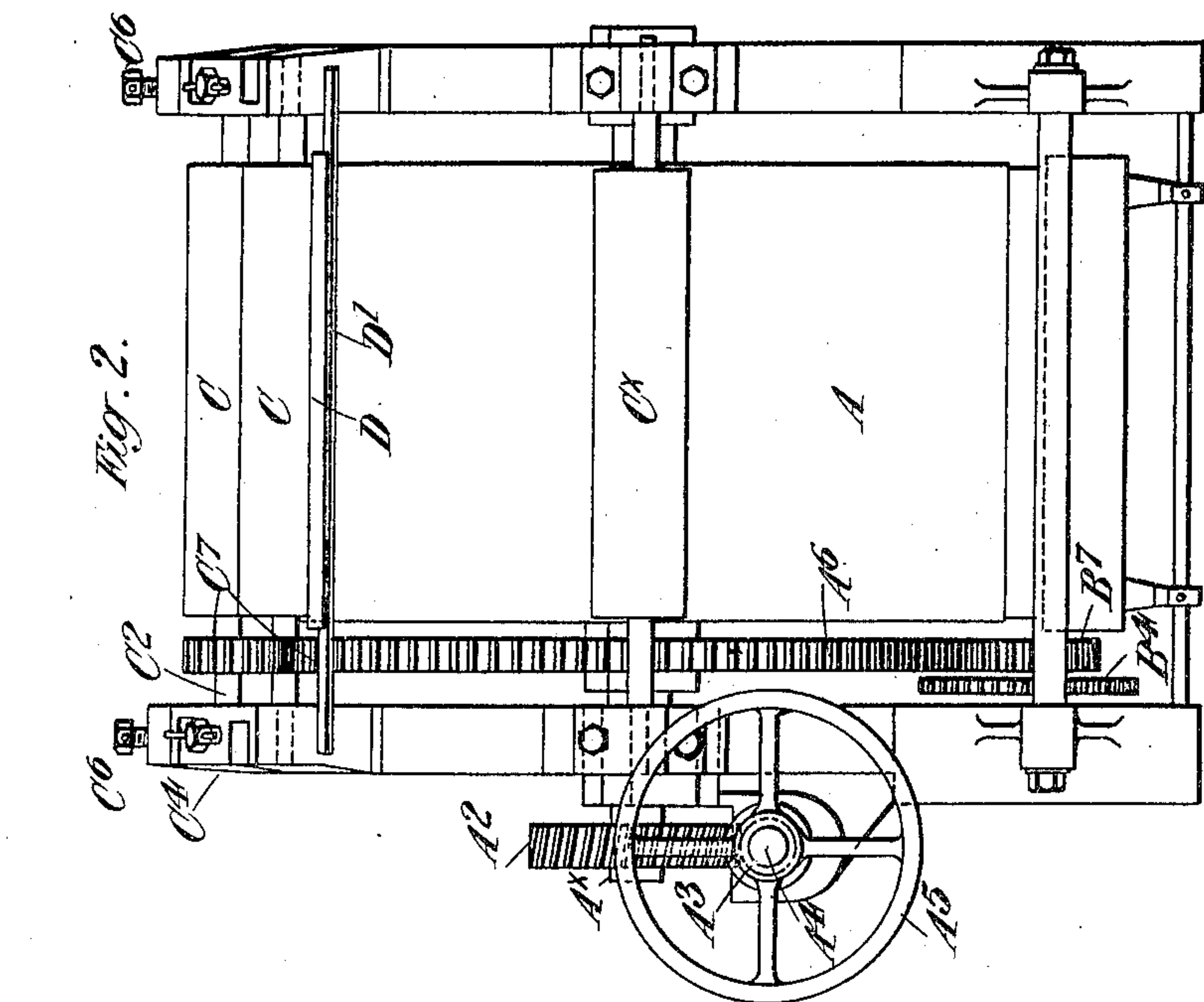
PATENTED NOV. 14, 1905.

F. WALTON.

PROCESS OF AND APPARATUS FOR PAINTING AND COLORING LINCRUSTA, &c.

APPLICATION FILED JULY 28, 1904.

2 SHEETS—SHEET 1.



Witnesses
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Fig. 4.

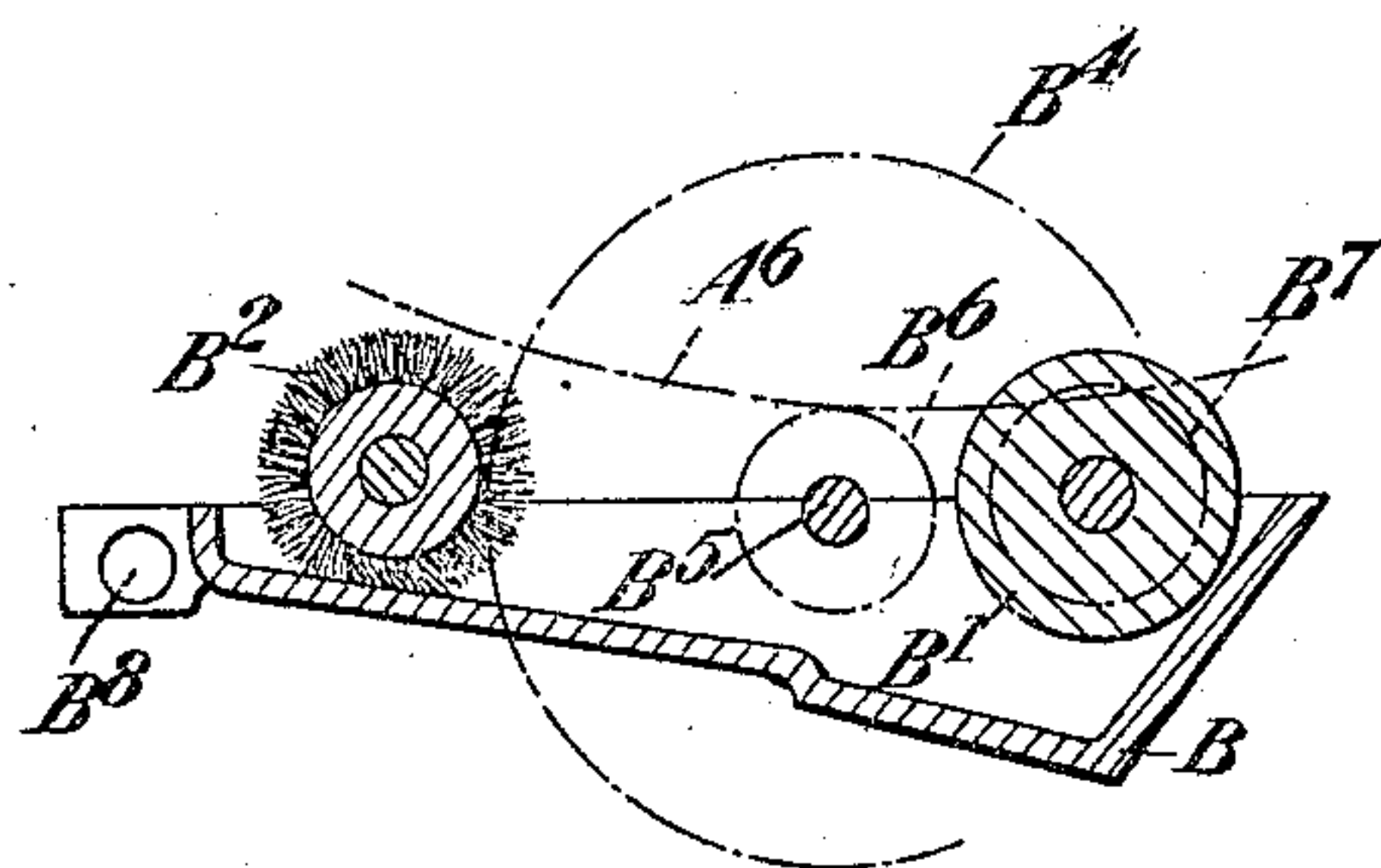
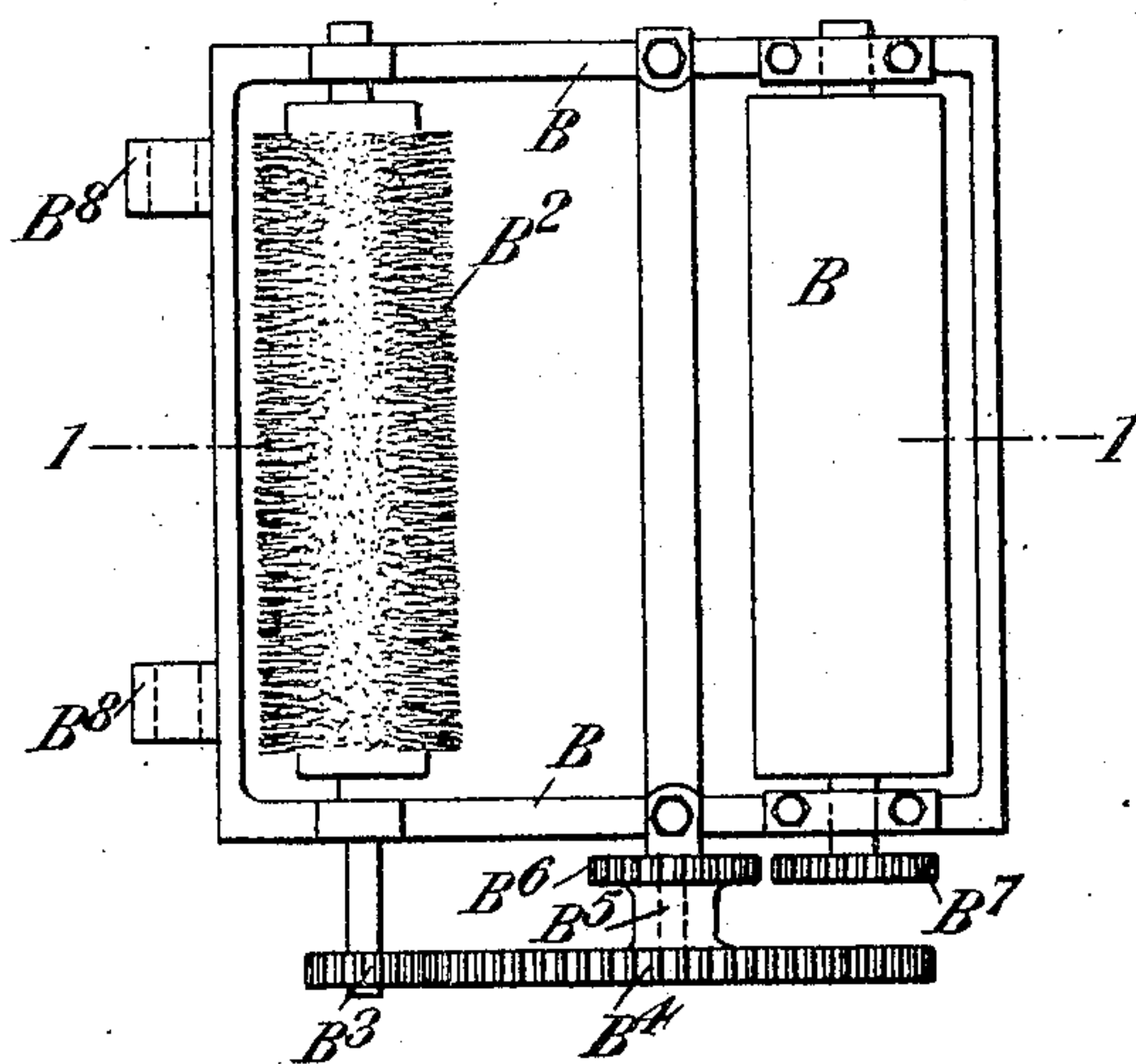


Fig. 3.



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UNITED STATES PATENT OFFICE.

FREDERICK WALTON, OF LONDON, ENGLAND.

PROCESS OF AND APPARATUS FOR PAINTING AND COLORING LINCRUSTA, &c.

No. 804,283.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed July 28, 1904. Serial No. 218,589.

To all whom it may concern:

Be it known that I, FREDERICK WALTON, engineer, a subject of the King of Great Britain, residing at 114 Holborn, in the city of London, England, have invented an Improved Process of and Apparatus for Painting and Coloring Lincrusta, &c., of which the following is a specification.

This invention has reference to an improved method of and apparatus for painting or coloring lincrusta and like embossed materials.

Heretofore when it has been desired to produce lincrusta in two colors or shades it has been customary to first paint the embossed surface by hand and to then remove, also by hand, the wet paint from the raised portion of the embossed surface, so as to expose at such places the original or body color of the lincrusta. This method of removing the paint from the lincrusta has involved a considerable expenditure of time, labor, and materials, which it is the object of my present invention to avoid.

According to my invention the lincrusta or like embossed material, possessing the desired body color or tint, has applied to its surface by mechanical means paint or color of the required shade, which is subsequently removed by mechanical means from the raised parts of the embossed surface, whereby the lincrusta possesses two colors or shades, one being in the depressed portion of the pattern and corresponding with the color or shade of the paint applied thereto and the other being on the raised portion of the pattern and corresponding with the color or shade of the original or body color of the lincrusta.

A suitable form of apparatus for carrying my invention into practice comprises a rotary drum or other travelling support for the embossed material, a paint or color applying device, and two or more adjustable rollers which are adapted to bear against and wipe the raised portions of the surface of the lincrusta from which the paint or color applied by said device is to be removed.

The paint or color applying device may comprise a movable trough or other container for the paint or color, a roller partially immersed in the paint and adapted to apply the paint or color to the embossed surface of the lincrusta, and a rotary brush adapted to dis-

tribute the paint or color, so that it will cover both the raised and the depressed portions of the embossed surface.

In order that my said invention may be clearly understood and readily carried into effect, I will describe the same more fully with reference to the accompanying drawings, in which—

Figure 1 is a side elevation, and Fig. 2 an end view of a machine suitable for my purpose. Fig. 3 is a detail plan of the paint or color applying device; and Fig. 4 is a cross-section of the same, taken on the line 1 1 of Fig. 3.

A is the rotary drum, fixed upon a shaft A^x , which rotates in bearings A' .

B is the paint or color trough or container, B' the paint-applying roller, and B^2 the rotary brush for distributing the paint, as aforesaid.

C C are the adjustable rollers, and D D are doctors or scrapers for said rollers, having troughs D' .

The mechanism for rotating the drum A comprises a worm-wheel A^2 , mounted upon the shaft A^x and gearing with a worm A^3 on the shaft A^4 , which is driven by the pulley A^5 .

The rollers C C are preferably made from printer's roller composition or other suitable pliable or elastic material and have spindles C^2 C^2 , which at each end are rotatably mounted in bearing-blocks C^3 C^3 . These blocks are supported in guides C^4 C^4 , having springs C^5 C^5 for imparting to the bearings a certain amount of flexibility or resiliency. Screws C^6 C^6 , connected with the said blocks, enable the latter to be moved up or down in the guides C^4 C^4 , so as to adjust the position of the rollers C C with respect to the surface of the lincrusta. Each spindle C^5 of the rollers C has at one end a gear-wheel C^2 , engaging with teeth A^6 on the drum A, by which the said rollers C receive their motion. The doctors or scrapers D D are held in such a position with regard to the rollers C C that the paint collected by the doctors from the rollers will enter the troughs D' D' .

The rotary brush B^2 is driven by a toothed pinion B^3 , which gears with a toothed wheel B^4 , mounted on a fixed stud B^5 , said toothed wheel forming part of toothed pinion B^6 , which gears with the aforesaid teeth A^6 of the drum A. By this means the brush B^2 is rotated in a direction opposite to that of the

drum A. The roller B' is driven by a pinion B⁷, which gears with the said teeth A⁶ of the drum A.

The paint trough or container B is hinged at B⁸ or otherwise arranged so that it may be moved toward or away from the drum for enabling the paint-applying roller B' and brush B² to be thus thrown into and out of action with respect to the lincrusta passing through the machine. For this purpose a lever B⁹, having a cam or eccentric piece B¹⁰ bearing against the under side of the trough, is provided.

The lincrusta is guided to the machine by a roller C^x and is conveyed, by means of the drum A, to the paint or color applying device. The painted lincrusta then passes under the successive rollers C C, which remove the paint from the raised portions of the surface of the lincrusta, the paint thus removed being transferred from the rollers to the troughs D' by the doctors D.

A machine constructed in accordance with my invention may in some instances be advantageously employed for merely applying paint of a particular color or shade to the lincrusta, in which case the adjustable rollers C would be brought out of contact with the surface of the lincrusta, so as to avoid removing the paint thus applied.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In the manufacture of painted or colored lincrusta and like embossed material, the combination with a rotary drum for the embossed material, of a device for applying paint or color to the entire embossed surface of said material, a series of resilient wiper-rollers for removing from the raised portions of the embossed surface the said paint or color, means for adjusting the position of said wiper-rollers with respect to the embossed surface, and means for revolving said wiper-rollers from said rotary drum substantially as described.

2. In the manufacture of painted or colored lincrusta and like embossed material, the combination with a rotary drum for the embossed material, of a device for applying paint or color to the entire embossed surface of the said material, a series of comparatively soft wiper-rollers for removing from the raised portions of the embossed surface, the said paint or color, means for adjusting the position of said wiper-rollers with respect to the embossed surface, and gearing for revolving said wiper-rollers from said rotary drum substantially as described.

3. In the manufacture of painted or colored lincrusta and like embossed material, the combination with a rotary drum for the embossed material, of a device for applying paint or color to the entire embossed surface of the said material, a series of comparatively soft spring-controlled wiper-rollers for removing from the raised portions of the embossed sur-

face the said paint or color, means for adjusting the position of said wiper-rollers with respect to the embossed surface, and toothed gearing for revolving said wiper-rollers from said rotary drum substantially as described.

4. In the manufacture of painted or colored lincrusta and like embossed material, the combination with a rotary drum for the embossed material, of a device for applying paint or color to the entire embossed surface of the said material, a series of comparatively soft spring-controlled wiper-rollers for removing from the raised portions of the embossed surface, the said paint or color, doctors for removing the paint or color from the wiper-rollers, containers for the reception of the paint or color thus removed from the wiper-rollers, screws for adjusting the position of the wiper-rollers with respect to the embossed surface, and toothed gearing for revolving said wiper-rollers from said rotary drum substantially as described.

5. In the manufacture of painted or colored lincrusta and like embossed material, the combination with a rotary drum for the embossed material, of a receptacle containing the paint or color, a roller rotatably mounted in said receptacle for applying the paint or color to the embossed surface of said material, a rotary brush also mounted in said receptacle and adapted to distribute the paint or color into the interstices of the said embossed surface, means for driving the said paint or color applying roller and brush, and means for mechanically removing the said paint or color from the raised portions of the embossed surface substantially as described.

6. In the manufacture of painted or colored lincrusta and like embossed material, the combination with a rotary drum for the embossed material, of a movable receptacle containing the paint or color, a roller rotatably mounted in said receptacle for applying the paint or color to the embossed surface of said material, a rotary brush also mounted in said receptacle and adapted to distribute the paint or color into the interstices of said embossed surface, means for driving the said paint or color applying roller and brush, means for shifting said movable receptacle in order to bring it into a position for causing the said roller and brush to become inoperative with respect to the embossed material, and means for mechanically removing the said paint or color from the raised portions of the embossed surface of the said material substantially as described.

7. In the manufacture of painted or colored lincrusta and like embossed material, the combination with a rotary drum for the embossed material, of a hinged receptacle containing the paint or color, a roller rotatably mounted in said receptacle for applying the paint or color to the embossed surface of said material, a rotary brush also rotatably mounted in said

receptacle and adapted to distribute the paint or color into the interstices of said embossed surface, gearing for driving said paint or color applying roller and brush from the said rotary drum, a cam-lever for shifting said hinged receptacle into a position in which the gearing thereof is disengaged from the rotary drum, and means for mechanically removing the said paint or color from the

raised portions of the embossed surface of the said material substantially as described. 10

In testimony whereof I have hereunto set my hand, in presence of two subscribing witnesses, this 9th day of July, 1904.

FREDERICK WALTON.

Witnesses:

T. RUDY,

G. B. HAMILTON.