

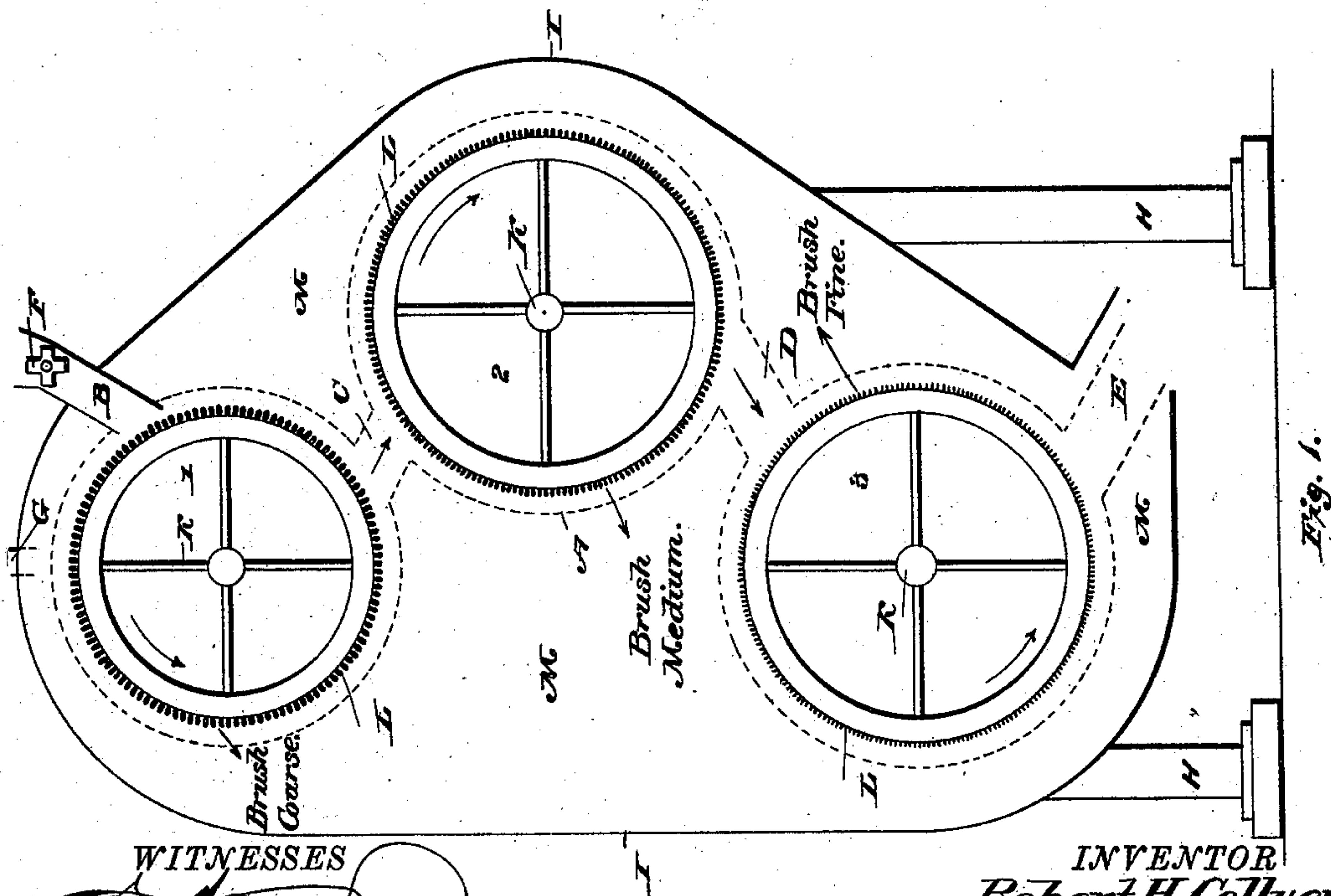
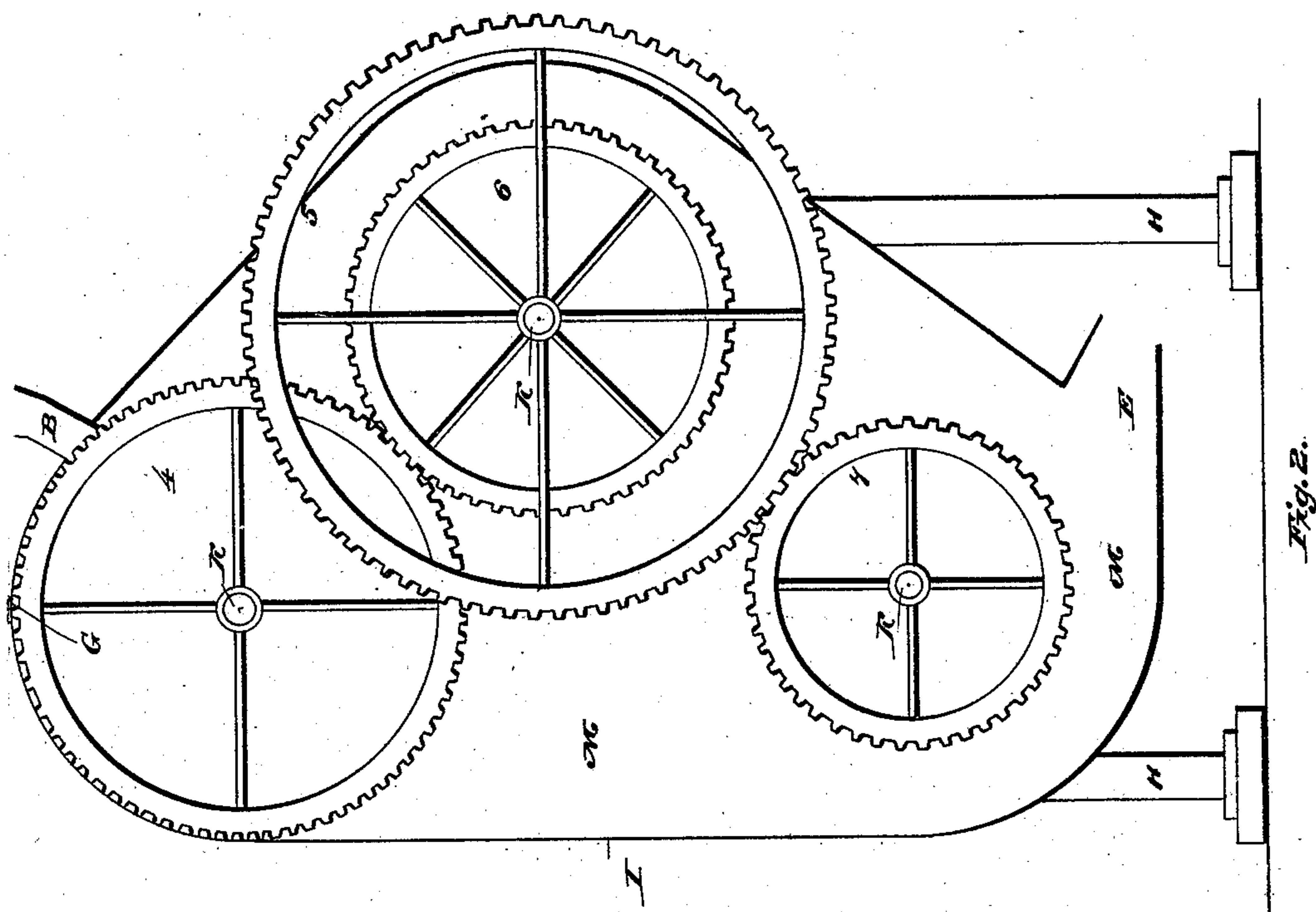
(No Model.)

2 Sheets—Sheet 1.

R. H. COLLYER.
MACHINE FOR DELINTING COTTON SEED.

No. 402,232.

Patented Apr. 30, 1889.



WITNESSES

James J. Sheehy

INVENTOR

Robert H. Collyer

By M. R. Stringfellow
Attorney.

(No Model.)

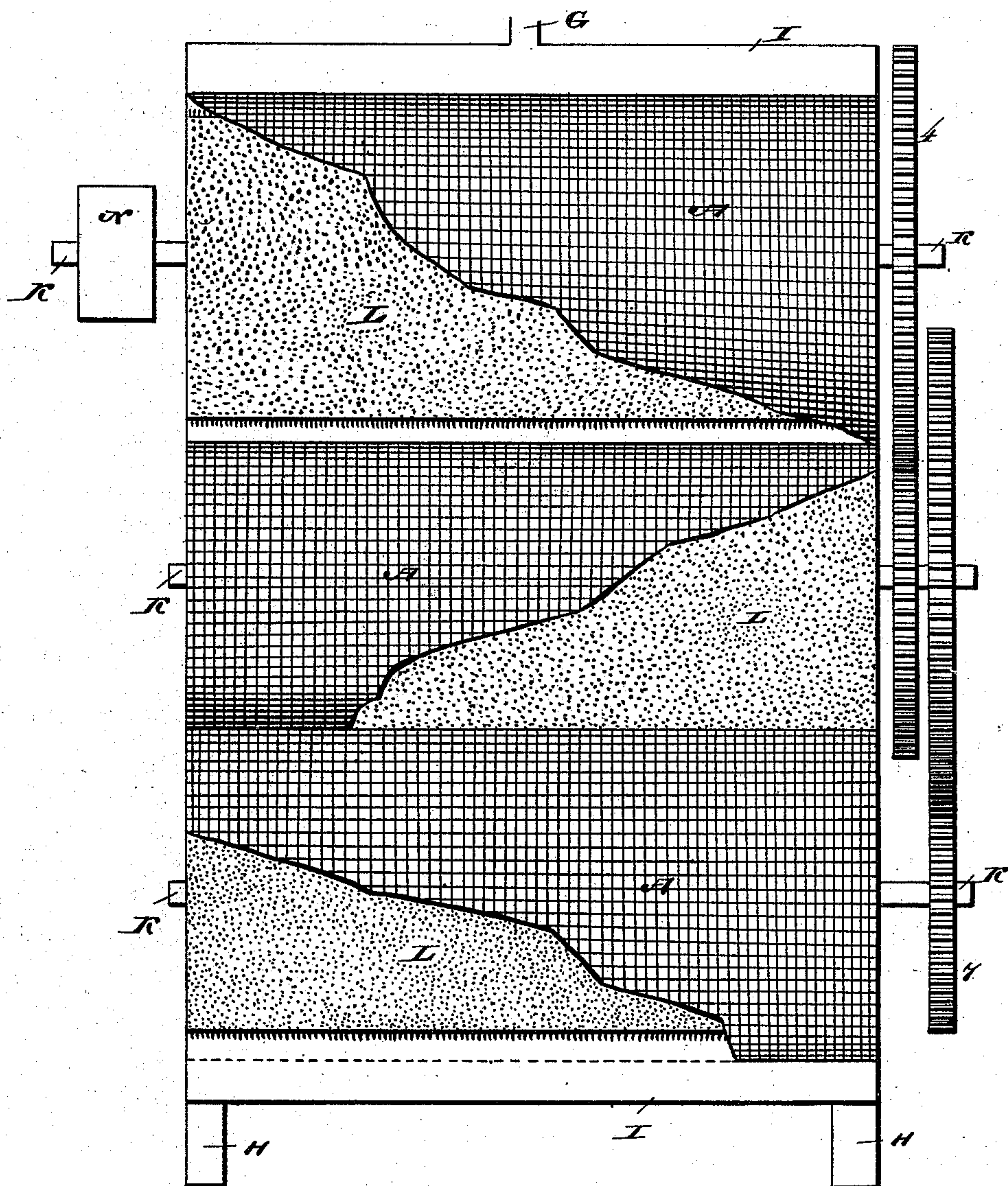
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Fig. 3.



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Attorney.

UNITED STATES PATENT OFFICE.

ROBERT H. COLLYER, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO GEORGE M. HARRISON, OF SAME PLACE.

MACHINE FOR DELINTING COTTON-SEED.

SPECIFICATION forming part of Letters Patent No. 402,232, dated April 30, 1889.

Application filed March 27, 1888. Serial No. 268,723. (No model.)

To all whom it may concern:

Be it known that I, ROBERT HANHAM COLLYER, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Machines for Delinting Cotton-Seed; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to machines for delinting or cleaning cotton-seed, the object being to remove the lint and fibrous coating; and to this end the invention consists in certain arrangements and combinations of parts, hereinafter described.

In the accompanying drawings, Figure 1 is a side view of the interior of my improved machine. Fig. 2 is a side elevation of the exterior of the machine. Fig. 3 is a broken end view of the same, showing the brush-cylinders and screens.

In the machine as illustrated in the drawings I have shown three horizontal cylinders, 1, 2, and 3, one above the other, each on its shaft K, journaled in a casing, I, which incloses said cylinders and which is suitably supported, as on legs H. The upper cylinder-shaft is provided with a pulley, N, which is designed to receive a drive-belt, whereby motion may be imparted to the various cylinders. Each of the cylinders is provided on its outer surface with a suitably-constructed wire brush, the bristles increasing in fineness from cylinder 1 to cylinder 3.

Within the casing I, and surrounding each cylinder, is a wire screen, A, concentric with each cylinder. The screen around the cylinder 1 is connected at the bottom with the top of the screen around cylinder 2 by a wire-screen passage, C, and the second screen is connected in a like manner with the third screen by a similar passage, D, while the lowermost screen has an outlet, E.

The interior of the casing I, exterior to the several wire casings, forms a chamber, M, having an outlet surrounding the outlet E, and

an air-inlet at the top, as shown at G. The seed is introduced into the wire casing surrounding the cylinder 1 by means of a conduit, B, containing a feed-roller, F. On the outside of the casing I the shaft of the cylinder 1 carries a gear-wheel, 4, which meshes with a pinion, 6, on the shaft of the cylinder 2, the said shaft also carrying a gear-wheel, 5. This latter gear meshes with a pinion, 7, on the shaft of the cylinder 3.

The arrangement of gearing is such that if the cylinder is run, say, four hundred revolutions per minute, the cylinder 2 will make five hundred revolutions and the cylinder 3 will make six hundred revolutions. Thus the speed of the cylinders is increased from No. 1 to No. 3. It will also be seen that the slower cylinder has the coarser brush.

In operation the seed is introduced as stated, and the heavier and larger particles of lint and fiber are removed by cylinder 1 and by centrifugal action forced through the wire screen into the chamber M. The seed then falls to the second cylinder, having a finer brush and a greater speed, to throw the lint through the screen. The seed then pass to the last cylinder, having the finest brush and greatest speed, and all remaining lint is removed, leaving the seed in a thoroughly-cleaned condition as it passes from the machine.

It will be seen that the passages C, D, and E are in a general tangential direction to the rotation of the cylinders, and thereby aid in causing the seed to pass from one cylinder to the other.

I prefer in practice to extend the feed-opening B, the passages C D, and the outlet E the entire length of the machine.

Having described the invention, what I claim is—

In a machine for cleaning cotton-seed, the combination, with the casing I of a series of cylinders arranged horizontally therein one above another and provided in succession with brushes of increasing degrees of fineness, the wire screen A, concentric with each cylinder, the said screen surrounding the up-

per cylinder having a conduit, B, and being
connected at its bottom by a tangential pas-
sage with the top of the screen around the
intermediate cylinder, and the said interme-
5 diate screen connected in a like manner with
the lower cylinder-screen having an outlet,
E, the cylinder-shafts, and gearing, substan-
tially as described, for rotating the same at
successively-increased speeds.

In testimony whereof I affix my signature in 10
presence of two witnesses.

ROBT. H. COLLYER.

Witnesses:

GEORGE M. HARRISON,
PERCY D. PARKS.