

No. 868,142.

PATENTED OCT. 15, 1907.

J. J. STOPPLE.  
BALING PRESS.

APPLICATION FILED APR. 25, 1907.

3 SHEETS—SHEET 1.

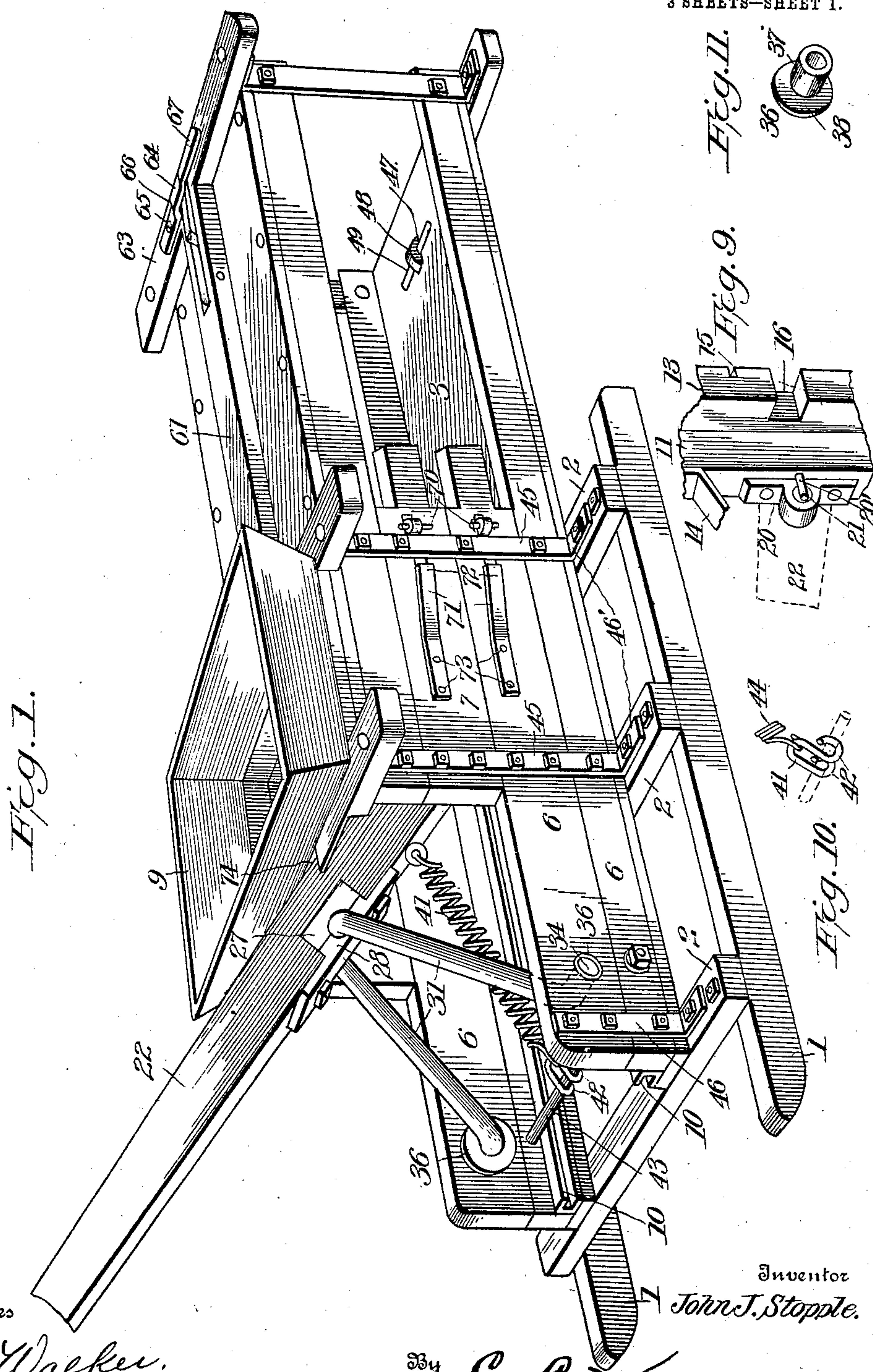


Fig. 1.

Fig. 11.

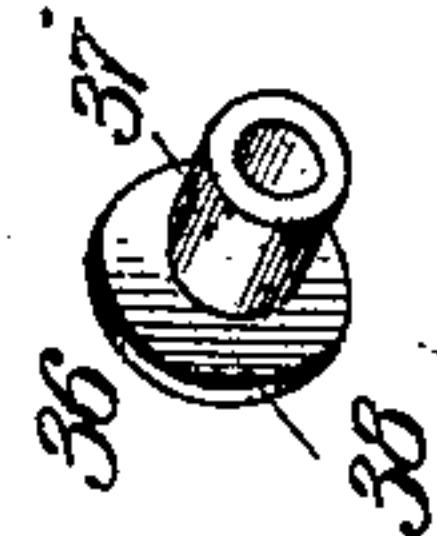


Fig. 9.

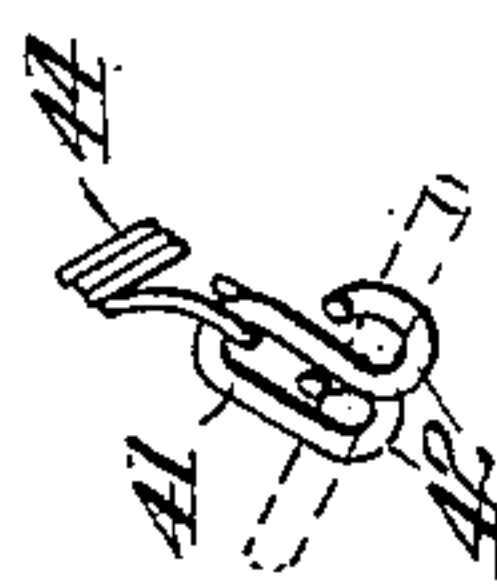
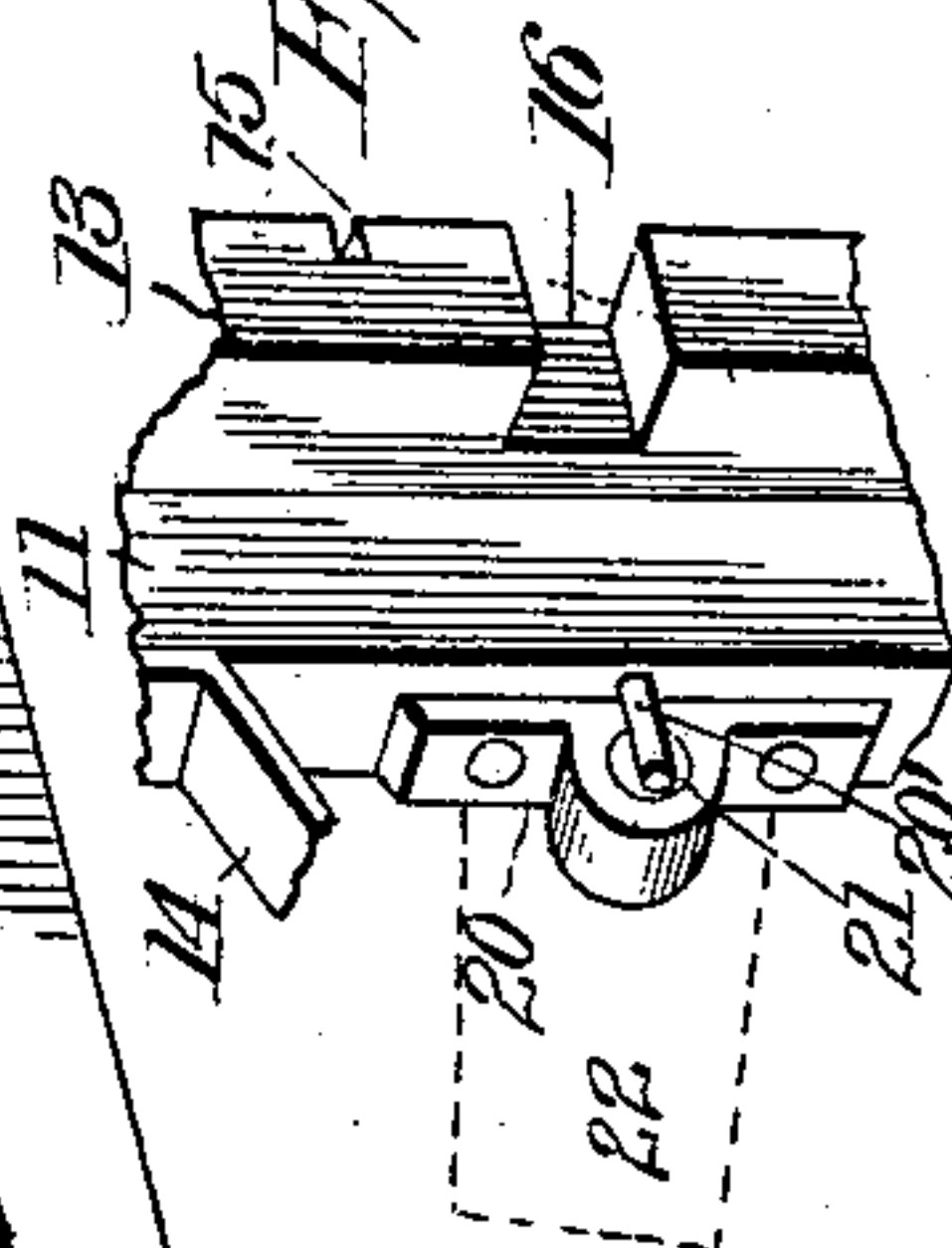


Fig. 10.

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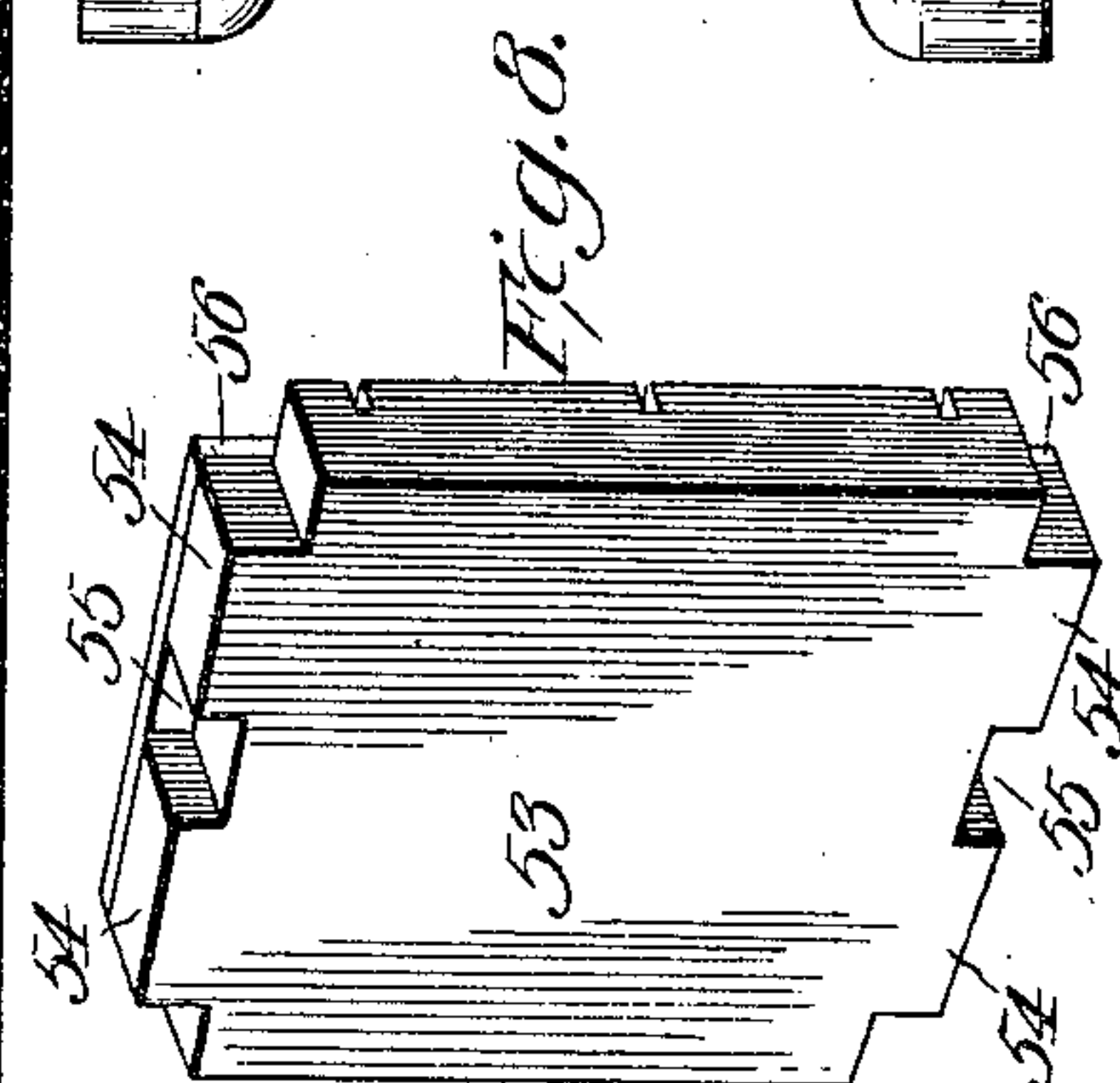
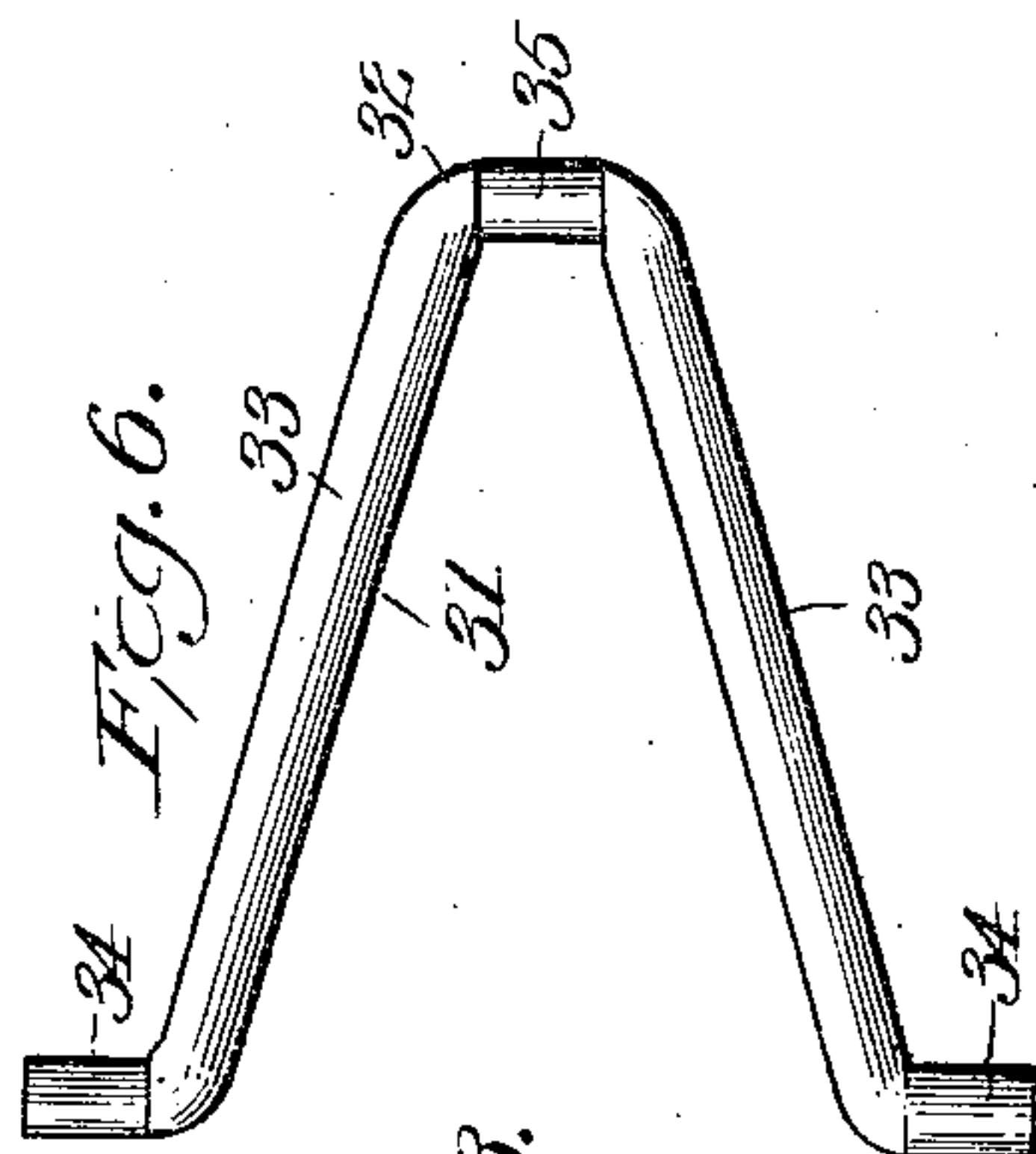
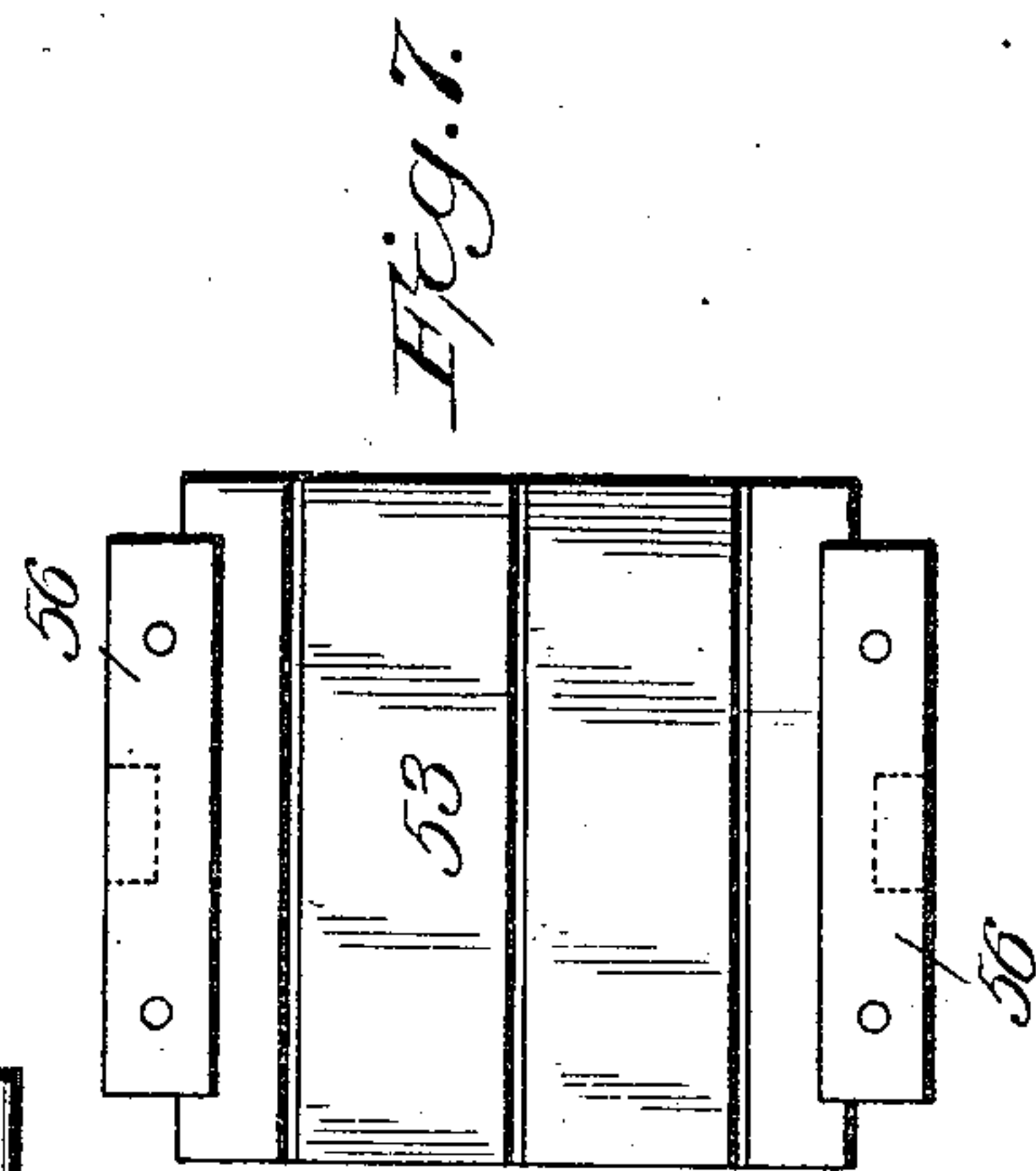
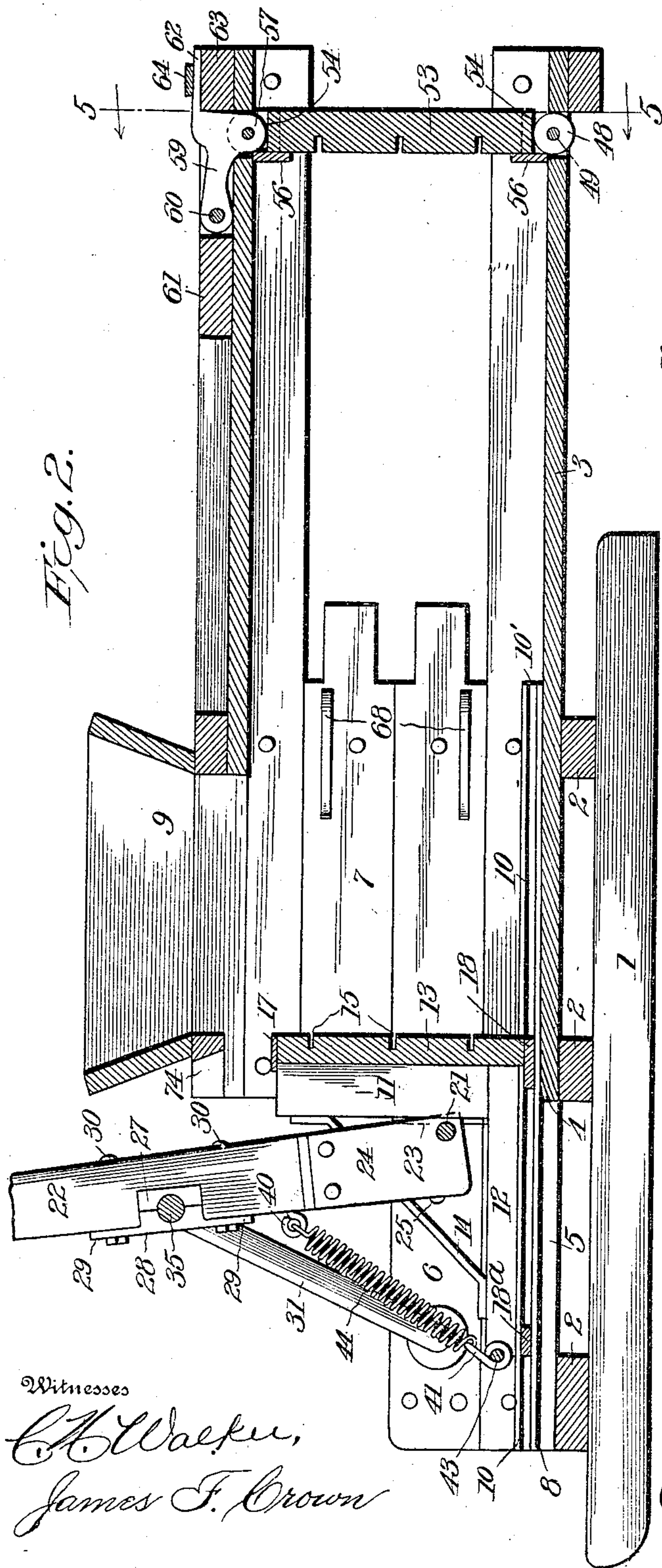
No. 868,142.

PATENTED OCT. 15, 1907.

J. J. STOPPLE.  
BALING PRESS.

APPLICATION FILED APR. 26, 1907.

3 SHEETS—SHEET 2.



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No. 868,142.

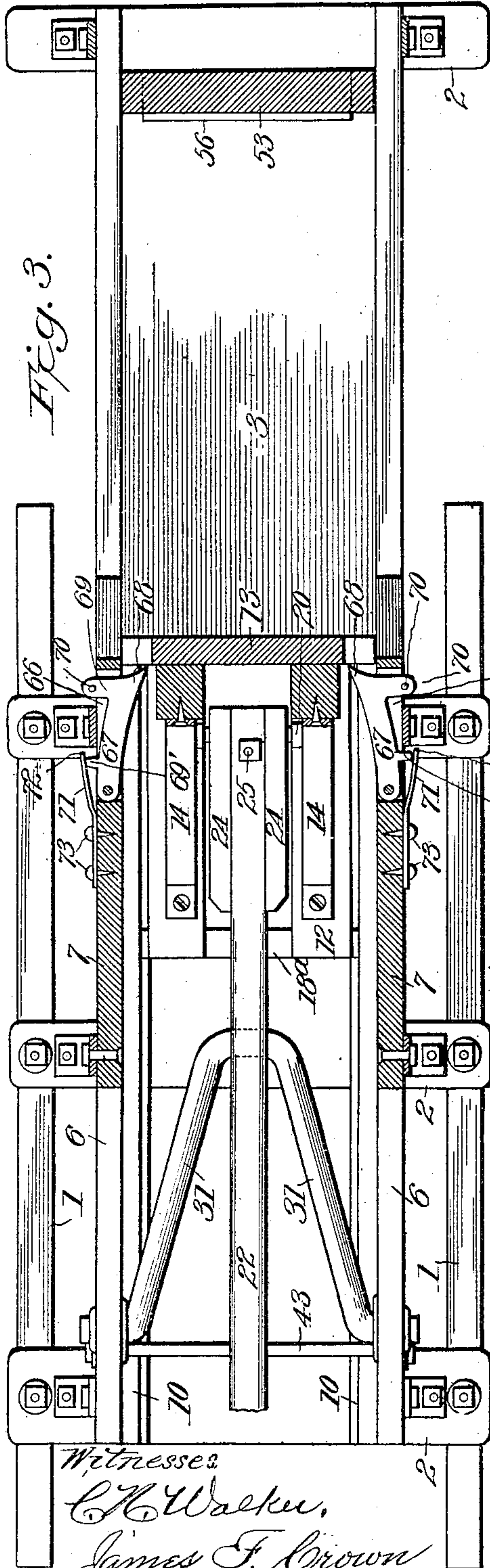
PATENTED OCT. 15, 1907.

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BALING PRESS.

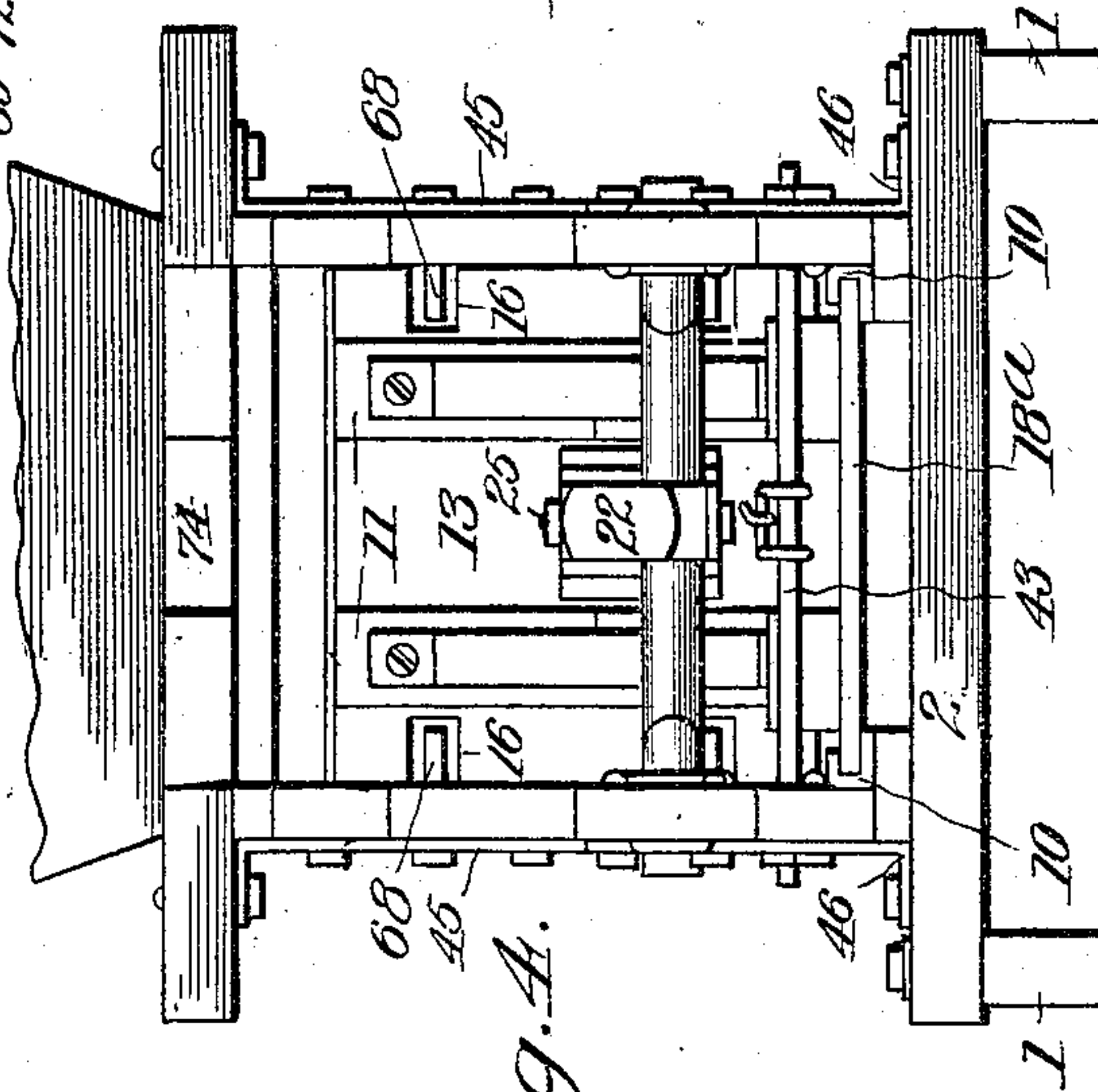
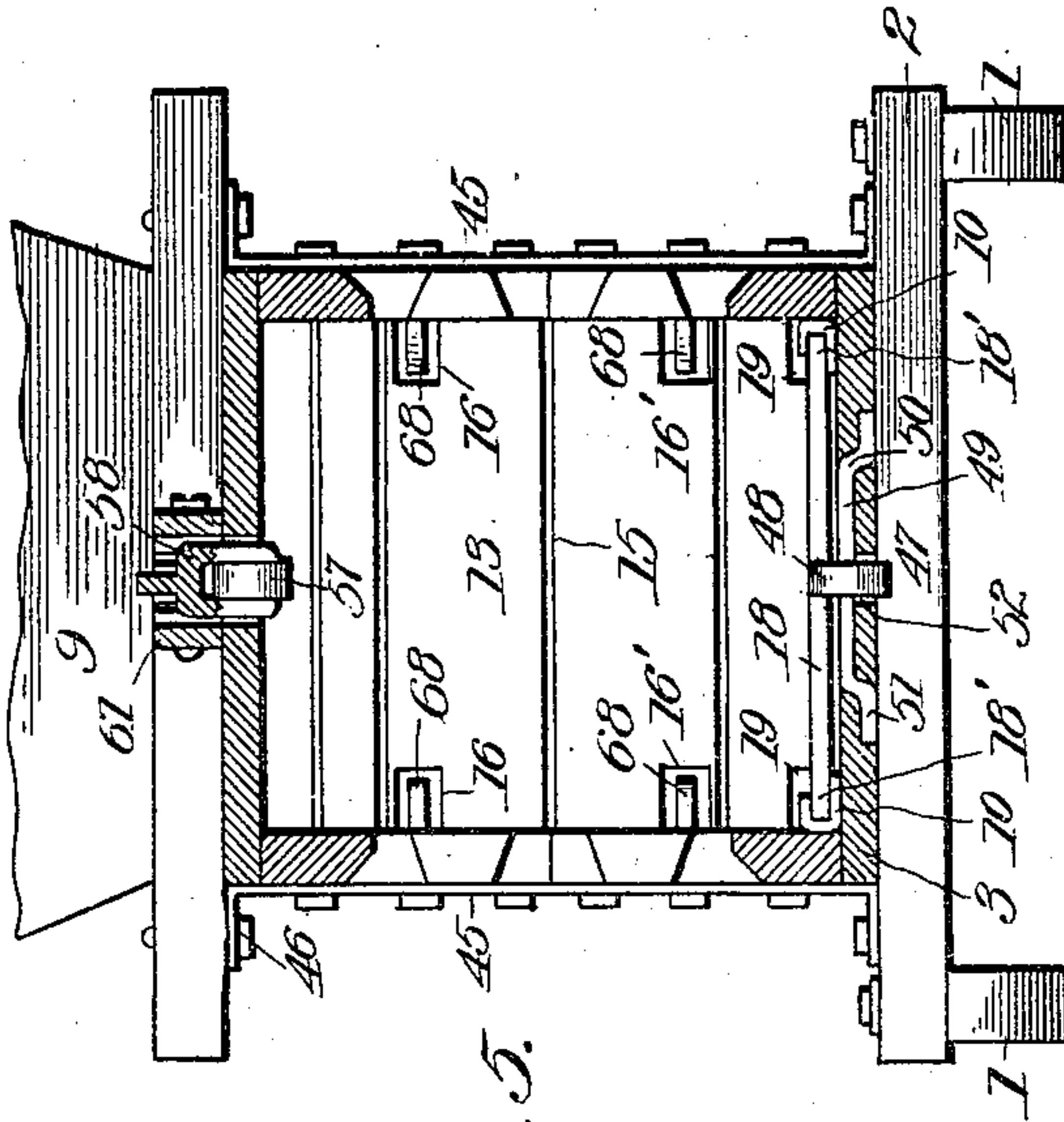
APPLICATION FILED APR. 25, 1907.

3 SHEETS—SHEET 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN J. STOPPLE, OF DALLAS, TEXAS.

## BALING-PRESS.

No. 868,142.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed April 25, 1907. Serial No. 370,233.

*To all whom it may concern:*

Be it known that I, JOHN J. STOPPLE, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Baling-Presses, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in baling presses, and particularly to a manually operated baling press.

The object of the invention is the provision of means for facilitating the compression of material into bales.

Another object of the invention is the improvement of the construction of the baling press disclosed in my Letters Patent No. 785,642, dated March 21, 1905.

With these and other objects in view, the invention consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a perspective view of a baling press constructed in accordance with the present invention. Fig. 2 is a longitudinal, vertical, sectional view of the baling press depicted in Fig. 1. Fig. 3 is a horizontal, sectional view of the structure depicted in Figs. 1 and 2. Fig. 4 is a view in elevation of the rear end of my baling press. Fig. 5 is a transverse, sectional view taken on line 5, 5, Fig. 2, and looking in the direction of the arrow. Fig. 6 is a plan view of the fulcrum-member. Fig. 7 is a rear view of the division block. Fig. 8 is a perspective front view of the division block. Fig. 9 is a fragmentary, perspective view of my improved baling press, showing one of the bearings for the lower end of the lever. Fig. 10 is a fragmentary view of a portion of my baling press, showing particularly the spring-attaching hook. Fig. 11 is a perspective view of one of the sleeve-bearings for the lower end of the fulcrum-member.

Referring to the drawings, 1 designates the runners supporting the frame of the baling press. The frame comprises transverse supporting beams 2, upon which is secured the floor 3. The rear end of said floor terminates at 4, Fig. 2, providing an open space 5. Side-pieces 6 extend rearwardly from the sides 7 of the compression chamber, and longitudinally-extending cleats 8 are secured between the side-pieces 6. Hopper 9 is supported upon the frame, constituting the compression chamber. Channel-irons or guides 10, substantially U-shaped in cross-section, are positioned upon the longitudinally-extending cleats or boards 8 and against the inner faces of the side-pieces 6, constituting a guide-structure upon each side of the compression chamber of my baling press.

The inner ends 10' of the channel-irons or guides 10

project into the compression or baling chamber, and their rear ends are positioned preferably in the same transverse plane with the rear ends of the side-pieces 6. The ends of the channel-irons or horizontal guides are open, for the purpose hereinafter specified. The plunger-head comprises, preferably, a pair of vertical uprights 11, secured to horizontal pieces 12, and a face-piece 13 is secured to said vertical uprights 11 and said horizontal pieces 12. Suitable braces 14 are secured to the uprights 11 and the horizontal pieces 12 for strengthening the whole plunger head. The face-piece 13 of the plunger head is provided with horizontal grooves 15 and with notches 16 and 16'. Secured to the top of face-piece 13 is, preferably, a metallic reinforcing strip 17. Secured to the bottom of said face-piece 13 is, preferably, a metallic reinforcing strip 18, the ends 18' of which constitute spurs extending into the channel-irons or horizontal guides 10, see Figs. 2, 4, and 5. The face-piece 13 of the plunger-head is notched or cut-away, as at 19, Fig. 5, so as to permit the ends 18' of the guide strip 18 to work freely in said channel-irons or guides 10, see Figs. 2 and 5. The guide-strip 18 is, preferably, of greater width than the face-piece 13, see Fig. 2, so as to give greater rigidity to the plunger-head as it compresses a charge of material in the compression or baling chamber. By reason of the peculiar structure of the guides 10, plunger head and the guide-strip 18, I form the sides of the compression chamber solid. The strength of the press is materially increased by forming the sides thereof solid, because the sides of the compression chamber will not warp or shrink, or otherwise alter its shape.

Secured near the lower end of each of the uprights 11 are vertical bearings 20. In these bearings 20 is journaled a shaft 21, and a lever 22 is mounted upon shaft 21, preferably, near its upper edge 23, see Fig. 2. The extreme lower end of lever 22 works between the uprights 11, see Fig. 4. Upon opposite sides of the lower end of the lever 22 there are secured reinforcing plates 24. A vertical reinforcing bolt 25 extends through the lower end of the lever, thereby strengthening the same contiguous to the aperture within which shaft 21 is positioned. By reason of the reinforcing bolt or member 25 and the plates 24, the strength of the bearing end of the lever is greatly increased. Positioned contiguous to the outer face of each bearing 20 is a horizontal pin 20', see Fig. 9, which braces and strengthens the structure, and said pins resist lateral strain upon the bearings 20 and the lower end of the lever.

An auxiliary bearing block 27 is countersunk in the lever, near its lower end, which bearing block 27 is secured in position by means of a primary bear-



ing block 28. The primary bearing block 28 is provided with diametrically opposite extensions 29, which extensions 29 are secured to the lower edge of the lever by any suitable fastening means, as for instance, bolts 5 30, which bolts are provided with ordinary nuts upon one end. The lever 22 is pivotally mounted upon a fulcrum-member 31. The fulcrum-member 31 is, preferably, substantially V-shaped, and is provided with an upper end 32 and legs or sides 33. Each leg terminates at its lower end in a laterally-extending horizontal short or stub shaft 34. The upper end of the substantially V-shaped fulcrum-member is rounded, at 35. The rounded or cylindrical portion 35 of the fulcrum member 31 is positioned between the bearing blocks or members 27 and 28, and the stub shafts 10 34 are journaled in the bearing-sleeves 36, which sleeves are secured to the side-pieces 6. Each sleeve is provided with a tubular body portion 37 and with a disk-like end 38. The disk-like ends 38 of sleeves 20 36 are preferably positioned against the inner face of the side-pieces.

Between the lower end of the lever and the bearing blocks 27 and 28, is secured an eye-bolt 40, which extends, preferably, from the lower face of said lever 25 22. A substantially U-shaped spring-attaching hook 41, provided with hooked ends 42, is detachably secured to a horizontal, transverse, reinforcing rod 43. This reinforcing rod 43 strengthens the side of the frame of my baling press, and, owing to the fact that 30 it is contiguous to the channel-irons or guides 10 and in the path of movement of the horizontal pieces 12, it also serves as a stop for limiting rearward movement of the plunger-head, as the ends of horizontal pieces 12 will engage the reinforcing rod 43, as shown 35 in Fig. 2. A coiled spring 44 is attached, at one end, to eye-bolt 40, and at its opposite end, to the spring-attached hook 41. When the outer end of the lever 22 is swung downward, causing the same to pivot upon its fulcrum-member 31, the strain upon the spring will 40 be such as to return the lever to its substantially vertical position as soon as the operator releases the same, because the plunger head slides freely in the compression chamber. Secured transversely of and contiguous to the outer ends of the horizontal pieces 12, 45 is an auxiliary guide strip 18<sup>a</sup>, the ends of which are positioned in the channel-irons or guides 10, the same as the ends of the guide-strip 18. It will be obvious that there are two guide-strips working in the channel-irons or guides 10, thereby preventing the plunger-head from sagging or working loose. Furthermore, by 50 reason of the open-ended structure of the channel-irons or guides 10, no foreign substance can interfere with the free working of the plunger-head, as the guide-strips 18 and 18<sup>a</sup> will force any material collecting in said channel-irons or guides out at the ends thereof, thereby automatically cleaning the grooved structure of the compression or baling chamber, constituted by said channel-irons or guides 10. 55

In addition to the reinforcing, horizontal rod 43, I 60 also provide primary angle bracing brackets 45 and auxiliary bracing brackets 46, which brackets 45 and 46 are secured to the frame outside of the compression or baling chamber.

A stop 47 is secured to the bottom 3 of the compression

chamber near the front end thereof. The stop 47 65 comprises a roller 48 journaled upon a shaft 49, which shaft 49 is bent, at 50, and provided with outwardly-extending portions 51, which portions 51 are, preferably, countersunk or embedded into the floor 3. The roller 48 is positioned in an aperture 52 of the floor and 70 extends, preferably, two-thirds of its diameter above the upper face of the floor and in the path of movement of the division-block 53. The division-block 53 is provided at its upper and lower ends with pairs of lugs or extensions 54, producing central notches 55. The 75 roller 48 is adapted to be positioned within the lower notch of the division-block 53, see Fig. 2. Secured to the inner face of the division-block, and near its upper and lower ends, are, preferably, horizontal, metallic plates 56, which plates connect the lugs or extensions 80 54, thereby preventing outward movement of the division block 53, after the roller 48 and roller 57 engage said plates 56.

The roller 57 is journaled in a bifurcated depending portion 58 of the latch 59, which latch 59 is pivotally 85 mounted, at 60, in the batten or horizontal, longitudinally-extending strip 61, of the frame. The latch 59 is provided with a forwardly extending handle 62, which normally rests upon the transverse beam 63. A locking-member 64 is pivotally mounted, as at 65, upon 90 beam 63, and said member 64 is bent, at 66, and provided with a handle 67, see Fig. 1, extending above the handle 62 of latch 59, so that when said handle 52 is in its normal position and the locking-member 64 is parallel with the beams 63, swinging movement of the 95 latch upon its pivot 60 will be prevented, thereby holding the roller 57 in the path of movement of the division-block 53. Upon swinging the handle 67 of the locking member 64 outward upon its pivot 65 and swinging the latch 59 upwardly upon its pivot 60, the division-block 100 can be removed, and, subsequently, a bale may be easily passed over the lower roller-stop with comparatively a small amount of friction, which is not true with a fixed or immovable stop.

Pivotally mounted in elongated slots 66 formed in 105 the sides of the frame, are dogs 67, which dogs 67 are provided with noses 68, extending into the compression or baling chamber. The nose of each dog is adapted to work within a notch 16 of the face-plate 13 of the plunger-head. Each dog 67 is provided with an outwardly- 110 extending ear 69, which ear extends beyond the vertical plane in which the outer side of the frame of the compression chamber is formed. A vertical pin 70 is positioned in the ear 69, near its outer end, and the extended portions of pin 70, projecting beyond the 115 upper and lower faces of the ear and normally pressed against the outside of the frame, for limiting inward pivotal movement of the dog. Each dog is also provided with an auxiliary ear or lug 69', preferably near its inner end, see Fig. 3. A short spring 71 bears, near its 120 outer, free end 72, upon the outer end of the auxiliary ear or lug 69', and said spring is fixedly secured near its opposite end, by any suitable fastening means, as screws 73, to the outside of the frame. It will be obvious that a charge in the baling or compression-chamber 125 may swing the dogs outward upon their pivots when passing the same, but said dogs will not permit the charge to expand rearward after the noses 68 have been



positioned behind the charge, by reason of the charge being moved beyond the dogs.

Owing to the peculiar structure of my improved press, the plunger-head can be operated with comparative ease, and by reason of the peculiar structure of the division-block and the roller-stops therefor, the division-block and a bale can be freely removed from the baling chamber.

What I claim is:

1. In a baling press, the combination with a frame provided with a compression chamber, of horizontal guides, substantially U-shaped in cross-section, carried by said frame and extending into said compression chamber, a slidable plunger-head in said chamber and provided with means extending into said guides, and means for moving said plunger-head longitudinally of said compression chamber.

2. In a baling press, the combination with a frame provided with a compression chamber, of longitudinally-extending guides carried by said frame and extending into said compression chamber, each guide provided with a groove, a plunger-head slidably mounted in said compression chamber, spurs secured to said plunger-head and extending into the grooves of said guide and means for moving said plunger-head longitudinally of said guides.

3. In a baling press, the combination with a frame provided with a compression chamber, of a pair of spaced, horizontal guides extending longitudinally of said compression chamber, each guide provided with a groove open at its ends, a plunger-head positioned within said compression chamber, said plunger-head provided with means extending into the grooves of said guides, and means for moving the plunger-head longitudinally of said compression chamber and guides.

4. In a baling press, the combination with a frame provided with a compression chamber, of a plunger-head slidably mounted in said compression chamber, guiding means for said plunger-head, said guiding means positioned between the sides of said compression chamber and entirely within the sides and top and bottom of said compression chamber, and means for moving said plunger-head longitudinally of said compression chamber.

5. In a baling press, the combination of a frame provided with longitudinally-extending, horizontal strips and with vertical side pieces, said frame provided with a compression chamber, horizontal guides or channel-irons positioned above and resting upon said longitudinally-extending strips, and positioned between the side pieces and the sides of the compression chamber, each guide open at its ends, a plunger-head provided with horizontal strips, positioned in said compression chamber, transverse guide strips secured to said plunger-head and said horizontal strips, the ends of each guide strip positioned in the guides, and means for moving said plunger-head within said compression chamber.

6. In a baling press, the combination with a frame provided with a compression chamber, of a plunger-head provided with rearwardly-extending, horizontal strips, said plunger-head and strips provided with outwardly-extending spurs, guiding means positioned entirely within the compression chamber and engaging said spurs, and means for moving said plunger-head within said compression chamber.

7. In a baling press, the combination with a frame provided with a compression chamber, of a plunger-head slidably mounted in said compression chamber, said plunger-head comprising vertical uprights and horizontal strips extending rearwardly from said uprights, a face-plate secured to said vertical uprights, bracing means secured to said uprights and horizontal strips, guiding means formed upon opposite sides of and entirely within said compression chamber, a transverse guide strip secured contiguous to the lower end of said face strip and having its ends extending into said guiding means, an auxiliary, transverse guide strip secured to the horizontal strips near their outer ends and extending into said guid-

ing means, and means for moving said plunger-head within said compression chamber.

8. In a baling press, the combination with a frame provided with a compression chamber, said frame provided with rearwardly-extending side-pieces, of guiding means positioned within said compression chamber, a transverse, horizontal, reinforcing rod positioned contiguous to said guiding means and connecting said side pieces, a plunger-head provided with rearwardly-extending horizontal pieces, positioned within said compression chamber, means extending from said plunger-head and engaging said guiding means, said reinforcing rod positioned in the path of movement of said plunger-head and adapted to be engaged by the horizontal pieces thereof for limiting rearward movement of said plunger-head, and means for moving said plunger-head within said compression chamber.

9. In a baling press, the combination with a frame provided with a compression chamber, of a horizontal reinforcing rod, constituting a stop, extending transversely of and connecting the sides of said frame, a plunger-head slidably mounted in said compression chamber, said rod positioned in the path of movement of said plunger-head and adapted to limit its rearward movement, and means for moving said plunger-head in said compression chamber.

10. In a baling press, the combination with a frame provided with a compression chamber, of a plunger-head slidably mounted in said compression chamber, a lever pivotally connected to said plunger-head, a transverse, horizontal, reinforcing rod, constituting a stop, connecting the sides of said frame and positioned in the path of movement of said plunger-head, said rod adapted to be engaged by said plunger-head and limit its rearward movement, an eye-bolt secured to and extending from the lower edge of said lever, a substantially U-shaped hook provided at its ends with hooks, the hooks engaging said rod, and a spring connected at one end to said eye-bolt and at its opposite end to said hook.

11. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head slidably mounted in said compression chamber, a lever pivotally connected near its lower end to said plunger-head, of a rod secured to and extending transversely of said frame, an eye-bolt secured to the lever near its lower end, a spring-attaching hook provided with ends extending around said rod, and a spring connected at one end to said eye-bolt and at its opposite end to said hook.

12. In a baling press, the combination with a frame provided with a compression chamber, of a plunger-head slidably mounted in said compression chamber, said plunger-head provided with vertical standards, a bearing secured to each standard, reinforcing pins secured to the standards and positioned contiguous to the outer faces of said bearings, and lever means pivotally connected to said bearings.

13. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head slidably mounted in said compression chamber, of a lever pivotally mounted upon said frame and pivotally connected near its lower end to said plunger-head, said lever provided at its lower end with reinforcing plates fixedly secured thereto, and a reinforcing member extending through the body of the lever between said plates.

14. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted in said compression-chamber, a lever pivotally connected to said plunger-head, of a single-piece fulcrum-member provided with integral short shafts near its lower end, said shafts journaled in the sides of said frame, and means connecting the upper end of said fulcrum member to said lever.

15. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted in said compression chamber, a lever pivotally connected to said plunger-head, of sleeves positioned in the sides of said frame, a single-piece fulcrum member positioned between said sides, a sectional bearing surrounding the upper end of said fulcrum member and secured to the lower side of said lever, and said fulcrum member provided with diverging sides terminating at



their lower ends in integral short shafts, the short shafts being journaled in said sleeves secured in the sides of the frame.

16. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted in said compression chamber, a lever pivotally connected near its lower end to said plunger-head, of an auxiliary bearing block countersunk in said lever, a primary bearing block provided with oppositely-extending extensions partly countersunk in said lever, means securing the extensions of said primary bearing block to said lever, and a fulcrum-member pivotally mounted between said block and pivotally connected to said frame.

17. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted in said compression chamber, of a lever pivotally connected to said plunger-head, bearing-sleeves supported upon said frame, each sleeve comprising a tubular body portion provided at one end with a disk-like end, and a fulcrum-member journaled in said sleeve-bearings and pivotally connected to said lever.

18. In a baling press, the combination with a frame provided with a compression chamber, of a plunger-head movably mounted in said compression chamber, means for moving said plunger-head within said compression chamber, a division-block positioned in said compression chamber, stops for limiting movement of said division-block, said division-block comprising a body provided with pairs of lugs at its upper and lower end, a transverse member secured to the inner face of and connecting the lugs of each pair and a recess formed between each two lugs, whereby the stops, when engaged by said division-block, are positioned between the lugs and in engagement with said transverse members.

19. In a baling press, the combination with a frame provided with a compression chamber and a floor, a plunger-head movably mounted in said compression chamber, means for moving said plunger-head within said compression chamber, of a shaft provided with bent ends extending through a portion of said floor, said floor provided with an aperture contiguous to said shaft, the outer ends of said shaft parallel with said floor, a roller journaled upon said shaft and positioned within said aperture of the floor, a division-block positioned within said compression chamber and adapted to engage said roller, and a movable latch carried by said frame and adapted to engage said division-block.

20. In a baling press, the combination with a frame provided with a floor and a compression chamber, a plunger-head movably mounted in said compression chamber, means for moving said plunger-head within said compression chamber, of a shaft countersunk in said floor contiguous to its front end, said floor provided with an aperture contiguous to said shaft, a roller journaled upon said shaft and positioned within said aperture of the floor, a division-block positioned within said compression chamber and adapted to engage said roller, said roller limiting movement of said division-block.

21. In a baling press, the combination with a frame provided with a floor and a compression chamber, a plunger-head movably mounted in said compression chamber, means for moving said plunger-head within said compression chamber, of a shaft extending transversely of and positioned contiguous to said floor, a roller journaled upon said shaft and positioned within said floor, a division-block positioned within said compression chamber and adapted to engage said roller, said roller limiting movement of said division-block.

22. In a baling press, the combination with a frame provided with a compression chamber, a plunger movably mounted in said compression chamber, means for operating said plunger, of a pivotally mounted latch provided with a depending, bifurcated portion, carried by said frame, the bifurcated portion extending into said compression chamber, a roller positioned between the sides of and journaled upon the bifurcated portion, and a division-block positioned within said compression chamber and adapted to engage said roller.

23. In a baling press, the combination with a frame pro-

vided with a compression chamber, a plunger-head movably mounted within said compression chamber, means for moving said plunger-head within said compression chamber, of a bifurcated latch pivotally mounted upon said frame, a roller journaled upon the bifurcated portion of said latch and extending into said compression chamber, means for locking said latch in a fixed position, and a division-block positioned within said compression chamber and adapted to engage said roller, whereby its sliding movement will be limited.

24. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted within said compression chamber, means for moving said plunger-head within said compression chamber, of a latch pivotally mounted upon said frame, a roller journaled upon said latch and normally extending into said compression chamber, said latch provided with a handle, a pivotally-mounted locking member carried by said frame and normally engaging said handle for securing said latch in a fixed position, and a division-block positioned within said compression chamber and adapted to engage said roller.

25. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted within said compression chamber, means for moving said plunger-head within said compression chamber, of a latch pivotally mounted upon said frame, means constituting a stop, carried by said latch extending into said compression chamber, movably mounted locking means carried by said frame and adapted to engage said latch for securing the same in a fixed position, and a division-block positioned within said compression chamber and adapted to engage said stop.

26. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted within said compression chamber, means for moving said plunger-head within said compression chamber, of a latch provided with a rotatable stop, carried by said frame, said stop extending into said compression chamber, said latch provided with a handle, a pivotally-mounted locking member carried by said frame and provided with an extension projecting over the handle of said latch, and a division-block positioned within said compression chamber and adapted to engage said rotatable stop.

27. In a baling press, the combination with a frame provided with a floor and a compression chamber, of a movable plunger-head positioned within said compression chamber, means for moving said plunger-head, a roller carried by said floor contiguous to the front end thereof and extending into said compression chamber, a vertically-movable roller carried by said frame above the roller carried by the floor, means for securing said movable roller in a fixed position within said compression chamber, and a division-block adapted to engage said rollers.

28. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted within said compression chamber, of a dog pivotally mounted at one end upon said frame, said dog provided with an outwardly-extending ear, a vertical pin extending through said ear near its outer end, the pin normally engaging the side of said frame, an auxiliary ear formed upon said dog intermediate its ends and contiguous to its pivot, means normally engaging said auxiliary ear and exerting an inward pressure upon said dog, and means for moving said plunger-head within said compression chamber.

29. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted within said compression chamber, means for moving said plunger-head within said compression chamber, of a dog pivotally mounted at one end upon said frame, said dog provided with a laterally-extending ear intermediate its ends, and means engaging said ear for normally exerting an inward pressure upon said dog.

30. In a baling press, the combination with a frame provided with a compression chamber, a plunger-head movably mounted within said compression chamber, means for moving said plunger-head within said compression chamber, of a dog pivotally mounted at one end upon said



5 frame and provided at its opposite end with an inwardly-  
extending nose, an ear formed upon said dog intermediate  
its ends, and a spring secured at one end to said frame  
and having its opposite end bearing against the outer  
end of said ear.

10 31. In a baling press, the combination with a frame pro-  
vided with a compression chamber, a plunger-head mov-  
ably mounted in said compression chamber, means for  
moving said plunger-head within said compression cham-  
ber, of a dog pivoted at one end upon said frame and pro-  
vided with a plurality of outwardly-extending, parallel

ears intermediate its ends, means carried by one of said  
ears for limiting inward pivotal movement of said dog,  
and means carried by said frame and engaging the outer  
end of the other ear for normally exerting an inward pres- 15  
sure upon said dog.

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

JOHN J. STOPPLE.

Witnesses:

F. LEE WILLIAMS,  
WM. D. SIMPSON.