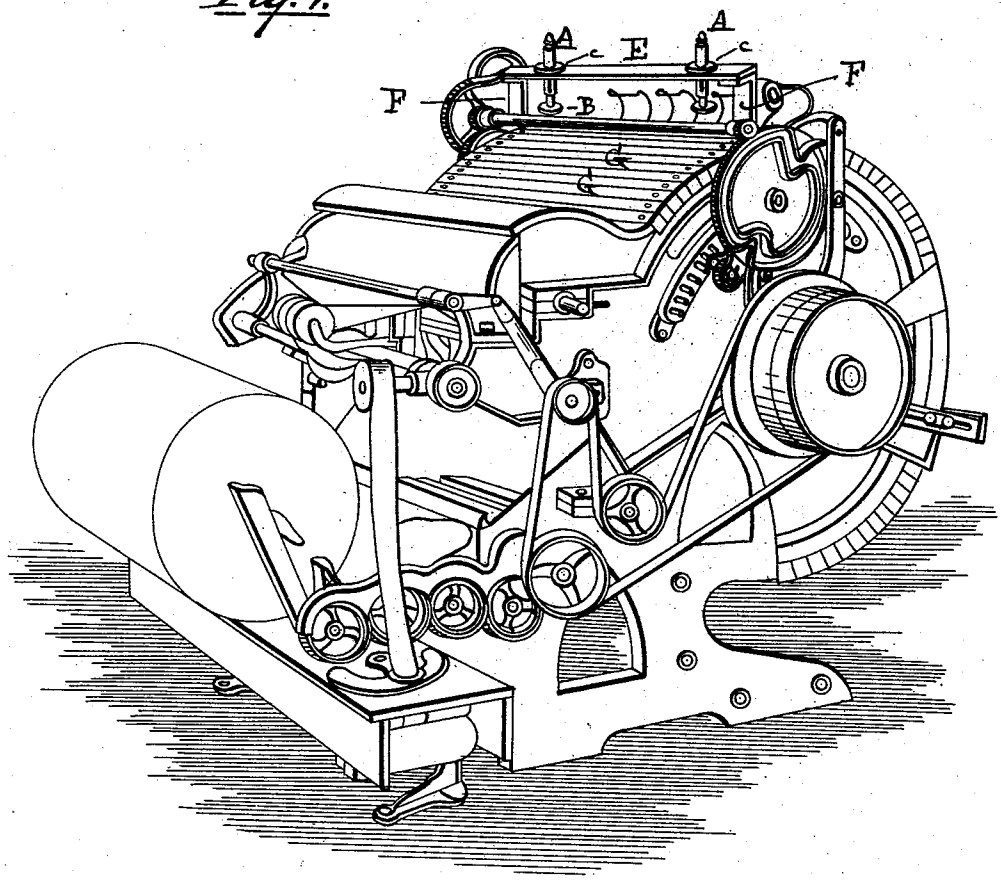
(No Model.) 2 Sheets—Sheet 1.

J. D. STANWOOD.

SPRING PRESSER FOR CARDING MACHINES.

No. 491,143. Patented Feb. 7, 1893.

Fig. 1.



Witnesses.

Charles Hannigan

Daniel W. Flint

Inventor.

Jeremiah D. Stanwood

by Warren R. Pierce

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

J. D. STANWOOD.

SPRING PRESSER FOR CARDING MACHINES.

No. 491,143. Patented Feb. 7, 1893.

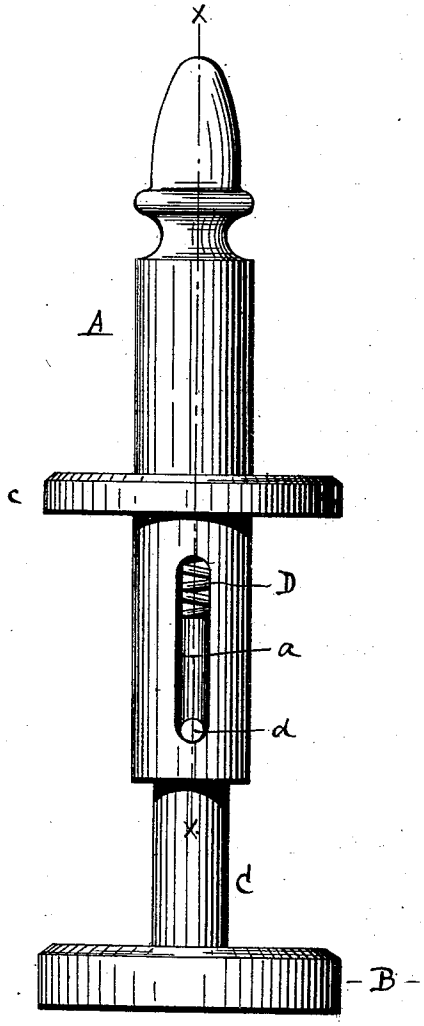


Fig. 2.

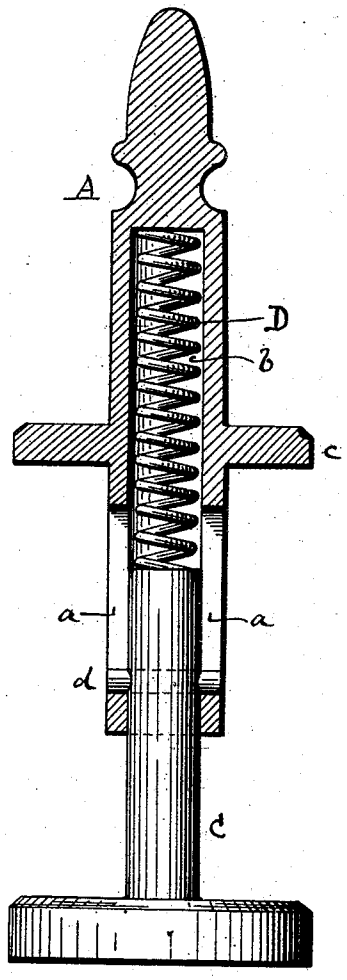


Fig. 3.

Witnesses.
Charles Hannigan.
David W. Flinn

Inventor.
Jeremiah D. Stanwood
By Warren R. Pierce
Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JEREMIAH D. STANWOOD, OF WARREN, RHODE ISLAND.

SPRING-PRESSER FOR CARDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 491,143, dated February 7, 1893.

Application filed November 14, 1892. Serial No. 451,872. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH D. STANWOOD, of the town of Warren, in the county of Bristol, in the State of Rhode Island, have invented a certain new and useful Improvement in Spring-Pressers for Carding-Machines; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a perspective view of a cotton-carding machine, with my improved device thereon. Fig. 2 is a side elevation of my invention. Fig. 3 shows the presser and spring, which operates the same, in side elevation, and the cap-piece in central, longitudinal section on line *x x* of Fig. 2.

My invention relates to the general class of carding machines; and consists in the combination with the top-flats of a carding machine, of a tubular cap-piece, secured to the arch-board of said machine, and a plunger or presser, mounted in the bore of said cap-piece and movable by a spiral spring, as hereinafter specified.

In the drawings A represents the cap-piece, which has two longitudinal slots *a* and a tubular socket or bore *b*. It is also made with a circular flange *c*, extending out at right angles thereto about midway its length. The presser B is a flat-faced disk, preferably of circular shape and having a central rod or stem C, which fits loosely in the bore or socket *b* of the cap-piece A. A transverse pin *d* passes diametrically through the rod C and extends out through the slots *a* of the cap-piece A. A spiral spring D is contained in the socket *b* and bears against the inner end of the socket *b* and against the inner end of the rod C. The presser B with its rod C is thus normally kept by the spring D in the extended position shown in the drawings; but is movable whenever the presser disk is forced upward, as hereinafter explained, and then travels, without rotation, because the pin *d*, engaging with the slots *a*, confines the movement to a straight line. In Fig. 1 I show this device in position upon the carding machine.

E is the arch-board of the machine, secured by the support F.

G G are the top-flats, which have the consecutive rising and falling motions produced by a cam, in the manner well-known in machines of this class. These movements of the top-flats, as is well understood, are for the purpose of allowing the stripper to operate on the under surfaces of these flats and to clear the teeth of their wire clothing from the short staples, dirt and foreign substances, which have been separated from the fibers by the action of the carding cylinder. In these machines it has heretofore been common to use flat springs, extending from the arch-board downward, which springs are bent by the upward movement of each flat, in turn, but, when released, force the flats back again into place. These springs, however, have been found defective in operation, as the flats sometimes have a tendency to tilt or rock transversely, because the springs do not have a proper central bearing and the consequence is that the waste substances instead of being removed by the stripper, as desired, are carried by it to the edge of the flat and catch thereon and so get into the cotton again and are worked into the sliver.

My device is fastened to the arch-board E by screws through the flange *c* and the part of the cap-piece A below said flange extends through a suitable opening or hole in said board downward, as illustrated in Fig. 1. As each of the flats G in turn comes beneath the presser B and is raised by the cam, in the usual manner, its top surface strikes squarely against the under flat surface of said presser and crowds the presser and its rod up against the action of the spring D, thus compressing the spring. The straight bore of the socket *b* and the pin *d*, traveling in the slots *a*, insure a perfectly straight vertical movement of the presser and stem, and so, when the cam allows the flat to descend, the flat is forced down by a direct, square pressure of the disk B and no rocking or tilting movement of the flat is possible. As a consequence, all waste substances are stripped from the card-clothing of the flats and a perfectly cleaned sliver is formed.

I claim as a novel and useful invention and desire to secure by Letters Patent;

In a carding machine, having an arch-board

and top-flats, the combination therewith of the cap-piece A having the longitudinal slots *a*, the tubular socket *b* and the flange *c*, the presser B having the stem C, movable in said socket and provided with the pin *d*, and the spiral spring D, contained in said socket and adapted normally to force the presser outwardly against the top-flats, substantially as specified.

JEREMIAH D. STANWOOD.

Witnesses:
JAMES M. PECK,
JOHN E. CONLEY.