

No. 629,280.

Patented July 18, 1899.

F. WALTON.

APPARATUS FOR MANUFACTURING MOSAIC FLOOR CLOTH.

(Application filed Feb. 10, 1897.)

(No Model.)

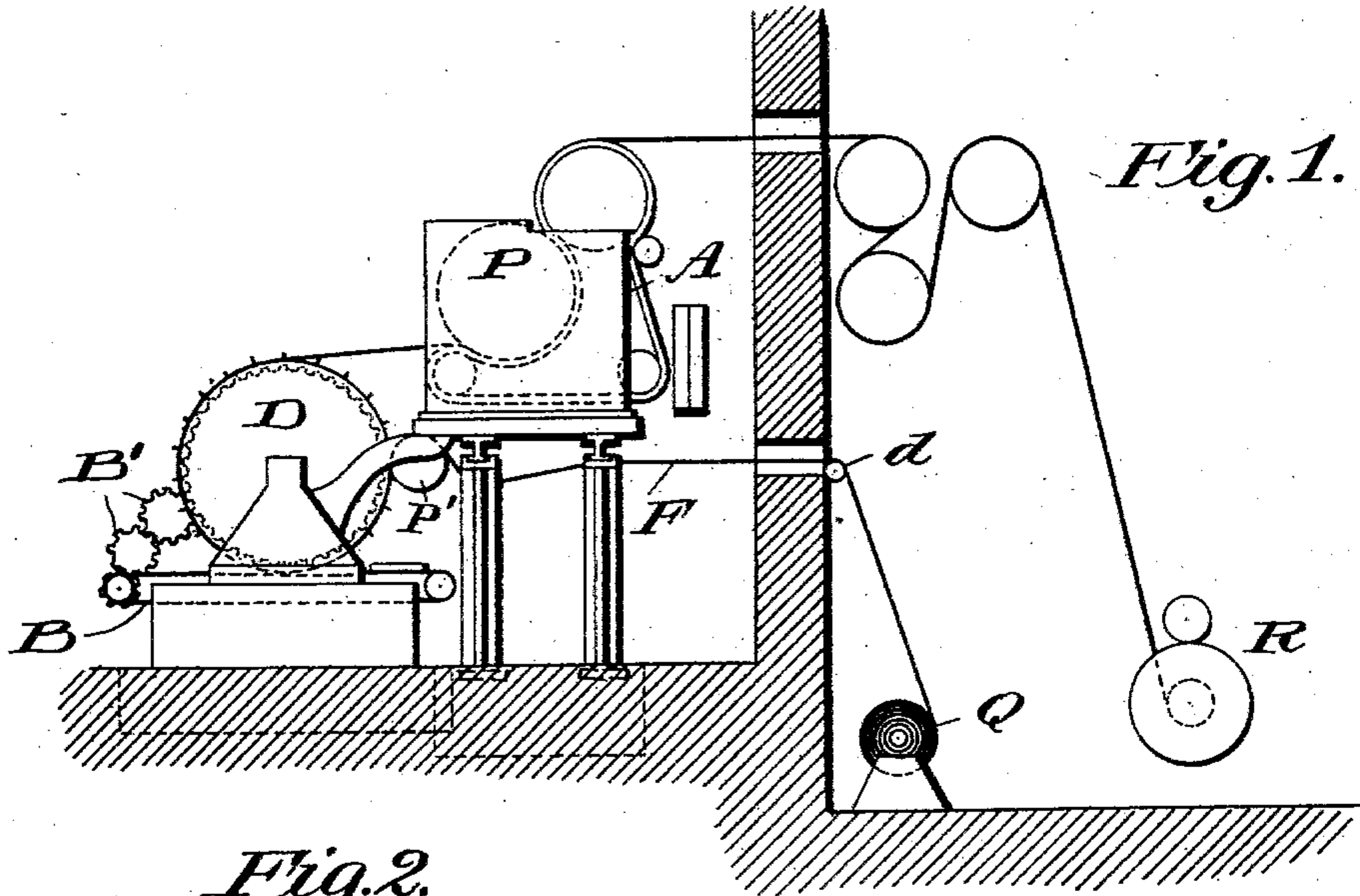


Fig. 2.

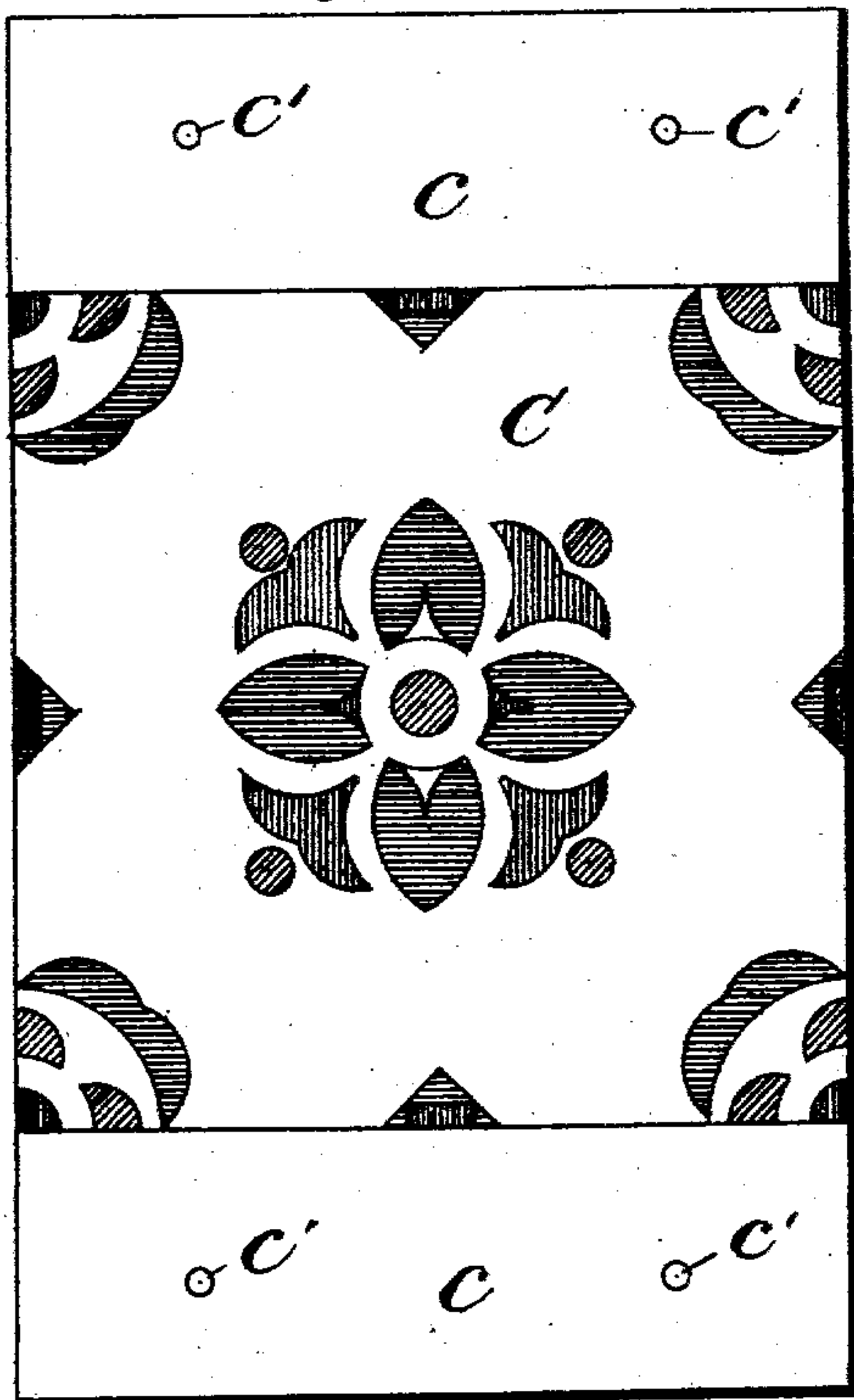


Fig. 3.

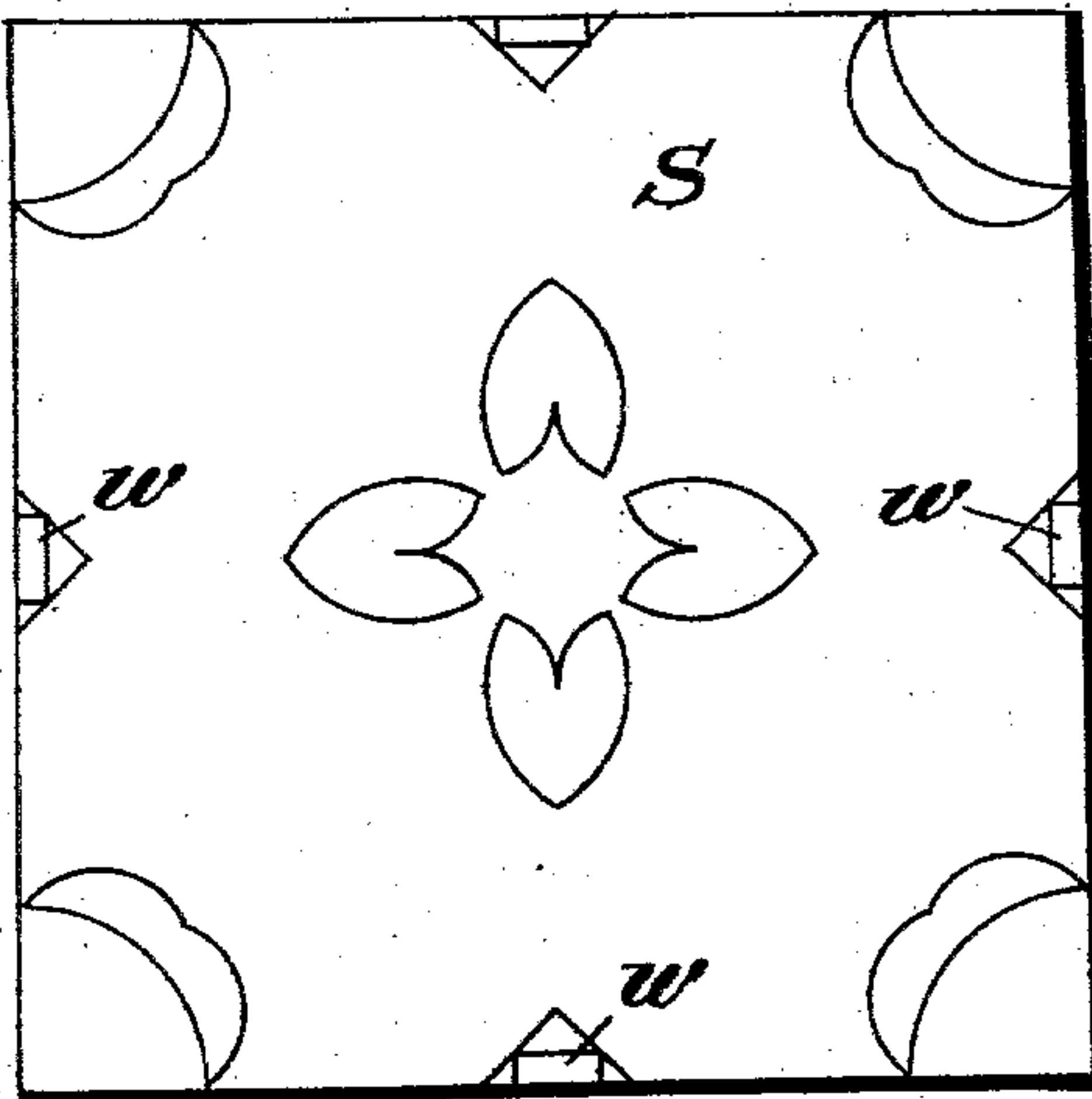


Fig. 4.

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Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK WALTON, OF LONDON, ENGLAND.

APPARATUS FOR MANUFACTURING MOSAIC FLOOR-CLOTH.

SPECIFICATION forming part of Letters Patent No. 629,280, dated July 18, 1899.

Application filed February 10, 1897. Serial No. 622,872. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK WALTON, manufacturer, a citizen of England, residing at No. 114 Holborn, in the city of London, England, have invented new and useful Improvements in Apparatus for the Manufacture of Mosaic Floor-Cloth, (for which I have obtained patents in Great Britain, No. 20,670, dated November 1, 1895; in France, No. 258,782, dated August 10, 1896; in Belgium, No. 122,979, dated August 10, 1896, and in Austria, No. 3,601/46, dated September 16, 1896,) of which the following is a specification.

Machines of a comparatively complex and expensive character are employed for placing the tesserae on backing fabric in proper positions to form a pattern and causing them by heat and pressure to cohere together and to adhere to the backing.

My invention relates to comparatively simple and inexpensive apparatus for placing tesserae which have been cut to shape in any known manner in proper position on a cylinder and transferring them from said cylinder to backing fabric to be subjected to heat and pressure to cause the tesserae and backing to unite, as I shall describe, referring to the accompanying drawings.

Figure 1 is an elevation of the completing-machine. Fig. 2 is a plan of the transfer-plate with some of the tesserae in position upon it. Fig. 3 is a plan of the stencil-plate. Fig. 4 is a section showing part of the composing-plate, of the stencil-plate, and the extruding-plate.

I provide a number of composing-plates C, each having at each side a flange *c* and in each flange two holes *c'* at a distance apart substantially double the distance of either from the edge of the plate. I provide also a number of stencil-plates S, each consisting of a wooden frame *w*, faced with a metal plate *p*, which has cut through it holes corresponding in shape and position with the tesserae intended for one color of the pattern. From each of these holes the wood slopes away. I also provide to suit each stencil-plate an extruding-plate E, having projecting studs *a* corresponding in position with the holes in the stencil-plate.

The completing-machine comprises a re-

volving drum D, which has pins projecting from its periphery, under it two endless steel bands B, passing around rollers driven by gearing B' from the drum D, so as to travel at the same surface speed, these bands having studs projecting from them at intervals apart corresponding to those of the holes *c'* of the composing-plate, a guide-roller *d*, over which is led a web of backing fabric F from a roll Q, and a pressing apparatus of known kind consisting of a main roller P and guide-rollers, partly around which and between the main roller and heated pressing-rollers P' passes an endless flexible band A. There may be provided any suitable means for greasing the surface of the roller P, and there is a delivery-roller R.

The apparatus works as follows: One of the stencil-plates S is placed on one of the composing-plates C, and through the holes of the stencil-plate are passed the tesserae of one color. The extruding-plate E corresponding to the stencil is placed on the stencil-plate and pushed down, so that its studs *a* press the tesserae on the composing-plate. The stencil and extruding plates being then removed, another stencil-plate is placed on the composing-plate and tesserae of a different color are pressed upon the composing-plate, and this may be repeated for a third or fourth color, until the composing-plate is covered with the whole pattern. It is then placed on the steel bands B, by which it is carried tangentially under the drum D along with the backing fabric, through which the pins project. By these pins the tesserae are raised from the composing-plate and carried around with the backing; around the drum D, and thence between the drum P and the band A, subject to the pressing-rollers P', by which the tesserae are caused to cohere together and adhere to the backing, the completed floor-cloth passing away over the drum R.

The composing-plates C are preferably provided in such numbers that a charged one can always be ready to be put upon the steel bands as they travel slowly onward, so that the delivery of the floor-cloth is continuous.

As the pressing apparatus, consisting of the drum P, the pressing-rollers P', the band A, and the guide-rollers, is already known and used, I make no claim to it.

Having thus described the nature of this invention and the best means I know for carrying the same into practical effect, I claim—

5 Apparatus for the manufacture of mosaic floor-cloth, consisting of flanged composing-plates, and stencil and extruding plates for differently-colored tesserae, in combination with a pinned drum and a pair of endless steel bands, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 27th day of January, A. D. 1897.

FREDK. WALTON.

Witnesses:

OLIVER IMRAY,
JNO. P. M. MILLARD.