H. MERZ.

School-Desk.

No. 204,444. Patented June 4, 1878.

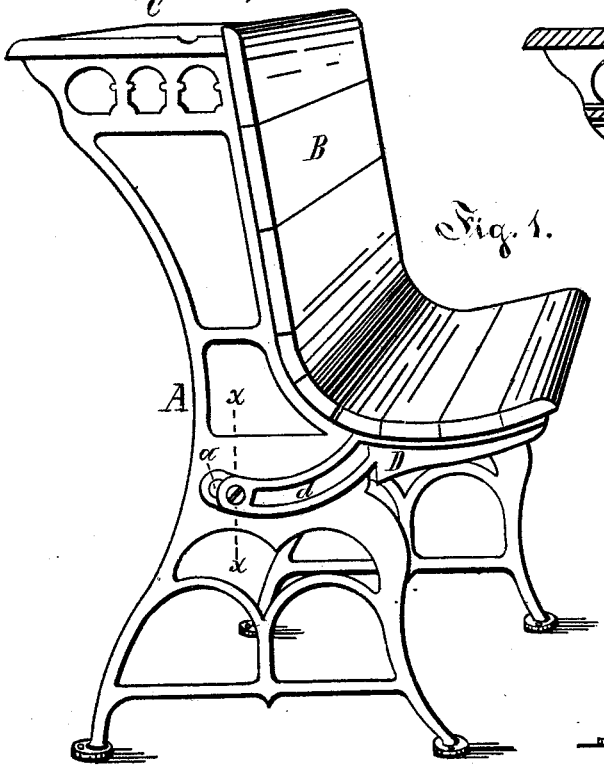


Fig. 1.

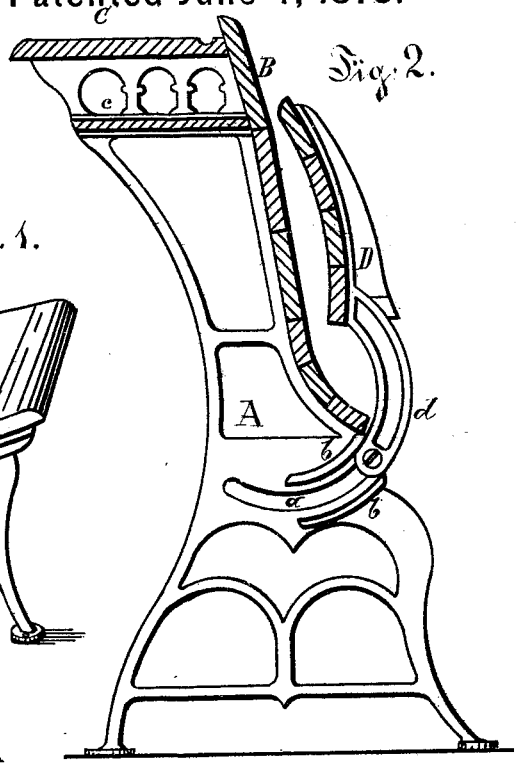


Fig. 2.

Fig. 3.

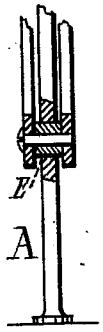


Fig. 4.

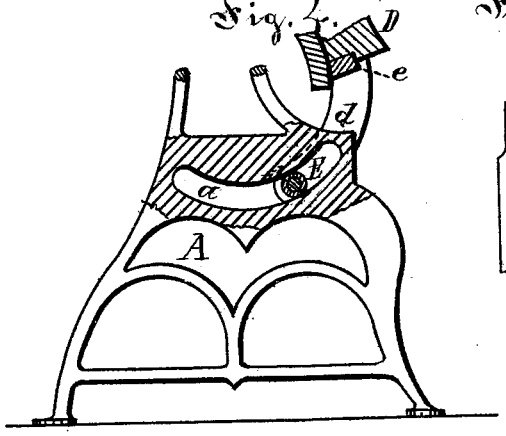
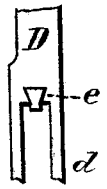


Fig 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

HENRY MERZ, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN SCHOOL-DESKS.

Specification forming part of Letters Patent No. **204,444**, dated June 4, 1878; application filed April 11, 1878.

To all whom it may concern:

Be it known that I, HENRY MERZ, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in School-Seats, of which the following is a full and exact description, reference being had to the accompanying drawing, being part of this specification.

The nature of my invention relates to seats which can be folded upward against their back, or against the desk, to which the same are attached, so as to occupy but very little room.

My invention consists in the peculiar devices for attaching such a seat to the desk-standards, and for supporting it therein by means of arc-shaped and bifurcated rearward extensions of the seat-brackets, with a roller pivoted between its prong ends, which travels in a correspondingly arc-shaped slot of the desk-stands, and in guide-flanges above and below said slot, on the inward faces of said standards, for said bracket-extension to slide between, so that said seat, while being folded or extended, will move on a circular line the center of which is above the seat and near to the back.

It also consists in a device for cushioning the bearing-points, so that the motions of the seat will be noiseless.

In the drawing, Figure 1 represents a perspective view of a school desk and seat with my improved seat-coupling device. Fig. 2 represents a vertical transverse section of the same with the seat folded up. Fig. 3 is a vertical section on line *x x* in Fig. 1; Fig. 4, a sectional view of the slotted portion of the standard and seat-bracket extension; and Fig. 5 represents a plan of the cushioned portion of the said seat-bracket extension.

A is one of the desk-standards, having an arc-shaped slot, *a*, which arc is struck from a center above the seat, and near to the back of the same; and *b* are flanges above and below said slot, projecting from the inward face of the standard, and being concentric with the slot. These standards are braced together laterally by the desk and shelf-boards C *c*, and by a series of wooden slats, B, forming the back for the seat, in the usual manner.

D is one of the brackets upon which are secured the ends of the wooden slats forming the seat. This seat-bracket D has a rearward-extending arm, *d*, which is shaped like the arc of a circle, of equal radius with slot *a* in standard A, and is bifurcated by being slotted out. The prongs of this extension-arm *d* slide against the sides of the standard A, between the flanges *b*, which guide the same; and between the extremities of said prongs is pivoted a roller, E, which travels in the arc-shaped slot *a*, and assists in guiding and supporting the seat-bracket D, which has to follow in its motion the curve of said slot *a* while being folded or extended.

The roller E, for the purpose of making it noiseless, is surrounded by a rubber ring, and a piece of rubber, *e*, is inserted into a dovetail recess at the starting-point of the bifurcated extension, and is firmly secured therein by the seat-board fastened over it, for cushioning that point which comes in contact with the standard while the seat is extended.

The above-described seat-connection has many advantages over the several hinge devices heretofore in use, which worked hard while new, but wore out in a short time, while with my sliding connection the wearing-surface is extended over the whole length of the slot *a*, and therefore has no chance to wear out, but wears smoother the longer it is in use; and the stress on the seat, being brought to bear upon two points a considerable distance apart, makes its support very firm and durable.

By folding the seat it is at the same time elevated, whereby no portion of it remains projecting from under, for the scholars in the row next in rear to touch with their feet and cause its dropping, while at the same time said seat will sustain itself better in its up-end position. Its motions are perfectly easy and noiseless, and it folds closer to its back, thereby giving better space for sweeping the floor; and the rubber cushioning being attached in a hidden location, the children cannot remove it.

This improvement will be of equal advantage for church and theater seats, also for railroad-car seats; and I wish to be protected in the application of the same for folding seats generally.

I am aware of the patent granted October 3, 1871, to Thomas Gregg, and hereby disclaim any of the devices therein shown as forming part of my invention.

What I claim as my invention is—

1. The standard A, having arc-shaped slot *a* and flanges *b*, in combination with the seat-bracket D, having bifurcated arc-shaped extensions-arm *d*, and roller E, all of which constructed, arranged, and operating substantially in the manner set forth.

2. The standard A, having arc-shaped slot *a* and flanges *b*, in combination with the seat-bracket D, having arc-shaped extension-arm *d*, rubber-lined roller E, and rubber cushion *e*, all constructed and arranged to operate substantially as herein described and shown.

HENRY MERZ.

Witnesses:
GUSTAV HENNEKE,
HENRY WILD.