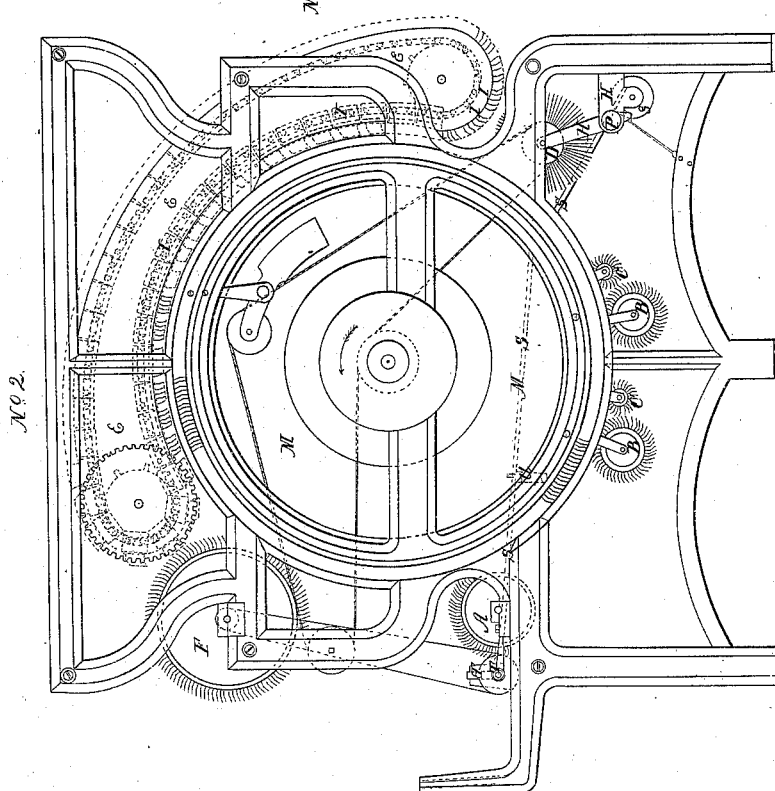
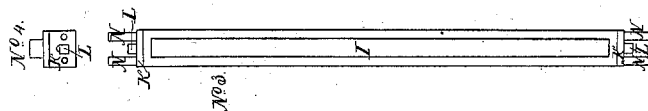
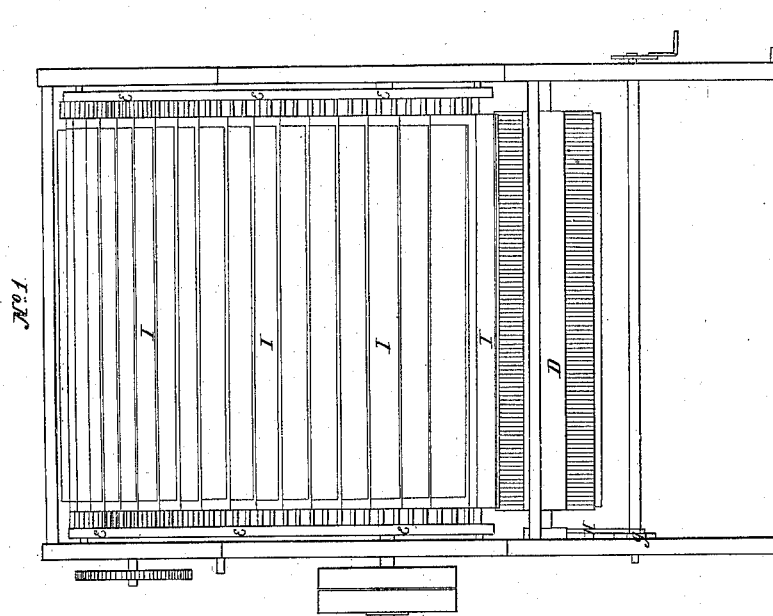


Barbour & Gleason.

Carding Engine.

N^o 3,843.

Patented Dec. 4, 1844.



UNITED STATES PATENT OFFICE.

HORACE BARBOUR AND JOHN GLEASON, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN SELF-STRIPPING CARDS FOR CARDING FIBROUS SUBSTANCES.

Specification forming part of Letters Patent No. 3,543, dated December 4, 1844.

To all whom it may concern:

Be it known that we, HORACE BARBOUR and JOHN GLEASON, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a new and useful mode of stripping and cleaning cards by means of a revolving metallic brush called "Barbour & Gleason's Self-Stripping Card," or new mode of stripping and cleaning cards; and we declare that the following is an exact and full description of the same.

We make a brush of fine wire, with straight teeth about one inch long thick set in leather, like the common card, covering a cylinder as long as the card to be stripped and about five inches in diameter.

Our invention consists in a combination of this brush with the cards of the carding-engine, so as to strip the main cylinder or other cards while in motion without stopping them and without manual labor.

To strip the main cylinder, we place this brush D at any convenient point below the horizontal center of the main cylinder M M in drawing No. 2, side view, (which is to be taken as part of this specification,) say at the point now occupied by the brush D. The shaft of the brush rests at each end upon an arm H H at both sides of the engine, fastened to the frame, having an elbow-joint at the bolt P. A moving cam G is placed to operate upon the end of the upright part of the arm H H, so as to throw the brush D at every revolution of the cam G into contact with the main cylinder M M, the teeth of the brush intersecting the teeth of the card. The brush driven by a belt taken from a pulley upon the shaft of the main cylinder (or any other pulley near at hand) is made to revolve in the same direction with the cylinder and at a greater velocity, so as to brush the waste and lift from the card into a box below. The velocity of the cam G may be increased or diminished, so as to strip the card every hour or two hours, as the carder may wish, and the cam should be so constructed as to hold the brush in contact with the cylinder only about one minute.

A shipper S S S, extending from cam G to the feed-rolls T T and resting upon a supporter J, is made to be moved by a side cam or pin

upon the cam G, and by the means of a fork and pulley at the other end upon the shaft of the feed-roll the feed-rolls will be stopped in season for the card to be cleared of cotton before the brush strikes it for the purpose of stripping, to be started again by the shipper the instant the brush is taken off. The main cylinder is to be kept in its regular motion. This brush by change of arrangement, but similar in design and purpose, may be combined any with card in motion for stripping, and various plans of combination for the purpose of stripping may be adopted, according to the wish of the carder or machinist.

Gears may be used instead of belts to drive the brush and cam.

The shipper may be placed, as described, upon either side of the machine, and the brush may be composed with the main cylinder alone for stripping, or with it and revolving top cards, as described in the drawing referred to.

We do not claim the brush or any part of it or any of the parts of the carding-engine as our invention.

What we claim is—

The combination of the brush with the cards of the carding-engine, as above set forth, for the purpose of stripping and cleaning the main cylinder or other cards while in motion, as our invention.

The advantages of this mode of stripping and cleaning cards are a saving of all time lost heretofore in stopping and starting up the card to be stripped and most of the time actually consumed in stripping the card, preventing the common and great damage to cards from blows and crosswise scrapings of the hand-card, owing to accident or carelessness of the stripper, and substituting therefor a regular mechanical motion and long flexible teeth, and a saving of all manual labor in the process and labor of stripping the cards and all care and attention of the carder.

Be it further known that, although we claim in general terms as our invention the combination of the brush described and set forth in the former part of our specification with the carding-engine for the purpose of stripping any card in motion, yet we would specifically and especially and do further claim

by the combination of said brush with "Crane's self-stripping carding-machine" to have made an improvement upon said machine, and do set forth the same as follows: We plan the said brush D as in drawing No. 1, end view, (the same being taken as part of this specification, as also drawing No. 2, side view,) I I I I being revolving top cards passing over the main cylinder, according to the specification of E. & A. Crane in their Letters Patent of the United States dated January 30, 1841. The brush D is brought into contact with each succeeding top card as it passes along the lower extremity of their endless chain or belt. It is supported, as in drawing No. 2, side view, by arms H H, and is kept by cam G in contact with the top cards I I all the time, except when for a single minute it is thrown into contact with the main cylinder M M to strip that card. The brush D is made

by belt or otherwise to revolve faster than the tops and in the same direction, and will thus strip and clean them as they pass along.

We do not claim attaching or fastening the top cards to the endless chain or belt and taking them over rollers or any part of Crane's self-stripping carding-machine.

What we claim is the combination of this brush with their revolving top cards, so as to strip them as they pass along attached to the endless belt or chain, thereby dispensing with their sweeps, stripping and cleaning cards and cranks, and this combination we claim as an improvement upon their machine.

HORACE BARBOUR.
JOHN GLEASON.

Attest:

NATHAN CROSBY,
T. A. PARSONS.