

No. 651,478.

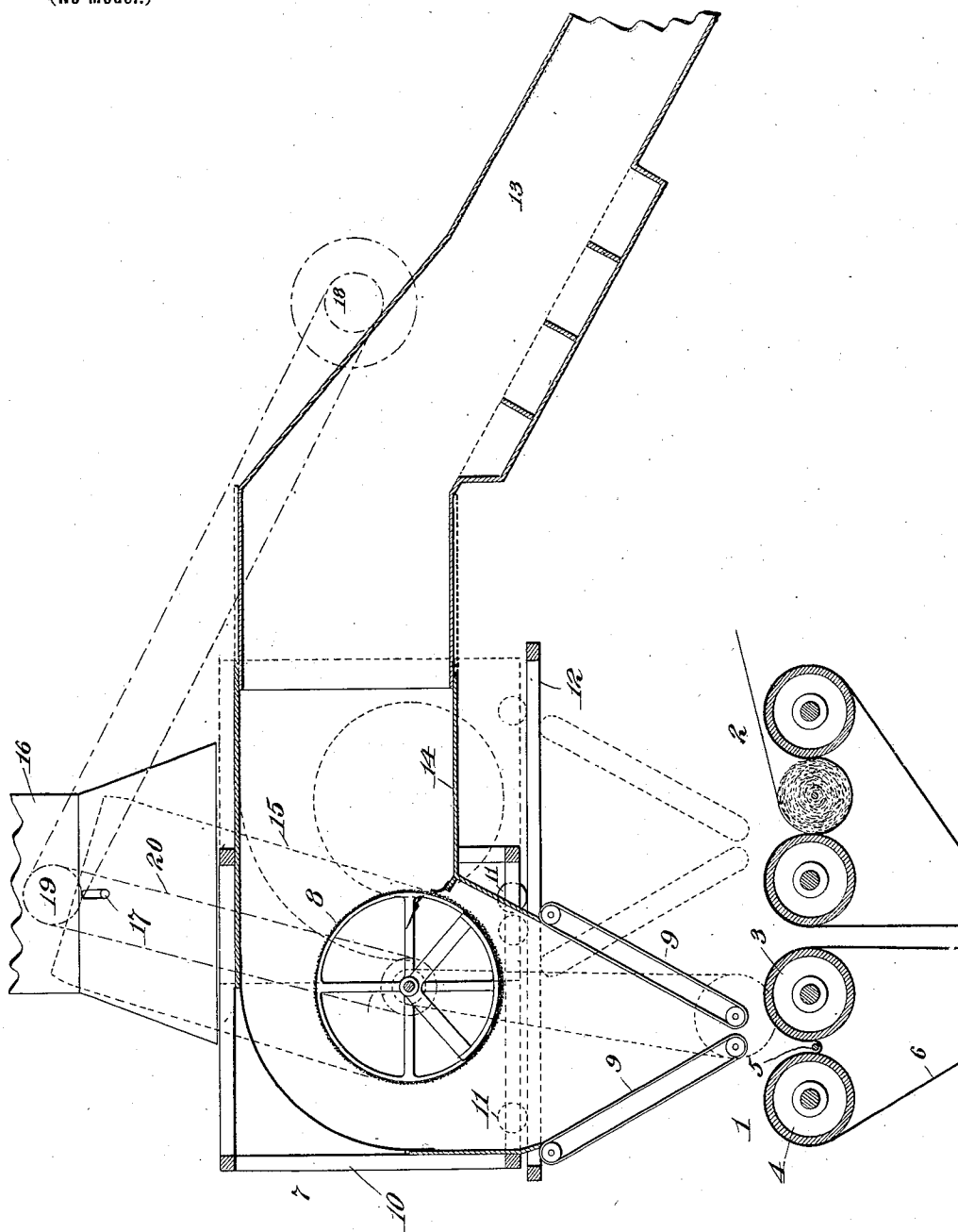
Patented June 12, 1900.

F. L. DYER.

APPARATUS FOR MAKING CYLINDRICAL COTTON BALES.

(Application filed July 7, 1899.)

(No Model.)



Witnesses:

*Jas. F. Coleman
 Jno. A. Taylor*

Inventor

Frank L. Dyer

UNITED STATES PATENT OFFICE.

FRANK L. DYER, OF MONTCLAIR, NEW JERSEY, ASSIGNOR TO THE
AMERICAN COTTON COMPANY, OF NEW YORK, N. Y.

APPARATUS FOR MAKING CYLINDRICAL COTTON-BALES.

SPECIFICATION forming part of Letters Patent No. 651,478, dated June 12, 1900.

Application filed July 7, 1899. Serial No. 723,082. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. DYER, a citizen of the United States, residing at Montclair, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Apparatus for Making Cylindrical Cotton-Bales, (Case No. 35,) of which the following is a description.

My invention relates to improvements in apparatus for making cylindrical cotton-bales of the type wherein the gins are operated continuously; and the invention consists in the combination, with two cylindrical baling-presses, of a bat-forming apparatus feeding the sheet or bat alternately to said presses. With apparatus of this type heretofore suggested it has been the practice to interpose between the bat-former and the two presses independent means for directing the sheet or bat alternately to the two presses; but with my present improvement the use of such independent means may be dispensed with and an operative apparatus produced wherein only the two rotary cotton-pressing appliances and the bat-former are used.

The object of the invention is to provide simple and effective mechanism for the purpose.

In order that my invention may be better understood, attention is directed to the accompanying drawing, wherein a longitudinal section of the preferred embodiment of the invention is illustrated.

The two presses 1 and 2 are arranged back to back in the same horizontal plane. These presses may be of any suitable type, the one shown comprising a stationary roll 3, a movable roll 4, a core 5 between the two rolls, and an endless belt 6, passing over the two baling-rolls and beneath the core.

7 represents a bat-former, which may also be of any suitable type. The form of bat-former illustrated comprises a condenser-cylinder 8, rotated at a sufficiently-high surface speed as to throw off the cotton by centrifugal force and the two converging endless belts 9 9 below the same, driven at a very much slower speed. The bat-former 7 is carried in a suitable frame 10, mounted upon rollers 11 11, traveling on a track 12, where-

by the entire bat-former may be shifted to a position over either of the presses 1 2, as shown in the full and dotted lines. A flue 13 connects with the gins and directs the cotton into a section 14 of the bat-former, which telescopes upon the ends of the flue 13, as shown. The air carried with the cotton passes out through the ends of the condenser-cylinder 8, as is common, into a flue 15, which connects with a stack 16 by a pivot 17, whereby the flue 15 at each side will be swung relatively to the stack 16 as the bat-former is shifted from one press over the other. A main power-shaft 18 may be employed to drive a counter-shaft 19 and which, through a belt 20, drives the condenser-cylinder 8, the parts being so arranged that the belt 20 will be tightened in either extreme position to which the bat-former may be moved over the press 1 or 2. The endless belts 9 are driven from the shaft of the condenser-cylinder 8 by a belt 21, as shown.

The operation will be as follows: Assuming the parts to be in the position shown in full lines, cotton from the gin or gins is directed through the flue 13 into the telescoping section 14 onto the condenser-cylinder 8, the air escaping through the ends of the condenser-cylinder into the flue 15 at either side thereof, and thence to the stack 16. The high speed imparted to the condenser-cylinder 8 throws off the cotton by the centrifugal effect, and the cotton will be deposited in the hopper formed between the two belts 9 9 and be forced out through the bottom of said hopper in the form of a thick, coherent, and homogeneous bat, which will be wound up in the press 1 to form a cylindrical cotton-bale. After the bale has been formed in the press 1 the bat-former 7 is moved to the position shown in dotted lines on the track 12, and the sheet or bat of cotton from the bat-former is directed into the press 2 and a new bale started therein. While the bale is forming in this press, the bale which had been previously formed in the first press will be covered and removed therefrom and that press put in condition for the formation of a new bale after the completion of the bale in the second press.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. An apparatus for forming cylindrical cotton-bales, comprising in combination two rotary cotton-pressing appliances arranged end to end, a condenser-cylinder on which the cotton is directed, said cylinder being movable to a position over either of said cotton-pressing appliances, a swinging flue connecting the end of said cylinder and through which the air escapes, and a stationary stack connected with said swinging flue, substantially as set forth.
2. An apparatus for forming cylindrical cotton-bales, comprising in combination two

rotary cotton-pressing appliances arranged end to end, a bat-forming apparatus movable to a position over either of said cotton-pressing appliances, a stationary counter-shaft, and a belt connecting the counter-shaft and the bat-forming apparatus, said belt being tightened in either position to which the bat-forming apparatus may be moved, substantially as set forth.

This specification signed and witnessed this 5th day of July, 1899.

FRANK L. DYER.

Witnesses:

JNO. R. TAYLOR,
ARCHIBALD G. REESE.