

No. 656,206.

Patented Aug. 21, 1900.

B. F. McGAW.  
GIN SAW CLEANER.

(Application filed May 21, 1900.)

(No Model.)

Fig. 1.

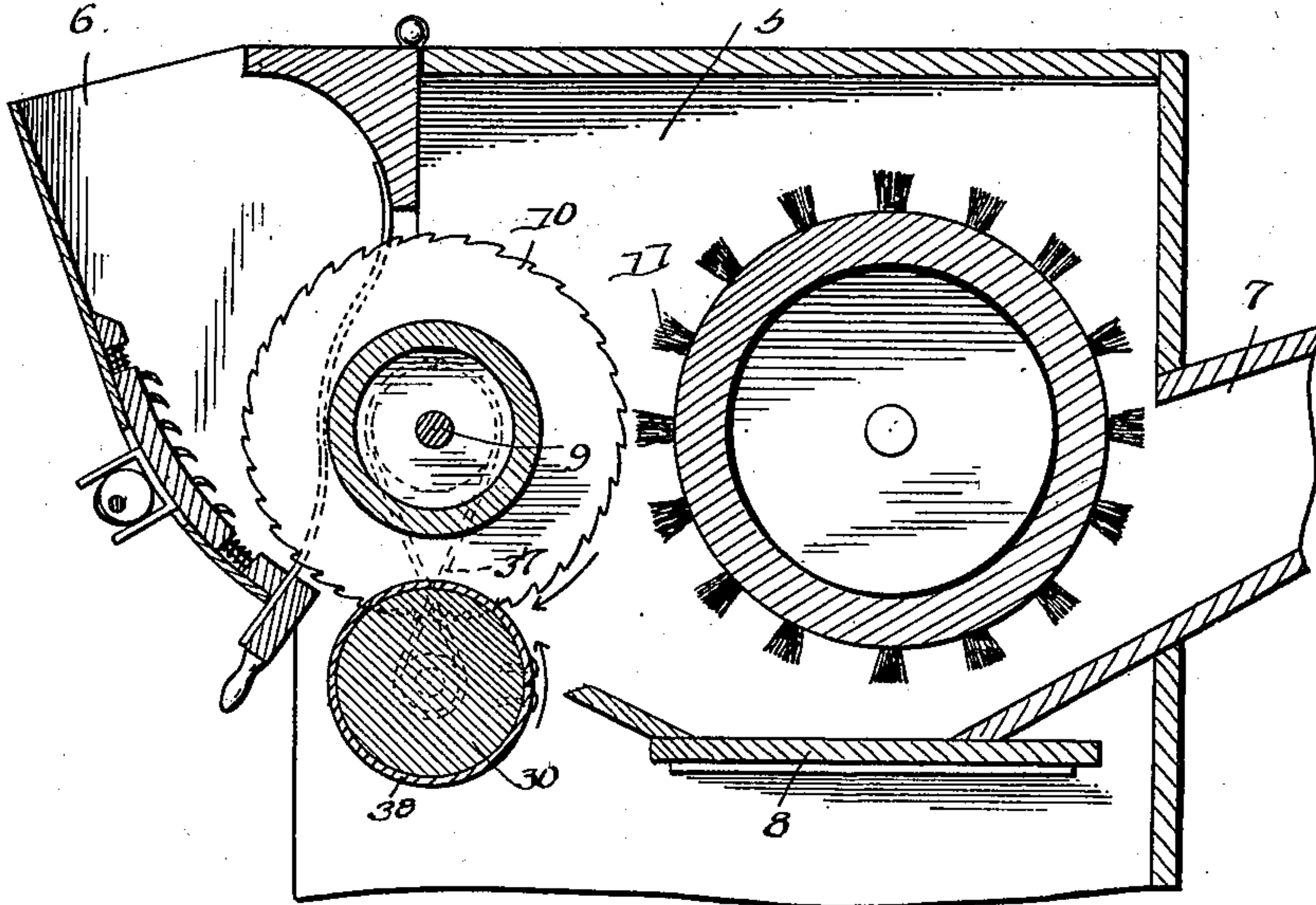


Fig. 2.

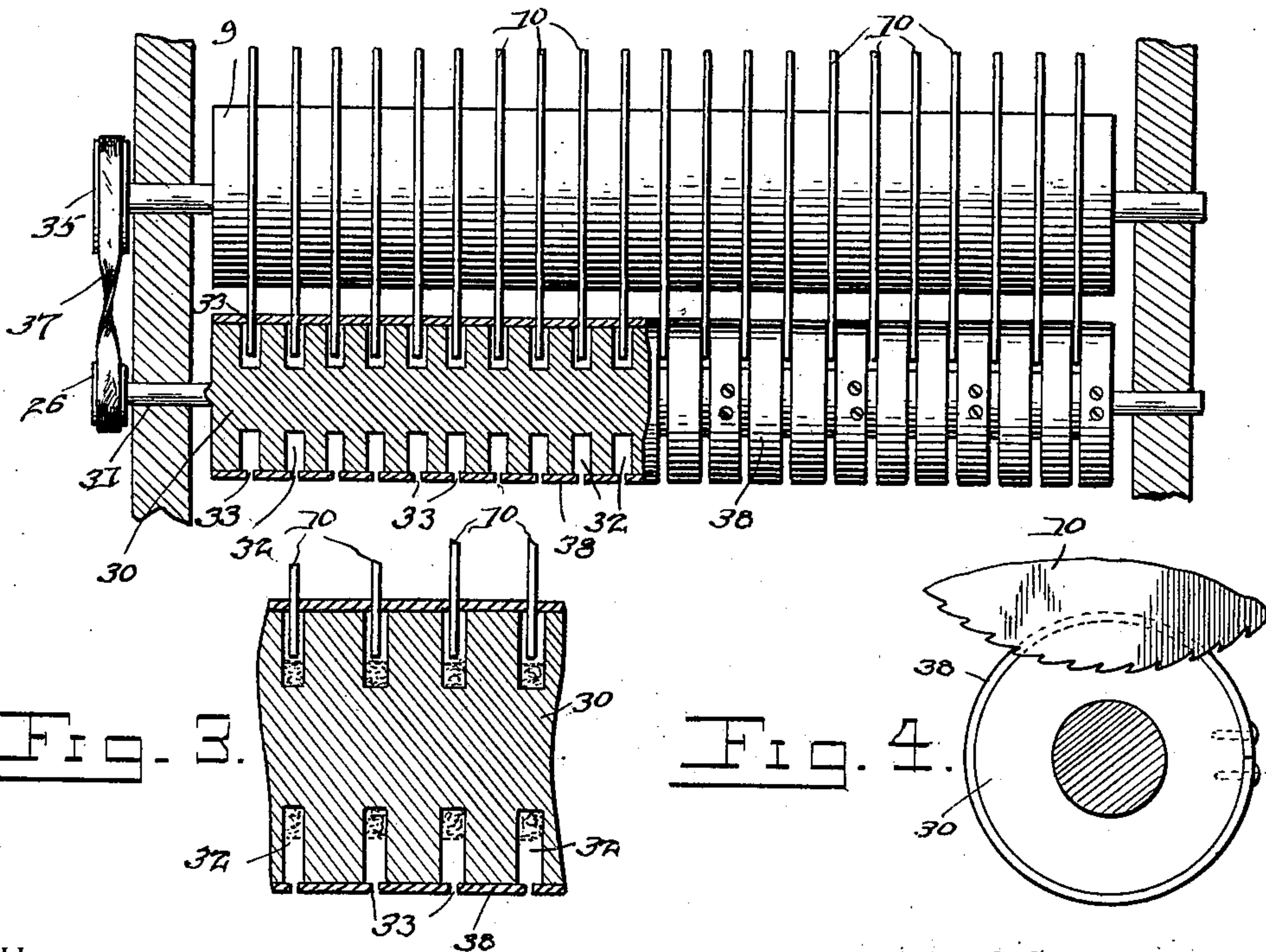


Fig. 3.

Fig. 4.

Witnesses  
F. E. Alden.  
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# UNITED STATES PATENT OFFICE.

BENJAMIN F. MCGAW, OF COLUMBIA, TENNESSEE.

## GIN-SAW CLEANER.

SPECIFICATION forming part of Letters Patent No. 656,206, dated August 21, 1900.

Application filed May 21, 1900. Serial No. 17,428. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. MCGAW, a citizen of the United States, residing at Columbia, in the county of Maury and State of Tennessee, have invented a new and useful Gin-Saw Cleaner, of which the following is a specification.

This invention relates to cotton-gins, and more particularly to that class including a series of saws to which the cotton is fed and by means of which it is ginned, the object of the invention being to provide a construction wherein the saws will be cleaned, this cleaning means being so constructed that the parts will be durable, so as not to wear so rapidly as usual.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a central vertical section taken through the gin and showing the saws at the base of the hopper and the means for cleaning them. Fig. 2 is a view, partly in elevation and partly in section, showing the cleaning-roller and the saws in their proper operative relation. Fig. 3 is an enlarged detail section showing a portion of the cleaning-roller and portions of saws engaged therewith and illustrating the cleaning compound in the grooves of the cleaning-roller. Fig. 4 is a transverse section of the cleaning-roller, showing a portion of an engaging-saw in elevation.

Referring now to the drawings, 5 represents the gin-frame, having the usual structure, and at one end of which is formed a hopper 6 and at the other end an exhaust-chute 7, the latter reaching to the usual bottom boards 8.

Mounted in the sides of the gin-frame and at the lower end of the hopper is a saw-shaft 9, upon which is mounted a plurality of equidistant and mutually-parallel saws 10, adapted for rotation with the shaft in any desired manner. Behind the saws is the usual brush 11.

In order to clean the saws and prevent clogging of the cotton in the teeth thereof, there is provided a cleaning-roller 30, mounted upon the shaft 31, journaled in the gin-frame, and which roller has a plurality of peripheral grooves 32, corresponding to the number of the saws, and into which grooves the edges of the saws project. In the manufacture of

this roller the peripheral grooves are first formed, and a sheet of leather 38 is then secured over the roller in the form of a sheath or casing, and which leather sheath or casing is cut in line with the peripheral grooves and midway between the sides thereof to form slots 33, through which the saws project into the grooves 32. These slots 33 are of such widths that the edges thereof will lie closely against the side faces of the saws, as shown in Figs. 2 and 3. This cleaning-roller is rotated at a higher rate of speed than the saws and in an opposite direction thereto, so that the contacting portions of the saws and roller will travel in the same direction. By then rotating the cleaning-roller at a higher speed than the saws the edges of the leather bands which result from the slitting of the casing will move the attached cotton forwardly of the teeth and free of the extremities thereof. In order to secure the proper speed and direction of rotation of the cleaning-roller with respect to the saws, a large pulley 35 is fixed upon the shaft 9 and a small pulley 26 upon the shaft 31. These pulleys are connected by means of a crossed belt, (indicated in dotted lines at 37.)

In order to prevent excessive wear of the leather bands 38 at the edges thereof, the peripheral grooves 32 have a mixture of pumice-stone and oil placed therein, and into which mixture the saws dip, these bands 38 being the bands referred to above as resulting from the slitting of the leather casing of the cleaning-roller. As the saws pass into and out of the slots 33 they act to coat the edges of the bands with pumice, thus vastly increasing the durability of the edges.

With this construction it will be seen that the saws will be effectively cleaned, while the cleaning apparatus will have a life of maximum length, and it will be understood that in practice various modifications of the structure shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A gin-saw cleaner comprising a roller having peripheral grooves to receive the saws, and continuous bands of pliable material fixed upon the roller and projecting part way over

the grooves to engage their edges with the faces of the saws.

2. A gin-saw cleaner comprising a roller having peripheral grooves adapted to receive  
5 the teeth of the saws, and bands of pliable material at the sides of the groove and extending part way thereover to engage their edges with the faces of the saws, said grooves having abrasive material therein.  
10 3. A gin-saw cleaner comprising a roller having peripheral grooves adapted to receive

the teeth of the saws, and bands of pliable material at the sides of the grooves and extending part way thereover, said grooves having oil and pumice therein.

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

BENJAMIN F. MCGAW.

Witnesses:

P. W. HARLAN,  
H. E. RITTER.



It is hereby certified that Letters Patent No. 656,206, granted August 21, 1900 upon the application of Benjamin F. McGaw, of Columbia, Tennessee, for an improvement in "Gin-Saw Cleaners," was erroneously issued to said McGaw as owner of said invention; that said Letters Patent should have been issued to the inventor *and James M. Parker and Zachariah A. Parker*, jointly, said James M. Parker and Zachariah A. Parker, being assignees of one-half interest, as shown by the record of assignments in this office; and in the heading the words and figures "Application filed May 21, 1900, Serial No. 17,428," should read *Original application filed October 28, 1899, Serial No. 735,095. Divided, and this application filed May 21, 1900. Serial No. 17,428*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 18th day of September, A. D., 1900.

[SEAL.]

F. L. CAMPBELL,  
*Assistant Secretary of the Interior.*

Countersigned:

C. H. DUELL,  
*Commissioner of Patents.*