

S. G. PHILLIPS.
Clay-Press.

No. 218,058.

Patented July 29, 1879.

Fig: 1.

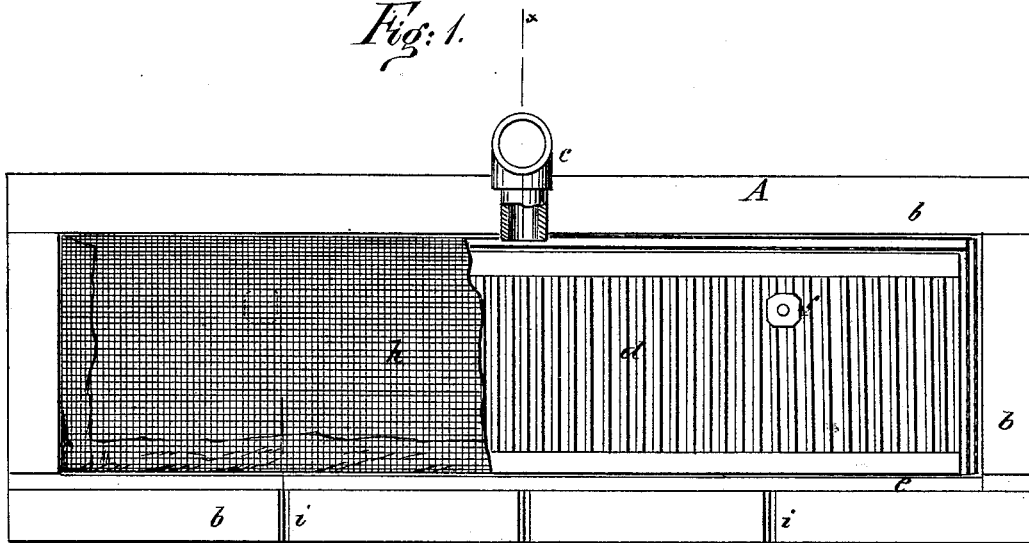
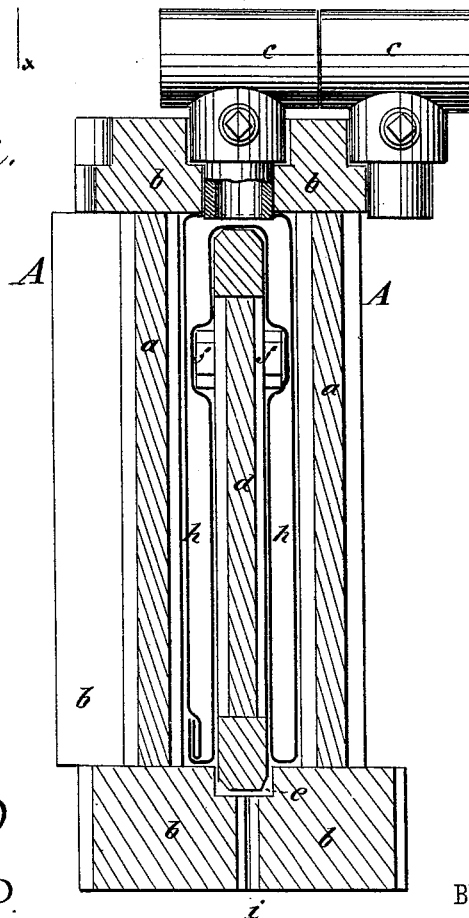


Fig: 2.



WITNESSES:

Chas. Nida.
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UNITED STATES PATENT OFFICE.

SIMEON G. PHILLIPS, OF PERTH AMBOY, NEW JERSEY.

IMPROVEMENT IN CLAY-PRESSES.

Specification forming part of Letters Patent No. **218,058**, dated July 29, 1879; application filed April 26, 1879.

To all whom it may concern:

Be it known that I, SIMEON G. PHILLIPS, of Perth Amboy, in the county of Middlesex and State of New Jersey, have invented a new and Improved Clay-Press, of which the following is a specification.

Presses for separating the water from clay after the washing process, as usually constructed, consist of a series of leaves or sections placed together and held by tie-bolts. The intervening spaces contain bags, into which the water and clay are forced by heavy pressure, the water escaping through the bagging, leaving the clay in sheets, which are afterward removed by separating the leaves of the press.

With ordinary clay it is practicable to construct the pockets of the press an inch in width; but in working fine heavy-bodied clay it is a long and expensive process to force the water through the clay when in sheets of that thickness, and consequently the pockets must be reduced in width; and to press the same quantity of clay at once, the leaves are doubled in number, and a separate supply-cock attached upon each leaf of the press.

The object of my invention is to construct a press or adapt the ordinary presses for pressing clay in thin sheets one-half the usual thickness, more or less, and sufficiently dry for the potter's use, without increasing the bulk of the press, or using more cocks to produce the usual amount obtained at one pressing.

My invention consists in the application within the pockets or leaves of the press of a separate leaf that divides the space, so that two separate sheets of clay are formed within each pocket. The loose leaf is held in place and sustained against the pressure by lugs or pins, which also act to sustain the main leaves, whereby I am enabled to reduce the thickness of the leaves, so that the whole press is no longer than usual, while giving room for the usual quantity of clay.

These features will be more particularly described in connection with the accompanying drawings, wherein—

Figure 1 is an interior side view of a press constructed in accordance with my invention. Fig. 2 is a vertical cross-section taken on line *x x* of Fig. 1, showing two leaves or sections of the press.

Similar letters of reference indicate corresponding parts.

Each leaf or section A consists of the vertical division-piece *a*, having top, bottom, and side strips or tongues, *b*, that close against the corresponding strips of the adjacent section to form and inclose the pocket. Each section is fitted with a T-pipe, *c*, and cock, which, when the sections are in place, form a continuous supply-tube, through which the clay is pumped into the pockets of the press. These parts, except in the thickness of the portion *a*, are as usual. *d* is the inner leaf, fitting at its lower side in a groove, *e*, formed by the rabbets of bottom pieces, *b*, and sustained in a central position at its upper side by the projections or pins *f*. These projections *f* may be in number as required to give support to the leaf *d*, and they act as a continuous support throughout the press for the leaves *d* and A.

The surfaces of the leaves *d* and portion *a* of leaves A are fluted or corrugated to give space for the water to escape from the bags, which water finally escapes by the openings *i* at the section-joints.

In applying the leaf *d* the bagging material *h* is placed in the pockets and folded, as shown, to form a bag at each side of *d*, which are filled from the cock *c* through an opening in the bag.

In operation two thin sheets of clay are formed in each main section A, which sheets are to be removed by taking the sections apart. This arrangement permits the use of the inner leaf to give the same space for clay as before without lengthening the press, for the reason that heretofore the dividing-pieces *a* were made heavy to withstand the pressure in case one or more cocks should be shut off or clog, while in my press the partitions *a* and leaves *d* are mutually supporting, so that the partitions *a* can be reduced in thickness to compensate for the leaves *d*.

The practical advantages of this press are that the thinner sheets are more readily and quickly pressed than the thicker sheets, which is advantageous with coarser grades of clay, while with finer clays it is an essential feature, as I am enabled to press fine clays rapidly and with much less expense of time and labor than required heretofore. The sheets of

clay are also produced in a drier condition than heretofore, so that they can be transported. This permits the press to be used at the mines and saves the transportation of refuse matter.

I have shown and described a single leaf, *d*, inserted in each section; but two or more may be used, if required or desirable.

I do not limit myself to the use of bagging, as described, as in some cases it may be dispensed with. For instance, the leaf *d* could be made of thin sheets of wood placed together, with one of the adjoining surfaces fluted, so that the water would pass through the wood and escape by the interior passages.

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

1. In clay-presses, the combination, with the main sections or leaves, of inner leaves or partitions, substantially as described and shown, and for the purposes specified.

2. In clay-presses, the combination, with sections or leaves *A*, of the separate inner leaf, *d*, fitted with the pins or projections *f*, substantially as and for the purposes set forth.

SIMEON G. PHILLIPS.

Witnesses:

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GEO. D. WALKER.