

No. 736,227.

PATENTED AUG. 11, 1903.

A. M. DASTUR.
COTTON GIN.

APPLICATION FILED AUG. 4, 1902.

NO MODEL.

FIG. 1.

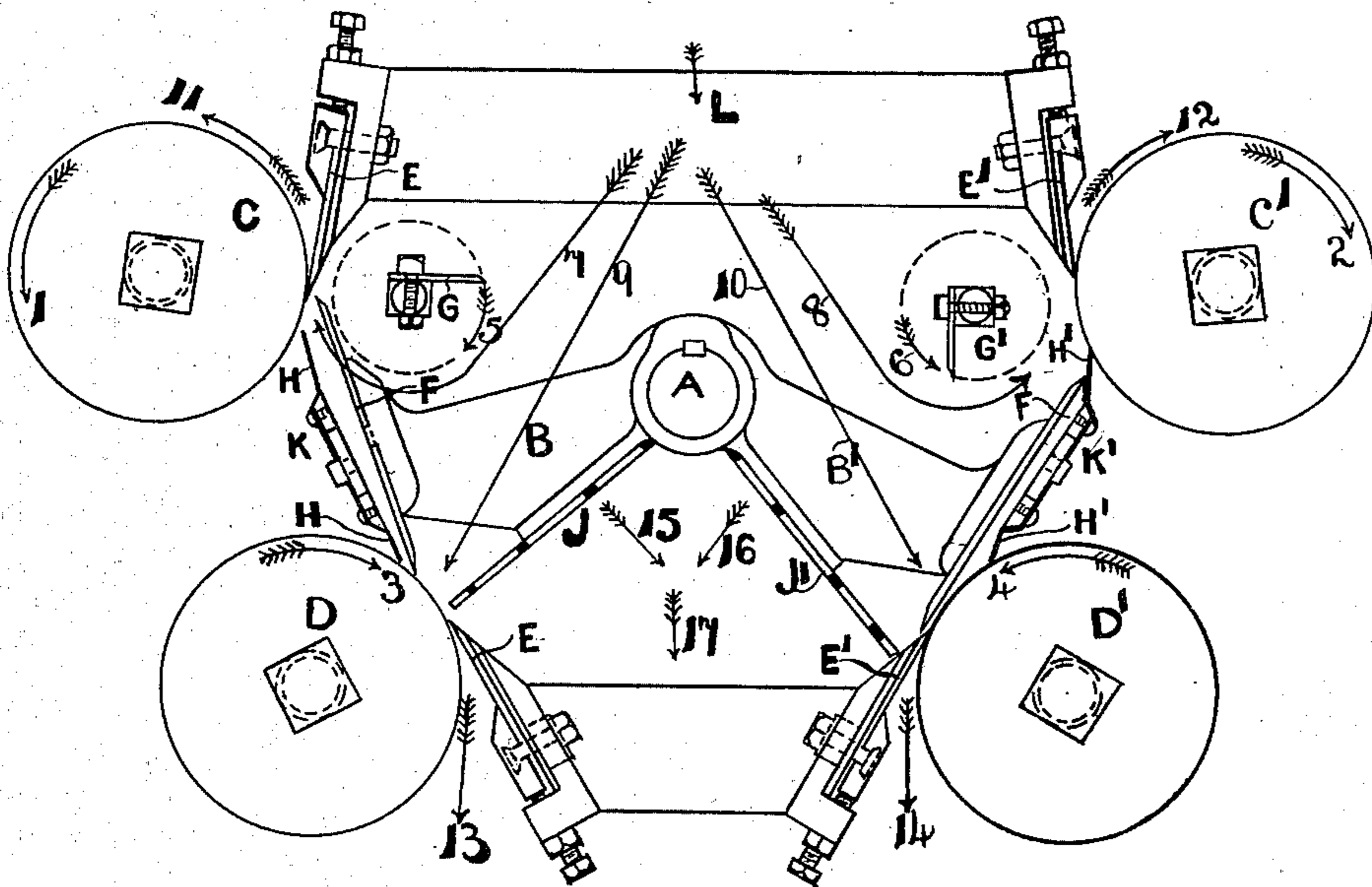
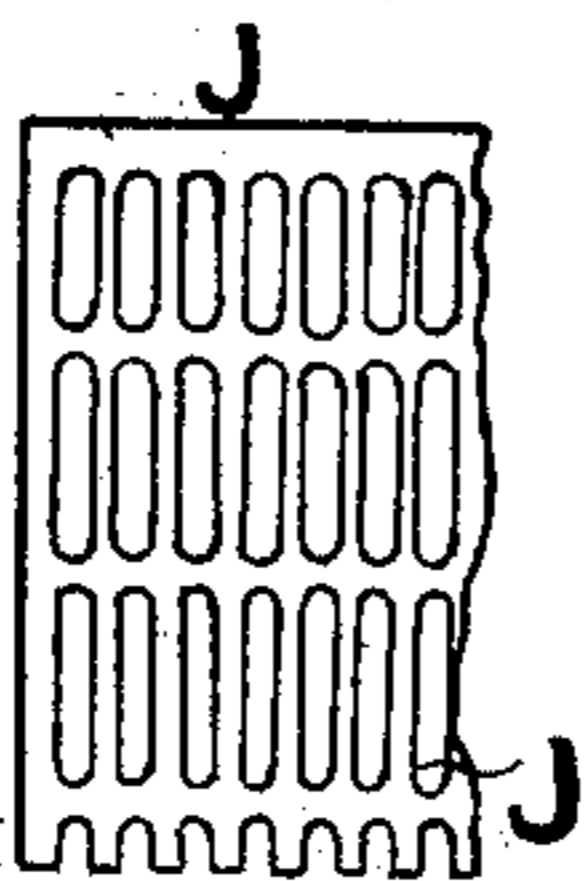


FIG. 2.



Witnesses
R. H. Bishop
C. D. Davis

Inventor
Ardeshir M. Dastur
by Wm H. Babcock
Attorney

UNITED STATES PATENT OFFICE.

ARDESHIR MUNCHERJI DASTUR, OF JALNA, INDIA.

COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 736,227, dated August 11, 1903.

Application filed August 4, 1902. Serial No. 118,328. (No model.)

To all whom it may concern:

Be it known that I, ARDESHIR MUNCHERJI DASTUR, a subject of the King of England, Emperor of India, and a resident of Jalna, Nizam Hyderabad, India, have invented certain new and useful Improvements in Cotton-Gins, (for which I have filed application for British Patent No. 13,488, dated June 14, 1902, and for Indian Patent No. 220 of 1902, dated May 27, 1902;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to cotton-gins, and more particularly to the type known as the "double-roller Macarthy cotton-gins," and has for its object to practically double the production of the machines.

In its main features the invention consists in applying two additional leather rollers in combination with a special type of revolving feeders for them. These feeders consist of blades which running parallel with the entire length of the leather rollers are mounted on shafts which revolve in adjustable bearings fixed to the frame of the machine. The additional leather rollers above mentioned, with the revolving blades, are arranged over the existing double rollers, as will be seen from the accompanying drawings, of which—

Figure 1 is an elevation showing so much of a Macarthy cotton-gin as will serve to illustrate the invention, and Fig. 2 is a detail view of part of one of the grids J.

In the figures, C C' are the additional leather rollers, carried in suitable bearings on either side of the machine. The cotton is fed to these rollers by means of the revolving blades G G'. The blade G revolves in the direction of arrow 5 and feeds the cotton to the roller C, while the blade G' revolves in the opposite direction (see arrow 6) and feeds the cotton to the roller C'.

E E' are fixed knives held rigidly in rail-bars, as hitherto, while F F' are moving knives fixed to the arms B B', mounted on and oscillating with the rocking shaft A.

H H and H' H' are the seed-guards, while

J J' are moving grids, preferably of the type so shown in plan in Fig. 2.

K K' are the usual seed-guard rails.

The working of the machine is as below described.

The top leather rollers C C' are geared so as to rotate outwardly in the direction of the arrows 1 and 2, while the lower rollers D D' rotate in the opposite direction, as shown by arrows 3 and 4. Some of the raw cotton in the hopper L is delivered to the roller C by the revolving blade G and to the roller C' by the revolving blade G' in the direction of the arrows 7 and 8. This part of the cotton is discharged in the direction of the arrows 11 and 12 at the same time other portions of cotton are caused to pass in the direction of the arrows 9 and 10 to the bottom rollers D D' by the action of the oscillating grids J J'. A portion of the cotton is directed to the upper rollers C' C' from the sides of the mass supplied by the hopper and never reaches the lower rollers D D'; but the intervening or middle portion of said mass goes to the said lower rollers. This portion may be considered as approximately bounded by the arrows B B' of the drawings. Some of this descending mass of cotton would reach the lower ginning-rollers D D' by gravity without aid, but this is insured and facilitated by the grids J, on which the said middle portion of the cotton rests. These grids shake it by their oscillation and gravity and the pull of the rollers do the rest. The function of the grids is to feed rollers D D'. This cotton is discharged in the direction of the arrows 13 and 14. The grids J J' also allow the seed, dirt, and the like to fall through in the direction of the arrows 15, 16, and 17.

It will be seen from the above description that the revolving blades G G' serve only to feed the cotton to the upper rollers C C', while the moving grids J J', besides feeding the cotton to the bottom rollers D D', serve for the passage of the seed, dirt, and the like, which separates from the cotton at all the four rollers. The seed-guards H H' prevent the seeds from getting mixed with the cotton. In other respects, such as the construction of the parts,

the principle of working and operation of the machine are similar to a double-roller cotton-gin of the ordinary type.

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

1. In a roller cotton-gin the combination with a hopper of the upper rollers C C' and the lower rollers D D' blades G G' revolving in proximity to the former for feeding a portion of the cotton in the hopper thereto, oscillating grids J J for simultaneously feeding cotton to the lower rollers, and devices for ginning the cotton in its passage to and past both the upper and lower rollers, substantially as set forth.

2. In a roller cotton-gin the combination of upper rollers and lower rollers with revolving blades and oscillating grids for feeding cotton

simultaneously to both the upper and lower rollers from a common hopper, and devices for ginning the cotton as it passes the rollers, substantially as set forth.

3. In a roller cotton-gin the combination of upper rollers and lower rollers with revolving blades for feeding cotton to the upper rollers, moving grids for feeding cotton to the lower rollers, fixed knives E E' and reciprocating knives F F' arranged in proximity to and co-operating with the rollers to gin the cotton substantially as set forth.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ARDESHIR MUNCHERJI DASTUR.

Witnesses:

JEHANGIR M. RUTNAGUR,

WM. THOS. FEE.