

W. F. Pratt,

Cotton Gin.

No. 92,208.

Patented July 6, 1869.

Fig. 1.

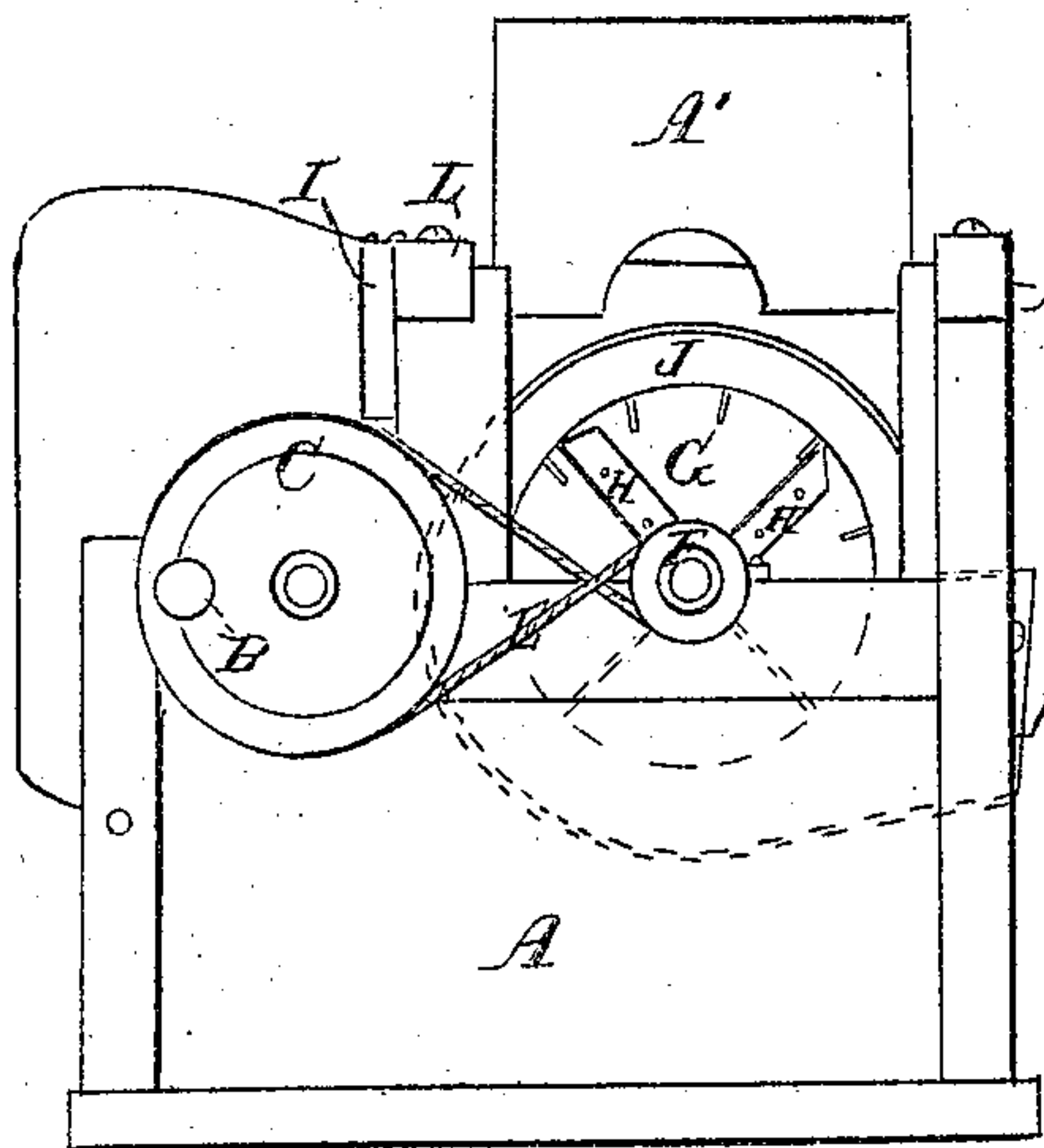


Fig. 2.

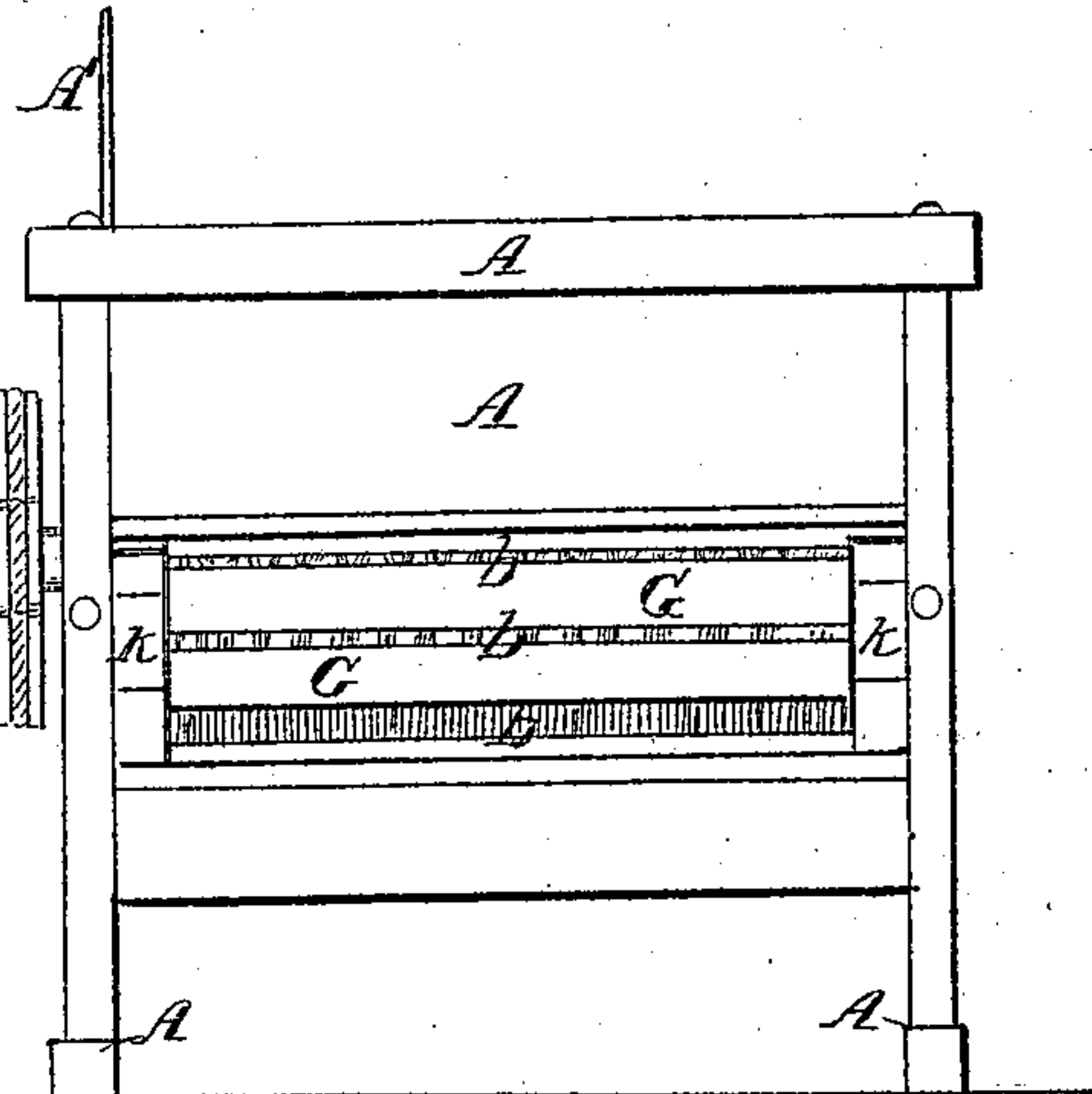


Fig. 3.

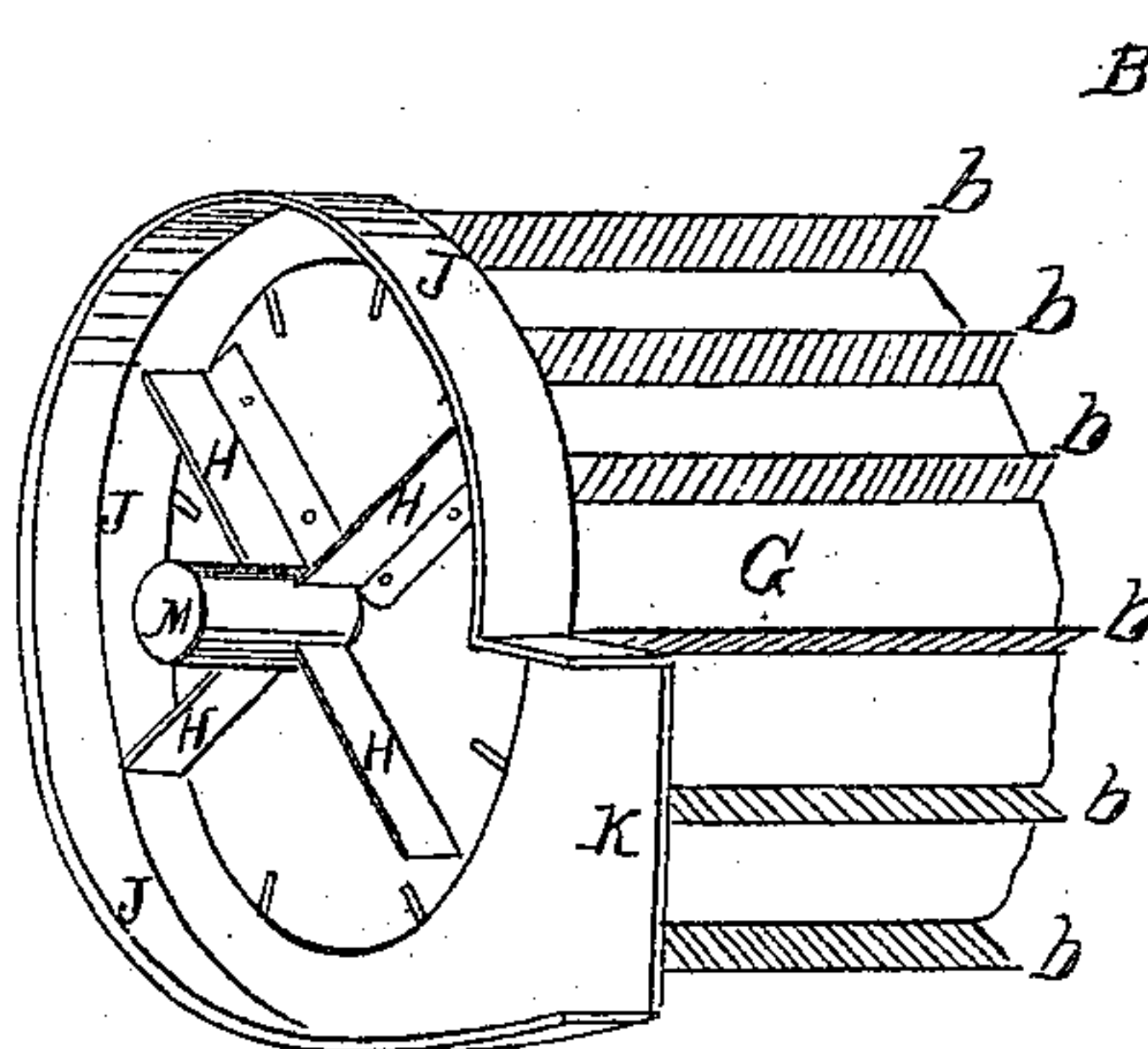
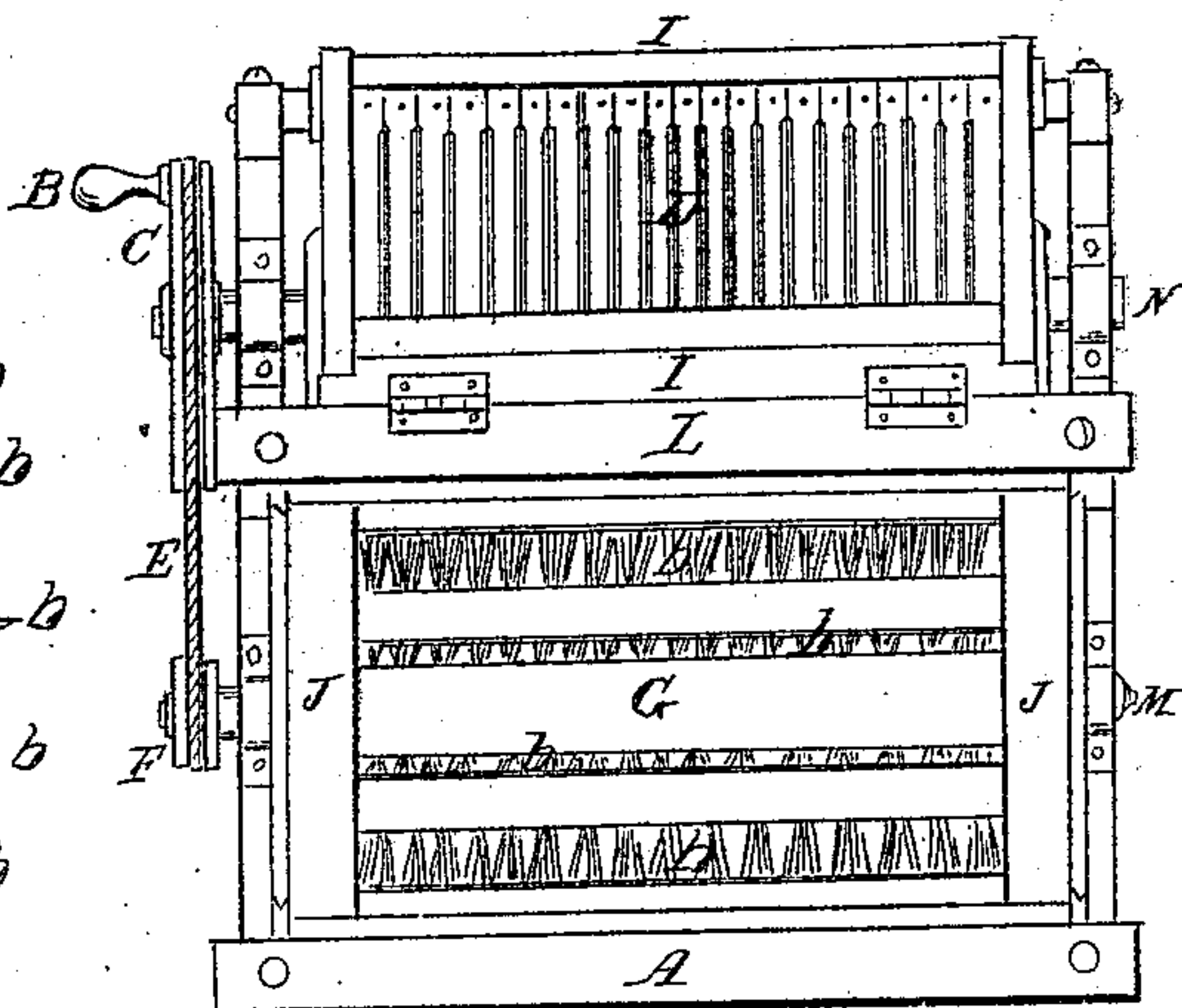


Fig. 4.



Witnesses
F. W. Howard
at Bradley

W. F. Pratt
By his Attorney
Chas. F. Jansbury

United States Patent Office.

WILLIAM F. PRATT, OF EAST BRIDGEWATER, MASSACHUSETTS, ASSIGNOR TO THE
E. CARVER COMPANY, OF SAME PLACE.

Letters Patent No. 92,208, dated July 6, 1869.

IMPROVEMENT IN COTTON-GINS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM F. PRATT, of East Bridgewater, in the county of Plymouth, and State of Massachusetts, have invented a new and useful Improvement in Cotton-Gins; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is an end elevation of a gin, with my improvement applied;

Figure 2 is a rear elevation of the same;

Figure 3 is a detail perspective view, showing the relation between the fan-chamber and brush-cylinder; and

Figure 4 is a top view or plan of the gin.

The same letter indicates the same part wherever it occurs.

The object of this improvement is to prevent the ill effects which have resulted from the introduction of air-currents into the brush-chamber of a cotton-gin, and directly upon the brush-cylinder. Such currents interfere with the proper action of the brushes in straightening the fibre of the cotton, and with the prompt detachment of the fibre from the brushes, clogging them, and causing them to carry the lint around with them, instead of throwing it at once into the lint-room.

These currents, also, have the additional disadvantage of inducing an air-current under the brush, from the front side of the gin-stand, thus preventing the motes and trash from falling, or being driven by the brush, in a direct line to the floor.

The nature of my improvement consists in arranging, at both ends of the brush-cylinder, air or fan-chambers, entirely separated from the brush-chamber, which take in air through the ceiling of the gin, and conduct it into the lint-room, without its encountering the lint during any portion of its contact with the brush, the effect being the delivery of the cotton with its fibres straightened, and in the best condition for use.

To enable others to make and use my improvement, I will proceed to describe it more particularly, referring to the accompanying drawings, by the letters and figures marked thereon.

The drawings represent a cotton-gin of usual and approved construction, having my improvement applied.

A marks the frame and ceiling, and

A', a slide, covering one end of the brush-chamber.
B is a winch, or handle, indicating the point of application of the driving-power.

It is attached to band-wheel C, on the end of the saw-shaft N.

D is the grate, through which the teeth of the saws project.

The band-wheel C, by means of band or cord E, and the pulley F, drives the brush-cylinder G.

M marks the shaft of the brush-cylinder.

On the ends of this cylinder are attached the wings H, which form a revolving fan.

They move in the air-chambers J, placed at the ends of the brush-cylinder, as shown in fig. 4.

The form of these air-chambers is clearly shown in fig. 3, which also illustrates their relation to the brush-cylinder.

The air enters these chambers through openings in the ceiling of the gin, around the journals of the brush-cylinder, and is driven out into the lint-room through the flues K.

It will be observed that the air-chambers are entirely separated from the brush-chamber, and that the air-current created in them by the revolution of the wings H, does not enter the brush-chamber, but passes directly into the lint-room.

Having thus fully described my invention,

What I claim, and desire to secure by Letters Patent, is—

1. The application, to a cotton-gin, of fan-chambers, arranged at the ends of the brush-cylinder, and connecting, by flues, directly with the lint-room, so that the air-currents produced by the fans do not pass through the brush-chamber, but flow directly into the lint-room, in the manner and for the purpose described.

2. The wings H, on the ends of the brush-cylinder G, in combination with the casings J, forming, with the ceiling of the gin, fan-chambers at the ends of the brush-cylinder, in the manner and for the purpose set forth.

The above specification of my said invention, signed and witnessed at Washington, this 3d day of June, A. D. 1869.

WM. F. PRATT.

Witnesses:

A. C. BRADLEY,

CHAS. F. STANSBURY.