

J. D. Minder.
Thread Dressing Mach.

N^o 17,334.

Patented May 19, 1857.

Fig. 2.

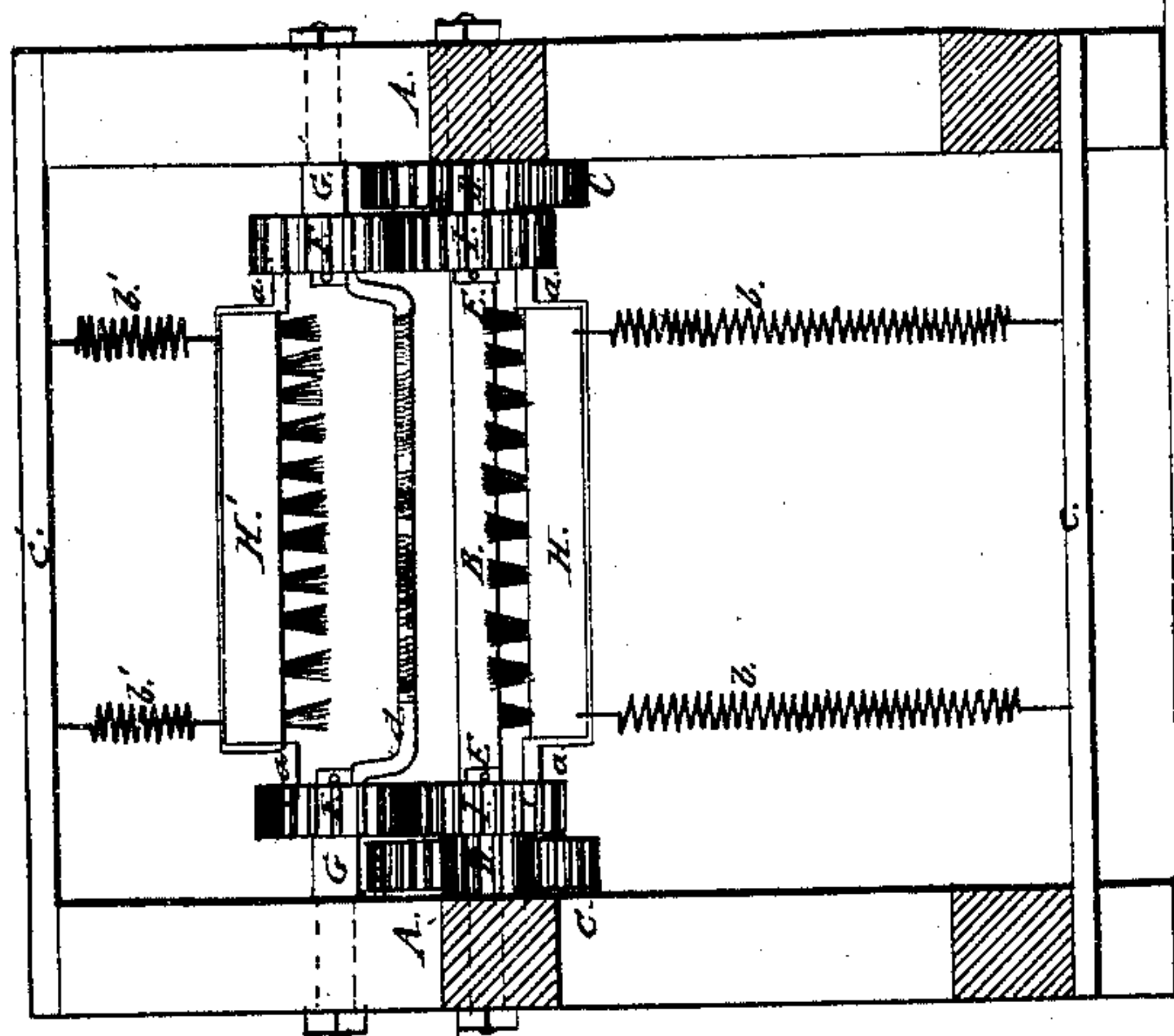
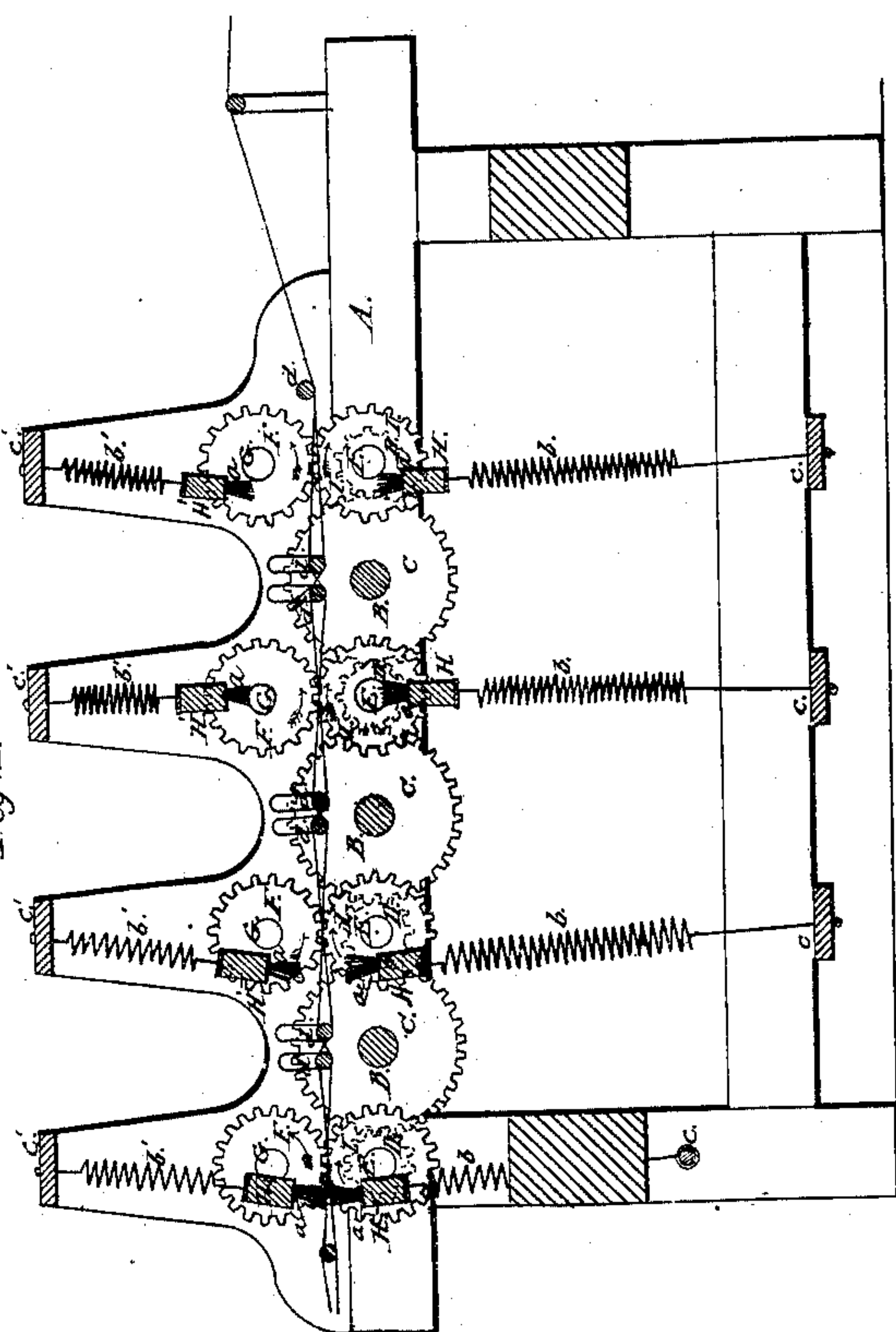


Fig. 1.



UNITED STATES PATENT OFFICE.

J. D. MINDER, OF KILLINGLY, CONNECTICUT.

MACHINERY FOR DRESSING SEWING-THREAD, WARPS, OR YARNS.

Specification of Letters Patent No. 17,334, dated May 19, 1857.

To all whom it may concern:

Be it known that I, J. D. MINDER, of Killingly, in the county of Windham and State of Connecticut, have invented a new and useful Improvement in Machinery for Dressing Sewing-Thread and Cotton and Linen Warps and other Yarns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a longitudinal vertical section of the machinery, and Fig. 2, is a transverse vertical section of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in a certain mode of operating a series of brushes to whose action the thread or yarn is submitted after being saturated with size, whereby the dressing is effected without the aid of a fire or blower in a better manner than by revolving brushes.

To enable those skilled in the art to make and use my invention I will proceed to describe its construction and operation.

A, is the framing of the machine.

B, B, B, are a series of parallel shafts, either of which may be the driving shaft of the machine, and all of which are geared together so as to rotate in the same direction by means of spur gears C, C, C, secured upon them near each end, and intermediate gears D, D, D, which are fitted to studs E, E, E, that are arranged on opposite sides of the machine in pairs in line with each other, and which gear with C, C, C.

F, F, F, are a series of spur gears fitted to turn freely on studs G, G, G, that are secured to each side of the framing; said studs being arranged opposite to and in line with each other in pairs, and severally directly under the studs E, E, E. The gears F, F, F, derive motion all in the same direction from gears I, I, I, that are fast to the gears D, D, D.

H, H, H, and H¹, H¹, H¹, are the brushes in two sets, of straight form, provided with journals a, a, a, at their ends, which journals are received within holes made eccentrically in the inner or facing sides of the gears I, I, I, and F, F, F. The brushes thus arranged in pairs are caused to receive

movements similar to those of cranks, and the gears F and I, of each pair are so arranged that as they rotate, the two brushes of each pair H, H¹, will approach and recede from each other; meeting each other and engaging intimately together in every revolution. The brushes do not rotate on their own axes, but only around the axes of the studs, being prevented turning on their own axes and kept at all times nearly in an upright condition by springs b, b, b, and b¹, b¹, b¹, connecting their backs with transverse rails c, c, c, and c¹, c¹, c¹, that are fast to the framing of the machine.

The thread or yarn (which is represented in Fig. 1, in red color) coming from the sizing box, passes between the two series of brushes H, H, H, and H¹, H¹, H¹, and is held steady by passing over and under stationary rods d, d, d, arranged transversely to it. The brushes, by the crank movement they receive from the wheels F, F, F, and I, I, I, are made to approach and recede from each other; each pair meeting upon the threads or yarns, which pass midway between them, and moving together very rapidly along the thread or yarn away from the sizing box, coming in contact with it at different points, and brushing off the superfluous size and laying the fibers even, and smoothing and drying it perfectly.

The above motion of the brushes is proved to be far superior in its effect to the rotary motion employed in the patented process of J. M. Heck; not only giving a better finish to each and every thread, but allowing a much greater number of threads to be operated upon at one time.

I do not claim the employment of revolving brushes for dressing sewing thread or yarn. But

What I claim as my invention, and desire to secure by Letters-Patent, is:

The employment, for dressing sewing thread and yarns, of a series of straight brushes, arranged in pairs and having a crank motion toward and from each other, so that the several pairs engage and move together along the thread or yarn substantially as described.

J. D. MINDER.

Witnesses:

O. M. CAPRON,
ELISHA CARPENTER,