

S. ADAMS.
Self Supporting Hinge.

No. 161,729.

Patented April 6, 1875.

Fig. 1.

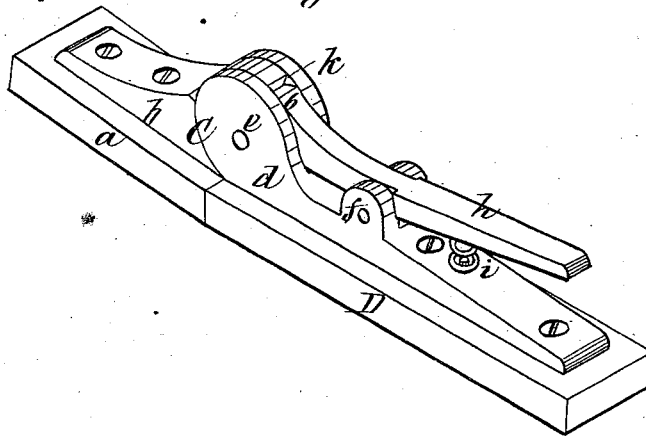
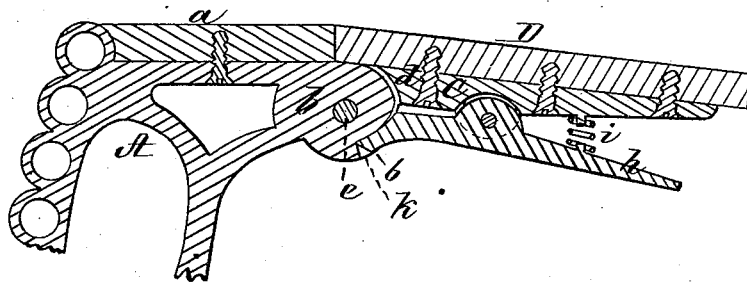


Fig. 2.



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Fig. 3.

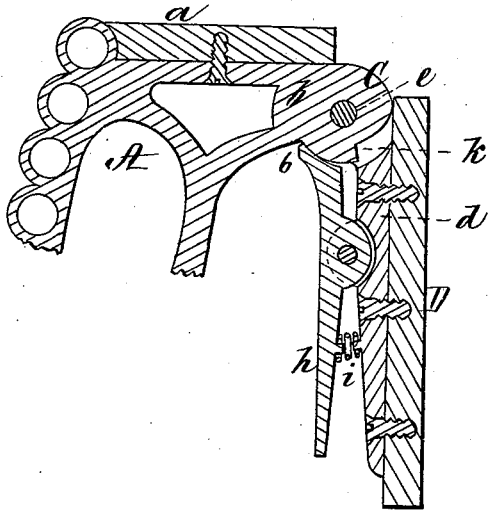
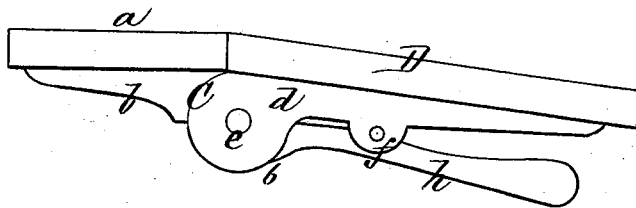


Fig. 4.



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UNITED STATES PATENT OFFICE.

SAMUEL ADAMS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO JOSEPH W. ROSS, OF SAME PLACE.

IMPROVEMENT IN SELF-SUPPORTING HINGES.

Specification forming part of Letters Patent No. 161,729, dated April 6, 1875; application filed November 12, 1874.

To all whom it may concern:

Be it known that I, SAMUEL ADAMS, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Self-Supporting Hinge for School-Desks, Shelves, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a perspective view representing my improved hinge inverted. Figs. 2 and 3 are longitudinal vertical sections through the center of the hinge applied to a school-desk; Fig. 4, modification.

My invention consists in a self-supporting hinge, one portion of which is secured to the stationary part of a desk or shelf, or is cast in the same piece with the frame which supports it, and the other portion to the movable lid or shelf to be raised when required for use, one portion of the hinge having a lever pivoted thereto, which, when the lid or shelf is raised to its full extent, fits into a notch, or against a projection in or on the other portion of the hinge at the joint, in which position the lever is securely held by the weight of its outer end, or by a suitable spring applied thereto, the hinge being unlocked to allow the lid or shelf to be swung down by simply raising the outer end of the lever, so as to disengage its inner end from the notch or projection.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A, Figs. 2 and 3, represents the upright frame of a school-desk, to which is secured the stationary portion *a* of the top of the desk. C is a hinge, the portion *b* of which is cast in one and the same piece with the frame A. The outer end of the portion *b* is of circular form, and fits into the bi-

furcated end, also of circular form, of the portion *d* of the hinge, which is secured to the under side of the lid D, a pin or bolt, *e*, passing through the center of the ends of the two portions, *b* and *d*, which unites them together, and forms an ordinary joint. Between two lugs, *f f*, projecting from the under side of the portion *d* is pivoted a lever or pawl, *h*, the inner end *g* of which is kept by a spring, *i*, constantly in contact with the periphery of the circular end of the portion *b*; and when the lid D is raised into the position seen in Fig. 2, the inner end of the lever is forced into a notch, *k*, formed in the circular end of the portion *b*, and the hinge is thus locked firmly, so as to support the lid as desired. One of these hinges C is placed near each end of the lid, in a convenient position to allow of its lever *h* being operated by the hand, so as to withdraw the end *g* from the notch *k*, when the lid is free to be swung down into the position seen in Fig. 3.

If preferred, the spring *i* may be dispensed with, and the outer end of the lever *h* be made of sufficient weight, as seen in Fig. 4, to cause its inner end to enter the notch *k*, and remain therein.

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

The hinge C, composed of the portion *d* and the portion *b*, with its notch *k*, in combination with the lever or pawl *h*, and with or without the spring *i*, constructed and operating substantially as and for the purpose set forth.

Witness my hand this 6th day of November, A. D. 1874.

his
SAMUEL × ADAMS.
mark.

In presence of—

P. E. TESCHEMACHER,
N. W. STEARNS.