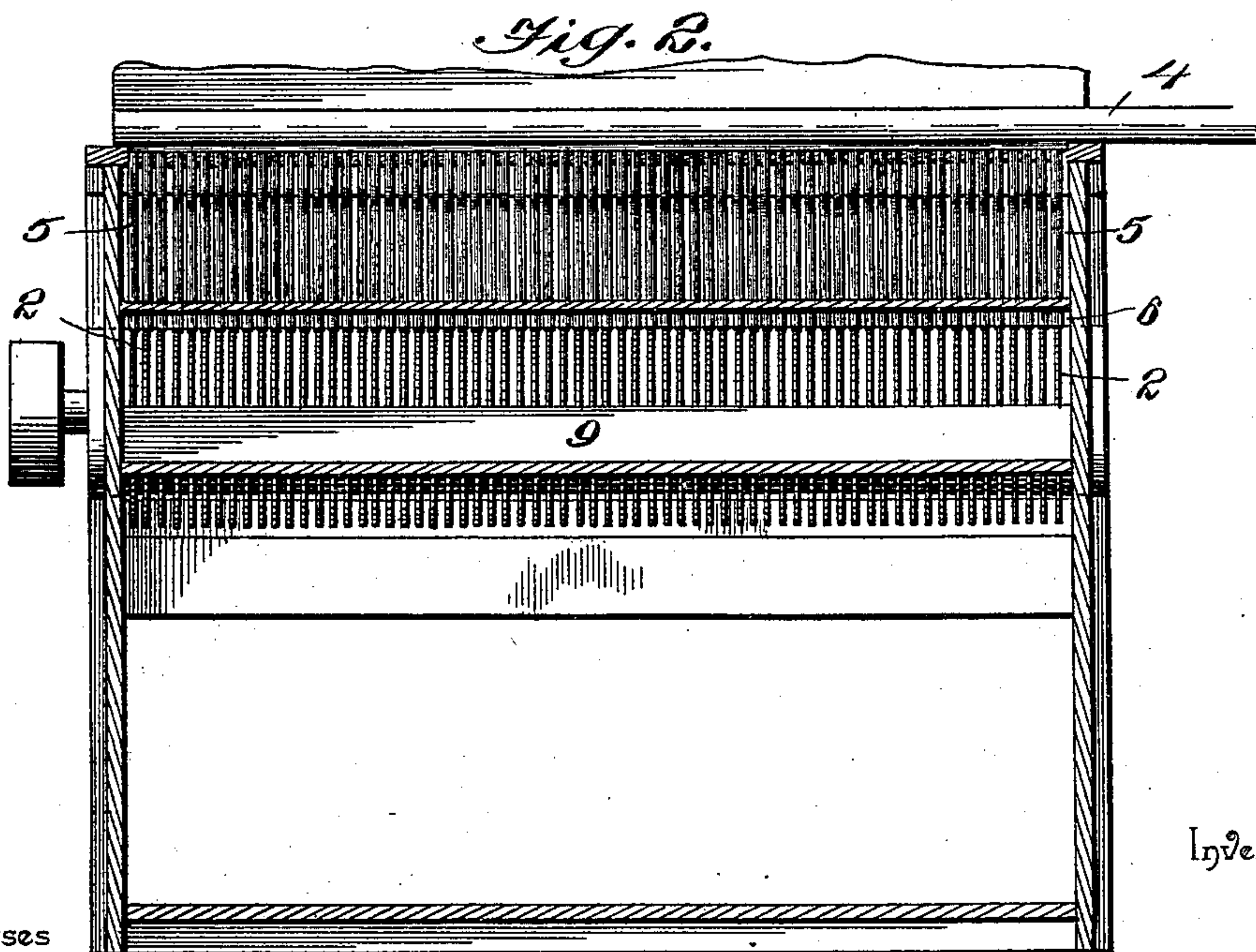
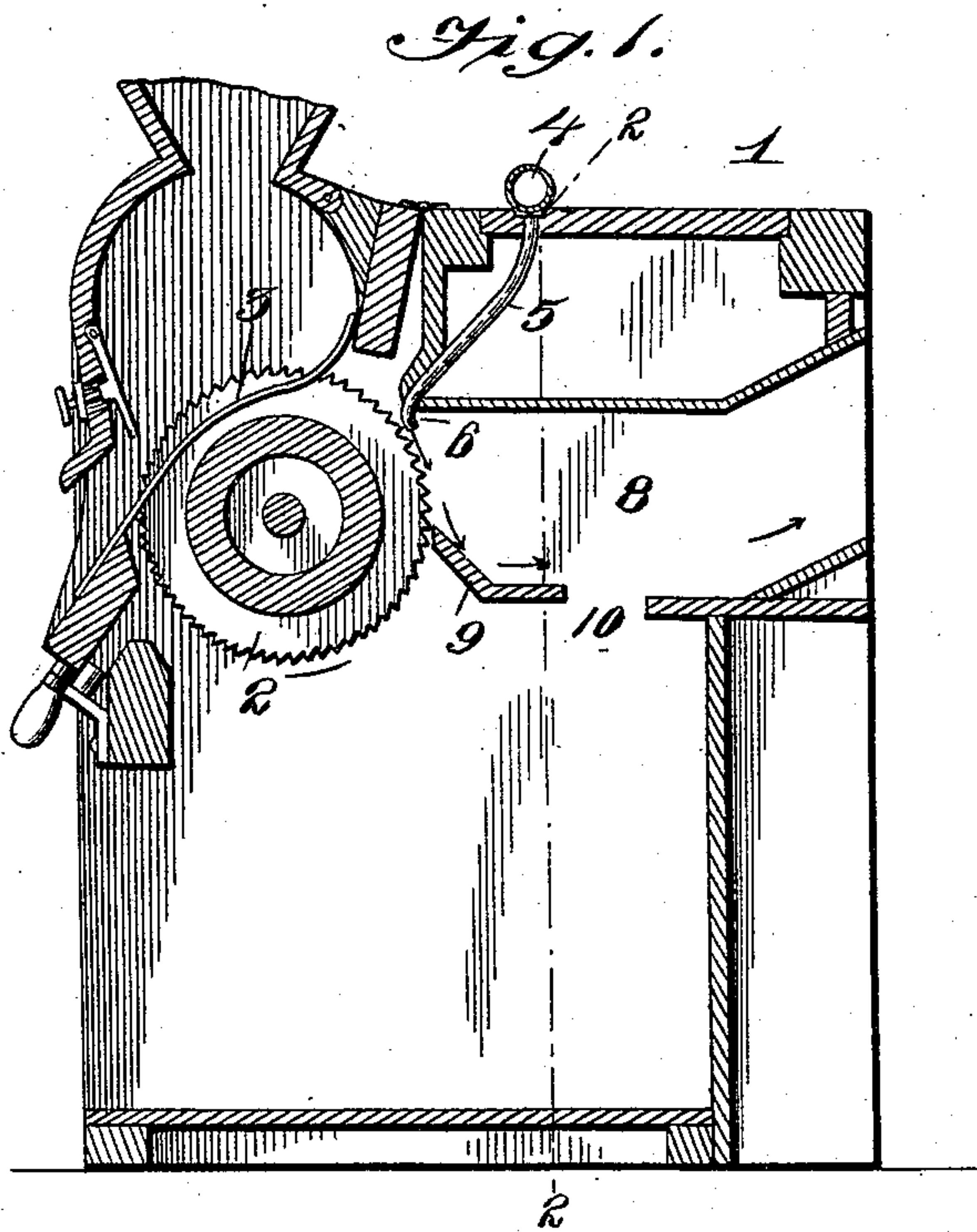


(No Model.)

T. J. GRIFFIN.
COTTON GIN.

No. 581,069.

Patented Apr. 20, 1897.



Inventor

Witnesses

H. Koert
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By his Attorneys,

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UNITED STATES PATENT OFFICE.

THOMAS J. GRIFFIN, OF GALVESTON, TEXAS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF FOUR-FIFTHS TO H. RIEDEL, ED. MCCARTHY, AND N. WEEKS, OF SAME PLACE.

COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 581,069, dated April 20, 1897.

Application filed January 20, 1896. Serial No. 576,217. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. GRIFFIN, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented a new and useful Cotton-Gin, of which the following is a specification.

This invention relates to cotton-gins; and it has for its object to provide a new and useful saw-cleaning attachment for gins of that character employing a cylinder or gang of saws.

To this end the main and primary object of the invention is to dispense with the use of the ordinary cleaning-brush which is usually arranged at one side of the saws for the purpose of cleaning the lint or fiber therefrom. The employment of rapidly-revolving cleaning-brushes in connection with the saws of the gin is attended with many disadvantages, such, for instance, as the necessity of a constant readjustment of the brush with relation to the saws and the great risk of fire caused by the intense friction resulting from the rapid rotation of the saw-bristles in contact with the saws.

The present invention therefore provides simple and efficient means for positively relieving the saws from the fiber or lint clinging thereto without any of the objectionable results incident to the employment of the cleaning-brush.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a sectional view of a cotton-gin equipped with the herein-described saw-cleaning attachment. Fig. 2 is a transverse sectional view on the line 2 2 of Fig. 1.

Referring to the accompanying drawings, 1 designates the casing of an ordinary saw cotton-gin having therein the usual cylinder or gang of gin-saws 2, arranged closely together and operating in connection with the ordinary saw-ribs 3 to provide for tearing or separating the lint from the seed in the usual manner.

rating the lint from the seed in the usual manner.

In the present invention the cleaning-brush, which is usually arranged at one side of the saws for the purpose of cleaning the lint or fiber therefrom, is dispensed with, and in place thereof a blast of air is employed to effect the necessary cleaning of the saws. This blast of air is supplied through a blast-supply pipe 4, which is preferably arranged on top of the gin-casing and may be used in connection with a battery of gins, said blast-supply pipe 4 being conveniently connected with a suitably-arranged blast-fan which forces air under pressure through the pipe.

The blast-supply pipe 4 on top of the gin casing or stand has fitted to the under side thereof the upper ends of a series of depending blast-nozzles 5, being arranged in the same number as the saws 2 of the gin, so that a single blast-nozzle will operate in connection with each separate saw. The blast-nozzles 5 are forwardly inclined and are provided at their lower ends with the curved jet-tips 6, which lie directly beyond and adjacent to the peripheries of the saws, so that the air blast or current will be forced directly on the teeth of the saws to provide for positively blowing the clinging lint or fiber off of the same and into the lint-discharge flue 8, built within the gin casing or stand and leading from a point directly at the rear side of the saws out to one side of the casing or stand.

The curved jet-tips 6 at the lower extremities of the blast-nozzles 5 are disposed in a position adjacent to the peripheries of the saws and directly at the upper side and inner end of the discharge-flue 8, so that the blast of air will be directed downward against the teeth of the saws and against the inclined deflecting-board 9, arranged transversely at the lower side and inner end of the discharge-flue 8. The inclined deflecting-board 9 is disposed in very close proximity to the peripheries of the saws 2, in a plane in direct alignment with the disposition of the curved jet-tips 6, so that the blast of air from the jet-tips and the lint carried therewith will strike the upper side of the said board and will be

deflected outward through the discharge-flue 8, from whence the lint is carried to the condensers in the usual way.

At a point intermediate of its inner and 5 outer ends the substantially horizontal discharge-flue 8 is provided in its lower side with a bottom mote-escape opening 10, which allows sand and other motes loosened from the lint to find its escape out through the discharge-flue and into the bottom of the casing 10 or stand of the gin.

In connection with the operation of the blast-nozzles 5 it is to be noted that it is very important that a blast of air is forced directly 15 on the teeth of each saw, because it will be readily understood that since each saw pulls its own body of cotton through the ribs 3 it is necessary that a separate blast be directed on the teeth of each saw in order to provide 20 for properly removing the clinging lint or fiber therefrom, which result could not be accomplished by an arrangement of the blast-nozzles between the saws. Furthermore, the disposition of the deflecting-board 9 not only 25 provides for the proper outward deflection of the air and cotton, but also allows the blast of air from each jet-tip 6 to reach a number of teeth on each saw and thereby obtain a lifting purchase behind the lint or fiber clinging thereto, as will be readily understood by 30 those skilled in the art.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention. 35

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In a cotton-gin, the combination with the 40 casing and the gin-saws therein; of a discharge-flue arranged within the casing and provided at its lower side and extreme inner end with an inclined deflecting-board having its upper edge disposed in close proximity to 45 the peripheries of the saws, a suitably-arranged blast-supply pipe, and a series of blast-nozzles depending from said pipe and having at their lower ends curved jet-tips disposed in close proximity and tangentially to the 50 toothed peripheries of the saws and in direct line with the upper side of said deflecting-board whereby the blast will skirt a number of teeth on the saws before reaching said board, substantially as set forth. 55

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS J. GRIFFIN.

Witnesses:

JOHN H. SIGGERS,

HAROLD H. SIMMS.