

O. D. CASE.  
School-Desk.

No. 216,307.

Patented June 10, 1879.

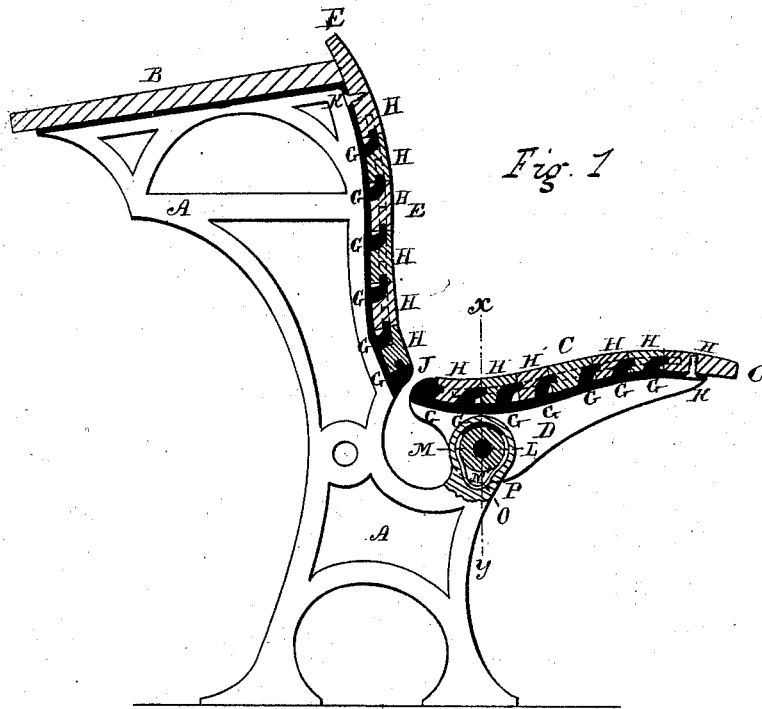


Fig. 1

Fig. 2

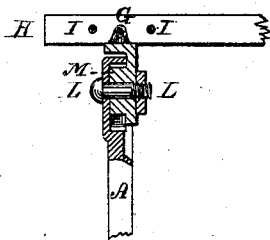


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

ORLANDO D. CASE, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN SCHOOL-DESKS.

Specification forming part of Letters Patent No. **216,307**, dated June 10, 1879; application filed March 22, 1879.

*To all whom it may concern:*

Be it known that I, ORLANDO D. CASE, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in School-Desks; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to such desks as are commonly used in schools. The seats and backs of such desks have commonly been made of narrow slats, to divide up the shrinkage among a large number of pieces. One great difficulty that has been experienced is to secure these slats firmly to the frame. The shrinking and expanding of the wood and the wear to which they are subjected soon loosen the fastenings.

Another difficulty that has been experienced is that the seat, which is commonly hinged, for convenience in sweeping and for the passing of the scholars, has been apt to fall down with a slam from inadequate means of breaking the fall.

The object of my improvement is to avoid the foregoing difficulties, and provide a desk that shall be strong and noiseless.

My invention consists in the construction which will be hereinafter described.

In the accompanying drawings, Figure 1 shows a section through one end of a school-desk and seat having my improvements. Fig. 2 is a section through the joint upon which the seat turns upon the line *xy* of Fig. 1. Fig. 3 is an inside view of the socket in the frame into which the seat-frame is fitted to form the joint.

A is the frame which supports the desk and seat. B is the desk. This is shown back of the seat; but there are commonly a series of such desks and seats, so that the seat has another desk in front of it.

C is the seat, attached to the swinging frames D, one at each end of the seat. E is the back, attached to the frame A. The frame

A and D is commonly of cast-iron, and the seat, back, and desk of wood.

G G, &c., are metallic hooks, forming part of the iron frame, and cast in one piece with it. H H, &c., are the wooden slats forming the seat and back. Each hook fits into an opening or hole in one edge of each slat, so that when the slat is driven onto a hook at each end of the desk that edge is firmly held. Through the slats, near the hooks, are bored the dowel-holes J J, into which dowels are inserted as each slat is put in place. These dowels extend about half-way into each slat and firmly unite the edges in contact, so that the hooks holding down one edge of each slat by means of the dowels hold down the adjacent edge of the next slat.

The shank of each hook lies embedded in a recess cut for it in each slat, so that only the part which is to be inserted into the next slat projects, except at the end where the placing of the slats is commenced, as shown at J in the drawings. At this end the back of the hook projects beyond the slat and is rounded off, so as to give a suitable finish.

At the forward end, or the last slat placed in position, the front edge is held down by ordinary screws K, as shown in the drawings. This construction permits the slats to expand and contract without becoming loose. The shanks of the hooks hold the slats from moving, and the hook portion, running for a short distance straight into the edge of the slat, allows it to shrink or expand and still hold it down firmly. The dowels unite the whole in one solid mass, so that the surface remains smooth and true. At the outer edge the screw K holds the slat firmly, as the back edge of the same slat is free to contract or expand upon the first hook.

L is a screw-bolt, upon which the seat-frame D turns. The swinging frame D is furnished with a boss, M, which rests in a recess, N, in the stationary frame A, and the two parts are held together by the bolt L, so that the joint is inclosed by the sides of the recess. O is a clip-spring, which embraces the circumference of the boss M, and presses with sufficient force against it to hold the seat from falling. The lower part of the spring is formed into a loop,

which rests in a notch, N', in the frame A, so as to hold the spring from turning. This causes the frictional resistance between the boss M and the spring to hold the seat. It will be observed that this friction remains constant, and does not require any tightening of the bolt. It can also be made as great or as little as desired, by having a stiffer or lighter spring, and that any ordinary degree of wear upon the boss will not alter its tension.

When the seat is down in its ordinary position for use it rests upon a stop at P of any ordinary construction.

My improved means of forming the seats and backs of desks is also applicable to any similar construction where it is desired to secure slats to a metallic frame.

What I claim as my invention is—

1. The frame A D, having a series of hooks, G, cast upon it, and the dowels I, in combination with the slats H, provided with holes on one edge to receive the hooks and perforated to receive the dowels, substantially as described.

2. The combination of the frame A, provided with the recess N and the notch N', the swinging frame D, provided with the boss M and the clip-spring O, substantially as described.

ORLANDO D. CASE.

Witnesses:

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