H. I. MAGEE.

MACHINE FOR SHEARING WOVEN PILE FABRICS.

APPLICATION FILED JULY 2, 1908.

918,349. Patented Apr. 13, 1909.

Fig. 1

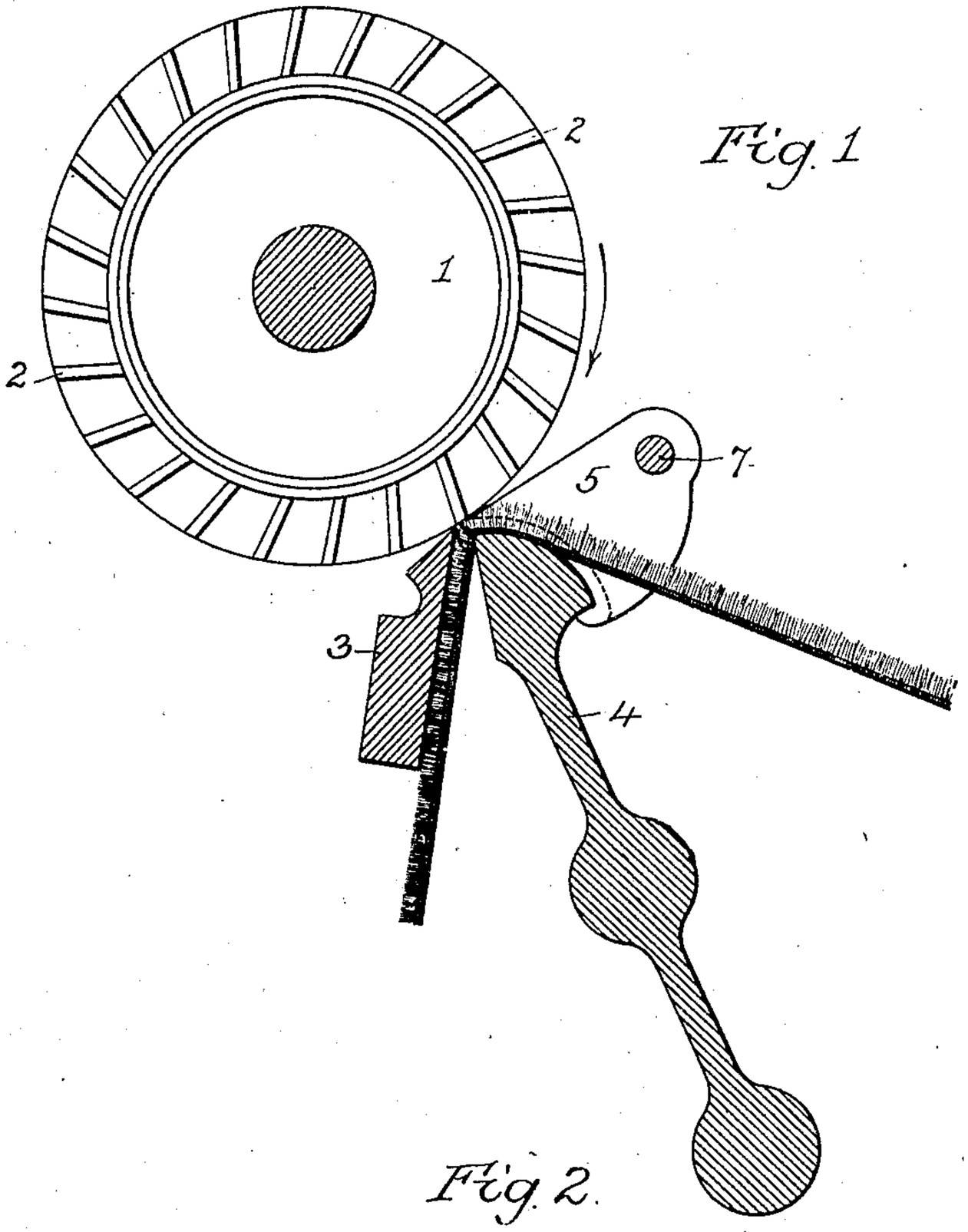
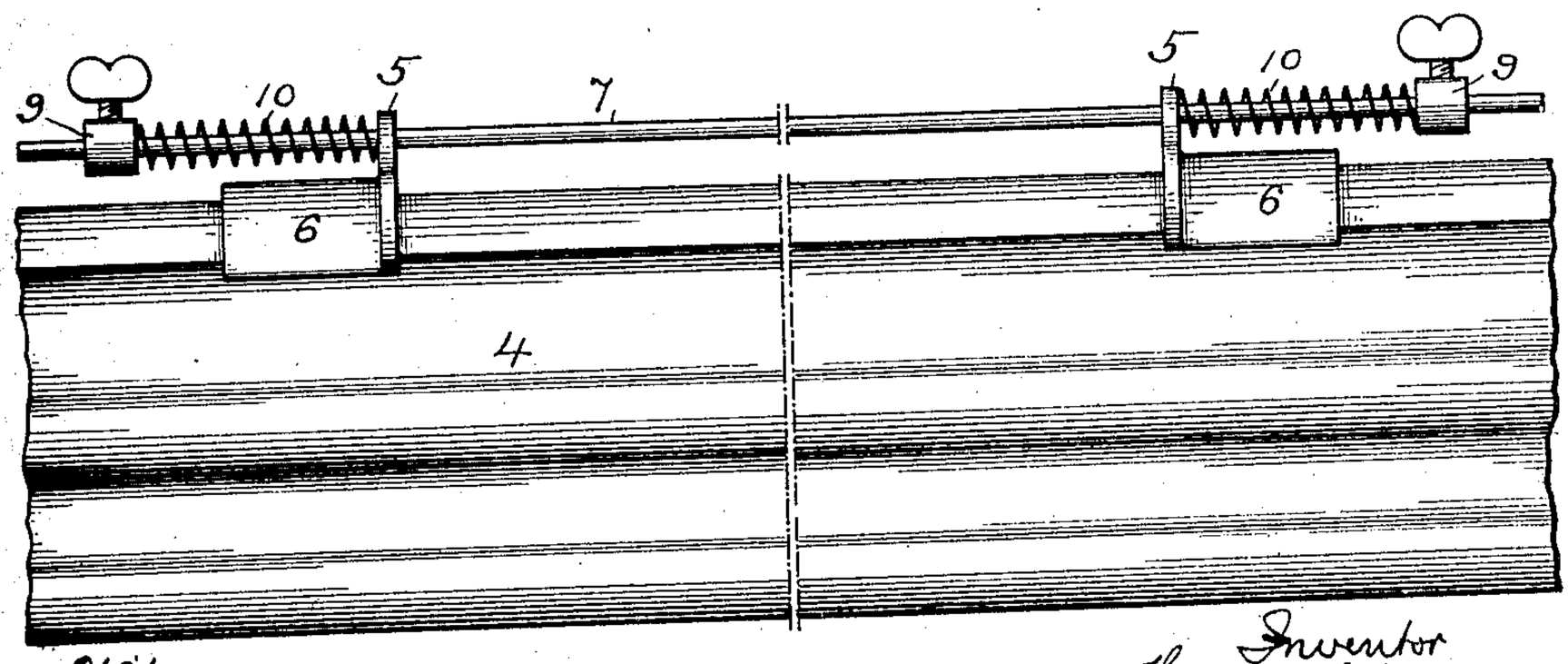


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY I. MAGEE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO IVINS, DIETZ & METZGER COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

MACHINE FOR SHEARING WOVEN PILE FABRICS.

No. 918,349. Specification of Letters Patent. Patented April 13, 1909.

Application filed July 2, 1908. Serial No. 441,663.

To all whom it may concern:

Be it known that I, HENRY I. MAGEE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Machines for Shearing Woven Pile Fabrics, of which the following is a specification.

The object of my invention is to provide for the proper trimming or shearing of the pile of the fabric at and near the selvage edges of the same. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical longitudinal section of sufficient of the machine to illustrate my invention, and Fig. 2 is a front view, on a smaller scale, of that portion of the machine to which my invention relates.

In Fig. 1 of the drawing, 1 represents the rotary cylinder of the machine having the projecting cutting blades 2, usually disposed in a spiral form upon the periphery of the cylinder, 3 represents the stationary cutting blade with which the cutting blades of the cylinder coöperate, and 4 represents the guide bar located in front of said stationary cutting blade, the web to be sheared passing over the top of this guide bar and then down between the same and the fixed cutting blade 3, whereby, when the cylinder 1 is rotated in the direction of the arrow, all of that portion of the pile which projects beyond the limit predetermined by the relative positions of the cylinder, fixed blade and guide bar will be sheared off and the pile will be reduced to a uniform level. In machines of this class difficulty has been experienced in effecting the proper shearing of the pile at and near the selvage edges of the fabric, for such pile, being without outer lateral support, is not held up firmly to the cutting blades but can be deflected sufficiently to escape the proper shearing or cutting action of said blades, with the result that the pile at and near the selvages is not properly trimmed but presents a ragged and irregular appearance. In order to overcome this defect, I locate, above the top of the guide bar 4 and at each selvage of the fabric, a presser plate 5, free to move laterally on the guide bar and subjected to a yielding inward pressure which maintains it constantly in contact with the selvage edge of the web, whereby the pile at and near the selvage edges is caused to retain its proper upstanding position and is consequently sheared or trimmed as effectively as any other portion of the pile.

The presser plates 5 are preferably provided with extended bases 6, which embrace the upper member of the guide bar 4 and are retained against displacement while free to move to-and-fro thereon, and through openings in the outer portions of the presser plates 5 I pass a rod 7, provided at each end with a collar 9, adjustable lengthwise on the rod, a coiled spring 10 being interposed between this collar and the corresponding presser plate, as shown in Fig. 2, so as to exert the desired yielding inward pressure upon the latter. Not only are the presser plates 5, therefore, permitted to move from and toward each other to accommodate themselves to fabrics of different widths, but the entire structure, comprising the two presser plates, the rod, the collars, and the springs, is free to move laterally in one direction or the other upon the top member of the guide bar 4 as the web of fabric changes its lateral position thereon, slight changes in this respect constantly taking place during the operation of the machine owing to the fact that the web is usually deposited in loose folds on the floor, or on a supporting table or bench in front of the machine, and is therefore not accurately alined when it passes over the top of the guide bar 4.

I claim:—

1. A pile fabric shearing machine having pile cutting mechanism and means located at the selvage edges of the web which is being sheared, and providing lateral support for the pile at such edges, said pile-supporting means extending so closely to the shearing devices as to prevent lateral deflection of the pile while it is being cut.

2. A pile fabric shearing machine having pile cutting mechanism, means adjacent to the shearing device for preventing lateral deflection of the pile at the selvage edges of the web which is being sheared, and means for imparting yielding inward pressure thereto.

3. A pile fabric shearing machine having pile cutting mechanism and means adjacent to the shearing device for preventing lateral deflection of the pile at the selvage edges of the web which is being sheared, said pressing means being free to move laterally with the web.

4. A pile fabric shearing machine having pile cutting mechanism, means adjacent to the shearing device and movable laterally with the web for preventing lateral deflection of the pile at the selvage edges of the web which is being sheared, and means for imparting yielding inward pressure to said pile supporting devices.

5. A pile fabric shearing machine having pile cutting mechanism, a guide bar for the web to be sheared, and means adjacent to the shearing device and free to move laterally on the top member of said guide bar for preventing lateral deflection of the pile at the selvage edges of the web.

6. A pile fabric shearing machine having pile cutting mechanism, a guide bar for the web to be sheared, means adjacent to the shearing device and laterally movable on the top member of said guide bar for preventing lateral deflection of the pile at the selvage edges of the web, and means for imparting yielding inward pressure thereto.

7. A pile fabric shearing machine having pile cutting mechanism, a guide bar for the web to be sheared, and means adjacent to the shearing device and free to move laterally upon the upper member of said guide bar, but otherwise confined thereto, for preventing lateral deflection of the pile at the selvage edges of the web.

8. A pile fabric shearing machine having pile cutting mechanism, a guide bar for the web to be sheared, means adjacent to the shearing device and movable laterally upon the upper member of said guide bar, but otherwise confined thereto, for preventing lateral deflection of the pile at the selvage edges of the web, and means for imparting yielding inward pressure thereto.

9. A pile fabric shearing machine having mechanism for cutting the pile, a guide bar for the web, presser plates adjacent to the shearing device and free to move laterally on said guide bar and contacting with the selvage edges of the web, a rod passing through said presser plates, collars on said rod, and springs interposed between said presser plates and said collars.

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

HENRY I. MAGEE.

Witnesses:

WM. M. BRINKWORTH,

ANNA HULSHIZER.