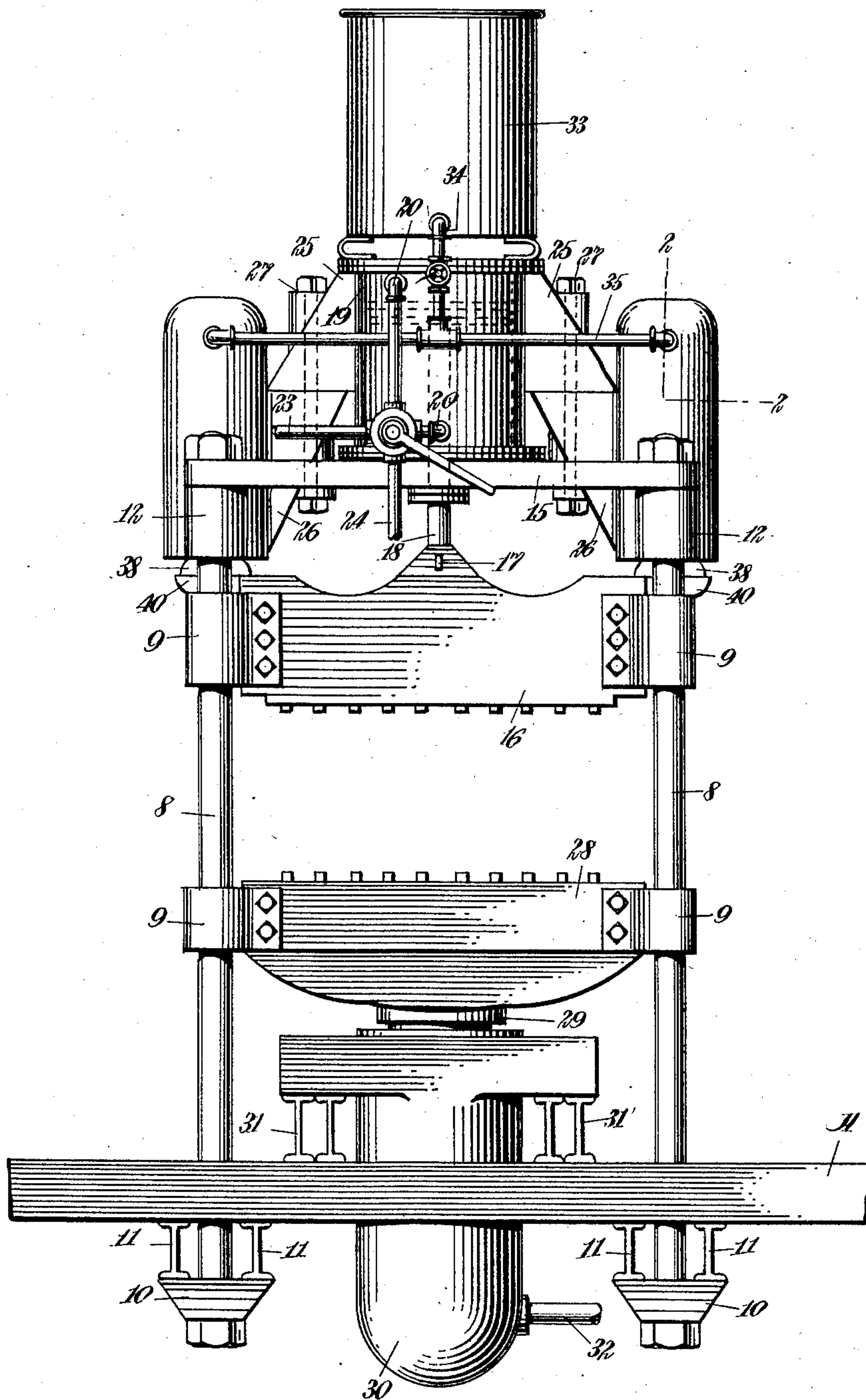


W. HILL.
 CHOCKING MECHANISM FOR COMPRESSES.
 APPLICATION FILED JAN. 30, 1911.

997,129.

Patented July 4, 1911.

2 SHEETS—SHEET 1.



WITNESSES
John W. Seigrist

E. M. Muddock

Fig. 1

INVENTOR
William Hill
 BY *Mundco*
 ATTORNEYS

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2 SHEETS—SHEET 2.

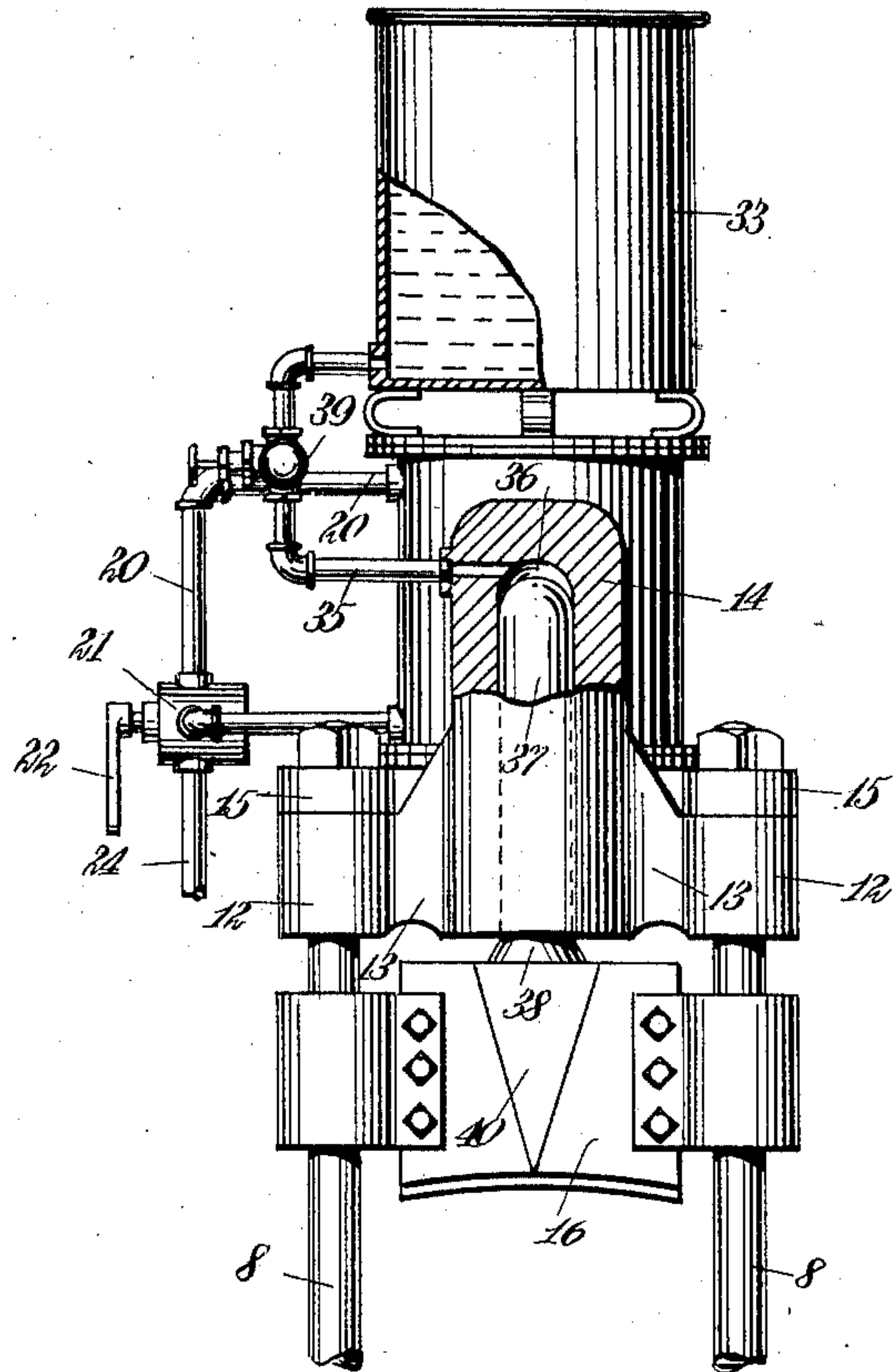


Fig. 2

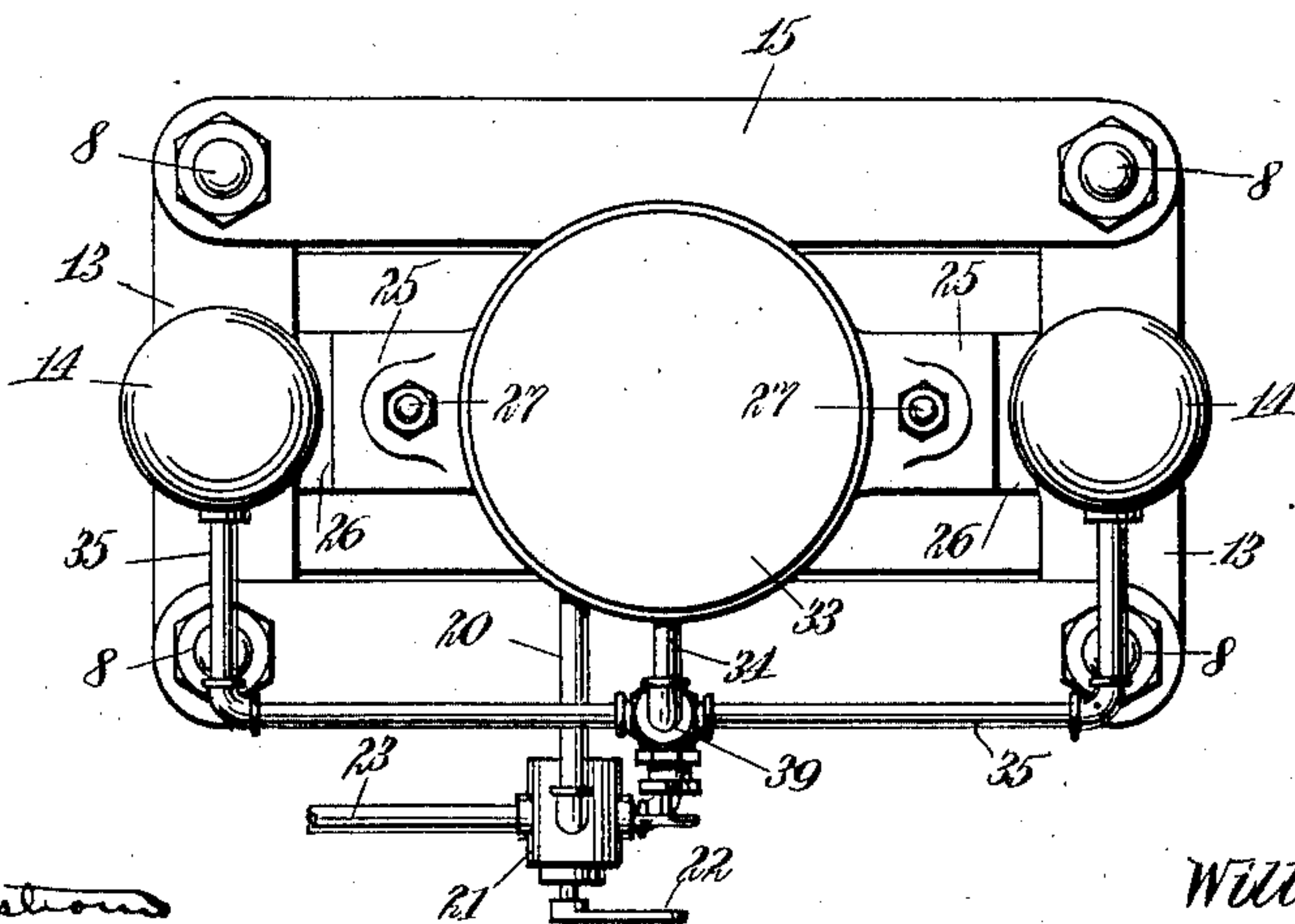


Fig. 3

WITNESSES
John A. Bergstrom
C. F. Munnick

INVENTOR
William Hill
BY *Munnick*
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM HILL, OF ALEXANDRIA, LOUISIANA.

CHOCKING MECHANISM FOR COMPRESSES.

997,129.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed January 30, 1911. Serial No. 605,447.

To all whom it may concern:

Be it known that I, WILLIAM HILL, a citizen of the United States, and a resident of Alexandria, in the parish of Rapides and State of Louisiana, have invented a new and Improved Chocking Mechanism for Compresses, of which the following is a full, clear, and exact description.

The present invention relates to and consists in an improvement upon a structure invented by me, and for which an application for patent in the United States was filed by me October 17, 1910, entitled cotton compress, bearing No. 587,447, in which application is shown and described means for holding the rapid quick acting platen in adjusted position in which it is placed preliminary to the application of the final pressure. Cross reference is here made to the above application.

The principal object which the present invention has in view is to provide an efficient and rapid means for holding in adjusted position the rapid acting platen of a compress of the character described, said means being adapted for arrangement relative to the said rapid acting platen in any position to which the same is adjusted.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a side elevation of a compress provided with a chocking mechanism constructed and arranged in accordance with the present invention; Fig. 2 is an end elevation of an upper fragment of the compress, provided with a chocking mechanism constructed and arranged in accordance with the present invention, one of the check valves being shown partly in section, the section being taken on the line 2—2 in Fig. 1; and Fig. 3 is a top plan view of a compress and the chocking mechanism.

As shown in the accompanying drawings, the compress is provided with two platens, movably mounted and guided in a tie frame having four corner tie rods 8, 8. The tie rods 8, 8 are infolded by corner guide blocks 9, 9 rigidly secured upon both platens and at the corners thereof. The tie rods 8, 8 are provided at the lower end with bearing shoes 10, 10 to rest against girders 11, 11, shown best in Fig. 1 of the drawings. The rods 8, 8, at the upper ends thereof, are

extended through bearing bosses 12, 12 formed on the ends of brace end frames 13, 13. Integrally formed with each of the frames 13, 13 are inverted hollow cylinders 14, 14. The rods 8, 8 are maintained in parallel relation by means of cross braces 15, 15.

The upper platen 16 is that which is herein denominated the rapid acting platen. It is connected by means of a pin 17 to the piston rod 18. The piston rod 18 is suitably connected with a piston reciprocatively operated in a cylinder 19. The cylinder 19 is constructed and arranged to receive at each end thereof, and from the pipes 20, 20, steam from any suitable source of supply. The flow of the steam is controlled by means of a 2-way valve 21, which is manipulated by a hand lever 22. Leading into the casing of the valve 21 is a supply pipe 23 and an exhaust pipe 24, also the supply pipes 20, 20 above mentioned. The construction of the valve 21 is of any suitable design, being adapted for placement in a neutral position, in position to connect one of the pipes 20 and the supply pipe 23, while opening the communication between the other of the pipes 20 and the exhaust pipe 24. In this manner whenever the steam is admitted at one or the other end of the cylinder 19 the exhaust of the expanded steam in the opposite end of the said cylinder is provided for. The cylinder 19 is supported on brackets 25, 25 which rest upon brackets 26, 26 and are bolted thereto by means of bolts 27, 27.

The lower platen 28 is directly connected with the ram 29, of the hydraulic press 30. The press 30 is of any suitable and usual construction. In the present instance it is supported on the floor A of the standing structure by means of metal beams 31, 31. The water is admitted to the press 30 by a pipe 32.

Supported above the cylinder 19 and upon the same is a tank 33. The tank 33 is provided to hold water which is delivered from the said tank by means of pipes 34 and 35 to a chamber 36 formed in the cylinder 14 to house the stem 37 of the ram 38. The flow of the water through the pipes 34 and 35 is controlled by means of a valve 39. The rams 38, 38 rest upon brackets 40, 40 formed at the ends of the platen 16.

The operation of a compress having attached thereto a chocking mechanism of the character described is as follows:—The cot-

ton to be baled having been placed between the platens 16 and 28, the former in its normal position being raised to the limit of the upstroke of the piston in the cylinder 19 and the latter resting in the lowered position of the ram 29, the operator admits steam by turning the hand lever 22 to the position where the pipe 20 leading to the upper end of the cylinder 19 is placed in communication with the supply pipe 23, and the pipe 20 at the lower end of the cylinder 19 is placed in communication with the exhaust pipe 24. The steam rushing in the cylinder 19 forces down the piston therein and the platen 16 connected therewith. The steam pressure is maintained until the force thereof is overcome by the resistance of the cotton between the platens. In this position, and after the platen 16 has been arrested, it will be found that the rams 38, 38 have followed the platen 16 down, the chamber 36 in each of the cylinders 14 being empty. The valve 39 is now manipulated to permit the water contained in the tank 33 to flow into the chambers 36. When the water has completely filled the said chambers 36 the valve 39 is closed. The water in the chambers 36 prevents effectually the rise of the stems 37 and rams 38 connected therewith. It is after the valve 39 is thus closed that the water pressure through the pipe 32 is admitted to the hydraulic press 30. The pressure imposed upon the platen 16 through the intervening cotton being baled by the platen 28 is received directly upon the water contained in the chambers 36 above the rams 38. The water chock thus formed, it will be observed, is accommodated to all movement which may be imparted to the platen 16, thus permitting any degree of pressure to be imparted by the rapid acting platen, and thus limiting the time consumed in the action of the slow moving platen 28 in producing the final pressure necessary to the bale being compressed.

Having thus described my invention, what

I claim as new and desire to secure by Letters Patent is:—

1. In a compress, the combination with two platens, a slow acting means for operating one platen, and means for rapidly moving the other platen in the direction of the first platen to partly compress the material, of a chocking mechanism for the rapidly moving platen, comprising cylinders above the rapidly moving platen and adapted to contain water, pistons carried by the rapidly moving platen and working in the said cylinders, and means for trapping the water in said cylinders when the rapidly moving platen has moved to the position to partially compress the material.

2. In a compress, the combination with a hydraulic operated platen, and a steam operated platen, of a chocking mechanism for the steam operated platen, comprising cylinders above the platen, and connected with a water supply, pistons in the platen and working in the cylinders, and means for trapping the water in the cylinders, when the steam operated platen has moved to the position to partially compress the material.

3. In a compress, the combination with a hydraulic operated platen, and a steam operated platen, of a chocking mechanism for the steam operated platen, comprising cylinders above the platen, pistons on the platen and working in the cylinders, an elevated tank connected with the cylinders, and a valved connection between the tank and cylinders, whereby the water can be trapped in the cylinders when the platen has moved to the position to partially compress the material.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM HILL.

Witnesses:

H. R. DAVIS,

R. M. HETHERWICK.