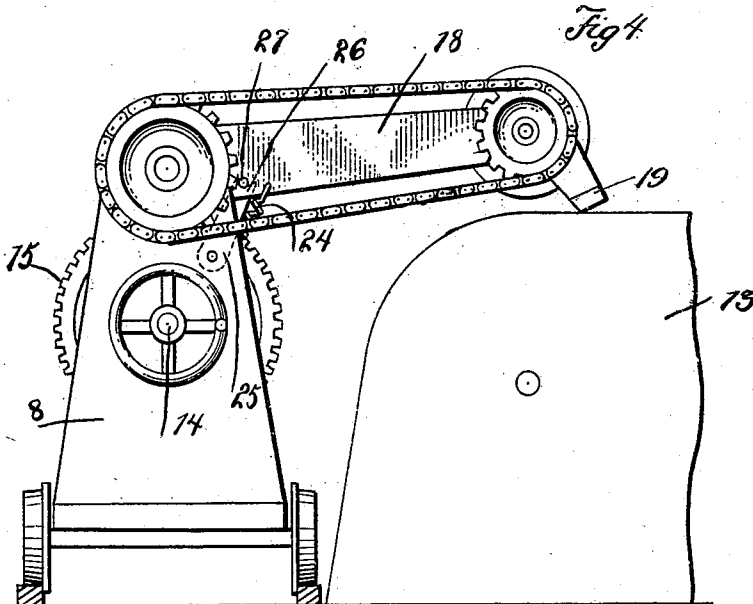
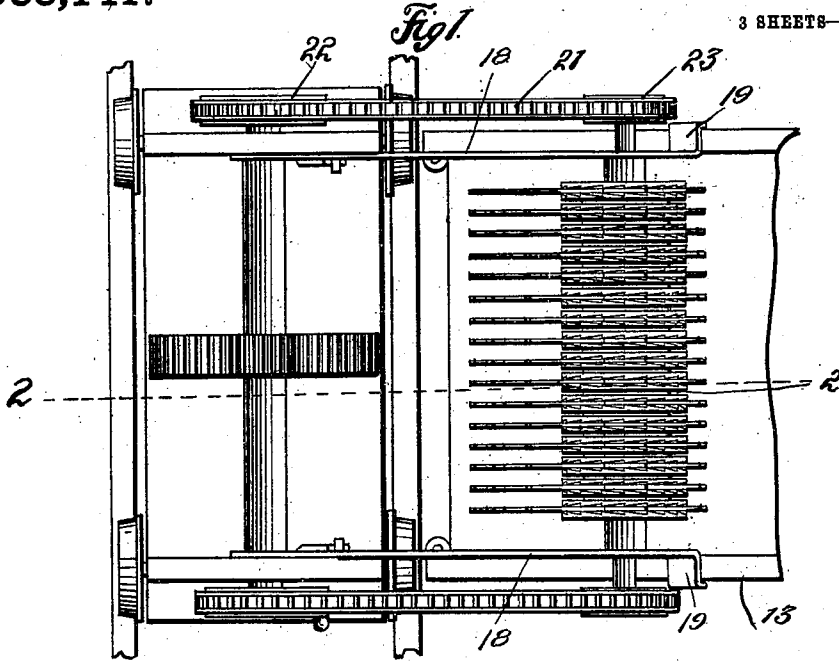


J. G. PILLOW.
GIN SAW CLEANER.
APPLICATION FILED SEPT. 8, 1909.

988,141.

Patented Mar. 28, 1911.

3 SHEETS-SHEET 1.



James G. Pillow. ^{Inventor}

Witnesses

Frank B. Hoffman
Wm. Bagger

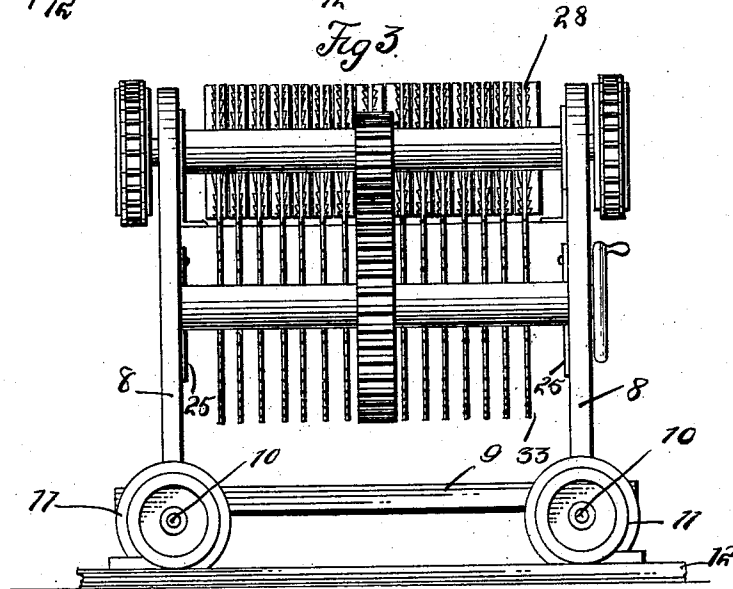
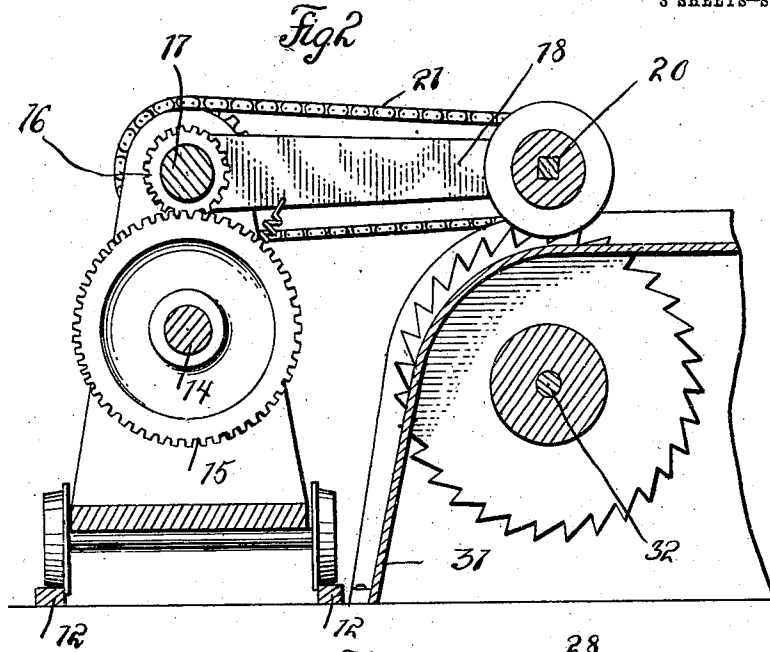
Victor J. Evans ^{Attorney}

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3 SHEETS—SHEET 2.



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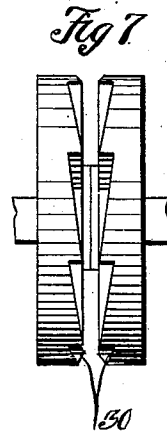
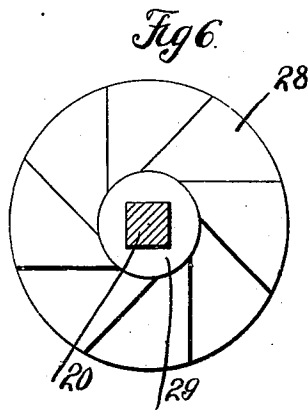
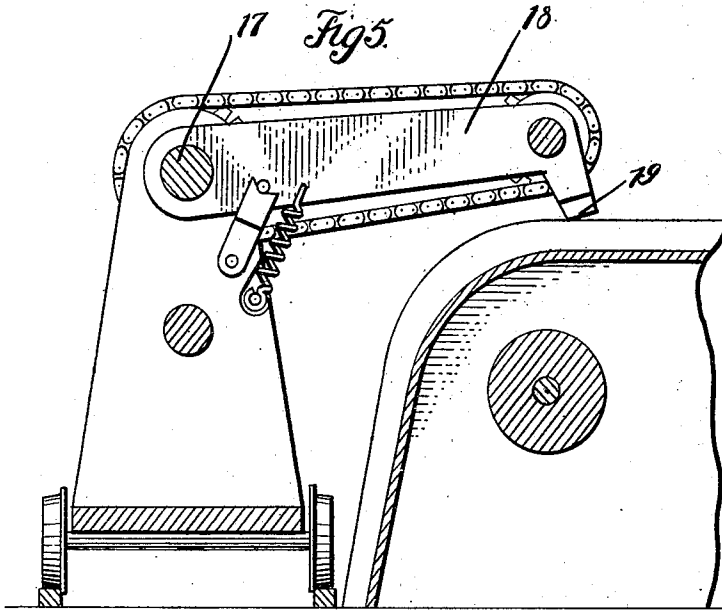
By *Victor J. Evans*
Attorney

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3 SHEETS-SHEET 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES G. PILLOW, OF COLEMAN, TEXAS, ASSIGNOR OF ONE-HALF TO C. F. FREEMAN, OF COLEMAN, TEXAS.

GIN-SAW CLEANER.

988,141.

Specification of Letters Patent.

Patented Mar. 28, 1911.

Application filed September 8, 1909. Serial No. 516,765.

To all whom it may concern:

Be it known that I, JAMES G. PILLOW, a citizen of the United States, residing at Coleman, in the county of Coleman and State of Texas, have invented new and useful Improvements in Gin-Saw Cleaners, of which the following is a specification.

This invention relates to gin saw cleaners and it has for its objects to provide mechanical means of a simple and convenient construction whereby the gin saws may be effectively cleansed from lint, gum and impurities of all kinds caused to adhere thereto when cotton in a damp or gummy state is being ginned.

A further object of the invention is to provide a simple and effective gin saw cleaning machine which may be conveniently moved from one to another of a battery of gins which may thus be successively operated upon.

Further objects of the invention are to simplify and improve the construction and operation of this class of devices.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being however, understood that no limitation is necessarily made to the precise structural details therein exhibited but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawings: Figure 1 is a top plan view of the improved gin saw cleaning machine showing the same in operative relation with respect to a cotton gin, a portion of which has been shown. Fig. 2 is a vertical sectional view taken on the plane indicated by the line 2—2 in Fig. 1. Fig. 3 is a front elevation of the device as it appears in Fig. 1. Fig. 4 is an end view showing the machine in an inoperative position with relation to a gin, a portion of the casing of which has been shown. Fig. 5 is a vertical sectional view showing the machine in an inoperative position. Fig. 6 is a side view enlarged showing the working face of one of

the cleaning disks. Fig. 7 is a plan view, 55 enlarged, showing a pair of the cleaning disks in operative relation.

Corresponding parts in the several figures are denoted by like characters of reference.

The frame of the improved gin cleaning machine comprises a pair of uprights 8—8 60 which for convenience are mounted upon a base 9 supported upon axles 10 having transporting wheels 11 adapted to move upon track rails 12 that are transversely disposed 65 with relation to a battery of gins, the casing of one of which is shown at 13. The uprights 8 afford bearings for a main shaft 14 carrying a spur wheel 15 that meshes with a pinion 16 upon a countershaft 17 which is 70 likewise supported for rotation in the uprights 8. Arms 18 which are pivotally mounted upon the shaft 17 are provided with terminal brackets 19 adapted to rest upon the sides of the gin case, and said arms are 75 provided with bearings in which a shaft 20 is supported for rotation; motion being transmitted to said shaft 20 by means of a chain or chains 21 engaging sprocket wheels 22 and 23 upon the shafts 17 and 20 respec- 80 tively. Tension springs 24 connect the arms 18 with the uprights 8, the object of said springs being to force the free ends of the arms in a downward direction; said arms may however, be supported in a raised or 85 elevated position by means of turn buttons 25 pivoted upon the uprights 8 and provided at their outer extremities with recesses 26 adapted to engage studs 27 upon the arms 18, as will be clearly seen in Fig. 4 of the 90 drawings.

The shaft 20 carries a plurality of cleaning disks 28 which are arranged in pairs with their working faces opposed to each other; said cleaning disks being firmly 95 mounted or secured upon the shaft 20 a portion of which may, for this purpose, be of non-circular cross section as will appear in Fig. 6. Each of the disks 28 is provided upon its working face with a hub portion 29, 100 said hub portions abutting upon each other for the purpose of spacing the disks the requisite distance apart, the distance being approximately equal to or slightly in excess of the thickness of an ordinary gin saw. 105 The number of pairs of disks should be equal to the number of saws in the gins that are to be operated upon, and said pairs of disks

are to be so disposed upon the shaft 20 that a gin saw will be included between the disks of each pair. The working faces of the disks 28 are provided with ratchet-shaped projections or teeth 30 the side walls of which are preferably tangential to a circle of smaller diameter than the disk.

31 designates the frame of a gin; 32 is the saw shaft; and 33 designates the saws.

10 From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. The improved gin saw cleaning machine may be readily moved to a position in front of the gin that is to be operated upon; the arms carrying the shaft upon which the cleaning disks are mounted being 15 meanwhile supported in a somewhat elevated position by means of the turn buttons 25. When the machine has been placed into proper position, the turn buttons are disengaged from the arms 18 which are thus permitted to drop, being forced downwardly by the action of the springs 24. Each gin saw will now be engaged by a pair of cleaning disks which are now rotated at the desired rate of speed, motion being transmitted to the 20 shaft 20 carrying the cleaning disks from the shaft 17 which, in turn, is driven from the shaft 14. By gradually rotating the saw carrying shaft, the entire circumference of each saw will be gradually exposed to the action of the cleaning disks, the latter operating to remove any obstructing matter that may have settled upon or between the teeth in such a manner as to adhere to the latter.

Ordinarily gin saws have been cleaned by 40 picking or removing the obstructing matter from and between the teeth one by one, and the process has obviously been a slow one, and much time has been lost in consequence of keeping the gin idle during the cleaning 45 operation. By the present invention, the saws of a gin may all be cleaned simultaneously and in an extremely short time and without the expenditure of more labor than is required to place the machine in position 50 and afterward to remove it. The shaft 14 may be driven by hand, or motion may be transmitted thereto from a driven shaft of the gin or from the countershaft or line shaft from which the gin is driven.

55 Having thus described the invention, what is claimed is—

1. In a gin saw cleaner, a frame comprising a pair of uprights, a shaft supported for rotation therein, arms pivoted upon the 60 shaft, a shaft supported for rotation in the arms, cleaner disks upon the latter shaft, means for transmitting motion from the arm-carrying shaft to the disk-carrying shaft, means for forcing the free ends of the 65 arms in a downward direction, and means

independent of the arms to support them in a raised position against the tension of the down-forcing means.

2. In a machine of the character described, supporting rails adapted to be disposed 70 transversely in front of a gin, a wheeled structure movable upon the rails and including a pair of uprights, a shaft supported for rotation in the uprights, arms pivoted upon said shaft, a shaft supported for rotation 75 in the arms, cleaner disks supported in pairs upon the latter shaft, means for transmitting motion from the arm-carrying shaft to the disk-carrying shaft.

3. In a device of the character described, 80 a movably supported frame including a pair of uprights, a main shaft and a counter shaft having intermeshing gears supported for rotation in the uprights, arms pivoted upon the counter shaft, a shaft supported for rotation 85 in the arms and carrying a plurality of cleaner disks arranged in pairs with their working faces opposed, and means for transmitting motion from the arm-carrying shaft to the disk-carrying shaft. 90

4. In a device of the character described, a frame including a pair of uprights, a shaft supported for rotation in the uprights, arms pivoted upon the shaft and having terminal 95 brackets adapted to be supported upon the sides of a gin casing, a shaft supported for rotation in the arms, cleaner disks mounted in pairs upon the latter shaft with their working faces opposed, and means for transmitting motion from the arm-carrying shaft 100 to the disk-carrying shaft.

5. In a device of the character described, a frame, a shaft supported for rotation therein, arms pivoted upon the shaft and having terminal brackets adapted to be supported 105 upon the sides of a gin casing, springs connecting the arms with the frame to force the free ends of said arms in a downward direction, means independent of said arms to support them in a raised position against the 110 tension of the springs, a shaft supported for rotation in the arms, means for transmitting motion to said shaft from the shaft upon which the arms are pivoted, and gin saw cleaning disks supported upon the shaft 115 journaled in the arms.

6. In a machine of the character described, a frame, a driven shaft supported for rotation therein, arms pivoted upon the driven 120 shaft, a shaft supported for rotation in the arms, means for transmitting motion to the latter shaft from the driven shaft, and cleaning disks mounted in pairs upon the shaft supported for rotation in the arms.

7. In a machine of the character described, 125 a movably supported frame having a driven shaft, arms pivoted on said shaft, springs for actuating said arms in a downward direction, means independent of said arms to support them against the tension of the springs, 130

means connected with the arms for engaging a gin casing, a shaft supported for rotation in the arms, cleaner disks mounted in pairs upon said shaft with their working
5 faces opposed, and means for transmitting motion from the arm-carrying shaft to the disk-carrying shaft.

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

JAMES G. PILLOW.

Witnesses:

T. W. MARTIN,
D. W. WATSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
