

(No Model.)

G. W. MILLER.

MACHINE FOR PRESSING FABRICS.

No. 412,776.

Patented Oct. 15, 1889.

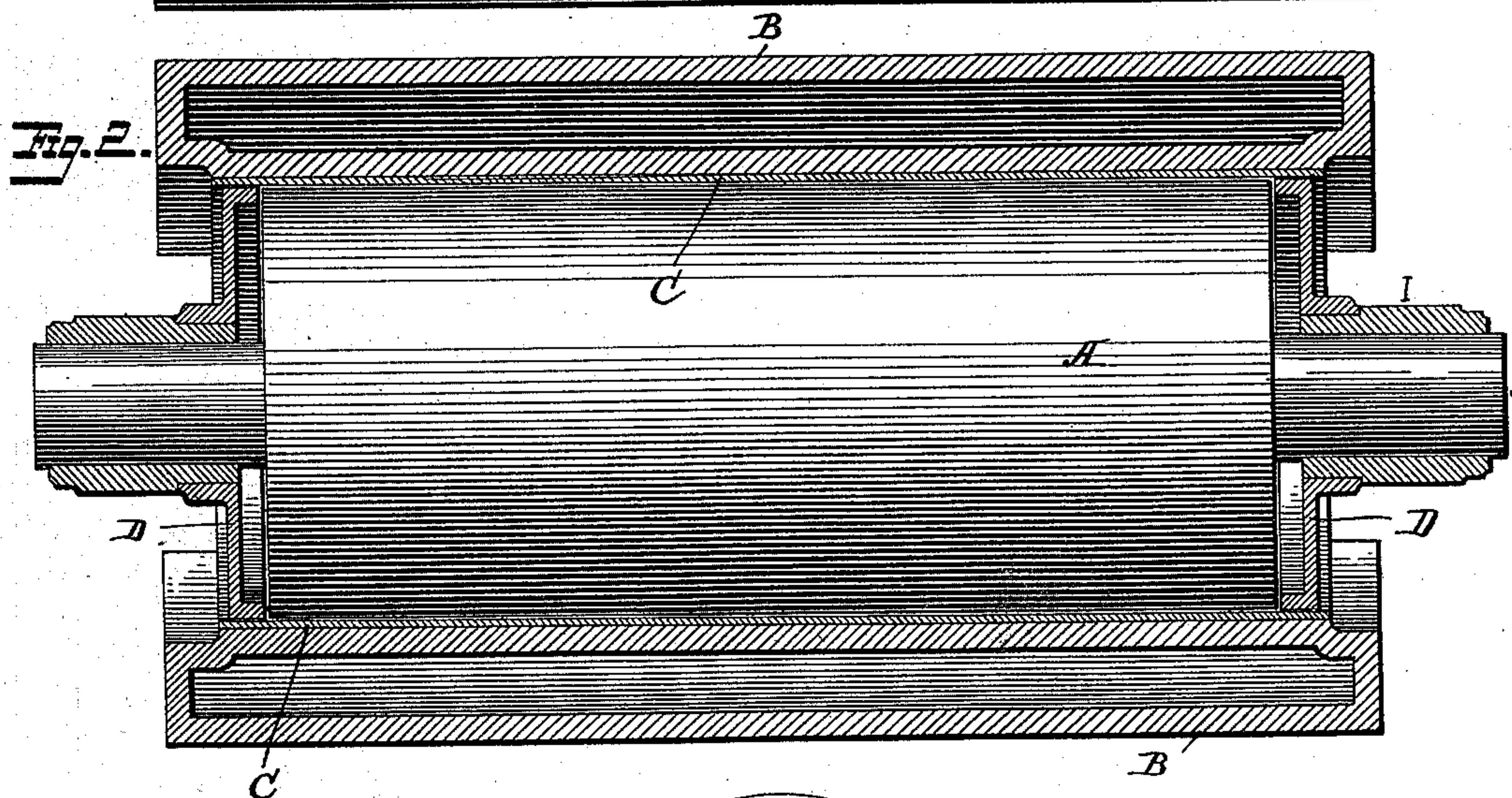
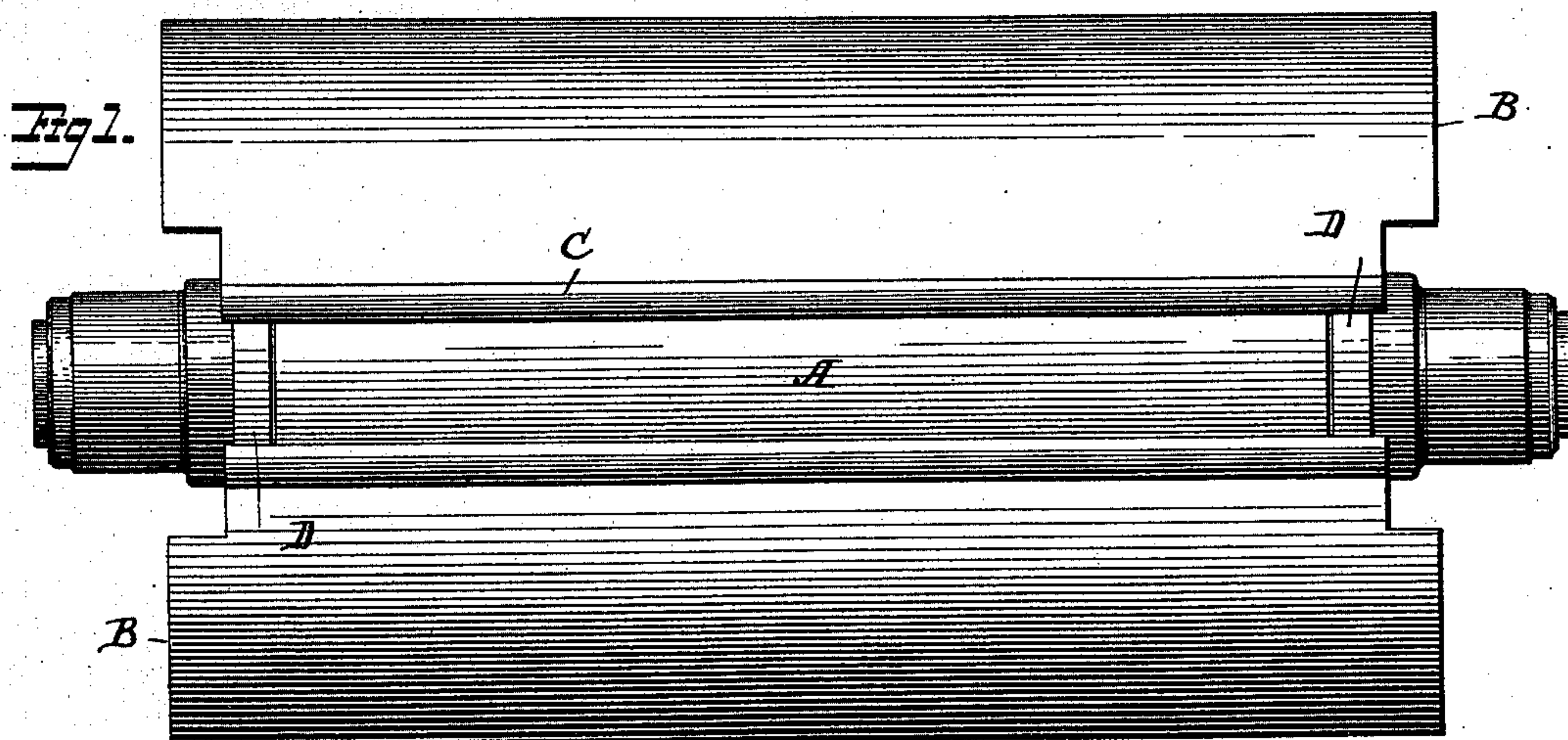
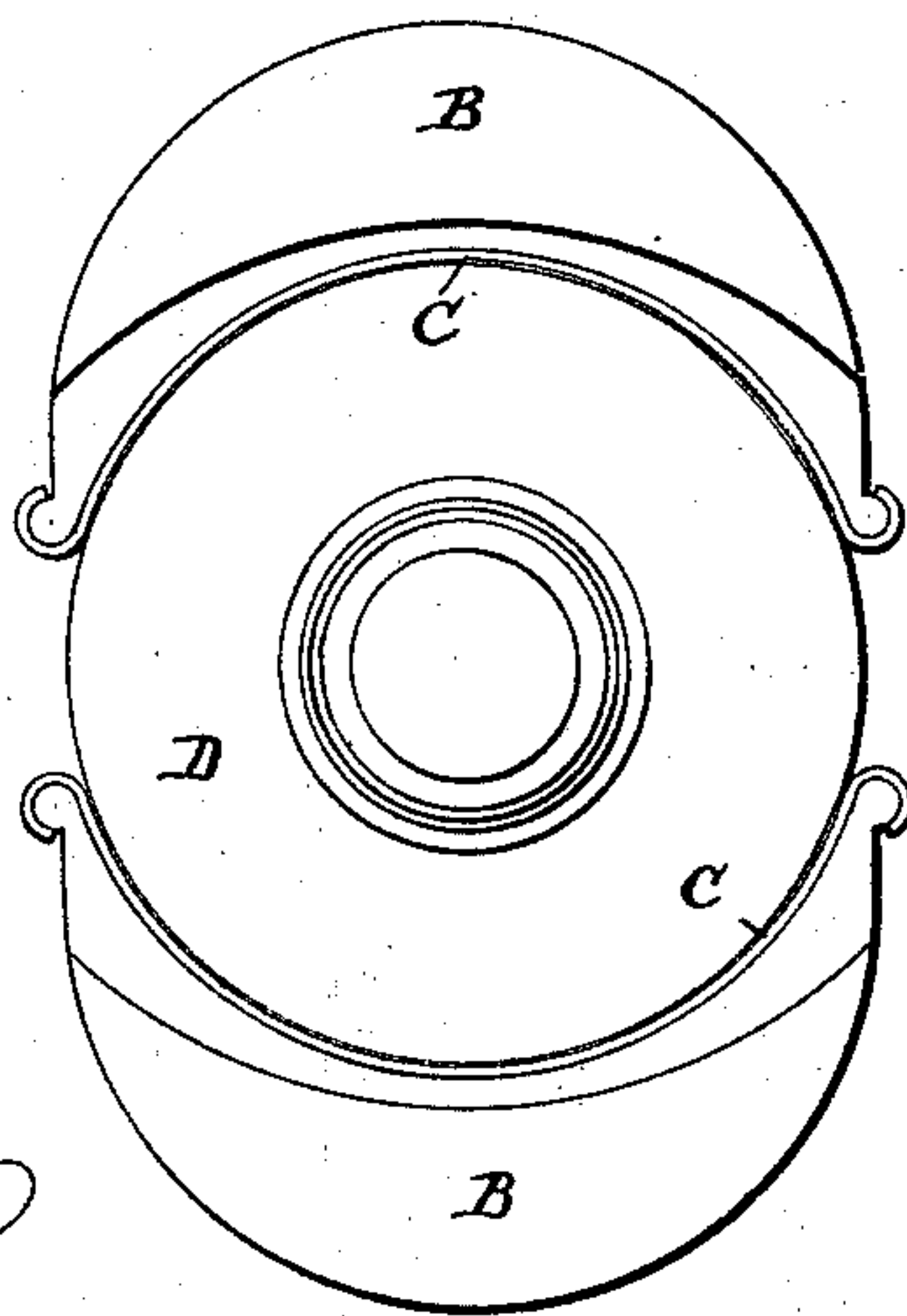


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE W. MILLER, OF WOONSOCKET, RHODE ISLAND.

MACHINE FOR PRESSING FABRICS.

SPECIFICATION forming part of Letters Patent No. 412,776, dated October 15, 1889.

Application filed November 12, 1888. Serial No. 290,555. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MILLER, a citizen of the United States, residing at Woonsocket, in the county of Providence, State of Rhode Island, have invented certain new and useful Improvements in Machines for Pressing Fabrics, of which the following is a specification.

My invention relates to that class of machines which is provided with cylinders or rollers and curved beds, between which and the cylinders fabrics or articles are passed in order to press or iron the same; and my invention consists of means, fully set forth hereinafter, whereby to prevent injury to the ironing or pressing face on or carried by the bed.

In the accompanying drawings, Figure 1 is a side elevation showing the cylinder and bed and jacket of a cloth-pressing machine, and illustrating my improvement. Fig. 2 is a longitudinal elevation of the parts shown in Fig. 1 in part section. Fig. 3 is an end view of the parts shown in Fig. 1.

In this class of machines used for pressing cloth and other fabrics it is common to pass the fabric to be pressed, either from a continuous roll or piece or in sections in the form of small articles, between a revolving cylinder and the curved face of a bed conforming in shape with the face of the cylinder and generally covered by a jacket or facing of thin metal.

Thus, referring to the drawings, the pressing-cylinder A turns in suitable bearings I above the bed B, having a curved face, upon which lies the jacket C, of thin metal, the said jacket being confined at the front and rear transverse edges to the bed, but being loosely in contact with the face of the bed at other points.

Great difficulty has been experienced in the use of machines as thus constructed, owing to the cutting of the jacket by the edges of the pressing-cylinder. Such a cutting action is especially liable to result when the fabric or article being pressed is much narrower than the width of the cylinder, in which case the cylinder will spring up slightly at the center and bend down at the ends, thus bringing the edges of the ends of the cylinder down against the face of the

jacket, which is scored or cut. This cutting is detrimental, even if it is only to the extent of roughening the surface of the jacket, as it thereby unfits it for use in pressing fabrics of such a width as requires that they shall pass in contact with the roughened surface at any point. The cutting of the jacket will occur even when the cylinder or roller is not bent to an extent to bring its edges down to the normal face of the jacket. This results from the bending of the jacket itself, the pressure at the center of the jacket, when the fabric is narrow or the articles are small, tending to buckle up the sides of the jacket and bring them in contact with the edges of the cylinder. The cutting of the jacket will also occur if the fabric is torn or if the cylinder is turned upon the bed without an intervening fabric. In order to obviate these objections I combine with the cylinder-bed and jacket a pair of disks or wheels arranged one at each end of the cylinder, and having their centers upon the same axis as that of the cylinder and substantially of the same diameter as or of greater diameter than the cylinder, and suitably supported so that the periphery of each disk shall be close to the face of the jacket at the edge of the latter in such a position as to prevent the edges of the jacket from springing up or inward beyond the normal plan of the face of the jacket, and so as to thereby prevent the jacket from springing away from the bed toward the cylinder.

Should the cylinder be bent or sprung temporarily by the presence of a narrow article or fabric between it and the jacket, the disks D will be carried downward with the descent of the ends of the cylinder, and will touch the face of the jacket before the ends of the cylinder, and will thus serve as bearings, preventing the further approach of the ends of the cylinder toward the jacket.

The disks D are free to turn upon their bearings, shown as the bearings I of the cylinder, so that if the edges of the fabric should pass between them and the face of the jacket the disks will move with the fabric, and should either disk be brought against the face of the jacket it will remain in contact therewith without turning, while the cylinder continues to revolve, thereby avoiding

any injury to the jacket. By this means I am enabled to prevent the cutting or abrasion of the jacket resulting either from the bending of the cylinder or from the springing upward of the jacket.

The disks D need not necessarily be carried by the shaft of the cylinder or its bearings; but I prefer to so support them in order that they may move downward with the ends of the cylinder. In case they did not do this they would not prevent the contact of the cylinder with the jacket when the cylinder was so bent, but they would act effectively to prevent the edges of the jacket from springing up.

I have shown my invention in connection with two of the beds of a pressing-machine; but it can be applied to all of the beds that may be used in connection with a single cylinder, the disks in such cases operating effectively with each of the jackets.

In those machines where a jacket is not used the disks D will effectually prevent the face of the bed from being cut should the ends of the cylinder be sprung down.

Without limiting myself to the precise con-

struction and arrangement of parts shown, I claim—

1. The combination, with a cylinder and a bed, of disks equal in diameter to the cylinder and arranged in proximity to the ends thereof, substantially as set forth.

2. The combination, with the cylinder and bed of a pressing-machine, of a jacket or lining covering the face of the bed and extending beyond the ends of the cylinder, and disks arranged at the ends of the cylinder opposite the edges of the jacket, substantially as set forth.

3. The combination, with the cylinder, bearings, and bed of a cloth-pressing machine, of two disks, one at each end of the cylinder and carried by the bearings thereof, and as great in diameter as the cylinder, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. MILLER.

Witnesses:

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