

H. A. HICKS.
GIN SAW CLEANER.
APPLICATION FILED AUG. 7, 1911.

1,032,334.

Patented July 9, 1912.

2 SHEETS-SHEET 1.

Fig. 1.

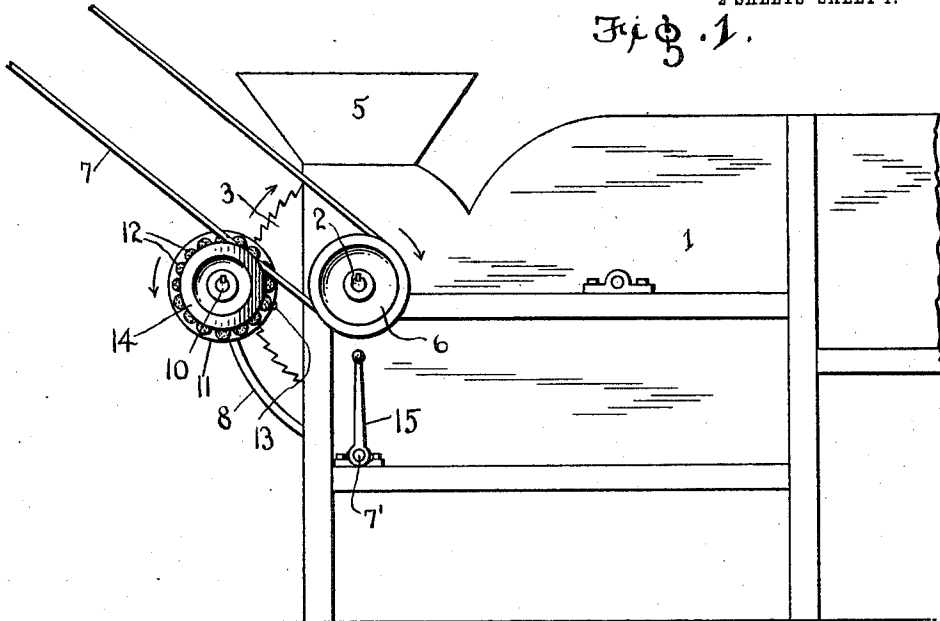
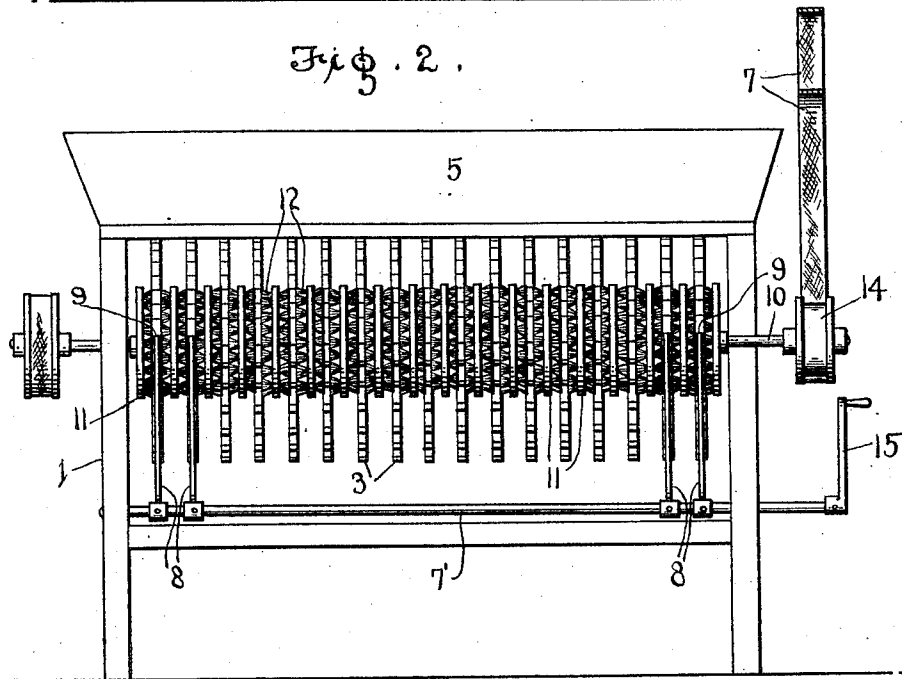


Fig. 2.



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2 SHEETS-SHEET 2.

Fig. 3.

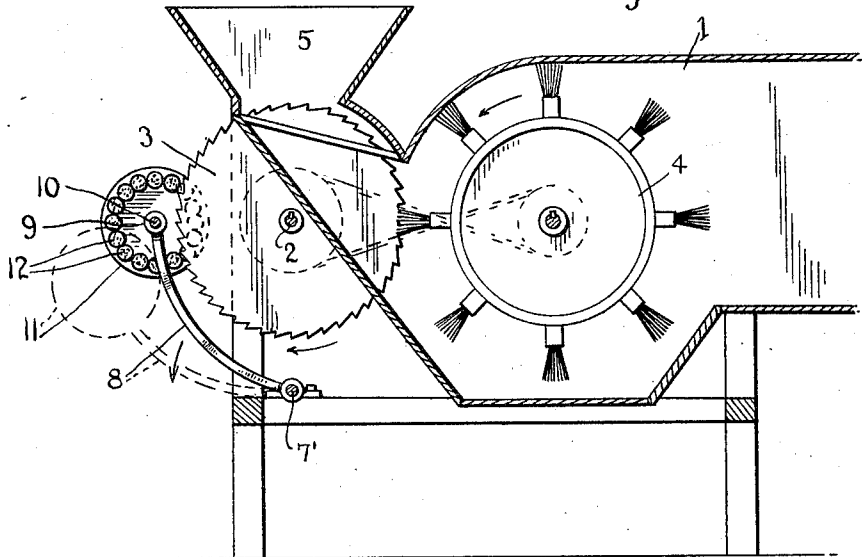


Fig. 4.

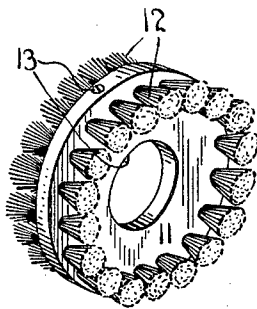


Fig. 5.

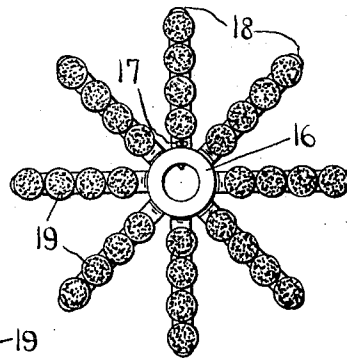
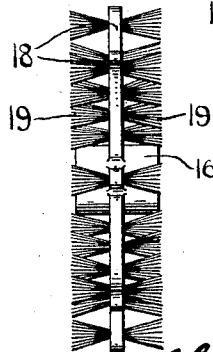


Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY AUGUSTA HICKS, OF GERTY, OKLAHOMA.

GIN-SAW CLEANER.

1,032,334.

Specification of Letters Patent.

Patented July 9, 1912.

Application filed August 7, 1911. Serial No. 642,657.

To all whom it may concern:

Be it known that I, HENRY A. HICKS, citizen of the United States, residing at Gerty, in the county of Hughes and State of Oklahoma, have invented certain new and useful Improvements in Gin-Saw Cleaners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in gin saw cleaners.

One object of the invention is to provide a device of this character having an improved construction and arrangement of saw cleaning devices adapted to be swung into and out of operative engagement with the saws to clean therefrom wet cotton or other matter which may adhere thereto, without stopping or interfering with the operation of the gin.

Another object is to provide an attachment of this character which is simple, strong, durable and inexpensive in construction, efficient in operation and which may be readily applied to the ordinary or common form of gin.

With these and other objects in view the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings: Figure 1 is a side view of a portion of a cotton gin showing the application of the invention thereto; Fig. 2 is a front end view thereof; Fig. 3 is a vertical longitudinal sectional view of the same; Fig. 4 is a detail perspective view of one form of my improved saw cleaning brushes; Fig. 5 is a side view of a modified form of cleaning brush; Fig. 6 is an edge view of the brush shown in Fig. 5.

Referring more particularly to the drawings, 1 denotes a portion of a cotton gin in which is revolubly mounted a saw shaft 2 having arranged thereon the usual series of gin saws 3 which co-act with the brushing cylinder 4 for removing the seeds and disintegrating the cotton fed thereto from the hopper 5 of the machine. On one end of the shaft is fixedly mounted a drive pulley 6 with which is engaged a drive belt 7 whereby the machine is operatively connected with any suitable power for operating the gin. These parts may be of the

usual or any suitable construction and form no part of the present invention.

My improved cleaning mechanism comprises a rock shaft 7' which is mounted in suitable bearings in the frame of the machine and to which near its ends are secured outwardly and upwardly curved brush supporting arms 8 having on their upper ends bearing sleeves 9 in which is revolubly mounted a brush supporting and operating shaft 10. On the shaft 10 are adjustably secured a series of circular saw cleaning devices, said devices being shown in the first figures of the drawing as consisting of circular disks 11 to one or both sides of which are secured an annular series of laterally projecting tufts of suitable brush material, said material being preferably in the form of fine stiff wire bristles. The tufts when thus arranged form annular brushes 12 which when the disks are secured in proper position on the shaft and are swung thereby to an operative position will engage the opposite sides of the saws and remove therefrom any cotton or other matter which may have adhered to and accumulated thereon. The disks 11 are secured to and held in position on the shaft by set screws or other suitable fastening devices 13 which are inserted through the edges of the disks as shown.

On one end of the shaft 10 is fixedly mounted a flanged pulley 14 which when the shaft 10 and brushes are swung upwardly to an operative position is brought into frictional engagement with the lower stretch of the drive belt 7 whereby the movement of said belt is applied to the pulley thereby driving the shaft 10 and the brushes thereon in the proper direction for cleaning wet cotton or other material from the teeth of the saws.

Any suitable means may be employed for rocking the shaft 7' to bring the cleaning brushes into and out of operative position, said means being here shown and preferably consist of a crank handle 15 which is secured to one end of the shaft as shown. When the cleaning mechanism is swung upwardly into operative engagement with the saws, said mechanism is held in this position by means of the crank handle 15 and when in an inoperative position the cleaning mechanism is supported by the engagement of the arms 8 with one of the cross bars of the supporting frame of the machine as clearly shown in dotted lines in Fig. 3 of the drawings.

In Figs. 5 and 6 of the drawings is shown a slightly modified form of cleaning devices, said devices being shown in this instance as consisting of a central hub 16 which is adapted to be engaged with the shaft 10 and secured in position thereon by a stop screw 17. On the hub 16 is arranged a series of radially projecting brush supporting arms 18 which may be of any suitable length and on the opposite sides of which are arranged brushes 19 consisting of series of tufts formed of wire bristles.

By constructing and arranging my improved cleaning mechanism as herein shown and described it will be seen that the same may be readily swung into and out of engagement with the saws for the purpose of cleaning the latter while the gin is in operation without interfering with the ginning of the cotton.

From the foregoing description taken in connection with the accompanying drawings the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various 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 the invention as claimed. 30

Having thus described my invention, what I claim is:

The combination with a gin saw comprising a suitable frame, a saw arbor journaled therein, saws on the arbor, a belt pulley on the arbor and a driving belt engaged on said pulley, of a cleaning attachment comprising a rock shaft journaled in the frame, means for oscillating it manually, an arm rigidly secured to the rock shaft near each end, a shaft journaled in the outer ends of said arms, cleaning brushes on the shaft, and a belt pulley on the brush shaft, the relative location and size of the parts being such as to simultaneously bring the brushes and brush shaft pulley into and out of engagement, respectively, with the saws and the lower stretch of the driving belt of the saw arbor. 40 45 50

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY AUGUSTA HICKS.

Witnesses:

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