J. F. GORDON.

Presser-Wheel for Knitting-Machines.

No. 219,855. Patented Sept. 23, 1879.

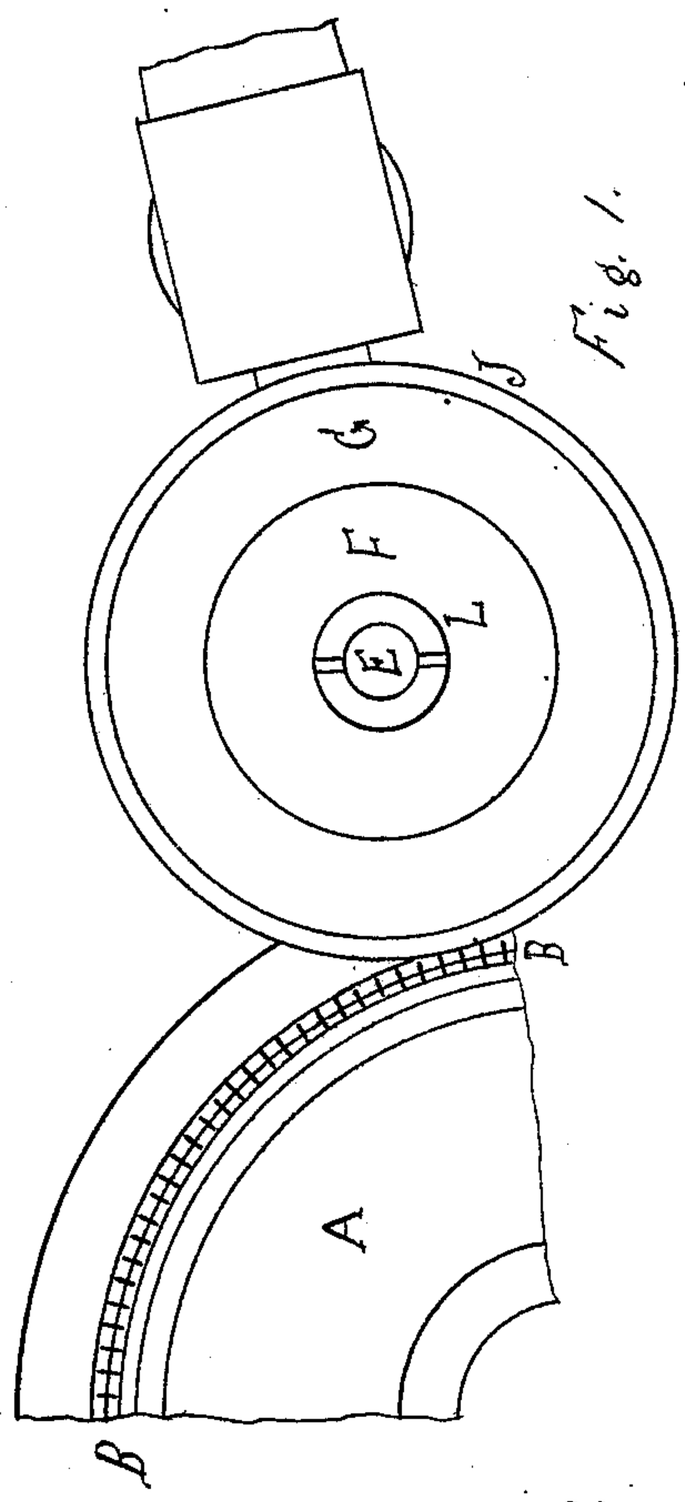

Fig. 1.

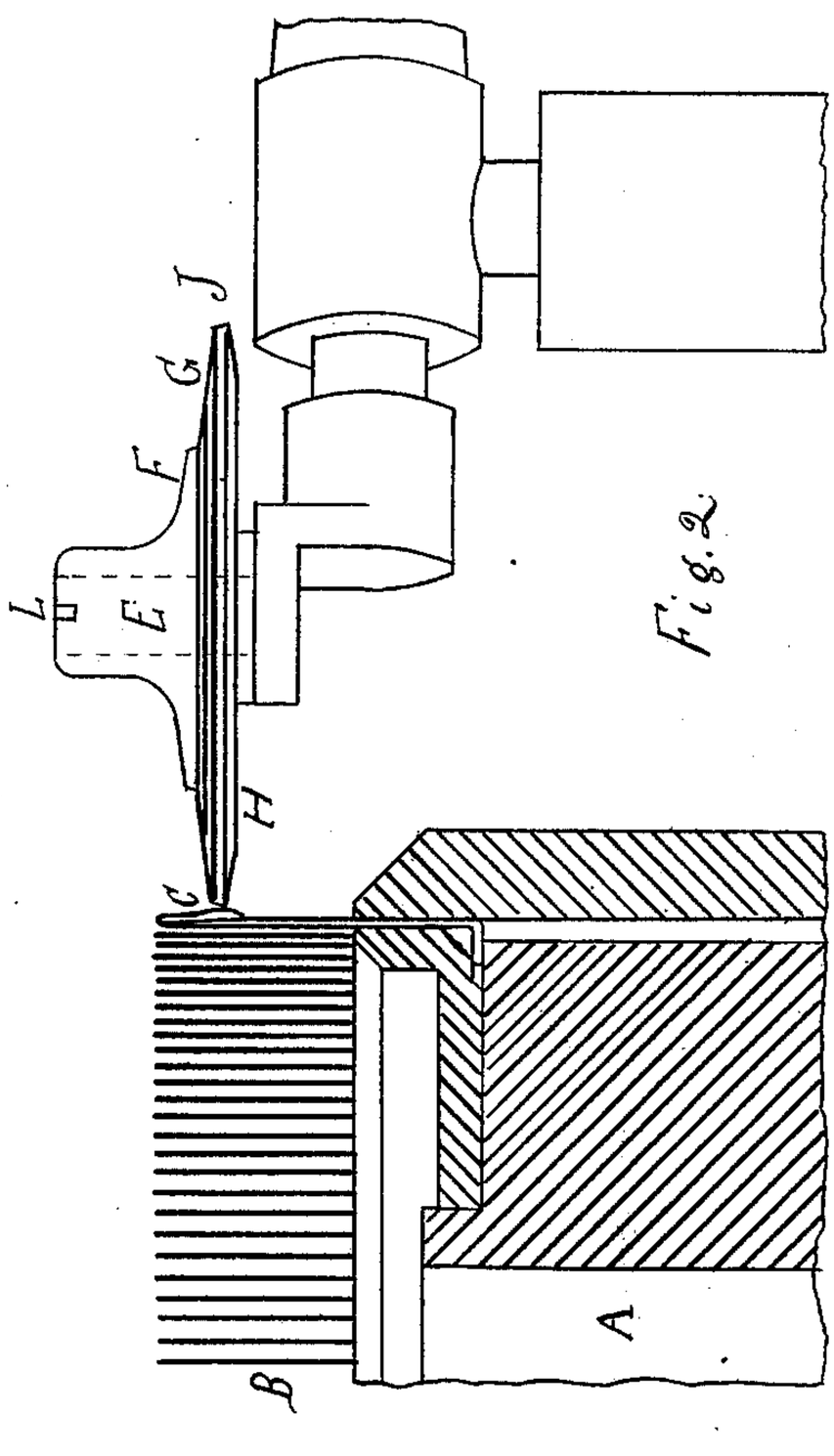

Fig. 2.

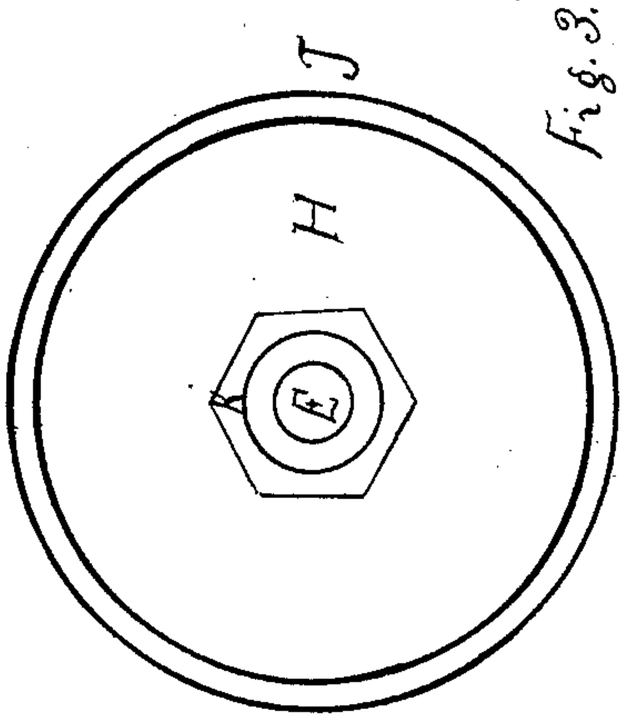

Fig. 3.

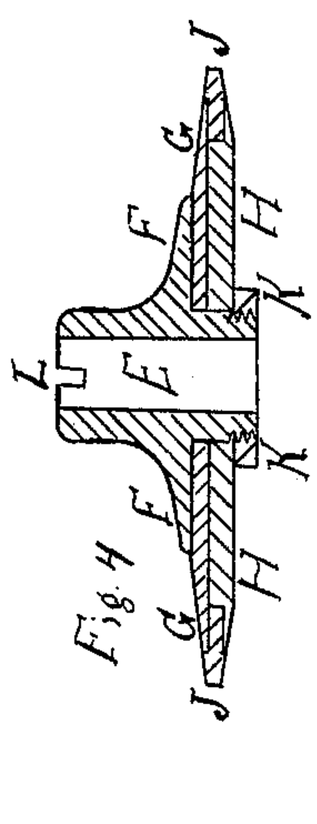

Fig. 4

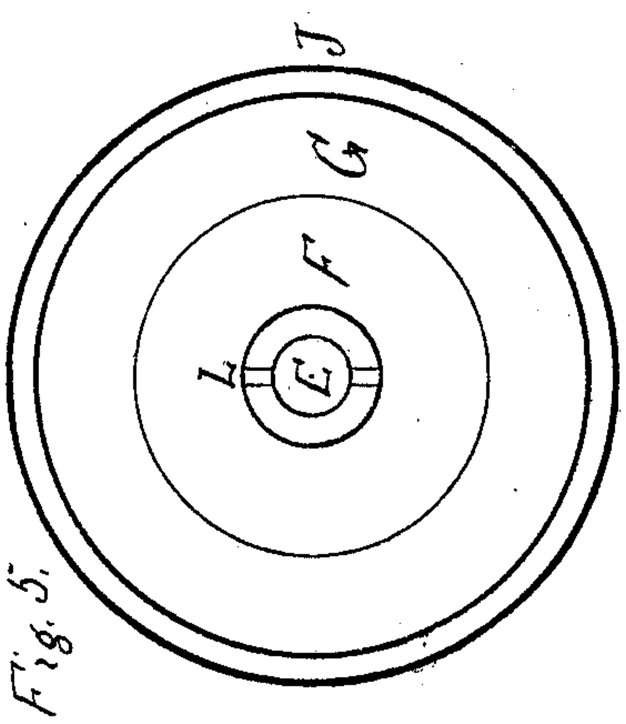

Fig. 5.

Witnesses—
Samuel B. Wyman
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UNITED STATES PATENT OFFICE.

JAMES F. GORDON, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN PRESSER-WHEELS FOR KNITTING-MACHINES.

Specification forming part of Letters Patent No. **219,855**, dated September 23, 1879; application filed April 26, 1879.

To all whom it may concern:

Be it known that I, JAMES F. GORDON, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Presser-Wheels for Spring-Needle Knitting-Machines, of which the following is a specification.

My invention consists, substantially, in a presser-wheel provided with a periphery of rawhide or other slightly-elastic material, and so constructed that the periphery, when worn, may be replaced by a new one; the object being to lessen the wear of the needle-beards, and to avoid unduly reducing the diameter of the presser-wheel by frequently turning off the same as it becomes worn into notches.

In the accompanying drawings, Figure 1 is a plan of a portion of the needle-cylinder with my presser-wheel supported in the usual manner. Fig. 2 is an elevation of the same, the right side of the cylinder being in section. Fig. 3 is a plan of the bottom of the presser-wheel. Fig. 4 is a vertical cross-section of said wheel, and Fig. 5 is a plan of said wheel.

A is a needle-cylinder, provided with spring-needles B, in the usual manner. Against the beards C of the needles runs the periphery J of the presser-wheel. This presser-wheel consists of a hub, E, provided with an annular flange, F, the under side of which flange is flat and perpendicular to the axis of the hub. A flat washer or disk, G, of metal is placed around the hub, against the under side of said flange F, and another flat washer, H, is placed around the hub and against the under side of the washer G, the washer H being rabbeted on the upper side to receive a flat ring, J, of rawhide, slightly wider than the rabbet, and a nut, K, which receives a screw-thread on the lower end of the hub, and, with the flange F, crowds the washers G H together, thereby firmly holding the ring J between said washers. A slot, L, in the top of the hub enables the latter to be held from revolving while the nut K is being screwed on or off.

It will be seen that by removing the nut K and the lower washer, H, the ring J may be removed and a new one substituted, and that the ring J forms the periphery of the wheel.

Presser-wheels are usually made of cast metal, in one piece, and their edges wear the beards of the needles until the beards break off, and the needles are thereby rendered worthless. Meanwhile the edge of the wheel is worn into notches, which gradually become deeper, and render it necessary to smooth or turn off the edge, and this turning off being several times repeated, the diameter of the wheel is at last so much reduced that the wheel can no longer be used. To remedy these evils I use the wheel above described, which wears less upon the needle-beards, and being itself worn only upon the edge, and this edge being removable, will last much longer than the ordinary wheel, and will greatly lessen the expense of needles and wheels.

The upper washer, G, may be cast solid with the hub E.

Instead of the rawhide, leather, paper, or hard rubber may be used, and even if soft metals are used for the ring J, the construction above described will be found advantageous.

I claim as my invention—

1. A presser-wheel provided with a yielding or slightly-elastic periphery, J, as and for the purpose specified.

2. A presser-wheel provided with a rawhide periphery, J, as and for the purpose specified.

3. The hub E, provided with the flange F, in combination with the washers G H, one of said washers being removable from said hub, the removable ring J, and the nut K, as and for the purpose specified.

JAMES F. GORDON.

Witnesses:
ALBERT M. MOORE,
CHAS. A. PAGE.