

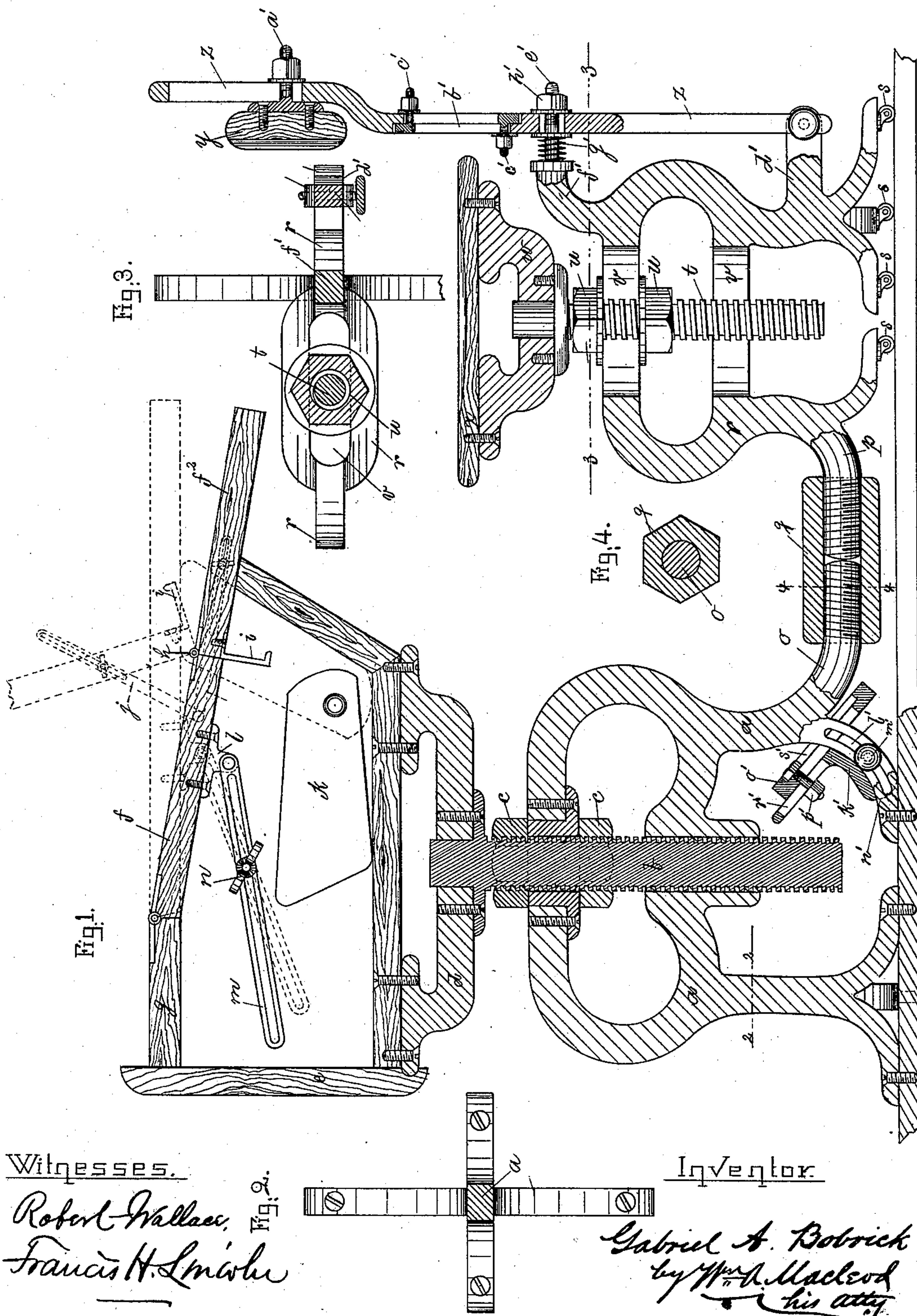
(No Model.)

G. A. BOBRICK.

DESK AND CHAIR FOR SCHOOLS.

No. 370,923.

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UNITED STATES PATENT OFFICE.

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DESK AND CHAIR FOR SCHOOLS.

SPECIFICATION forming part of Letters Patent No. 370,923, dated October 4, 1887.

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To all whom it may concern:

Be it known that I, GABRIEL A. BOBRICK, of Boston, county of Suffolk, State of Massachusetts, have invented certain new and useful
5 Improvements in Desks and Chairs for Schools, of which the following is a specification, reference being had to the drawings accompanying and forming a part hereof, in which—

Figure 1 is a vertical section through the
10 desk and seat. Fig. 2 is a plan view looking down from line 2 2, Fig. 2. Fig. 3 is a plan view looking down from line 3 3, Fig. 3. Fig. 4 is a section on line 4 4, Fig. 1.

The principal object of the invention is to
15 provide school desks and chairs of such construction that they may be conveniently adjusted to suit scholars of different sizes. I also provide a two-part desk-lid, one part of which may be turned up on the other and secured in
20 position to serve as a book-rest.

The parts of a desk and chair which it is necessary to change relatively to each other to accommodate a scholar of a different size will be referred to throughout the following description of my invention, in which letters of
25 reference are used to the accompanying drawings.

a represents the standard of the desk, which is preferably made of metal, and is provided
30 with a sufficient number of feet to insure a firm support on the floor. The feet are preferably secured to the floor by screws to render the desk more rigid and to prevent its being moved. The precise form of the standard *a* is obviously immaterial. The central portion of the standard *a* is provided with a screw-threaded hole or socket, which receives the threaded
35 shank *b*, on which the upper portion or body of the desk is supported. On the shank *b* the nuts *c* are placed, one above and one below the upper portion of the standard *a*. By screwing these nuts firmly against the standard the shank *b* is prevented from being screwed up or down and the desk is kept at a fixed
40 height. This screw-shank permits of the vertical adjustment of the desk to suit scholars of different sizes. On the upper end of the shank *b* is secured the support *d*, on which the body *e* of the desk rests and to which it is secured
45 by screws or otherwise. The body of the desk may be of wood or metal, and is constructed

in the usual form with a lid, *ff*², hinged to the horizontal top *g*, to permit of the lid's being raised when desired. The lid is also hinged near the middle, as shown at *h*, in order that
55 the lower part, *f*², of the lid may be turned back, when desired, into the position shown in dotted lines, and may thereby be used as a rack or support for the book, as in reading or singing exercises. To aid in supporting the
60 book on this rack a rest, *i*, is secured thereto, as shown, and to hold the rack in its upturned position a link, *j*, is provided at either end of the lid, one end of the link being pivoted to the upper portion, *f*, thereof, and the slotted
65 end being secured to the lower portion, *f*², by means of a set-screw. By loosening the set-screw the part *f*² may be raised to any desired position and retained in said position by tightening the screw. The link *j* also serves to give
70 rigidity to the lid *ff*² and to prevent the part *f*² from falling onto the part *f* in case the lid is raised to a vertical position.

It is desirable to raise the lid *ff*² to the horizontal position shown in dotted lines in the
75 drawings when the desk is to be used as a drawing-table. To hold the lid in this horizontal position I provide the arms *k*, pivoted to the inside of the ends of the desk and adapted to be raised into the position shown
80 in dotted lines, said arms having broad bearing-surfaces at their free ends. When in this position, these arms form a broad and secure support for both parts of the lid. As an additional support for the hinged lid *ff*², and
85 to enable it to be held in any raised position, as well above the horizontal as below it, I provide a projection, *l*, which is secured by screws or otherwise to the lid *f*, and to this projection I pivot a slotted link, *m*, which slides on
90 a set-screw, *n*, set inside the end of the desk. When the set-screw *n* is loose, the lid may be raised to any point desired, and by setting in the screw, clamping the link securely, the lid is retained in its raised position.
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At the rear of the desk and projecting toward the seat I provide an arm, *o*, secured to or integral with the standard *a*. In line with this arm and directly opposite it is a similar arm, *p*, secured to the standard *r* of the chair. The
100 proximate ends of these arms *o p* are reversely screw-threaded, forming what is commonly

known as a "right-and-left-hand screw," and they are provided with a correspondingly-threaded nut or sleeve, *q*, having a portion of its exterior adapted to receive a wrench by which it may be turned. (See Fig. 4.) By turning the sleeve *q* the seat may be moved from or toward the desk, the standard of the seat being on rollers, as shown at *s*, to permit of its movement. If the standards of the desk and chair are tripodal then one right-and-left-hand-screw connection will be all that will be necessary, and that will be placed centrally between the feet of the scholar. I prefer, however, to have the desk and seat standards provided with four feet, and to have two right-and-left-hand-screw connections, one at either end of the desk.

The chair-standard *r* is similar to the desk-standard in form and construction, and the spindle or shank *t*, which supports the seat, is threaded and provided with check-nuts *u*, which, when screwed against the cross-piece of the standard *r*, prevents the vertical adjustment of the seat in the same manner as do the check-nuts *c* on the shank *b* of the desk. It is necessary, however, to provide for the adjustment of the seat horizontally with reference to its distance from the desk. To do this the standard *r* of the seat is slotted at *v*, and the shank *t* passes through the slots, so that by loosening the nuts *u* the seat may be slid toward or from the desk, so that the seat may not only be adjusted vertically by means of the screw-shank, but also horizontally by reason of the slots *v*, through which the shank passes. When the seat standard *r* has been moved away from the desk by means of the right-and-left-hand screw, the back of the seat, as also the standard, is moved to the position required for a larger scholar; but the seat proper is too far from the desk, and so requires to be moved nearer thereto, which may be done, as above described, by loosening the check-nuts *u* and moving the shank *t* in the slots *v*.

In desks of all sizes the edge of the lid *f f'*, when down, should project over the seat *x* about five centimeters—that is, a vertical line from the edge of the desk would pass through the seat five centimeters back from the front edge of the seat. The upper end of the shank *t* is provided with a piece, *w*, to which the seat *x* is secured, the piece *w* being similar in form to the piece *d*, to which the desk-body is secured.

In order to provide an adjustable back the back-rest *y* is mounted on a supporting-rod, *z*, the rest *y* being provided with a screw-threaded shank, which projects through a vertical slot in the upper end of the rod *z*, as shown. The shank *a'* is screw-threaded and provided with a check-nut, by means of which the rest may be clamped and retained at any point in the slot. To permit of the back-rest *y* being raised higher in the slot than the rod would permit the rod itself is constructed in two pieces, the ends of which are made to overlap,

as shown at *b'*, and provided with pins *e'*, which project through slots in the overlapping ends of the portions of the rod, and which are provided with check-nuts, as shown, by which when the rod is extended it may be securely clamped in its extended position. The entire adjustability of the back might be gained by means of the slot in its upper portion, provided the height of the rod were sufficiently increased. If, however, the rod were made longer, its upper end would project above the desks when they were adjusted for small scholars and would obstruct the vision of those in the rear of the room. The rod *z* is pivoted to an arm, *d'*, projecting from the lower part of the standard *r* of the seat, and has a vertical slot through which the pin *e'* projects. The pin *e'* is secured to an arm, *f'*, projecting from the standard *r*, and is provided inside the rod *z* with a spiral spring, *g'*, which holds the rod outwardly against the nut *h'*, by means of which the back-rest *y* is adjusted nearer to or farther from the seat.

A foot-rest is provided consisting of a support, *k'*, secured by means of slot *l'* and thumb-nut *m'* to the foot *n'* of standard *a*. The face-piece *o'* is secured to the support *k'* by means of screw-bolt *p'*, which passes through the slot *v'* in the support and the slot *s'* in the face-piece. These slots allow of the adjustment of the rest to suit feet of different sizes, while the slot *l'* in the foot of the standard permits of the adjustment of the rest to suit legs of different lengths. By loosening the thumb-screw *m'* the foot-rest may be turned on the screw as a pivot, and thus the rest may be set at any angle of inclination desired.

I am aware that school-desks have heretofore been constructed so as to be adjustable toward and from each other, as well as up and down on their standards; and I am also aware that I am not the first to propose the construction of a desk-lid in two parts, one of which may be turned up to serve as a book-rest; and I do not therefore claim either of these features, broadly, my invention consisting in the constructions and combinations specified in the claims hereunto appended.

What I claim, is—

1. The combination, with the desk-standard *a*, having the threaded arm *o*, and the seat-standard *r*, having the threaded arm *p*, of the threaded sleeve *q*, substantially as set forth.

2. A school desk and chair adjustably connected so as to be movable from and toward each other and being both vertically adjustable on their standards, the said chair being also horizontally adjustable on its standard independently of its vertical adjustment, combined with means, as check-nuts *u*, for securing said chair in position on its standard after horizontal adjustment, substantially as set forth.

3. The combination, with the chair-standard *r*, having the slots *v*, of the seat *x*, its support *w*, the screw *t*, and the nuts *u*, substantially as set forth.

4. The combination, with the desk-lid consisting of the two parts $f f^2$, hinged together, of the book-rest i , attached to the inside of the part f^2 at the portion thereof adjacent to the part f , the slotted link j , pivotally attached at one end to one of the parts of the said lid, and a set-screw passing through the slot of said link and entering the other of the said parts, whereby the said part f^2 may be rigidly secured in line with the part f , or may be rigidly retained in an inclined position with the book-rest at its lower end when turned up to serve as a book-holder, substantially as set forth.

5. A desk having a foot-support, k' , secured to the standard thereof, said support being slotted and having a slotted face-piece, o' , adjustably secured thereto, substantially as shown and described.

6. The combination, with the seat-standard r , having the arms d' and f' , of the supporting-rod z , pivotally attached at its lower end to the said arm d' , the back-rest attached to the said rod, the threaded pin e' , supported by the said

arm f' , the nut h' , and the spring g , substantially as set forth.

7. The combination, with the chair-seat x and its standard r , of the rod z , pivoted to the standard at its lower end and provided at its upper end with the back-rest y , said rod being formed in two parts and slotted to permit of vertical adjustment, all as shown and described.

8. A school desk and chair adjustably connected so as to be movable from and toward each other and being both vertically adjustable on their standards, the said chair being also horizontally adjustable on its standard independently of its vertical adjustment and having a back-rest capable of separate vertical adjustment, combined with means, as check-nuts u , for securing said chair in place on its standard after horizontal adjustment, substantially as set forth.

GABRIEL A. BOBRICK.

Witnesses:

WM. A. MACLEOD,
ROBERT WALLACE.