

E. JONES.

Improvement in Cotton-Gin.

No. 131,546.

Patented Sep. 24, 1872.

Fig 1.

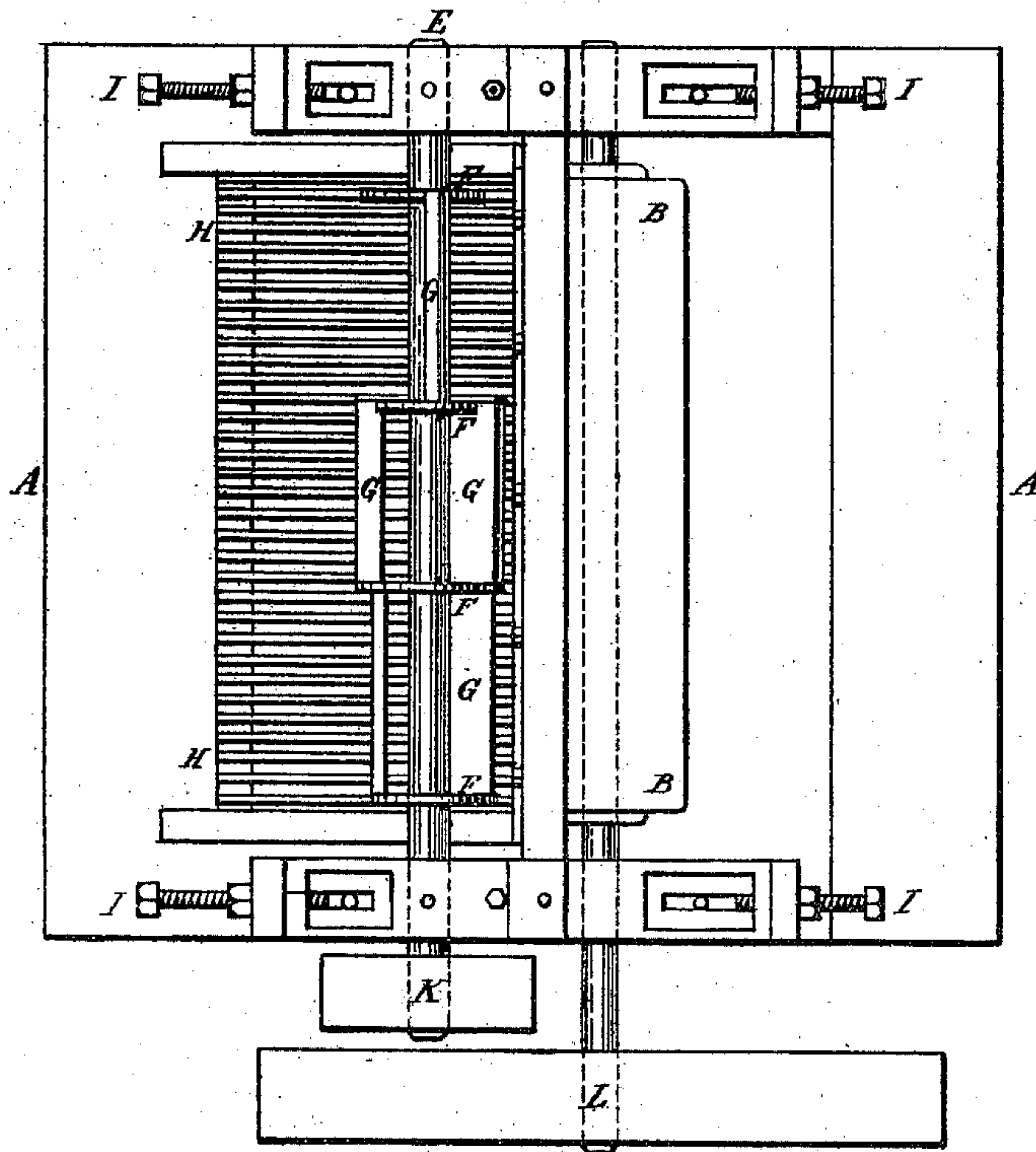


Fig. 4.

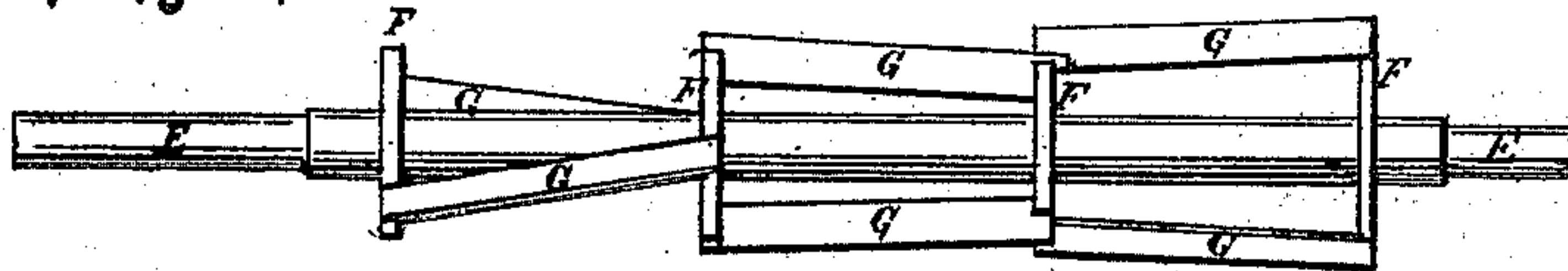
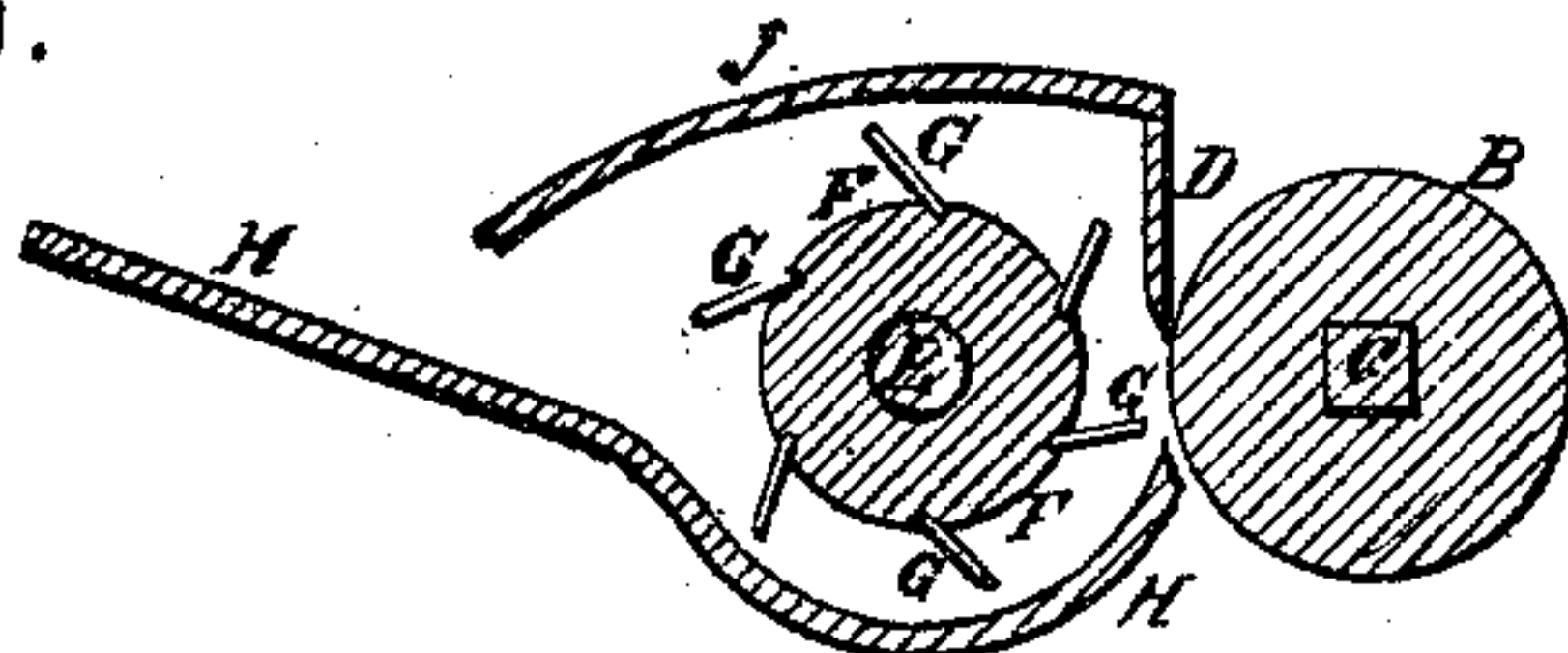


Fig. 3.



Witnesses:

Alfred W. Webb
W. Webb

Inventor:

Edward Jones

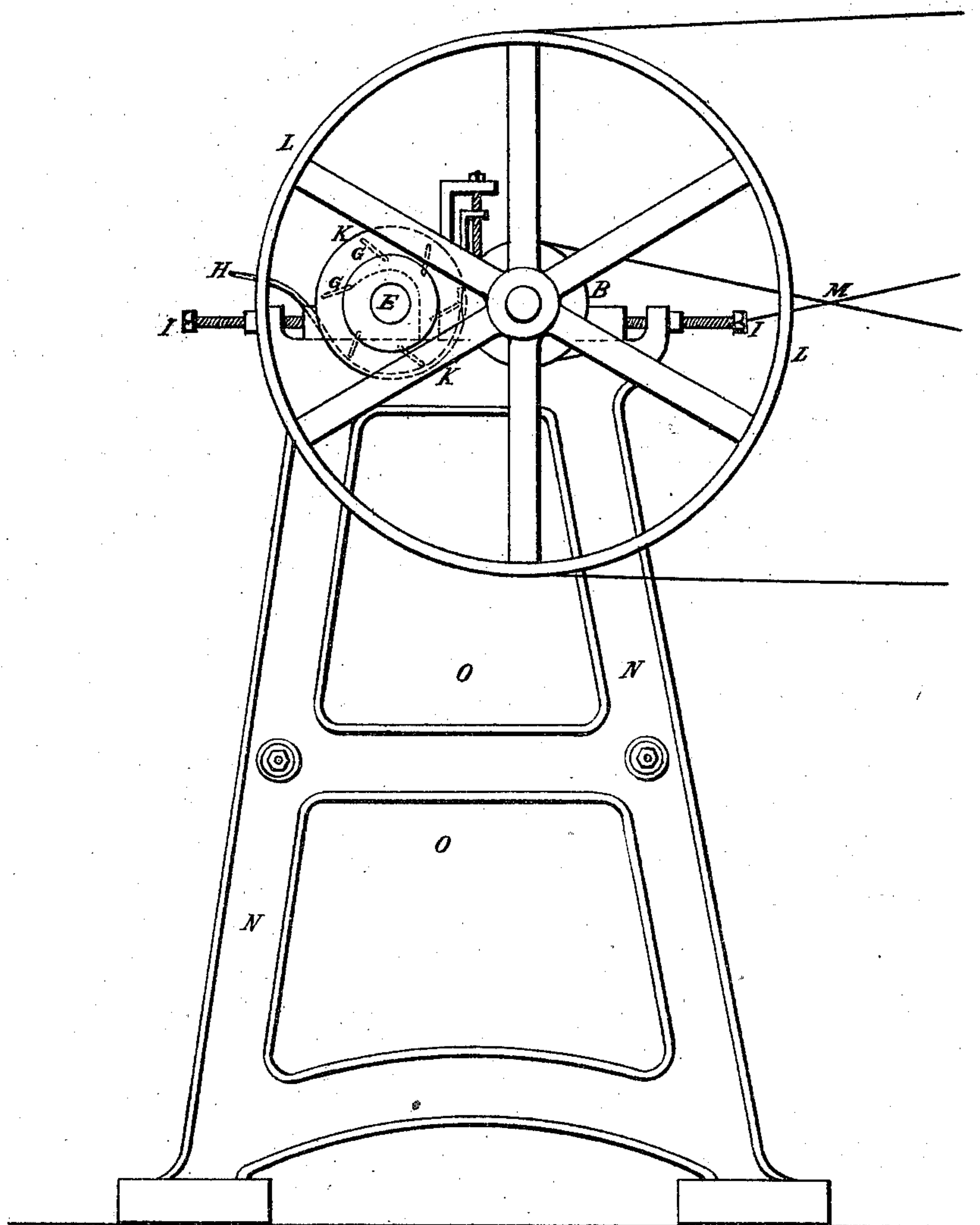
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Fig. 2.



Witnesses:

Alfred Arthur W. W. W. W.

Inventor:

E. Jones

UNITED STATES PATENT OFFICE.

EDWARD JONES, OF LONDON, ENGLAND.

IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. 131,546, dated September 24, 1872.

To all whom it may concern:

Be it known that I, EDWARD JONES, of Dharwar, in the Presidency of Bombay, India, now residing at No. 121 Fleet street, in the city of London, England, have invented an Improved Cotton-Gin, of which invention the following is a specification:

My invention relates to that class of machines which is made use of for the cleansing of cotton in its natural state by the process commonly designated ginning; and the nature thereof consists in certain improvements in the details of the construction of the same, as hereinafter described.

This machine or machinery is mounted on a metal or wooden frame, and consists of a roller fixed on an iron axle, which roller may be of any suitable material, having a number of metal beaters fixed on its periphery, and revolving in a closed or partially closed chamber; or to the said axle may be fixed a series of metal disks, at regular or irregular distances apart, to which disks is secured a number of blades or beaters at equal or unequal distances from one another, and either parallel or oblique to the axis of the axle, both horizontally and vertically. At a suitable distance from and parallel to the said axle a square metal axle is mounted, on which is fixed a series of leather disks or washers, tightly compressed together so as to form a roller of the same length as the aforesaid beaters. Between this leather roller and the beaters a vertical knife is fixed, so that its lower edge touches the surface of the leather roller along its entire length. This leather roller and knife are similar to those already in use in the McCarthy gins. The axles of the beaters and leather roller work in bearings fixed on the aforesaid frame. The beaters and the leather roller revolve in contrary directions, each turning outward as viewed from above, and may be driven by hand, steam, or other power by means of a driving-band and pulleys. The lower portion of the chamber, in which the beaters revolve, is formed of a curved metal grating or gride, the interstices thereof being sufficiently wide to allow the separated seed, &c., to fall freely through them. This grating is so placed that the beaters when revolving may take up with them the requisite quantity of "kuppas" for feeding the leather roller. The upper portion of this chamber is formed

by a curved movable lid, made of any suitable material, to prevent the "kuppas" or the cotton fiber being thrown out of the chamber by the revolving beaters.

The "kuppas" to be ginned or cleansed is passed into the covered chamber containing the beaters, along a falling incline, which is a continuation of or joined to the grating previously described, a sufficient opening freely to admit the "kuppas" being left between the upper and lower portions of the chamber. The machinery being put into rapid motion the beaters catch up the "kuppas" and throw it against the revolving leather roller, which roller drags the cotton under the knife, leaving the seed and other hard material at its edge. The beaters in rising separate the seed left against the knife from the cotton fiber and carry the seed away, together with any cotton which may not have been caught by the leather roller. The cotton caught by this roller and thus freed from its seed is thrown off the roller when it reaches the opposite or outside position of the said roller, while the seed and other separated material falls through the loose cotton and the grating at the bottom of the chamber. The cotton which had escaped being caught by the leather roller during its former revolution is again caught by the revolving beaters and thrown against the leather roller.

By the process above described and the constant agitation of the cotton in the chamber it is freed from its seed and, to a large extent, from leaves, dirt, and other impurities.

The accompanying drawing is intended to illustrate the form and mode of constructing the said improved gin.

Explanation of the Drawing.

Figure 1 is a plan view of the gin taken over all; Fig. 2, an end elevation, both of which illustrations are drawn to a scale of one foot to an inch. Fig. 3 is a section at A A, Fig. 1, on an enlarged scale. Fig. 4 is a side view of one of the bladed rollers or cylinders detached.

The roller B B, in elevation, plan, and section, consists of a series of leather washers put on the square shaft at C and very tightly compressed, with the knife D pressing closely upon its side. The other roller E E, in elevation, plan, and section, consists of a plain iron rod of one inch diameter with four washers of

either wrought or cast iron, or else of brass fixed in the rod, as shown at F F in plan. Into these washers are fixed the beaters G G G G, as shown in the several views. Any number of beaters may be used. H H is a gride or grating for allowing the separated seed to fall through, and is so fixed that the beaters in revolving may take round with them the required amount of "kuppas" for feeding the leather roller B. I I, in plan and elevation, are set-pins to close in and adjust the rollers when that may be found requisite. J is a wooden or sheet-iron top to prevent the "kuppas" being thrown out by the beaters when revolving. K K and L L are pulleys, both worked from the same driving-wheel by crossing one of the belts, as shown at M. A cog-wheel and pinion may be used instead of the second belt, if found expedient. N N is a light cast-iron

frame, filled in with pieces of wood at O O to prevent the seed being scattered.

Claim.

I claim—

In a cotton-gin, the adjustable rollers B B, the adjustable roller E provided with washers F and beaters G, the grating H, set-pins I, by means of which the beaters and roller are rendered laterally adjustable, and pulleys K and L, all arranged and operating together as and for the purposes described.

EDWARD JONES.

Witnesses:

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