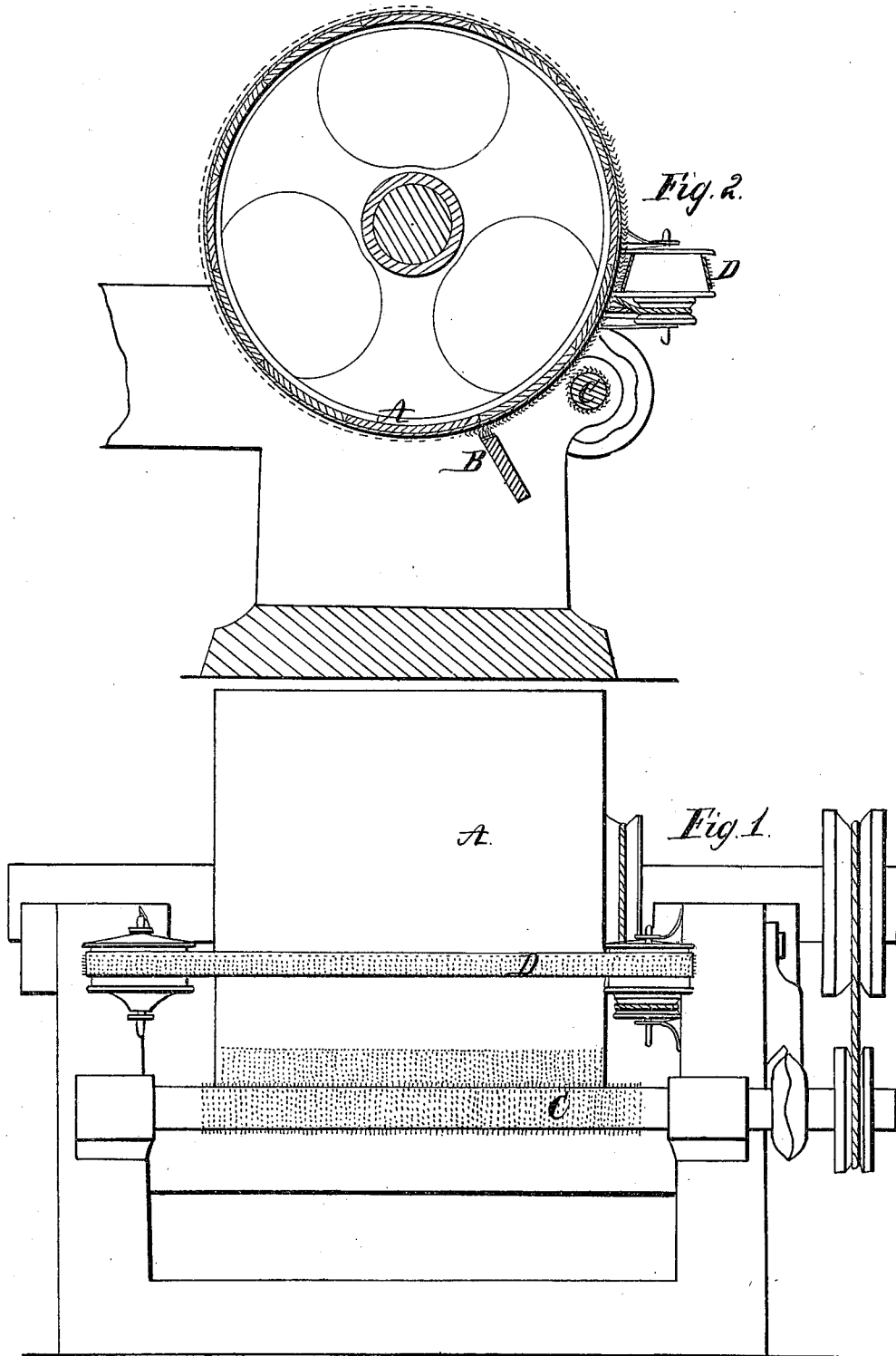


*S. G. Blackman,*  
*Carding Machine.*

*N<sup>o</sup> 7,065.*

*Patented Feb. 5, 1850.*



# UNITED STATES PATENT OFFICE.

SAMUEL G. BLACKMAN, OF NORWALK, CONNECTICUT.

## IMPROVEMENT IN CARDING-MACHINES FOR PREPARING BATS FOR FELTING.

Specification forming part of Letters Patent No. 7,065, dated February 5, 1850.

### *To all whom it may concern:*

Be it known that I, SAMUEL G. BLACKMAN, of Norwalk, in the county of Fairfield and State of Connecticut, have invented a new and Improved Manner of Crossing and Interlocking the Fibers of Wool Preparatory to Manufacturing Them into Felt Cloth; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

The nature of my invention consists in interlocking the fibers of wool while they are on the doffer of a carding-machine by curling their extremities backward, laterally or obliquely, by means of the action of some suitable rubbing or combing surface brought nearly in contact with the teeth of the doffer.

In the accompanying drawings, Figure 1 is an elevation of a carding-machine doffer having several differently-arranged rubbing-surfaces combined therewith, for the purpose of curling and interlocking the fibers of wool with each other, and Fig. 2 is a transverse section through Fig. 1.

Similar letters indicate corresponding parts in both figures.

I find that reversed needle-pointed cards make an excellent rubbing or combing surface for producing the above-mentioned interlocking combination of wool fibers while they are on the doffer; but I do not intend to limit myself to the use of card-teeth rubbing or combing surfaces for the purpose before mentioned, as other kinds of surfaces may perhaps answer as good a purpose.

A is the doffer.

B is a stationary narrow card with reversed teeth that are brought nearly in contact with the teeth of the doffer, and consequently, as the doffer is revolved, the card B will curl the extremities of the fibers backward and interlace them.

C is a card-covered cylinder having a lon-

gitudinally-reciprocating movement, and a rotary movement in the same direction as the doffer, the teeth on which cylinder C are reversed in their action and are brought sufficiently near to the teeth of the doffer to curl and interlock the fibers thereon.

D is a rotating endless card-band, the reverse side of the teeth of which are brought sufficiently near to the teeth of the doffer to turn all the fibers thereon laterally, and thereby produce a curling interlocking combination between them,

The above-named card B may have a longitudinally-reciprocating movement imparted to it, if deemed preferable, and the cylinder C may simply have a rotating movement imparted to it in place of the combined reciprocating and rotary movement, as above set forth.

Having thus fully described my invention, I would state that I do not claim the producing an interlocking of the fibers of wool by means of a reciprocating longitudinal movement of either the carding-cylinders of a carding-machine working against the doffer; but

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

The production of the requisite interlocking combination of the fibers of wool preparatory to converting the same into felt cloth by subjecting the said fibers to a rubbing or combing action while they are upon the doffer of a carding-machine by means of auxiliary cards or other suitable friction-surfaces, substantially as herein set forth, not intending by this claim, however, to limit myself to the special and particular manner of producing the said interlocking of the fibers of wool while they are upon the carding-machine doffer, as herein set forth.

SAMUEL G. BLACKMAN.

Witnesses:

Z. C. ROBBINS,

DANIEL BARNUM.