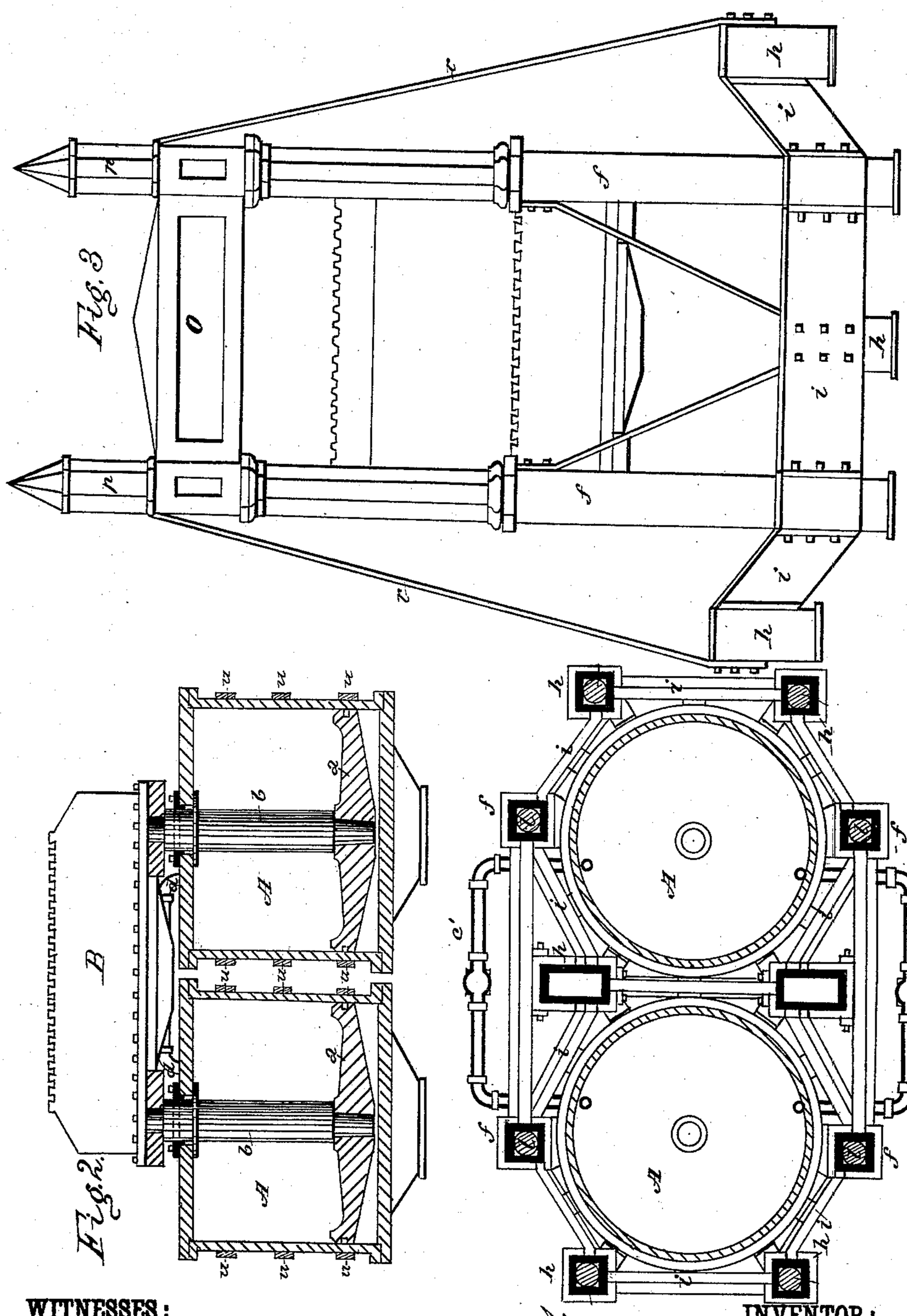
(No Model.)

2 Sheets—Sheet 1.

J. BROWN.

BALING PRESS.

No. 263,108. Patented Aug. 22, 1882.



WITNESSES:

Alex Beyer

C. Sedgwick

INVENTOR:

J. Brown

BY Munn & Co

ATTORNEYS.

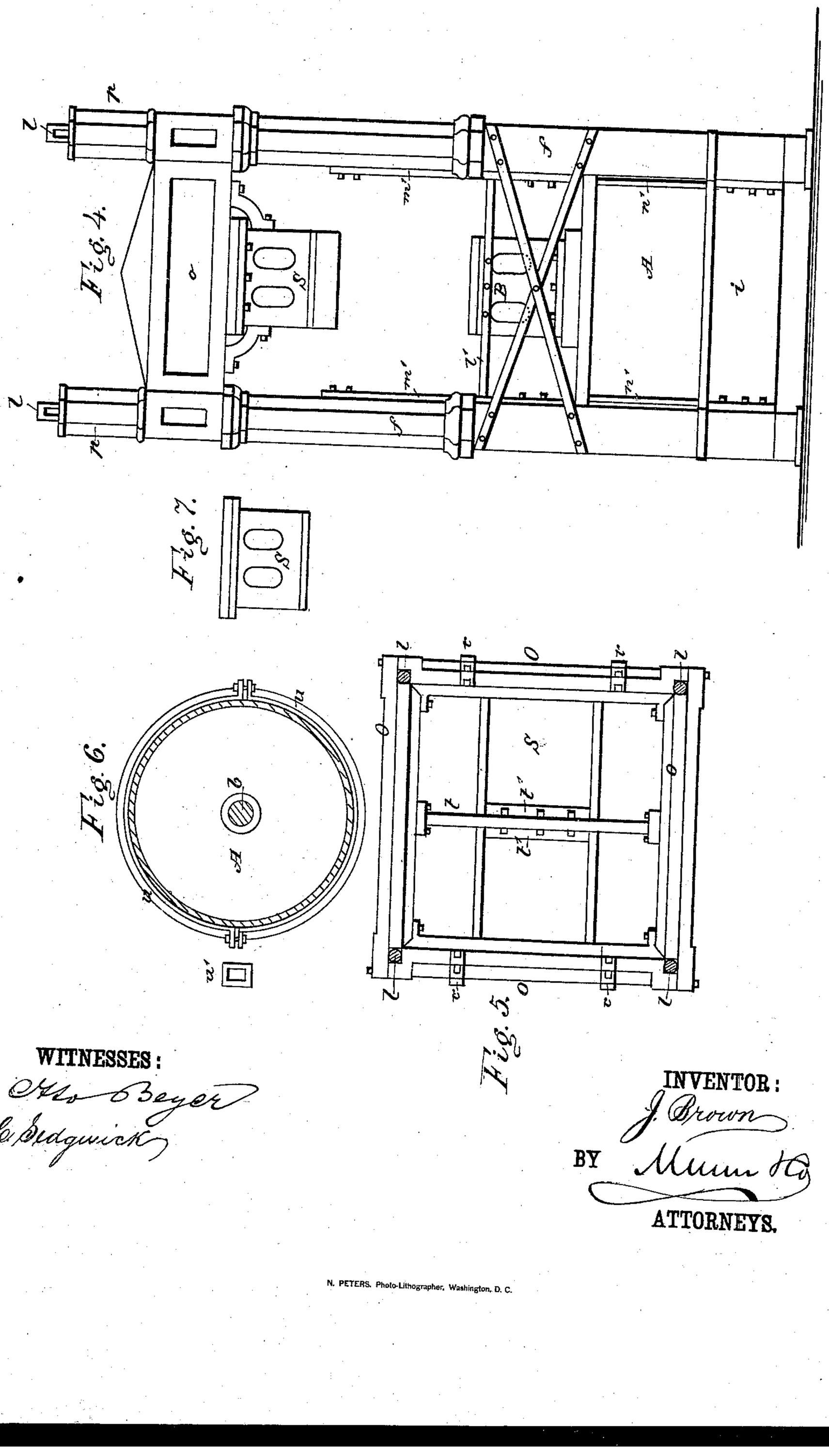
(No Model.)

2 Sheets—Sheet 2.

J. BROWN.

BALING PRESS.

No. 263,108. Patented Aug. 22, 1882.



WITNESSES:

H. C. Beyer

C. Sedgwick

INVENTOR:

J. Brown

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN BROWN, OF MEMPHIS, TENNESSEE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 263,108, dated August 22, 1882.

Application filed May 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN BROWN, of Memphis, in the county of Shelby and State of Tennessee, have invented a new and Improved Baling-Press, of which the following is a full, clear, and exact description.

My improvements relate more particularly to cotton-presses, and have the object to construct a press of compact form, durable in all its parts, requiring comparatively little steam for its operation, and inexpensive both in first cost and repairs.

The essential feature of my invention consists in the combination, with a follower, of two steam-cylinders connected for simultaneous operation; and it further consists in certain features of construction whereby I obtain the advantage before named, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a horizontal section of the press, showing the steam-cylinders and the supporting-frame. Fig. 2 is a vertical section of the cylinders and follower. Fig. 3 is a side view, and Fig. 4 an end view, of the press-frame. Fig. 5 is the top view of the press-frame. Fig. 6 is a cross-section of one of the steam-cylinders.

The press in all its parts is constructed of wrought and cast iron.

A A are the two steam-cylinders, provided with pistons *a a* and rods *b b*, that extend through suitable stuffing-boxes in the upper heads of the cylinders.

B is the follower, connected upon the pistons *b*.

c is the steam-pipe supplying steam to the cylinders. *c'* is the exhaust-steam pipe, and *d d* are waste-steam pipes from the upper part of the cylinders, which allow the escape of steam that may leak above the pistons, and also allow ingress and egress of air as the pistons move back and forth. These waste-pipes will be connected to a single pipe for conveying the steam away.

The frame of the press has four main posts, *f*. At the base of the frame are shorter posts, *h*, placed at suitable intervals around the cylinders, and the several posts are connected by slabs or plates *i*, so as to form an angular frame which surrounds the cylinders, and on the posts and slabs are angle-plates extending beneath the cylinder, so that the cylinders are supported, and the principal posts of the main frame and the upper frame carried by the posts are held down in place. The posts *f* are made of cast-iron, and are hollow to receive the wrought-iron rods or shafts *l*, that extend the whole length of the posts. The lower ends of the posts *f* are screw-threaded to receive the screw ends of the rods *l*, and the rods are connected in the same manner at the top of the posts, so that they serve to hold together the several sections in which each post *f* is cast. The foot-posts *h* are also formed hollow, and are grooved for receiving the ends of the plates or slabs *i*. The upper frame of the press consists of plates or slabs *o*, connected together to form a rectangular frame, as shown in Fig. 5, which rests upon the upper ends of the main posts *f*, the rods *l* passing through the corners of this frame. Above this frame the rods *l* are provided with screw-caps *p*, that serve to hold the frame down, and from the upper frame braces *r* extend to the foot-posts *h*. The caps *p* are further held in place by keys that pass through the upper ends of the rod, so that the parts are securely joined together.

s is the head-block, which is bolted to the upper frame. Above the head-block is a cross-rail, *t*, bolted at its ends to the frame, and also provided with double flanges *t'*, that are attached to the head-block by bolts. This rail serves to strengthen the head-block *s*. The head-block *s*, as well as the follower B, is formed hollow, and they are cored out upon their sides, as shown in Fig. 7.

To the main posts *f* bars *n' n'* are attached for the follower B to rest upon when in its lower position. On each end of the follower B is bolted a bar, *l'*, that extends at each side for engagement with grooved guide-bars *m'*, bolted upon the main posts. These devices serve to guide the follower in its movement.

The cylinders *a a* are strengthened by bands *u*, of wrought-iron, placed around them, which bands are made in two portions and flanged at their ends for connection by bolts, so that they may be drawn tightly on the cylinders. To strengthen the joints of the bands *u* clamps *w'* are placed over the ends and the connect-

ing-bolts and wedged tightly. Three or four of these bands may be used upon the cylinders, and they serve to give great increase of strength with but little addition of weight. The pistons *a* are packed on their edges by cast-iron rings inserted in grooves, as shown in Fig. 2.

By this construction I obtain great strength in all parts of the press, and the press is not expensive to manufacture. The use of two cylinders secures a uniform application of power to the follower without strain.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The frame consisting of main posts *f*, foot-posts *h*, and slabs or plates *i*, inclosing and sustaining the steam-cylinders, substantially as shown and described.

2. The hollow posts *f* of the main frame, made in sections and held together by the interior rods, *l*, as shown and described.

3. The upper frame composed of slabs or plates *o*, supported on posts *f*, and held by rods *l*, substantially as shown and described.

4. The combination of the head-block *s*, cross-rail *t*, and upper frame of the press, substantially as described.

JOHN BROWN.

Witnesses:
JNO. T. MORSE,
CLAY MORRIS.