

No. 865,232.

PATENTED SEPT. 3, 1907.

McDUFFEE BRADFORD.

GIN SAW CLEANER.

APPLICATION FILED FEB. 23, 1907.

Fig. 1

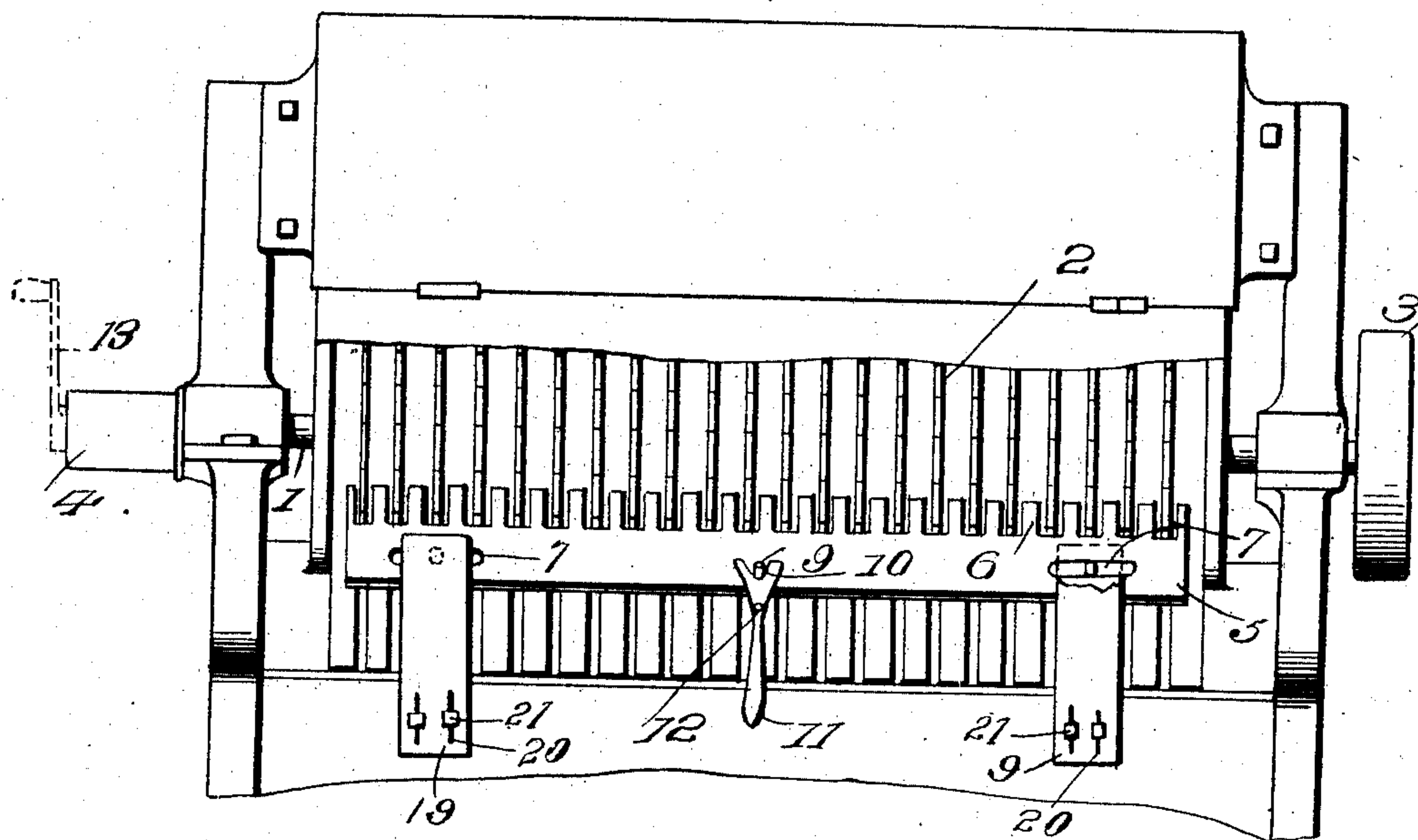


Fig. 2

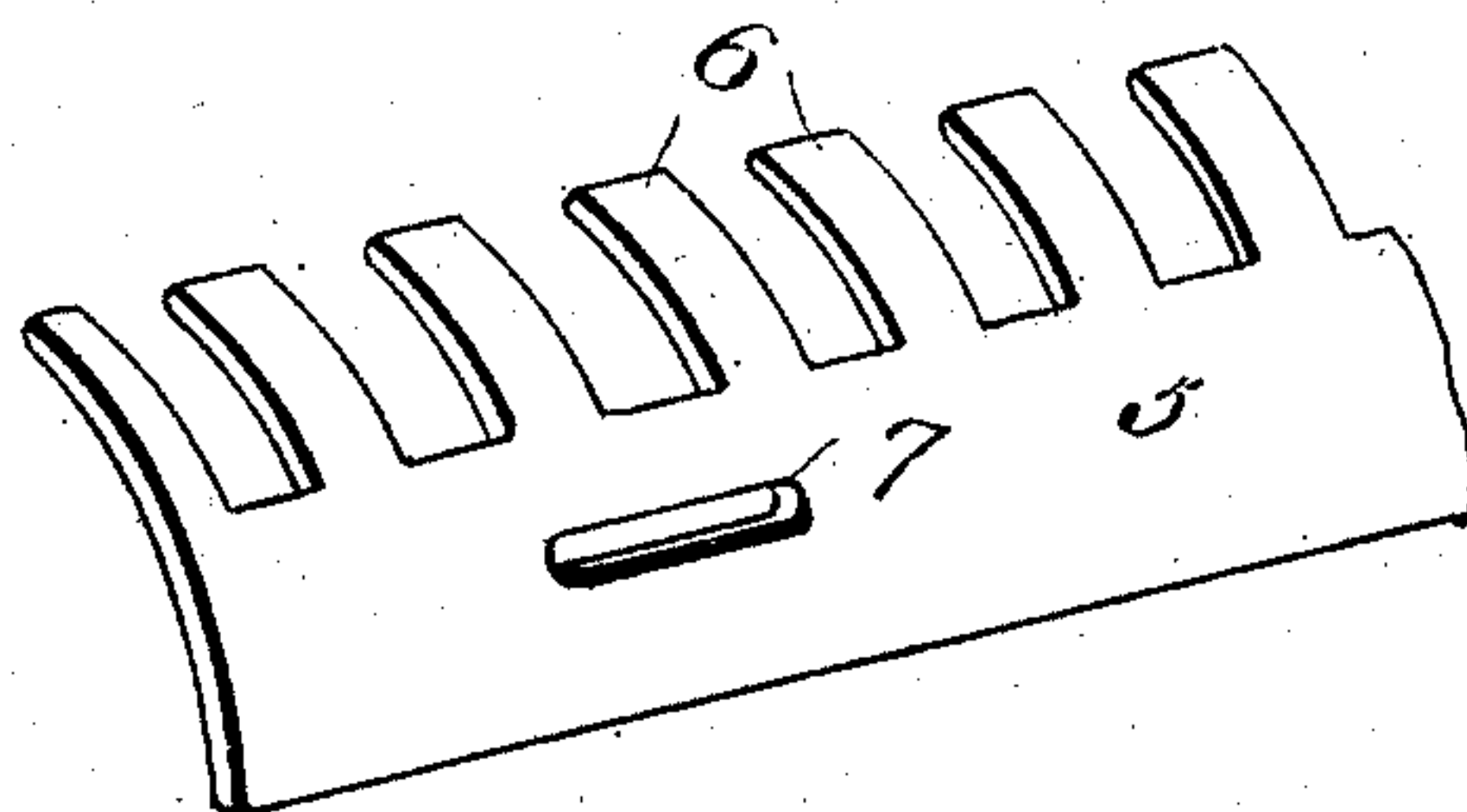
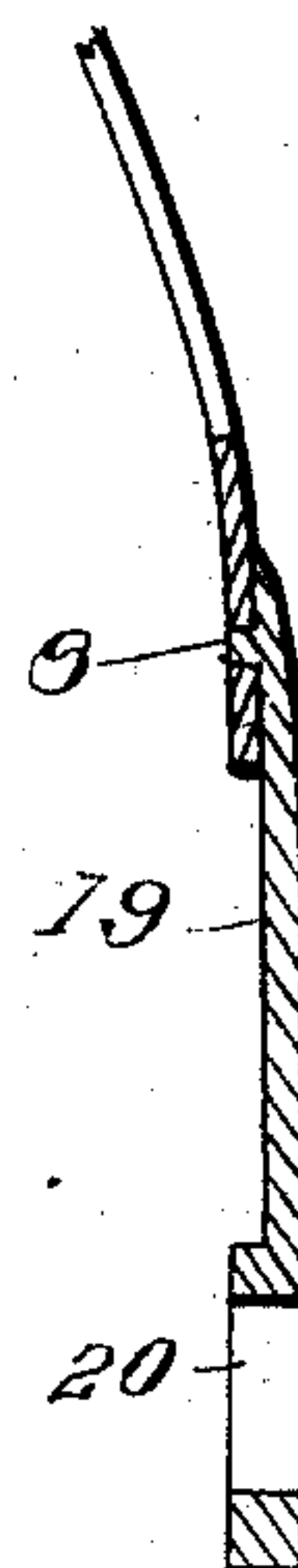


Fig. 3



Witnesses

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# UNITED STATES PATENT OFFICE.

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## GIN-SAW CLEANER.

No. 865,232.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed February 23, 1907. Serial No. 358,850.

*To all whom it may concern:*

Be it known that I, McDUFFEE BRADFORD, a citizen of the United States, residing at Nocona, in the county of Montague and State of Texas, have invented certain new and useful Improvements in Gin-Saw Cleaners, of which the following is a specification.

The present invention appertains to means for removing gum and otherwise cleaning the saws of a cotton gin so as to maintain the latter in prime working condition, said cleaner also serving to straighten the teeth of the saws during the process of removing foreign matter therefrom.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a front view of a cotton gin embodying the invention. Fig. 2 is a detail view of the cleaner. Fig. 3 is a sectional view of a portion of the cleaner and the fastening means therefor.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The invention is adaptable to any type or make of cotton gin and when in position may be instantly thrown into, or out of operation as may be required, it being understood that when the cleaner is out of action, the gin saws are run to the right, or forward, and when it is required to clean the saws, the latter are rotated backward and at this time, the cleaner is thrown into operative position.

The cotton gin illustrated is of ordinary construction being selected to demonstrate the application of the invention. The numeral 1 designates the shaft upon which the gang of saws 2 are mounted, said shaft being provided with band pulleys 3 and 4, the former being driven so as to rotate the saws forward and the latter adapted to have power applied thereto for rotating the saws backward when it is required to clean the same. The pulley 4 is somewhat smaller than the pulley 3 and may be applied to either end of the shaft 1, and as illustrated is usually secured to the end of the shaft opposite

to that provided with the pulley 3, the shaft 1 being capped to admit of the pulley 4 being readily fitted thereto, or removed therefrom.

The cleaner consists of a plate 5 having teeth 6 along one edge, viz: the upper edge, said teeth being preferably an integral part of the plate and extended a short distance into the spaces formed between adjacent saws. The plate 5 is provided with slots 7 through which projections 8 pass to secure the plate in position and limit its movements. The plate 5 is preferably of metal such as steel and its upper edge is cut to provide the teeth 6.

A pin 9 projects outward from the plate 5 and extends into the fork 10 provided at the upper end of shipper lever 11 pivoted to the frame of the cotton gin at 12 and provided as convenient means for moving the plate to bring the teeth into engagement with one side or the other of the saws 2.

The shipper lever 11 is conveniently positioned being preferably located intermediate the ends of the plate 5 and having its lower end extended so as to be conveniently grasped when it is required to throw the cleaner into or out of operative position. When the gin is in operation, the teeth 6 of the cleaner occupy a neutral position between the saws, but when it is required to remove the gum or other matter adhering to the saws, the latter are rotated backward by the application of power to the pulley 4 and at the same time the lever 11 is moved to bring the teeth 6 into engagement with one side or the other of the saws to effect cleaning thereof. Should any of the saw teeth be bent out of line, the teeth of the cleaner coming in contact therewith will straighten, or aline, the bent teeth and thereby simultaneously with the cleaning operation effect an alining, or straightening of the teeth of the gin saws.

The cleaner is adjustably connected to the frame of the gin by means of plates 19, the latter having projections 8 near one end which enter the slots 7 of the plate 5, and being provided near its opposite end with slots 20 through which bolts 21, or like fastenings pass, so as to adjustably connect the plates 19 with the frame of the machine. The teeth 6 of the cleaner may be projected into the spaces between the saws 2 more or less by longitudinal adjustment of the plates 19, the latter being secured in adjusted position by re-tightening the bolts or fastenings 21.

A crank may be fitted to the shaft 1 in any manner as indicated at 13 in Fig. 1 for rotating the saws backward when it is required to clean the same.



Having thus described the invention, what is claimed as new is:

1. In a cotton gin and in combination with the gin saws, a cleaner, plates supporting the cleaner, a pin and slot connection between the cleaner and plates to admit of longitudinal movement of the former, and means for moving the cleaner.
2. In a cotton gin and in combination with the gin saws, a cleaner provided with a series of teeth to enter the space between the gin saws, plates supporting the cleaner and adjustably connected to the frame of the gin whereby

the cleaner may be adjusted to project the teeth into the spaces between the gin saws to a greater or less extent, a pin and slot connection between the cleaner and plates to admit of a longitudinal movement of the former, and means for moving the cleaner. 15

In testimony whereof I affix my signature in presence of two witnesses.

McDUFFEE BRADFORD.

Witnesses:

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W. C. NEWMAN.