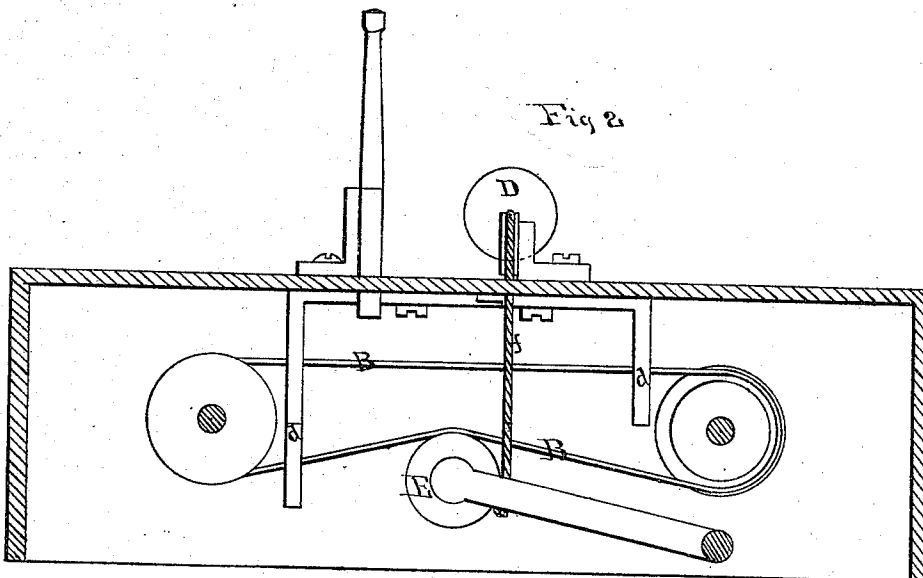
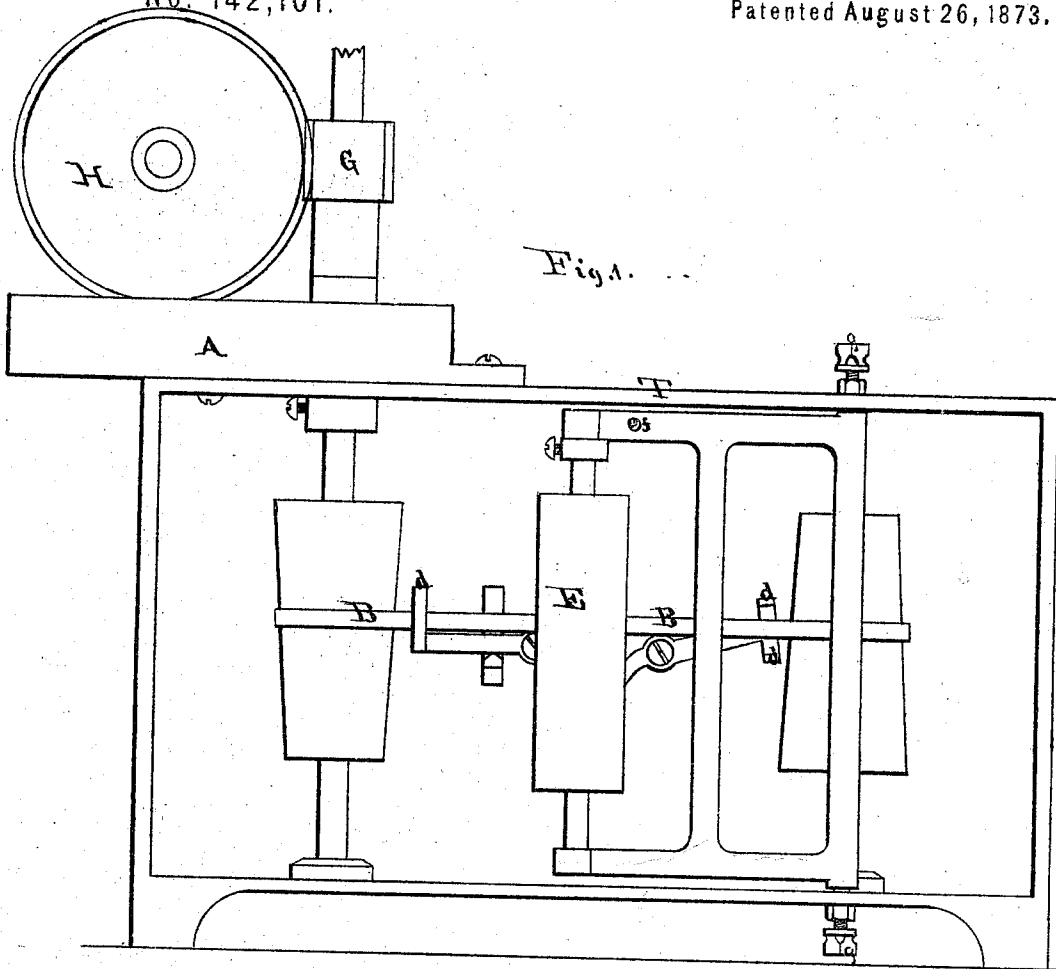


D. HARDING.
Feed-Regulators for Cotton-Openers, &c.

No. 142,101.

Patented August 26, 1873.



Witnesses
John & Crane
Samuel C. Stott

David Harding Inventor

UNITED STATES PATENT OFFICE.

DAVID HARDING, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO RICHARD KITSON, OF SAME PLACE.

IMPROVEMENT IN FEED-REGULATORS FOR COTTON-OPENERS, &c.

Specification forming part of Letters Patent No. **142,101**, dated August 26, 1873; application filed April 17, 1871.

To all whom it may concern:

Be it known that I, DAVID HARDING, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Feed Regulators or Eveners for Cotton-Lappers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 represents a side elevation, and Fig. 2 a horizontal section a little below the top T of the case.

This invention relates to a new and useful improvement in the eveners or feed-regulators of cotton-lappers, whereby accelerated motion of the evener or regulator is prevented, and uniform, even, and regular action of all mechanisms is constantly maintained, and this insures great uniformity and perfection in the lap of cotton formed on said improved machines.

This invention consists in the combination, with a cotton-lapper evener, of a long rotating binder-roll, E, hung in a pivoted frame, as shown, and actuated by a connected weight, D, and a cord, F, the binder-roll covering the whole length or height of the cones; and constantly pressing the belt B without change of position, the belt being moved along on the cones by independent shippers, having no connection with the binder; which has for its object to prevent accelerated motion by binding the belt equally against all parts of the revolving cone surfaces, all the parts being constructed, arranged, and operating specifically as herein set forth.

In the ordinary evener or feed-regulator for cotton-lappers, when the operating-shippers traverse the cone-belt, this belt has a tendency on its leading side to run up on a higher part of one cone, and downward on the larger part of the other cone, and the belt frequently slips or slides on either cone, which momentarily checks the speed of one cone, or accelerates

the motion of the other, sometimes very suddenly, and this breaks the uniformity or regularity of motion of the feeding mechanisms, which constitute the evener, and consequently prevents a uniform and even formation of the lap.

By the introduction of my said improvement, as above described, the uniform tension, draft, and binding friction of the cone-belt are constantly maintained, and accelerated motion is prevented regardless of the slipping tendency of the belt, or its inclination to rise or run to the larger part of either cone, however sudden or varied the slipping inclination, tendency, or motion of the belt.

The frame of the binder is hung or pivoted between the bottom and top of the case, or adjustably supported on pointed pivoting-screws *g*, on which it swings freely, and the roll is easily held in contact with the cone-belt by the weight D.

It will be understood that when the feed-connecting mechanisms of the ordinary cotton-lapper evener operate the slide A to disconnect the worm G from the feed-gear H, the cone-belt is suddenly slackened, and is liable to get out of place or be caught by one of the shippers and injured or broken or severed, but the binder prevents all such accidental injury, inconvenience, accelerated motion, or other trouble; it is, therefore, of considerable importance, as it insures the successful operation of all the connected machinery.

I claim as my invention—

In combination with a cotton-lapper evener a long binder-roll, E, hung in a pivoted frame and actuated to press the belt B by a weight, D, and a cord, F, the roll covering the whole length or height of the cones, and all the parts being constructed, arranged, and operating specifically as herein set forth.

DAVID HARDING.

Witnesses:

JOHN E. CRANE,
SAMUEL E. STOTT.