

(No Model.)

D. HAYNES.
COTTON GIN.

No. 524,170.

Patented Aug. 7, 1894.

Fig. 1.

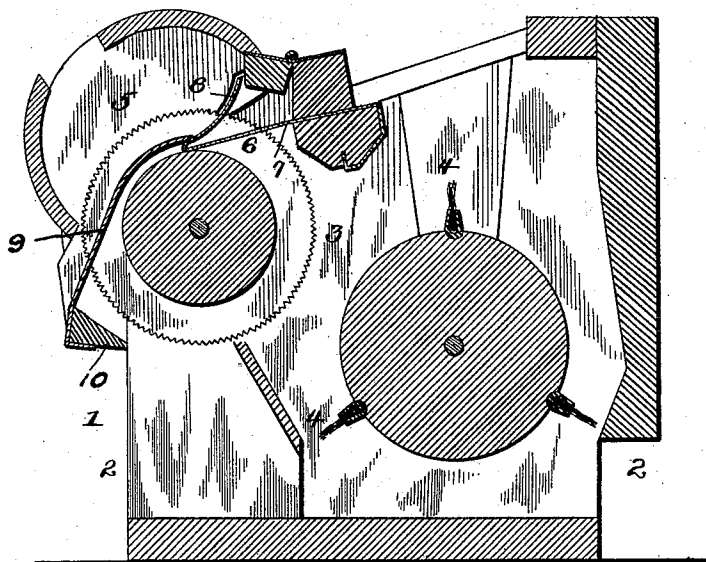
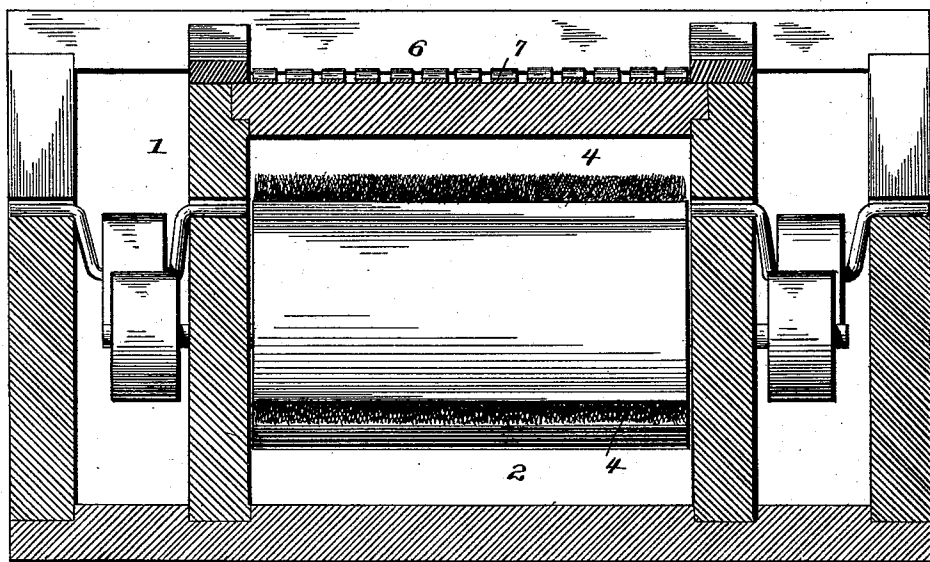


Fig. 2.

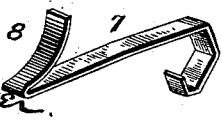


Witnesses

John Smith

Chas. B. Hyer

Fig. 3.



Inventor

Daniel Haynes

By his Attorney

John Wedderburn

UNITED STATES PATENT OFFICE.

DANIEL HAYNES, OF SEALY, TEXAS, ASSIGNOR OF ONE-HALF TO ROBERT WILLIAM HILL, OF ST. LOUIS, MISSOURI.

COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 524,170, dated August 7, 1894.

Application filed September 25, 1893. Serial No. 486,431. (No model.)

To all whom it may concern:

Be it known that I, DANIEL HAYNES, a citizen of the United States, residing at Sealy, in the county of Austin and State of Texas, have
5 invented certain new and useful Improvements in Cotton-Gins; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable
10 others skilled in the art to which it appertains to make and use the same.

This invention relates to cotton gins and has for its object to provide means for operating upon or permitting lint cotton, wool and other fibrous material to be ginned from a roll
15 by means of saws as is commonly done in working seed cotton without injury to the mechanism.

With these and other objects in view, the invention consists of the construction and arrangement of the several parts which will be
20 more fully hereinafter described and claimed.

In the drawings: Figure 1 is a sectional plan view of a machine embodying the invention. Fig. 2 is a longitudinal vertical section of the
25 same. Fig. 3 is a detail perspective view of one of the grate ribs.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

30 Referring to the drawings the numeral 1 designates a suitable frame or casing which is open at its opposite ends as at 2, and is supplied with a series of gin saws 3, having co-acting brushes 4, and is also provided with a
35 roll breast 5, that is positioned at a suitable elevation with relation to the grates and saws. The grates 6, are composed of a series of ribs 7, which are secured at one end as shown and extends forwardly between the saws near to
40 the upper limit of rotation of the same and have their forward ends provided with upwardly projecting rearwardly inclined arms 8. The form of these ribs may be changed within the scope of the invention and still
45 perform the same function.

In the gin now in use the lint when being

ginned in many instances is liable to have the tendency to wedge at the top of the grates until crowded back against the saws and tear the latter loose or break the ribs of the grates; 50 the advantage in favor of the present device being that the top of the ribs are left open, as they are bolted below the place where the saws pull the lint from the roll, and not above, where the wedging takes place, thereby al- 55 lowing the cotton to pass unobstructed.

In front of the saws 3 and between each pair of saws is mounted a series of lower ribs 9 which project downwardly toward the front of the machine and are secured at the lower 60 ends to a sill 10 and have their upper ends bearing upon the ribs 7 at the point where the latter are bent to form the upwardly projecting, rearwardly inclined arms 8. The said lower ribs 9 also prevent the lint from being 65 drawn in between the saws too far and assist in the operation of the ribs 7.

It is obviously apparent that many minor changes in the form, proportion and construction of the several parts might be made and 70 substituted for those shown and described without in the least departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is— 75

In a saw gin, the combination with the saws, of a grate composed of bars, each bar comprising an elastic upper member having an upwardly and rearwardly curved portion 8 and a rearward extension 7, which is secured 80 to the gin frame, and a lower member 9 secured at its lower end and having the upper end thereof resting on the lower end of the portion 8, substantially as described.

In testimony whereof I have signed this 85 specification in the presence of two subscribing witnesses.

DANIEL HAYNES.

Witnesses:

LEE LANKFORD,
HENRY BIDER.