

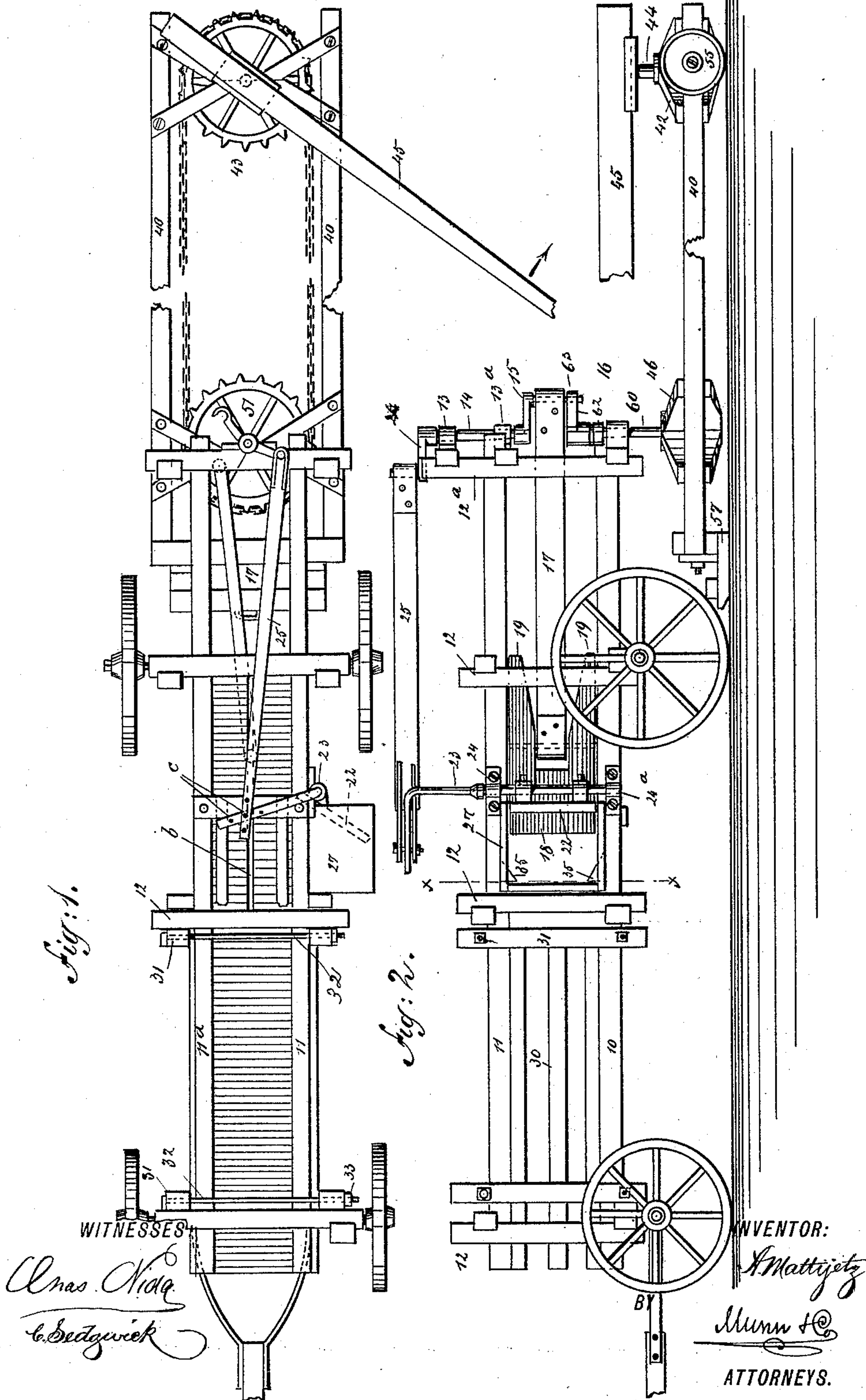
(No Model.)

3 Sheets—Sheet 1.

A. MATTIJETZ.
BALING PRESS.

No. 422,138.

Patented Feb. 25, 1890.



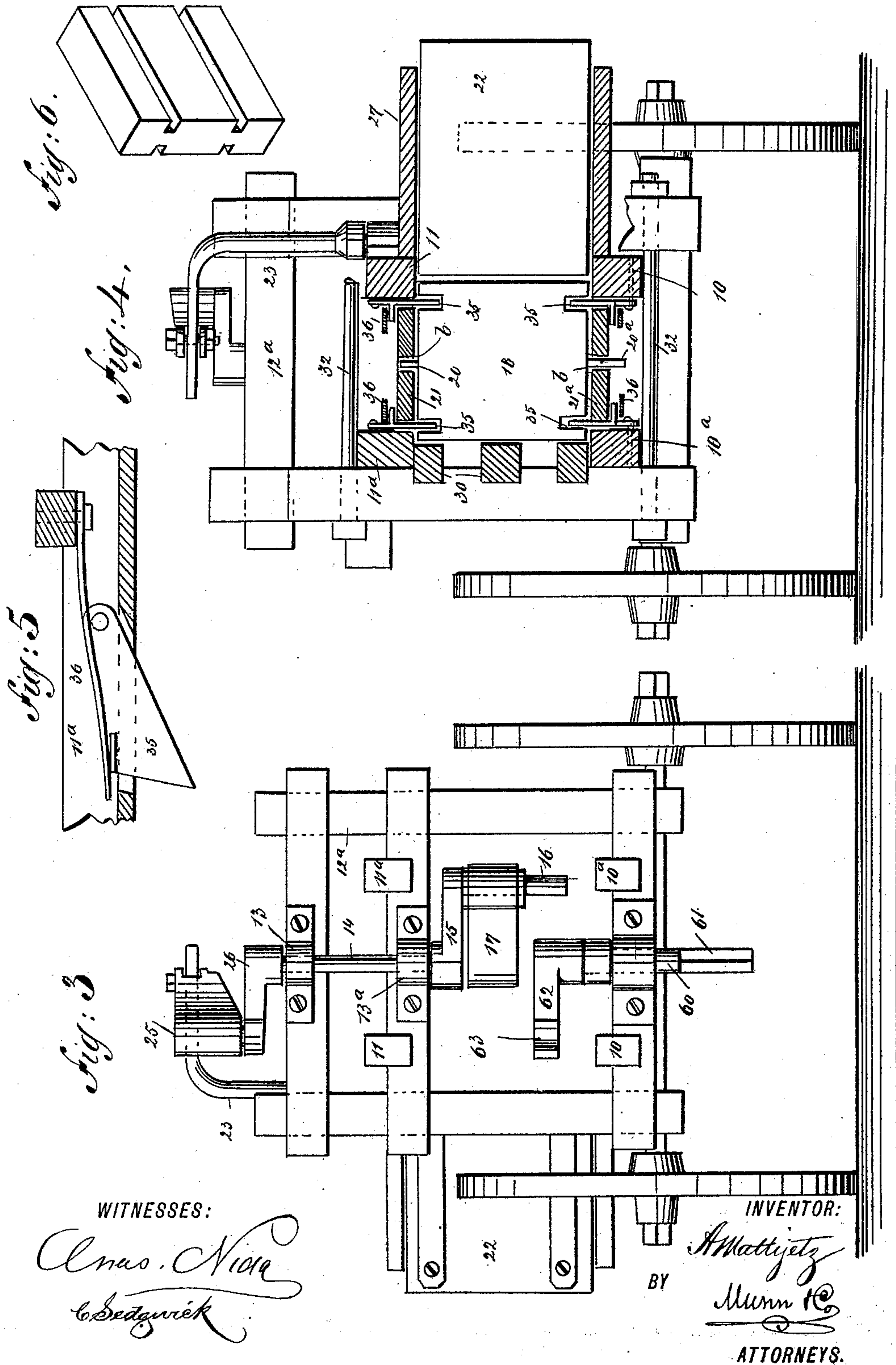
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3 Sheets—Sheet 2.

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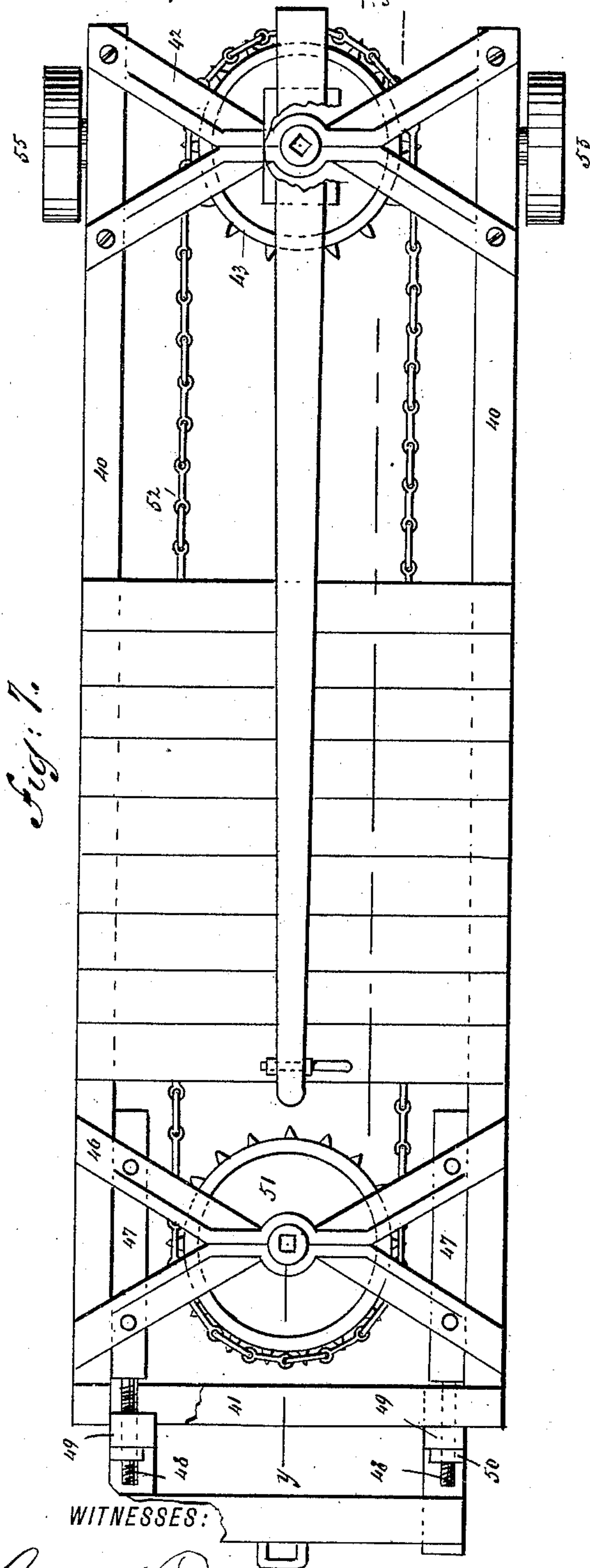
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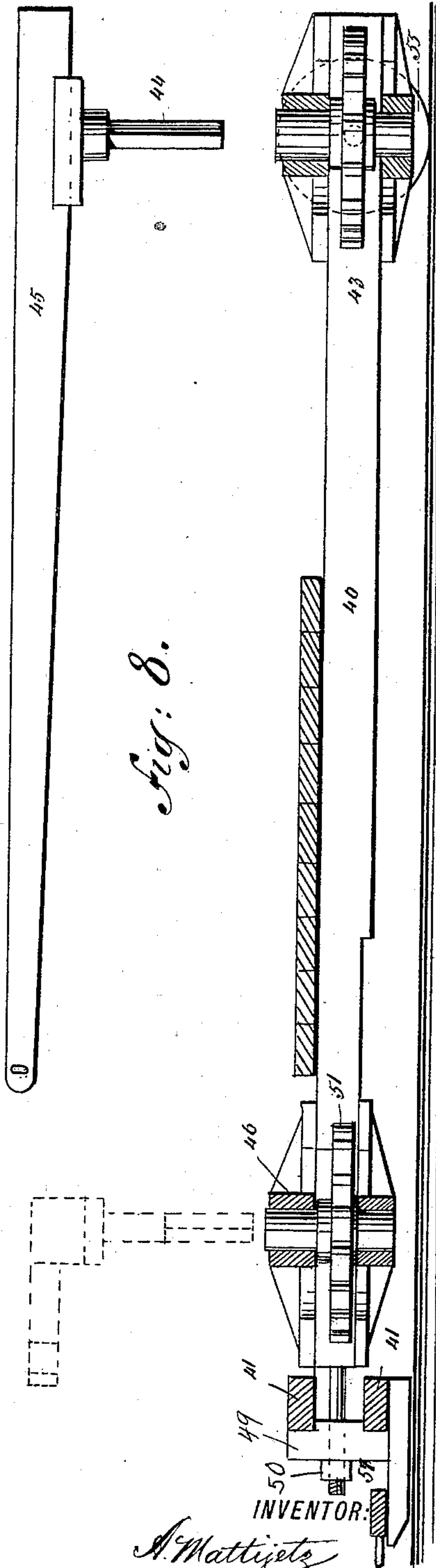
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WITNESSES:

Chas. A. Nide.
C. Sedgwick



INVENTOR:

A. Mattijetz
BY *Munn & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ANDREAS MATTIJETZ, OF GIDDINGS, TEXAS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 422,138, dated February 25, 1890.

Application filed August 14, 1889. Serial No. 320,712. (No model.)

To all whom it may concern:

Be it known that I, ANDREAS MATTIJETZ, of Giddings, in the county of Lee and State of Texas, have invented a new and Improved Baling-Press, of which the following is a full, clear, and exact description.

This invention relates to hay-presses, the main objects of the invention being to provide for an exceedingly rapid baling of the hay, to provide for the easy transportation of the press and the "power" employed in connection therewith, and to provide for the adjustment of the size of the baling-chamber. Many other objects are sought for and obtained by means of the novel constructions, arrangements, and combinations of elements, as will be hereinafter fully explained, and specifically pointed out in the claims.

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

Figure 1 is a plan view of my improved baling-press. Fig. 2 is a side view thereof. Fig. 3 is an enlarged end view of the rear of the press proper. Fig. 4 is a cross-sectional view on line *x x* of Fig. 2. Fig. 5 is an enlarged detail view of one of the spring-pressed retainers arranged in connection with the follower-chamber. Fig. 6 is a perspective view of one of the follower-plates. Fig. 7 is a plan view of the power, parts being broken away; and Fig. 8 is a sectional view on line *y y* of Fig. 7.

In the drawings, 10 and 10^a are the sills, and 11 and 11^a the plates, of the main frame of the press, which said sills and plates are held to place by rectangular frames 12 and 12^a, that are arranged as clearly shown in the drawings, as many of these frames being employed as may be deemed necessary or advisable. The frame 12^a is carried up beyond the plates 11 and 11^a, there to carry the upper bearing 13 of a crank-shaft 14, another bearing 13^a being provided for said shaft. The lower crank-arm 15 of the shaft 14 carries a downwardly - extending pin 16, which extends through and to a point some distance below the pitman 17, said pitman being in turn connected to a follower 18, which said follower is provided with two rearwardly-extending wings 19 and with upwardly and downwardly

extending ribs 20 and 20^a, said ribs riding in grooves *b*, formed between the boards 21 and 21^a, which constitute, respectively, the ceiling and flooring of the follower-chamber. The forward end of the pitman 17 enters the space between the wings 19, there to engage a pin, as indicated by dotted lines in Fig. 2.

One side of the follower-chamber is closed; but at the opposite side there is arranged a door 22, which is rigidly connected to a vertical crank-shaft 23, said shaft being mounted to turn in bearings 24 and 24^a. To the crank-arm of the shaft 23 is connected a pitman 25, which extends to the upper crank 26 of the shaft 14, the crank-arm 26 being much shorter than the crank-arm of the shaft 23; and in order that the swing of the door 22 may be regulated I provide for the adjustment of the connection between the pitman 25 and the crank-arm of the shaft 23, such adjustment being secured by providing both the crank-arm and the pitman with a series of apertures *c*, through any pair of which apertures the connecting-pin may be passed. The door 22 swings in a laterally-extending trough-like structure 27.

The sides of the baling-chamber proper are made up of frames consisting of horizontal strips 30, that are secured to vertical strips 31, the corresponding vertical strips upon each side of the press being connected by tie-bolts 32, the arrangement being such that by adjusting the nuts 33, which engage the tie-bolts, the width of the baling-chamber may be adjusted to suit the requirements of the operator.

From the construction above described it will be seen that if a rotary motion be imparted to the shaft 14 the plunger will be reciprocated, and at each reciprocation of the plunger the door 22 will be opened to provide for the introduction of the material that is to be baled, such material being thrown inward through the laterally-extending box-like structure 27, there to be forced forward into the baling-chamber as the plunger advances.

In order that the material being baled may be held in the position to which it has been advanced, I provide stops or retaining-plates 35, that are pivotally connected to the sills 10 and 10^a and plates 11 and 11^a, and normally

held in the position in which the plate is shown in Fig. 5 by springs 36, the arrangement being such that as the follower advances the plates will be moved outwardly against the tension of their springs, but as the follower recedes the plates will be forced inward and the hay or other material that is being baled will be held from any retrograde movement. As each bale is completed, a grooved follower-plate, such as the one shown in Fig. 6, is placed in the follower-chamber, the grooves being provided in order to allow passage for the binding-wires, as will be readily understood.

In practice I prefer to employ such a power as the one illustrated in the drawings, such power consisting of heavy longitudinal timbers 40, that are united at one end by cross-strips 41, and at the other end by spiders 42, the spiders serving as bearings for a chain-wheel 43, the hub of said wheel being apertured to receive the squared or irregularly-formed shaft 44 of a sweep 45. At the other end of the frame I arrange other spiders 46, which are held to blocks 47, that fit closely against the inner faces of the timbers 40, the ends of the spiders overlapping such timbers. To the blocks 47, I connect threaded rods 48, which extend through posts or abutments 49, there to be engaged by nuts 50. The spiders 46 serve as bearings for a second chain-wheel 51, and upon the two chain-wheels 43 and 51, I mount a chain 52. By adjustably mounting the spiders 46, as above set forth, I am enabled to secure a proper tension upon the chain 52, as will be readily understood. At one end of the timbers 40, I mount small wheels or trolleys 55, and at the other end I arrange a drag or sled 57, the arrangement being such that the power may be easily drawn from place to place.

To secure a connection between the power and the press I provide the press with a shaft 60, formed with a section 61, adapted to fit within the aperture of the hub of the wheel 51, the upper end of the shaft carrying a crank-arm 62, having a claw-like opening 63, which as the shaft is turned to the right will engage the downwardly-extending end of the crank-pin 16.

In order that the section 61 of the shaft 60 may be brought into engagement with the hub of the chain-wheel 51, I mount the shaft 60 so that it may be raised vertically, and the shaft having been so raised and the power adjusted to place beneath the rear end of the press, the shaft may be dropped, so that its section 61 will enter the hub of the wheel 51, after which the horses or other animals employed to operate the power are attached to the sweep and the sweep is moved forward in the direction of the arrow shown in Fig. 1. The claw 63 of the crank-arm 62 will engage

the pin 16, and a proper motion will be imparted to the follower, as will be readily understood.

It will be understood that the speed of the wheel 51 might be varied by increasing or diminishing the size of the wheel 43.

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

1. In a baling-press, the combination, with a follower-chamber having an opening in one side, a follower, a crank-shaft, and a pitman attached to the follower and crank-shaft, of a crank-shaft mounted at one side of the opening in the follower-chamber, a door secured to said crank-shaft, and a pitman connecting the said crank-shafts, substantially as herein shown and described.

2. In a baling-press, the combination, with a follower, a pitman, and a crank-shaft to which the pitman is connected, of a second crank-shaft, adapted to engage the first-named crank-shaft, to impart a forward movement to the follower and to be disengaged therefrom after the follower has reached the end of its stroke, and means for operating the second crank-shaft, substantially as and for the purpose set forth.

3. In a baling-press, the combination, with a follower, a pitman, and a crank-shaft to which the pitman is connected, having a projection on its lower end, of a shaft below the crank-shaft and provided with a crank-arm having a claw-like opening for engaging the projection of the said crank-shaft, and means for operating the said shaft, substantially as herein shown and described.

4. In a baling-press, the combination, with a follower, a pitman, and a crank-shaft having a pin projecting from its end, of a shaft below the crank-shaft, and provided with a crank-arm having a claw-like opening for engaging the pin of the crank-shaft, a sprocket-wheel adapted to receive the lower end of the said shaft, and means for operating the sprocket-wheel, substantially as herein shown and described.

5. In a baling-press, the combination, with a follower, a pitman, and a crank-shaft having a pin projecting therefrom, of a shaft provided with a crank-arm having a claw-like opening for engaging the pin of the said crank-shaft, a sprocket-wheel adapted to receive the lower end of the said shaft, a second sprocket-wheel, a chain passing around said sprocket-wheels, and a sweep connected to the second sprocket-wheel, substantially as herein shown and described.

ANDREAS MATTIJETZ.

Witnesses:

A. B. GREEN,
J. L. ROUSSEAU.