

No. 615,536.

Patented Dec. 6, 1898.

P. DUFFY.
TEMPLE FOR LOOMS.

(Application filed Apr. 15, 1898.)

(No Model.)

Fig. 1.

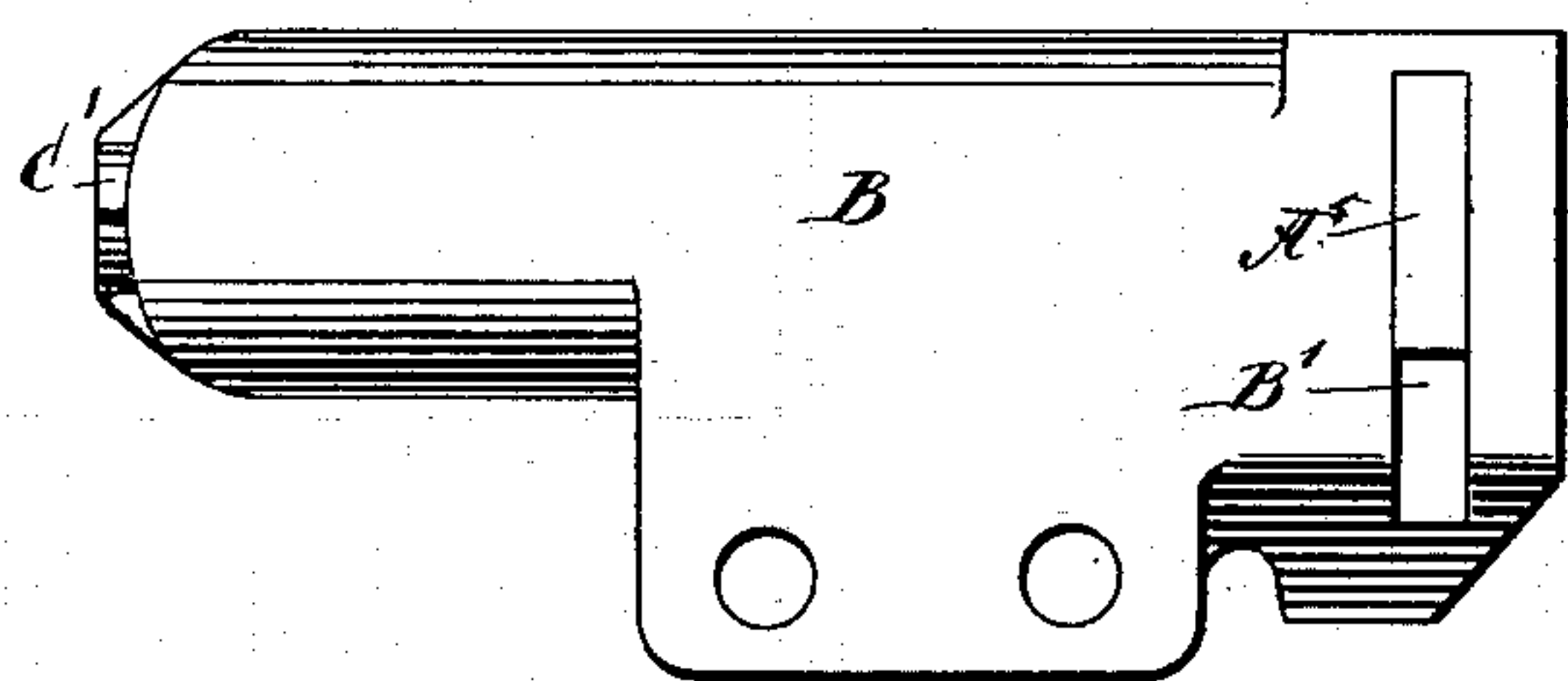


Fig. 2.

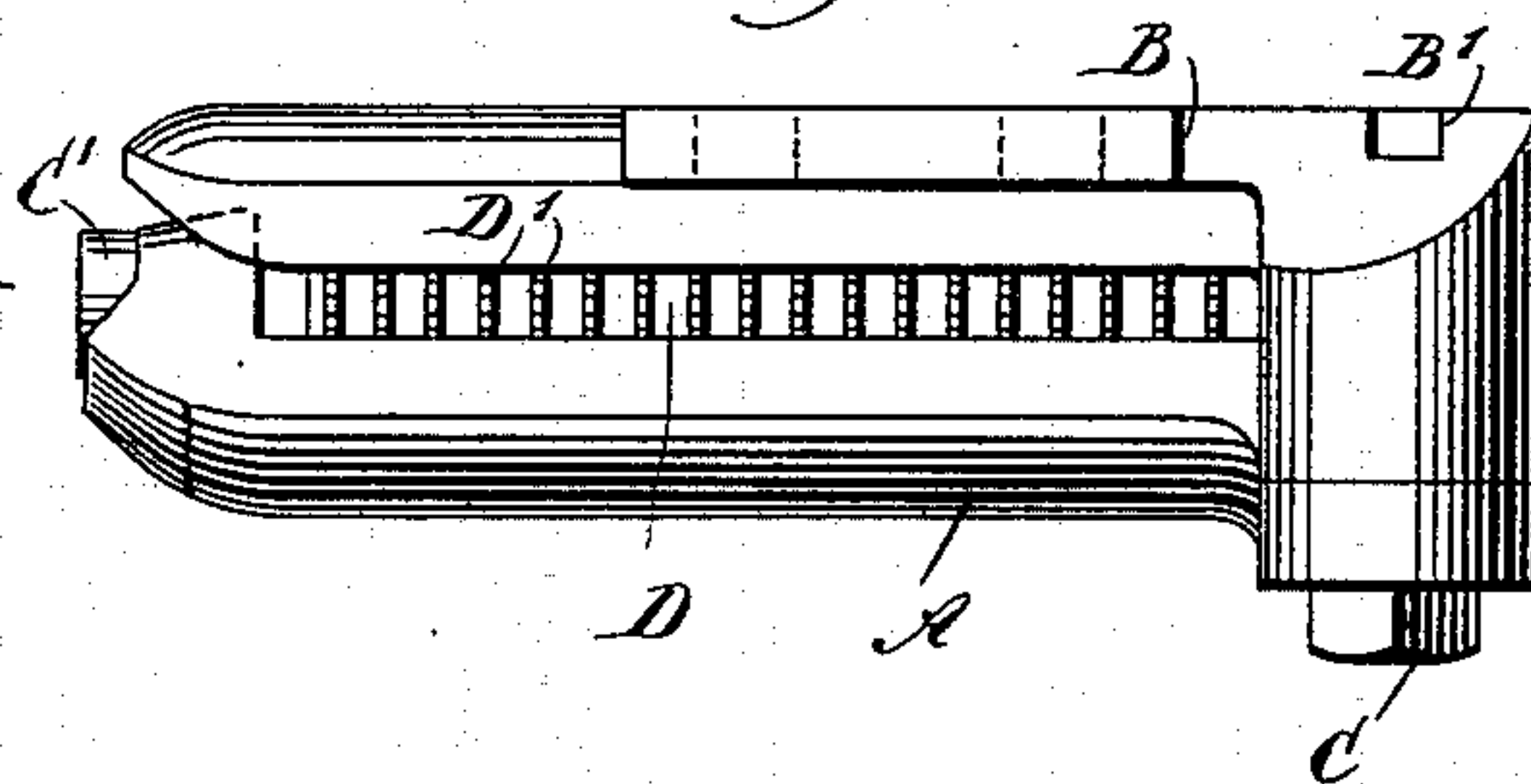


Fig. 3.

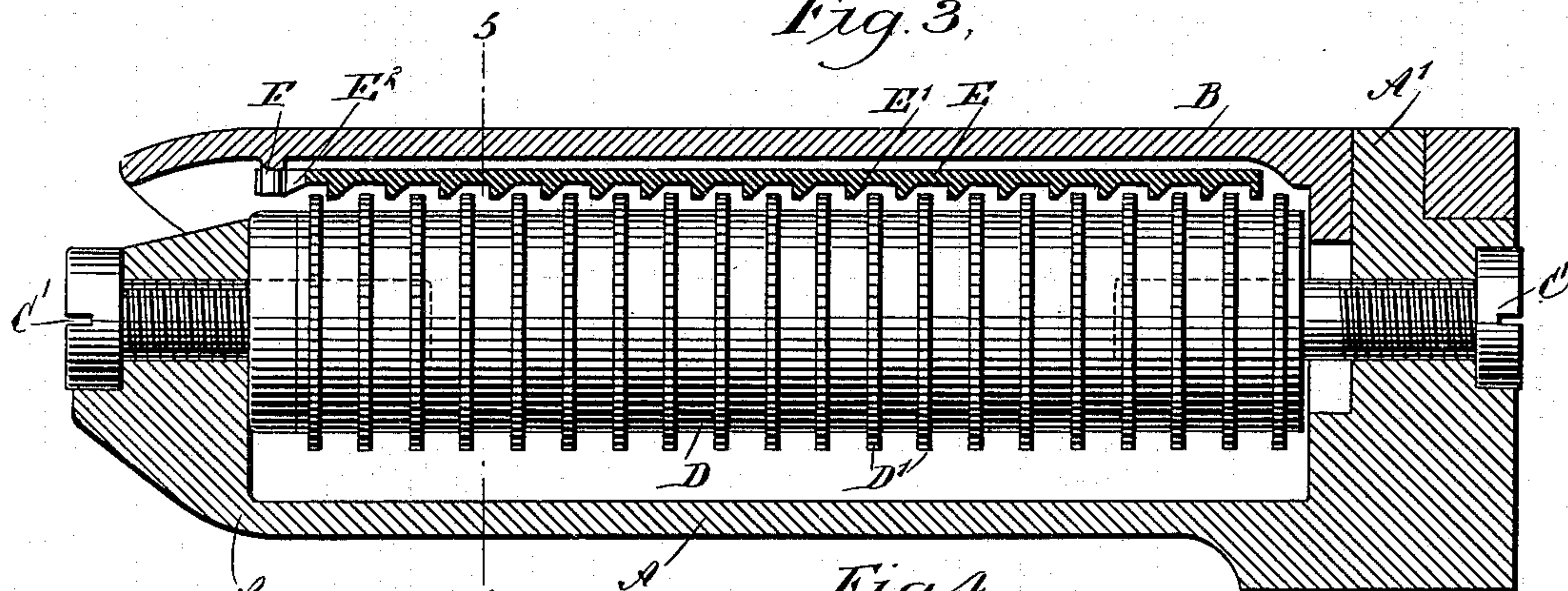


Fig. 4.

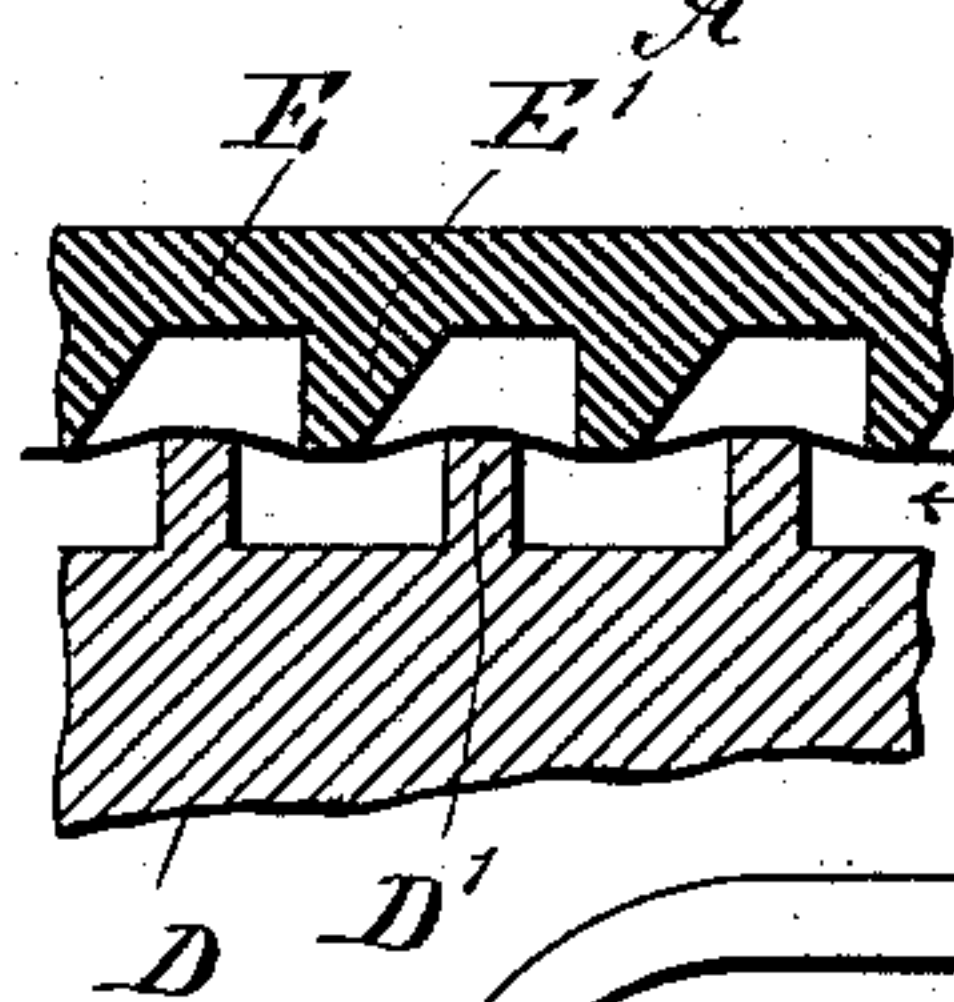


Fig. 6.

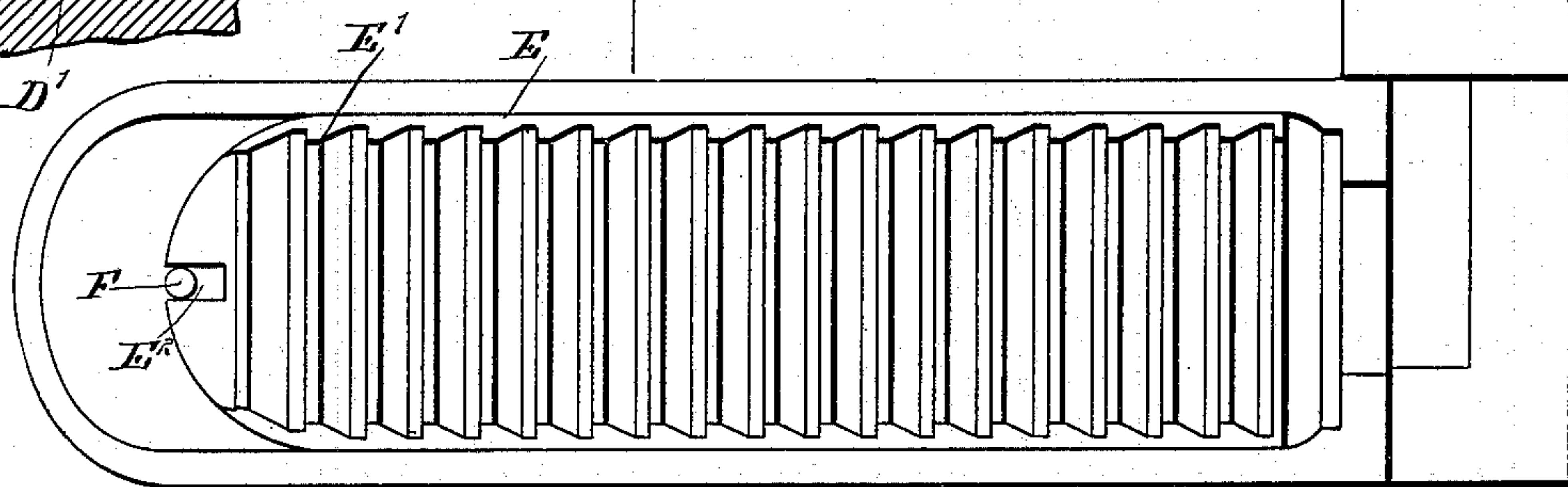
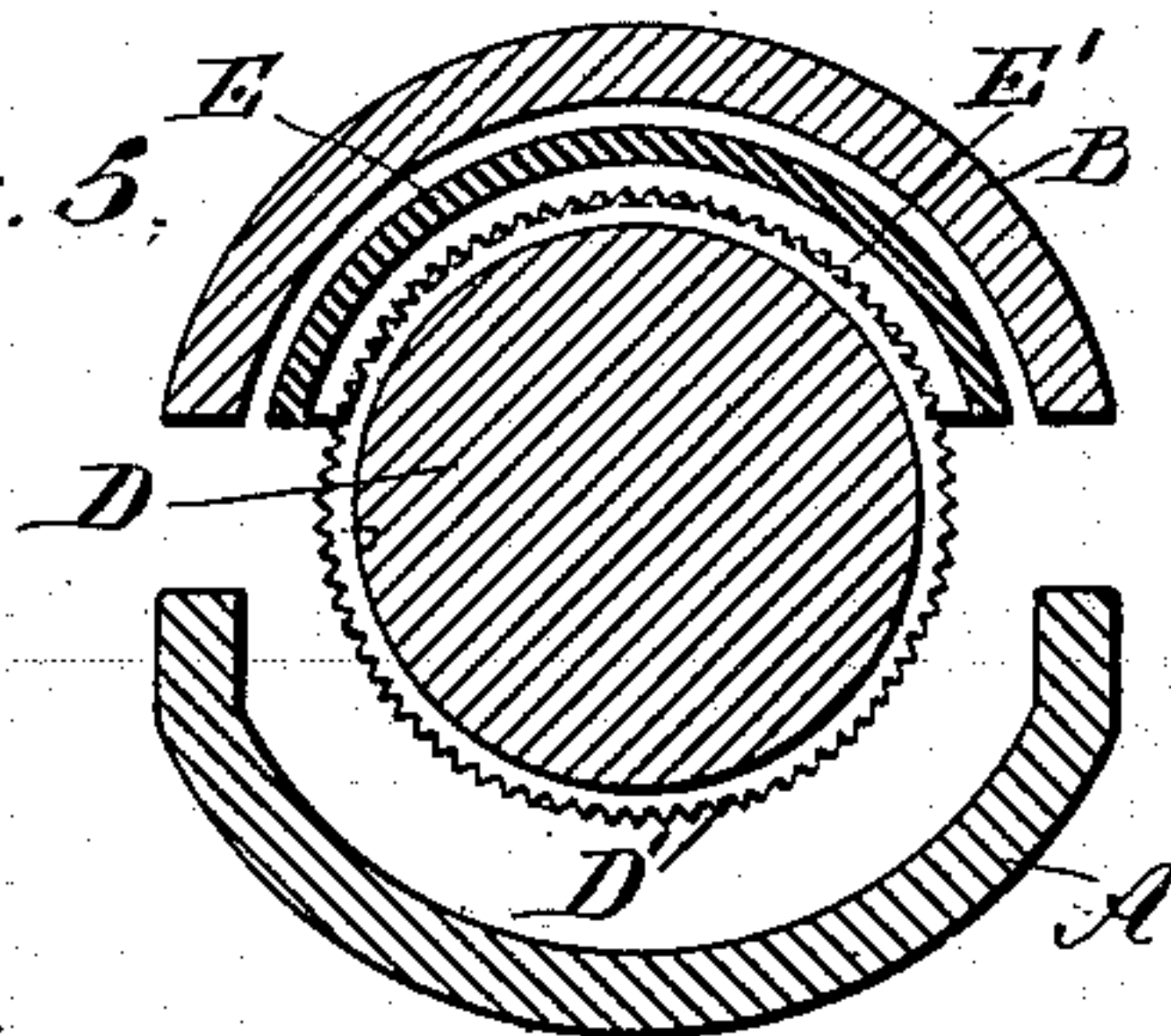


Fig. 5.



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PATRICK DUFFY, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JAMES F. POWERS, OF SAME PLACE.

TEMPLE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 615,536, dated December 6, 1898.

Application filed April 15, 1898. Serial No. 677,721. (No model.)

To all whom it may concern:

Be it known that I, PATRICK DUFFY, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and Improved Temple for Looms, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved temple for looms arranged to permit of drawing the cloth longitudinally and to keep the same properly extended in a transverse direction at all times to allow of properly beating in the filling by the lay without injury to the cloth and to relieve the selvage from all chafing.

The invention consists of novel features and parts and combinations of the same, as will be described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged sectional side elevation of the same. Fig. 4 is an inverted plan view of the top jaw and cover. Fig. 5 is a transverse section of the improvement on the line 5 5 of Fig. 3, and Fig. 6 is an enlarged sectional side elevation of part of the roll and cover with the cloth in position.

According to my invention a ribbed roll is employed, which is mounted to turn, but not to slide axially—that is, crosswise of the fabric—and I superimpose on this roll a ribbed loose cover, between which and the roll the fabric passes and which cover automatically adjusts itself as to distance between the ribs of the roll and the ribs of the cover, according to the pull on and the thickness of the cloth, so that there is no strain on the loose cover when pulling in a transverse direction on the cloth—that is, longitudinally of the roller—and consequently the cloth is not jammed against the ribs of the roll and the latter is free to revolve with the forward movement of the cloth.

The detail construction of my improved temple is as follows:

The improved temple is provided with a

bottom jaw A and a top jaw B, both secured together at one end by a bolt C, the bottom jaw being provided with a tongue A', fitting into a correspondingly-shaped groove B' in the top jaw B, so as to hold the jaws in proper position relatively to each other.

In the ends of the lower jaw A are secured the trunnions C', on which is mounted to turn loosely a roller D, held against sliding on the trunnions and provided with spaced annular ribs D', formed with fine flutes or teeth at their peripheral surfaces, as plainly indicated in Figs. 2, 3, and 5.

In the concaved under side of the jaw B is held loosely a cover E, made segmental in cross-section, as is plainly indicated in Fig. 5, and formed at its under concaved face with spaced ribs E', adapted to extend between the ribs D' of the roller D, as shown in Fig. 3. The front edge of each of the ribs E' is disposed in a vertical direction, while the back of each rib is inclined so as to come close to the next following rib D' of the roller D. A pin F in the forward end of the jaw B engages an elongated slot E², formed in the cover E, to prevent the latter from turning in the jaw B and to allow free longitudinal movement thereof relatively to the roller D.

Now it is evident that when the cloth extends between the jaws A and B and between the roller D and its cover E then the ribs E' press on the top of the cloth, so as to press the latter down between adjacent ribs D' of the roller D, and when a pull is exerted on the cloth in a lateral direction then it is evident that the cover E with its ribs E' tightly holds the cloth against the ribs D' to prevent such movement of the cloth. It is further evident that when a longitudinal pull is exerted on the cloth it readily passes through the temple, as the cloth in its longitudinal movement will turn the roller D, owing to the impact of the cloth on the flutes or teeth of the ribs D', and a binding action of the cover is completely prevented.

When a transverse pull comes on the cloth, the cover will adjust itself as close to the ribs of the roll as the angle formed at the bends of the cloth will permit—that is, the angle of the cloth between the ribs of the roll and cover, (see Fig. 6,) where the angles at

the bends of the cloth are obtuse; but they cannot come quite in contact, for if the angle in front of the ribs became more acute than the angle behind the tendency would then be more to force them apart longitudinally of the roller D than to draw them together irrespective of the strength of the pull. The reason for this is because the teeth are on the roll and not on the cover, so that when the pull comes on the cloth the pull is on the roll to the same degree. It is evident that when the pull on the cloth is in the direction of the arrow a' , Fig. 6, then the cover can readily slide in the direction of the arrow to quite a distance without its ribs E' coming in contact with the ribs D' of the roll D. As the cover moves in the direction indicated the angle of the cloth between adjacent ribs D' becomes acute relative to the said ribs D' and prevents the ribs E' and D' from positively clamping the cloth between the same, but presses the cloth sufficiently to prevent it from slipping in the direction indicated, but allows the cloth to move longitudinally or at right angles to the axis of the roll D when the cloth is wound up on the cloth-roll or otherwise moved forward. It is further evident that the function of the cover-ribs is mainly to press the cloth firmly between the ribs D' of the roll D to hold the cloth in firm contact with the fine teeth thereof, so that the roll readily turns on moving the cloth forward. Now by this arrangement the cloth can be readily pulled through the temple in a longitudinal direction without injury to its selvage or side threads, but transverse movement is completely prevented, as the cloth is securely gripped and held between the ribs of the rollers D and the cover E. Thus when the lay beats up the filling the cloth is securely held in a properly-stretched position, so that the filling can easily pass to its position and be beaten in by the lay with-

out producing a slack in the cloth, as is so frequently the case with temples heretofore used.

It will be seen that the device is very simple and durable in construction and is not liable to get out of order.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A temple, provided with a roller having spaced annular ribs, and a loose cover movable longitudinally over said roller and having its under surface concave and formed with segmental, spaced ribs adapted to pass between the ribs of the roller, substantially as shown and described.

2. A temple, provided with a roller having spaced annular ribs, and a loose cover movable longitudinally over said roller and having its under surface concave and formed with segmental, spaced ribs adapted to pass between the ribs of the roller, the front edges of the cover-ribs being disposed vertically and the back of the ribs being inclined.

3. A temple, provided with a roller having spaced annular ribs each formed with fine flutes or teeth at its peripheral surface, and a loose cover movable longitudinally of the roller and having its under face concave and formed with segmental, spaced ribs adapted to extend between the ribs of the roller, substantially as shown and described.

4. A loom-temple, comprising a roller having surrounding ribs, and a cover movable longitudinally of the roller and having ribs arranged to project between those of the roller.

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Witnesses:

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