

A. A. Bennett & G. Vine.
Carding Mach.

N^o 85,556.

Patented Jan. 5, 1869.

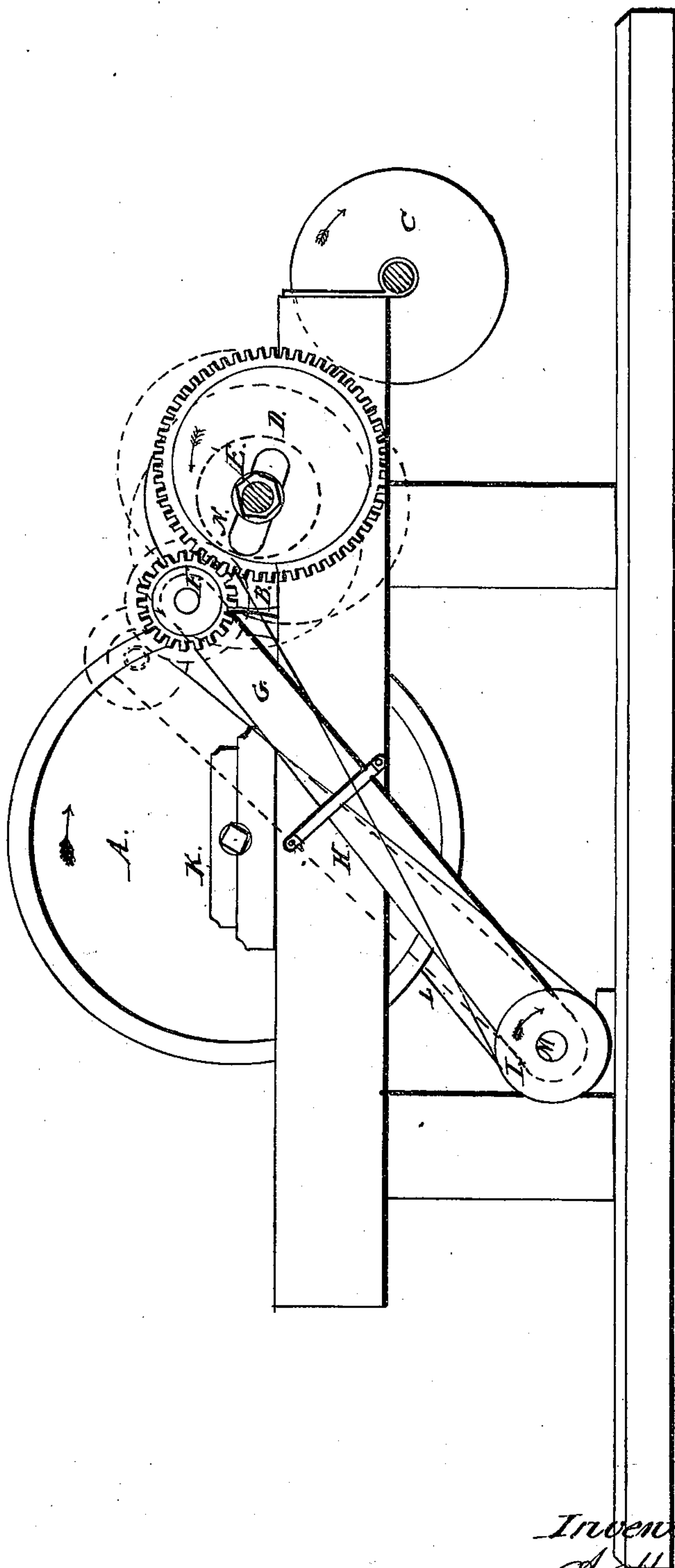


Fig. 1.

Witnesses:
Wm Vine
Joseph F. Fenton

Inventors:
A. A. Bennett
Geo Vine

United States Patent Office.

ANTHONY A. BENNETT AND GEORGE VINE, OF NORWALK, CONNECTICUT.

Letters Patent No. 85,556, dated January 5, 1869; antedated December 23, 1868.

IMPROVEMENT IN CARDING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, ANTHONY A. BENNETT and GEORGE VINE, both of the town of Norwalk, county of Fairfield, and State of Connecticut, have invented a new and useful Improvement in Carding-Machines; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of our invention consists in the arrangement of machinery for the purpose of giving the doffer a slow and gradually-increasing speed in its revolutions, for forming a wedge-shape felting cloth, for the use of pianos.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same.

The drawing, fig. 1, is a side view of a carding-machine with our improvements.

The cylinder A, doffer B, drum C, and other corresponding parts, frame, &c., of the carding-machine, remain the same as usual.

On the end of the shaft E of the doffer B we attach the eccentric slotted gear-wheel D, and working in the same is the pinion-gear F.

This pinion-gear F is attached to the end of the vibrating rod or arm G, and is revolved by the belt H, connected to the driving-pulley I, which connects with a pulley and belt on the other side, to a pulley and belt on the main cylinder A.

A belt on the pulley of the doffer drives the drum C with corresponding speed.

The lower end of the vibrating arm G works loose on the shaft M, and, by this combined movement, the doffer is revolved by the action of the pinion working

on the large eccentric-gear wheel D, and, in consequence of the eccentricity of the same, the doffer will have a slow movement when the pinion works on the large radius of the gear D, and with a gradually-accelerated speed as the pinion works down on the small part.

Differential speeds are given by shifting the wheel D, by means of the slot N in the same.

By this variable movement of the doffer, the fleece is removed unevenly from the main cylinder, and it is wound on the drum C, making, as the material accumulates, an irregular bat or sliver, the thin portion of the bat or sliver being formed when the doffer goes fast, and the thick part when it goes slowly; and, in the proper number of revolutions, the variable or wedge-shape felting is gradually formed, for the purpose required.

We do not confine ourselves to precisely the stated arrangements for producing the variable revolutions of the doffer and drum, but to any equivalent devices for the same effect and purpose.

What we claim as our invention, and desire to secure by Letters Patent, is—

The arrangement of the eccentric revolving gear-wheel D, pinion F, vibrating lever or drum C, in combination with the main cylinder, driving-belts, and pulleys, or their equivalents, to give the variable speed, in the manner substantially as and for the purpose described.

Norwalk, Connecticut, March 27, 1868.

A. A. BENNETT.
GEO. VINE.

Witnesses:

WM. VINE,
JOSEPH F. FOOTE.