

(No Model.)

2 Sheets—Sheet 1.

A. THOMLINSON.
VALVE OPERATING MECHANISM.

No. 512,570.

Patented Jan. 9, 1894.

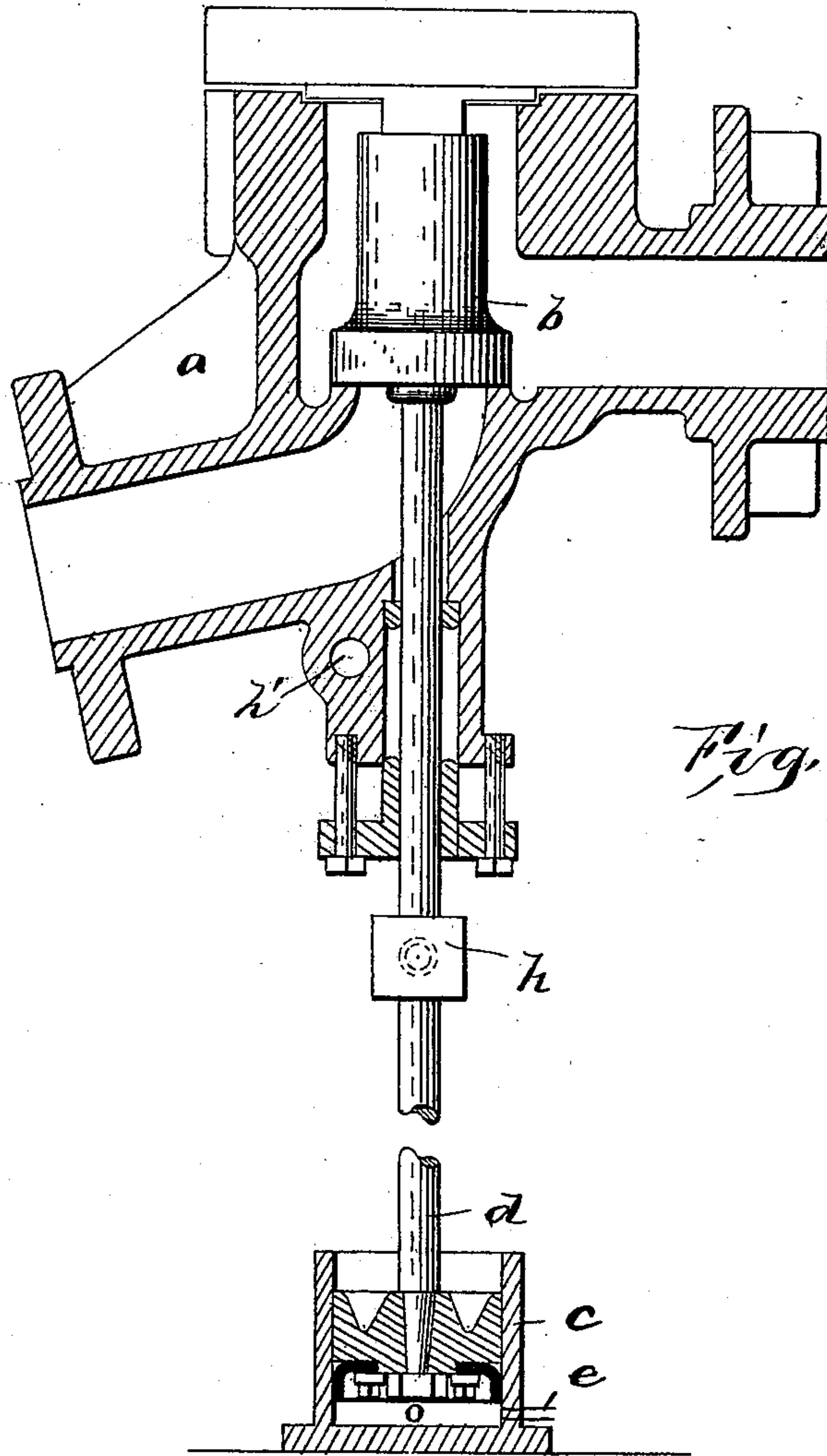


Fig. 1.

WITNESSES:

C. C. Ruffy
Hubert D. Peak

INVENTOR

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ATTORNEY.

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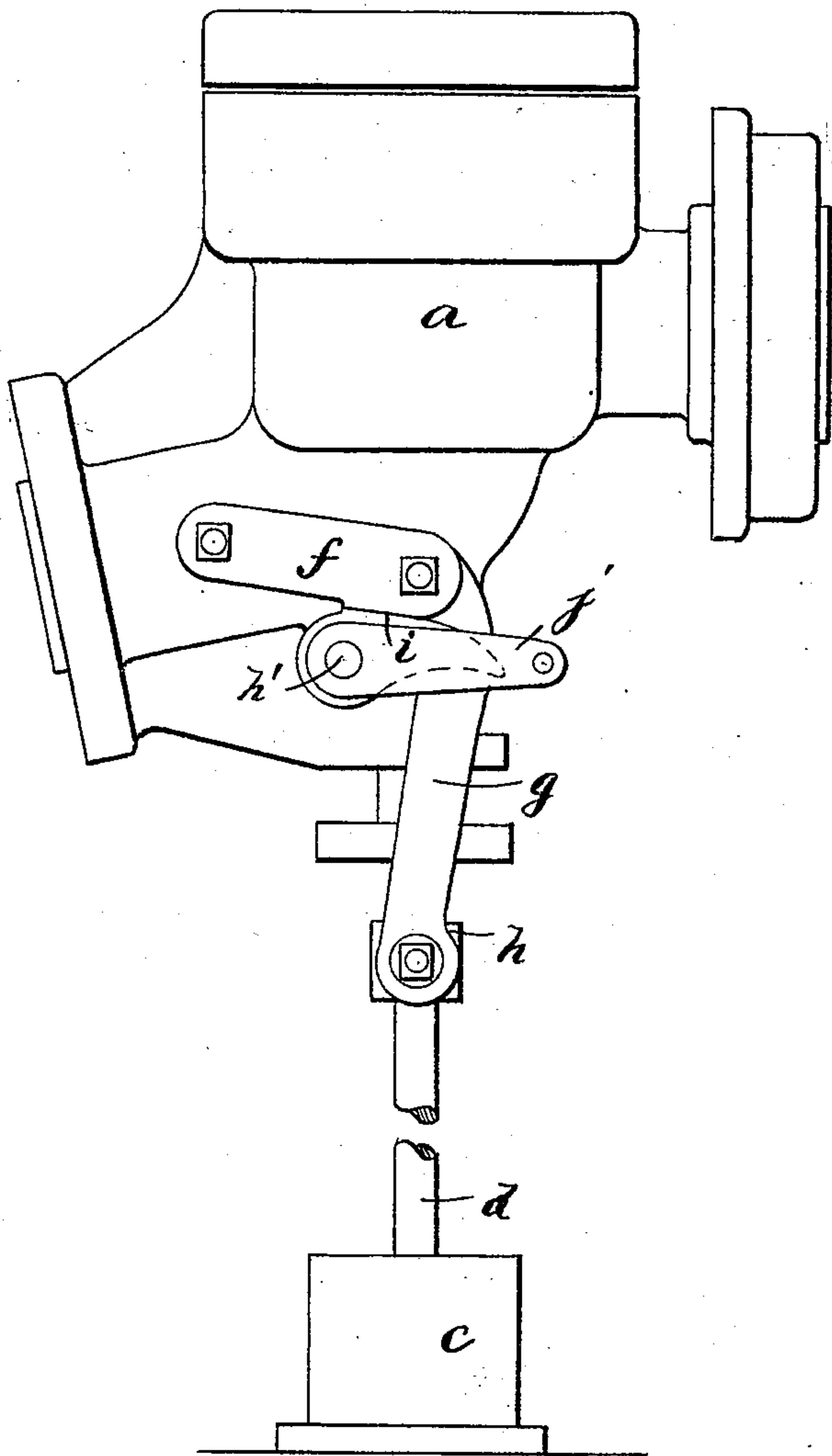


Fig. 2.

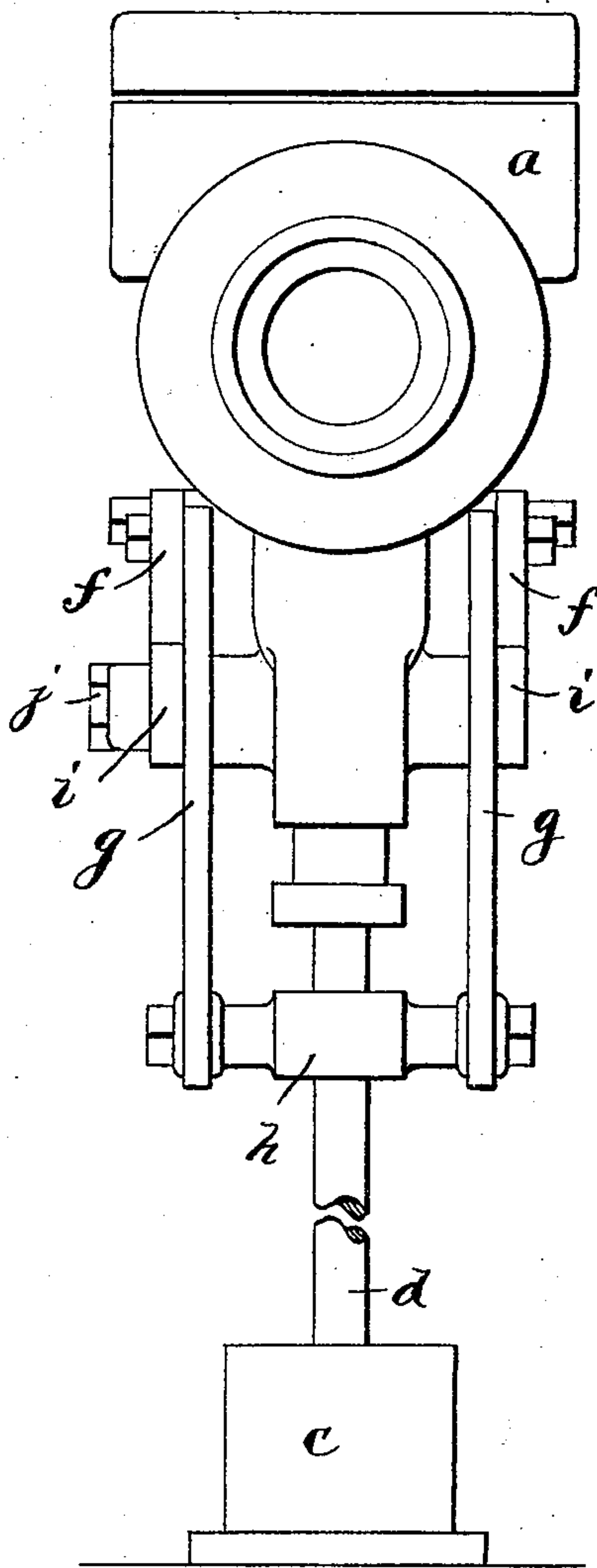


Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ARTHUR THOMLINSON, OF MONTGOMERY, ALABAMA, ASSIGNOR OF ONE-HALF TO WILL W. BIERCE, OF SAME PLACE.

VALVE-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 512,570, dated January 9, 1894.

Application filed December 24, 1892. Serial No. 456,269. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR THOMLINSON, of Montgomery, in the county of Montgomery and State of Alabama, have invented certain
5 new and useful Improvements in Valve-Operating Mechanism; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in valve operating mechanism for cotton compresses.

The object of the invention is to provide improved mechanism for operating the main check valve of hydraulic cotton compresses,
20 and for holding the valve from its seat to permit outflow of operating fluid after each stroke.

The invention consists in certain novel features of construction and in combinations of
25 parts more fully described hereinafter and particularly pointed out in the claims.

Referring to the accompanying drawings:—
Figure 1 is a longitudinal section through a portion of the connection from the source of
30 power to the operating cylinders of a compress at the point where the main check valve is located showing also in section the means for controlling the check valve. Fig. 2 is a side elevation of the construction shown in
35 Fig. 1. Fig. 3 is an edge view thereof.

In the drawings the reference letter *a*, indicates the valve casing in the connection from the compressors to the operating cylinders of the press. *b*, indicates the check valve in
40 said casing which permits flow of the operating fluid from the compressing cylinders to the operating cylinders of the press and prevents back flow thereof. After the plungers of the press have made a stroke this check
45 valve *b*, has to be raised so that the actuating fluid can flow back out of the operating cylinders and permit raising of the plungers to receive another bale. *c*, indicates a dash pot suitably located in respect to said check valve
50 and having the piston rod *d*, of its piston se-

cured to the check valve so that said piston and valve will be moved vertically in unison.

e, indicates suitable valved connections to the dash pot beneath the piston thereof. These connections extend from a suitable
55 source of power as a pump, and are so arranged that the full force of the water or fluid can be thrown into the dash pot to raise the piston thereof or can be allowed to flow from
60 said pot to permit the piston and check valve to drop.

f f, indicate a pair of levers fulcrumed at their inner ends on opposite sides of the valve casing. The links *g g*, at their upper ends
65 are pivoted respectively to the outer ends of said levers and extend down and are pivoted to the outer ends of the cross bar *h*, rigid with the piston rod *d*.

h', indicates a rock shaft mounted in the valve case beneath said levers and having the
70 curved arms or noses *i i*, extending outwardly beneath and engaging the lower edges of said levers. An operating lever or arm *j*, is rigid with and extends out from one end of said
75 shaft.

When it is desired to open the press to receive a bale the lever or arm *j* is swung up thereby rocking shaft *h*, and raising noses *i*, which engage the lower edges of levers *f*, and raise said levers which through the medium
80 of links *g*, and cross bar *h* and piston rod *d*, raise the main check valve and permit back flow of the energizing fluid. The pressure is turned on in the dash pot, thereby forcing up the piston thereof with the check valve and
85 holding the check valve raised. The raising arm *j*, and the cam noses of the rock shaft then drop to their normal lowered position and the dash pot holds the check valve raised while the water flows back. When it is de-
90 sired to again operate the press the water is allowed to flow out of the dash pot, thereby permitting the check valve to drop.

This invention possesses many advantages, and provides means for holding the check
95 valve raised so that it is not necessary to provide an attendant to hold the valve raised.

It is evident that changes might be made in the forms, constructions and arrangements of the parts described without departing from
100

the spirit and scope of my invention. Hence I do not wish to limit myself to the construction herein set forth.

What I claim is—

5 1. The combination with a check valve of a dash pot arranged opposite the same and connected to hold said valve raised, and independent lever mechanism for raising said check valve to the position in which it is to
10 be held by the dash pot, substantially as described.

2. In a compress, the combination of the main check valve, mechanism, substantially as described, arranged to raise said valve to
15 permit back flow of the operating fluid as set forth, and the dash pot having its piston rod connected with said check valve to hold the check valve in the elevated position to which it has been raised by said mechanism, sub-
20 stantially as described.

3. In a compress, the combination of the main check valve, a dash pot arranged beneath the same and having its piston rod connected with the check valve to hold the same
25 raised and to control the same, and a verti-

cally swinging lever loosely connected to the piston rod and arranged to raise the same and the check valve to the position in which it is to be held by the dash pot, substantially as described.

4. The combination of the vertically movable check valve, a dash pot, a piston rod connecting the said valve to the piston of the dash pot, a pair of vertically swinging levers loosely connected to said piston rod by links, 30
35 a rock shaft mounted beneath the levers and provided with the curved arms or noses to engage the same and raise the levers to raise the piston rod and check valve, and an operating lever or arm for said shaft, the parts being 40
arranged, to operate in the manner and for the purposes, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ARTHUR THOMLINSON.

Witnesses:

W. N. STEVENS,
J. M. MERRILL.