M. H. WHITCOMB.

CLOTH-NAPPING MACHINE.

No. 177,602. Patented May 16, 1876.

Fig. 1

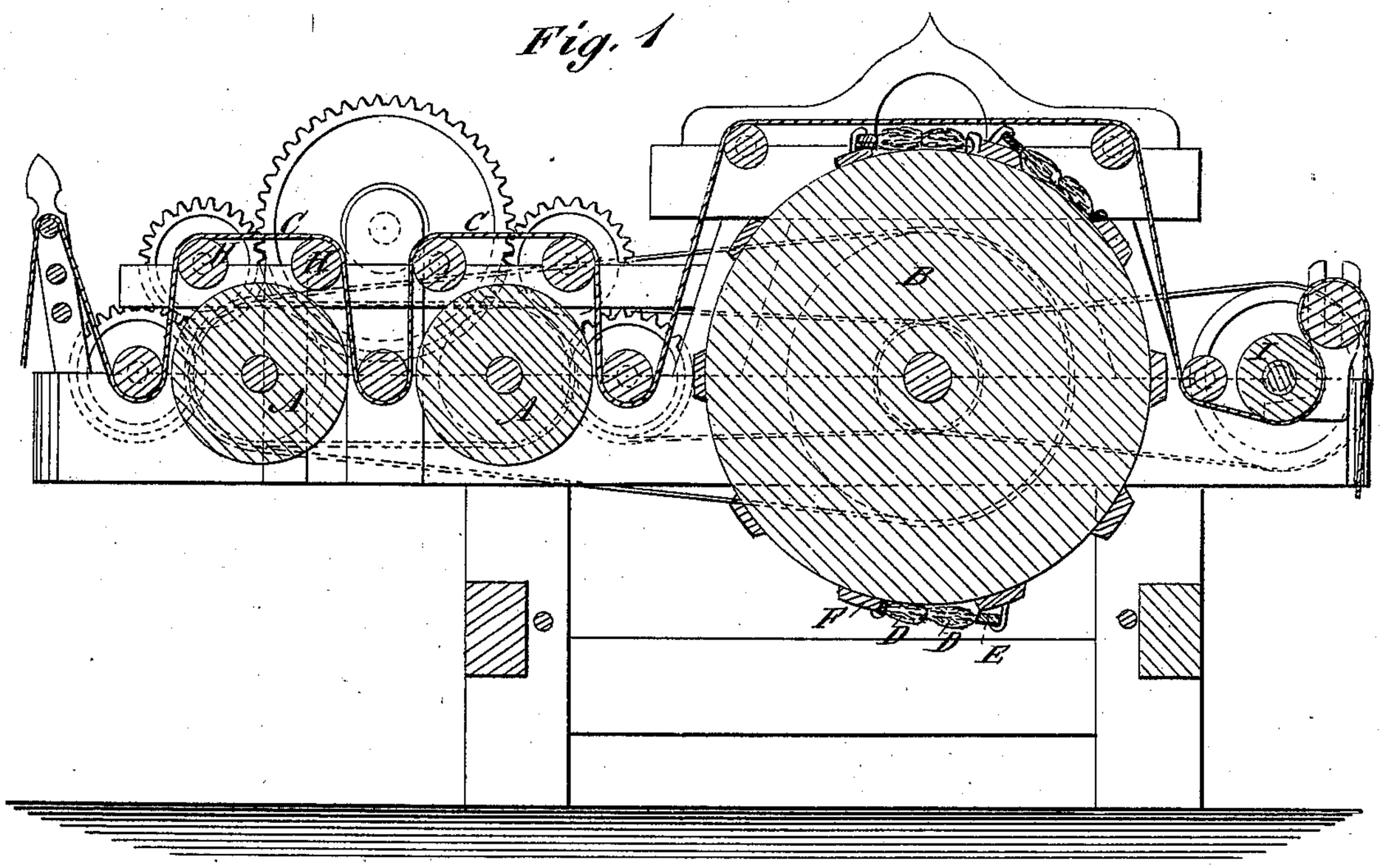
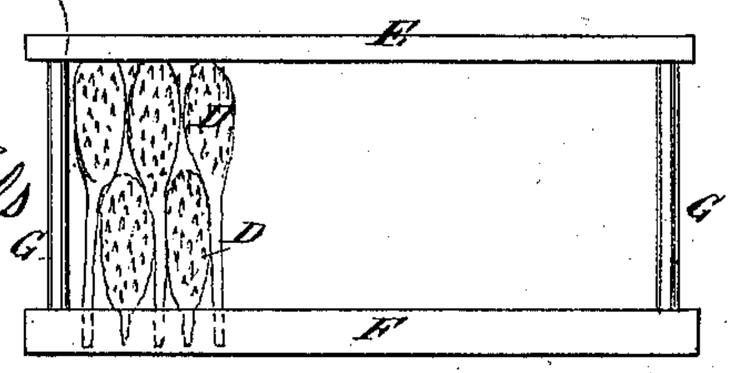


Fig. 2

Fig. 3



WITNESSES:

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MARCIENE H. WHITCOMB, OF HOLYOKE, MASSACHUSETTS.

IMPROVEMENT IN CLOTH-NAPPING MACHINES.

Specification forming part of Letters Patent No. **177,602**, dated May 16, 1876; application filed March 6, 1876.

To all whom it may concern:

Be it known that I, MARCIENE H. WHITCOMB, of Holyoke, Hampden county, Massachusetts, have invented a new and Improved Machine for Napping Cloth, of which the following is a specification:

My invention consists of a machine for napping cloth, combining on one frame the wire or card napper and the teasel-cylinder, the object being to have the strength of the wire or card clothing for breaking or tearing up the fibers of strong, heavy goods, for which the power of the teasel is not sufficient, and have the teasels for finishing the nap, for which they are superior to the card.

Figure 1 is a longitudinal sectional elevation of my improved cloth-napping machine, taken on line *x x*, Fig. 2. Fig. 2 is a plan view with a strip of cloth shown on one side, and Fig. 3 is a detail of the manner of attaching the teasels.

Similar letters of reference indicate corresponding parts.

A represents the wire or card nappers, and B the teasel-cylinder. The cloth C is first presented to the wire nappers and then to the teasels.

The teasels are packed in a frame composed of bars E and F and rods G, which are fastened to the cylinder.

The small carrying-rollers H are covered with short wire-clothing, to take strong hold of the cloth and prevent slipping. The cloth is drawn over the teasel-cylinder by the large back roll I, also covered with wire. This combination is employed for very coarse and heavy cloth, which is very hard to nap, and has always been done on "gigs" and single-cylinder nappers — mostly on nappers. All manufacturers preferred the gig, but the cloth being so very hard and heavy, it tore the teasels in pieces, which made it expensive and a slow process; so they resorted to nappers covered with card-wire. The nappers reduce the weight of the goods very much more than the teasels, but are quicker.

In this machine I combine the two processes, using the wire for preparing the cloth for the teasel, so that it can raise a nap without pulling the teasel in pieces, or reducing the weight of the goods. I save over any other process of napping over an ounce per yard.

In regard to its capacity, it will be seen that I present the cloth to each of the napping-cylinders twice, and as there are two cylinders, it makes four touches, and to the teasel-cylinder three times. It is perfectly adjustable, so that the cloth can be applied to the cylinders as light or as hard as is desirable, so that one passage over the machine finishes that side of the piece, while on the machines in general use it takes from six to ten runs.

One man on this machine will do the work of two or three, and it is better done, with less waste, and a great saving in room, as this machine does the work of eight or ten single-cylinder ones.

The cost for clothing, teasels, &c., is much less than any other napper.

I propose to employ any arrangement which conducts the cloth from napping to teasel cylinders continuously.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of card-nappers A, teasel-cylinder B, and teasels D, the latter packed in a frame, E F G, on the cylinder, substantially as and for the purpose specified.

MARCIENE H. WHITCOMB.

Witnesses:

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