

E. D. GIRD.

Machines for Folding and Plaiting Cloth.

No. 128,722.

Patented July 9, 1872.

Fig. 1.

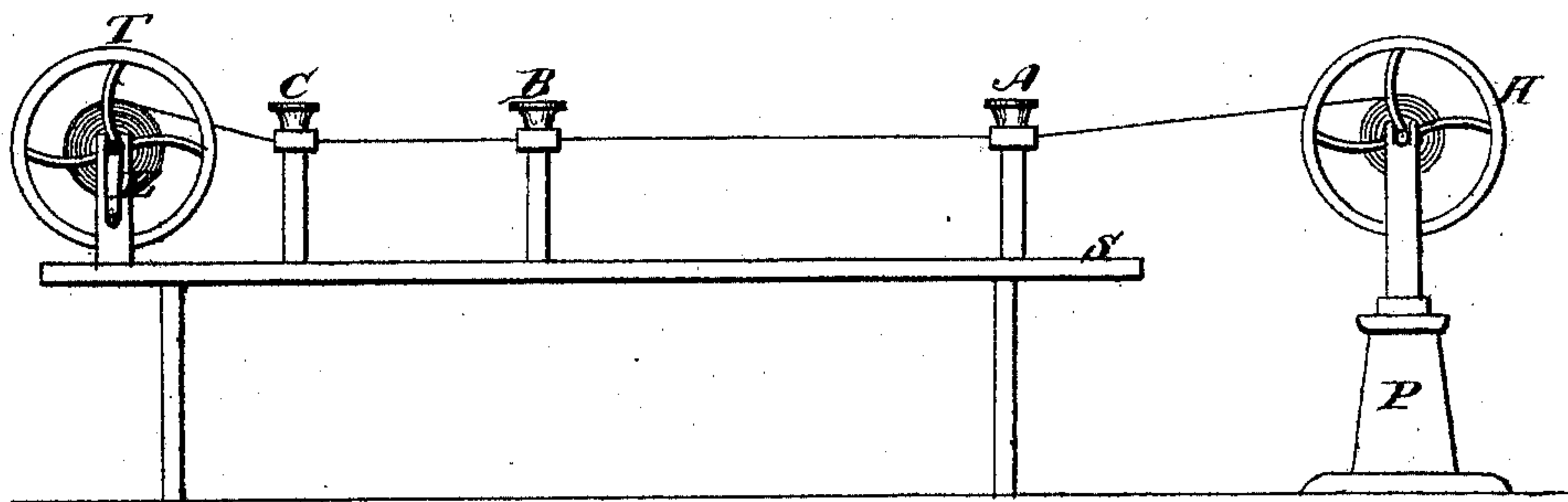


Fig. 4.

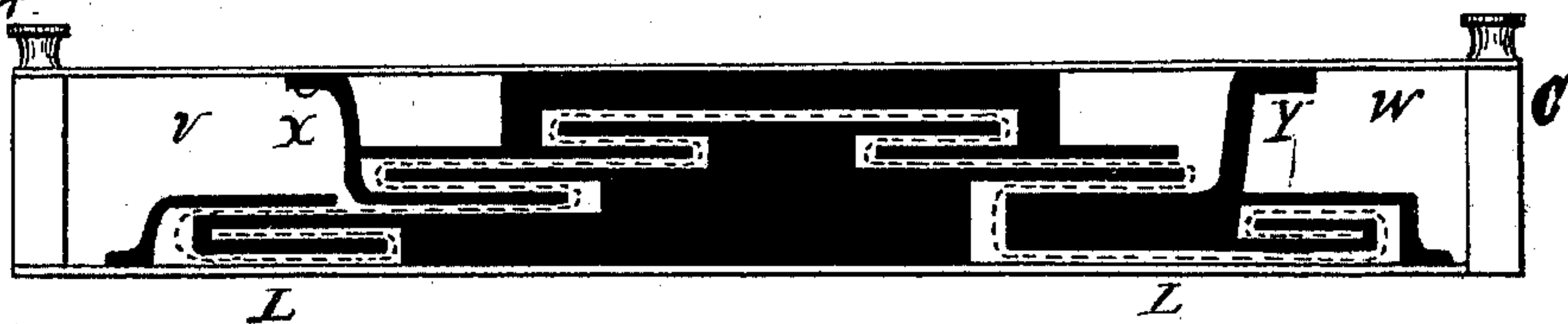


Fig. 3.

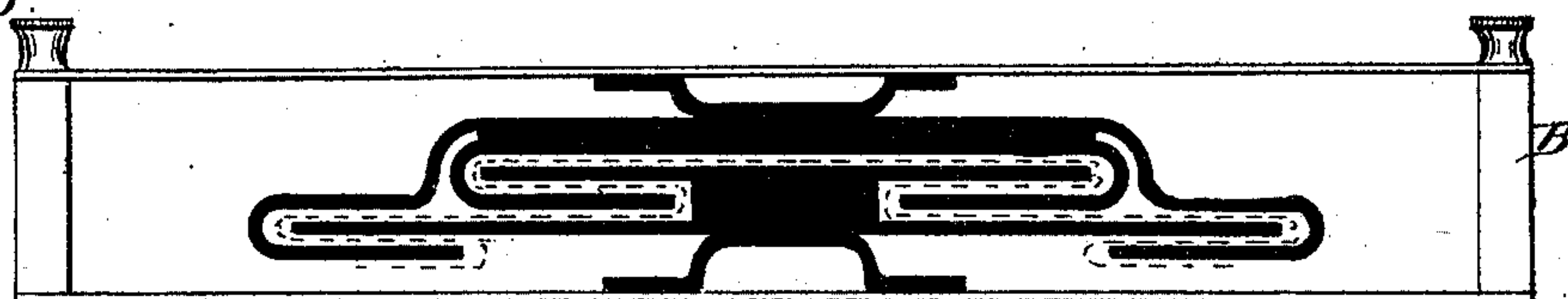


Fig. 2.

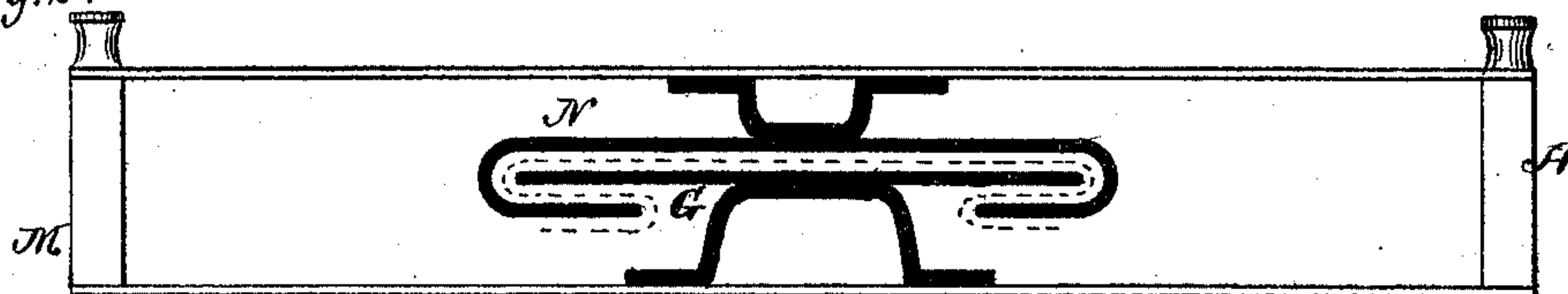
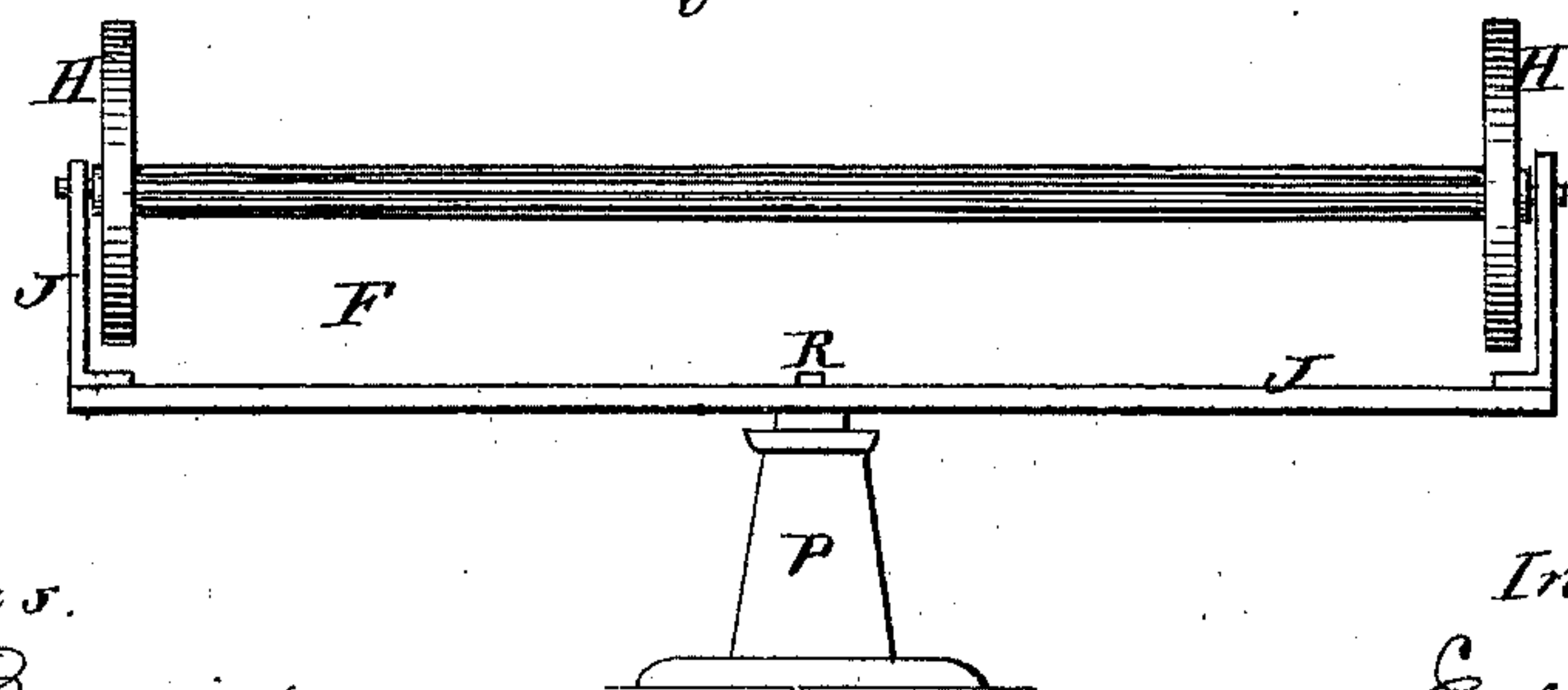


Fig. 5.



Witnesses.

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EDWARD D. GIRD, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN MACHINES FOR FOLDING AND PLAITING CLOTH.

Specification forming part of Letters Patent No. 128,722 dated July 9, 1872.

I, EDWARD D. GIRD, of the city of Syracuse, in the county of Onondaga and State of New York, have invented a new and Improved Machine for Folding and Plaiting Cloth, of which the following is a specification:

My invention consists of a series of folders, secured upon a table at such distances from each other as to gather the cloth gradually, the first folder taking the first two folds or plaits in the center of the strip of cloth, and serving as a guide by which to form subsequent folds upon the sides. The cloth is drawn through the folders by a reel, which, when wound full, is removed and placed in a machine, into which the folded cloth is unwound and stitched at the same time.

In the drawing, Figure 1 is a side view of the machine. Fig. 2 is a front view of the first of the series of folders; Fig. 3, of the second; and Fig. 4, of the third or final folder, by which the side plaits are turned; Fig. 5 represents the guide-reel.

S represents a table, which should be of proper height to bring it into easy working position for the operator. Upon this table are secured the folders A, B, and C, and also the winding and receiving-reel T, with a space of about one yard between them. The space between the folders will, however, depend upon the width and number of plaits to be made, it being necessary to avoid corrugating the cloth by gathering or contracting it too suddenly. The guide-reel H, Fig. 5, rests upon the stand P, and is so constructed that it will turn freely upon the pin R, for the purpose of guiding the cloth as it passes through the folders. The cloth of the proper width is wound upon the guide-reel H, either plain or with the edges turned sufficiently for the edge-plaits. It is then passed into the folders A, B, and C by removing the caps of the same, and the end is fastened to the reel T. The person guiding it through the folders can direct it by turning the reel upon the pin R, and it is drawn through and wound upon the reel T by means of the crank E.

Having now described the operation of the machine, I will refer to the construction of the folders, the first of which is represented in Fig. 2. The cap or top portion is removed by unscrewing the thumb-nuts at the ends. The

cloth is shown by the dotted lines, and is placed upon the folder G, which is a thin piece of metal held up in the center, as shown. The cap N fits over this piece, leaving a narrow space for the cloth. This folder takes the first fold in the center of the strip. The folder G is in length the distance from the outer edge of one plait to the outer edge of the one on the opposite side. The second plait is formed by the folder shown in Fig. 3, which is, in construction, similar to the one already described, except that it is a combination of two plaits and two caps, the first duplicated, for the purpose of holding the plaits already formed, in shape, while the second cap and center-piece form the second plait. The third or final folder is the same as the second, for the purpose of preserving the folds already formed, and, in addition, is formed for turning in the edges. This is done by forming spaces of the exact shape of the edge-plait, so that as the cloth is drawn through the other portion of this final folder, holding it firmly, the edges are drawn into these spaces, the cloth being of just the width to fill them. The dotted line represents the cloth in the final folder, Fig. 4. The cloth is placed in this folder the same as in the rest, except that the end pieces Y, W, X, and V are put in, as the cloth is started, by hand. After the cloth is placed in the folder new pieces may be attached by being sewed on, so as to make as long a strip as desired, and thereby save time and the trouble of frequent removal of the caps of the folders, for the purpose of entering more cloth.

What I claim and desire to secure by Letters Patent, is—

1. The combined guides and folders B and C, constructed and operating substantially as specified.
2. The folders A, B, and C, in combination, for the purpose set forth.
3. The reel T and the folders A, B, and C, in combination, for the purpose set forth.
4. The combination of the folders A, B, and C, and reels T and H, substantially as shown and described.

EDWARD D. GIRD.

Witnesses:

H. G. MATTISON,
W. J. JOHNSTON.