

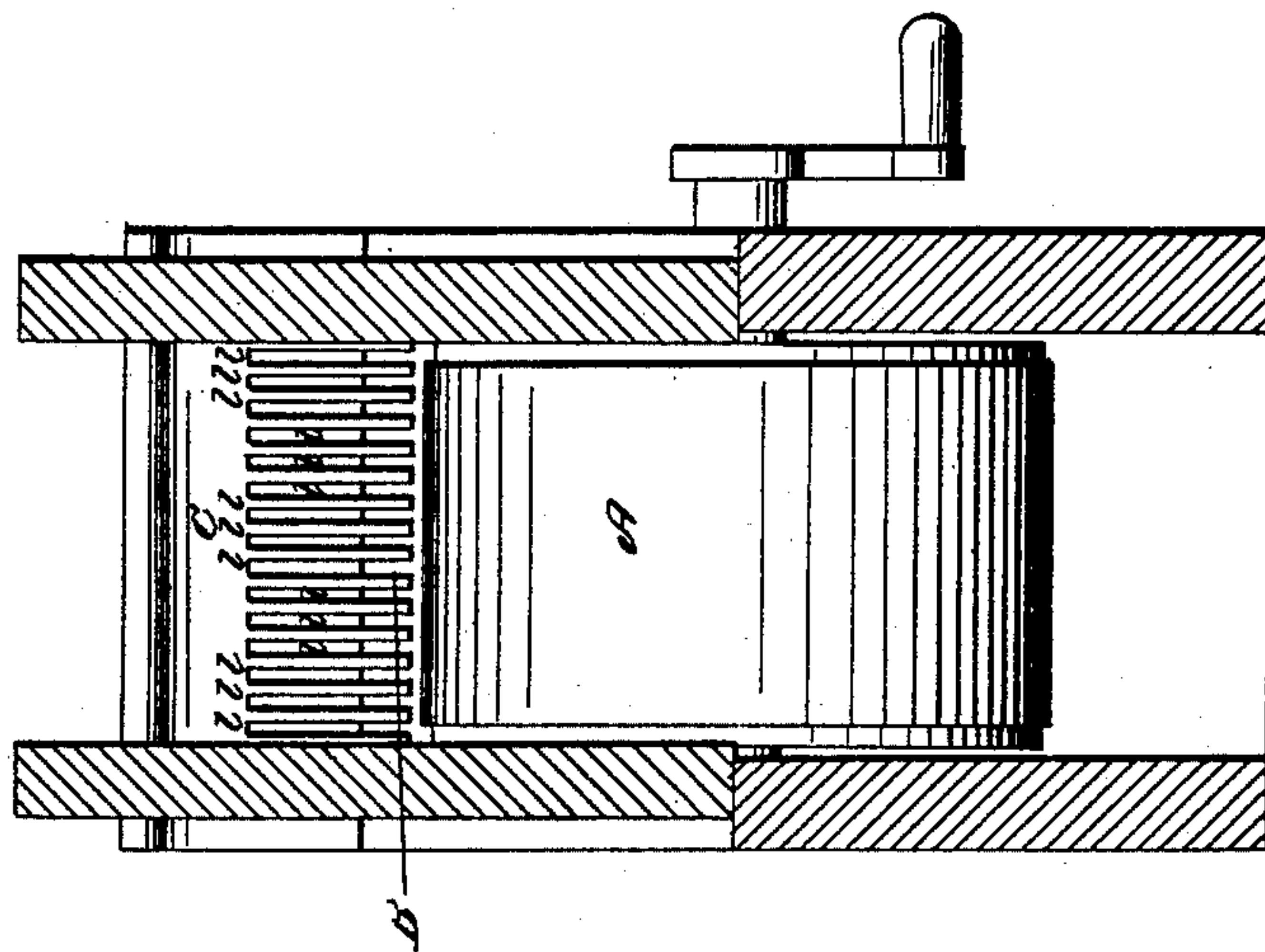
J. L. TUTTLE.

Cotton Gin.

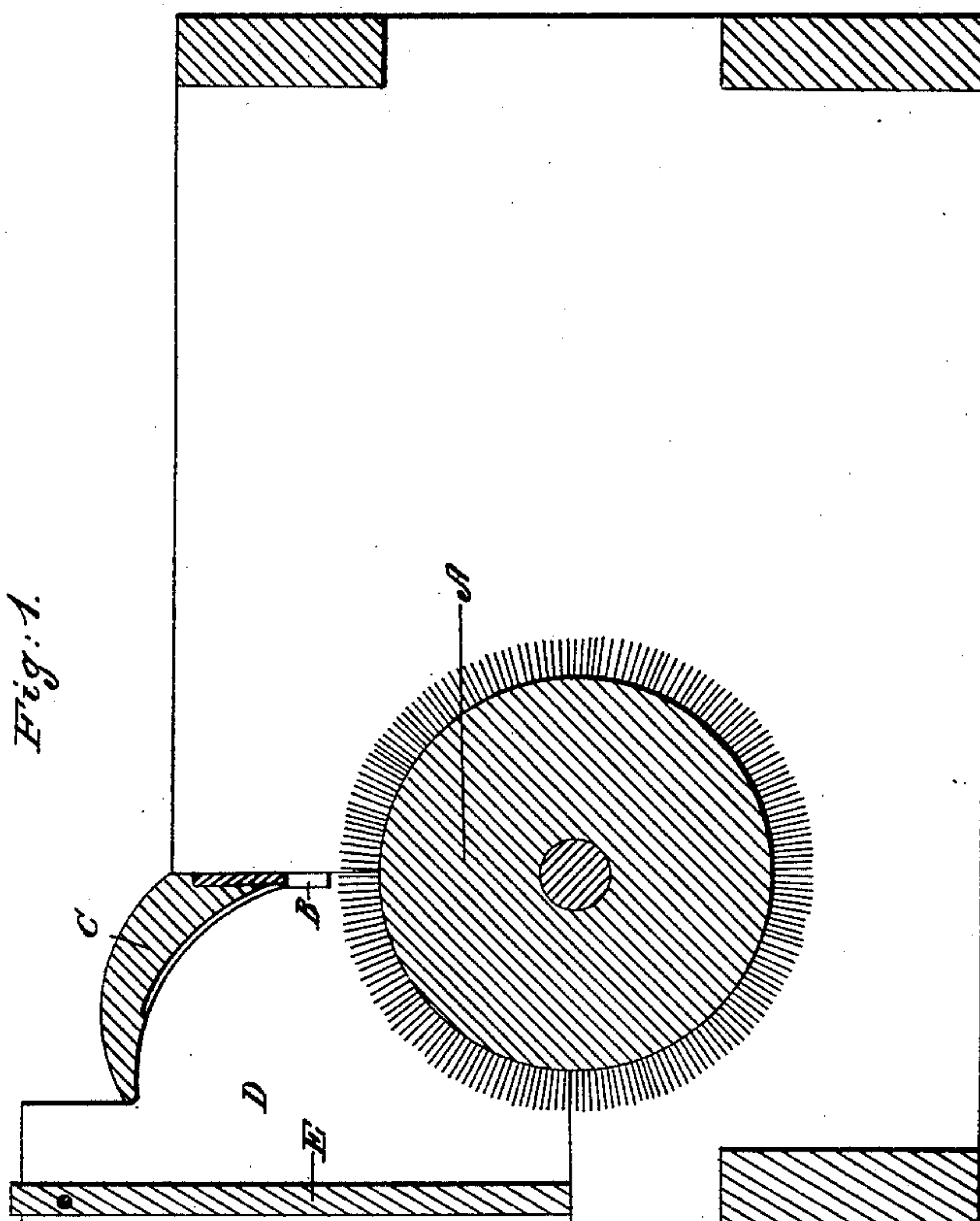
No. 21,582.

Patented Sept. 21, 1858.

*Fig. 2.*



*Fig. 1.*





# UNITED STATES PATENT OFFICE.

JOHN L. TUTTLE, OF BRIDESBURG, PENNSYLVANIA.

## IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. 21,582, dated September 21, 1858.

*To all whom it may concern:*

Be it known that I, JOHN L. TUTTLE, of Bridesburg, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Cotton-Gins; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a vertical longitudinal section, and Fig. 2 represents a vertical transverse section through so much of the machine as will illustrate the invention.

A guard or comb has been used in connection with the cylinders of burring-machines and cotton-gins, but so made and applied as to curve or project over a portion of the cylinder. This prevents the burrs and seeds, after the cylinder has taken all the fiber that it can from them, from freely rising and passing up, so as to be turned over to present another portion to the cylinder. Besides, they are sometimes so held by the curved form of the guards as to allow the teeth of the cylinder to cut or break the burrs or seeds, and thus allow them to pass through with the fiber. The toothed cylinder in passing takes but a small portion of the fiber or lint from the burrs or seed, but combs or draws out other portions which are left adhering to them, and this drawn-out portion of the fiber or lint prevents the seeds, &c., from freely rising up to give place to those underneath, it acting as a drag upon the burrs or seeds.

Now, the object of my invention is to obviate these difficulties, which I effectually do by making and applying to the cylinder what I term an "open breast," which will allow the fiber to pass through or under it, while the seeds and notes are retained, and freely rise up and turn over the fiber or lint adhering to them passing up through the openings in the breast, as will be explained.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents a toothed cylinder, over which is placed an open breast, B, the open spaces in said breast being of greater extent in their sum than the sum of the surfaces of the ribs between them. The openings in this breast may be of any suitable height, and may run into grooves 1 1 1, formed in the curved top piece, C.

D is the hopper, into which the material to be cleaned or ginned is fed. The front of the hopper E is hinged at its top, and may have a set-screw at its lower end, so as to set it nearer to or farther from the cylinder, the open space between it and the cylinder regulating the exit of the seeds or other impurities from which the fiber has been taken.

Behind the cylinder there may be a brush to clean it in the usual well-known way.

The cylinder, it will be perceived, is below the open breast, and the teeth of the cylinder act only against the end or edge of the breast, which is quite thin. As the teeth of the cylinder come in contact with the seeds, they take therefrom a portion of their fiber and carry the seeds up against the breast, where they are stopped, the fiber or lint passing through or under the breast, or both. Now there is a portion of the fiber still adhering to the seeds, which has been drawn or straightened out by the teeth of the cylinder, and which may extend into or through the open spaces, and which would, if the guard or comb extended over or around the cylinder, prevent the seeds from freely rising to give way to those coming underneath them; but by my arrangement there is nothing to prevent the seeds that have just been acted upon by the cylinder from rising up, and in doing so it secretes and draws its adhering fiber through the openings or grooves in the breast and crown-piece over it, the seeds themselves rolling or sliding against the breast and crown-piece until it is turned over and falls down, to be again caught and carried up by the cylinder until divested of all its fiber or lint.

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

So combining a toothed cylinder with an open breast that allows the fiber to pass through it, but holds back the seeds, as that the cylinder shall work against the edge of said open breast and carry the fiber past it, while the seeds shall roll up against the surface of said breast and draw the lint that has not been taken from them up through the openings, whence they are turned over and returned again and again by the action of the cylinder to the breast until divested of all their fiber, substantially as described.

Witnesses:

J. L. TUTTLE.

A. B. STOUGHTON,

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