

No. 751,752.

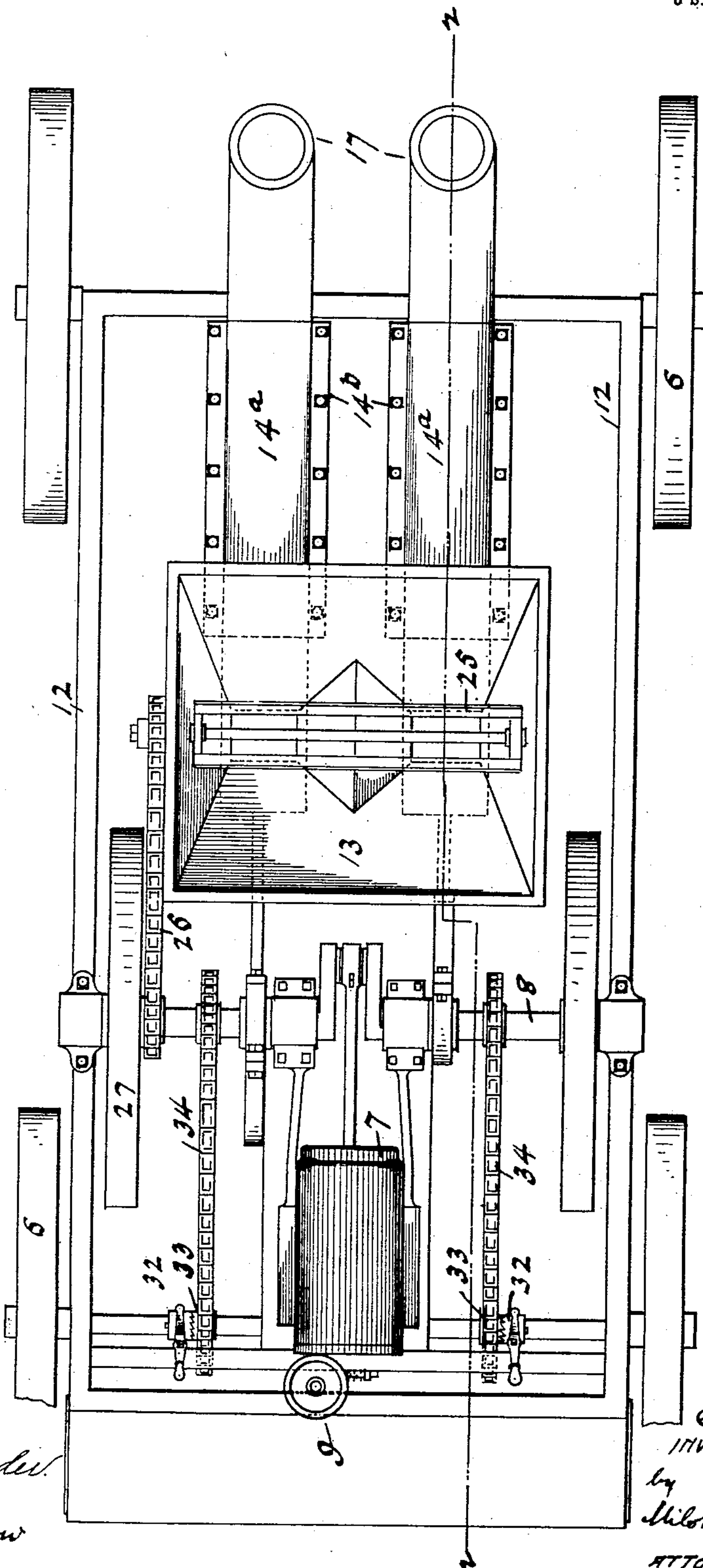
PATENTED FEB. 9, 1904.

E. PILLIOD.  
PRESS.

APPLICATION FILED MAR. 23, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



WITNESSES:

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ATTORNEYS



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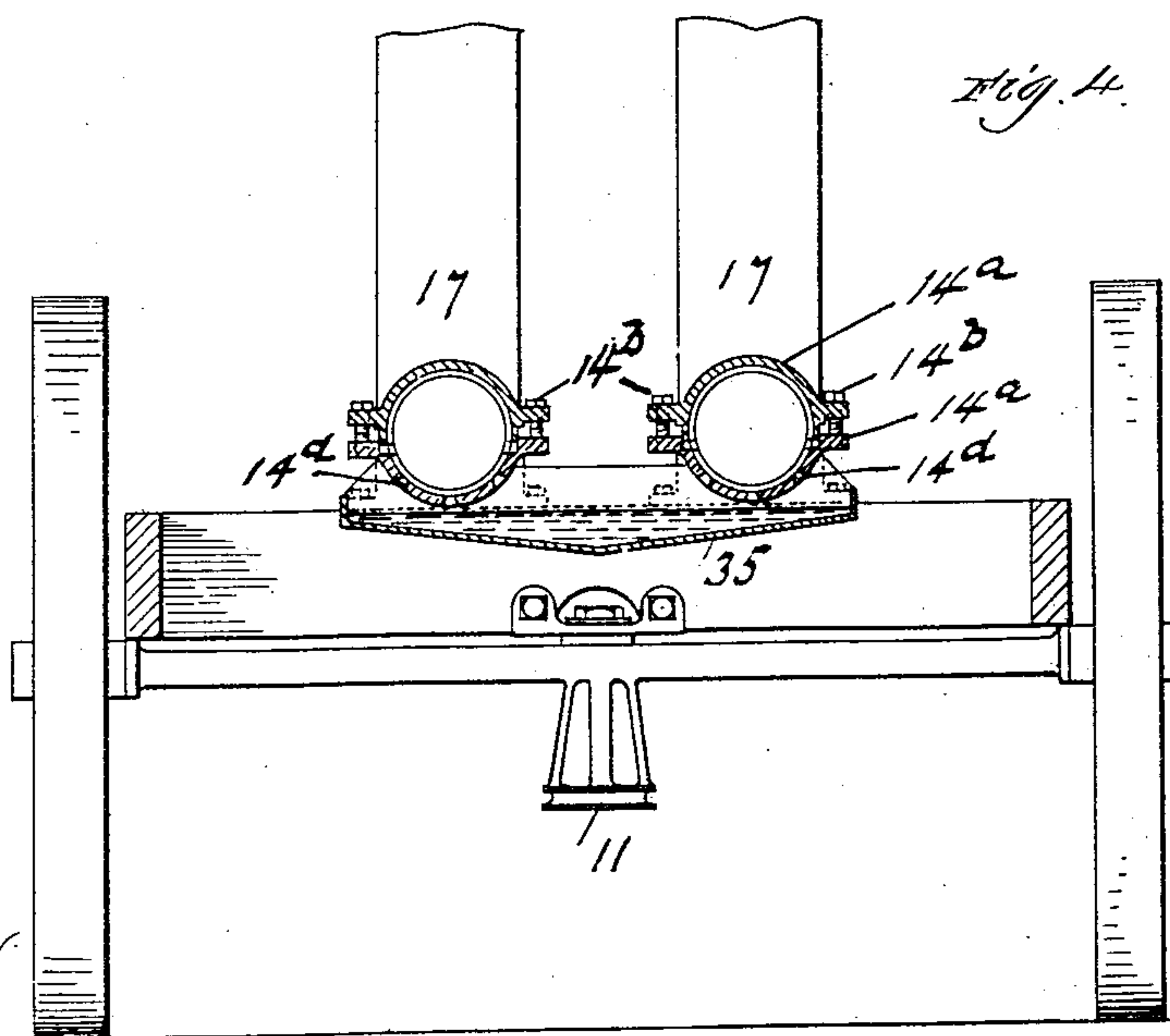
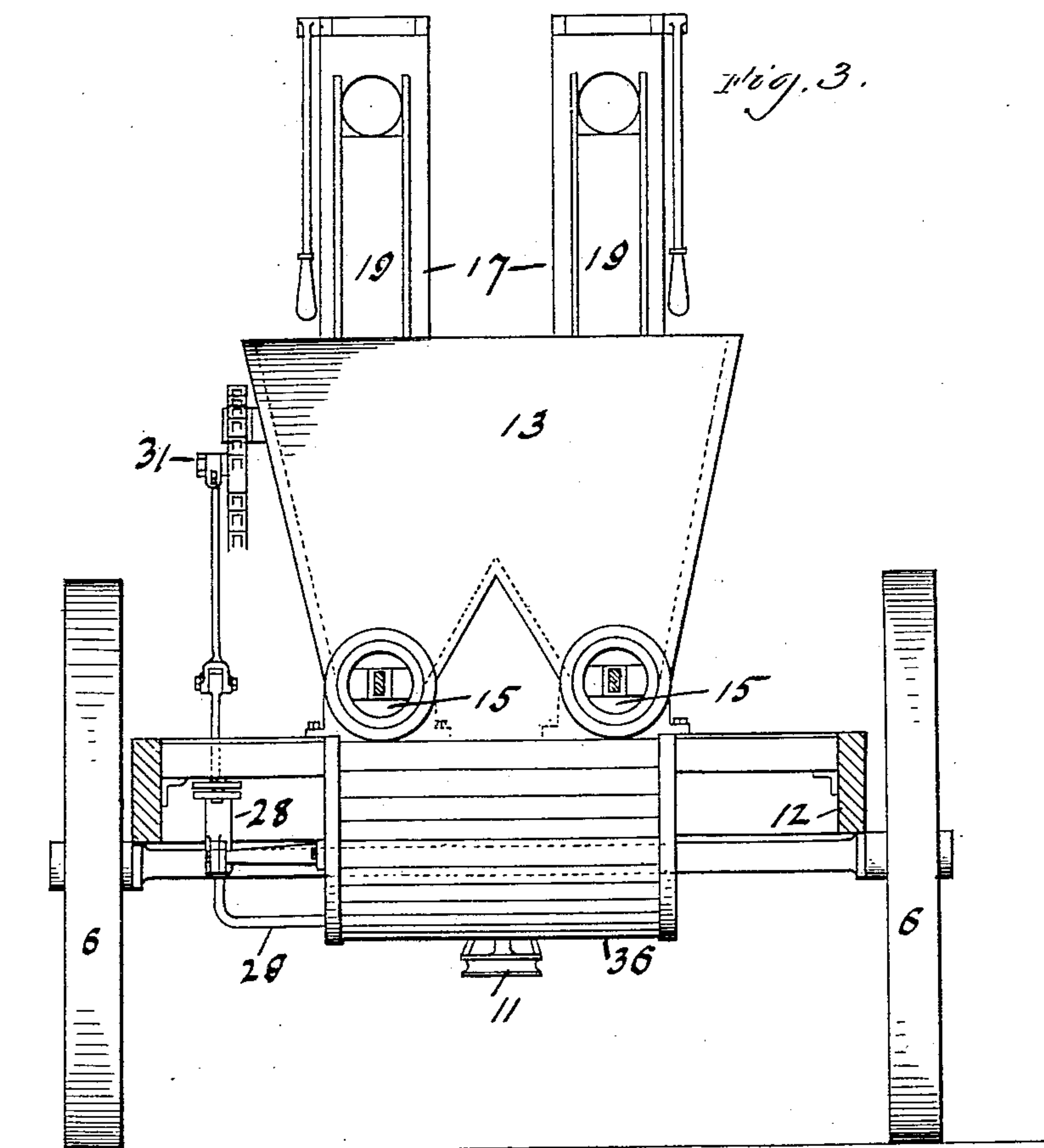
E. PILLIOD.

PRESS.

APPLICATION FILED MAR. 23, 1903,

NO MODEL.

3 SHEETS—SHEET 3.



WITNESSES:

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## UNITED STATES PATENT OFFICE.

EUGENE PILLIOD, OF WYNANT, OHIO.

## PRESS.

SPECIFICATION forming part of Letters Patent No. 751,752, dated February 9, 1904.

Application filed March 23, 1903. Serial No. 149,028. (No model.)

*To all whom it may concern:*

Be it known that I, EUGENE PILLIOD, a citizen of the United States, residing at Wynant, in the county of Shelby and State of Ohio, have  
 5 invented certain new and useful Improvements in Presses; 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  
 10 make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates particularly to cider-  
 15 presses in which the apples are pressed in a press-box by a reciprocating plunger; and the object of the invention is to form an improved press box or cylinder in which the juice is extracted, with improved means for regulating  
 20 the size of the discharge from the box, and consequently the degree of compression.

The invention further embodies a portable cider-press supported on wheels and operated by an engine which may be utilized by trac-  
 25 tion-gearing to propel the machine.

A further object is to generally improve the construction of traction or portable cider-  
 30 presses by an apparatus having advantages of simplicity, strength, and comparative cheapness of construction with respect to its work.

The machine is illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view thereof. Fig. 2  
 35 is a longitudinal vertical section on the line 2 2 of Fig. 1. Fig. 3 is a vertical cross-section on the line 3 3 of Fig. 2, and Fig. 4 is a cross-section on the line 4 4.

Supporting-wheels for the apparatus are indicated at 6, and the engine at 7, driving the  
 40 main shaft 8. The engine may be of any proper kind and my invention is not limited to the particular kind of engine used. The front axle is pivoted and may be turned to steer the vehicle by means of the hand-wheel  
 45 9, connected by worm-gear and chain 10 to a wheel 11 at the pivot. The frame 12 mounted on the running-gear supports the working parts, and a pair of presses are shown oppositely connected to the same shaft. A de-

scription of one will suffice for both, as they 50 are identical.

A double hopper is indicated at 13 feeding the apples to both press-boxes, each of which comprises a cylinder 14, in which works a  
 55 trunk piston or plunger 15, driven by an eccentric 16 on the main shaft 8. The cylinder 14 is imperforate where the piston works and that part thereof is preferably cast solid; but beyond the piston it is cast or formed in two  
 60 parts, as at 14<sup>a</sup>, which join on a horizontal line and are held together by bolts 14<sup>b</sup> through flanges on said parts. These parts have inner circular ribs or ridges 14<sup>c</sup>, the inclined faces of which are presented toward the piston.  
 65 They serve to prevent back slip of the pomace during operation. The lower part 14<sup>a</sup> is perforated, as at 14<sup>d</sup>, at the channels between the ribs to permit the escape of the juice into the  
 70 pan 35 and tank 36 below. At the end the pressure-box joins a delivery-spout and elevator 17, through which the pomace is discharged either out of the machine through an  
 75 opening 18 or into a chute 19 and back to the hopper for a second pressure, according to the set of a gate 20.

To adjust the size of the discharge-opening  
 80 from the pressure-cylinder, I use a screw 21 of considerable size, which is threaded into a tube 22, produced at the bottom and bend of the chute in alinement with the cylinder.  
 85 This screw has a conical point 23 and is turned by means of a hand-crank 24. By adjusting the screw-in or out it varies the size of the discharge-opening, and accordingly the escape of the pomace and the degree of compression.  
 90 This affords a very strong and satisfactory adjustment, with ease of operation for the purpose intended. The divided construction of the pressure-cylinder into two halves 14<sup>a</sup> permits a certain amount of adjustment with respect to the size of the cylinder, as by loosening the bolts 14<sup>b</sup> the size may be increased, and vice versa.

A beater is indicated at 25 in the hopper and serves to prevent clogging of the apples  
 95 therein. It is rotated by sprocket-and-chain connection 26 with the main shaft. As said before, there is a pair of press-boxes and plun-



gers, and the eccentrics operating the plungers are set oppositely on the shaft to balance the machine, which action is assisted by the fly-wheels 27. At 28 a pump is indicated, 5 taking the cider from the tank 36 through a pipe 29 and discharging the same through a pipe 30 to any place desired. The pump is operated by connection with a crank-wheel 31 on the end of the beater-shaft.

10 The press-box is preferably made of cast metal in the cylindrical shape shown, and great strength is secured thereby, which permits rapid action and high compression.

For traction purposes clutches 32 are shown 15 on the rear axle, and they may be thrown in engagement with sprocket-wheels 33, which are loose thereon and driven by chains 34 from sprockets on the main shaft.

This invention is not confined to a cider- 20 press, but may be used for pressing grapes and other fruits and also for expressing lard.

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

1. The combination with a reciprocating plunger, of a press-box having inner ridges 25 with inclined faces presented toward the plunger and perforations at the channels between the ridges.

2. In a press, the combination with a press-box, and a plunger therein, of a discharge- 30 spout joined to the discharge end of the box, and a screw supported by the spout and having a tapering point projecting within the spout, lengthwise in line with and toward the discharge end of the box.

In testimony whereof I affix my signature in 35 presence of two witnesses.

EUGENE PILLIOD.

Witnesses:

E. V. HOSKINS,  
H. W. ROBINSON.