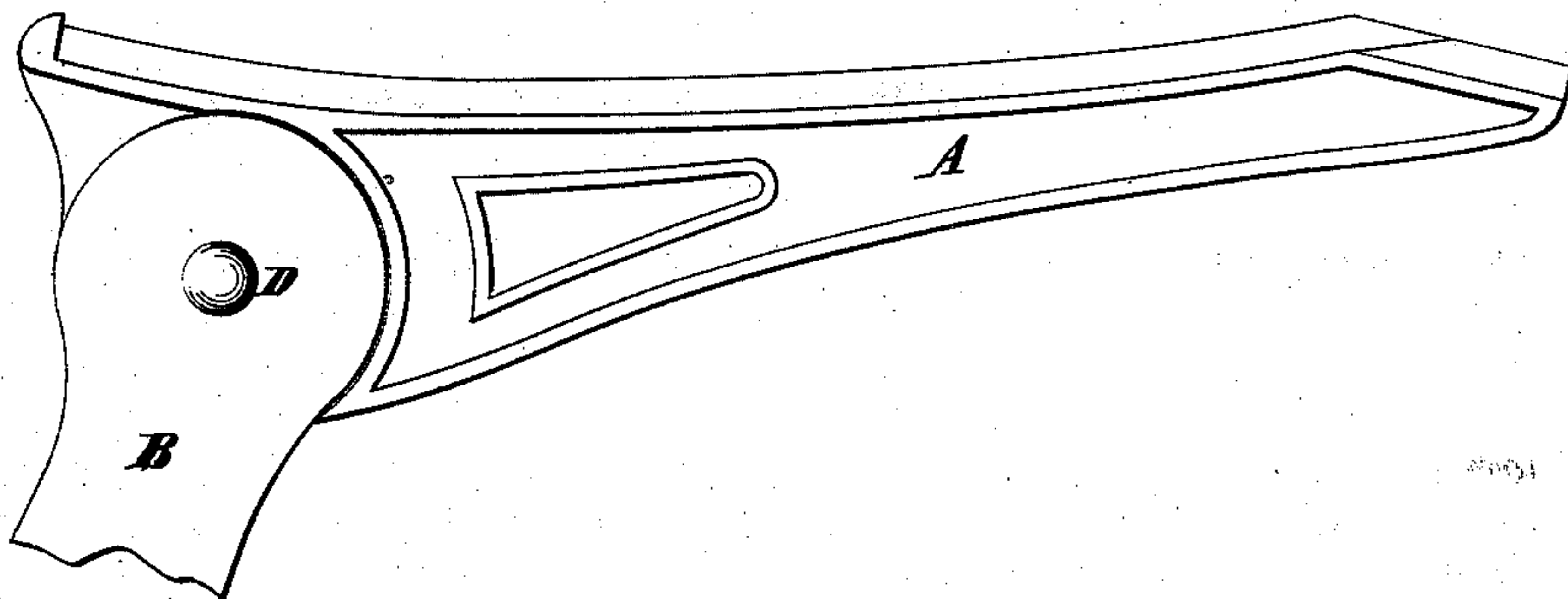


E. D. OLIN.  
School-Desks.

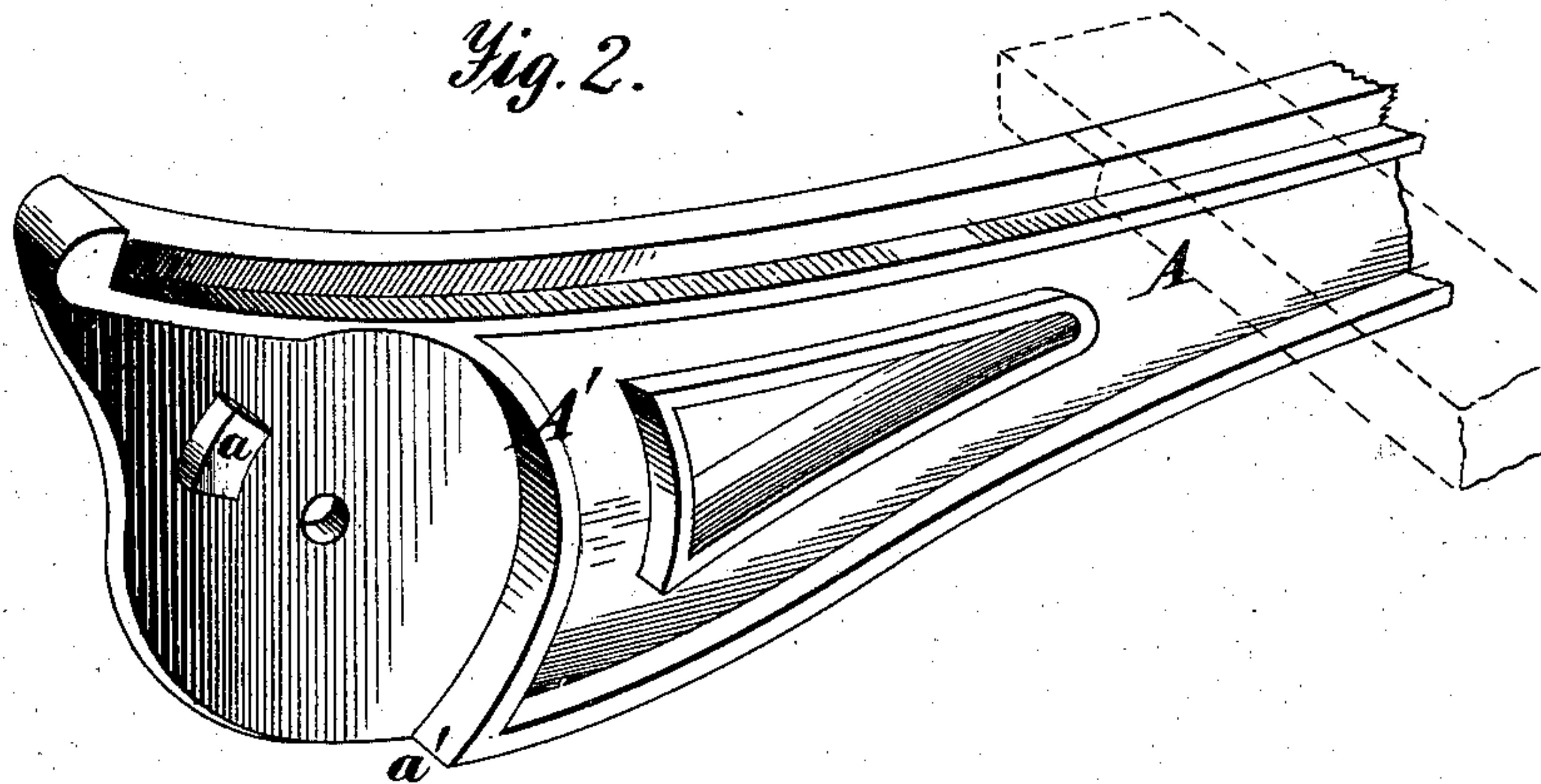
No. 154,710.

Patented Sept. 1, 1874.

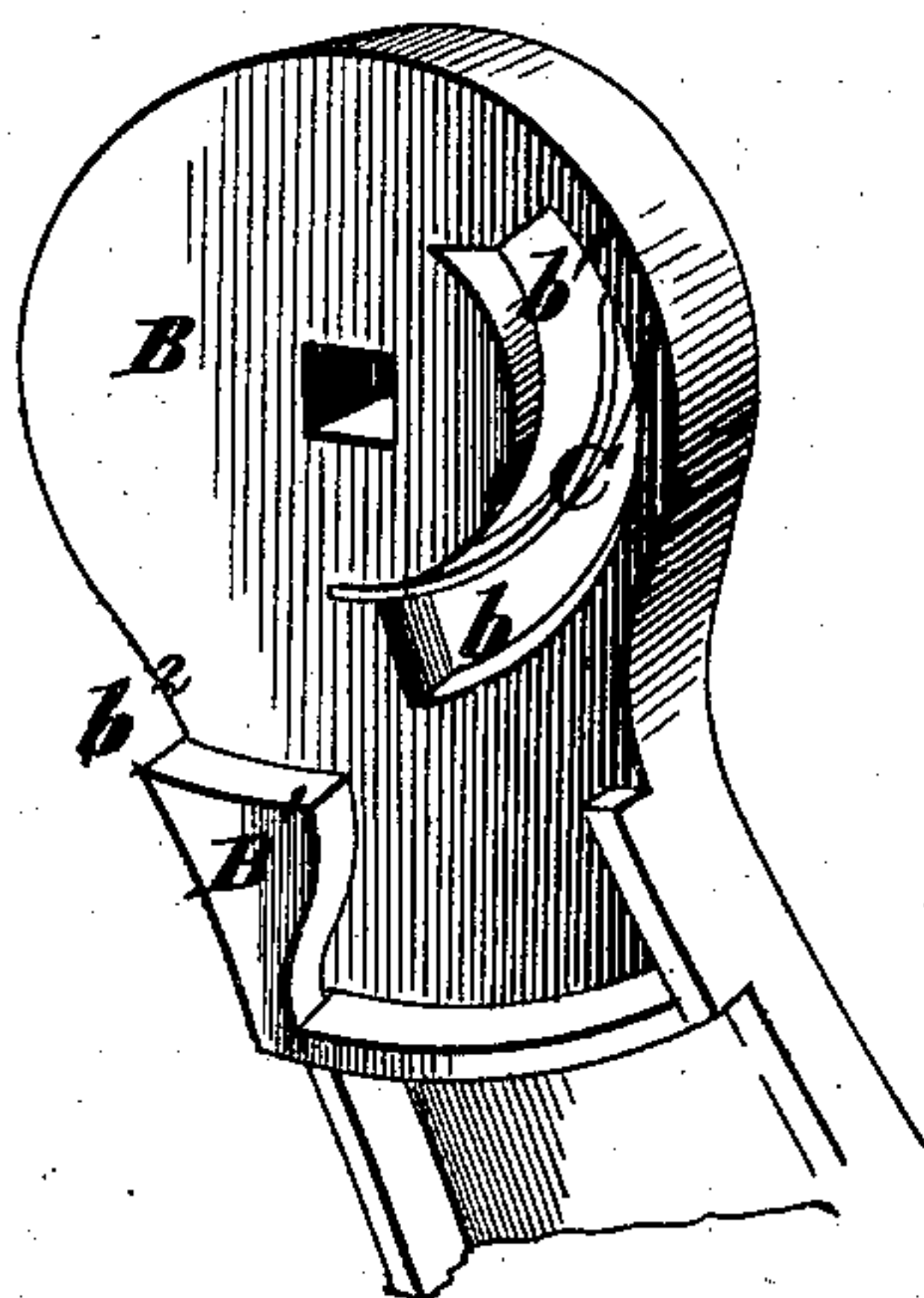
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses.*  
*A. Ruppert,*  
*J. O. Quinn*

*E. D. Olin*  
*Inventor.*  
*D. P. Holloway & Co*  
*Attys.*

# UNITED STATES PATENT OFFICE.

EDWIN D. OLIN, OF PERU, INDIANA.

## IMPROVEMENT IN SCHOOL-DESKS.

Specification forming part of Letters Patent No. **154,710**, dated September 1, 1874; application filed June 11, 1874.

*To all whom it may concern:*

Be it known that I, E. D. OLIN, of Peru, in the county of Miami and State of Indiana, have invented a certain Improvement in School-Desks, of which the following is a specification:

The nature of my invention, relating to the manner of hinging the seat to the end frames or standards of the desk, consists in combining a spring-friction device with the seat-arms and the lugs of the standards, to which they are hinged in such a manner that the turning down of the seat will always be effected noiselessly, because the spring-friction device will allow it to fall gradually only. The two parts of the hinge are also so made that parts of the friction device will act in conjunction with external shoulders to sustain the seat in its horizontal or turned-down position.

In the annexed drawings, Figure 1 is a side elevation of one of the seat-arms, and the lug of the standard to which it is hinged, in accordance with my invention. Fig. 2 is a perspective view of a portion of one of the seat-arms, on an enlarged scale. Fig. 3 illustrates, on a similar scale and in perspective, the construction of the hinge-lug of the standard.

The same letters of reference are used in all the figures in the designation of identical parts.

A refers to the seat-arm, and B to the hinge-lug of the standard, which is fitted neatly in a seat or recess formed in the wide rear end of the arm, bearing against the flange A', which is of segmental form to correspond to the outline of the upper portion of the lug. A projection, *a*, is formed on the seat-arm, to enter a segmental groove, *b*, in the lug B, and act on a flat spring, C, which, being secured at one end in the lower rear corner of the groove *b*, extends thence in a curvilinear direction diagonally across the groove, so that in turning the seat-arm down its projection *a*, moving in

the groove *b*, must deflect the spring against the convex side or back of which it bears. The spring, being gradually deflected, remains in forcible contact with the lug *a*, to the end of the downward movement of the seat-arm. On this account the seat will be prevented from falling suddenly with a noise, but turn down gradually. At the same time that the lug or projection *a* strikes the end of the groove at *b*<sup>1</sup>, the end *a'* of the flange A' comes in contact with the return curved edge of the lug B, and the corner *b*<sup>2</sup> of the rib B' on the latter brings up against the lower edge of the seat-arm, all acting together to stop the farther downward motion of the seat-arm, and to sustain it in its horizontal position. The slats of the seat are preferably secured by a dovetail tenon on the upper edge of the seat-arm, and correspondingly-dovetailed grooves in the slats, as indicated in Fig. 2.

It is apparent that the position of the projection *a* and groove *b* may be reversed, the former being placed on the lug B and the latter in the seat-arm.

The connection between the arm and lug is made permanent by the bolt and nut D.

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

1. The combination of the arm A, having projection *a*, lug B, provided with groove *b* and spring C, substantially as and for the purpose specified.

2. The arm A, having projection *a* and flange A' *a'*, in combination with the lug B, having groove *b* *b*<sup>1</sup> and rib B' *b*<sup>2</sup>, substantially as and for the purpose specified.

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

EDWIN D. OLIN.

Witnesses:

B. E. STOCKWELL,  
WILLIAM F. DALY.