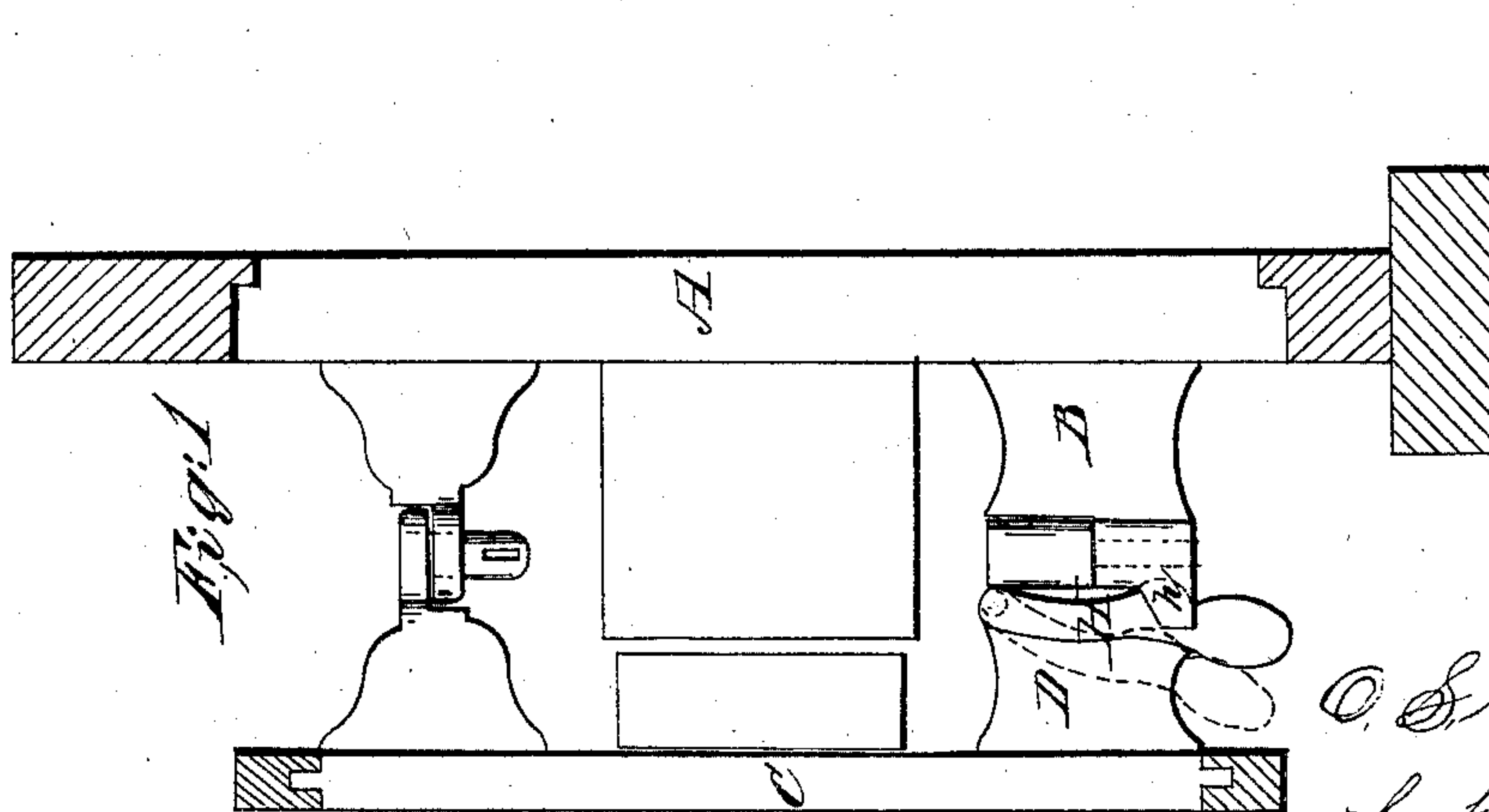
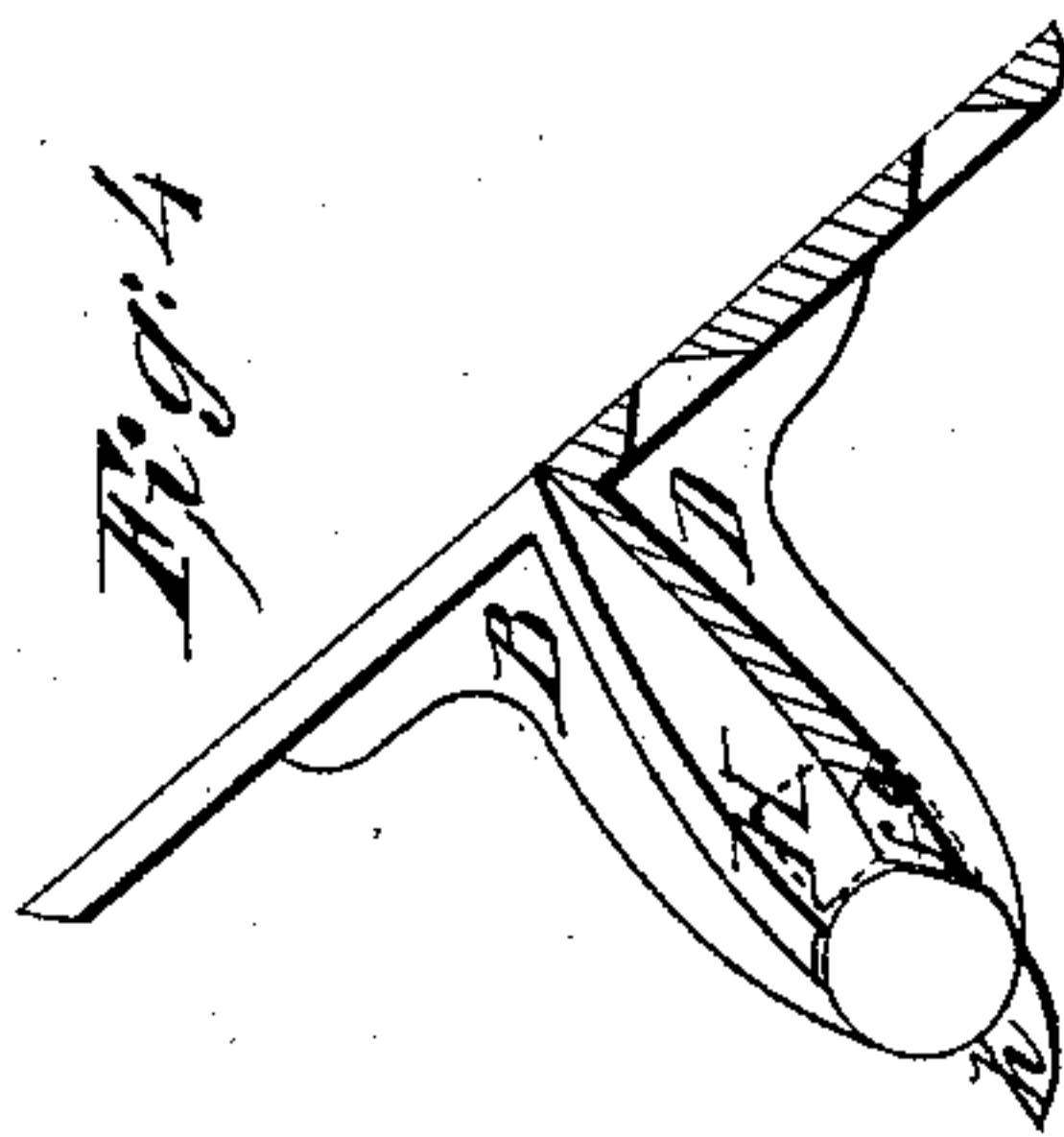
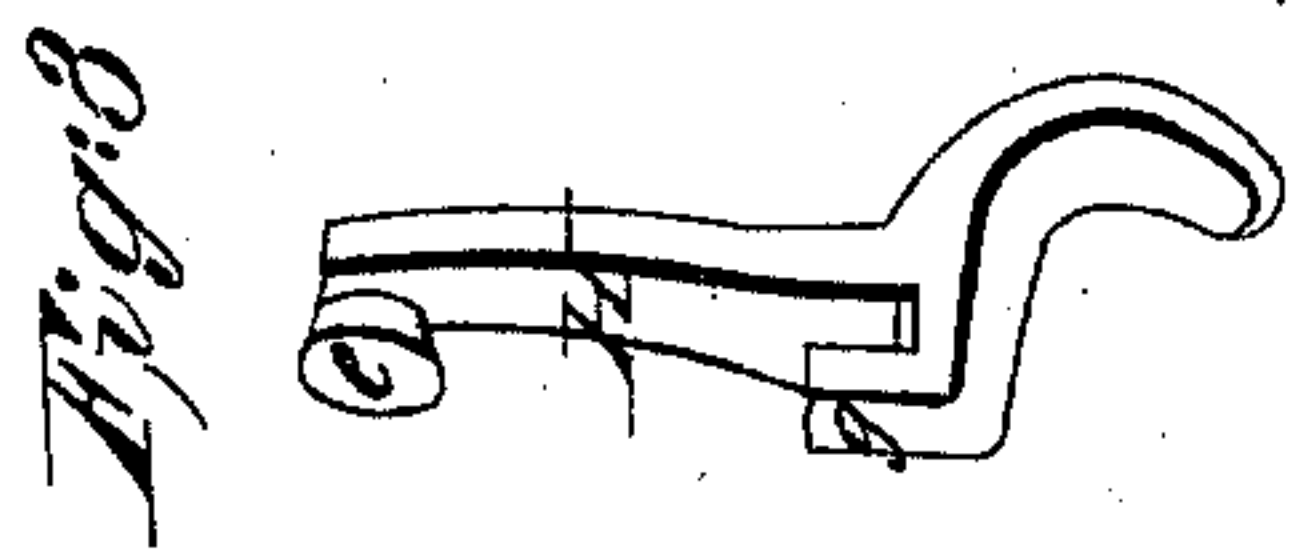
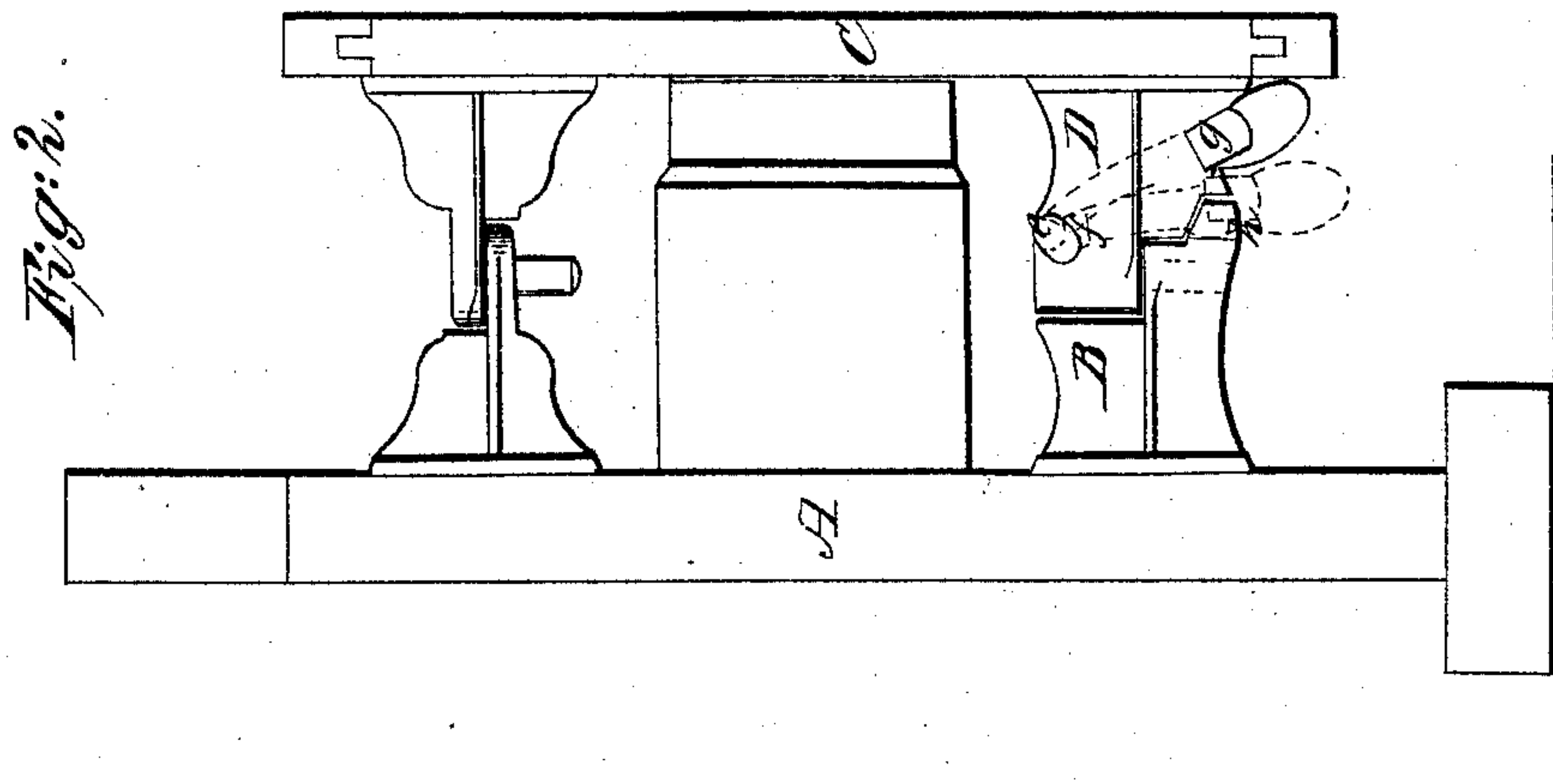


O. S. Garretson,

Lock Hinge.

N^o 55,644.

Patented June 19, 1866.



Witnesses:
Jay Mayatt.
James Calkins.

Inventor:
O. S. Garretson
by his attorneys
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UNITED STATES PATENT OFFICE.

O. S. GARRETSON, OF BUFFALO, NEW YORK.

IMPROVEMENT IN SHUTTER-HINGES.

Specification forming part of Letters Patent No. 55,644, dated June 19, 1866.

To all whom it may concern:

Be it known that I, O. S. GARRETSON, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in the Mode of Constructing Butts or Hinges for Blinds, Shutters, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view, in elevation, of my improved butt, showing the blind as thrown open to represent the interior faces, or those which close together. Fig. 2 is a like elevation from the reverse view, showing the exterior of the butt when opened. Fig. 3 is a detached perspective view of the locking-bar H. Fig. 4 is a horizontal section through the wings of the butt when closed.

Like letters of reference indicate corresponding parts in all the figures.

My invention belongs to that class of butts which are self-fastening when the blind or shutter is thrown open; and it consists in the method of constructing and applying the fastening-bar H and of the contiguous faces of the wings B D, to admit of the required movement of said fastening-bar without removing or recessing any part of the wings therefor, and also in the manner of forming the several parts so as to admit of molding and casting them complete, so as to dispense with the drilling of holes, as is ordinarily required.

As represented in the drawings, A is the window-frame, to which the female part B of the hinge is attached, and C is the shutter, having the male portion D attached thereto, in the ordinary manner. The pin or axis of the parts D and B is fixed in the former and turns freely in the latter, as indicated by dotted lines in Figs. 1 and 2. H is the fastening-bar, and consists of a flat piece of metal provided with a thumb-piece of any suitable form at its lower extremity, and with a boss, *e*, at the upper end and opposite side, which fits a corresponding recess, *f*, in the wing D of the butt. This boss is preferably so formed as to bevel outwardly from the surface of the bar in order that it may not readily fall out of its socket *f*, which is correspondingly shaped to fit it, or it may be formed with a small head,

flange, or hook, and produce an equivalent effect. It is also provided with a lip or hook, *g*, which clasps the lower edge of the wing D, and prevents the bar H from being removed unless the two wings of the butt are separated, which can only be done, when in use, by un-hanging the shutter. A portion of the lower edge of the wing forms the arc of a circle of which the boss *e* is the axis, to admit of the motion required by the bar in its operation. The knuckle of the female portion B is provided with a small cam, *h*, (shown most clearly in Fig. 4,) the office of which will be hereinafter described.

When the blind or shutter is hung and closed, the bar H hangs suspended loosely between the two wings, as shown in dotted lines in Fig. 4, where it is concealed from observation, except that portion which constitutes the thumb-piece. As the blind is opened the lower end of the bar is moved outward by the projection of the cam *h* until fully open, when it, having passed the point of the cam, falls by its own weight back to its former position—viz., perpendicular with the bearing *e*. In this position it has locked the blind open, which can only be closed by pushing the lower end of H outward far enough to repass the point of the cam *h*. The range of motion of the swinging end of this bar is slight, being only enough to overcome the projection of the cam, which need be no greater than is sufficient to form a reliable connection. Its motion is with the plane or face of the butt-wings, so that it is not required to project far enough to be in the way, or be liable to be broken or forced off, or become unsightly; but its most important advantages are its cheapness and durability. Being formed of a single piece which is cast entire and requires no drilling or other fitting, there is no rivet to rust out or become tight in the joint, so as to be inoperative from an accumulation of rust, and its cost is merely that of the weight of the metal which it contains.

In the manufacture of cast-iron goods of this class it is important to avoid drilling and riveting to the greatest extent possible, as it greatly cheapens the cost and saves the losses which occur from breaking in the operation, while for outdoor uses cast-iron endures the

weather with less injury from oxidation than wrought-iron. I therefore form all parts of my improved butt so that they can be molded and cast complete. The wings being necessarily angular in their horizontal section, as shown in Fig. 4, present serious difficulties; but by making the lock-bar H move with the general plane of the wings I avoid the necessity of any deep recesses, which could not be cast, and also form the screw-holes of such an angle that the pattern will "draw," as appears from Fig. 4, where the arrow and red lines indicate the line and direction of the draft in molding the pattern.

The curved or slightly concave faces of the two wings afford space for the motion of the locking-bar, while they render the appearance of the butt more comely and symmetrical.

I do not claim, broadly, a gravitating bar or lever for locking butts, such being a common

device in mechanics, and in general use for this and similar purposes; but

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

1. The locking-bar H, in combination with the parts B and D of a hinge, constructed and operating substantially as shown and described.

2. Forming the wings B D with concave faces, in combination with the pendent bar H, when said bar moves on a plane with the wings, substantially and for the purposes set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

O. S. GARRETSON.

Witnesses:

JAY HYATT,

LYMAN P. PERKINS.