

(No Model.)

A. J. McCAULEY.  
LOCK HINGE.

No. 516,546.

Patented Mar. 13, 1894.

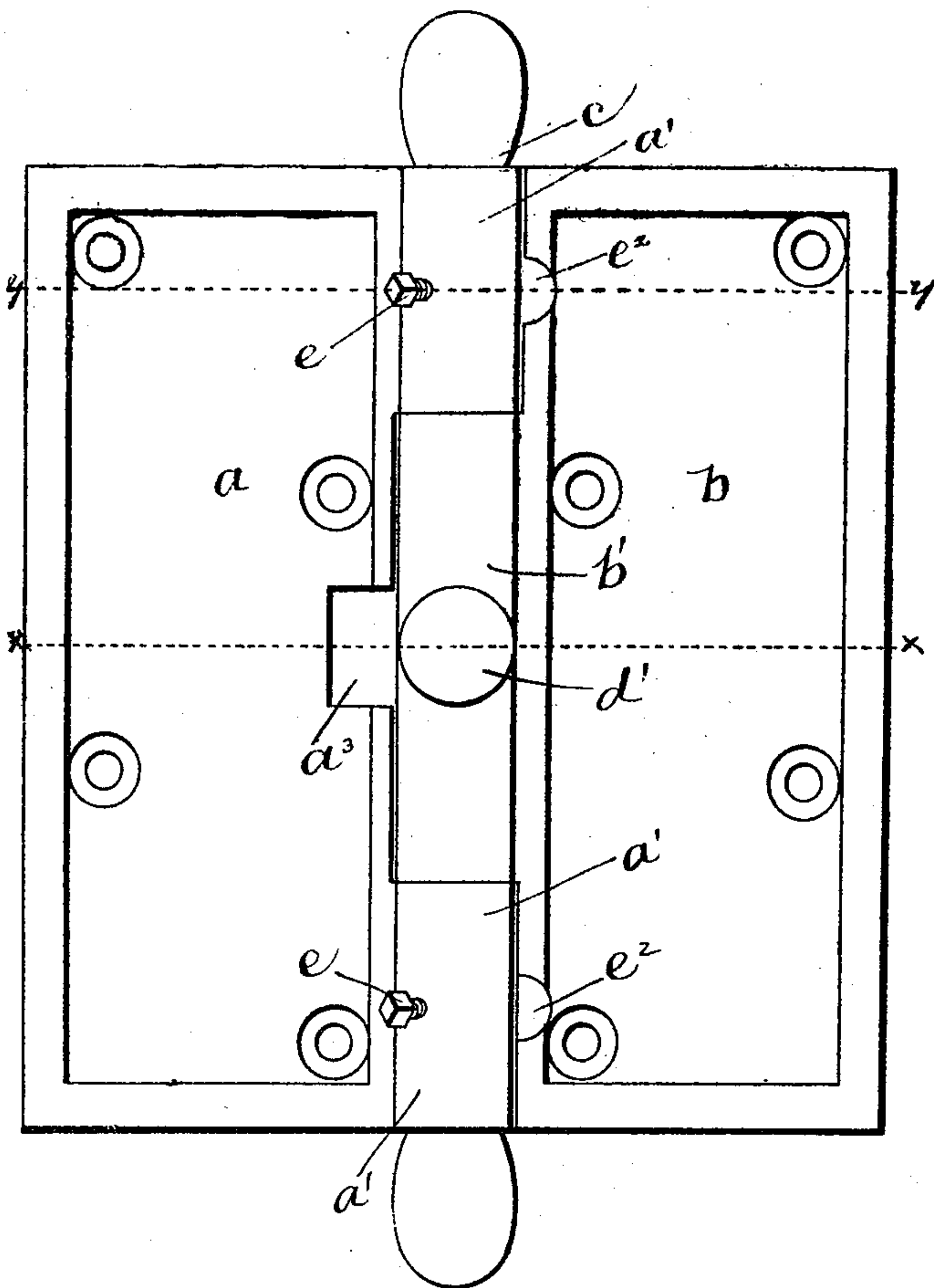


Fig. 1

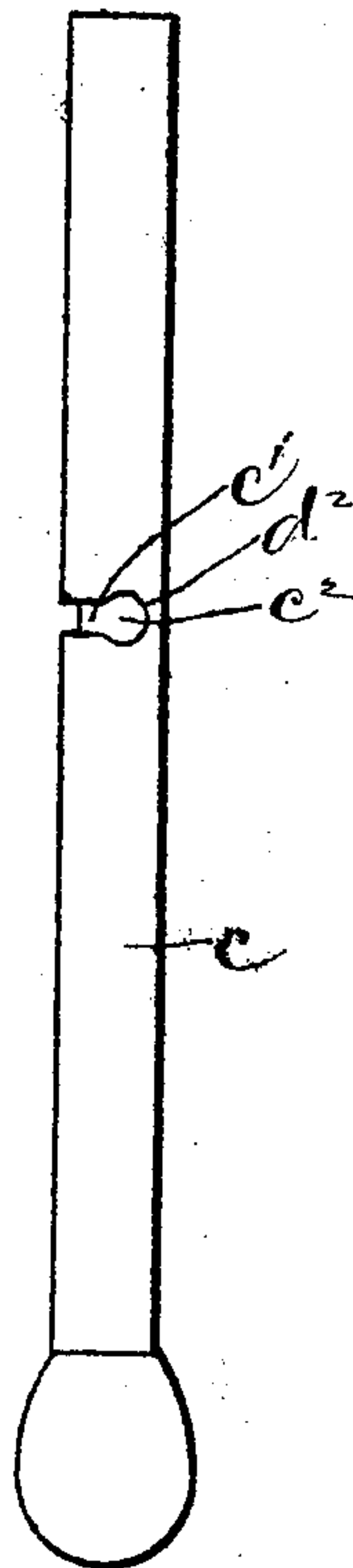


Fig. 2

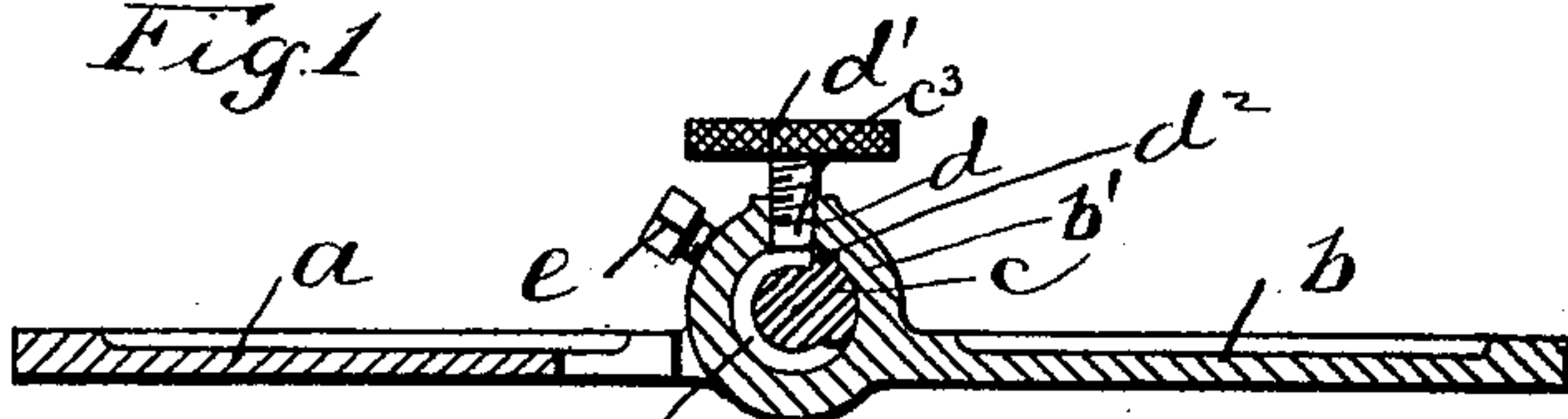


Fig. 3

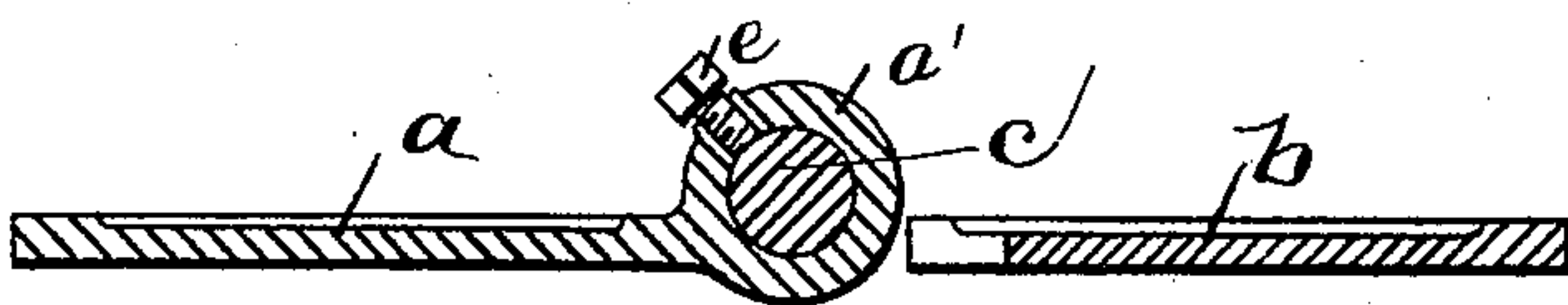


Fig. 4

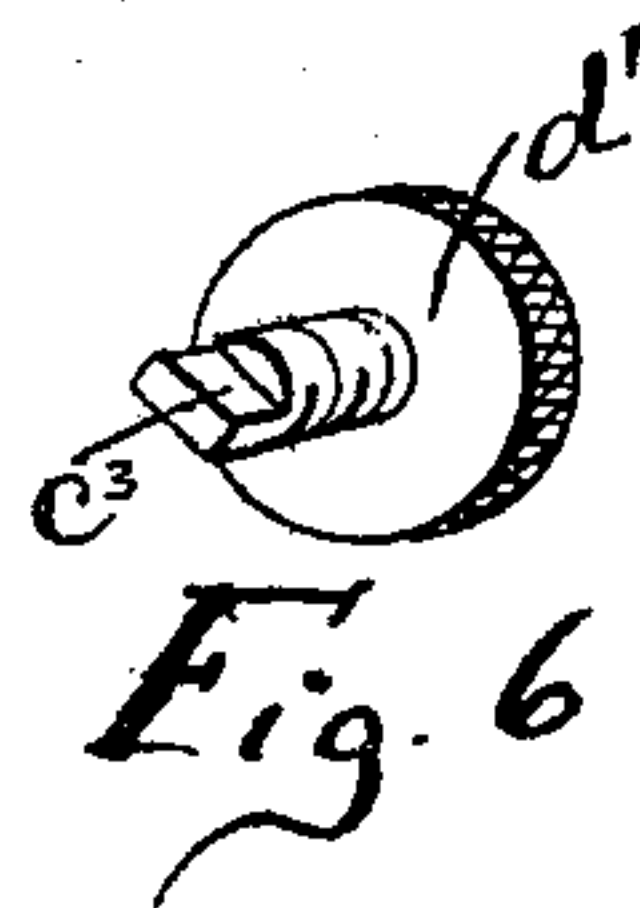


Fig. 6



Fig. 5

WITNESSES:

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# UNITED STATES PATENT OFFICE.

ANDREW J. McCAULEY, OF CIRCLEVILLE, OHIO.

## LOCK-HINGE.

SPECIFICATION forming part of Letters Patent No. 516,546, dated March 13, 1894.

Application filed July 3, 1893. Serial No. 479,424. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW J. McCAULEY, a citizen of the United States, residing at Circleville, in the county of Pickaway and State of Ohio, have invented a certain new and useful Improvement in Hinges, of which the following is a specification.

My invention relates to the improvement of hinges and has particular relation to that class of hinges known as butt-hinges.

The objects of my invention are to provide improved hinges of this class wherein means are provided for limiting and regulating the movement of the door with which said hinges are connected; to provide said hinge with improved means for holding said door against a swinging movement in any desired position and to produce other improvements which will be more specifically pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of my improved hinge showing the leaves thereto bent outward. Fig. 2 is a view in elevation of the hinge pin. Fig. 3 is a transverse section on line *xx* of Fig. 1. Fig. 4 is a similar sectional view on line *yy* of Fig. 1. Fig. 5 is a partial sectional view taken on the same plane as Fig. 3 and showing the position of the parts of the hinge when the leaves of the latter are locked at an angle with each other, and Fig. 6 is a detail view in perspective of one of the set screws.

Similar letters refer to similar parts throughout the several views.

*a* and *b* represent respectively the leaves of my improved hinge, the leaf *a* being provided on its inner edge with the usual end knuckle portions *a'* and the leaf *b* being provided with the usual central knuckle projection *b'* which fits between said projections *a'* in the usual manner. These hinged leaves are adapted to be jointly connected in the usual manner by the insertion through said knuckle portions of a hinge pin or pintle *c*. At or near the center of its length the pin *c* has formed therein a peripheral way or recess *c'* which extends partially and the greater way around said pin. One end of this recessed portion is provided with an enlargement *c<sup>2</sup>*. In the knuckle portion *b'* of the hinge leaf *b*,

I provide a screw hole *d* within which is inserted a set screw *d'*. The inner end and unthreaded portion *c<sup>3</sup>* of said set screw is flattened on two opposite sides as more plainly shown in Fig. 6 of the drawings.

*e* represents preferably smaller set screws which enter screw holes as shown, formed in the knuckle projections *a'* of the leaf *a*, said set screw *e* being adapted for the purpose hereinafter described, to bear against the periphery of the pin or pintle upon which said leaves hinge.

In the central portion and inner edge of the leaf *a* I provide a recess *a<sup>3</sup>*, through which may be passed the head of the screw *d'* when the leaves are turned at such an angle as to necessitate the passage of said screw head therethrough. In the inner edges of the leaf *b* I provide similar recesses *e<sup>3</sup>*, which when said leaves are turned will prevent the engagement of the screws *e* with said leaf *b*.

The operation and manner of utilizing my improved hinge are substantially as follows: For the sake of illustration, we will suppose that it is only desired to partially open the door or to prevent the door being swung completely back. In this case the door is swung to the desired open limit when the set screw *d* is turned so that its flattened end *c<sup>3</sup>* is within the enlargement *c<sup>2</sup>* of the pin way and so turned as to bring one of the flattened sides of said pin portion against or across the entrance of said pin way. In this position it will be seen that a substantially rigid connection will be formed between the leaf *b* and pin *c*, as the abutment of the flat side of the set screw termination against the shoulders formed in the production of the enlargement *c<sup>2</sup>* will prevent any rotation of said leaf knuckle. By then turning inward the set screws *e* until the inner ends of the latter bind firmly against the periphery of the pin *c* and imparting a partial turn to the screw *d'* to bring one of its narrow sides opposite the way *c'*, it will be seen that the door supporting leaf *b* will be permitted the desired inward or closing movement, but will be prevented a further outward or opening movement by contact of the inner end of said screw *d'* with the shoulder *d<sup>2</sup>* which is at the end of the recess *c'*. In this manner it will be seen that the hinged leaves may be set at any desired



angle with each other and prevented from being opened farther outward. By thus limiting the movement of the door it is obvious that the danger of doors striking the wall or furniture which may be adjacent thereto is obviated.

In order to so set the door or hinges thereof as to prevent its being swung in either direction, the central screw *d'* is turned until one of its flat sides is across the entrance to the way *c'* when the door may be moved to the desired point or position and the set screws *e* turned inward. In this manner it will readily be seen that a rigid engagement of the hinge leaves with the pin or pintle will be attained and the door which is supported on said hinges will be retained in one position.

It will be observed that the construction and operation of my device are exceedingly simple and such as to prevent any tendency of the same toward breaking or getting out of order.

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

1. In a hinge the combination with the leaves and their alternately arranged tubular knuckle portions, of the hinge pin *c*, a peripheral way extending partially around said pin and a set screw *d'* adjustably entering one of the hinge plate knuckles and adapted to pro-

ject within said pin way, substantially as and for the purpose specified.

2. In a hinge the combination with the leaves and their alternately arranged knuckle portions *a' b'*, of a hinge pin *c* passing through said knuckle portions, a recess or way in said pin partially surrounding the same, an enlargement in one end of said recess and a set screw adjustably entering one of said leaf knuckles and a flattened end portion on said screw adapted to project into said way and rotate in said enlargement, substantially as and for the purpose specified.

3. In a hinge the combination with the leaves *a b* having alternately arranged knuckle portions *a' b'*, a hinge pin connecting said knuckle portions as described, a recess or way in said hinge pin partially surrounding the latter, an enlargement in one end of said recess and a set screw adjustably entering one of said leaf knuckle portions and having a flattened end portion adapted to be projected into said way and enlargement, of set screws *e* adjustably entering the knuckle portions of the remaining leaf and adapted to turn against the periphery of said pin, substantially as and for the purpose specified.

ANDREW J. McCAULEY.

In presence of—

C. C. SHEPHERD,  
B. F. MARTZ.