

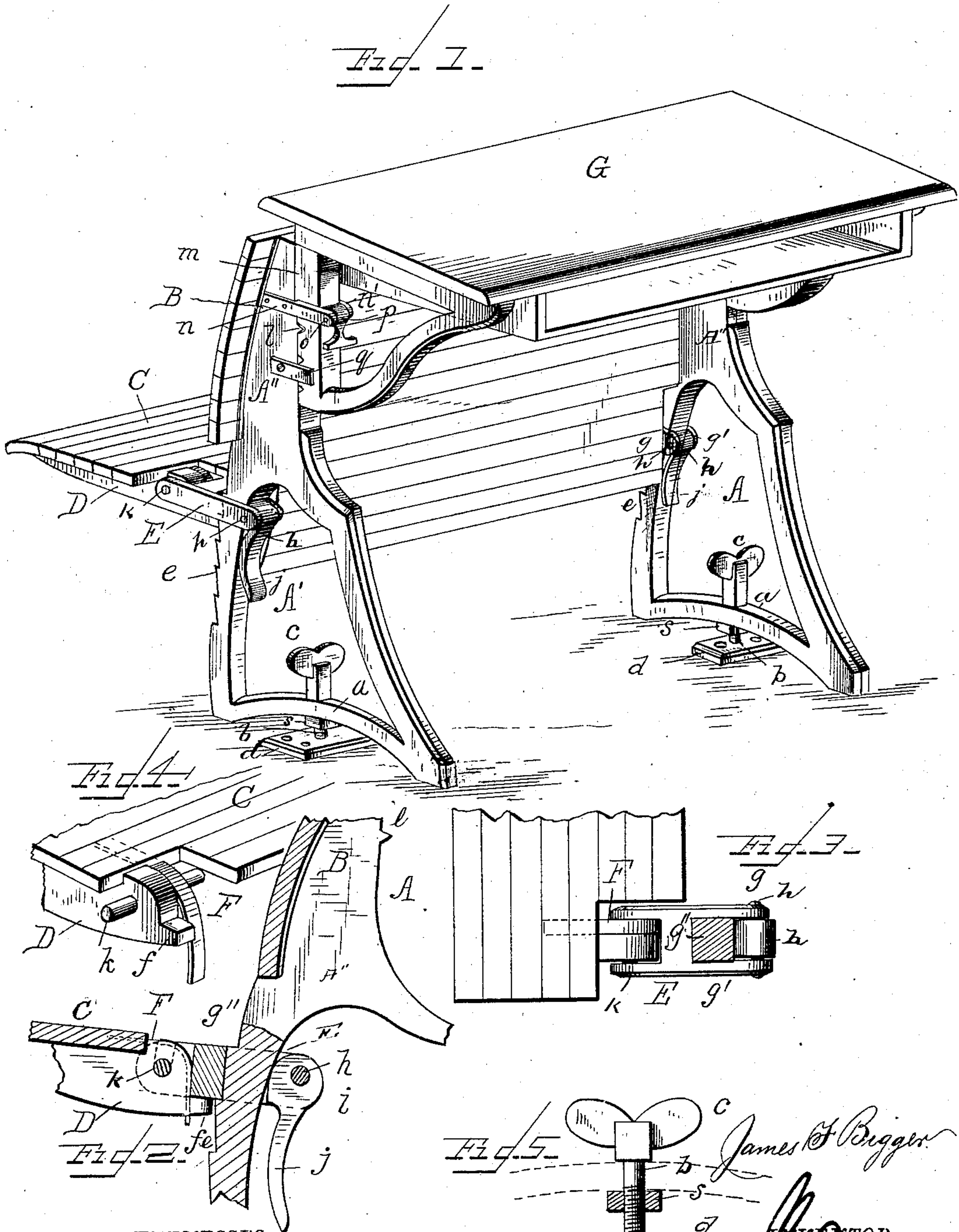
(No Model.)

J. F. BIGGER.

SCHOOL DESK.

No. 338,468.

Patented Mar. 23, 1886.



WITNESSES

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# UNITED STATES PATENT OFFICE

JAMES F. BIGGER, OF RUSHVILLE, INDIANA.

## SCHOOL-DESK.

SPECIFICATION forming part of Letters Patent No. 333,468, dated March 23, 1886.

Application filed November 19, 1885. Serial No. 183,321. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES F. BIGGER, a citizen of the United States of America, residing at Rushville, in the county of Rush and State of Indiana, have invented certain new and useful Improvements in School - Desks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to school furniture; and it consists in the improvements herein-after explained and set forth.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a piece of furniture embodying my improvements. Fig. 2 is a sectional detail view illustrating the construction and application of one of the seat-fastening devices. Fig. 3 is a plan view of one of said seat-fastening devices. Fig. 4 is a detail perspective view illustrating the spring arrangement for operating the seat, and Fig. 5 is a detail sectional view representing the manner in which the furniture is secured to the floor.

A A' refer, respectively, to the side or supporting frames, each of which is provided at its lower portion with a curved horizontal member, *a*, centrally perforated for the passage of a vertical threaded bolt, *b*, which terminates at its upper end in a thumb-nut, *c*. The lower threaded portion of said bolt *b* engages with the central threaded opening of a plate, *d*, which is perforated for the passage of screws, by means of which it is permanently secured to the floor. The front face of each of the frames A A' is provided with a series of rack-shoulders, *e*, which extend in an upward direction, as shown in Figs. 1 and 2, and are located immediately below the curved back B of the structure.

C refers to the seat, which is provided on its under side, near each end thereof, with a batten or brace, D, the rear end of which projects and is exposed by reason of each rear corner of the seat being cut away, as exhibited in several figures of the drawings. The said projecting

portion is curved or rounded and terminates in a lip, *f*.

E refers to a casting, which consists of two parallel portions, *g g'*, which are connected together at or near their centers by means of a cross-bar, *g''*, while a horizontal pin, *h*, secured transversely in the rear free ends of the portions *g g'*, serves as a pivot for a cam-head, *h*, provided with an operating-handle, *j*. The curved end of each of the battens D is also rigidly provided with a horizontal pin, *k*, passing transversely through the same, as shown most clearly in Fig. 4. The said pin *k* forms the pivotal bearing of the seat C on the front ends of the portions *g g'*, by means of which the seat may be readily returned from a horizontal position to one substantially parallel with the back. It will be noted that the relative position of the parts is such that when the seat is moved to its proper horizontal position the lip *f* comes in contact with the under side of the cross-bar *g''* of the casting and limits the downward movement of the seat.

F refers to a leaf-spring, which is located adjacent to the rear projecting end of each batten, and has an end so secured beneath the seat that its free portion will extend around the under face of a circular portion projecting from the side of the batten end. The location and position of said circular portion is defined by dotted lines, Fig. 3. The free end of said spring then continues along and beyond the vertical part free of the cross-bar *g''*.

The rear vertical face of the upper part, A'', of each side frame, A', is provided with an angular projection, *l*, which is designed to engage one of a number of angular recesses formed in the front face of the vertical portion *m* of the desk-section G. From each side of the upper part, A'', above the projection *l*, project two bars, *n n'*, the free portions of which embrace the portion *m* of the desk-section G. The extreme ends of said plates *n n'* have bearing therein a transverse pin, *o*, upon which is pivoted a cam, *p*, provided with an operating-handle. On the outside of said portion A'', below said angular projection, is secured an arm, *q*, the free end of which projects adjacent to the side of the portion *m*, the said arm serving as a guide for said portion *m* to prevent lateral movement thereof.



When it is desired to adjust the seat to the proper height, the cams on the castings E are each operated so that their heads are disengaged from contact with the rear face of the front member, *e*, of the side frames, A. The cross-bar *g''* is then moved out of engagement from the serrations or shoulders *e*, so that both castings can be moved with the seat vertically to any desired position, after which the cross-bar *g''* is brought again to bear on one of the shoulders *e*, and the cams operated to secure the castings and seat rigidly in position. By releasing the cams *p* and moving the desk out of engagement with the angular projection *l* the desk may be moved vertically relative to said seat, to adjust the former, after which the angular projection *l* is again brought into engagement with one of the recesses in the front member, *m*, of the desk, and the cams *p* manipulated to clamp the desk rigidly in position.

It will be observed that the arms *q* serve to maintain the desk in proper vertical position relative to the rest of the structure.

By attaching the plates *d* in proper position on the floor the bolts *b* may be rotated to engage the threaded openings in said bolts, so as to form a positive connection with the floor. A nut, *s*, turns on each of said bolts, and is designed to act in connection with the thumb-nut *c* to rigidly clamp the horizontal portion *a* and rigidly hold the desk in position. It will be seen by this construction that I provide an adjustable school-desk which is provided with a self raising and adjustable seat.

Instead of employing a cam to fasten the seat to the standard, I may use a spring or other suitable device and may dispense with the ratchet-teeth on the standards and employ instead thumb-screws.

I do not wish to limit myself to the exact construction shown, but reserve the right to modify my invention within the scope of my claims.

What I claim is—

1. The combination, in school furniture, of a suitable supporting-frame, a seat-back permanently secured on the front thereof, castings E, locking-cams, a seat pivoted directly to said castings, and springs F, arranged and operating substantially as described.

2. The combination, in school furniture, of a supporting-frame having a series of shoulders located on the front thereof, of castings E, each consisting of a front and rear pair of ears and a central cross-bar, *g''*, a seat pivoted to said front ears, and a cam pivoted between said rear ears to lock the bar *g''* on one of the shoulders of the frame, substantially as set forth.

3. The combination, in school furniture, of a supporting-frame having curved horizontal portions, perforated plates *d*, adapted to be secured to the floor and having a threaded opening, bolts passing through said curved portions and each provided with a thumb screw, and nuts located in said bolts below said curved horizontal portions, but above the plates *d*, to act with said thumb-screws to rigidly clamp said curved portions, for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES F. BIGGER.

Witnesses:

HORACE G. HILLIGESS,  
WILLIS HILDRETH.