

E. FRENCH.

Improvement in Carding Machines.

Fig. 1.

No. 125,447.

Patented April 9, 1872.

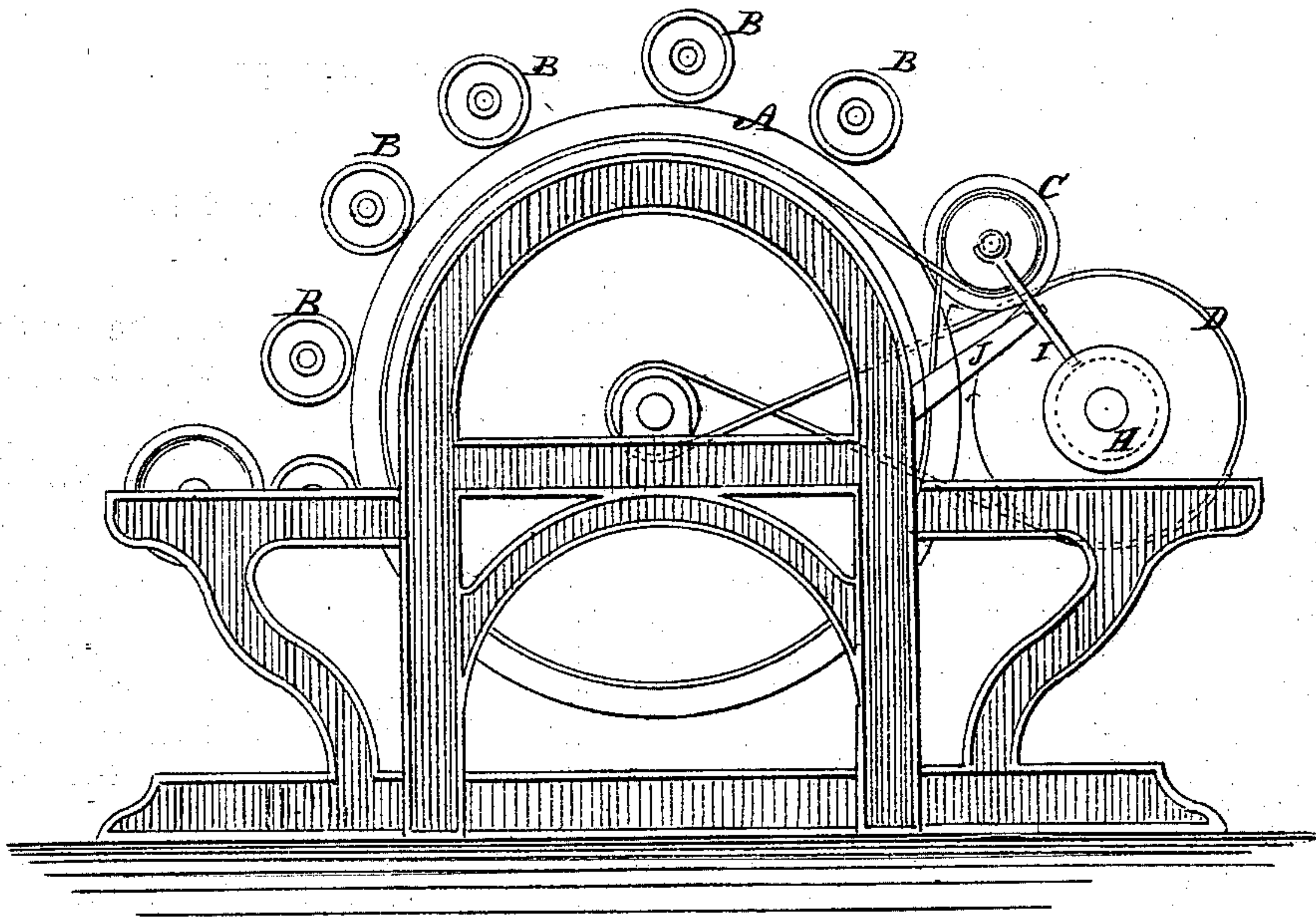
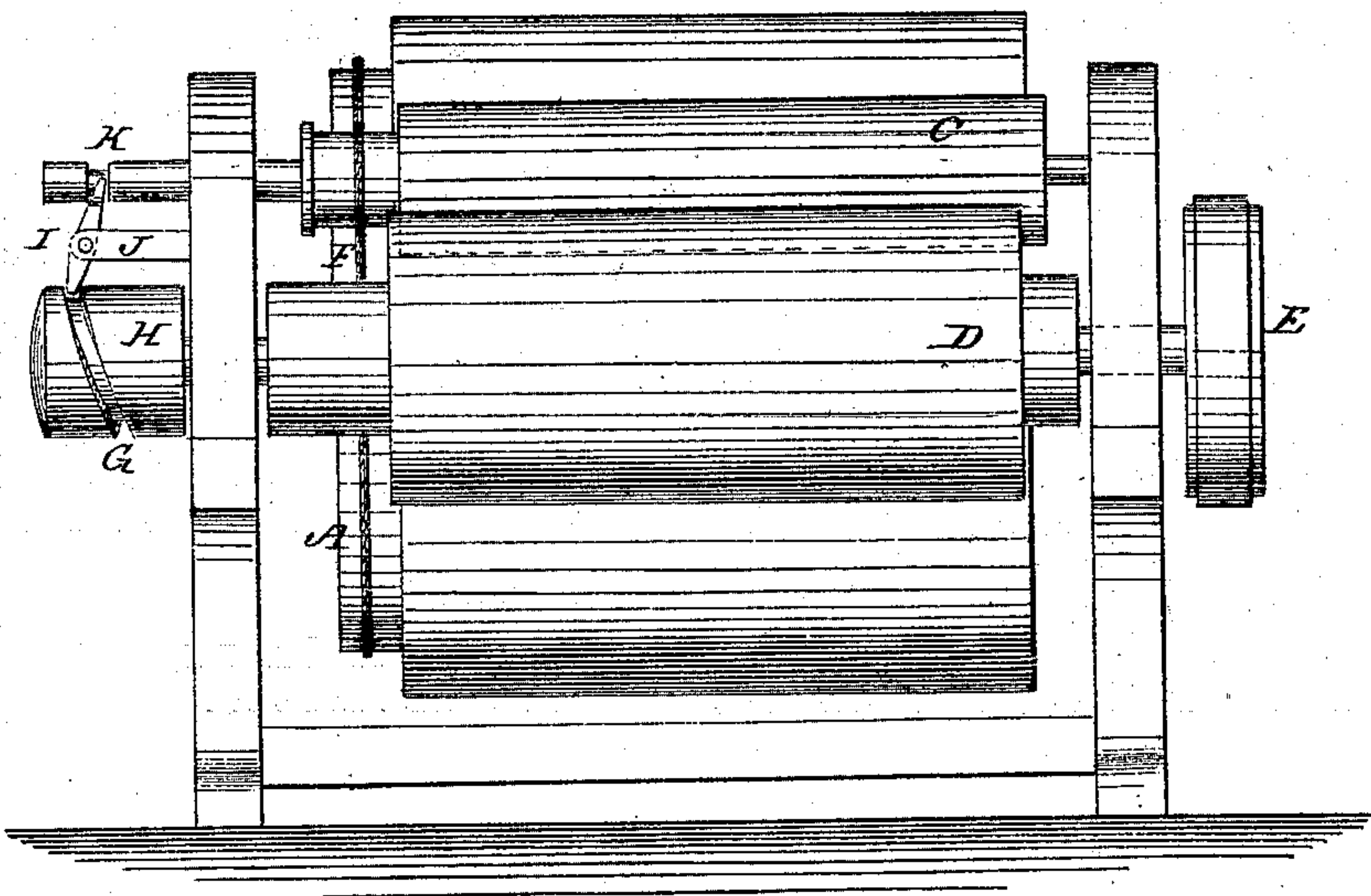


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

EPHRAIM FRENCH, OF NORTH ADAMS, MASSACHUSETTS.

IMPROVEMENT IN CARDING-MACHINES.

Specification forming part of Letters Patent No. 125,447, dated April 9, 1872.

Specification describing a new and useful Improvement in Carding-Machines, invented by EPHRAIM FRENCH, of North Adams, in the county of Berkshire and State of Massachusetts.

My invention relates to an improvement in the class of carding-machines in which an endwise-reciprocating fancy-roller is arranged in connection with the main cylinder; and it consists in the arrangement of such reciprocating "fancy"-roller so that it shall revolve in contact with both the doffer and the main cylinder.

In the accompanying drawing, Figure 1 represents a side elevation of a carding machine. Fig. 2 is a front elevation.

Similar letters of reference indicate corresponding parts.

A is the main carding-cylinder. B represents card-rollers working in connection with the cylinder A, arranged in the ordinary manner. C is what is known as the "fancy," and D the "doffer" of a carding-machine. The doffer is revolved in the usual manner by a belt on the pulley B. The fancy is revolved in contact with the surface of both main cylinder A and the doffer by a belt, F, from the main cylinder. The fancy C is given a traversing or endwise-reciprocating motion as it revolves by means of the cam-groove G on the block H of the doffer-shaft, as seen in Fig. 2. I is a vibrating lever, whose fulcrum is in the bracket J. K is a groove in the "fancy"-shaft. One end of the lever I is in the cam-groove G, and the other in the groove K.

It will be seen that, as the doffer-shaft re-

volves, the "fancy" C will be made to traverse back and forth a distance equal to the "throw" of the cam-groove.

I do not confine myself to this particular device, as there are many ways by which this traversing motion could be produced.

The "fancy," thus traversing in contact with the surfaces of both the main cylinder and the "doffer," keeps the material (wool, &c.,) on the surfaces of those cylinders more even and uniform than when it is run in the ordinary manner, thereby avoiding streaks of the material on the cylinders.

In ordinary carding-machines the doffer requires to be cleaned daily, or at least very frequently; and when low or dirty stock is used, the doffer soon becomes coated, so that the stock drops to the floor and becomes waste, thus necessitating cleaning of the doffer several times a day. This of course occasions a stoppage in production, and entails much loss.

My invention, I find from practical experience, renders it unnecessary to remove the doffer for cleaning it for several weeks at a time, as it is cleaned by the teeth of the fancy during the operation of the machine.

What I claim is—

The reciprocating "fancy"-roller C, arranged to rotate in contact with the doffer D and main cylinder A of a carding-engine, substantially as described, for the purpose specified.

EPHRAIM FRENCH.

Witnesses:

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