J. Shaw.

Nailing Mach.

No. 29,828. Patented Aug. 28, 1860.

Fig. 2.

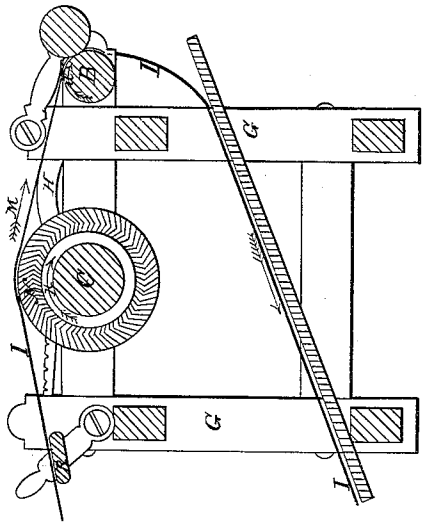


Fig. 4.

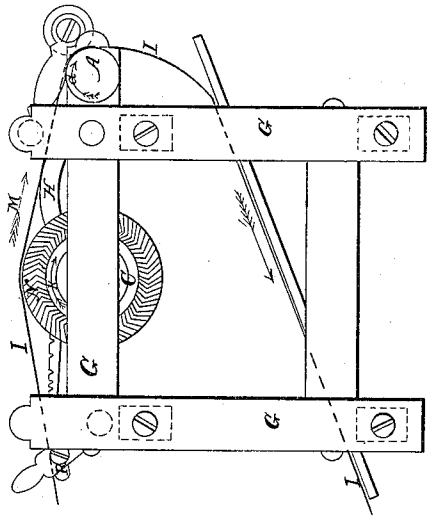


Fig. 1.

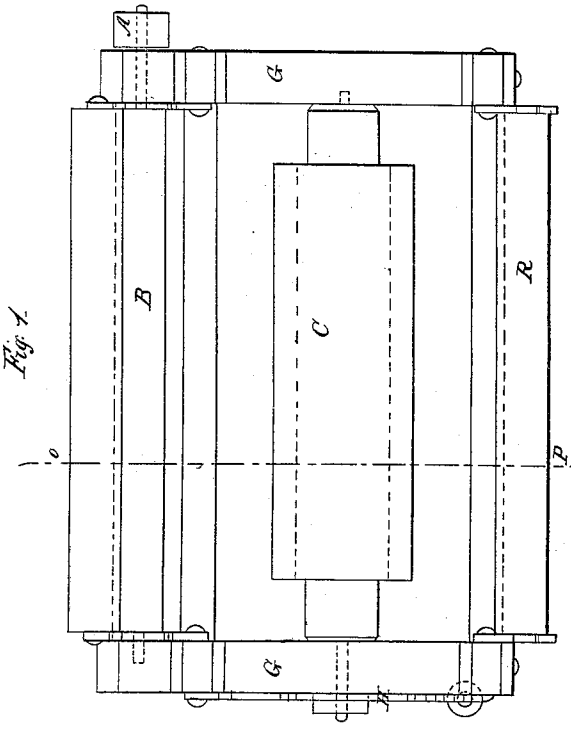
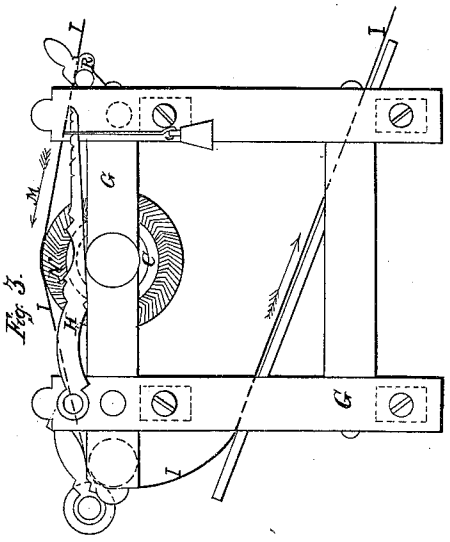


Fig. 3.



Witnesses.
Thomas D. Smith
Edward Brown

Inventor.
James Shaw

UNITED STATES PATENT OFFICE.

JAMES SHAW, OF MANAYUNK, PENNSYLVANIA.

GIG-MILL.

Specification of Letters Patent No. 29,828, dated August 28, 1860.

To all whom it may concern:

Be it known that I, JAMES SHAW, of Manayunk, in the city of Philadelphia and State of Pennsylvania, have invented a new and useful improvement on the gig-mill or raising-machine for raising the wool, nap, or pile on the various kinds of cloths, blankets, flannels, satinets, cassimeres, carpets, or any woven or felted fabrics requiring in its manufacture a raised, napped, or clean-shorn face.

The nature of my invention, consists in this: The usual mode of raising the wool, nap, or pile, on woven or felted goods, by teazels or wire gig mills, or raising machines, is to cover the raising cylinder with teazels or cards, and drive the machine by the raising cylinder; the cloth to be raised being drawn in one direction, and the raising cylinder being driven in the opposite direction.

My improvement consists in reversing that method of raising. I work the cloth and the raising cylinder both in the same direction.

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

Figure 1 in the accompanying drawing, is a plan with the cloth removed. Fig. 2 is a section through O. P. of Fig. 1. Fig. 3 is a side view. Fig. 4 is a view of the opposite side.

A, is the driving pulley; B, the drawing cylinder; C, the raising cylinder; H, the friction break; I, the cloth; G, the framing; N, the card wire; R, a bar for carrying the cloth.

The same letters in the different figures refer to the same parts.

I place the driving pulley A on the drawing roller B, instead of on the raising roller C. The cloth is drawn by the rotation of the drawing cylinder B, in the direction of the arrow M; and in its passage over the raising cylinder C, causes the raising cylinder to rotate in the same direction, to wit, in the direction of arrow K. I place a friction lever or break H upon the raising cylinder C, in order to give the necessary pressure or tension requisite to raise the nap or pile on the cloth. This enables me to dispense with teazels or cross raising in the manufacture of finished goods.

I do not confine myself to the use of a single raising cylinder C, but use one or more in the same frame, the cloth passing over and operating all of them in the same manner as described above in the case of a single cylinder C.

The drawing roller B, I either make plain, or cover it with card wire, to assist in raising the cloth, at the same time that it is drawing it along. Also for blankets, beavers, pilots, or goods requiring raising on both sides, I use the raising cylinders C on both sides of the cloth, above and below at one and the same time; all the raising rollers operating substantially the same as described above in the case of a single cylinder.

What I claim as my invention and desire to secure by Letters Patent is—

The employment of a card cylinder or cylinders arranged and operated as described for the purpose set forth.

JAMES SHAW.

Witnesses:
THOMAS D. SMITH,
EDWARD BROWN.