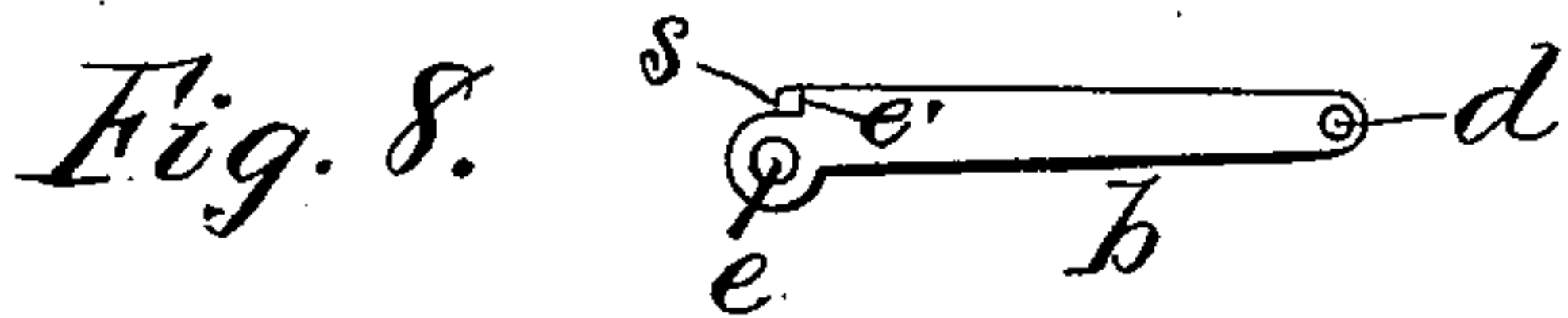
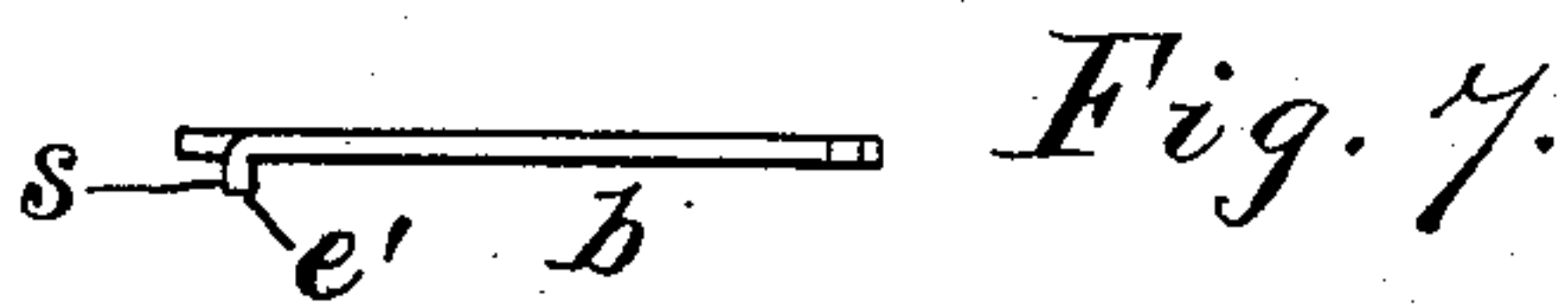
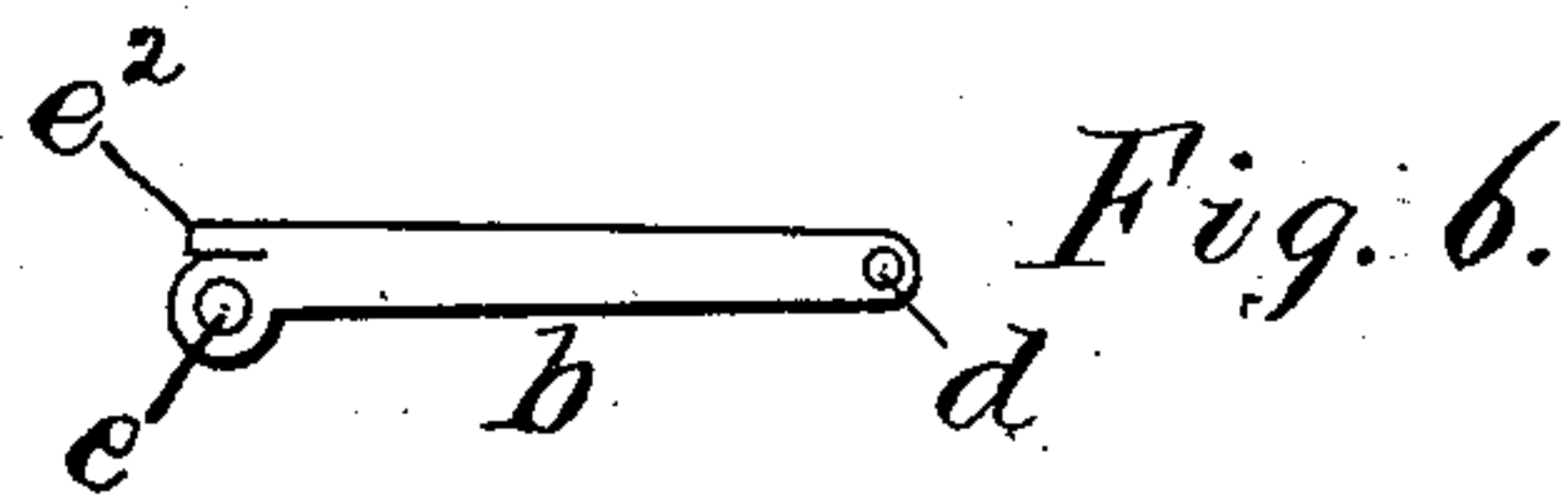
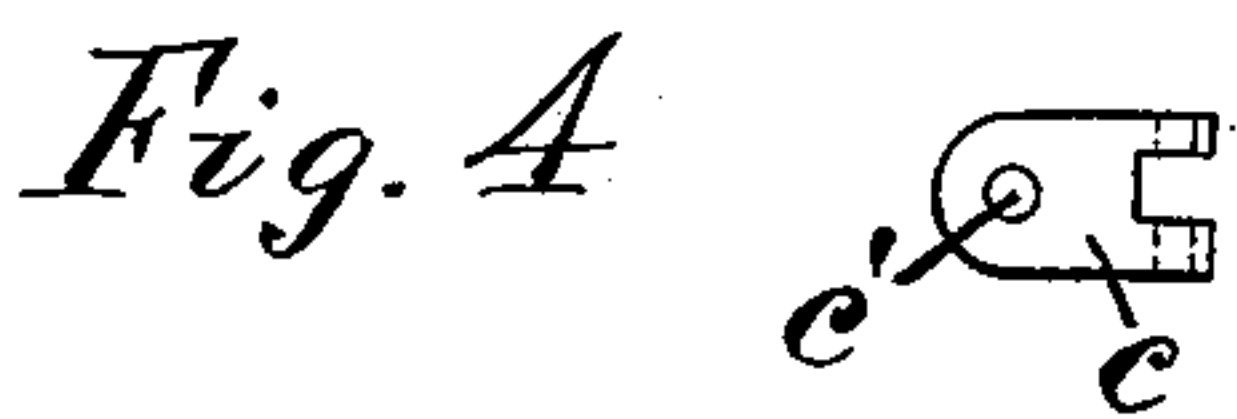
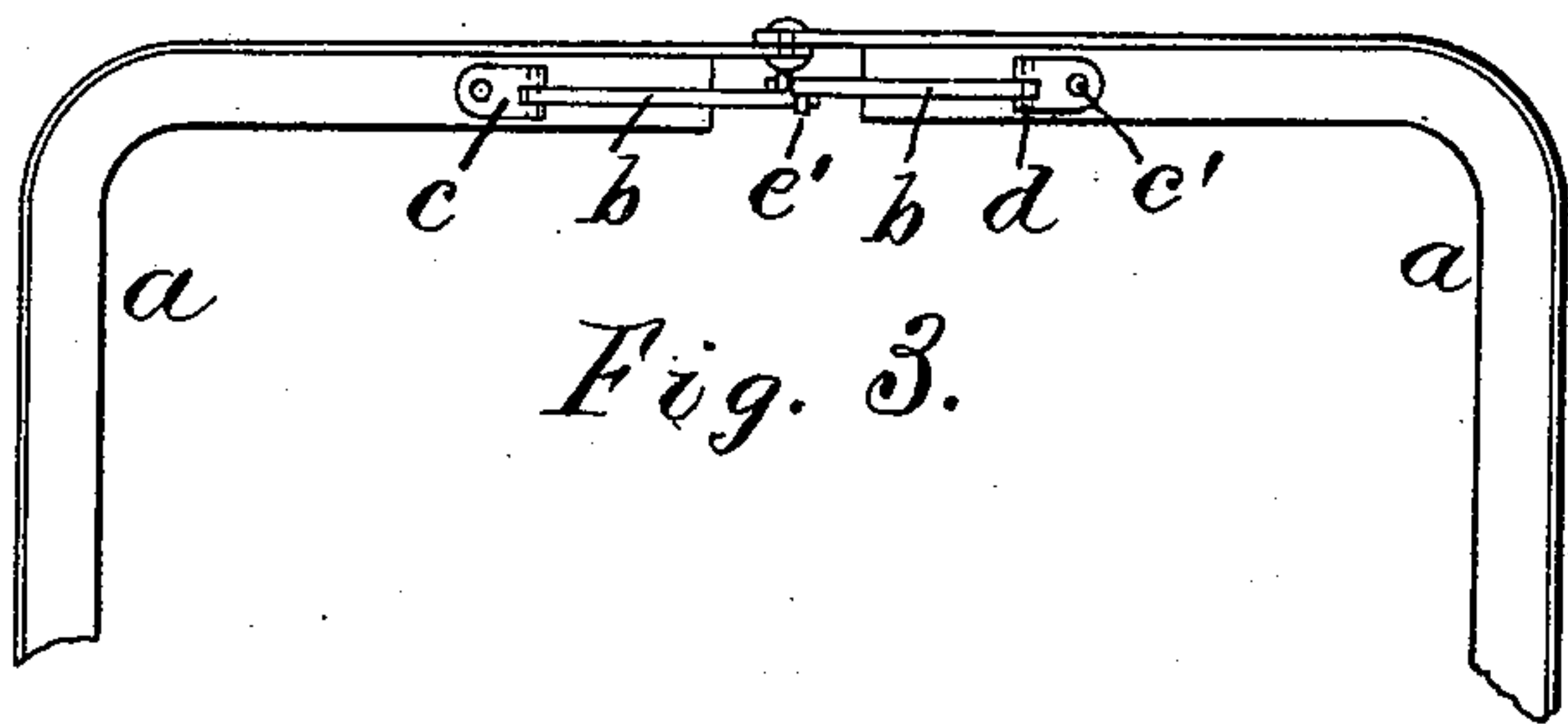
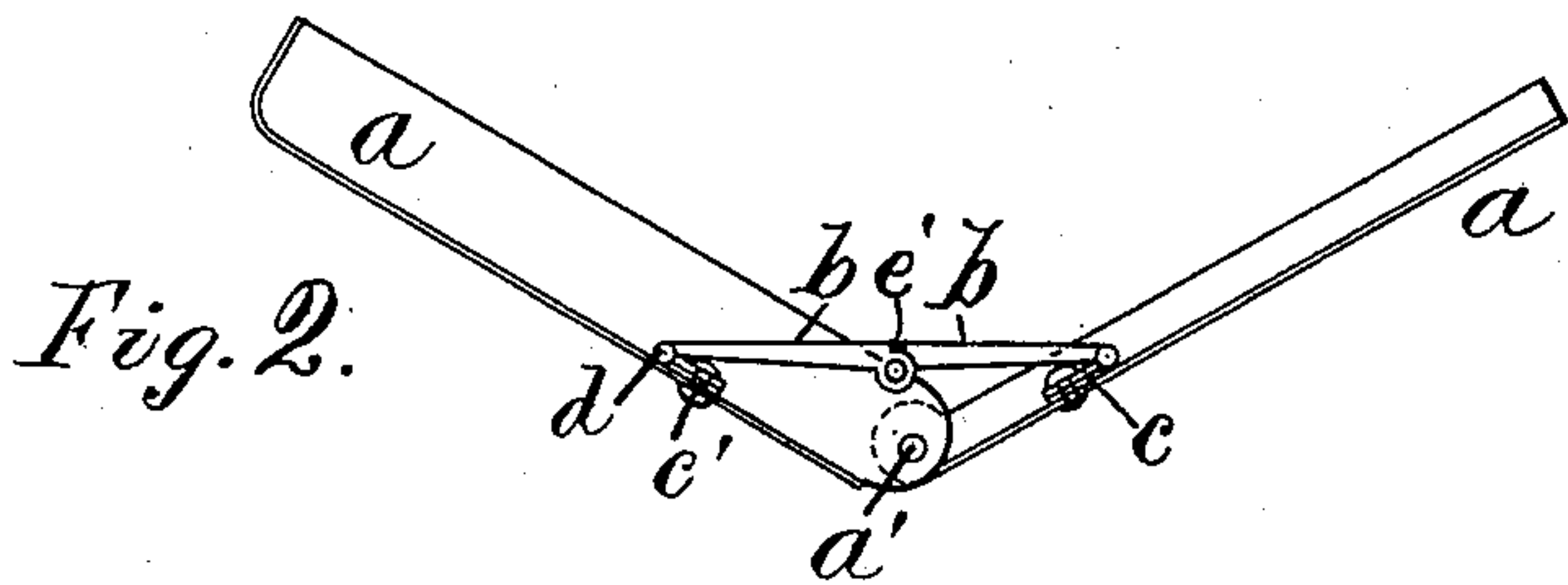
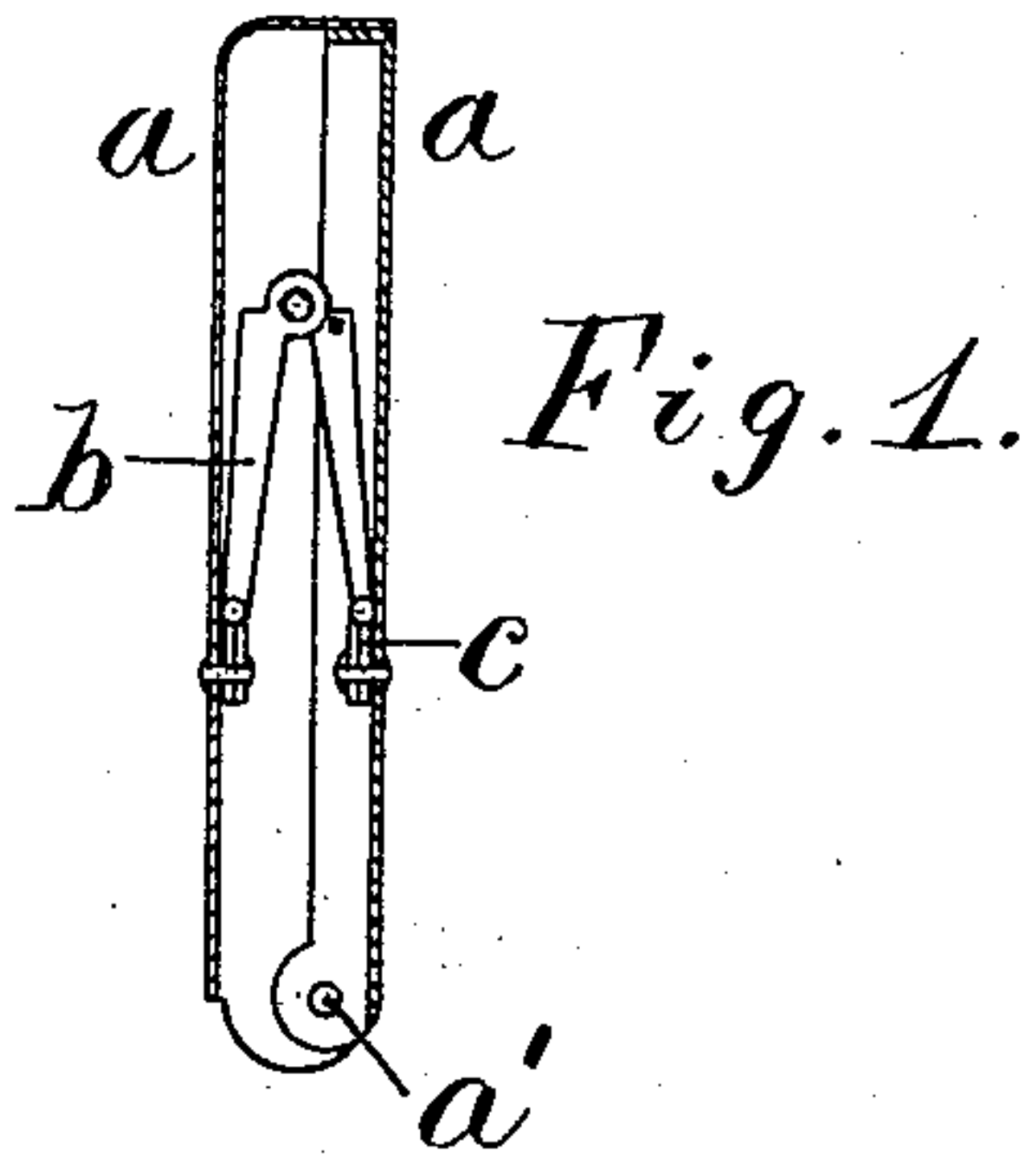


(No Model.)

C. R. CLEVELAND.
BAG HINGE STAY.

No. 407,332.

Patented July 23, 1889.



Attest:
L. Lee.
F. C. Fischer.

Inventor.
Charles R. Cleveland,
per Crane & Miller, Atty.

UNITED STATES PATENT OFFICE.

CHARLES R. CLEVELAND, OF NEWARK, NEW JERSEY, ASSIGNOR TO WILLIAM
H. PECK, OF SAME PLACE.

BAG-HINGE STAY.

SPECIFICATION forming part of Letters Patent No. 407,332, dated July 23, 1889.

Application filed January 29, 1889. Serial No. 298,004. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. CLEVELAND, a citizen of the United States, residing at Newark, Essex county, New Jersey, have
5 invented certain new and useful Improvements in Stay-Hinges, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 The object of this invention is to furnish for a bag-hinge a brace that may be more durable and more cheaply constructed than those formed with any species of spring. To effect this object, the brace is formed of two
15 toggle-arms closed by the action of gravity, and thus avoiding the use of any spring to operate them, the operator requiring merely to lift the joints of the arms when closing the bag, and the arms thereafter being pushed
20 upward between the frames of the bag as it closes. With this arrangement for the arms they are not crowded toward the hinge of the bag as the bag is closed, and they are not so likely to interfere with the contents of the
25 bag or to cause a breakage of the hinge by jamming some of its contents against the same.

The improvement will be understood by reference to the annexed drawings, in which—

30 Figure 1 represents an inner view of the bag-frame closed, with the jointed arms projected away from the hinge. Fig. 2 is a similar view of the bag-frame opened, with the arms jointed. Fig. 3 is a plan of the bag-frame jointed, with the arms straightened, as
35 in Fig. 2. Figs. 4 and 5 are a plan and edge view of the joint-clip for securing the arms to the bag-frame. Fig. 6 is a side view of a blank stamped from sheet metal to form one
40 of the arms. Fig. 7 is an edge view of the blank bent to its final shape, and Fig. 8 is a side view of the same.

45 *a* are the bag-frames; *a'*, their hinges; *b*, the toggle-arms, and *c* the joint-clips provided with rivet-holes *c'* for attaching them to the frames. The arms are connected with the joint-clips by a rivet inserted in hole *d* at one end, and are pivoted together at their opposite ends by a rivet inserted in hole *e*. The
50 arms are formed each with a shoulder *s* adjacent to the hole and with a pin or stud *e'*

projected laterally to rest against the shoulder upon the opposite arm.

In Figs. 2 and 3 the contact of the stud *e'* with the shoulder *s* is plainly exhibited, the function of the stud being merely to hold the arms
55 in a straight line, as shown in Fig. 2, so as to form a locked toggle and brace the bag-frames *a* firmly apart when opened.

The stud *e'* may be formed by inserting a
60 pin in the arm, or integral with the arm if made by casting; but the drawings show a more economical method for manufacturing the arms by stamping from sheet metal, and consisting in a tongue *e'*, slit from the blank
65 in Fig. 6 adjacent to the hole *e*, and adapted to be bent laterally, as shown in Figs. 7 and 8, to form the required stud. The front of the stud, when bent, is formed on a line with the center of the hole *e*, and thus forms the
70 desired shoulder *s* for the opposed stud to bear against, as shown in Fig. 3. The bending of the stud from a blank of sheet metal thus enables the tongue *e'* to perform a double function and suffice both as stud and shoulder.
75

It will be noticed in Fig. 1 that the arms are moved away from the hinge when the bag-frame is closed, so that there is no chance of the arms crowding the contents of the bag toward the joint, and thus straighten either
80 the arms or the joint.

The bag-frame is shown in Fig. 1 in the normal position occupied by the same when it is opened, from which position it will be noticed that the weight of the arms co-operates with the movement of the bag-frames in the act of opening to lower the arms and straighten them, as in Fig. 2, without any attention on the part of the operator and without the necessity for any spring.
90

The arms are adapted to bend upward only by the application of the stop or stud *e'* and the shoulder *s* to the upper side of the arms, thus preventing them from bending downward when the bag is closed and requiring
95 the lifting of the arms in opposition to gravity to permit the closing of the bag. The pivots in the holes *d* and *e* would be loosely fitted to adapt the arms to fall down readily in the straightened position to form the
100 locked toggle desired when the bag was opened.

It is evident from the above description that the essential feature of my invention is a pair of toggle-arms each provided with a shoulder upon its upper side adjacent to one end and the arms being jointed together to form a stay adapted to project upwardly when the bag-frames to which they are attached are closed.

It is obviously immaterial to the essential feature of my invention whether the toggle-arms be formed with studs *e'* or not, so long as each is provided with a shoulder *s* at the end pivoted to the other arm, for the arms could be readily made of sufficient thickness to adapt one of them to be formed beyond the shoulder with ears and the other with a tongue fitted between such ears and pivoted between the same—a common form of joint.

Having thus set forth the invention, what is claimed is—

1. The combination, with the hinged bag-frames *a a*, of the toggle-arms *b*, jointed to one another and to the bag-frames at equal distances from their hinge, each of the arms

being provided upon its upper side with a shoulder *s*, to prevent their bending toward the hinge, and the toggle-arms being bent away from the hinge to close the bag and falling by their own weight into an operative position when the bag is opened, as and for the purpose set forth.

2. The combination, with the bag-frames, of the toggle-arms for the bag-frame brace, each pivoted at one end to one of the frames of the bag and at the opposite end to the other toggle-arm, and each being stamped from sheet metal and formed with pivot-holes *d* and *e*, and the stud *e'*, bent laterally to form both stud and shoulder adjacent to the hole *e*, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHAS. R. CLEVELAND.

Witnesses:

F. C. SCHMIDT,
H. J. MILLER.