

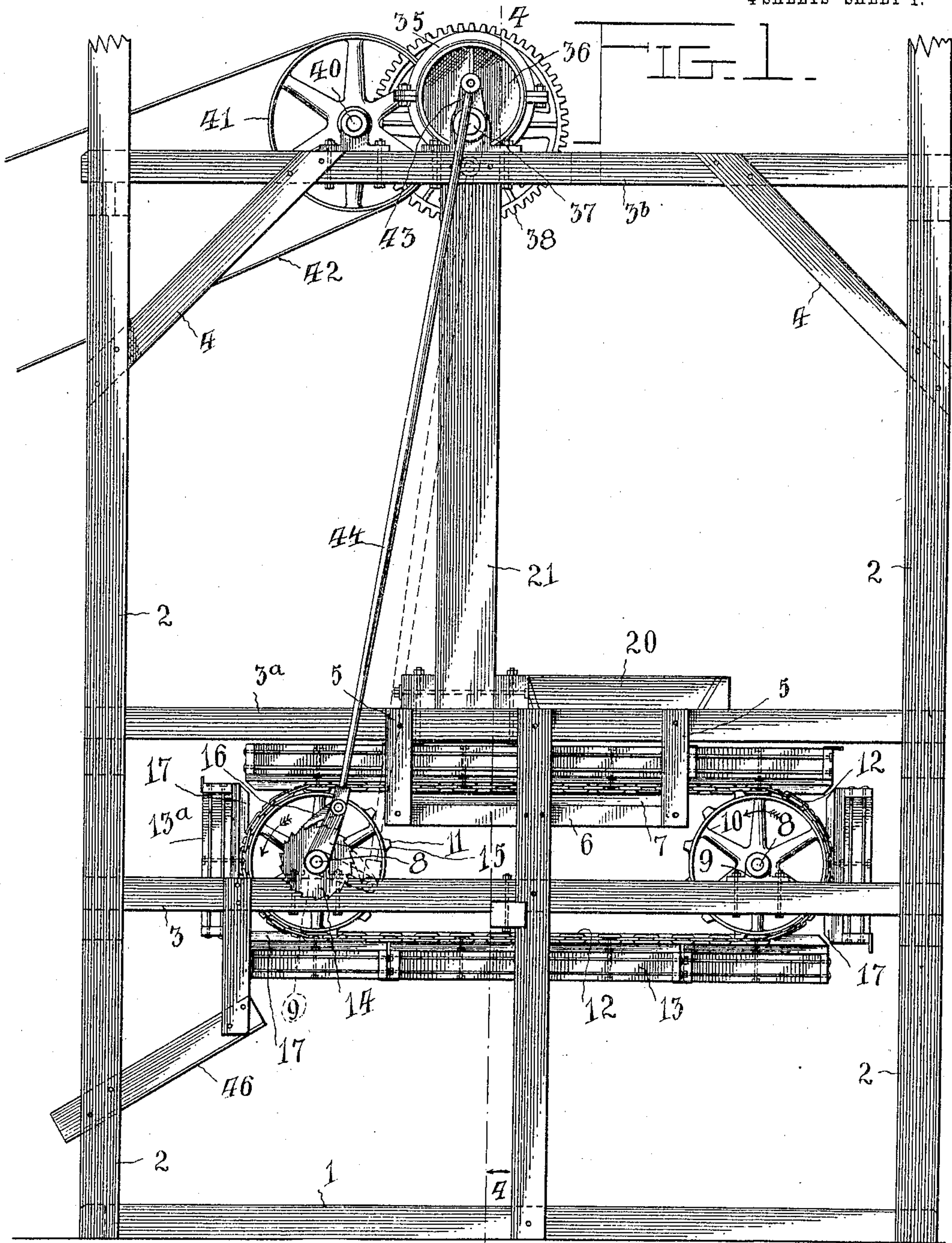
No. 789,758.

PATENTED MAY 16, 1905.

P. REYNOLDS & J. A. R. BEDARD.  
MACHINE FOR PRESSING WET PEAT.

APPLICATION FILED JUNE 2, 1904.

4 SHEETS—SHEET 1.



Witnesses:

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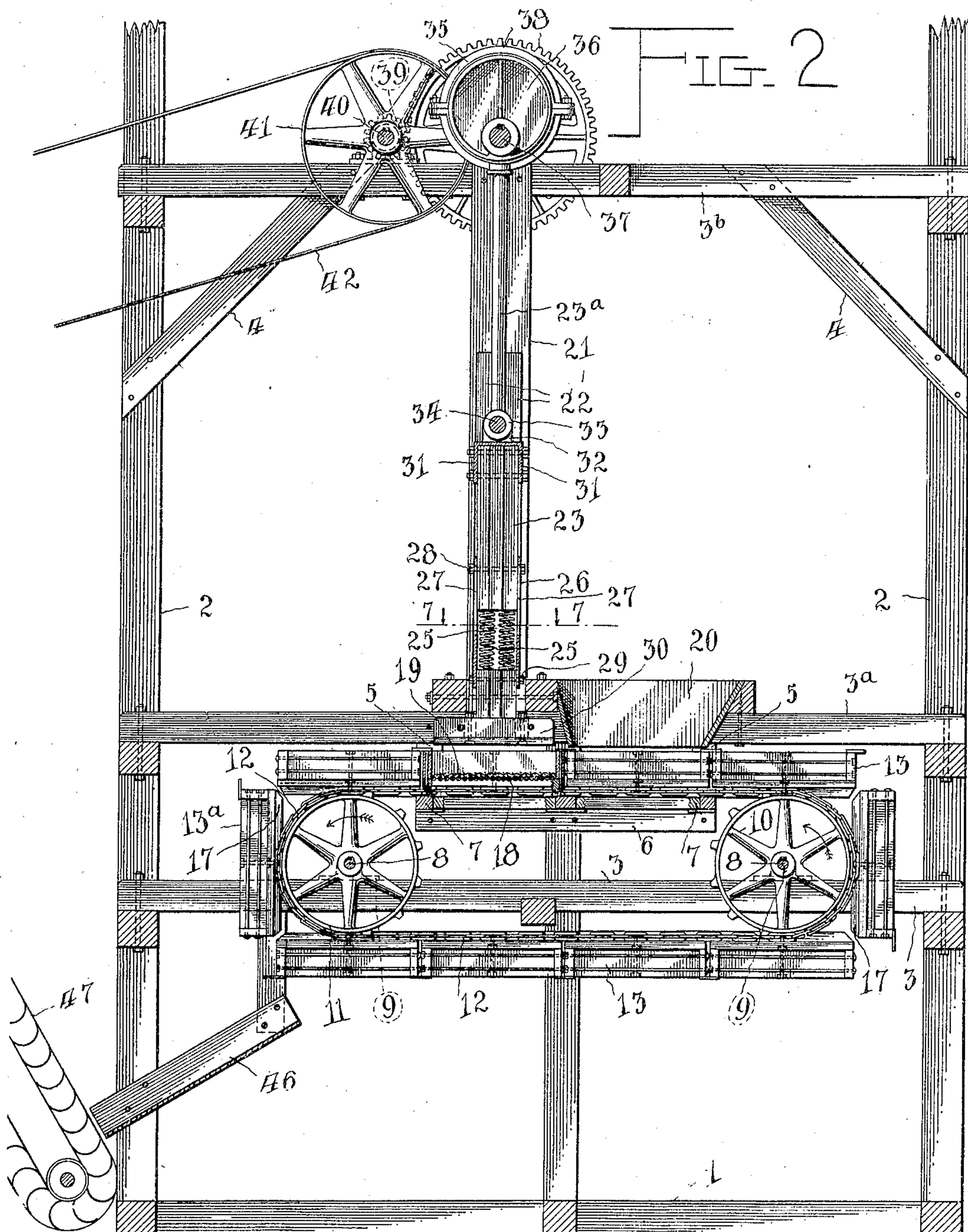
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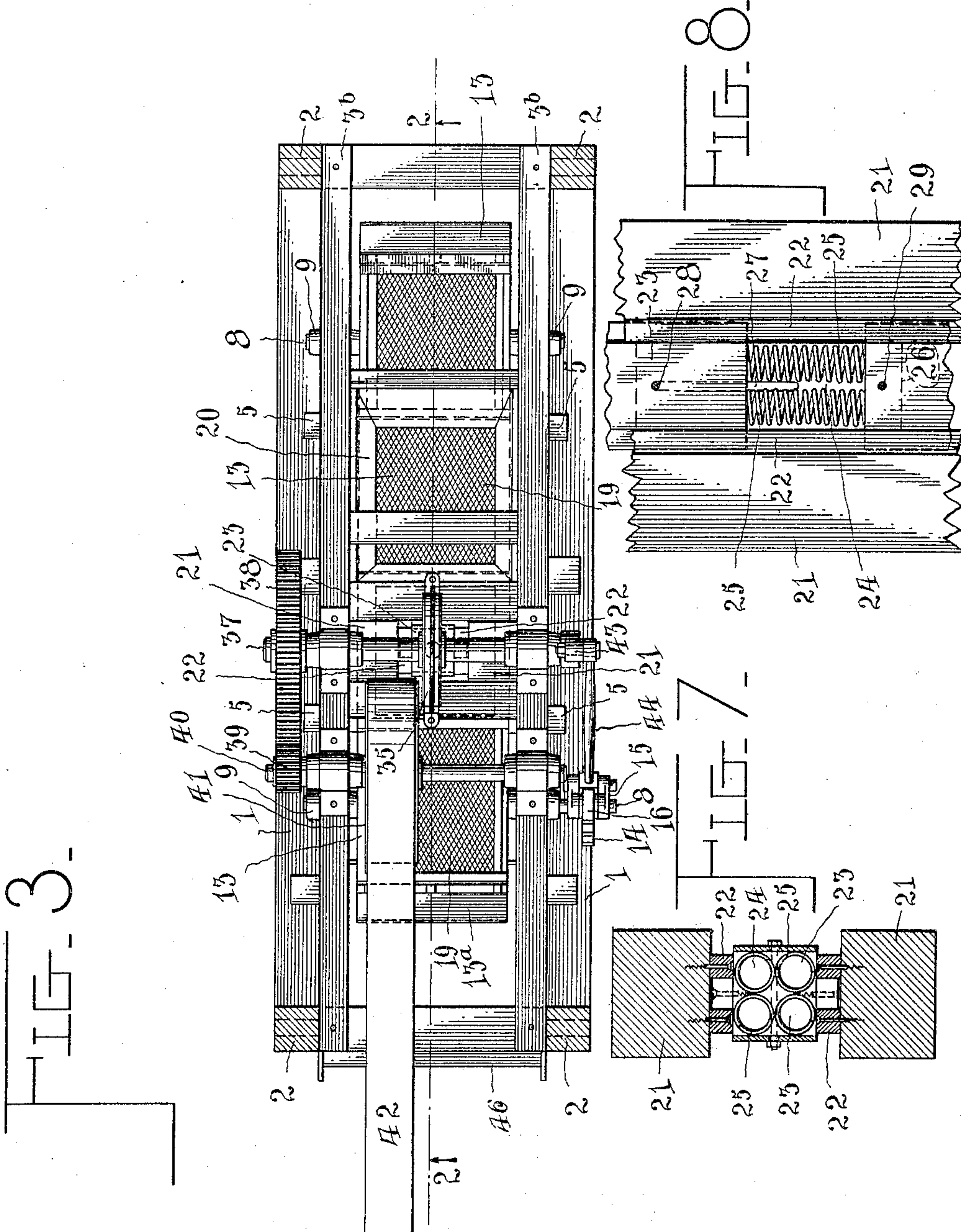
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4 SHEETS—SHEET 3.



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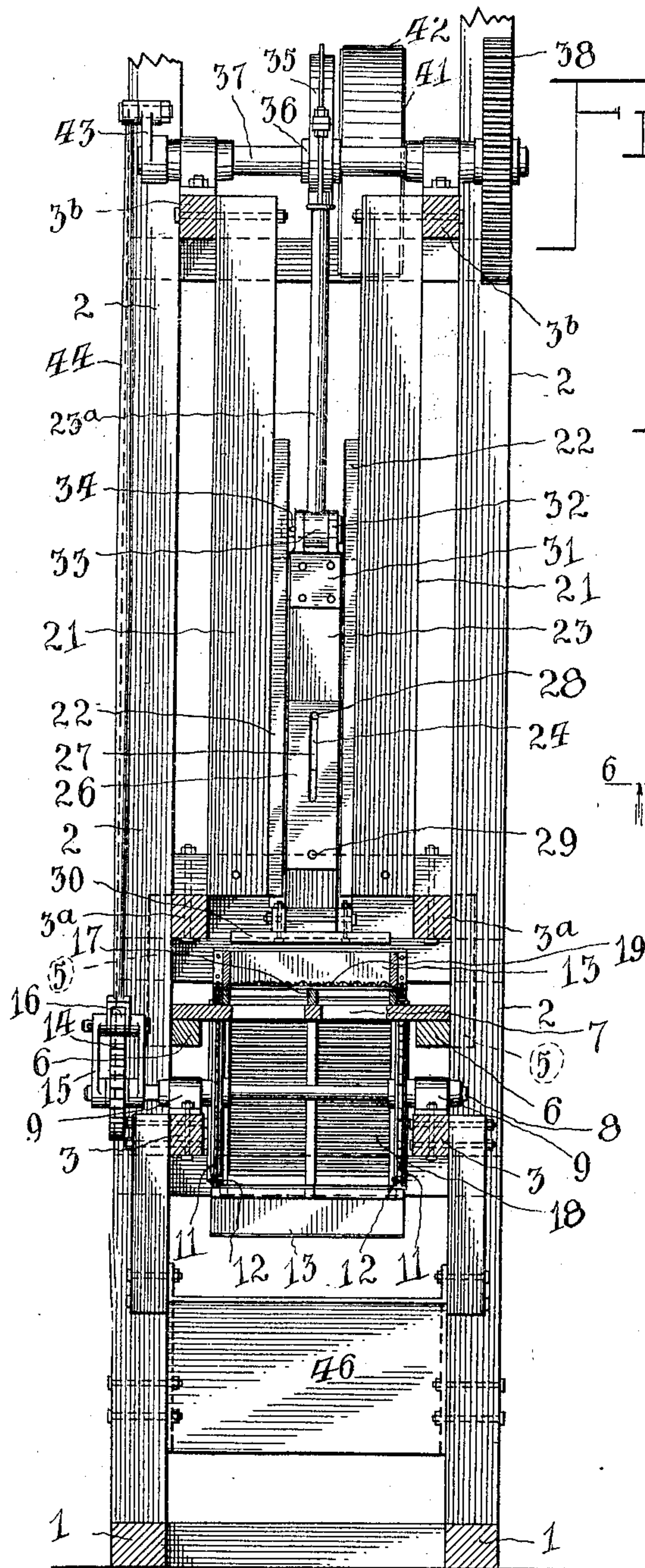


FIG. 4.

FIG. 5.

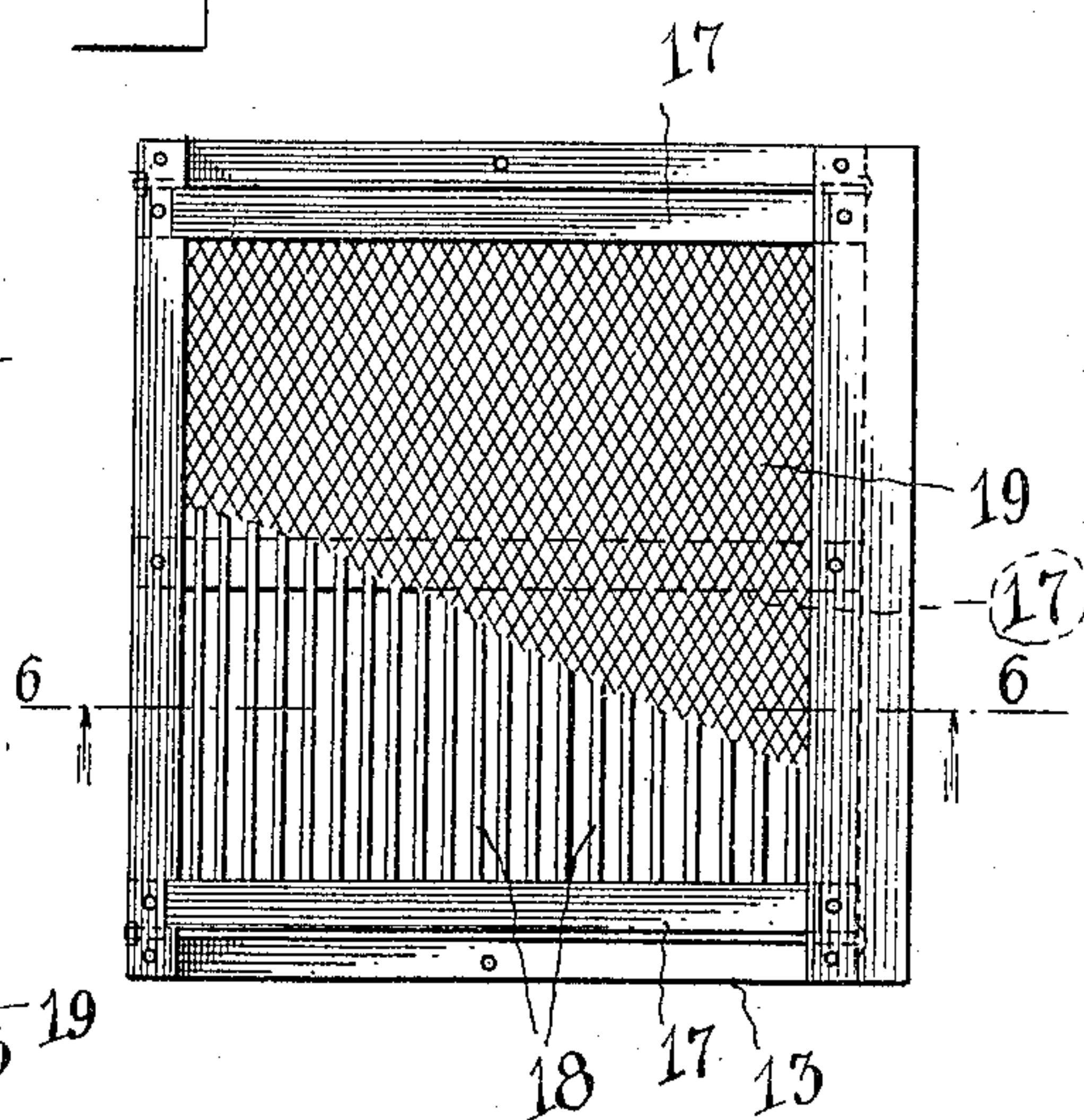
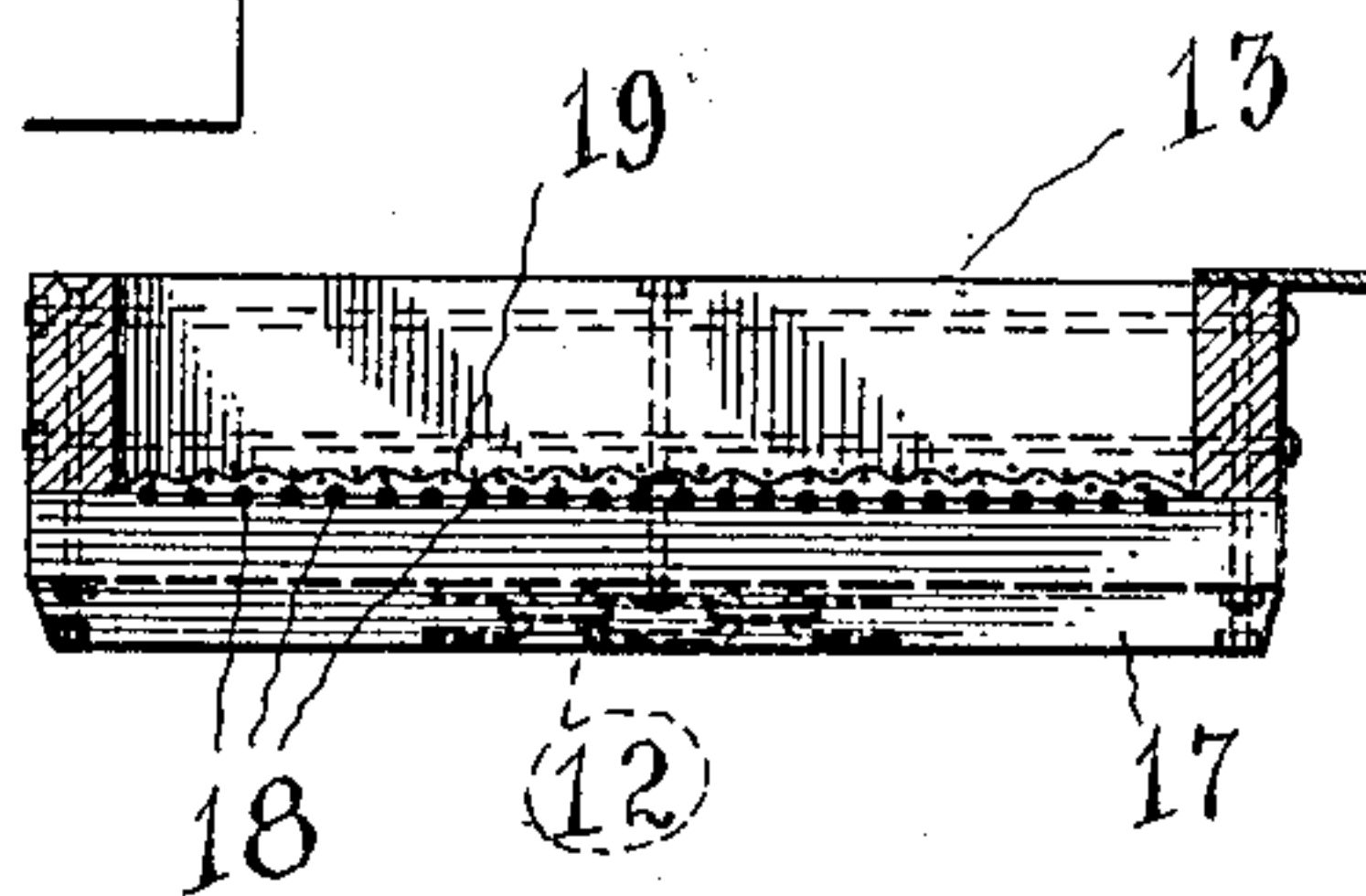


FIG. 6.



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# UNITED STATES PATENT OFFICE.

PATRICK REYNOLDS, OF FARNHAM, AND JOSEPH ALPHONSE RAOUL BEDARD, OF QUEBEC, CANADA; SAID BEDARD ASSIGNOR OF HIS RIGHT TO JOSEPH WILLIAM HARRIS, OF MONTREAL, CANADA.

## MACHINE FOR PRESSING WET PEAT.

SPECIFICATION forming part of Letters Patent No. 789,758, dated May 16, 1905.

Application filed June 2, 1904; Serial No. 210,787.

*To all whom it may concern:*

Be it known that we, PATRICK REYNOLDS, of Farnham, county of Missisquoi, and JOSEPH ALPHONSE RAOUL BEDARD, of Quebec, county of Quebec, in the Province of Quebec, Canada, subjects of the King of Great Britain, have invented certain new and useful Improvements in Machines for Pressing Wet Peat; and we do hereby declare that the following is 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.

This invention relates to new and useful improvements in presses and appurtenant connections relating thereto designed especially for use in pressing wet peat—that is, the peat as it is taken from the bog; and it consists in certain features of novelty in the construction and arrangement thereof, all as hereinafter more fully described, and specifically pointed out in the claims.

The object of the invention is to produce a machine of the character described which comprises conveying means, compression means, and means for advancing the conveyer intermittently to bring buckets or receptacles carried thereby into coincidence with the pressing means, which latter is specially adapted to expel surplus moisture from the peat.

In the annexed drawings similar numerals of reference indicate corresponding parts in all the views, wherein—

Figure 1 is a side elevational view of our improved machine. Fig. 2 is a longitudinal vertical sectional view taken on line 2 2 of Fig. 3. Fig. 3 is a plan view of the machine. Fig. 4 is a transverse vertical sectional view taken on line 4 4 of Fig. 1 looking the direction indicated by the arrow. Fig. 5 is a plan view of one of the buckets hereinafter referred to. Fig. 6 is a transverse section of Fig. 5. Fig. 7 is a transverse section on line 7 7 of Fig. 2, and Fig. 8 is a fragmentary detail of that portion of the plunger and its slide approximate such line 7.

Referring to the parts, it will be noted that a supporting-frame is provided, comprising the base members 1, uprights 2 2, horizontal

members 3, 3<sup>a</sup>, and 3<sup>b</sup>, and diagonal braces 4. Supported by the intermediate horizontal members 3<sup>a</sup> is a pressure-resisting frame comprising the vertical members 5, extending from the cross-beam 3<sup>a</sup>, horizontal members 6, supported by the vertical members 5, and transverse members 7, supported by the members 6, which pressure-resisting frame is adapted to support the buckets connected with the conveyer, hereinafter described in detail, when pressure is exerted upon the contents of such buckets. Supported by the timbers 3 are conveyer-shafts 8, held in suitable bearings 9, and upon such shafts are sprocket-wheels 10 and 11, engaging with which are chains 12, to which chains are connected the buckets 13, which buckets are shown more in detail in Figs. 5 and 6.

Upon the shaft 8, carrying the sprocket-wheel 11, is rigidly connected a ratchet-disk 14, while a rockable arm 15 carries a pawl 16, adapted to engage with the teeth of said ratchet-disk. Connected with the sprocket-chains are the buckets 13, which are provided with longitudinally-extending runners 17, adapted to ride upon the pressure-resisting frame before referred to, and said buckets are provided with apertured bottoms, comprising the rods 18 and wire mesh 19, whereby convenient support is provided for the wet peat, and a practically inflexible bottom is provided in said buckets with apertures therein, through which the surplus moisture pressed from the peat may be forced during the compression of such peat.

Supported by the transverse beams 3<sup>a</sup> is a hopper 20, the discharge portion of which is substantially the area of the opening in the buckets 13, and said hopper is placed above such buckets, so that peat may be deposited in the buckets through such hopper.

In convenient proximity to the hopper are vertical standards 21, provided with slides 22, which serve as guiding means for the substantially rectangular portion of the plunger-rod 23, which is shown in Figs. 7 and 8. As will be noted, the plunger-rod 23 is divided intermediate its length, whereby a spring-chamber



24 is provided, in which compression-springs 25 are placed, abutting at their ends against the divisional elements of said plunger 23, and connecting the parts of the plunger thus separated are plates 26, provided with longitudinal slots 27, in which travel the pins 28, which are connected with the upper portion of such plunger-rod, while the securing-pins 29 rigidly connect such plates 26 with the lower portion thereof. Thus a divided plunger-rod is provided which is capable of delivering resilient pressure to material subjected to the influence thereof. Upon the lower end of the plunger-rod 23 is secured a plunger-head 30, which may be perforated or imperforate, as may be desired, and is of substantially the size and contour of the openings in the buckets 13.

To the upper end of the plunger-rod 23 are connected lug-plates 31; terminating in ears 32, between which is placed the perforated lower end 33 of the upper plunger-rod 23<sup>a</sup>, a suitable pin 34 being provided to connect such parts together. The upper plunger-rod 23<sup>a</sup> is connected to a yoke 35, in which rotates the eccentric 36, (best shown in Figs. 1 and 2,) which eccentric is carried by the shaft 37, which shaft is supported by the timbers 3<sup>b</sup> at the upper portion of the supporting-frame. Upon the shaft 37 is a gear 38, which is in mesh with a pinion 39 upon the shaft 40, which latter shaft serves as a main driving-shaft for the machine, a pulley 41 being provided with a belt 42, leading from any suitable source of power.

Upon the shaft 37 is a crank-arm 43, carrying the rod 44, which rod extends to the arm 15, before referred to, and as the arm 43 is keyed or otherwise secured to the shaft 37 it will be evident that as the arm 43 is longer than the arm 15 rotation of the shaft 37 will cause a rocking movement of the arm 15 upon rotation of the shaft 37. The result of this rocking movement is that during the down-stroke the arm 15 and pawl 16 are carried to the position indicated by the dotted lines in Fig. 1, and when the upstroke carries the arm 43 to the position shown in full lines the pawl will engage the ratchet-wheel 14, thereby rotating the sprocket-wheels in the direction indicated by the arrow, and the proportion of such parts is such that each complete rotation of the shaft 37 will cause the sprocket-wheels to rotate through a sufficient arc to carry the conveyer forwardly the exact distance required to advance a bucket from beneath the hopper 20 to a position beneath the plunger-head 30, so that upon the next stroke such plunger will enter the buckets and press the contents thereof.

The operation of the machine is as follows: The peat to be pressed is thrown into the hopper 20, partially filling the buckets, and the supply of such material is regulated so that the proper amount of material will be placed

in such buckets to secure the best results from the compression to which it is to be subjected. The shaft 40 being actuated, it will be evident that the buckets will be caused to advance intermittently a sufficient distance to bring the buckets one at a time from beneath the hopper to a point beneath the plunger-head, whereupon the said plunger-head will descend, impinging the contents of the buckets, and the pressure thereby created will be resisted by the pressure-resisting frame before referred to, whereupon a portion of the moisture contained in the peat will be pressed therefrom, after which the conveyer will be advanced a sufficient extent to bring the next adjacent bucket into position under the plunger-head, and this intermittent advance will be continued until the buckets are brought to the position indicated by 13<sup>a</sup> in Figs. 1 and 2, whereupon their contents will be deposited in the chute 46, from which the now partially-dried peat may fall by gravity either to an elevator 47 or suitable conveying means for carrying it to a drier, or it may be deposited as required.

While we have shown in the accompanying drawings the preferred form of our invention, it will be understood that we do not limit ourselves to the precise form shown, for many of the details may be changed in form or position without affecting the operativeness or utility of our invention, and we therefore reserve the right to make all such modifications as are included within the scope of the following claims or of mechanical equivalents to the structures set forth.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a peat-press the combination comprising a movable chain, a plurality of receptacles secured to the chain intermediate of their ends, a foraminous bottom secured in each receptacle, a plurality of supporting members secured beneath such bottom, a plunger having a plurality of elements, an independently-acting cushion disposed between said parts, a rod connected at one end to the plunger, a yoke secured to the other end of the rod, an eccentric within the yoke, a shaft supporting the eccentric, a crank-arm on the shaft and a pivoted lever attached to the crank-arm and arranged to actuate said movable chain.

2. In a peat-press, the combination comprising a frame, sprocket-wheels supported on the frame; a chain on said sprocket-wheels, receptacles secured intermediate of their ends to said chain, a pressure-resisting frame disposed below the upper line of travel of said chain, a plunger formed of a plurality of elements, a plunger-head, plates connecting said elements and said plunger-head, springs disposed intermediate of said elements and said head, a rod connected at its lower end with said elements, a yoke connected to the upper



end of said rod, an eccentric within the yoke, a shaft supporting the eccentric, a crank-arm on the shaft and a lever pivoted to the crank-arm and arranged to actuate said chain.

5 3. In a peat-press, the combination comprising a frame, upright members disposed centrally thereof, a plunger disposed between said upright members, guides on the upright members for said plunger, a plunger-head, plates  
10 connecting the plunger and the plunger-head, springs disposed intermediate of the plunger and its head, plates on the upper end of the plunger formed into ears, a plunger-rod con-

nected to said ears, a yoke connected to the opposite end of the rod, an eccentric within  
15 the yoke, a shaft supporting the eccentric, a crank-arm on the shaft, a lever pivoted to the crank-arm and arranged to actuate a chain disposed beneath said plunger.

In witness whereof we have hereunto set our  
20 hands in the presence of two witnesses.

PATRICK REYNOLDS.

JOSEPH ALPHONSE RAOUL BEDARD.

Witnesses:

F. H. GIBBS,

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