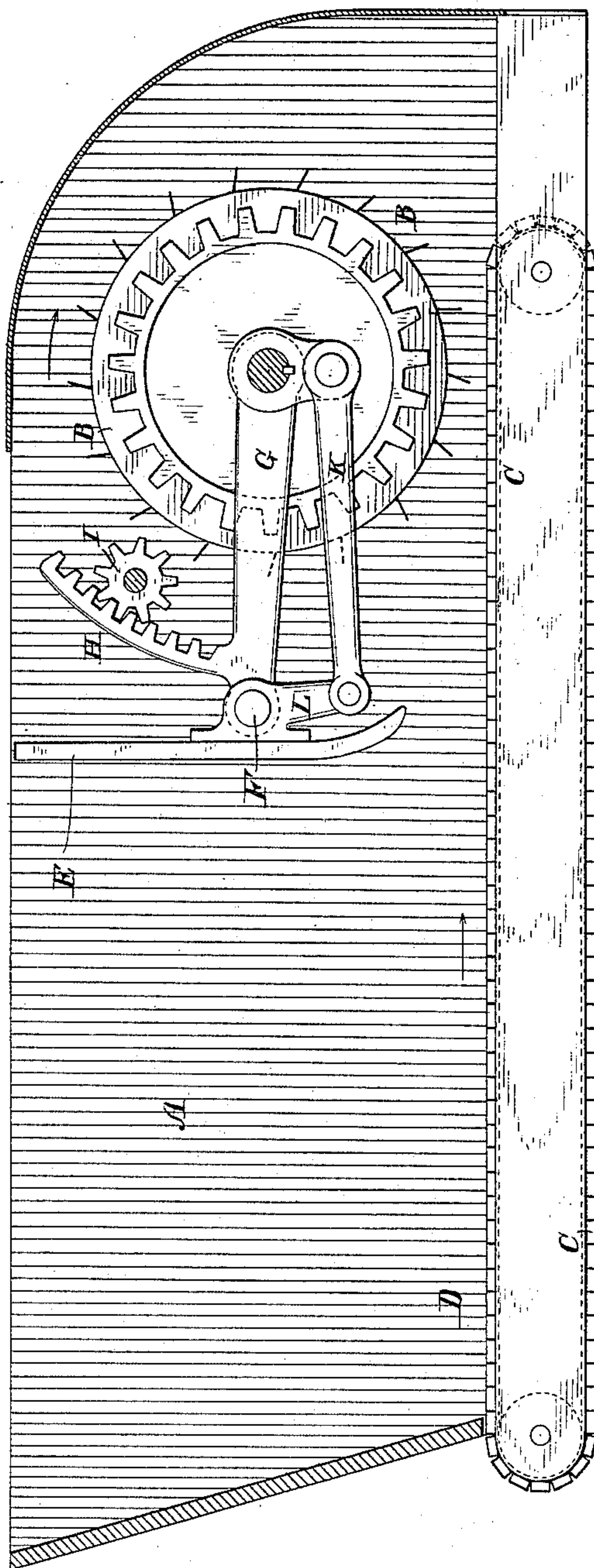


(No Model.)

G. WINSHIP.
COTTON GIN FEEDER.

No. 313,038.

Patented Feb. 24, 1885.



WITNESSES

Ed. C. Newman,
Al. C. Newman,

INVENTOR

George Winship
By his Attorneys
Waldwin, Hopkins, & Peyton.

UNITED STATES PATENT OFFICE.

GEORGE WINSHIP, OF ATLANTA, GEORGIA, ASSIGNOR TO THE WINSHIP MACHINE COMPANY, OF SAME PLACE.

COTTON-GIN FEEDER.

SPECIFICATION forming part of Letters Patent No. 313,038, dated February 24, 1885.

Application filed November 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WINSHIP, of Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Cotton-Gin Feeders, of which the following is a specification, reference being had to the accompanying drawing.

Heretofore in feeders for cotton-gins a vertical adjustable slide or partition has been employed within the hopper between where the cotton is first delivered and where it is picked prior to being ginned. This board has been adjusted up and down so as to leave a greater or less opening near the bottom of the hopper and permit the seed-cotton to pass from the hopper under the board to the spiked cylinder, where it is carried over and delivered into the gin. Experience has shown that the cotton is liable to become lumped and packed so that the feed is obstructed in the use of this device.

The object of my improvement is to remove such difficulty, and accordingly I provide in lieu of the usual adjustable slide a sliding vibrating partition or board, to be operated by mechanism connected with the spiked cylinder in one section of the hopper, which I find works successfully.

In the accompanying drawing I only show a sectional view of my improvements; but it will be understood that the shafts extend across the hopper, and that there are two racks, arms, and pinions, one on either side, like those illustrated.

Referring to the letters upon the drawing, A indicates the hopper, and B a spiked cylinder mounted in one end of it, and adapted to be turned by any suitable mechanism, such as is usual, in the direction indicated by the arrow.

C indicates an endless band, composed of slats in the usual manner, which forms the bottom of the hopper, and is caused to travel by any suitable mechanism in the usual way in the direction of the arrow, to aid the feed of the cotton from the part D of the hopper into the part containing the spiked cylinder.

E indicates a vibrating partition, pivoted at F, near the middle of the vibrating partition,

for a purpose presently to be indicated. G indicates an arm, pivoted at one end upon the shaft of the spiked cylinder, and forming at the other end the pivoted bearing of the vibrating partition. This arm is provided with a segmental rack, H, which engages with a pinion, I, that is adapted to raise the arm and the vibrating partition up or down, as may be desired, to leave a greater or less opening between the bottom end of the partition and the endless band C.

Any suitable mechanism—such as a hand-wheel, or the like—may be employed to rotate the pinion I, and a ratchet and pawl, or any other ordinary device adapted to the purpose, may be employed to hold the pinion in any desired position, so as to retain the vibrating partition at any desired elevation.

Any suitable mechanism connected with the spiked cylinder may be employed to communicate the vibrating motion to the vibrating partition. I have illustrated two pivoted links, K and L, one pivoted to a crank-arm upon the spiked cylinder, and the other to the vibrating partition, which are well adapted to the purpose.

The links K and L, and arm G, and rack and pinion may be located either inside or outside of the hopper; but I prefer to arrange them inside of it and close to either side.

From this description it will be understood that rotary motion communicated in the ordinary way to the spiked cylinder in the direction of the arrow will cause the vertical partition to vibrate toward and from the cylinder. The effect of such motion is to prevent the cotton from lumping or packing and obstructing the feed at the lower end of the partition. The vibration will keep it shaken up, so that it will pass into the section of the hopper containing the spiked cylinder, and it will, also, on account of the partition being pivoted in the middle, beat it over at the top of the hopper, so as to tend to make it roll back from the top and go down under the bottom of the partition.

The vibrating partition may be curved, as illustrated in the drawing, or it may be straight. It may also be slotted, or provided with fingers at the lower end, if desired.

As feeders for cotton-gins are well known, I have not illustrated the gin mechanism, but simply so much of the feeding mechanism as is necessary to illustrate my invention, which
5 will be understood by those skilled in the art in its relation to a cotton-gin without more.

I do not limit my invention to the precise details of construction illustrated in the drawing; but

10 What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination, with the hopper of a cotton-gin feeder and a spiked feeding-cylinder, of a vibrating partition, E, pivoted near

its middle, and vertically adjustable, substantially as and for the purpose set forth. 15

2. The combination, with the hopper, of the spiked cylinder B, the pivoted arm G, provided with the segmental rack, the pinion, the links K and L, and vibrating partition E, substantially as set forth. 20

In testimony whereof I have hereunto subscribed my name.

GEORGE WINSHIP.

Witnesses:

MARCUS S. HOPKINS,
W. C. DUVALL.