

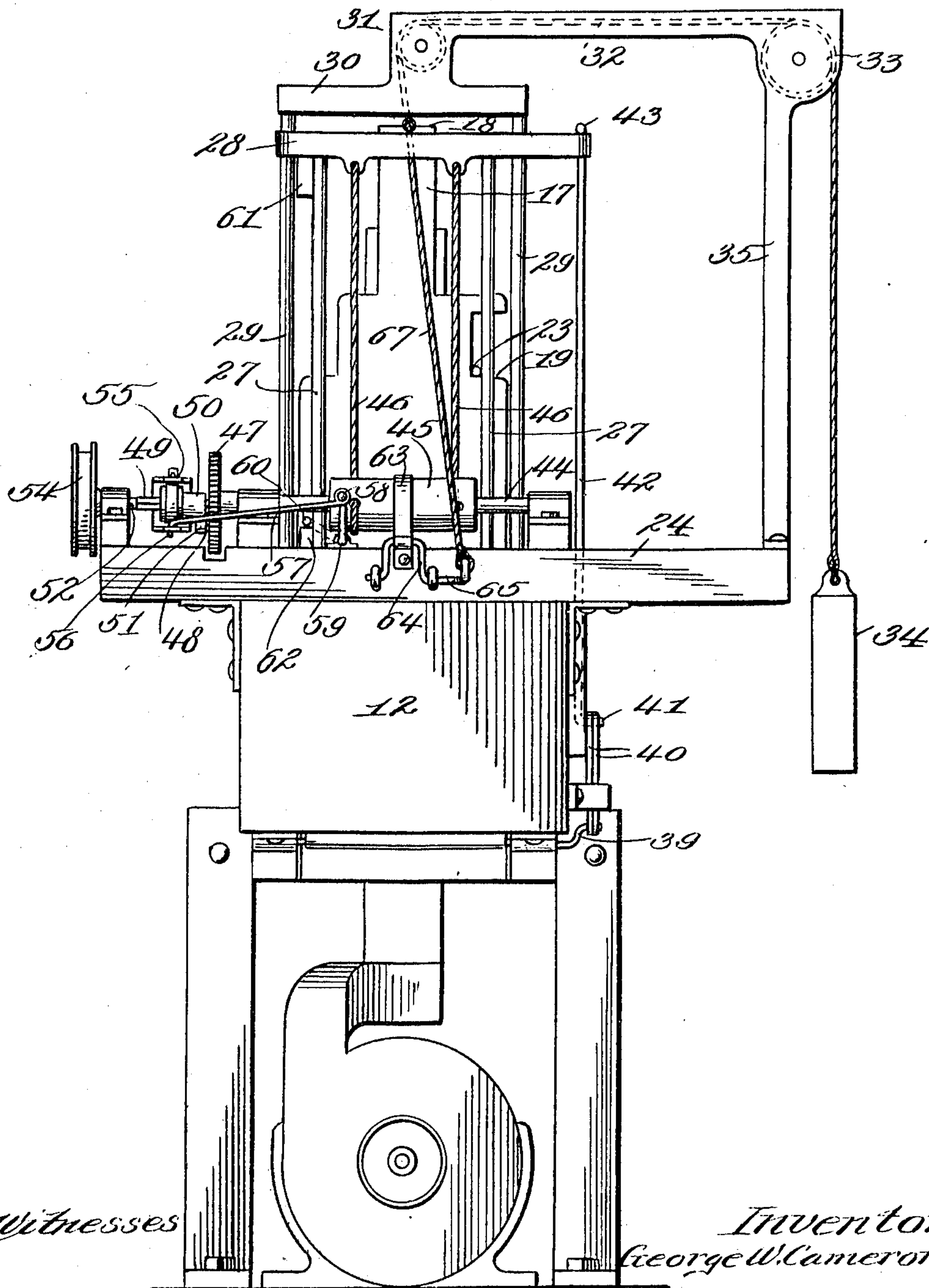
G. W. CAMERON.
LINT PACKING APPARATUS.
APPLICATION FILED APR. 19, 1910.

969,841.

Patented Sept. 13, 1910.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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E. F. Lamp

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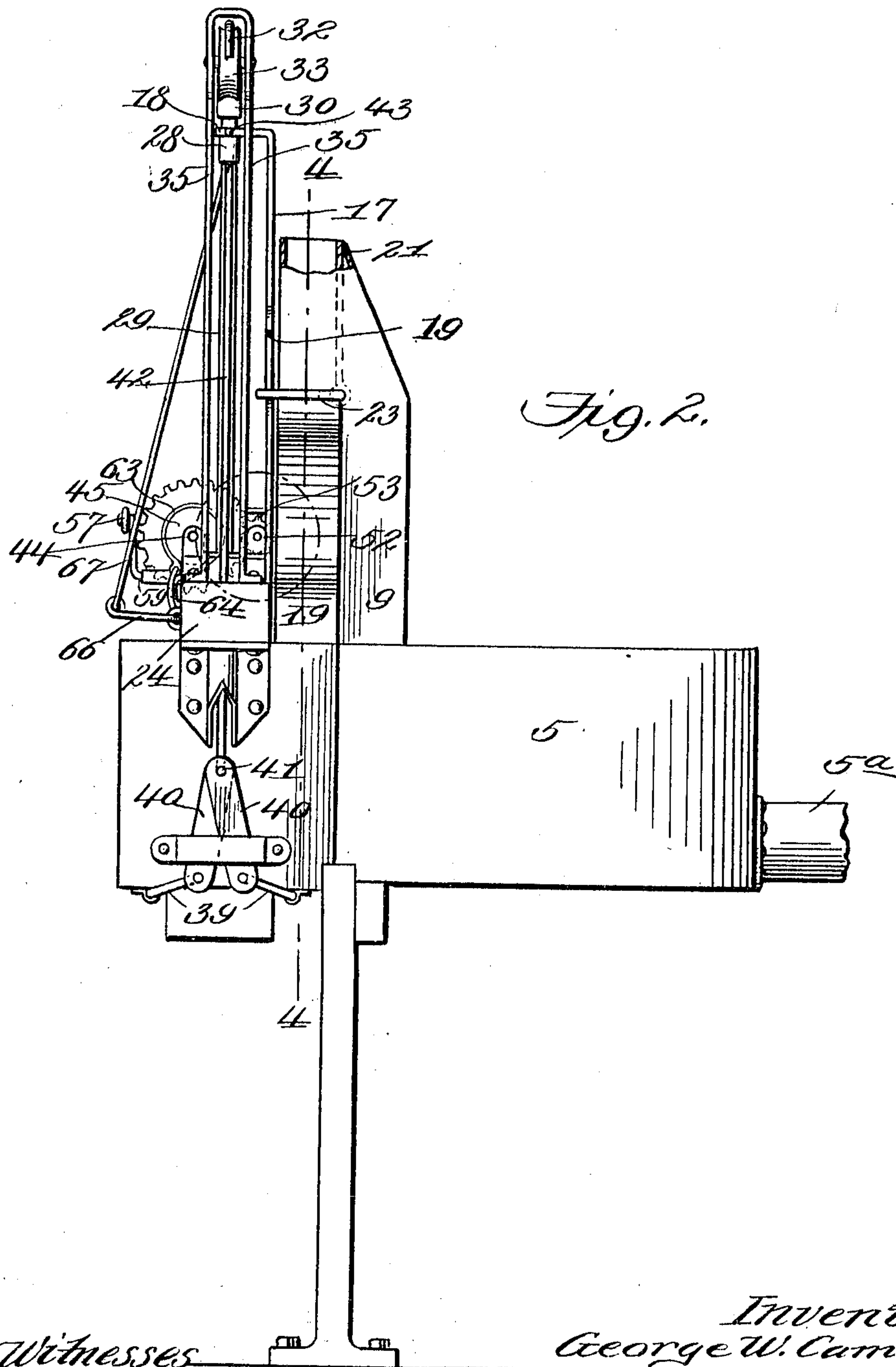


Fig. 2.

Witnesses

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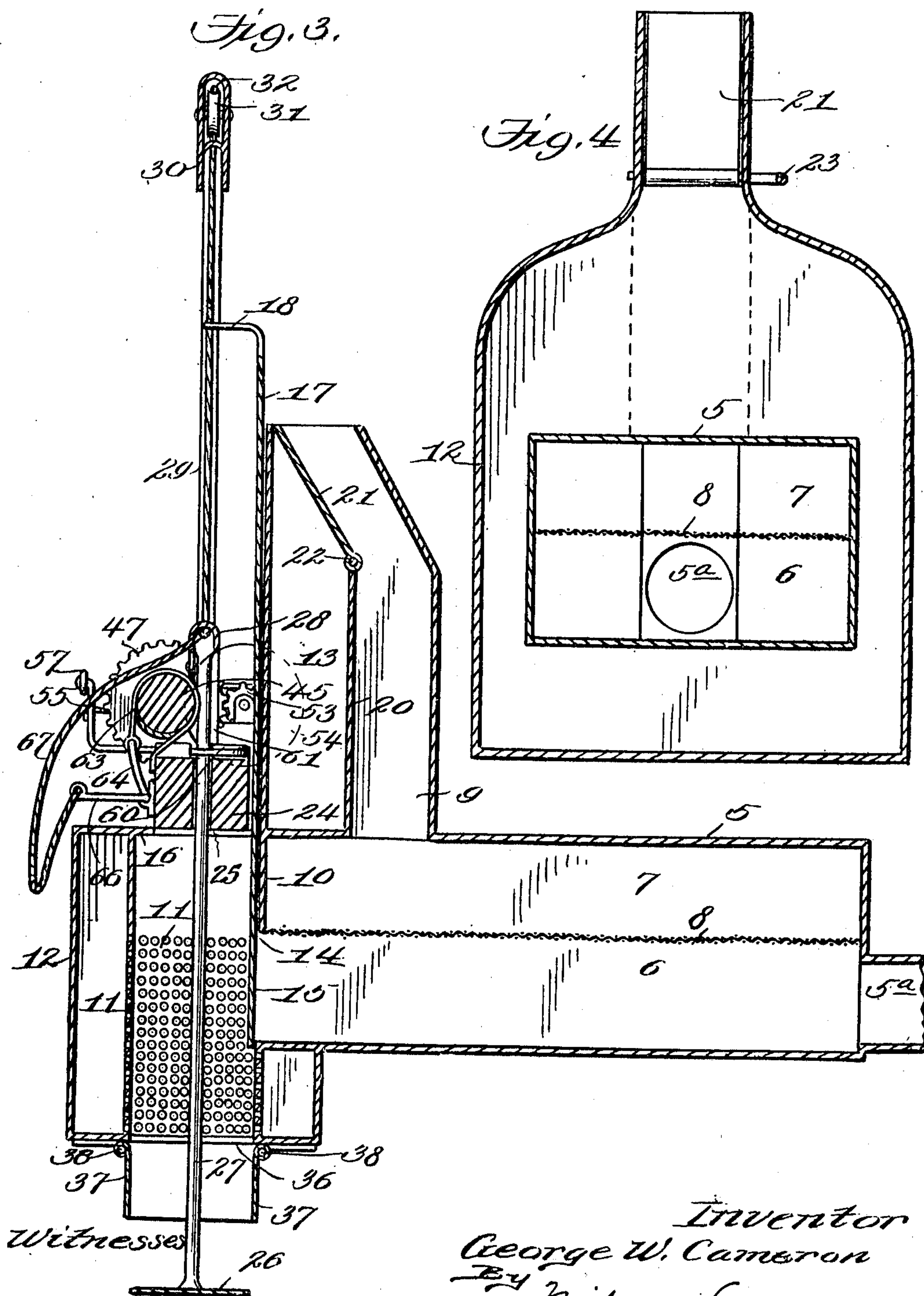
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

GEORGE W. CAMERON, OF HONDO, TEXAS, ASSIGNOR OF ONE-HALF TO GEORGE MUENNINK AND JOHN MUENNINK, BOTH OF HONDO, TEXAS.

LINT-PACKING APPARATUS.

969,841.

Specification of Letters Patent.

Patented Sept. 13, 1910.

Original application filed December 3, 1909, Serial No. 531,217. Divided and this application filed April 19, 1910. Serial No. 556,365.

To all whom it may concern:

Be it known that I, GEORGE W. CAMERON, a citizen of the United States, residing at Hondo, in the county of Medina and State of Texas, have invented certain new and useful Improvements in Lint-Packing Apparatus, of which the following is a specification.

This invention relates generally to cotton handling apparatus, and more particularly to an apparatus for packing lint received from a gin saw, forming part of a cotton conveying and packing apparatus shown and described in my co-pending application Number 531,217, of which the present application is a division.

In the accompanying drawings, which show the present invention and form, in part, the basis for the appended claims, Figure 1 is a front elevation of my improved packing device. Fig. 2 is a side elevation thereof. Fig. 3 is a central longitudinal sectional view through the packing device and receiving chamber, and, Fig. 4 is a cross-section taken on line 4—4 of Fig. 2.

In accordance with my invention, cotton lint is delivered in a constant blast, through a pipe 5^a, to a lint receiving chamber 5, said chamber being comparatively narrow at its rear end and widening toward its front end, and being divided into upper and lower compartments 6 and 7, respectively, by a horizontally disposed screen 8. The lower compartment 6 is, of course, the lint compartment, while from the upper compartment there extends upwardly an air discharge flue 9. The forward end of this lint receiving chamber 5 terminates at the rear wall 10 of the packing chamber proper, the front and side walls 11 of which are of screening material. An outer casing 12 surrounds the packing chamber proper, and has an air discharge flue 13 extending upwardly in front of, and next, the discharge flue 9 of the receiving chamber 5. The rear wall 10 of the packing chamber proper has an opening 14 communicating with the lower compartment 6 of the receiving chamber, and through which the lint is forced into

said packing chamber, said opening being controlled by a vertically slidable gate 15 mounted through the top 16 of casing 12, and upon the front wall of its air discharge flue. This gate 15 has a central upwardly extending arm 17 provided with a forwardly bent upper extremity 18, and has also a cut-out portion 19 in one side edge below the base of arm 17. The wall 20, dividing the air discharge flues 9 and 13 of receiving chamber 5 and casing 12, is terminated below the upper ends of said flues, and upon the upper edges of said wall is a swinging plate 21, mounted at its lower edge upon a shaft 22 having an outer arm 23 bent forwardly and angularly and engaging within the cut-out portion 19 of gate 15. Thus when the said gate is lowered to close the lint feed opening 14, between the receiving chamber 5 and the packing chamber, the arm 23 is depressed, rotating shaft 22 and throwing plate 21 across the casing flue 13, and opening the receiving chamber flue 9, while upon the upward movement of said gate to effect a feed into the packing chamber, through opening 14, the arm 23 is forced upwardly to close the receiving chamber flue 9 and open the casing flue 13, thereby forcing the air and lint into the packing chamber.

A beam 24 is secured across the top 16 of casing 12, above an opening 25 in said top, to support the plunger mechanism. The plunger 26, within the packing chamber proper, has upwardly extending rods 27, projecting through beam 24 and connected thereabove to a cross-head 28, the outer ends of which slidably engage upwardly extending guide rods 29 from beam 24. Guide rods 29 have, at their upper ends, a rigid cross-bar 30, centrally in which is journaled a pulley 31. A cable 32 secured centrally to, and extending upwardly from, the cross-head 28, is trained over pulley 31 and extended laterally therefrom and trained downwardly over a pulley 33 to receive the weight 34 for drawing the plunger to the top of the packing chamber, pulley 33 being journaled on a hori-

zontal level with pulley 31, and at the upper ends of parallel rods 35 extending upwardly from one end of the supporting beam 24.

5 The base of the packing chamber, which extends to the base of the casing 12, has a discharge opening 36 controlled by doors 37, secured at their outer edges to rods 38, and hinged along the sides of said opening
10 36, said rods having, at one end, cranks 39, by which they may be rotated to swing said doors to the closed position. Extending upwardly from, and loosely connected to, said cranks are a pair of convergent
15 links 40, the upper ends of which meet and are loosely connected to the lower angular end 41 of a vertical rod 42 mounted to slide through the beam 24 and provided there-
20 above with an angular end 43 in the path of the plunger cross-head 28 and in such position that said cross-head strikes said end and raises said bar, thus closing said doors 37 at approximately the same time in its upward travel, that it strikes and
25 moves arm 23 upwardly, thus closing doors 37 at about the same time that the air and lint is let into the packing chamber. It will, of course, be understood that on the downward stroke of the plunger, the gate
30 15 drops by gravity, and that the plunger compresses the lint in the packing chamber until its pressure forces the doors 37 open and the sheet of lint is dropped down to the baling press which is to be located below the
35 packer.

Mounted upon the supporting beam 24, forwardly of, and parallel with, plunger cross-head 28, is a counter shaft 44 upon which is secured a drum 45 to which is se-
40 cured one end of cables 46, the other ends of which are secured to the plunger cross-head 28. The counter shaft 44 has thereon a loose gear wheel 47 provided with a side projection 48, and has also a squared por-
45 tion 49 adjacent said gear wheel, upon which slides a sleeve 50 provided with a radial arm 51 adapted to contact with said projection 47 when said sleeve is moved closely adjacent the said gear wheel. The
50 power shaft 52 is mounted upon beam 24 parallel with counter-shaft 44 and has a gear wheel 53 in engagement with gear wheel 47, and has, upon its outer end, a pulley 54, by which it is belt-driven from
55 any suitable source of power. The sleeve 50 is properly moved to clutch and unclutch gear wheel 47, by a yoke-frame 55 pivoted transversely upon beam 24 and engaging said sleeve, and provided with an apertured
60 extension in which engages the angular end 56 of a reach rod 57 connected at its opposite end to the forward angular extremity 58 of an oscillatory shaft 59 journaled

transversely upon beam 24, below drum 45. The oscillatory shaft 59 has a rear angular 65 extremity 60 extending into the path of upper and lower contact pieces 61 and 62 respectively, carried by the adjacent plunger rod 27 whereby when plunger 26 reaches the limit of its upward travel, its piece 62 will 70 strike shaft extremity 60 and thus clutch the gear wheel 47, and at the limit of its downward movement, by its piece 61, unclutch the same so that it can be raised by the weight 34. It will thus be seen that, as the 75 plunger reaches the limit of its upward travel, considerable strain is imposed upon the cables 46. In order to obviate this I provide a band-brake 63 centrally upon the drum 45, with which is connected the crank 80 portion 64 of an oscillatory shaft 65 mounted on beam 24 and provided with an angular end 66 connected by a cable 67 to the cross-head 28 whereby when the same approaches its upward limit of travel it will cause oscil- 85 lation of said shaft 65 and consequent tightening of band-brake 63.

I claim:

1. The combination with pneumatic means to remove and feed lint, of a packing cham- 90 ber, a plunger operating therein, means actuated by the plunger to control the feed to said chamber, weight controlled means for moving said plunger in one direction, a driven shaft, a drum carried thereby, cables 95 connecting said drum and said plunger, and means to clutch and unclutch said shaft actuated by said plunger at the limits of its outward and inward movements respec- 100 tively.

2. The combination with pneumatic means to remove and feed lint, of a packing cham- ber, a plunger operating therein, weight controlled means for moving said plunger in one direction, a driven shaft, a drum carried 105 thereby, cables connecting said drum and said plunger, means to clutch and unclutch said shaft, actuated by said plunger at the limits of its outward and inward movement respectively, a brake controlling said drum, 110 and means actuated by said plunger adjacent its limit of outward movement, to actuate said brake and check rotation of said drum.

3. The combination with a lint receiving chamber, of a packing chamber adjacent and 115 in communication with said receiving chamber and having a discharge opening, a plunger operating in said packing chamber to pack the lint, doors controlling said dis- charge opening and adapted to open by the 120 pressure of the plunger, and means to close the doors actuated by the plunger when it recedes.

4. The combination with a lint receiving chamber having means to confine the lint 125 therein and an air outlet flue leading there-

from, of a packing chamber communicating
with said receiving chamber, an air outlet
flue leading from said packing chamber ad-
jacent said receiving chamber flue, a valve
5 in said flues to alternately close one and open
the other, and a gate slidable between said
receiving chamber and said packing cham-
ber to alternately establish and cut off com-

munication therebetween, and having means
to control said flue valve.

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

GEORGE W. CAMERON.

Witnesses:

JOHN G. HEYEN,
V. H. BLOCKER.