

J. D. Diffenderfer,

School Desk.

No. 100508.

Patented Mar. 8, 1870.

Fig. 1

Fig. 2

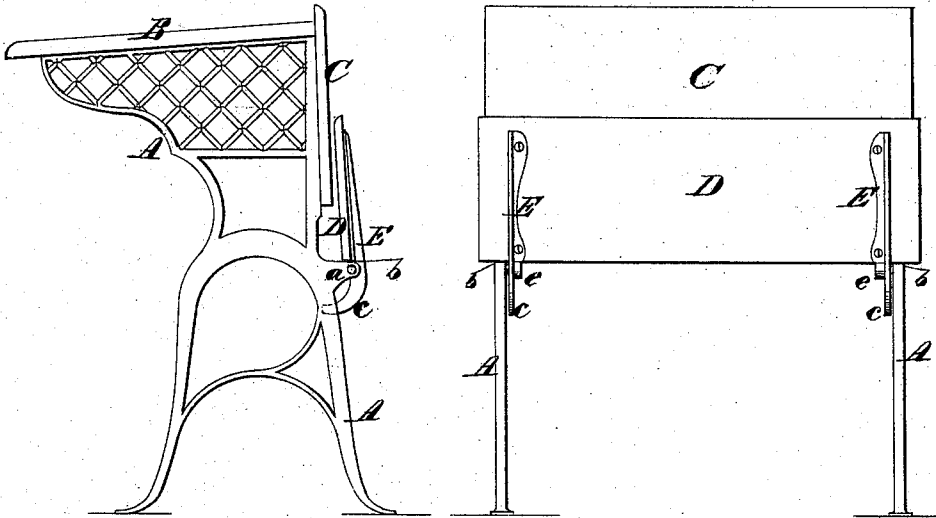
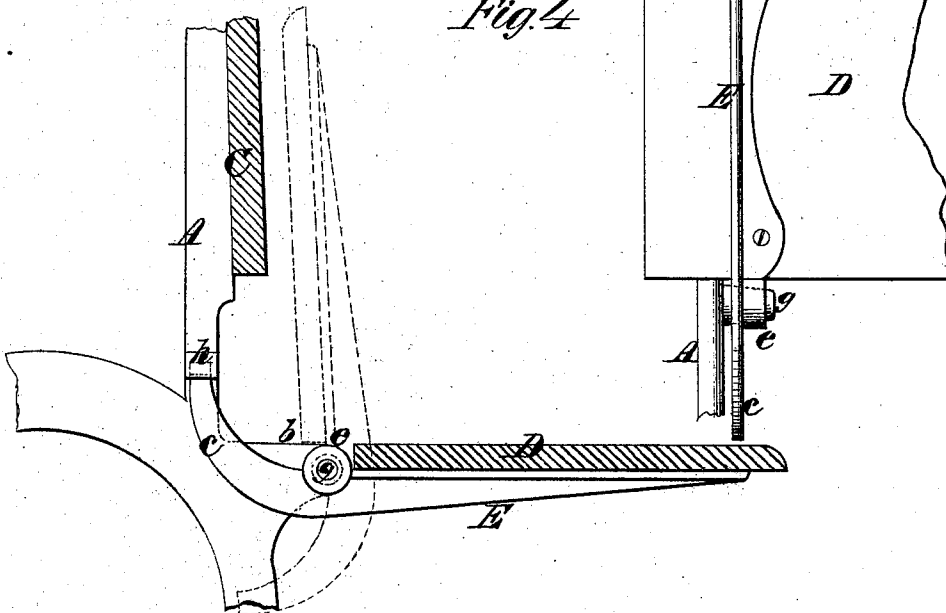


Fig. 3.

Fig. 4.



Witnesses.

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Letter's Patent No. 100,508, dated March 8, 1870.

IMPROVED SCHOOL-DESK AND SEAT.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, J. D. DIFFENDERFER, of Lewisburg, in the county of Union, and State of Pennsylvania, 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, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is an elevation of one side of a school-desk, having my improvements applied to it.

Figure 2 is a view of the back of fig. 1.

Figures 3 and 4 are enlarged views in detail of my improvements.

Similar letters of reference indicate corresponding parts in the several figures.

The improvements, which I shall hereinafter explain, are applicable to that class of school-desks which consist of metallic side standards, connected together by boards, which afford the top, the back, and the shelf of the desk, the back portions of said standards having a seat connected to them by pivot-joints, so that such seat can be turned up out of the way, to leave a free passageway between desks arranged in rows, and so as to afford a support for the occupant of the desk next in front of the one to which the seat is applied.

One great objection to seats hinged to desks, as above described, is the rattling noise produced by every movement of the children sitting upon them, and the rapid wear of the joints in consequence of such movements.

Another objection attending the seats hinged as above described, is want of a provision for preventing the seats from striking the backs of the desks when these seats are turned up to afford passage between desks.

The nature of my invention consists in a certain arrangement, construction, and combination of parts, whereby the character of school-desks above referred to is improved and rendered more useful.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings—

A A represent two vertical standards, which are made of cast metal, and adapted to afford the sides and legs of the desk.

B is the inclined top of the desk;

C, the back-board;

D, the seat-board; and

E, the arms, to which the seat-board is secured.

The sides of the receptacle for containing books and other objects are formed by the reticulated portions of the standards A A, and the extensions *a a* on the back edges of the standards are cast with conical bearings, *g g*, which are chilled in the process of casting, so as to present hardened and durable wearing-surfaces.

The upper edges of these offsets *a a* are flattened, so as to afford bearings and stops for the seat D when turned up, as shown in fig. 1 in full lines, and in fig. 3 in dotted lines.

The standards A A are also cast with portions, *h*, on their inner surfaces, above the plane of the bearings *g*, which portions *h* have recesses in them for receiving cushions of India rubber, or other suitable substance.

The seat-board D is secured rigidly to the longest arms of two levers, E E, the shortest arms of which are curved upwardly in such manner that their upper extremities will abut against the cushions in portions *h* when the seat is in the position to afford a rest, as shown in full lines, fig. 3.

The levers E E are cast with hubs, *e e*, at the junction of the longest with the shortest arms, which hubs are conically perforated, to receive the conical bearings *g g* on the standards A. The surfaces of the conical perforations are chilled in the casting process, to prevent rapid wear and enlargement of the holes.

When the seat D, attached to its levers or seat-irons, is applied to the standards A A, and held by the conical bearings, it will be seen that it can be adjusted in a horizontal position, or turned up out of the way.

When the seat is adjusted in a horizontal position, it is retained in this position by the ends of the curved arms *c* bearing upwardly against the cushions in portions *h*, and also by the conical bearings *g*, which are received into the hubs *e* of the seat-levers.

When the seat is turned up, as shown in fig. 1, its lower edge will rest flatly upon the upper edges *b b* of the offsets *a a*, and prevent the seat from abutting against the back-board C.

Thus it will be seen that the jointed connection of the seat to the standards A A is chill-hardened, to prevent rapid wear, and also made in such manner as to prevent rattling in consequence of wear.

It will also be seen that the seat-board forms a noiseless stop, when this board is turned up, by its contact with the top edges of the offsets *a a*.

It will also be seen, that by curving the shortest arms *c c* of the seat-irons E E, these curved portions will be out of the way when the seat is turned up as shown in fig. 1, and they will also afford a more substantial support to a weight upon the seat than would be the case if made straight.

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

The combination of the seat-irons E *e*, conical hubs *e*, cone bearings *g g*, projections *a*, and the cushion projections *h*, all constructed and arranged as and for the purpose set forth.

J. D. DIFFENDERFER.

Witnesses:

C. T. BUTLER,

J. C. DIFFENDERFER.