

(No Model.)

G. FORSHAG.  
COTTON GIN.

No. 277,417.

Patented May 8, 1883.

FIG. 1.

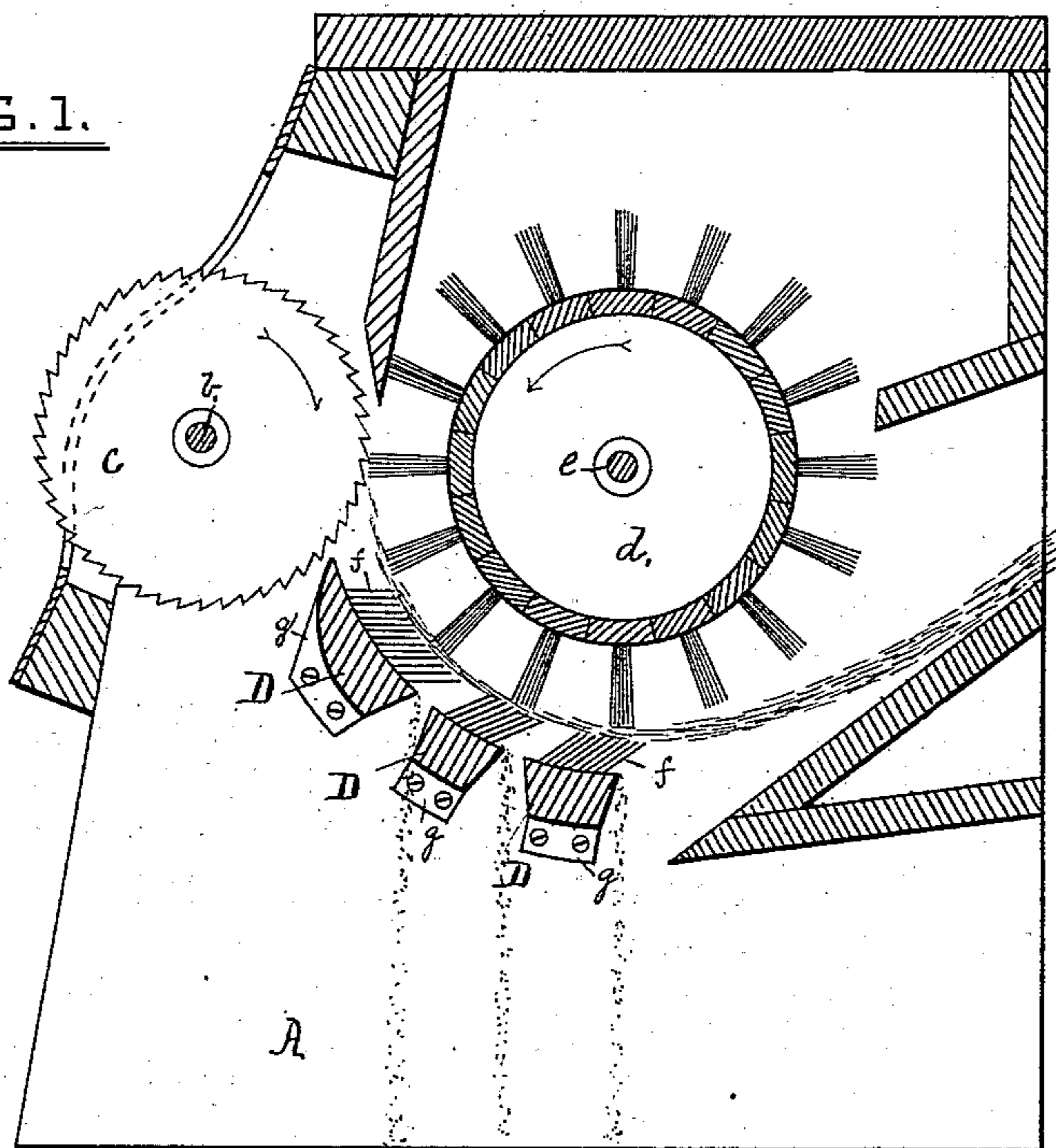
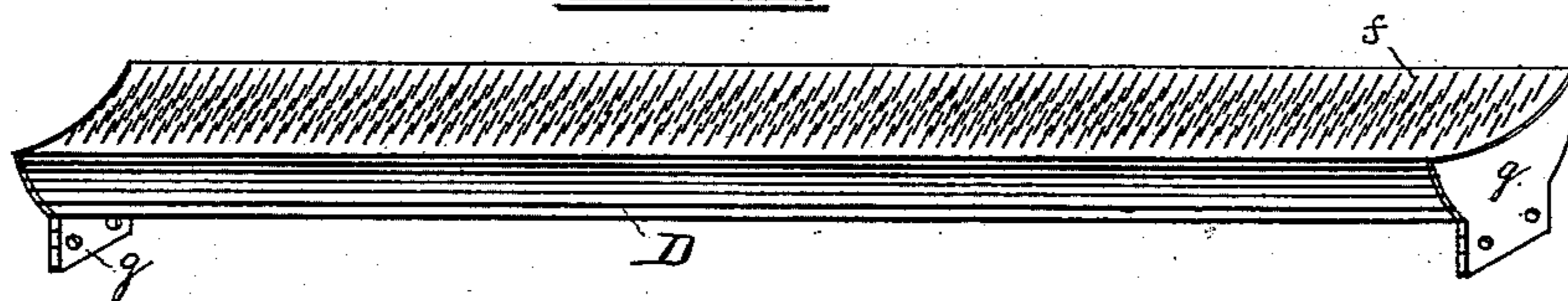


FIG. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE FORSHAG, OF AMITE CITY, LOUISIANA.

## COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 277,417, dated May 8, 1883.

Application filed October 21, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE FORSHAG, a resident of Amite City, in the parish of Tangipahoa and State of Louisiana, have invented a certain new and useful Improvement in Cotton-Gins; and I do hereby declare the following to be a full, clear, and correct description of the same, reference being had to the annexed drawings, making a part of this specification.

Heretofore in the construction of that class of cotton-gins having concave beds or cleaners therein the said cleaners have either been provided with wire teeth inclined toward the receiving end of the machine or they have been composed of brushes placed in such manner as to be in line with the shaft of the brush-cylinder, or inclining rearward of the same. These constructions are objectionable, for the reason that the former tends to choke the machine or retard the passage of the lint, while in the latter the bristles, necessarily placed in close proximity to one another, operate on the surface of the feed, from the fact of their lacking sufficient strength and elasticity to penetrate the same. Especially is this the case when running a heavy feed through the machine.

My invention has for its object the remedying of the difficulties heretofore experienced in this class of machines; and it consists in a concave bed composed of bars or sections, having inclined metallic teeth, said sections being secured at suitable distances apart for the exit of the dirt or trash relieved from the cotton, the spaces between the sections being overlapped by the rear teeth of the bar or section next preceding, thus producing a yielding bed throughout the full length of the concave, with openings for the exit of dirt, &c., and insuring a combing rather than a brushing or beating action, as in other machines.

My invention further consists in the combination of parts, as will be hereinafter more fully described and specifically claimed.

In the accompanying drawings, Figure 1 is a vertical cross-section of a cotton-gin provided with my improvement. Fig. 2 is a perspective view of one of the sections of my concave cleaner.

The letter A designates one end of an ordi-

nary gin-frame. *b* is the saw-shaft, and *c* the saws thereof.

*d* is the revolving brush-cylinder, fitted on a shaft, *e*, in the usual manner.

My improved cleaner is composed of sections *D*, each having a concave inner surface, provided with inclined metallic teeth *f*, as shown in Fig. 2. These sections are furthermore provided with metal end plates, *g*, having holes therein for the passage of bolts or screws, whereby they are secured to the ends of the gin, with the teeth of the concave sufficiently near the brush-cylinder to insure a separation and perfect cleaning of the fibers without injury to the same. A space is left between each section for the discharge of dirt, &c., released from the cotton, and these spaces are overlapped by the rear teeth of the section next preceding, so as to prevent the cotton from coming in contact with the edges of the sections, whereby a beating process is avoided and all danger of breaking or tearing the fibers obviated. By this means it will be seen that the teeth of the concave have a combing action on the material, whereby the tufts of cotton, as they are drawn from the saw-teeth, are gradually opened out and the fibers straightened in their passage through each successive row of teeth of said concave.

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

1. In a cotton-gin, a concave bed composed of sections having inclined metallic teeth, said sections being secured at suitable distances apart, and having the rear teeth of each section overlapping the space between the said section and the one next in rear thereof, substantially as and for the purpose set forth.

2. In combination with the brush-cylinder of a cotton-gin, a concave bed composed of sections having inclined metallic teeth, said sections being secured at suitable distances apart, and having the spaces between each overlapped by the rear teeth of the section next preceding, substantially as described, and for the purpose specified.

GEORGE FORSHAG.

Witnesses:

G. T. RAOUL,  
SAML. FLOWER.