

No. 662,885.

Patented Nov. 27, 1900.

M. SWENSON.

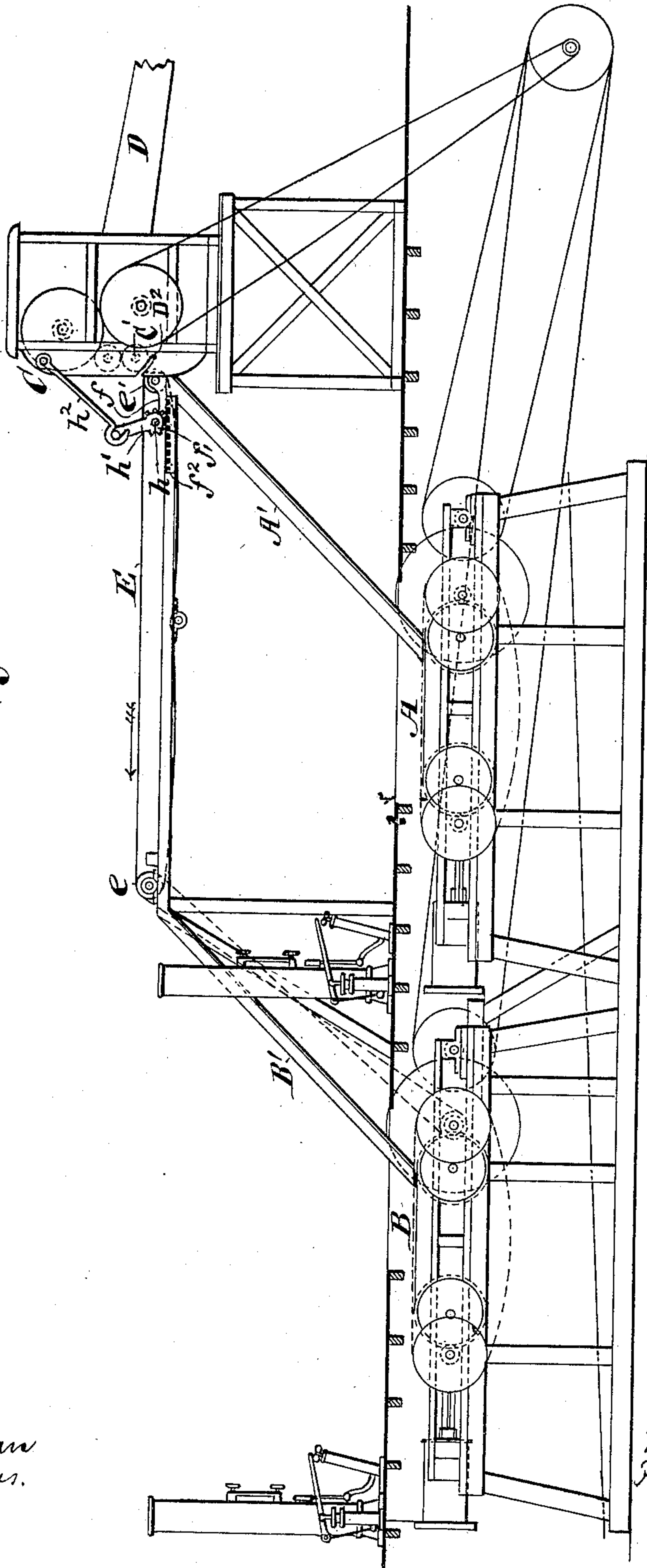
MECHANISM FOR PRODUCING CYLINDRICAL COTTON BALES.

(Application filed Oct. 14, 1895.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1



Witnesses  
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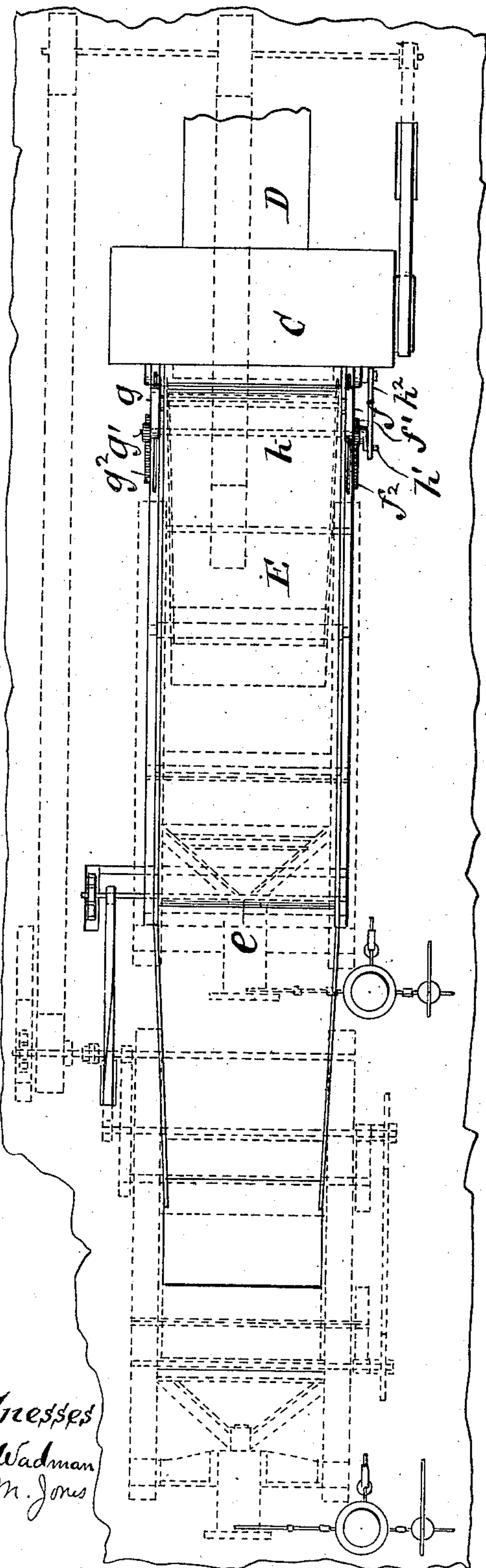
**M. SWENSON.**

# MECHANISM FOR PRODUCING CYLINDRICAL COTTON BALES.

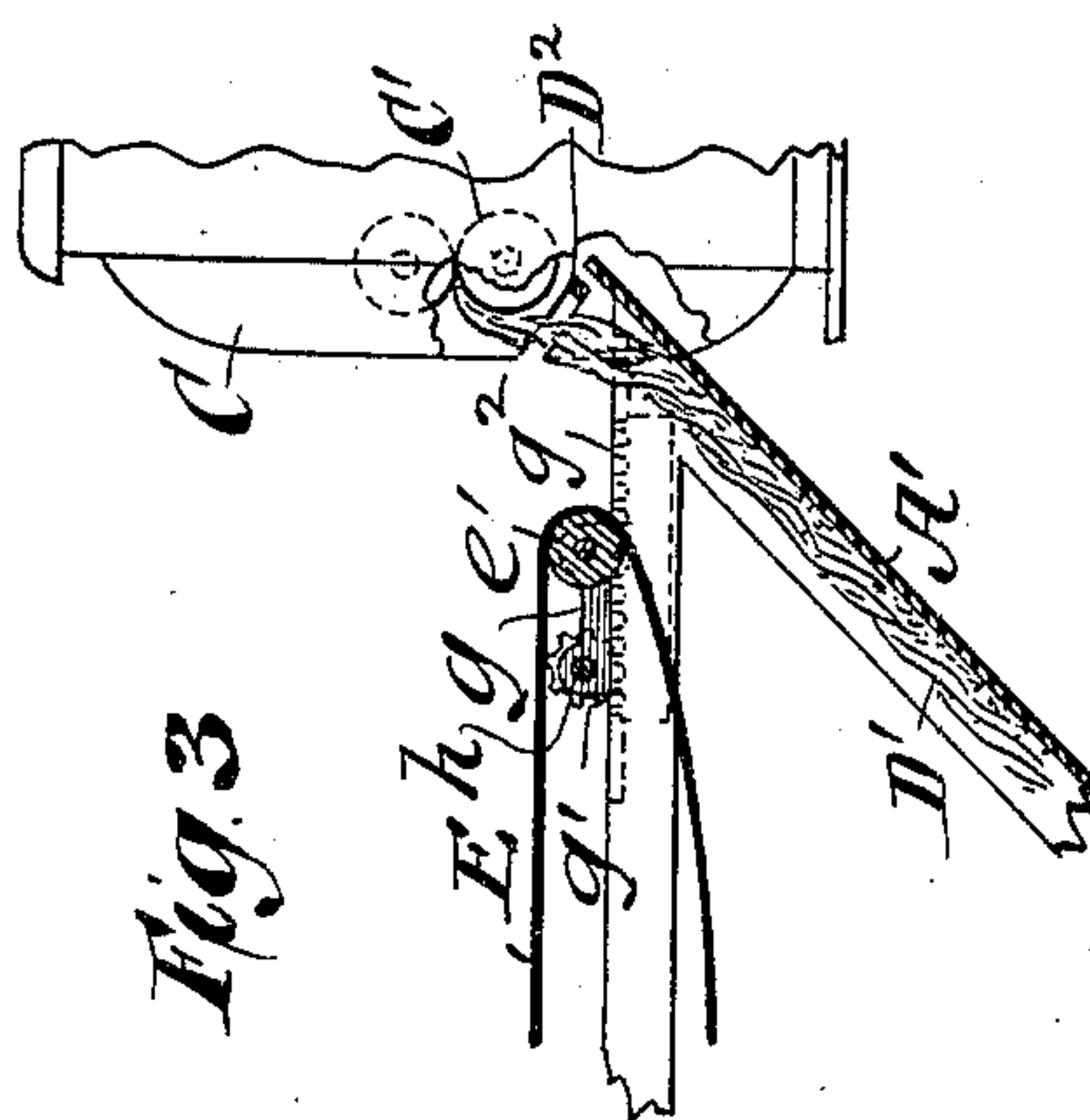
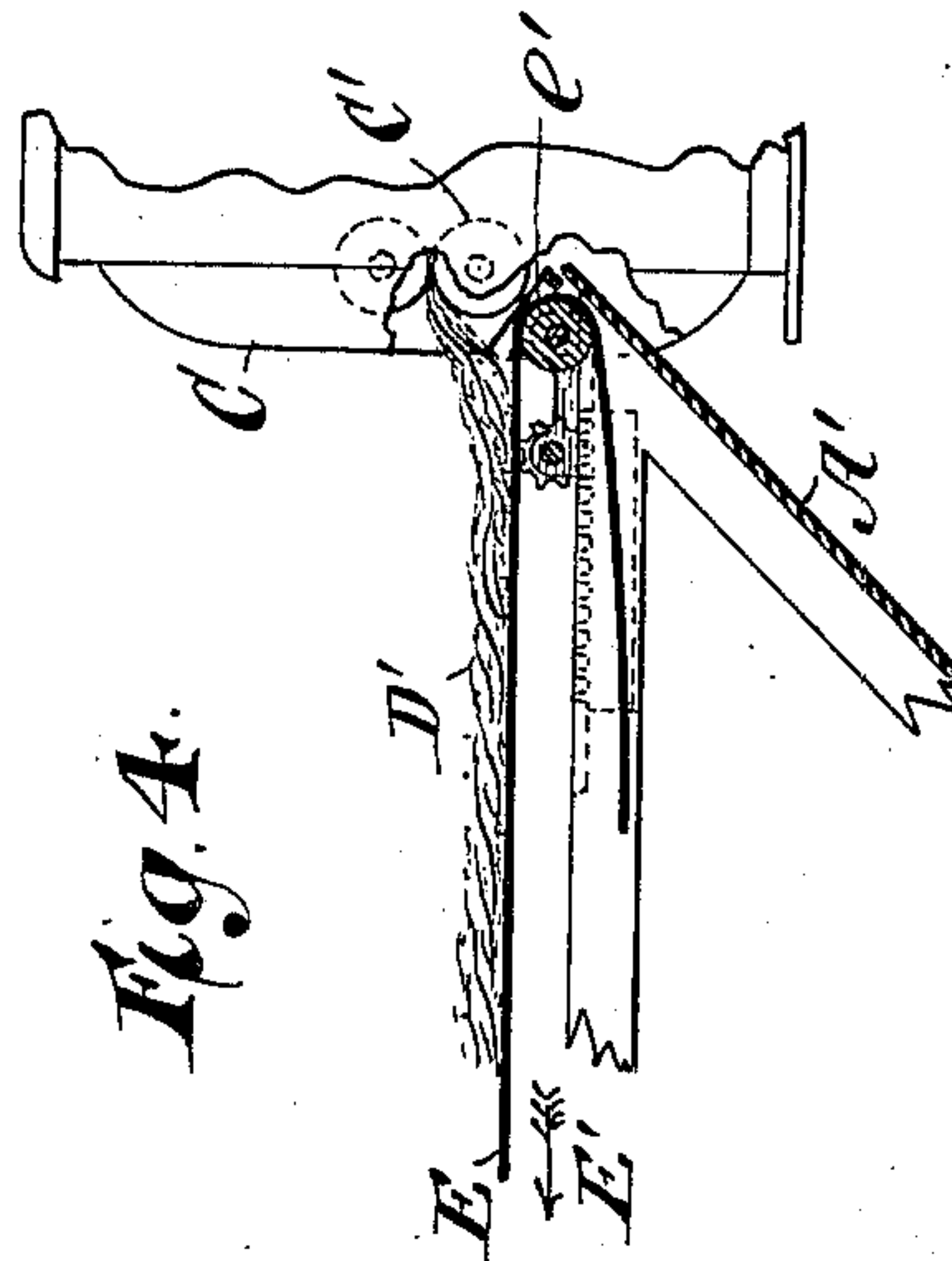
(Application filed Oct. 14, 1895.)

(No Model.)

**2 Sheets—Sheet 2.**



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# UNITED STATES PATENT OFFICE.

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## MECHANISM FOR PRODUCING CYLINDRICAL COTTON BALES.

SPECIFICATION forming part of Letters Patent No. 662,885, dated November 27, 1900.

Application filed October 14, 1895. Serial No. 565,556. (No model.)

*To all whom it may concern:*

Be it known that I, MAGNUS SWENSON, of Chicago, Illinois, have invented certain Improvements in Mechanism for Producing Cylindrical Cotton Bales, of which the following is a specification.

In a rotary cotton-press producing cylindrical bales the cotton from a multiplicity of gins is fed to a condenser and therefrom delivered in the form of a bat which is wound under pressure upon a rotating core. When a cylinder of the required diameter is produced, it is necessary to stop the cotton-gins and condenser and keep them idle while the finished bale is being removed and the machine readjusted for the production of another bale, after which the gins and condenser are again started in motion. This repeated stopping and starting of the bat-forming apparatus is especially objectionable, because the formation of a symmetrical bat requires that the gins and condenser shall run steadily and uninterruptedly, while the production of a uniformly-compressed and symmetrically-shaped bale is dependent upon the proper formation of the bat of which the bale is composed.

The object of the present invention is to overcome the difficulties heretofore existing and to provide for the baling of a bat delivered continuously from bat-forming apparatus running uninterruptedly. In my application for Letters Patent filed April 11, 1895, Serial No. 545,303, I describe and generically claim an apparatus having this object in view and comprising two sets of rotary cotton-pressing appliances in combination with a single bat-forming apparatus feeding a continuous sheet or bat alternately to said appliances to permit a continuous operation to be carried out. My present invention comprises improvements in apparatus of this type. The two sets of rotary cotton-pressing appliances may be incorporated in a single machine or may be arranged in two independent machines. As in either case the said two sets of appliances arranged in suitable relation to the condenser occupy different parts of the same plane, one in advance of the other, they may be said to constitute a "tandem" cotton-press.

In the accompanying drawings the invention is illustrated in connection with two rotary cotton-presses arranged tandem fashion in alinement with a suitably-elevated condenser adapted to discharge the bat directly upon the inclined feed-chute of the nearer press or upon an endless carrier which may be adjusted to receive the bat and by which the bat is conducted forward and discharged upon the feed-chute of the more distant press. The rotary cotton-presses selected for illustrating the present invention are of the type of those shown in my patent dated November 15, 1898, No. 614,186, and do not herein need description in detail.

The drawings are as follows:

Figure 1 is a side elevation of the presses, the condenser, and the feeding devices. Fig. 2 is a top view of the same; Fig. 3, a detached view illustrating the conveying-belt withdrawn from the condenser to permit the sheet or bat therefrom to pass down to the first press; and Fig. 4, a similar view showing the conveying-belt moved over to intercept the sheet or bat to cause it to pass on said conveying-belt toward the second press.

The drawings represent two rotary cotton-presses A and B and a condenser C in common alinement and a portion of the main trunk D, through which cotton from the gins is blown into the condenser. As any suitable form of cotton-gin may be employed and as cotton-gins are well known, it is not necessary to herein show or describe them. As condensers are also well known, it is sufficient to say that the bat D' is formed by the usual operation of bat-forming apparatus embracing a multiplicity of gins and is delivered from the condenser in suitable position to be discharged either upon the inclined feed-chute A' of the press A or upon the extensible endless carrier E, which may be adjusted to receive the bat and which when so adjusted receives and conducts the bat formed and discharges it upon the inclined feed-chute B' of the press B. The endless carrier E is stretched around a power-driven roller *e*, rotating in fixed bearings, and around the idler-roller *e'*, provided with bearings in the horizontally-sliding bearing-blocks *f g*, on which are also erected bearings for the transverse



shaft  $h$ , to the opposite ends of which are affixed the pinions  $f' g'$ , adapted to engage the fixed horizontal racks  $f^2 g^2$ . The horizontal shaft  $h$  is provided with a crank  $h'$ , by means of which the shaft may be turned and the horizontal sliding bearing-blocks  $f g$  thus moved toward or from the condenser. When the bat is being fed to the chute  $A'$ , the sliding bearing-blocks  $f$  and  $g$  are withdrawn to the positions in which they are shown in Fig. 3, in which adequate clearance is afforded for the bat  $D'$ . When occasion arises for shifting the feed, the shaft  $h$  is turned in the proper direction to move the sliding blocks toward the condenser and to thus move the adjacent bight of the carrier  $E$  into the position in which it is represented in Fig. 4. At the same time by means of the bar  $D^2$ , which is manually inserted between the bat and the lower roller  $C'$  of the condenser  $C$ , the bat is broken and lifted onto the top of the carrier  $E$  and is thereupon moved forward in the direction of the arrow  $E'$  and discharged from the opposite bight of the carrier upon the feed-chute  $B'$  of the press  $B$ . Similarly when sufficient bat has been delivered to form a bale in the press  $B$  the sliding bearing-blocks  $f$  and  $g$  are withdrawn, thus restoring the parts to the positions in which they are shown in Fig. 3, and the bat is then pressed downward and broken, so that it will fall upon the feed-chute  $A'$  as before. When the carrier is adjusted into position for feeding the bat to the chute  $B'$ , the crank  $h'$  occupies a nearly upright position and may be held stationary in that position by means of the hook  $h^2$ , pivotally connected to the condenser, as illustrated in Fig. 1. The operation of thus shift-

ing the bat so that it may be fed either to the press  $A$  or the press  $B$  can be performed easily and quickly without affording opportunity for any excessive accumulation of the bat, and hence the gins and condenser may run uninterruptedly. Various devices for thus shifting the feed will doubtless present themselves to those skilled in the art, and it is therefore to be understood that the present invention is not limited to the precise arrangement of devices shown, but is present in any combination embracing a condenser, two sets of rotary cotton-pressing appliances, with a feed-chute for directing the bat from the condenser to one of said appliances, and an adjustable conveyer for directing the bat delivered from the condenser to the other of said appliances.

What is claimed as the invention is—

1. The combination, as herein set forth, of a condenser with two sets of rotary cotton-pressing appliances arranged tandem fashion, an inclined feed-chute for receiving the bat directly from the condenser and delivering it to one of the said rotary cotton-pressing appliances and an adjustable conveyer for intercepting the bat and conducting it forward and delivering it to the other of said rotary cotton-pressing appliances.

2. The combination, as herein set forth, of the two inclined feed-chutes  $A'$  and  $B'$  and two sets of rotary cotton-pressing appliances, with the condenser  $C$ , and the adjustable endless carrier  $E$ , as and for the purpose set forth.

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Witnesses:

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