L. St. GEORGE.

Improvement in Carding-Machines.

No. 127,199. Patented May 28, 1872.

Fig. 1.

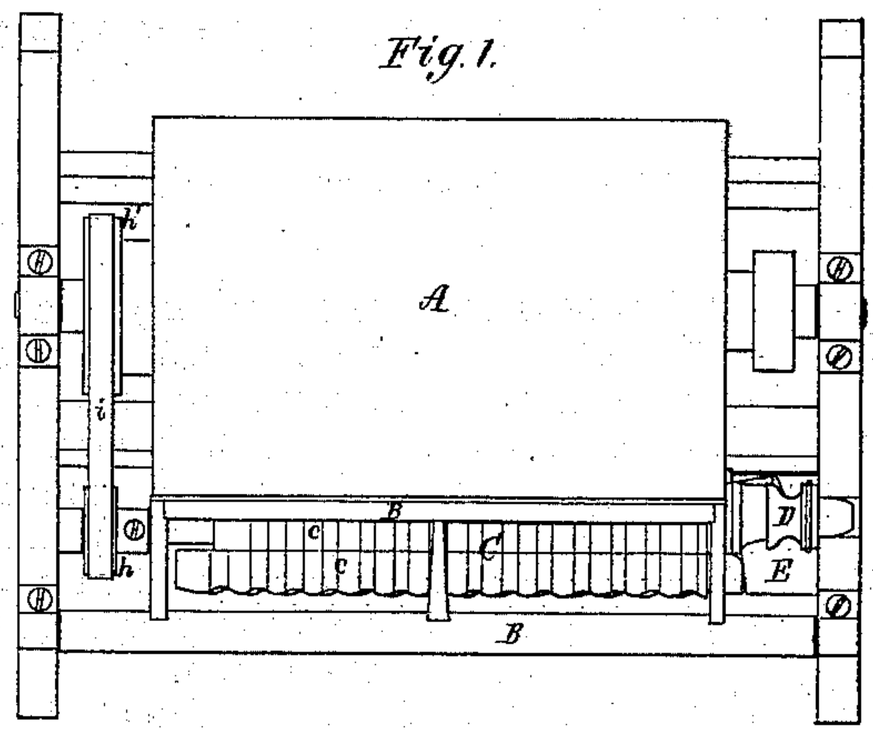


Fig. 2.

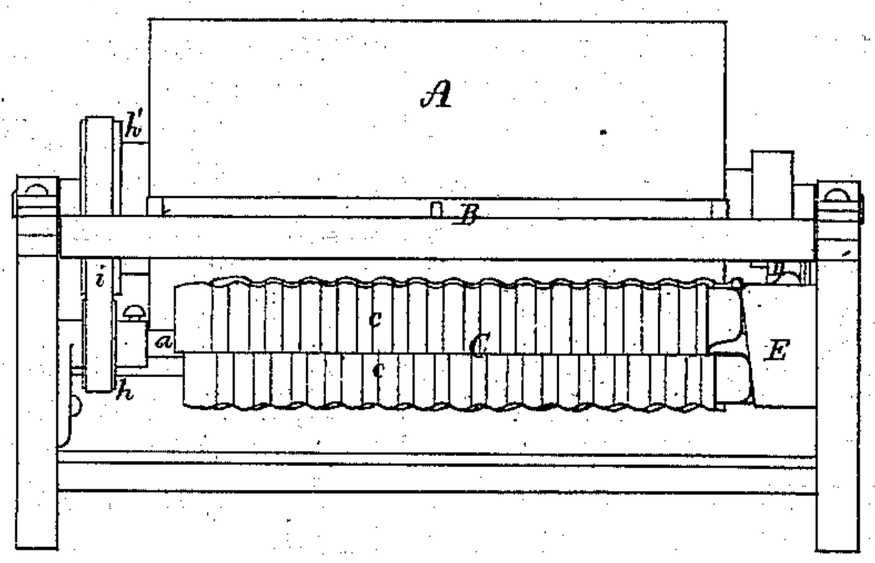


Fig. 3.

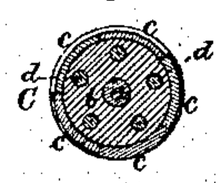


Fig. 4.

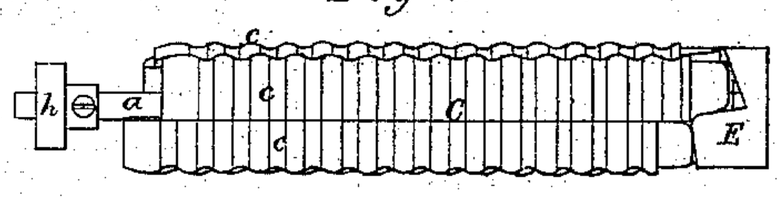
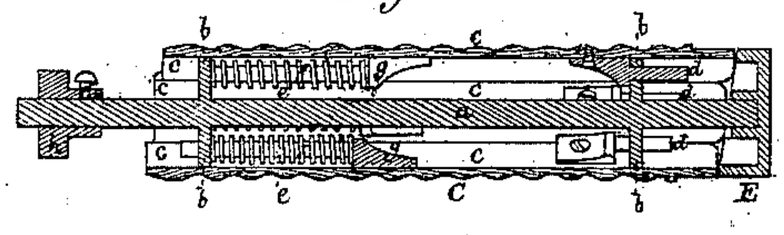


Fig. 5.



Witnesses.

S. N. Piper.

L. N. Moller

Lewis St. George.

by his attorney.

R. H. Eddy

127,199

UNITED STATES PATENT OFFICE.

LEWIS ST. GEORGE, OF NORTH BELLINGHAM, MASSACHUSETTS.

IMPROVEMENT IN CARDING-MACHINES.

Specification forming part of Letters Patent No. 127,199, dated May 28, 1872.

To all persons to whom these presents may come:

Be it known that I, LEWIS ST. GEORGE, of North Bellingham, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Carding-Engines; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 is a top view, and Fig. 2 a front elevation of a carding-engine doffer and comb-carrier with my invention applied to the roller, and guide-tube for removing the bat. Fig. 3 is a transverse section of the corrugated roller. Fig. 4 is a top view of it and its actuating cam. Fig. 5 is a longitudinal section of such roller.

In such drawing, A denotes the doffer unprovided with its usual card-clothing; B, the comb-carrier; C, the bat-roller; and D, the guide-nose or tube. The roller C, instead of being a plain cylinder, as it is ordinarily, I construct of a shaft, *a*, two disks or cylindrical heads, *b b*, and a series of boards or circumferential sections, *c c c;* and I provide each of such sections *c* with two spindles, *d e*, projected from its inner surface, and arranged in manner as shown, they being to enter and slide lengthwise in holes made transversely through the disks. There is on each of the longer spindles a helical spring, *f*, which encompasses the spindle, bears against the disk, and also against the shoulder *g* at the inner end of the spindle. Each of the peripheral sections is grooved or fluted transversely, and at its end abuts against the edge of a cylindrical cam, E, arranged beneath the tubular guide, and concentric with the shaft of the roller. A pulley, *h*, on the shaft receives a band, *i*, going around another pulley, *h'*, fixed on the shaft of the doffer, all being as represented. By means of the spring *f* each of the peripheral sections, while passing through the upper half of its revolution, will be moved longitudinally in a direction toward the cam, the latter admitting of such movement taking place, and subsequently acting against the section so as to move it in the opposite direction while it may be passing through the lower portion of its path of rotation.

From the above it will be seen that the bat, which by the comb may be discharged from the doffer upon the sectional roller, will drop on the roller and be moved laterally toward the tubular guide, by that section of the roller upon which the bat may fall, the roller thus serving not only to intercept the bat, but move it forward to the guide, through which it is drawn in the ordinary way. The roller so made and operating prevents the bat from falling apart or being broken, as it is liable to be without the roller.

I claim—

1. The roller C, composed of the corrugated peripheral section *c*, the shaft *a*, the disks *b*, the spindles *d e*, the springs *f*, all arranged and combined substantially as described and shown.

2. Also, the combination and arrangement of the operative cam E with the sectoral roller C, made and provided with springs, substantially in manner as explained and represented.

3. Also, the combination and arrangement of the sectional roller C, made as described, and its operative springs *f* and cam E with the doffer A, comb-carrier B, and the tubular guide D of a carding-engine.

LEWIS ST. GEORGE.

Witnesses:

R. H. EDDY,

J. R. SNOW.