

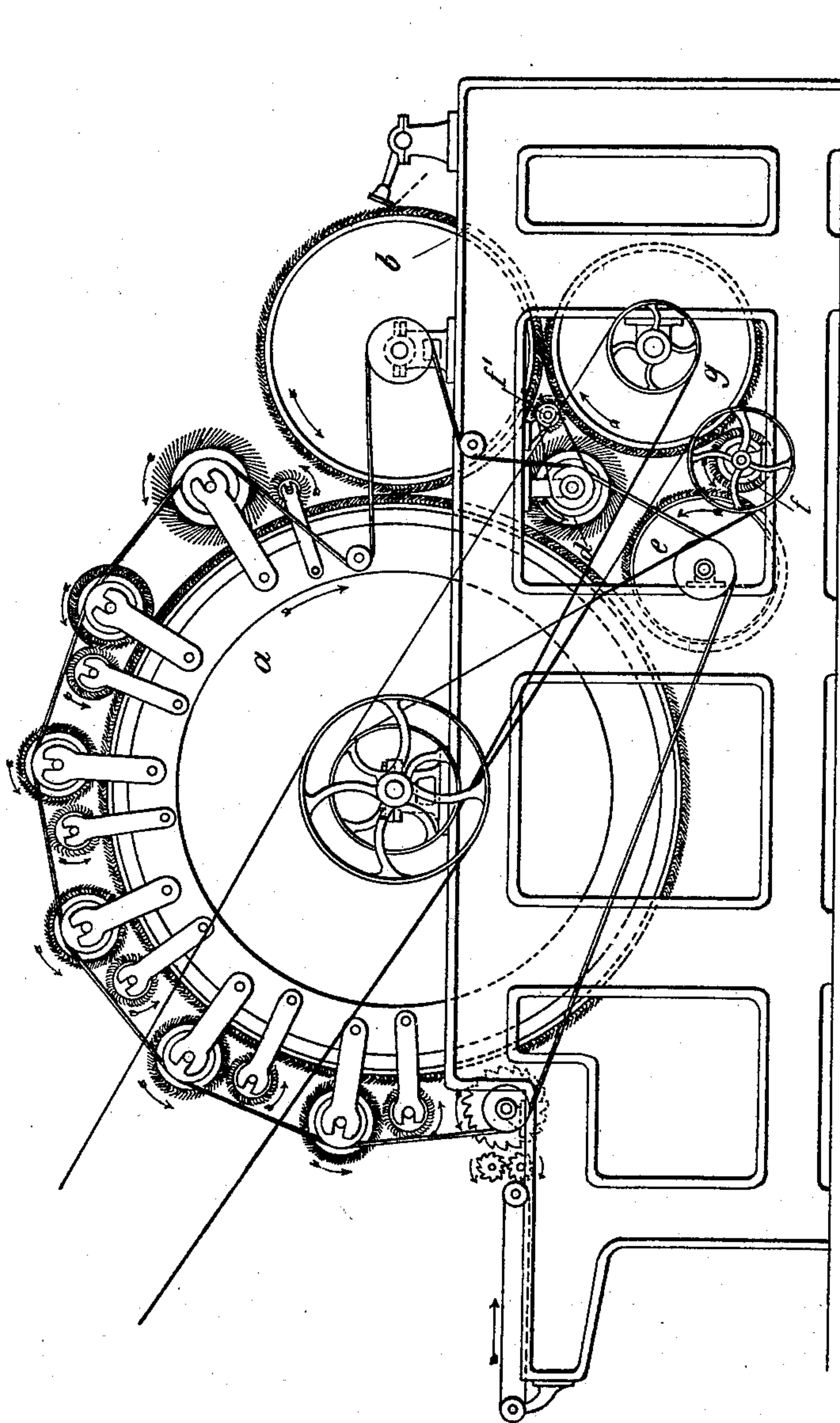
No. 630,479.

Patented Aug. 8, 1899.

S. BERAN.  
CARDING MACHINE.

(Application filed Apr. 19, 1899.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

SAMUEL BERAN, OF BRÜNN, AUSTRIA-HUNGARY.

## CARDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 630,479, dated August 8, 1899.

Application filed April 19, 1899. Serial No. 713,571. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL BERAN, constructor of looms, residing in Brünn, Obrowitz, in the Empire of Austria-Hungary, have  
5 invented new and useful Improvements in Carding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same.

The purpose of the present invention is a  
10 carding-machine in which the inferior and shorter material left behind upon the cylinder by the doffer is taken off by a system of card-covered rollers underneath the doffer which are connected with the cylinder and is  
15 vigorously carded and mixed with the material taken off by the doffer, the mixture being again submitted to a further carding process.

In the accompanying drawing is illustrated  
20 a carding-machine provided with the arrangement referred to, the construction and working of which in other respects are well known.

The system of card-covered rollers referred to consists of a worker *e* close to the cylinder, which takes off the short material left on the  
25 cylinder *a* by the doffer *b* and cards it in conjunction with the clearer *f*. The latter, *f*, carries the material to the auxiliary cylinder *g*, where it is again worked by the cards of the two rollers *f* and *g*. Above the clearer *f*  
30 there is a beater *d*, which, having raised the nap of the material on the cylinder *a* before being taken off by the worker *e*, acts upon the auxiliary cylinder *g* and in connection with the latter operates again upon the material taken up by the cylinder *g*, by which  
35 means a good streak is given to it, which is absolutely necessary for the formation of a uniform sliver.

At the surface of contact of the doffer *b*

and auxiliary cylinder *g* the material taken  
40 up by them (*b* and *g*) is intimately mixed and the mixture well carded, so as to leave the surface as a uniform and homogeneous fleece as it is taken off by the doffer-comb to be condensed into a sliver.

The object of the dust-clearer *f'*, placed  
45 before the surfaces of contact of the doffer *b* and auxiliary cylinder *g*, is to separate the inferior fibers carried along by the doffer *b* and auxiliary cylinder *g*.  
50

It is evident that in the arrangement here described another series of workers, such as  
55 *e*, and clearers, such as *f*, may be interposed between the clearer *f* and auxiliary cylinder *g*.

Having now particularly described and as-  
certainated the nature of the said invention and  
55 in what manner the same is to be performed, I declare that what I claim is—

In a carding-machine, the combination with  
60 the cylinder *a* and the doffer *b*, of a system of card-covered rollers *e*, *f*, *g* connecting the doffer with the cylinder *a*, which subjects the material not taken off by the doffer to a card-  
65 ing process, an auxiliary cylinder *g* cooperating with the doffer *b* to mix the material intimately with that first taken off by the doffer and operate again upon it, and a beater *d*  
70 which on the one side raises the second material on the cylinder *a* before the carding process, and on the other side gives to it a good streak on the auxiliary cylinder *g*.

In testimony whereof I have signed this  
specification in the presence of two subscribing witnesses.

SAMUEL BERAN.

Witnesses:

MORITZ SCHMOLKA,  
FERDINAND RABEL.