(12) **United States Patent**
McCreight et al.

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(54) **GIN, COTTON**

(76) Inventors: **William McCreight; James McCreight**

William Mc Creight and James Mc Creight
Cotton Gin

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said William Mc Creight and James Mc Creight themselves of their improvement in the saw Gin for picking cotton

To all to whom these presents shall come Be it known that we William Mc Creight and James Mc Creight of the Town of Rowsborough Fairfield district State of So Carolina have invented certain new and useful improvements in the cotton saw gin & that the following is a full & exact description of the construction & operation of the said machine as improved by us The general appearance & operation of the machine as improved by us are not different from the common mode of constructing them but our improvements consist in affording great facilities in keeping them in order while in operation & in keeping them in repair at comparatively no cost or trouble. We claim as our improvements first a moveable breast second sliding ribs & third the centers of the brush & the grooves in which they turn. The breast is hung to the front of the gin with two hinges & can always be raised so as to get at the saws & relieve them when choaked with very little labour & without any risk of injuring the saws In the former mode of having a stationary breast when the saws were choaked, the whole top of the gin head had to be removed & even then & yet the saws were liable to injury & the operation of cleaning the saws was attended with much more delay than by this mode. The sliding ribs are fastened in the way now used to fasten them in the gin head, upon the transverse pieces called the slat bearers which are inserted into the mortises on each side of the gin head & confined there by screws which may at any time when the slat or ribs are worn at one place be taken out so as to permit the slat bearers to be let down in the mortises which are graduated so as to give the proper distance & to keep the slat bearers level. The distance which we have used as the proper one for each remove of the slat bearers has been 3/8 of an inch. The slats or ribs can in this mode be removed 4 or 5 times & each remove renders the slats as good as a new set of slats by the old mode of having them stationary when they were worn so as to let the saw & cotton thro' them they had to be all taken

taken out and laid by a Mechanic, by our improvement the hands who attend to the gin can remove them & remedy the inconvenience of their having worn too much. The spools by our improved mode are made of cast steel about four inches long & ⅞ of an inch square pointed at each end that when one point is worn the other may be used. They are held & tenoned on a piece of cast metal & confined with an iron clamp screw & cap. The centres are fixed in a cast metal ring which is fitted on the end of the brush cylinder & secured thereon with three wood screws there being a round hole in the middle of the ring to receive the centre which is fitted into it similar to the stopper of a decanter when worn it can be taken out and another inserted without altering the bearing of the brush. The three above described improvements we claim as our invention being calculated to make the cotton saw gin much more durable & more easily kept in order at a much less expense

Witnesses
John B. Wallace
Scott Gallbreath

Wm. McCreight
Jas. McCreight

E. L
C.J.W.

James Mc Cuaghet
Letters Patent

The schedule referred to in these Letters Patent, and making part of the same containing a description in the words of the said James Mc Cuaghet, himself of his improvement in the Reversed Cotton Gin

To all whom it may concern

Be it known that I James Mc Cuaghet of the town of Cunningham District of Abbeville in the state of South Carolina have invented certain new and useful improvements in the "Saw Gin Called Mc Cuaghets Reversed Cotton Gin" which are described as follows, reference being had to the annexed drawings of the same making part of this specification. The frame of the reversed gin consists of two sills (marked A in the annexed drawings) 2 feet 9 inches long of scantling 9 inches by 4 placed on their edge with a mortise through the center of each to receive two main posts marked B four feet 3 inches long of scantling 6 inches by 4 with a mortise one foot above the top of the sills to receive a rail the length of the frame of scantling 9 inches by 4 marked G. tenoned at the top to receive a cap marked D of scantling 6 inches by three. The rail & cap are mortised to receive the mortise marked C The posts to carry the brush are marked E. and let into the sills at one end two inches in one of the main posts and a screw bolt at the other end. The posts are 2 feet 4 inches above the sills of scantling 4 by 4 inches. The frame at the ends of the brush marked G. forms a bay across the brush, and for the feeding board to rest on. The hopper board is composed of two pieces of 1 inch plank curved out to the segment of a circle the lower edge fitted on the sloat the upper edge having saws inserted into it about one inch apart. The narrow piece of the hopper board is let down on the saws until it comes within 3 inches of the other piece both being made fast. The comb is made of sheet iron or steel 3 inches broad with notches opposite the saws, fastened on a board and standing nearly perpendicular working on an iron pin with a screw below to put the comb to or from the roll. I the feeding or hinged boards to which the slats are fastened. K. saw & brush. M. regulating screw and boxes of the brush. N.

N. fun Clog and board. P. hopper board. R. wing to set in the hopper board.
S. slats. T. comb. T. board to which the comb is fastened. U. iron pins on
which the comb turns. V. screws to set the comb. W. driving pulley.
The same funnel, saws, brush & gearing, are made in the usual manner.
The machine is driven by horse, steam or other power. The improvement
which I have made and desire to secure by Letters Patent consist principally,
in giving a direction to the rotation of the saws contrary to that of the common
gin, that is the saws turn towards the feed board instead of from it.
The advantages derived from this and the other improvements are 1st great portion of
the motes false seed, sand and trash being thus discharged before the picked
cotton reaches the current of air about the brush. the picked cotton consequently
passes cleaner from the gin, while on the other hand in the common gin a great
portion of sand, motes, false seed, and trash having to pass directly through the
current of air when the picked cotton is floating onward with it and in consequence
thereof a part of the cotton either sinks down with the trash or the trash rises and
passes with the cotton through the funnel. 2. The seed are discharged as soon
as picked, while in the common gin the seed has to pass round to where the seed
cotton is put in, and some seed is always covered that ought to be discharged. By which
means the seed is apt to be dropped in an irregular manner. 3 the weight of a large
roll of cotton lies directly on the saws which roll cannot be broken by over feeding
or a sudden jerk of the cog wheel while in the common gin the roll being more
to the rear of the saws is raised up and falls forward causing it to become hollow
and over feeding or a sudden jerk of the cog wheel breaks and often throws it out.
4. The picking in this machine being done on the descent of the saw a light and sub-
stance finding its way to the saws cannot remain there nor injure the teeth.
while in the common gin the hard substance separates from the roll and
lodging against the saws often destroys a number of the teeth and sometimes
the saws altogether are destroyed. 5. The hopper & finger board in the inventor's gin
is fixed and stationary having a crook and comb behind it which by pressing against
the roll when the gin is in motion brings off the seed freely and with great regular-
ity. while in the common gin the feed board being moveable rather lets the seed
out with too much cotton on it or by retaining the seed too long the cotton is
thereby ginned— thus occasioning a loss of cotton or a loss of time. 6. The sand, false

false seed, motes, much leaf and other trash go out with the seed and no good cotton is lost in any way: while in the common gin much cotton is wasted and lost and comparatively imperfectly cleaned from the causes before stated, which causes are entirely removed by the improvements now made on the cotton gin

Witnesses
James Calhoun
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Drawing

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