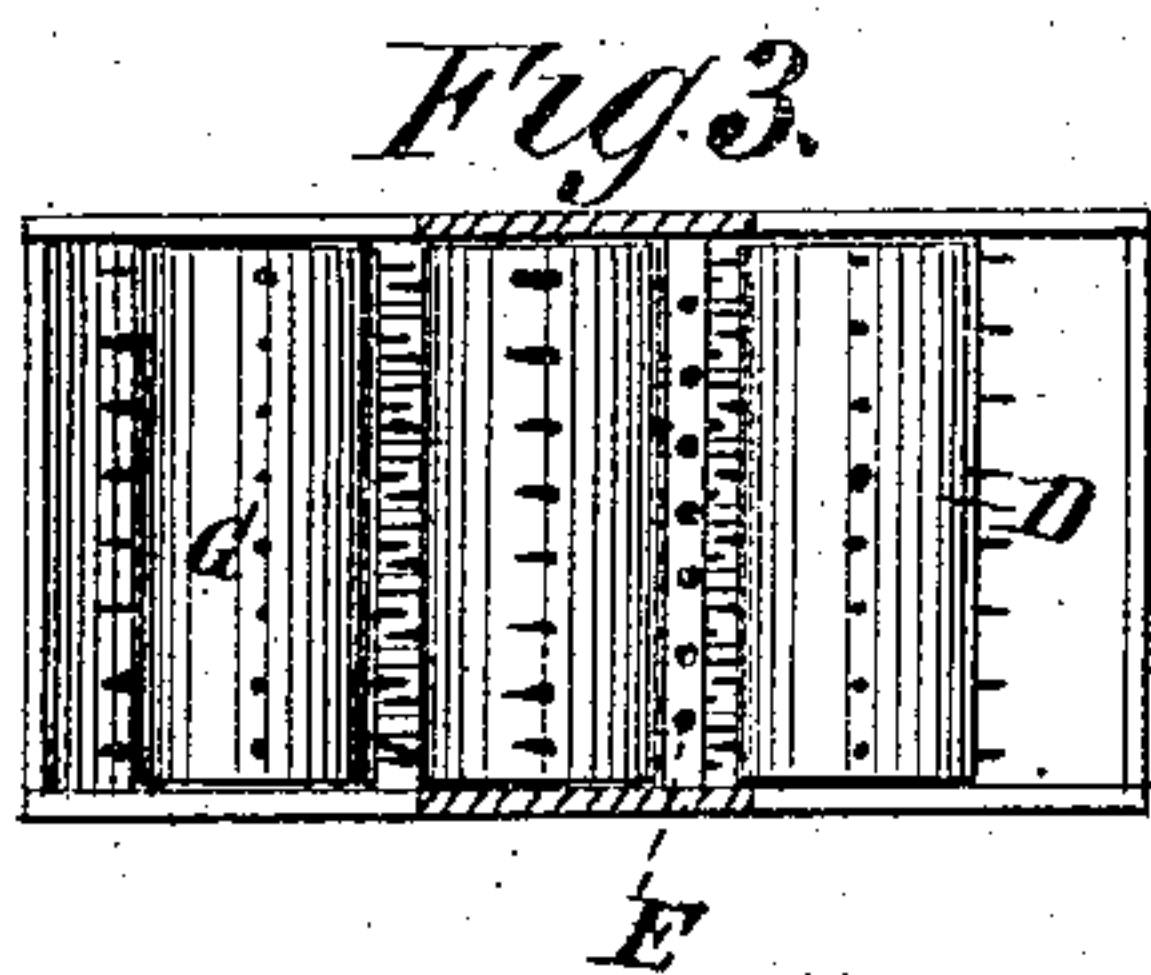
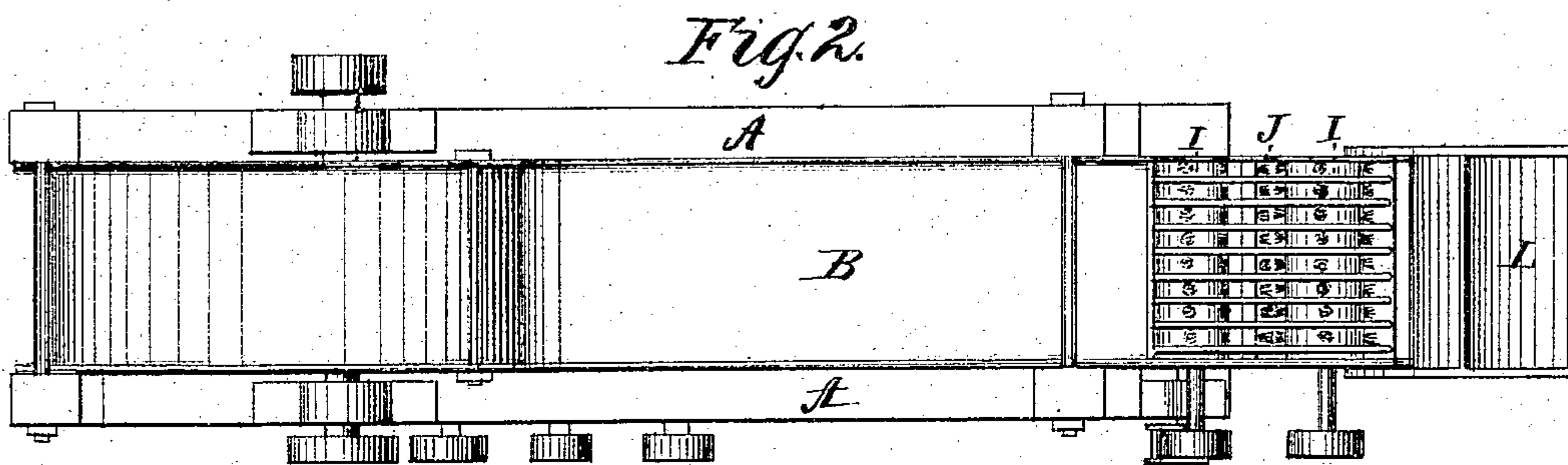
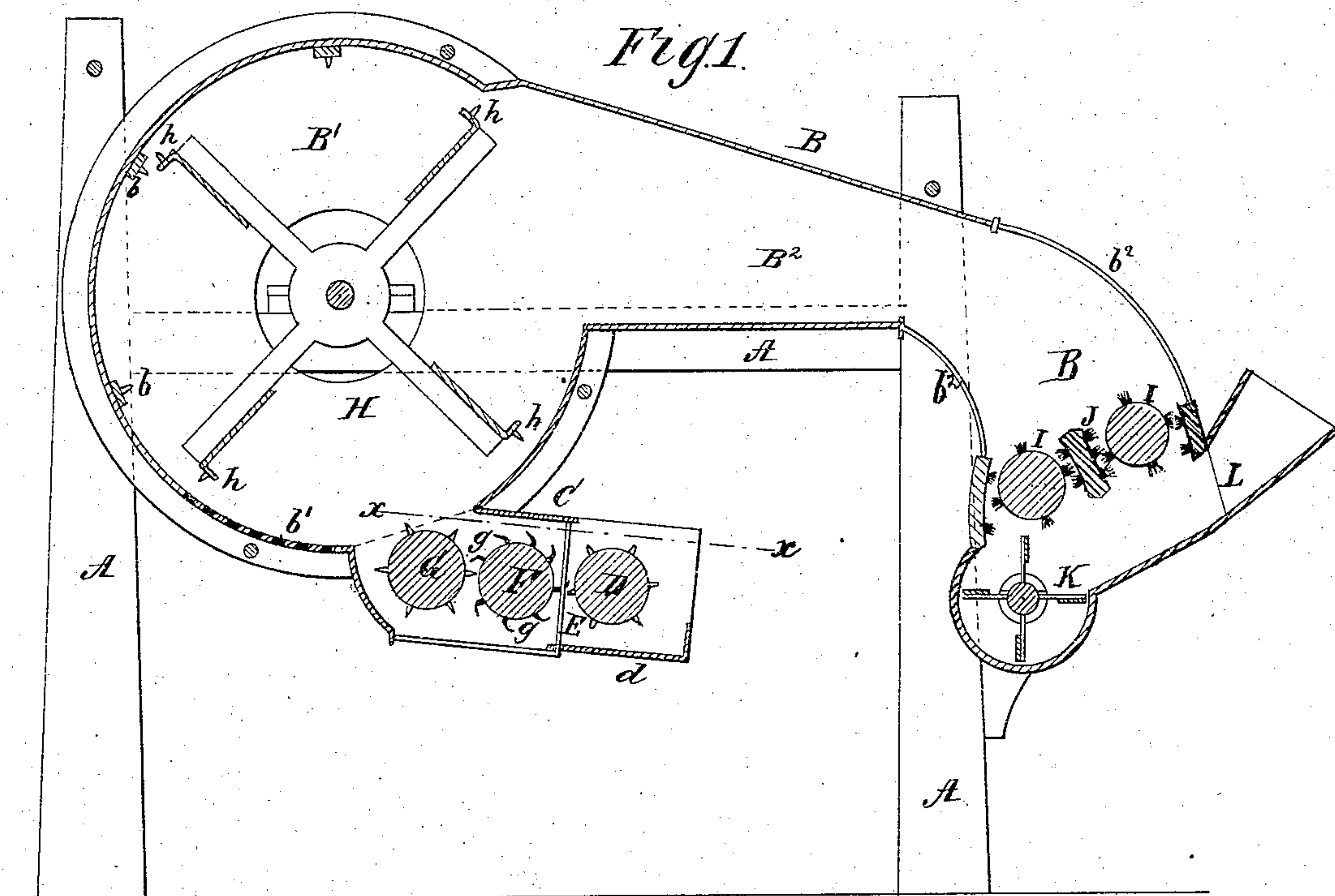


J. B. WENDEL.

Machines for Opening and Cleaning Cotton.

No. 153,409.

Patented July 21, 1874.



WITNESSES:

G. Mathey.
Chas. A. Pettit

INVENTOR:

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UNITED STATES PATENT OFFICE.

JAMES B. WENDEL, OF MEMPHIS, TENNESSEE.

IMPROVEMENT IN MACHINES FOR OPENING AND CLEANING COTTON.

Specification forming part of Letters Patent No. **153,409**, dated July 21, 1874; application filed July 8, 1874.

To all whom it may concern:

Be it known that I, JAMES B. WENDEL, of Memphis, in the county of Shelby and State of Tennessee, have invented a new and Improved Lint-Cotton Opener, Cleaner, and Straightener; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a longitudinal sectional elevation. Fig. 2 is a plan view partly in section, and Fig. 3 a horizontal section.

The invention relates to and consists in means whereby cotton may be opened, cleaned, and straightened by a single continuous operation, as hereinafter fully described, and pointed out in the claims.

A represents the frame, in which is suitably secured a hollow case, B. To the under side of the latter is appended a table, C, on which the cotton is emptied from baskets. A workman standing in close proximity feeds it gradually to a spiked roller, D, that works over a bottom piece, *d*, and carries it against the vertical grate E. This causes the cotton to be taken gradually and in bits by the hook-teeth of another roller, F, from which it is then taken by the spikes of roller G, both of these rolls turning in a channel-way subadjacently grated or reticulated, and leading to the suction-fan H in the enlarged part B¹ of the case. I provide each radial wing of the fan with small spikes *h*, that act in conjunction with corresponding spikes on the inside of the fan-case B¹, and preferably make perforations *b*¹, that, like the grated channel-way *g*, allow the

dust and foreign particles of matter to escape. The draft from the suction-fan drawing air with the cotton fibers toward itself co-operates with the spiked rolls in feeding and transferring the cotton to and over the fan. It is then blown along the part B² of casing, having the grates *b*² *b*² for the outlet of dust to steel brushes I J, the former rotary and the latter stationary. This straightens out the fiber as well as allows the subjacent fan K to expel any remaining dust and discharge the cotton as lint out of the spout L. The cotton is thus fed through the grate to the picking-rolls F G, which cause a great deal of the dirt to be shaken out and discharged through the grating below. It is next opened and separated by the spikes *b* *h* and the opening action of draft in the fan-case, and becomes fleecy in appearance and denuded of nearly all foreign matter. It is finally combed out by the steel-brushes I J and discharged by the fan in a clean and merchantable condition.

Having thus described my invention, what I claim as new is—

1. The combination, with rolls D F G and grate E, of the suction-fan H, having spikes *h*, and case B¹, having corresponding spikes *b*, to draw up the cotton and open it out, in the manner set forth.

2. The combination of the steel brushes I J, working in a channel, B², to straighten the cleaned fiber, in the manner specified.

J. B. WENDEL.

Witnesses:

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