

(No Model.)

P. CASAMAJOR.

CLOTH HOLDER FOR FILTER PRESSES.

No. 355,437.

Patented Jan. 4, 1887.

FIG. I.

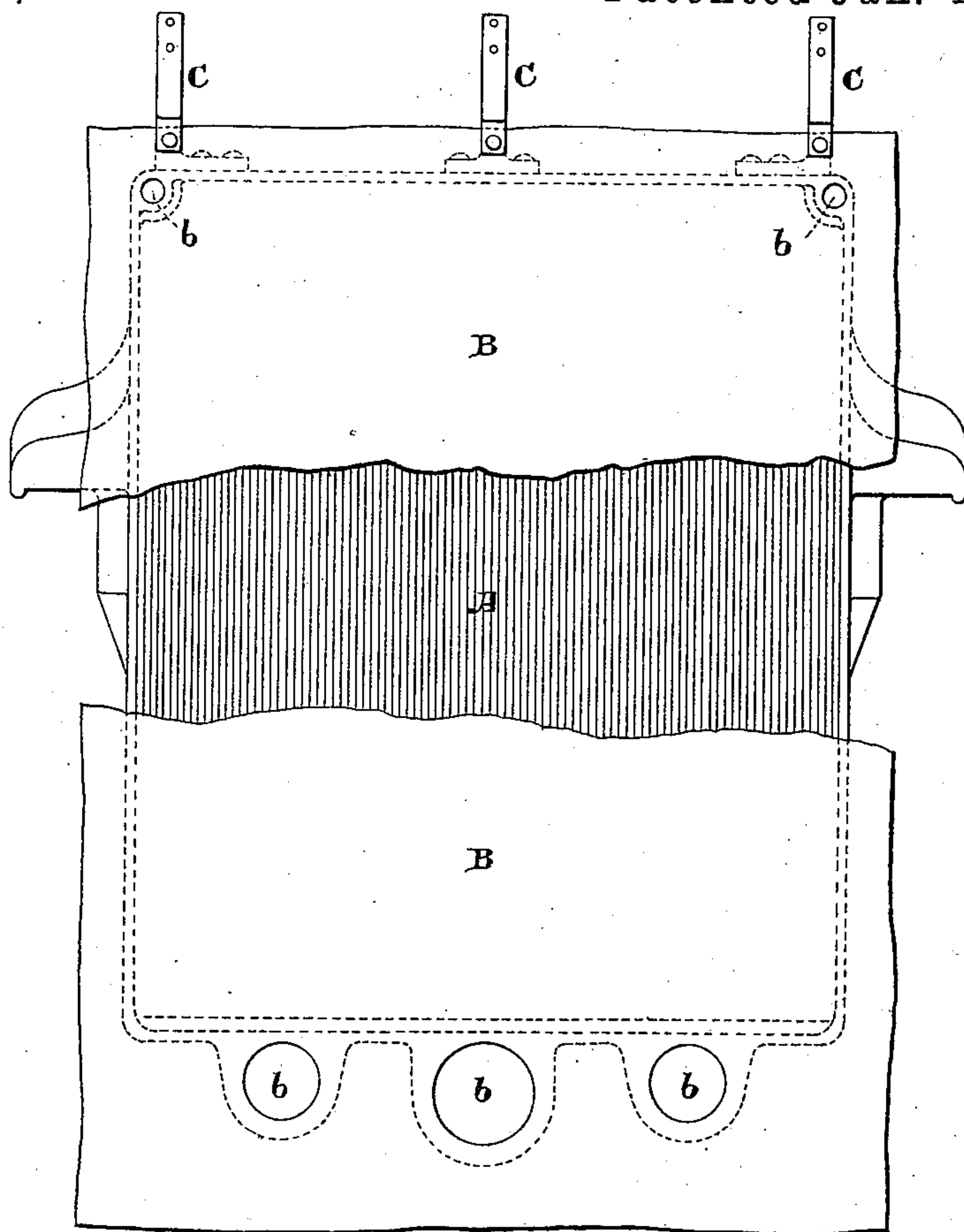
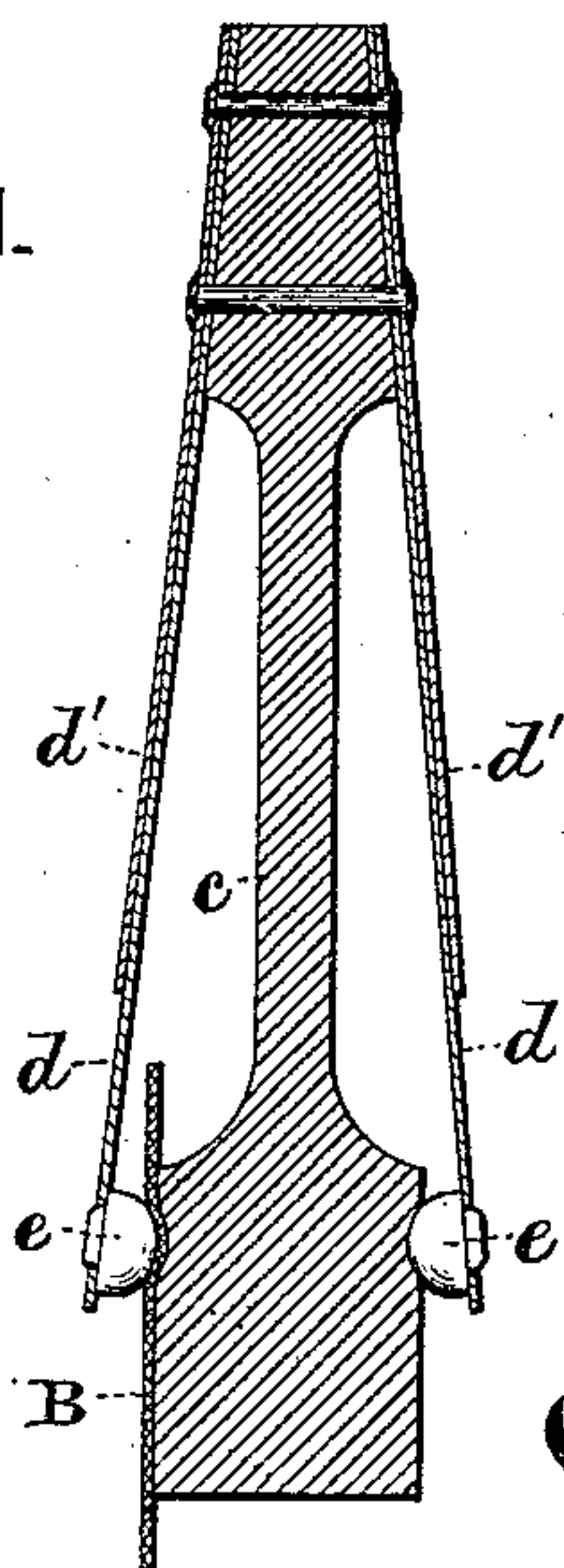


FIG. II.



Attest:

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UNITED STATES PATENT OFFICE.

PAUL CASAMAJOR, OF BROOKLYN, NEW YORK.

CLOTH-HOLDER FOR FILTER-PRESSES.

SPECIFICATION forming part of Letters Patent No. 355,437, dated January 4, 1887.

Application filed June 5, 1886. Serial No. 204,240. (No model.)

To all whom it may concern:

Be it known that I, PAUL CASAMAJOR, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Cloth-Holders for Filter-Presses, which improvement is fully set forth in the following specification.

The present invention relates to filter-presses such as used for filtration of saccharine liquids, and has particular reference to the means or devices for holding in place the cloths usually employed as the filtering media. Sometimes the filter-cloths are thrown over the plate and hang from the top edge over both faces. If, however, as is usual, there are passages through the plates for the ingress and egress of the liquid to be filtered and for other purposes, the corresponding holes in the cloths do not fit properly in their places should any shrinkage or stretching occur. Since it is important to keep these perforations in their proper position, it is often desirable to adjust the cloths at the edges after being put in place.

It has been proposed heretofore to use a separate cloth on each side of the plate, and to compensate for shrinkage and slack by connecting the edges of the cloth to hooks adjustably secured to the frame. This necessitates perforating the cloth at the points where the hooks are to be attached, and the protection of the edges of the holes, as by inserting a metal eye. Such devices permit the cloth to be adjusted vertically; but the cloth cannot be adjusted laterally to the shanks of the attaching-hooks.

The object of the present invention is to enable the cloth to be easily and expeditiously adjusted in every direction, so as to keep it flat and even, and maintain the passages or openings in their proper places, and also to obviate the necessity of providing the edge of the cloth with eyes or holes for attachment to hooks. This object is accomplished by the use of cloth holders or fasteners, consisting, essentially, of a spring-clamp adapted to hold the cloth in place with sufficient firmness, while at the same time permitting it, with the utmost ease and rapidity, to be slipped or moved in the same by hand, as desired, for adjustment.

The accompanying drawings illustrate the construction and operation of a cloth-holder

made in accordance with the invention, Figure I being a side elevation, showing part of the plate of a filter-press with the holders attached thereto, and Fig. II a vertical cross-section of the holder on a larger scale than Fig. I.

The plate A is or may be such as is in ordinary use in filter-presses, being provided on its face with a series of grooves or passages for the liquid after passing through the cloth B. The latter is represented as provided with holes *b*, which are placed to correspond with the liquid-channels passing longitudinally through the press. The cloth is held in place by the holders C, which consist of a standard, *c*, preferably of metal, and fastened permanently to the edge of plate A, and a spring or springs, *d*.

As shown, the springs *d* are leaf-springs, and are secured at one end to the upper part of standard *c*, the other end of the spring being adapted to bear upon and clamp the edge of the cloth. To this free end of the spring is attached a stud or knob, *e*, having a rounded end, and fitting in a hole in the base of standard *c*.

By reason of the pressure of spring *d* the cloth is clamped between the stud *e* and the standard so tightly as to prevent accidental displacement of the cloth, while the latter can be easily shifted by hand in any direction, as may be required. As shown, there are three holders attached to each plate, one being in the middle and the others at the ends of the upper edges thereof; but obviously a greater or less number may be used, if desired.

To increase the stiffness of the holding-spring *d*, a second and shorter spring, *d'*, is arranged to co-operate therewith, being secured to the standard by the same rivets. As preferably constructed, the holder C is adapted to secure the cloths on each side of the plate A, there being two clamping-springs, *d*, identical in construction and operation, one on each side of standard *c*.

It is obvious that the invention is not limited to the precise construction and arrangement of parts herein described and shown, these being given by way of example only, but that a different kind and arrangement of spring-clamps could be adopted to answer the same purpose without departing from the spirit of the invention.

I claim—

1. The combination, with the plate of a filter-press, of the cloth-holder comprising a spring-clamp adapted to hold the cloth firmly
5 in place, while permitting its ready adjustment, substantially as described.

2. The combination, with the plate, of a holder comprising a standard bolted to the plate and a spring for clamping the edge of
10 the cloth against the standard, substantially as described.

3. A cloth-holder for use in filter-presses, comprising, in combination, a standard and a
15 spring-clamp secured at one end to the standard and carrying at the other a stud or knob,

the standard being provided with a hole opposite said stud, substantially as and for the purpose described.

4. A cloth-holder for filter-presses, comprising, in combination, a standard and two spring-
20 clamps on opposite sides of said standard, substantially as and for the purpose described.

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

PAUL CASAMAJOR.

Witnesses:

BENJ. T. ROGERS,
JOHN E. JAMES.