No. 626,355. Patented June 6, 1899.

S. I. WATKINS.

BALING PRESS.

(Application filed Sept. 22, 1898.)

(No Model.)

Fig. 1.

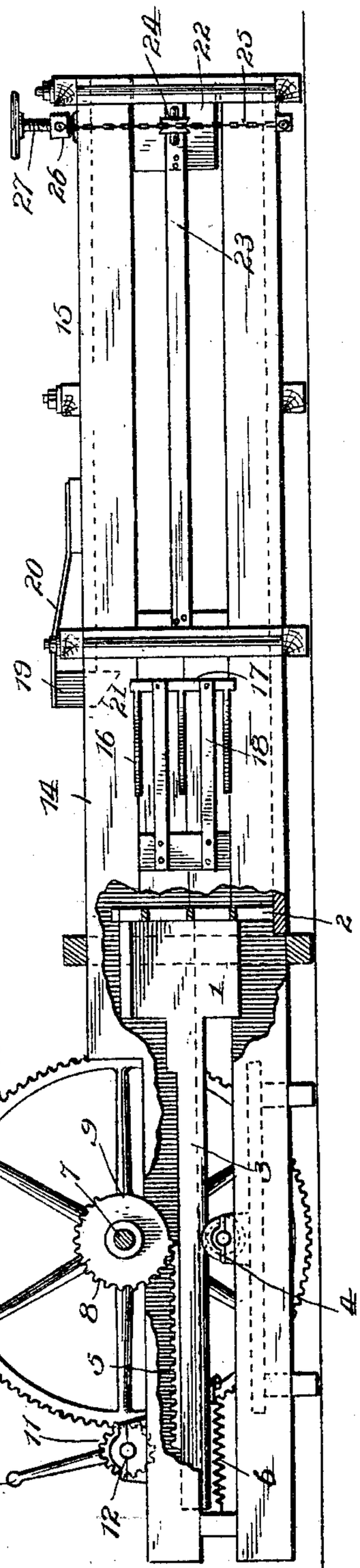
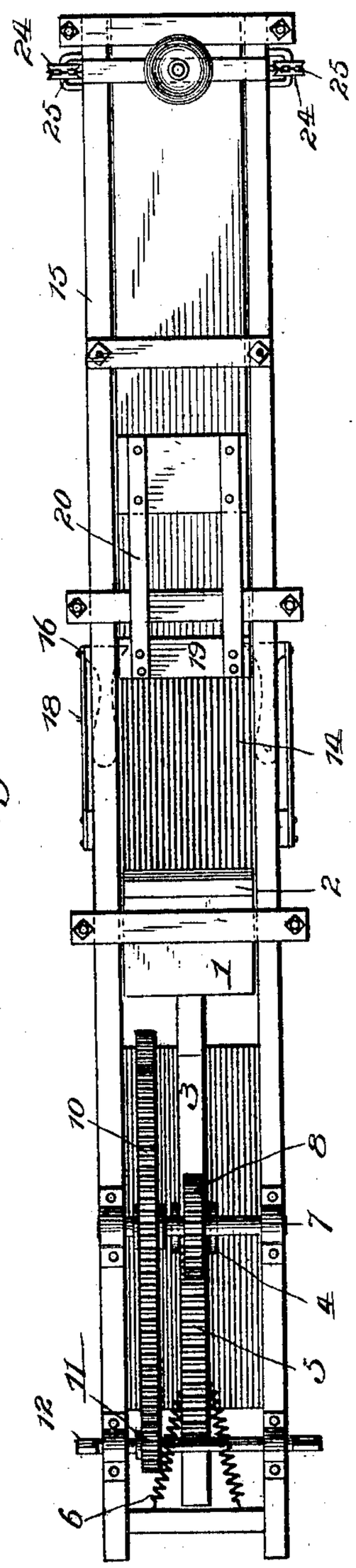


Fig. 2.



Witnesses

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SAMUEL I. WATKINS, OF DOZIERS, TENNESSEE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 626,355, dated June 6, 1899.

Application filed September 22, 1898. Serial No. 691,595. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL I. WATKINS, a citizen of the United States, residing at Doziers, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Baling-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 make and use the same.

My invention has relation to baling-presses; and it consists in the novel construction and arrangement of its parts, as hereinafter described.

The object of the invention is to provide a press of simple and cheap construction, said press being durable in its nature and adapted to effectually bail hay, straw, and the like.

In the accompanying drawings, Figure 1 is a side elevation of the press with parts broken away. Fig. 2 is a top plan view of the press.

The plunger 1 is provided at its forward end with a suitable head 2. The horizontal stem 3 is secured to the head 2. A roller 4 is suitably journaled on the framework of the press, and the said stem 3 is adapted to rest on said roller. The upper face of the stem 3 is provided near its rear end with the teeth 5, and the springs 6 6 are secured at their forward ends to the stem 3 and at their rear ends to the framework of the press. The shaft 7 is located directly above the roller 4, said shaft having mounted thereon a gear-wheel 8, said gear-wheel having on its periphery a space 9 without any gear-teeth. A large gear-wheel 10 is also fixed on the shaft 7 and meshes with a small gear-wheel 11, carried by a shaft 12, which is journaled in the framework of the press and is provided at one or either end with a crank-handle 13. At an intermediate point of the framework the press is provided with a receiving-chamber 14, and just behind the receiving-chamber the baling-chamber 15 is located. The retainers 16 are pivoted at their ends in the sides of the receiving-chamber, the opposite ends of the said retainers projecting through into the interior of the press, the object of which will be hereinafter stated. The ends of the retainers are connected by a perpendicular strip 17, and the forward ends of the spring-strips 18 are attached to the perpendicular strip 17, the rear ends of the spring-strips 18 being fixed to the outer sides of the receiving-chamber, as shown. The said spring-strips 18 have a tendency to hold the forward ends of the retainers 16 in their inner positions. A folder 19 is located at the edge of the opening into the receiving-chamber 14 and is supported by the spring-strips 20, which are secured at their forward ends to the top of the baling-chamber 15. The folder 19 is provided with the under beveled surface 21, as indicated by dotted lines in Fig. 1. The baling-chamber 15 is hollow, with its forward end open, and blocks 22 are located in its sides. The forward ends of the spring-arms 23 are secured to the pieces 22, and the rear ends of the said arms 23 are secured to the framework of the press, as shown in Fig. 1. The pieces 22 are provided with the rollers 24, over which the chains 25 pass. The lower ends of the said chains 25 are secured to the framework of the press, the upper ends of the said chains passing over the rollers and secured to the ends of an adjusting-arm 26, which extends across the top of the frame of the baling-chamber, which has threaded therethrough a set-screw 27, bearing at its lower end against the upper side of the baling-chamber 15.

The operation of the press is as follows: The parts being in the position as shown in Fig. 1, the hay is deposited in the receiving-chamber 14. The plunger-head 2 is then run up by turning the handle 13—that is, the said shaft 12 is revolved, which in turn causes the gear-wheel 11 to revolve, which in turn imparts a rotary motion to the gear-wheel 10 and the shaft 7 and the gear-wheel 8. The teeth of the gear-wheel 8 meshing with the teeth 5 causes the plunger 1 to move forward, and thus the hay in the receiving-chamber 14 is moved forward beyond the retainer 16 and the folder 19. At the end of the stroke of the plunger the section 9 of the gear-wheel 8 is above the rear end of the teeth 5 on the plunger-stem 3, and thus the said gear-wheel 8 is not in engagement with the said teeth 5. The springs 6 6 then withdraw the plunger back into the position as shown in Fig. 1, and as the wheel 8 revolves the teeth of the said wheel again engage the teeth 5 and the plunger is again carried forward. As the plunger retreats another forkful of hay is in-

serted into the receiving-chamber, and the operation, as above described, is continued until the baling-chamber 15 is full of hay. The retainer 16 prevents the hay from springing back or moving back when the plunger 1 retreats, and the folder 19 guides the hay into the baling-chamber 15. As the bale is formed in the chamber 15 the set-screw 27 is turned so as to elevate the arm 26. This pull on the chains 25 25 causes the pieces 22 to move in, and thus hold the end of the bale. After the bale is formed and when in the chamber 15 the set-screw 27 is turned in the opposite direction and the arm 26 is lowered. This releases the grip of the pieces 22 on the bale, and as the next bale is formed the first bale is gradually pushed out at the end of the baling-chamber. The operation, as above described, is then repeated on the second bale, and so on.

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

1. In a baling-press, the combination with a baling-chamber, spring-pressed blocks located in openings in the sides thereof, rollers journaled on the blocks, an adjustable arm on the top of the chamber and chains connected at their lower ends to the baling-chamber, passing over the rollers and secured at their upper ends to the adjustable arm, substantially as described.

2. In a baling-press, a receiving-chamber, a plunger located therein, a baling-chamber communicating with the receiving-chamber, blocks located in openings in the sides of said baling-chamber at the forward ends thereof, rollers journaled on the blocks, chains secured at their lower ends to the baling-chamber and passing over the rollers, an adjustable arm extending across the top of the baling-chamber and connected at its ends to the upper ends of the chains, a set-screw threaded through the adjustable arm and bearing on the top of the baling-chamber, and spring-arms connecting the blocks to the rear end of the baling-frame, substantially as described.

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

SAMUEL I. WATKINS.

Witnesses:

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