

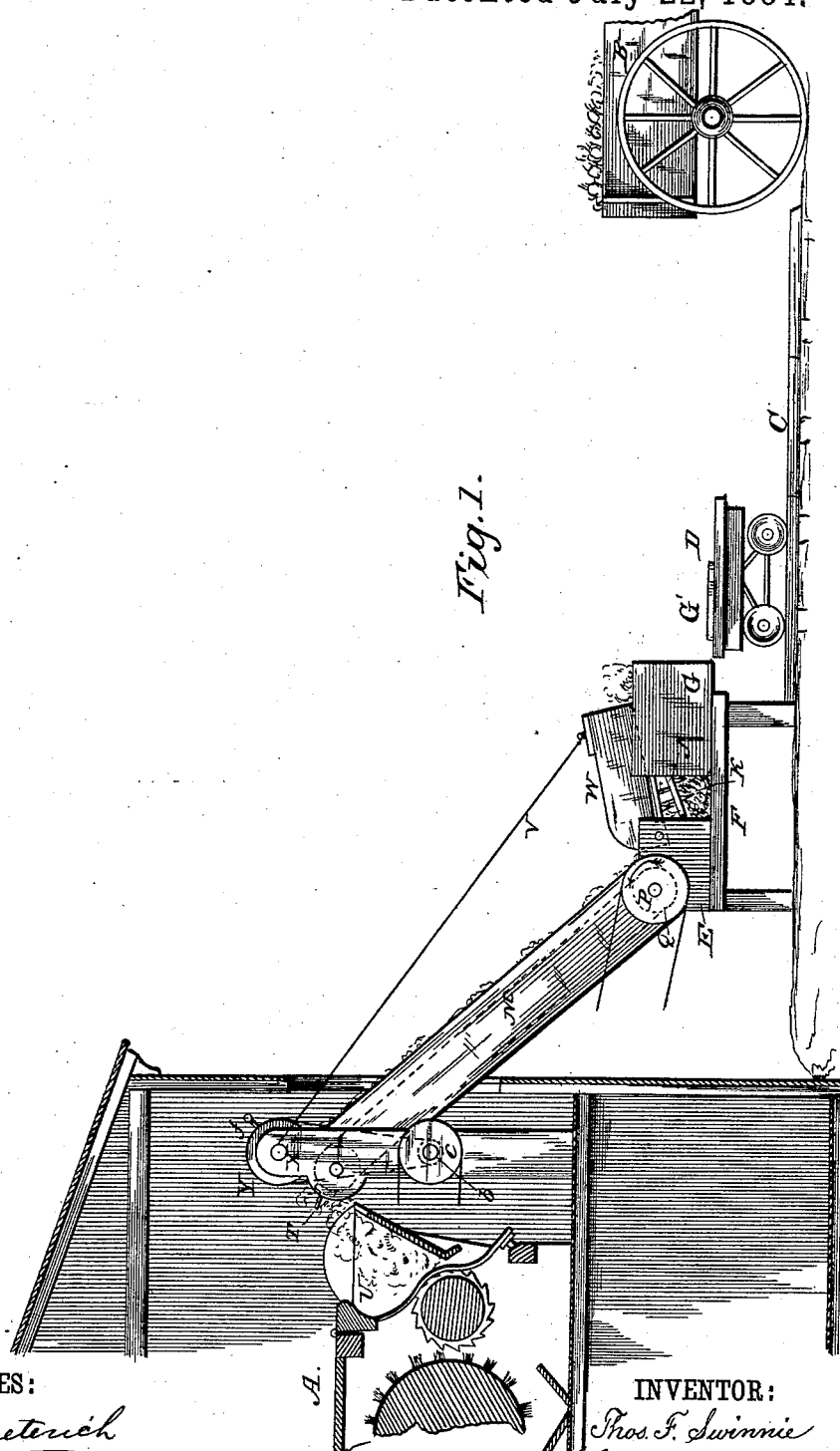
(No Model.)

2 Sheets—Sheet 1.

T. F. SWINNIE.  
COTTON GIN FEEDER.

No. 302,297.

Patented July 22, 1884.



WITNESSES:

*Fred. G. Dietrich*  
*W. K. Lewis*

INVENTOR:

*Thos. F. Swinnie*

BY

*Miner & Co.*

ATTORNEYS.

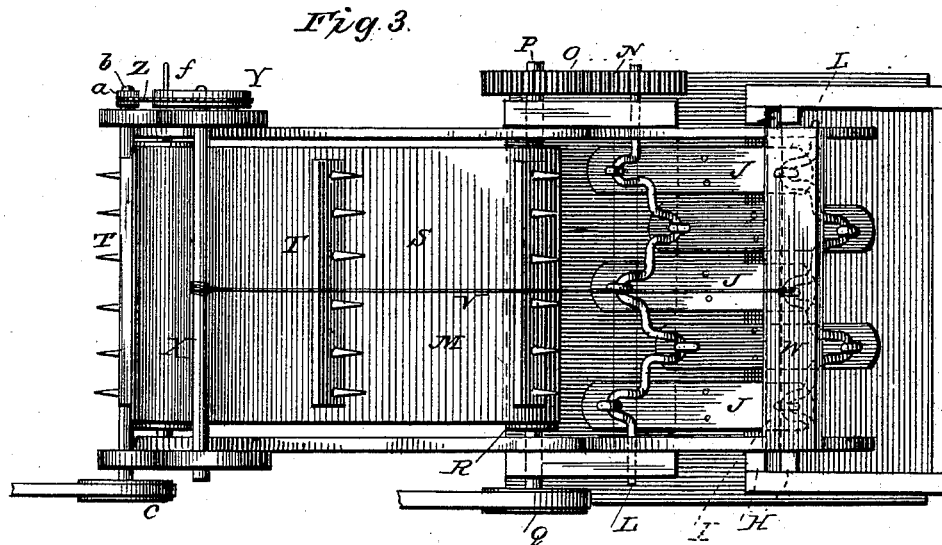
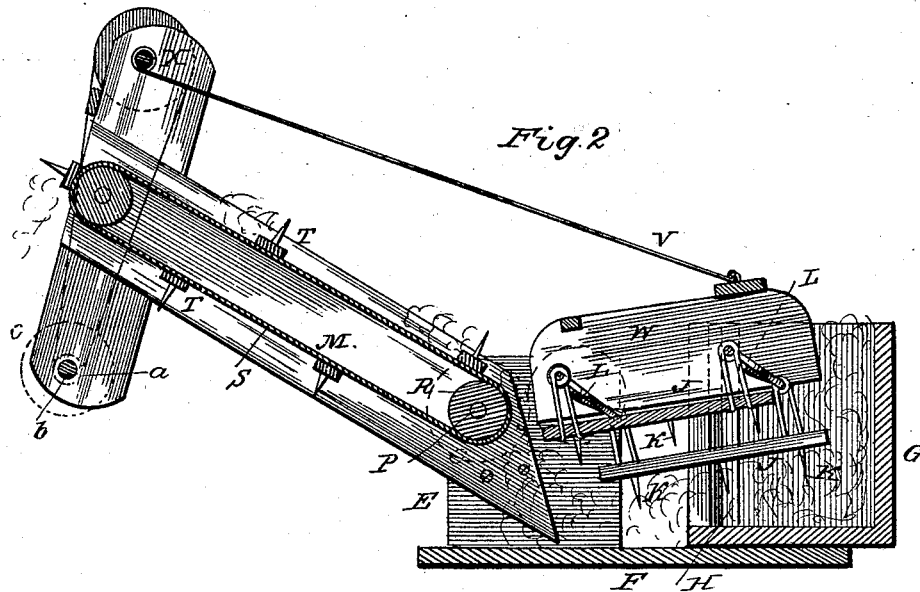
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# UNITED STATES PATENT OFFICE.

THOMAS F. SWINNIE, OF MCFARLANS, NORTH CAROLINA.

## COTTON-GIN FEEDER.

SPECIFICATION forming part of Letters Patent No. 302,297, dated July 22, 1884.

Application filed November 6, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS F. SWINNIE, a citizen of the United States, residing at McFarlans, in the county of Anson and State of North Carolina, have invented a new and useful Improvement in Cotton-Gin Feeders, of which the following is a specification.

In ginning cotton the usual practice is to haul the seed-cotton to the gin-house in wagons, which may be unloaded in front of the gin, or as near to the gin as they can get. The cotton is then brought forward and fed into the gin by hand, usually requiring two men for this purpose.

The object of my invention is to provide a mechanical cotton-gin feeder which will obviate the necessity of manual labor for this purpose.

To this end my invention consists in the construction and combination of parts forming a cotton-gin feeder, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a cotton-gin, a portion of a wagon, a short railway between the two, a truck thereon, and my feeder adjoining the gin. Fig. 2 is a longitudinal vertical section of my feeder, and Fig. 3 is a plan view of the same.

A represents a cotton-gin of any style.

B represents a wagon loaded with seed-cotton, ready to be unloaded.

C is a track of timbers laid in the earth, or some similar cheap railway, upon which a truck or car, D, runs between the wagon and my feeder. This feeder consists of the frame E, having a platform, F, of the same height as the car D, to receive therefrom a box, G, which has been loaded from the wagon and brought on the car. The box G is adapted to hold a bale of seed-cotton, and its side I, next to the feeder, is removable, being held in the box between vertical cleats H, from which it may slide. J is a series of rake-heads, each provided with teeth K, and hung upon parallel cranks of two shafts, L. Said cranks are located at equal circular distances about their respective shafts, so that the rake-heads carried thereby alternate in their action. This action is to thrust the rake-teeth into the cot-

ton in box G and draw it forward to the foot of the elevator-belt M, the side G', shown lying idle on the car D, being removed to admit the rake into the box. The lower one of said shafts is provided with a toothed wheel, N, which is engaged by another toothed wheel, O, on a shaft, P, having a pulley, Q, which is driven by a belt from the gin. Shaft P is provided with a roller, R, upon which is carried in the direction of the arrow an endless apron or belt, S, provided at intervals with teeth T. This elevator-belt takes the seed-cotton delivered at its foot by the rakes and carries it over into the gin-hopper U. The rate of feed is made to correspond to the speed of the gin, as follows:

V is a rope secured at one end to the rake-frame W, and at the other end to a shaft, X, to be wound thereon by means of hand-crank f, and to be gradually unwound to allow the rake-frame to descend by means of a pulley, Y, run by a belt, Z, from a much smaller pulley, a, or from the shaft b, which is provided with a large pulley, c, run by a belt from the gin. The rake-frame is journaled to swing on or concentric with the lower crank-shaft, L, which is journaled to revolve in the main frame E, and the upper rake-shaft is journaled in the rake-frame W. The rake thus hung and operated is self-adjusting or automatic in its action while emptying a box of cotton. It is evident that in locations where a wagon may be easily backed to this gin-feeder the railway, the car, and the portable box G may be dispensed with, the wagon with its removable hind board representing the portable removable-sided box. In that case the rake will operate directly upon the cotton in the wagon to draw it to the foot of the elevator. When the feeder is first started, the rake-teeth begin acting on the upper edge of the seed-cotton in box G at its open side. As the work of elevating and ginning the cotton proceeds, the rotation of the gin gradually turns shaft X to unwind the rope V, allowing the rake-frame W to descend into the box G until all the cotton is raked therefrom and elevated into the gin. When the box is emptied, it is replaced by another waiting on the car, and taken away on the car to the wagon to be refilled. My mechanical feeder will feed seed-cotton to a gin with great regularity, and

in direct ratio to the speed of the gin, thereby producing an economical result in the number of men employed, in the improved quality, and in the greater amount of work done.

5 What I claim as my invention, and wish to secure by Letters Patent, is—

10 1. The combination, with a mechanical elevator and a self-adjusting mechanical rake, located relatively to each other as described, of a removable-sided independent box, substantially as and for the purpose specified.

15 2. The combination, with an elevator-belt and a roller therefor journaled in a frame, of a shaft journaled in said frame, a rake-frame journaled on said shaft, another shaft journaled in the rake-frame, the two shafts having cranks, rakes hung on said cranks, and means for raising and lowering one end of the rake-frame, substantially as described.

3. The combination, with a toothed elevator-belt, of a crank-shaft journaled in the frame of the machine, a rake-frame hung to swing thereon, another similar crank-shaft journaled in said frame, and a toothed rake-head hung upon each pair of cranks, as shown and described. 25

4. In a cotton-gin feeder, the combination of an elevator, a platform, a self-adjusting mechanical rake, and a removable-sided portable box, substantially as shown and described, 30 whereby a box of cotton placed upon the said platform and having its side removed may be emptied and the cotton taken away, as specified.

THOMAS F. SWINNIE.

Witnesses:

J. S. WHITE,

R. A. WHITE.