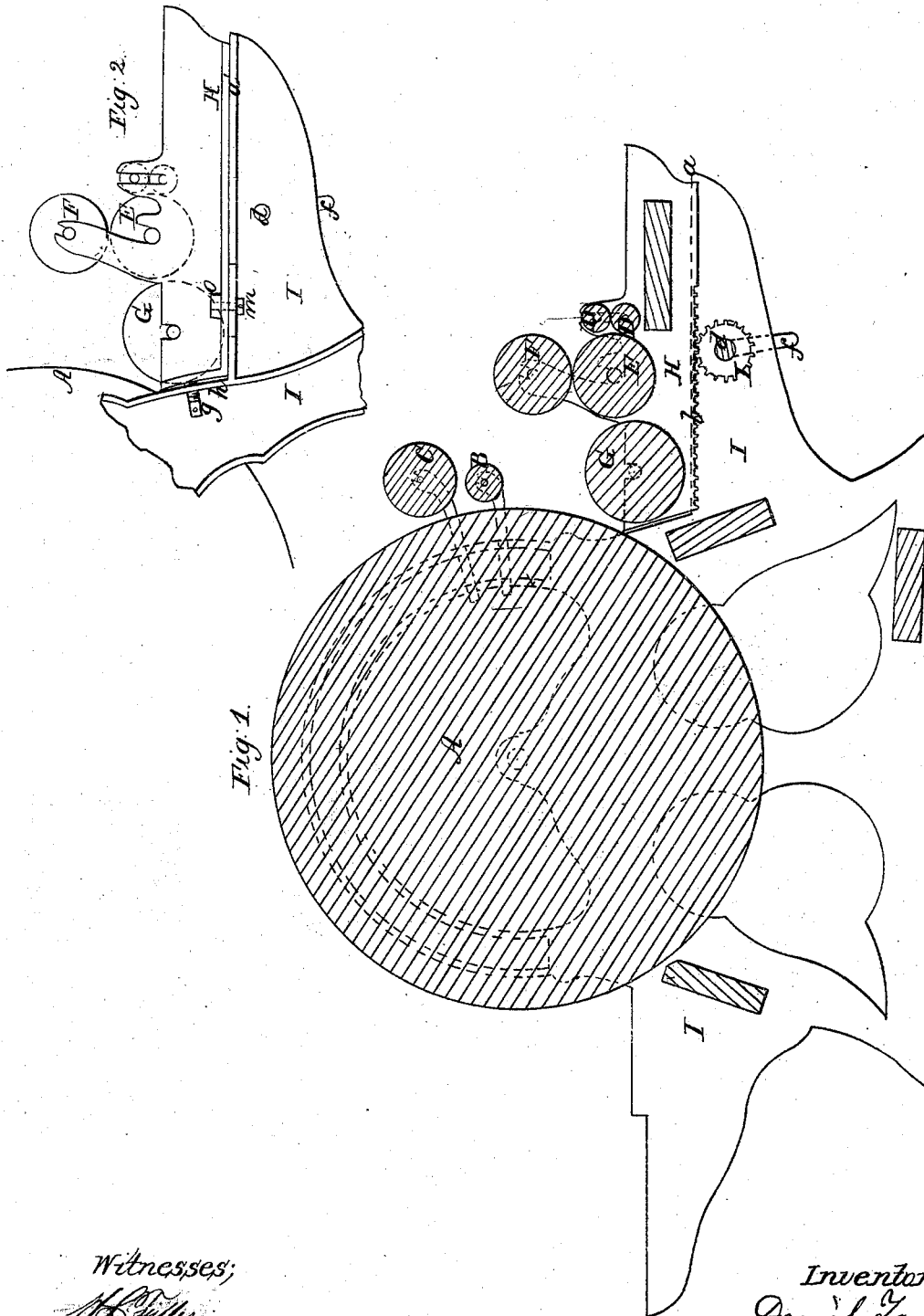


*D. Tainter,*  
*Carding Machine.*

*N<sup>o</sup> 47,668.*

*Patented May 9, 1865.*



*Witnesses;*  
*H. Miller*  
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*Thos. H. Dyer*

# UNITED STATES PATENT OFFICE.

DANIEL TAINTER, OF WORCESTER, MASSACHUSETTS.

## IMPROVEMENT IN CARDING-MACHINES.

Specification forming part of Letters Patent No. 47,668, dated May 9, 1865.

*To all whom it may concern:*

Be it known that I, DANIEL TAINTER, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Wool and Cotton Carding Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a longitudinal vertical section through said carding-machine. Fig. 2 represents a partial side view of the main frame and sliding cylinder-frame.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the main cylinder. B represents one of the strippers; C, one of the workers. D represents the feed-rolls; E, the burr-cylinder; F, the burr-cylinder guard, and G the leading-in cylinder.

The feed-rolls, burr-cylinder, burr-cylinder guard, and leading-in cylinders are mounted upon a sliding frame, H, which is supported by the main frame I of the machine, and which can slide upon suitable ways, *a*, of said main frame. The sliding frame is provided with a double set of racks, *b*, which are in gear with pinions L, mounted upon a cross-shaft, *d*, and which latter is operated by means of the crank *f*, and thus by turning said crank the sliding frame, together with its cylinders, can be moved toward or from the main cylinder. By this arrangement many difficulties in the management of carding-machines are obviated, for the leading-in cylinder can readily be removed, without first removing the burr-cylinder E and its guard, by simply moving the sliding frame H outward. Said cylinder has to be taken out from time to time to be cleaned or ground, or to be otherwise repaired, and as it is placed below the center of the main cylinder, and in close proximity to the latter and to the burr-cylinder E, it is impossible to remove it without first removing one or the other.

Another advantage resulting from the use of the sliding frame is that in a wool-carding machine working-cylinders can be used against the main cylinder A under the leading-in cylinder G. The use of working-cylinders under the main cylinder has heretofore been attended with great difficulties, as there is no space to get at such working-cylinders when

the leading-in cylinder is mounted on rigid bearings, and consequently in putting in or removing them a number of cylinders had to be removed first to enable the operator to get at said working-cylinders, whereas by means of my sliding frame they can be used with the same facility as those applied to the top of the main cylinder.

A further advantage in this arrangement is that the position of the leading-in cylinder toward the main cylinder can be adjusted with great accuracy, and this is done in the following manner: I use a set screw, *g*, Fig. 2, which passes through the external rib, *h*, of the main frame. This set-screw is properly adjusted so that its point extends a certain length beyond the main frame, and the sliding frame H is then run firmly against it. I then secure the sliding frame in its position by means of a screw-bolt, *m*, which passes through a slot in the flange *a'* of the main frame, and which enters a square nut, *o*, and thus the position of the sliding frame, in respect to the main cylinder, is adjusted and secured.

My invention can, with equal facility, be applied to cotton as well as to wool carding machines. In the former no burr-cylinder is used, and in this respect the arrangement of the rollers is somewhat modified, but the mounting of the feed-rolls and other cylinders which prepare the material for delivery to the main cylinder upon a movable frame is in cotton-carding machines of the same importance as in wool-carding machines, for the reasons above stated.

In the second breaker and finisher of woolen cards the burr-cylinder is not generally used, but the invention is equally applicable to them.

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

1. The combination with the main frame of a machine for carding wool and cotton, of a supplemental sliding frame for supporting the feed rolls, burr and leading-in cylinder, and operated by rack and pinion, as and for the purposes set forth.

2. The combination, with the sliding frame H, of the racks *b*, pinions L, and crank-shaft *d*, for sliding in and out the frame H, substantially in the manner herein described.

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Witnesses:

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