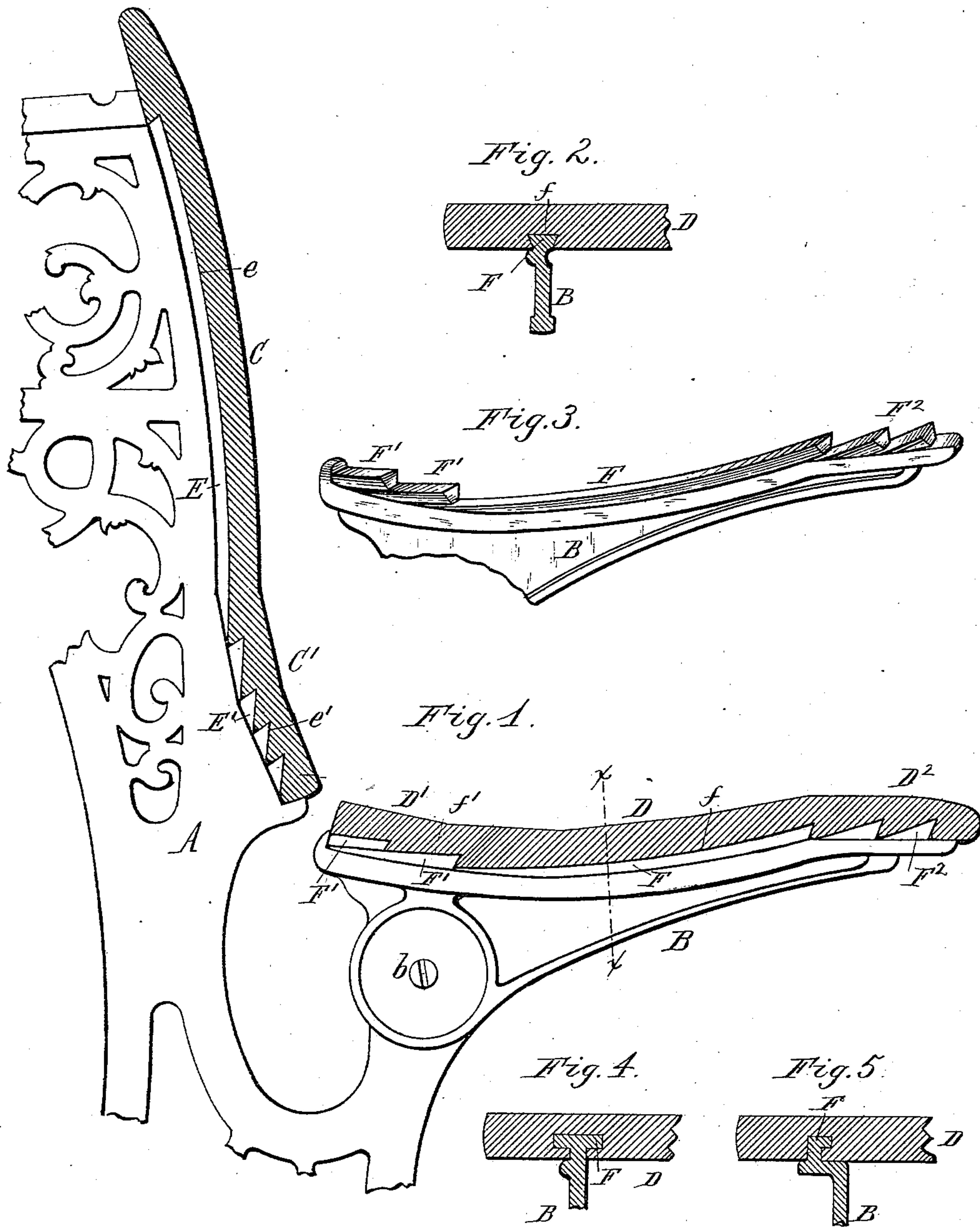


(No Model.)

O. S. GARRETSON.  
SCHOOL FURNITURE.

No. 379,387.

Patented Mar. 13, 1888.



Witnesses:

Chas. J. Buchheit.  
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# UNITED STATES PATENT OFFICE.

OLIVER S. GARRETSON, OF BUFFALO, NEW YORK.

## SCHOOL-FURNITURE.

SPECIFICATION forming part of Letters Patent No. 379,387, dated March 13, 1888.

Application filed April 19, 1884. Serial No. 128,487. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER S. GARRETSON, of the city of Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in School-Furniture, of which the following is a specification.

This invention relates to an improvement in the means whereby the wooden parts of the backs and seats are secured to the iron frames of school desks and seats and similar furniture.

The object of this invention is to attach the wooden parts to the iron frames in a simple and secure manner by means of locking-tongues formed on the iron frames and entering grooves or mortises in the wooden parts. Heretofore dovetail and other tongues have been employed for this purpose; but these fastenings have not been satisfactory, because the curvature of these seats and backs rendered it impossible to extend the tongues as closely to the edges of the seats and backs as required to firmly support these parts; hence the seats and backs had to be made straighter than desirable, in order to produce a comfortable seat, or if the proper curvature was given the front and rear edges of the seat and the lower edge of the back had to be left unsupported.

My invention is designed to obviate these difficulties; and it consists of the improvements in the construction of the furniture, which will be hereinafter fully explained, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a vertical cross-section of a school-seat provided with my improvement. Fig. 2 is a vertical section of the seat in line *xx*, Fig. 1. Fig. 3 is a fragmentary perspective view of the seat-arm of the iron frame. Figs. 4 and 5 are vertical sections showing different forms of the locking-tongues.

Like letters of reference refer to like parts in the several figures.

A represents the iron frame of a school desk or seat, and B the iron seat-arm hinged to the frame A at *b* in a well-known manner.

C represents the wooden part of the back, and D the wooden part of the seat, secured, respectively, to the frame A and arm B.

E represents a locking tongue or rib formed on the frame A and engaging in a groove, *e*, formed in the wooden back C. The tongue E

and groove *e* are curved to correspond with the main curvature of the back C, as clearly shown in Fig. 1, whereby the forwardly-turned lower portion, *C'*, of the back C is placed out of reach of the tongue E. In order to support the portion *C'* of the back, the frame A is constructed, below the main tongue E, with a suitable number of short auxiliary locking-tongues, *E'*, which engage in corresponding auxiliary mortises *e'*, formed in the portion *C'* of the back. The auxiliary tongues *E'* are curved concentric with the main tongue E and project successively farther forward, so that all of the tongues can be easily inserted into the mortises of the back by first inserting the greater portion of the main tongue E into the groove *e*, and then the auxiliary tongues *E'* into their respective grooves *e'*. The auxiliary tongues extend to the lower edge of the back C and firmly support the forwardly-curved lower portion, *C'*, thereof.

The seat-arm B is provided with a main locking-tongue, F, entering a groove or mortise, *f*, in the lower side of the seat D. This tongue and mortise are curved to correspond with the main curvature of the seat.

*F'* represents auxiliary locking-tongues formed on the seat-arm B at the rear end of the main tongue F and engaging in auxiliary mortises *f'*, formed in the upwardly-curved rear portion, *D'*, of the seat.

*F<sup>2</sup>* represents auxiliary locking-tongues formed on the seat-arm B at the front end of the main tongue F and engaging in auxiliary mortises in the downwardly-curved front portion, *D<sup>2</sup>*, of the seat.

The auxiliary tongues *F'* and *F<sup>2</sup>* are curved concentric with the main tongue F, the tongues *F'* projecting successively farther above and the tongues *F<sup>2</sup>* receding successively farther below the main tongue, whereby they are readily inserted in their respective grooves by starting the main tongue F first.

The tongues *F'* *F<sup>2</sup>* support the rear and front edges of the seat firmly and permit the use of a wooden seat having the proper curvature to form a comfortable seat.

The tongues may be of dovetail form, as represented in Figs. 1, 2, and 3, or they may be of T form, as represented in Fig. 4, or of *Γ* form, as represented in Fig. 5, or of any other



suitable cross-section which will serve to lock the wooden parts firmly in place on the iron parts of the frame.

I claim as my invention—

- 5 1. The combination, with a supporting-frame having a curved main tongue and auxiliary tongues formed at the end of the main tongue and made concentric therewith, of a solid seat or back having a curved main groove  
10 or mortise for the reception of the main tongue of the frame and concentric auxiliary grooves or mortises formed at the end of the main groove and adapted to receive the auxiliary tongues of the frame, substantially as set forth.
- 15 2. The combination, with a supporting-frame having a curved main tongue and auxiliary tongues formed below the lower end of the main tongue, concentric therewith, and at increasing distances forwardly from the main

tongue, of a solid back having a curved main 20 groove and auxiliary grooves at the lower end of the main groove adapted to receive the tongues of the frame, substantially as set forth.

3. The combination, with the seat-arm B, having a curved main tongue, F, of auxiliary 25 tongues F', formed at the rear end of the main tongue, concentric therewith, and at increasing distances above the same, and auxiliary tongues F<sup>2</sup>, formed at the front end of the main tongue, at increasing distances below the same, 30 and adapted to enter corresponding grooves in the seat, substantially as set forth.

Witness my hand this 16th day of April, 1884.

OLIVER S. GARRETSON.

Witnesses:

JNO. J. BONNER,  
GEO. E. PITMAN.