

B. Jackman.
Cotton Picker.

N^o 30,880.

Patented Dec. 11, 1860.

Fig. 1

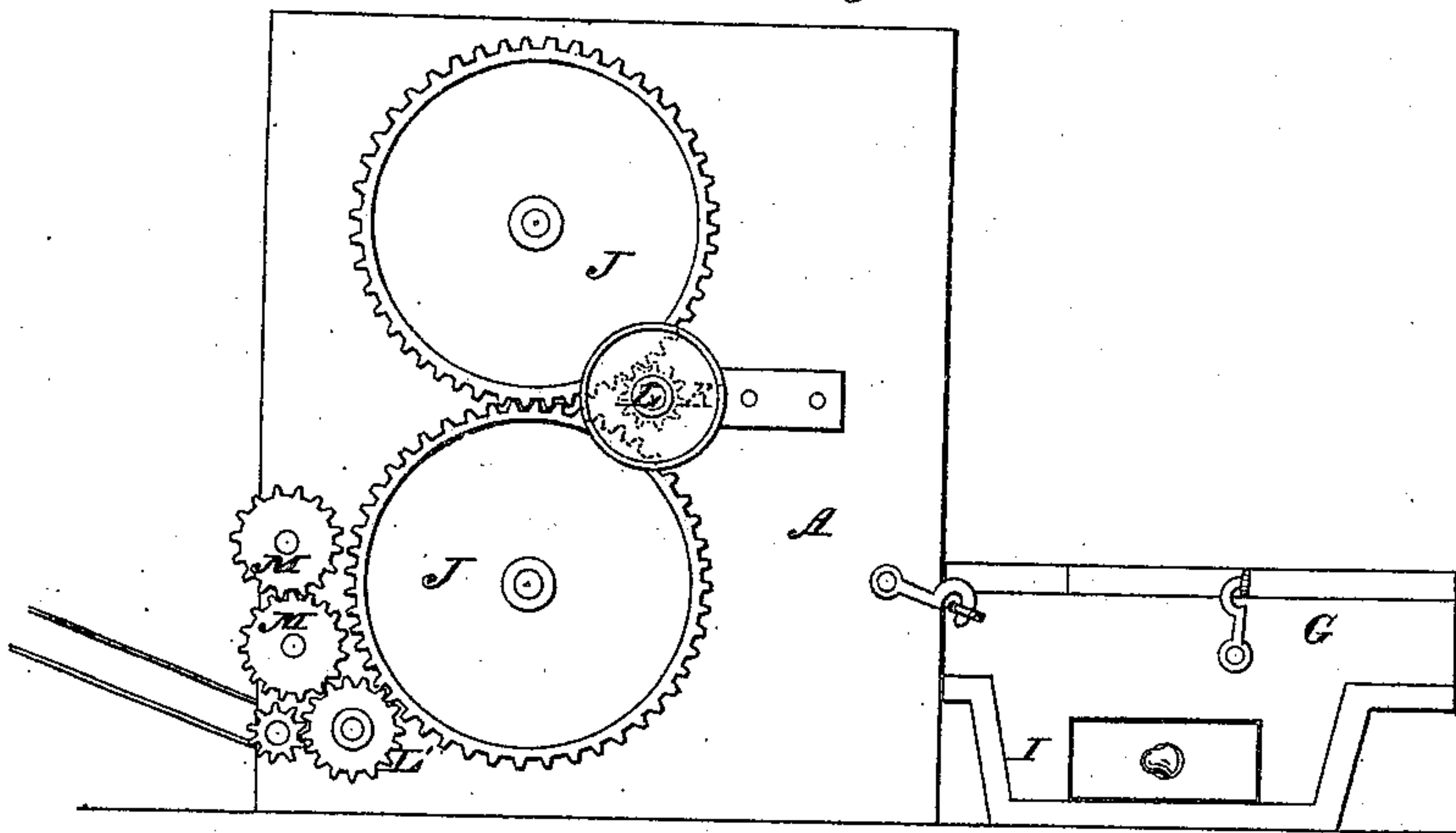


Fig. 2

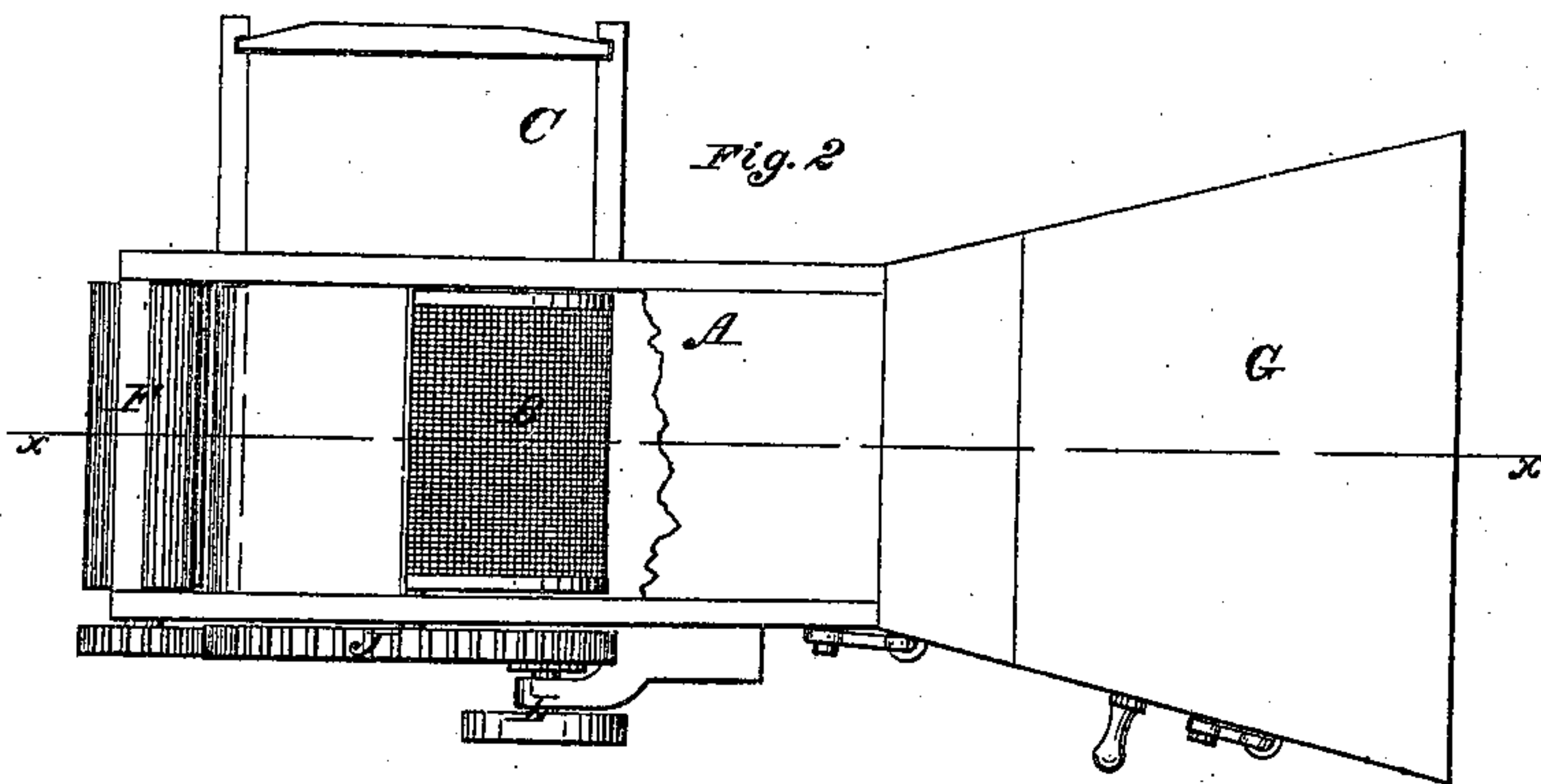
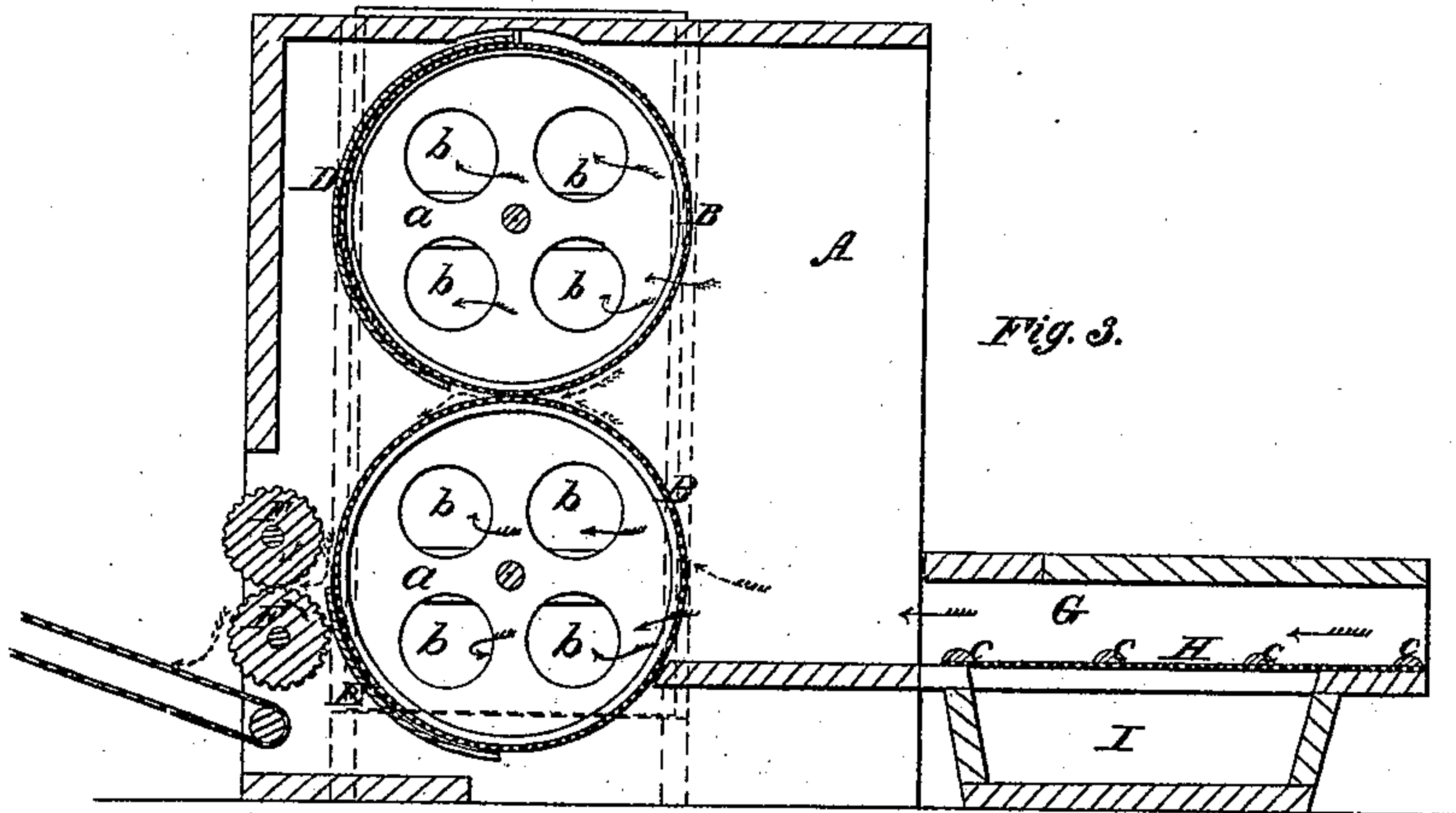


Fig. 3.



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UNITED STATES PATENT OFFICE.

B. JACKMAN, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN COTTON-CLEANING MACHINES.

Specification forming part of Letters Patent No. 30,880, dated December 11, 1860.

To all whom it may concern:

Be it known that I, BENJAMIN JACKMAN, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Cotton Cleaning and Condensing Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side elevation of my invention. Fig. 2 is a plan or top view of the same, with a portion of the top of the box or case removed or broken away. Fig. 3 is a side sectional view of the same, taken in the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a machine designed to be attached to or connected with the flue of a cotton-gin, for the purpose of cleansing the cotton or separating the dirt from it and condensing it, so as to facilitate the baling operation.

The invention not only facilitates the operation of baling, but also causes the bales to be more uniform and compact than by the usual baling process, and also obviates the employment or use of a "lint-room" to receive the ginned cotton, and in which lint-room one or more hands are generally employed, to their great and often fatal injury, caused by the inhaling of the dust and fine particles of cotton with which the air within the lint-room is filled.

The invention consists in the employment or use of revolving screens in connection with a dust-chamber and with a stationary screen and condensing-rollers, arranged substantially as hereinafter fully shown and described.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a case or box, in which two revolving cylindrical wire screens, B B, are placed, one over the other in the same axial plane, the peripheries of the screens being nearly or quite in contact. The heads *a* of the screens at one end have openings *b* made in them, said openings forming a communication between the interior of the screens and a dust-chamber, C, adjoining the case or box A. (See Figs. 2 and 3.)

At the outer or front parts of the screens B

B there are aprons D E, one to each screen. These aprons are quite near the screens, and the upper one, D, extends nearly half around the upper screen B, while the lower one, E, extends about one-quarter around the lower screen, as shown clearly in Fig. 3.

F F are two rollers, placed one over the other in the same axial plane, and having smooth or fluted surfaces. The rollers F are placed quite near the periphery of the lower screen B, and their "bite" is on a horizontal line with the upper end of the apron E, as shown clearly in Fig. 3.

G is the box or passage, which forms a communication between the case or box A and the flue of the gin to which the invention is applied.

H is a screen which is placed horizontally in said box or passage G, and has a sink or box, I, beneath it. The face or upper surface of the screen H has slats *c* secured on it at suitable distances apart, as shown in Fig. 3.

The shafts of the screens B B extend through one side of the box or case A, and are connected by gears J, into the upper one of which a pinion, K, on the driving-shaft L meshes. The lower gear, J, meshes into a pinion, L', which is engaged with the lower of two gears, M M, which connect the shafts of the rollers F F.

The operation is as follows: The driving-shaft L is rotated by any convenient power, and the cotton passes from the gin over the stationary screen H in the box G, the cotton being propelled by the strong current of air generated by the rotation of the brush. The box or sink I receives all the dirt and trash that by its gravity will fall through the screen H, while the cotton is blown over it. The cotton passes into the case or box A freed from the coarser and heavier particles of dirt, and is brought in contact with the revolving screens B B, through which the light dirt and dust pass into the dust-chamber C, as indicated by the black arrows. The cotton is then drawn between the screens B B, the lower end of apron D stripping the cotton from the upper screen, and causing it to follow the periphery of the lower screen until it comes in contact with the lower apron, E, the upper end of the latter deflecting the cotton off from the lower screen and between the rollers F F, which compress or condense it into a bat or sheet.

Any proper number of rollers H may be

employed as may be required, and the bat or sheet may be directly conveyed by an endless apron to the press for baling, or it may be folded for a future bailing operation.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the two rotary screens

B B and aprons D E with the box A, dust-chamber C, screen H, and compressing-rollers F F, in the manner and for the purposes herein shown and described.

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Witnesses:

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