

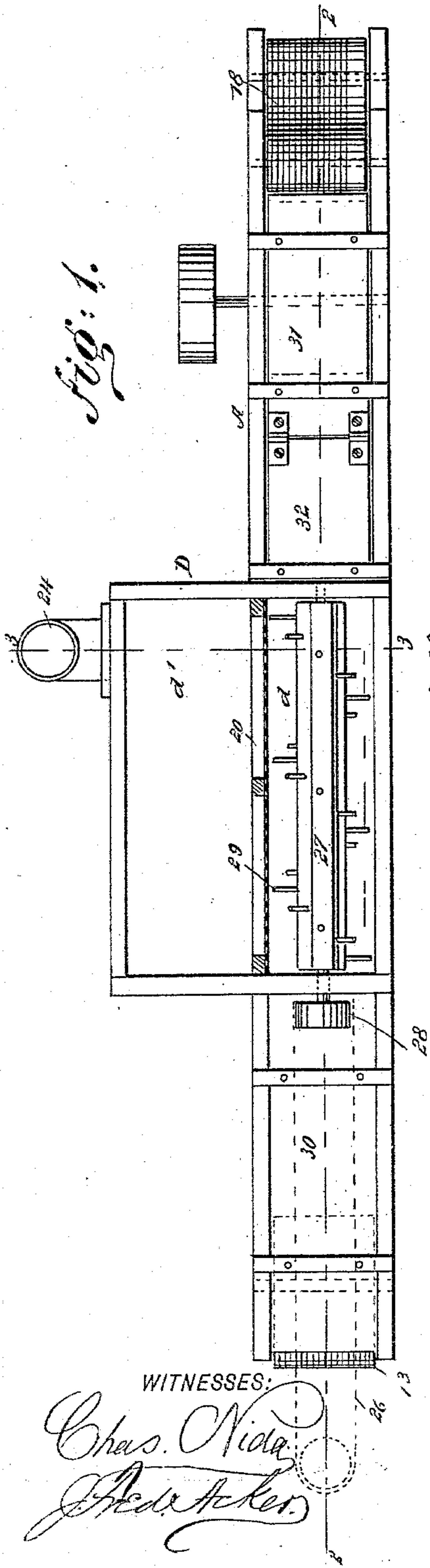
(No Model.)

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M. L. MOORE.  
COTTON CLEANER AND FEEDER.

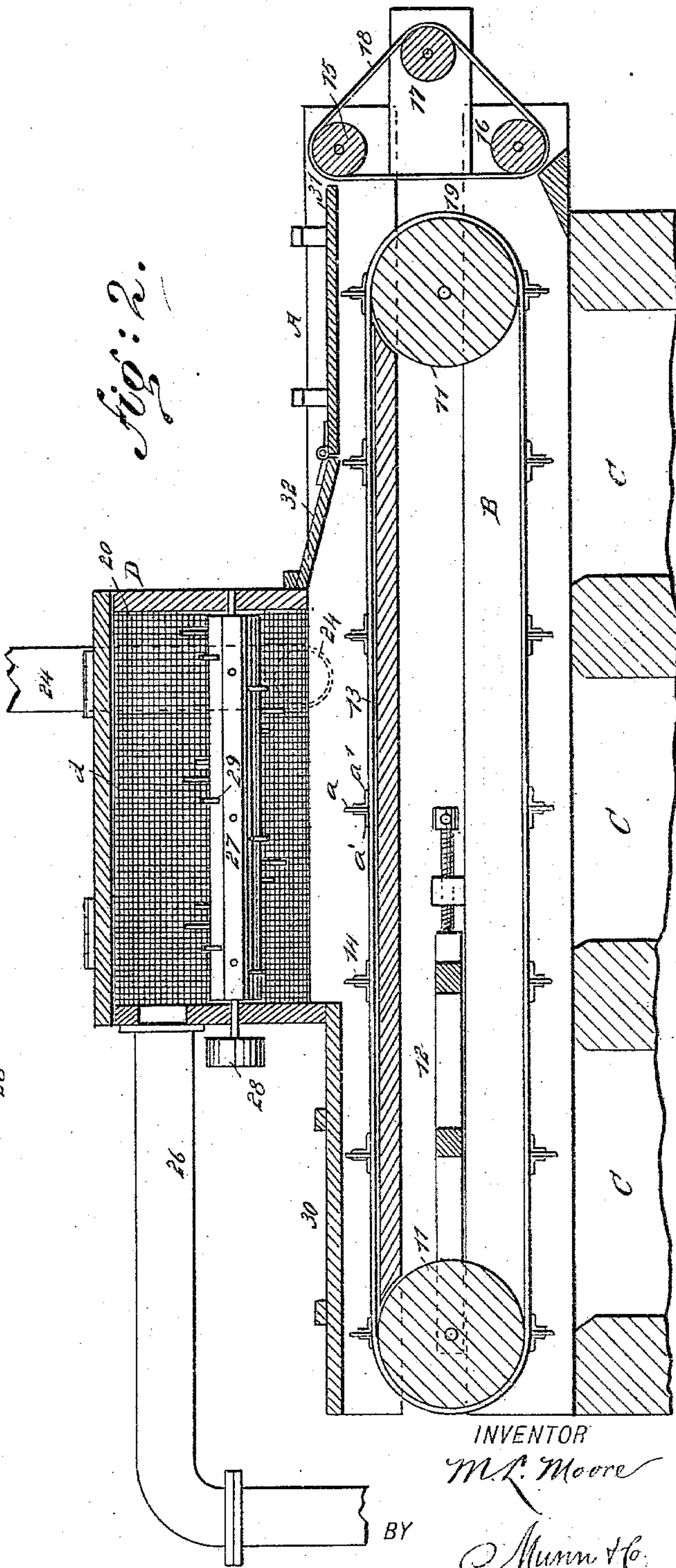
No. 553,125.

Patented Jan. 14, 1896.



WITNESSES:

Chas. Nida  
Fred Aker.



*INVENTOR*

M. L. Moore

BY

Munn &amp; Co.

ATTORNEYS.

(No Model.)

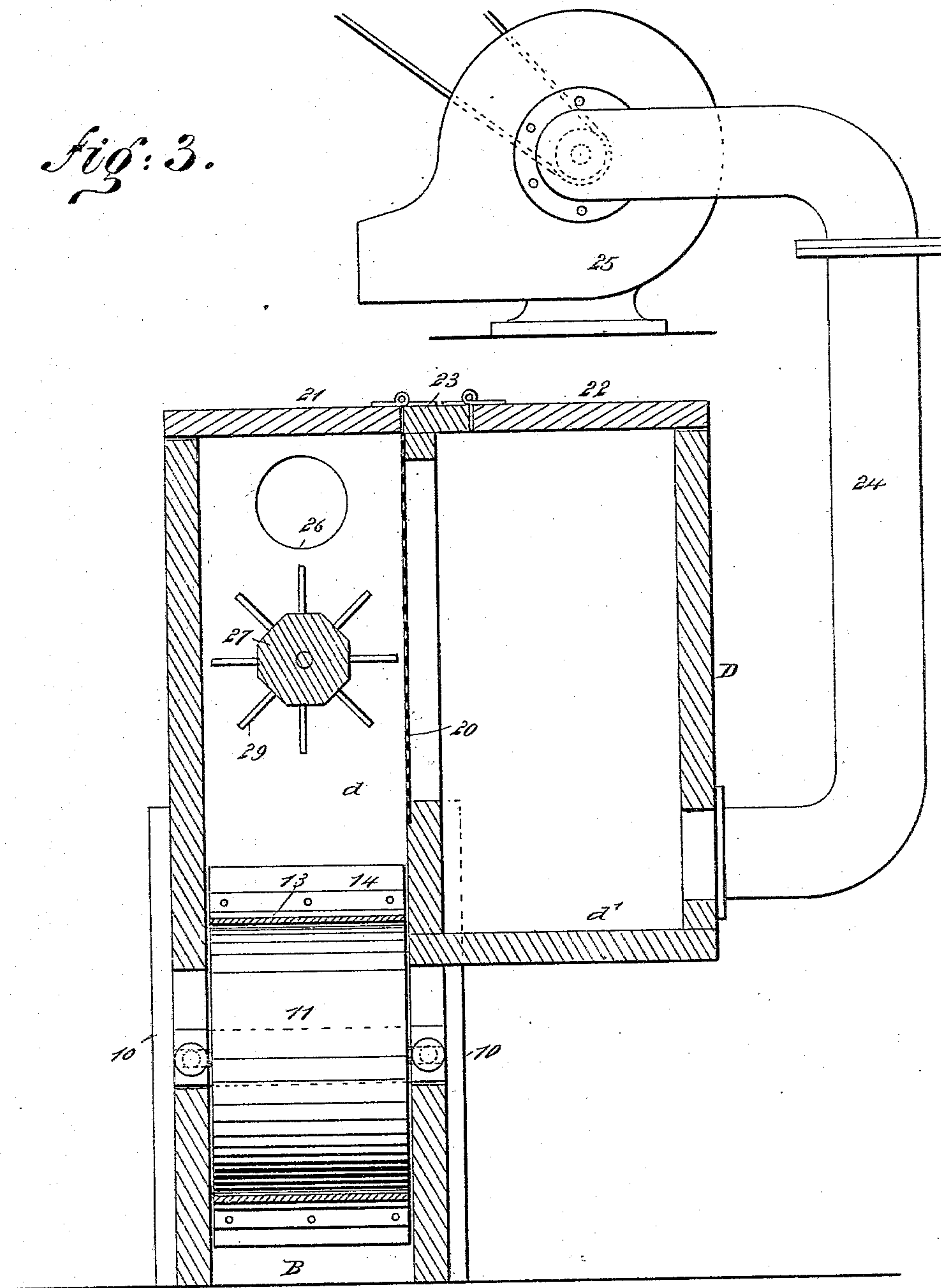
2 Sheets—Sheet 2.

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No. 553,125.

Patented Jan. 14, 1896.

*Fig. 3.*



WITNESSES:  
*Chas. N. V. A.*  
*J. H. A. K.*

INVENTOR  
*M. L. Moore*  
BY *Mum & Co*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

MARTIN L. MOORE, OF FORNEY, TEXAS.

## COTTON CLEANER AND FEEDER.

SPECIFICATION forming part of Letters Patent No. 553,125, dated January 14, 1896.

Application filed May 18, 1895. Serial No. 549,822. (No model.)

*To all whom it may concern:*

Be it known that I, MARTIN L. MOORE, of Forney, in the county of Kaufman and State of Texas, have invented a new and Improved Cotton Cleaner and Feeder, of which the following is a full, clear, and exact description.

My invention relates to a machine especially adapted for cleaning cotton and distributing the same to one or more gins; and it has for its object to so construct the machine that it will receive the cotton from the usual suction-pipe or equivalent supply, will clean the cotton, shred or separate the same and deliver it to a carrier, which in its turn will distribute the cotton to the hoppers of one or more gins, the distribution being evenly and expeditiously accomplished; and a further object of the invention is to provide for a steady feed of the cotton at the delivery end of the carrier, said device effectually preventing choking at that point.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the machine, the screen in the vacuum-box being in section.

Fig. 2 is a longitudinal vertical section taken substantially on the line 2 2 of Fig. 1, and Fig. 3 is an enlarged transverse section taken practically on the line 3 3 of Fig. 1.

The body of the machine consists of two longitudinally-located troughs A and B, one located below the other, the upper trough being provided with a bottom, a substantially closed top and open ends, while the lower trough is open at its ends, its top and at the bottom, except where braces or partial partitions may be employed to connect the sides of the trough, and the two troughs are held together at a predetermined distance apart through the medium of suitable uprights 10, as shown in Fig. 3. Between the two troughs at or near each end thereof a drum 11 is journaled, one of the drums being provided with adjustable bearings 12, as shown in Fig. 2, and an endless carrier-belt 13 is passed over these drums, being adapted to traverse the upper trough

adjacent to the bottom, and likewise traverse the lower trough, as is also shown in Fig. 2.

This carrier-belt is provided with transverse cleats, ribs or bars 14, preferably placed at a right angle to the outer face of the belt, and the cleats, bars or ribs may be of any suitable construction. Usually, however, they comprise each an upright metal plate *a* and brackets *a'*, whereby the plates are secured to the belt.

At the delivery end of the carrier-belt 13 preferably three rollers 15, 16 and 17 are triangularly grouped, and an endless belt 18 is passed over all these rollers, the straight stretch of the belt being made to face the drum 11 at the delivery end of the carrier, so that the contact therewith of the moving cotton will impart motion to the belt. In this manner the channel 19 in the body, through which the cotton is delivered, is prevented from becoming choked, since the endless feed-belt 18 will assist the cotton in its downward course.

The body of the machine is placed over the hoppers of one or more gins C, and the carrier-belt at its lower stretch will deliver the cotton, after it has been cleaned and shredded, to the various hoppers, leveling the cotton therein, and the surplus cotton is delivered at the delivery end of the body upon the floor or table prepared to receive it.

At the center of the upper portion of the body a vacuum-box D is erected. This box is wider than the upper trough A, extending a predetermined distance beyond one of its sides, the opposite side of the vacuum-box being preferably flush with the contiguous side of the trough, and a screen partition 20 is erected in the vacuum-box, preferably extending from what may be termed the "inner" wall of the upper trough A upward to the top of the box and from end to end, as shown in Figs. 2 and 3. By means of this partition the vacuum-box is divided into two compartments *d* and *d'*, the compartment *d'* being immediately over the trough. This compartment is without a bottom, but the other compartment is closed at the bottom. The box is provided with a cover, preferably comprising two lids 21 and 22, hinged to a central support 23, located above the partition.

The usual suction-pipe 24, connected with



the suction-fan 25, is made to enter the over-  
hanging compartment  $d'$  of the vacuum-box,  
and the pipe 26, connected with the source of  
cotton supply, is made to enter the upper por-  
tion of the compartment  $d$ , preferably at one  
end, and within the said compartment  $d$  a  
drum 27 is journaled, one trunnion of which  
is provided with a driving-pulley 28. This  
drum is exteriorly fitted with series of pins or  
teeth 29 spirally arranged, as shown in Figs.  
1 and 2.

The rear portion of the upper trough A is  
preferably closed at the top by a permanent  
cover 30, but between the delivery end of the  
trough at the top and the opposing end of the  
vacuum-box a hinged cover 31 is provided,  
the hinge being at its inner end, its outer end  
being free to move upward or downward, and  
the said cover is hinged to a downwardly-in-  
clined fixed cover-section 32, so that in the  
event more cotton than usual should be lodged  
on the carrier the hinged cover-section or  
door 31 will yield in an upward direction to  
permit the passage of the cotton, while at the  
same time the door will always bear on the  
cotton being delivered from the carrier, hold-  
ing it firmly thereon until the proper time for  
its discharge.

In the operation of the machine the cotton  
is drawn into the compartment  $d$  of the vac-  
uum-box from the source of supply through  
the medium of the suction-fan 25 and the  
pipes 24 and 26, and the cotton entering the  
said compartment will fall on the teeth of the  
drum 27 and be separated or shredded by  
reason of the rapid rotation of the said drum.  
This action will cause the dust and light for-  
eign matter to be released from the cotton,  
and such material will pass off through the  
screen out through the exhaust-fan, while the  
cotton in its separated and cleaned state will  
drop on the carrier and will be conveyed  
thereby, assisted by the feed-belt 18, to the  
bottom portion of the lower trough of the  
body and delivered to the several hoppers of  
the gins C.

Having thus described my invention, I  
claim as new and desire to secure by Letters  
Patent—

1. In a machine for cleaning and distribut-  
ing cotton, a vacuum box provided with a  
screen and a separating drum at one side of  
the screen, a vacuum and a suction pipe en-  
tering the vacuum box at opposite sides, one  
supplying the cotton and the other removing  
the dust, an endless carrier located beneath  
the vacuum box, receiving the cotton there-  
from and the feed belt at the end of the car-  
rier moved by the contact of the moving cot-  
ton, as and for the purpose specified.

2. In a machine for cleaning and distribut-  
ing cotton, a vacuum box provided with a

screen partition and a drum at one side of the  
partition, provided with spirally arranged  
teeth or pins, a vacuum pipe entering the vac-  
uum box at one side of the partition, convey-  
ing the cotton thereto, a suction pipe entering  
the vacuum box at the opposite side of the  
partition, an endless carrier receiving the cot-  
ton from the vacuum box, and a feed belt lo-  
cated at the delivery end of the carrier, adapt-  
ed to prevent the choking of the cotton out-  
let, as and for the purpose specified.

3. In a machine for separating and cleaning  
cotton, the combination, with a vacuum box  
provided with a screen partition dividing it  
into two compartments, a drum mounted to  
turn in one of the said compartments, which  
is open at the bottom, the other compartment  
being closed, teeth or pins spirally arranged  
on said drum, a vacuum pipe connected with  
the source of cotton supply and entering the  
compartment of the vacuum box in which the  
drum is located, and a suction pipe entering  
the opposite compartment of the said vacuum  
box, of parallel troughs located beneath the  
drum compartment of the vacuum box, one  
below the other, the lower trough having a  
substantially open bottom, drums journaled  
in the said troughs near their ends, an endless  
belt passed over the said drums, provided with  
ribs upon its outer face, and an endless feed  
belt placed opposite the delivery drum of the  
said carrier, as and for the purpose specified.

4. In a machine for separating and cleaning  
cotton, the combination, with a vacuum box  
provided with a screen partition dividing it  
into two compartments, a drum mounted to  
turn in one of the said compartments which  
is open at the bottom, the other compartment  
being closed, teeth or pins spirally arranged  
on said drum, a vacuum pipe connected with  
the source of cotton supply and entering the  
compartment in the vacuum box in which the  
drum is located, and a suction pipe entering  
the other compartment of the said vacuum  
box, of parallel troughs located beneath the  
drum compartment of the vacuum box, one  
below the other, the lower trough having a  
substantially open bottom, drums journaled  
in the said troughs near their ends, an endless  
belt passed over the said drums, provided with  
ribs upon its outer face, an endless feed belt  
placed opposite the delivery drum of the said  
carrier, means, substantially as described, for  
tightening the carrier, and a pivoted pressure  
door located above the carrier at the delivery  
end thereof, permitting more or less cotton to  
pass to the delivery portion of the carrier, as  
and for the purpose set forth.

MARTIN L. MOORE.

Witnesses:

W. E. JONES,  
B. T. SEEMON.