# A. SHEDLOCK.

## Oil and other Presses.

No. 162,198. Patented April 20, 1875.

*Fig. 1.*

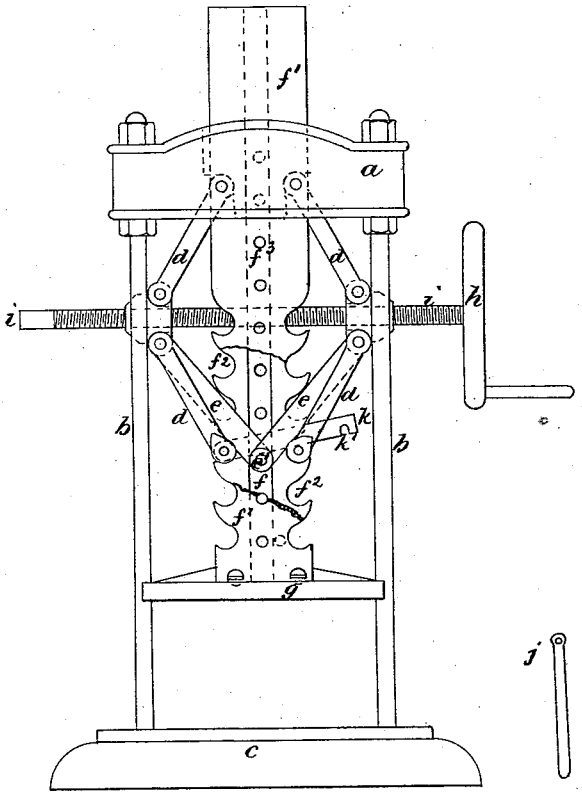
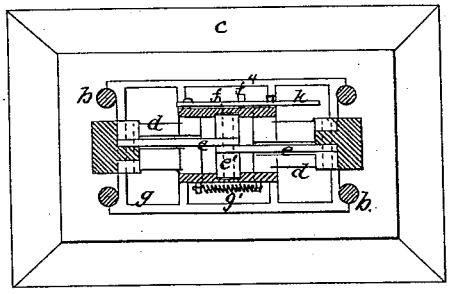



*Fig. 2.*




*Witnesses.*

William Shedlock

William H Hallowell

Alfred Shedlock.

*Inventor.*

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# UNITED STATES PATENT OFFICE.

ALFRED SHEDLOCK, OF NEW YORK, N. Y.

## IMPROVEMENT IN OIL AND OTHER PRESSES.

Specification forming part of Letters Patent No. **162,198**, dated April 20, 1875; application filed March 26, 1875.

*To all whom it may concern:*

Be it known that I, ALFRED SHEDLOCK, of the city of New York, county and State of New York, have invented certain Improvements in Presses, of which the following is a specification:

This invention has for its object the assuring the perfect working of the middle joints of the toggle-levers in a toggle-lever press—that is, causing the joints to travel toward the center of the follower at an equal rate of speed, whether they are drawn together by a screw or by other means; and it consists in pivoting a link to each pair of toggle-levers, and connecting the other ends of the links together at the center of the follower, said central connection fitting into grooves made in the inside of the two followers. As the ends of the toggle-levers, which work in the head-block, and followers, are some distance from the center line of the followers, it follows that the links are never in line with the toggle-levers; so they perfectly control the action of the toggles in whatever position the joints may be in, for if one of the pairs of toggle-joints tends to travel toward the center line of the press at a less rate of speed than the other pair—caused by an unequal pressure under the platen—it would prevent the central connection of the links from traveling down as fast as they otherwise would, and, consequently, would retard the motion of the other pair of toggle-joints toward the center of the press.

The device is shown in the accompanying drawings as applied to a press in which the follower is not permanently fastened to the toggle-joints, but is provided with notches in which the lower ends of the toggles work.

Figure 1 is a front elevation with the front follower cut away to more clearly show the controlling-links. Fig. 2 is a sectional plan view cut through the line *x x* in Fig. 1.

*a* represents the head-block; *b b*, the tension and supporting rods secured to the head-block *a* and foot-block or base *c*. The toggle-levers *d d* are suspended in the head-block *a*, and to their middle joints is pivoted one end of each of the links *e e*. The other ends of the links are connected together at *e'*, and fit into the grooves *f f* formed in the insides of the followers $f^1$ $f^1$, said followers being secured to the platen *g*, and passing up through the head-block *a*. The lower ends of the toggle-levers work in notches $f^2$ $f^2$ formed in the sides of the followers, and they are held together by the spring *g'*. When the toggle-levers have been drawn together so that their joints are in a straight line, by turning the crank-wheel *h* on the end of the screw *i* the pin *j* is passed through one of the holes $f^3$ in the followers, just under the head-block, and retains the pressure while the screw is being reversed to take another gripe on the followers with the toggle-levers. To raise the platen and followers a pin is passed through one of the holes $f^3$, just above the central connection of the links *e e*, so that as the links are raised by moving out the toggle levers the platen is raised with it, and a pin is passed through the hole $f^3$, just above the head-block, so as to hold up the followers and platen, if it is required to raise them higher than can be done by one outward motion of the toggle-levers. To keep the lower ends of the toggle levers clear of the notches in the followers when the followers are being raised, a bar, *k*, is pivoted to one of the lower ends of the toggles *d*, and a notch, *k'*, fits over a pin standing out from the other toggle. A projection, $f^4$, on the followers or platen, raises the bar *k*, and allows the spring *g'* to draw the toggles into the lowest notch in the followers when the platen is raised to its highest point. The links *e e* would control the working of the toggle-levers *d d* if they were pivoted to the levers themselves instead of being pivoted to the middle joint.

What I claim, and desire to secure by Letters Patent, is—

In a toggle-lever press, the links *e e*, controlled by the standards or followers, in combination with the toggle-levers *d d*, substantially as and for the purposes hereinbefore set forth.

ALFRED SHEDLOCK.

Witnesses:

WILLIAM SHEDLOCK,

WILLIAM H. HALLOWELL.