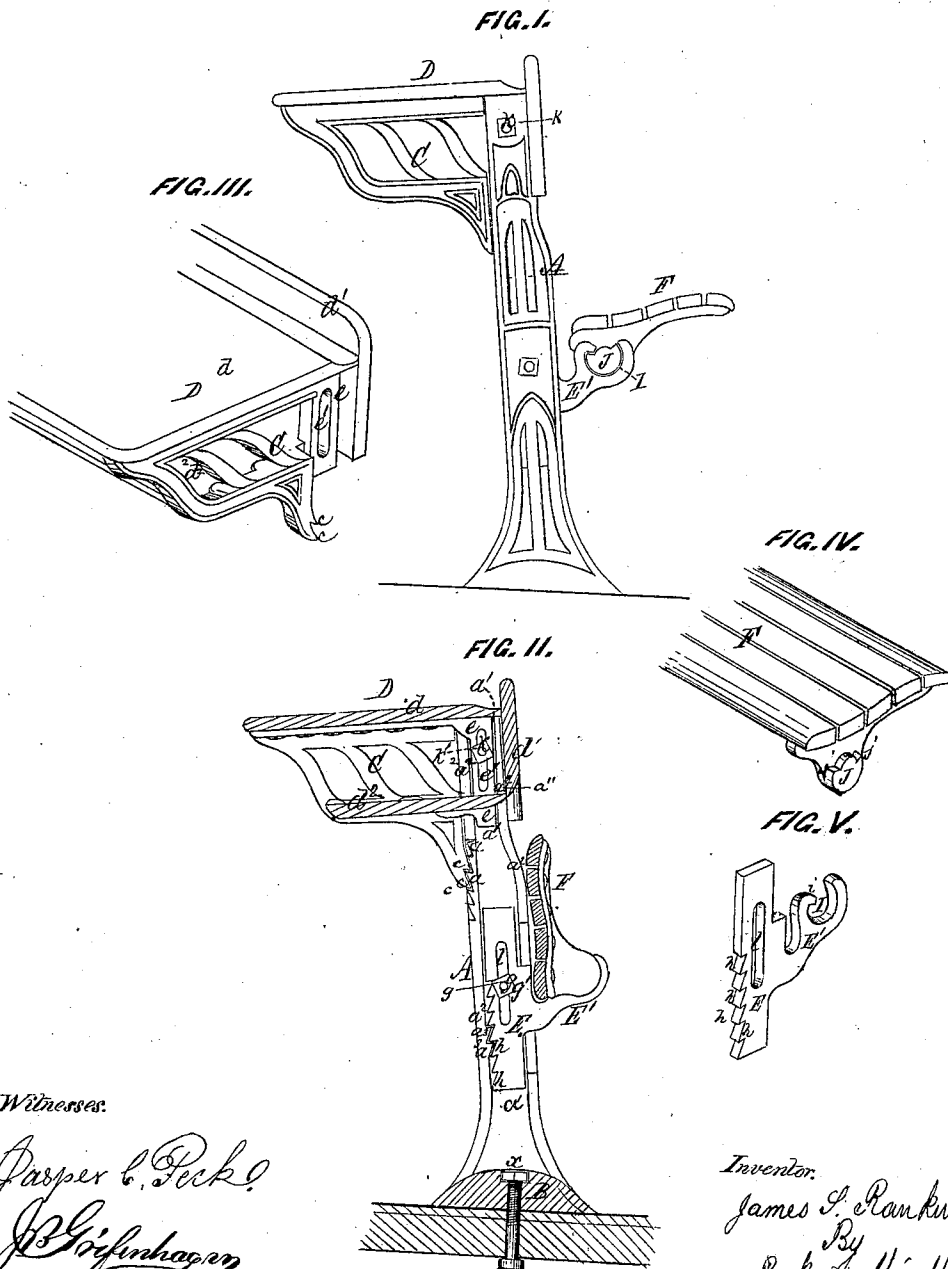


J. S. RANKIN.
SCHOOL DESK AND SEAT.

No. 121,470.

Patented Dec. 5, 1871.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES S. RANKIN, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN SCHOOL-DESKS AND SEATS.

Specification forming part of Letters Patent No. 121,470 dated December 5, 1871.

To all whom it may concern:

Be it known that I, JAMES S. RANKIN, of the city of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain Improvements in School-Desks, of which the following is a specification:

This invention consists in providing for the adjustment of the height of both the desk and seat, as hereinafter described.

In the drawing, Figure I is an end elevation of a school-desk and seat arranged after my plan; Fig. II, a vertical cross-section of the same; Fig. III, a detail perspective view of the end of the desk, removed from the standard; Figs. IV and V, respectively, perspective views of an end of the seat and the adjustable socket-piece, removed.

A A are side standards, preferably of cast metal and of open ornamental work, as shown. These standards are rigidly attached to or form part of a horizontal base piece, B, which, in turn, is firmly secured to the floor. The end pieces or brackets C C of the desk D, to which the top *d*, back *d'*, and shelf *d''* are secured, are provided with one or more projections or teeth, *c c*, which engage with corresponding notches *a a* of the standards A A. They are also furnished with guide pieces *e e*, which rest in recesses *a' a'* of the standards A A, formed by its flanges *a'' a''*. Longitudinal slots *e'* in the guide pieces allow the desk to be adjusted in height by means of threaded bolts *k*, which pass through the standard A and slots *e'*, and have nuts *k'* upon the inner ends to clamp the side pieces to the standards, the teeth *a a c c* acting in conjunction to support the desk firmly. The seat F is supported by adjustable socket pieces E E, resting in recesses *a' a'* between the flanges *a'' a''* of the standard, and having longitudinal slots *l l*, through which pass bolts *g g* provided with nuts *g' g'* to clamp them to the standards A A. These socket pieces are also provided with teeth *h h* which engage with similar teeth or notches *a'' a''* of the standard, and act with the slots *l l*, bolts *g g*, and nuts *g' g'* to adjust the height of the seat in the same way that the desk is adjusted. The arm E', springing from the shank of the socket piece, has a circular slot or socket, I, which re-

ceives the disk J of the seat F, the latter being provided with shoulders *j j*, which alternately engage with the stop *i* of the socket I when the seat is raised and lowered, the stop *i* acting to gauge the distance to which the seat may be turned in either direction.

In securing the desk or seat in place screws are inserted through the base piece B into the floor; or, instead of screws, lag-bolts may be employed to penetrate through the base piece and floor into the joists beneath the floor.

When it is desired to adjust the desk in height the nuts *k'* are loosened, which allows sufficient play for the teeth *a a c c* to be disengaged and the desk raised or lowered to the proper degree, when the teeth are again locked by tightening the nuts *k'*.

The height of the seat F is regulated in a manner similar to that just described. The nuts *g' g'* being loosened and the teeth *h h a'' a''* disconnected, the socket pieces are raised or lowered to adjust the seat F and again secured, as before mentioned. The seat may be raised or lowered at will, and by a single movement of the arms E' in either direction.

The advantages secured by my arrangement are numerous and valuable. By providing for the adjustment in height of both the seat and desk they are adapted to any grade of school, or, in other words, to the age and size of different scholars, thus saving expense, and at the same time providing in the best manner for the convenience and comfort of the pupils. The desk part being readily removable makes it possible to change the school-room into a convenient hall for public gatherings.

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

1. The bracket C, formed with the slots *e' e'* and catch *c*, in combination with the standards A, rack *a*, and bolt *k*, constructed and arranged to operate substantially as and for the purpose described.
2. The bracket E, slots *e' e'*, bolt *g*, rack *h*, and seat F, in combination with the standard A and bracket C, all constructed and operating substantially as and for the purpose set forth.
3. The bracket C, slots *e' e'* and catch *c*, and

bolt *k*, in combination with the bracket *E*, slot *e'*, bolt *g*, and rack *h*, operating in connection with the standard *A* formed with the rack *a* and *a*³, for the purpose described.

4. The base piece *B*, in combination with the standards *A A*, substantially as and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES S. RANKIN.

Witnesses:

J. B. GREIFENHAGEN,
GEO. W. MIATT.

(62)