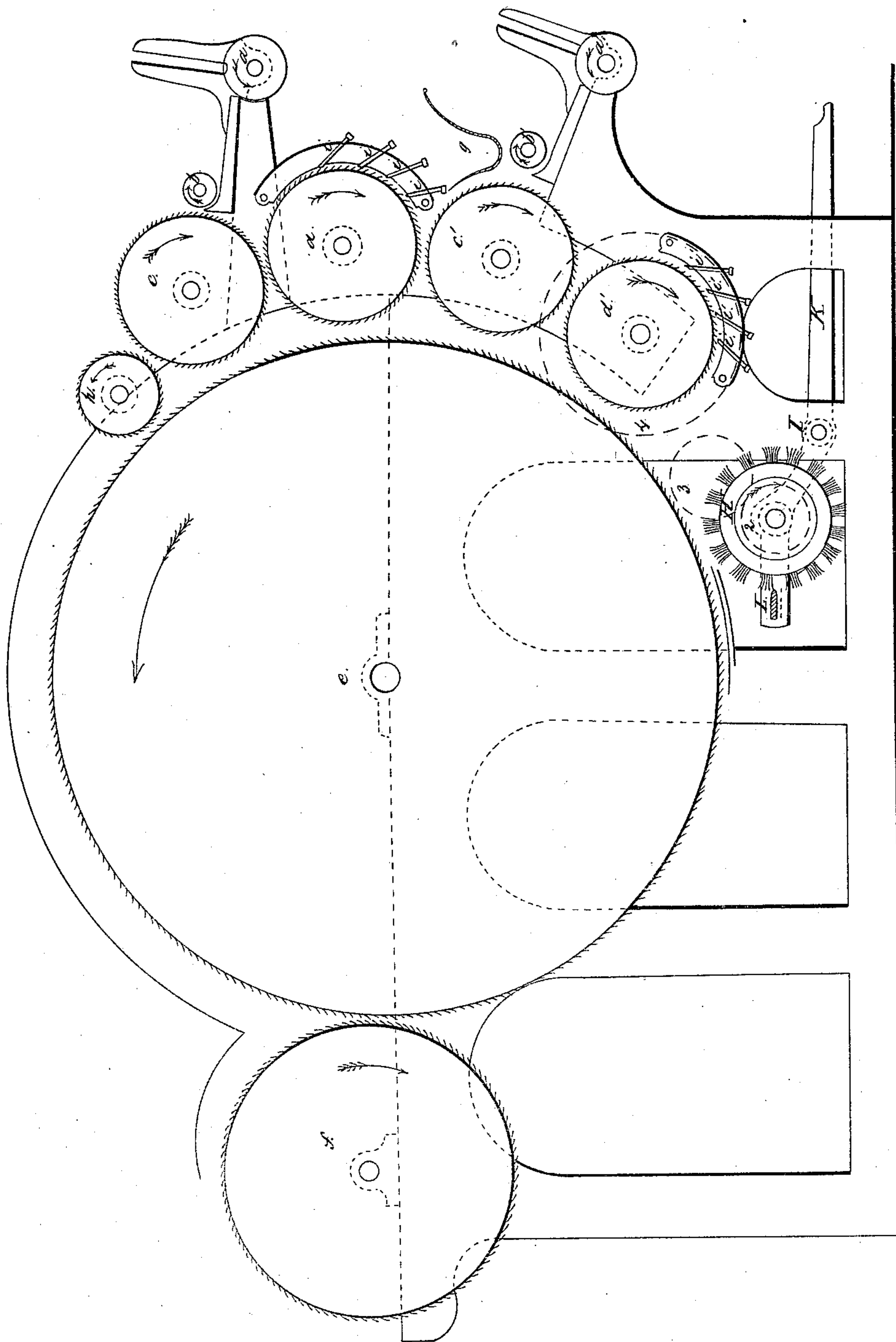


Walton & Primney.
Carding Mach.

Nº 18,257.

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UNITED STATES PATENT OFFICE.

WILLIAM H. WALTON, OF BROOKLYN, AND GEORGE H. PHINNEY, OF NEW YORK, N. Y.

IMPROVEMENT IN CARDING-ENGINES.

Specification forming part of Letters Patent No. 18,257, dated September 22, 1857.

To all whom it may concern:

Be it known that we, WILLIAM H. WALTON, of the city of Brooklyn, county of Kings, and State of New York, and GEORGE H. PHINNEY, of the city, county, and State of New York, have invented new and useful Improvements in Carding-Machines for Carding Wool, Cotton, Silk, Flax, and other Textile Substances; and we do hereby declare that the following is a full and exact description thereof, reference being made to the accompanying drawing, which is a vertical longitudinal section of our machine, and also to the letters of reference marked thereon.

The nature of our invention consists in the use of a cylinder-brush arranged with a lever in such a manner as to oscillate to and from the main cylinder, for the purpose of cleaning the same.

The construction of our machine is as follows: The position of the main carding-cylinder and the doffer and the construction of them are the same as they are on the ordinary cards now in use. The cotton passes into the machine in usual form of a lap. As it enters, it passes from the rollers *a a'* to the feed-rollers *b b'*, and it is there taken by the lickers-in *c c'*. These rollers work, as shown by the direction of the arrows, so that when in motion they come in contact with the lickers-in *d d'*. The teeth on the lickers-in *d d'* work against the cotton on the lickers-in *c c'*, and thereby take the lumps, sticks, dirt, &c., from the cotton, together with a portion of the same from the lickers-in *c c'*. The lickers-in *d d'* run, as shown, by the direction of the arrows and thereby come in contact with the knives or bars *i i i i* and *i' i' i' i'*. The knives are stationary and can be regulated as desired by set-screws attached to them. The knives being set close to the lickers-in will cut and break off the sticks, dirt, &c., that come in contact. The lickers-in *c c'* and *d d'* are stripped by the main cylinder *e*, which carries the cotton to the doffer in the usual way. While the main cylinder is carrying the cotton from the lickers-in to the doffer it comes in contact with the roller *h*, which straightens out the fibers and carries the loose ones back to the licker-in *c*, which re-pass through the machine, as before introduced.

When the main cylinder has run sufficient

time to fill the teeth, it is necessary to strip it, which is generally done by hand, although there are several inventions for stripping; but they as yet have not come into general use, some on account of having to obtain too high speed, which cannot be obtained from the machine with advantage. Some are connected with too many obstructions for practical use. Others are too complicated to admit of their being brought into use in any manner. Therefore our object is to facilitate this operation to a great advantage to manufacturers in the following manner: We apply a rotary brush *H*, which is fixed on lever *K*. The lever *K*, being fixed on the stud *I*, will oscillate when put in motion by the hand or foot, so that when the teeth of the main cylinder have to be stripped or cleaned the driving-belt that gives motion to the main cylinder when in operation is removed to the loose pulley. This being done, the main cylinder will gradually decrease in speed until it stops; but previously to its stopping, when at a low speed, the operator can apply his hand or foot on the lever *K*, which will raise the brush *H* against the main cylinder to any depth required in the teeth, and also put the wheel 3 (shown by the blue lines) in gear with wheel 4, (also shown by the blue lines,) which is fixed on the licker-in *d'*, which gives a higher speed to the brush *H* than the main cylinder. Therefore the brush *H* cleans out the refuse and cotton accumulated in the teeth of the main cylinder and deposits it on the comb *L*, which is fixed on the lever *K*. The strippings are taken away from under the card at the operator's leisure.

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

The application and use of a rotary brush for stripping the main cylinder, in combination with the lever *K*, or its equivalent, by which the main cylinder is stripped and cleaned when running at the speed given by shifting the driving-belt from the driving-pulley to the loose pulley, as fully described and shown in the specification, for the purposes set forth.

W. H. WALTON.
GEO. H. PHINNEY.

In presence of—
H. S. SMITH,
JAS. McDERMOTT.