

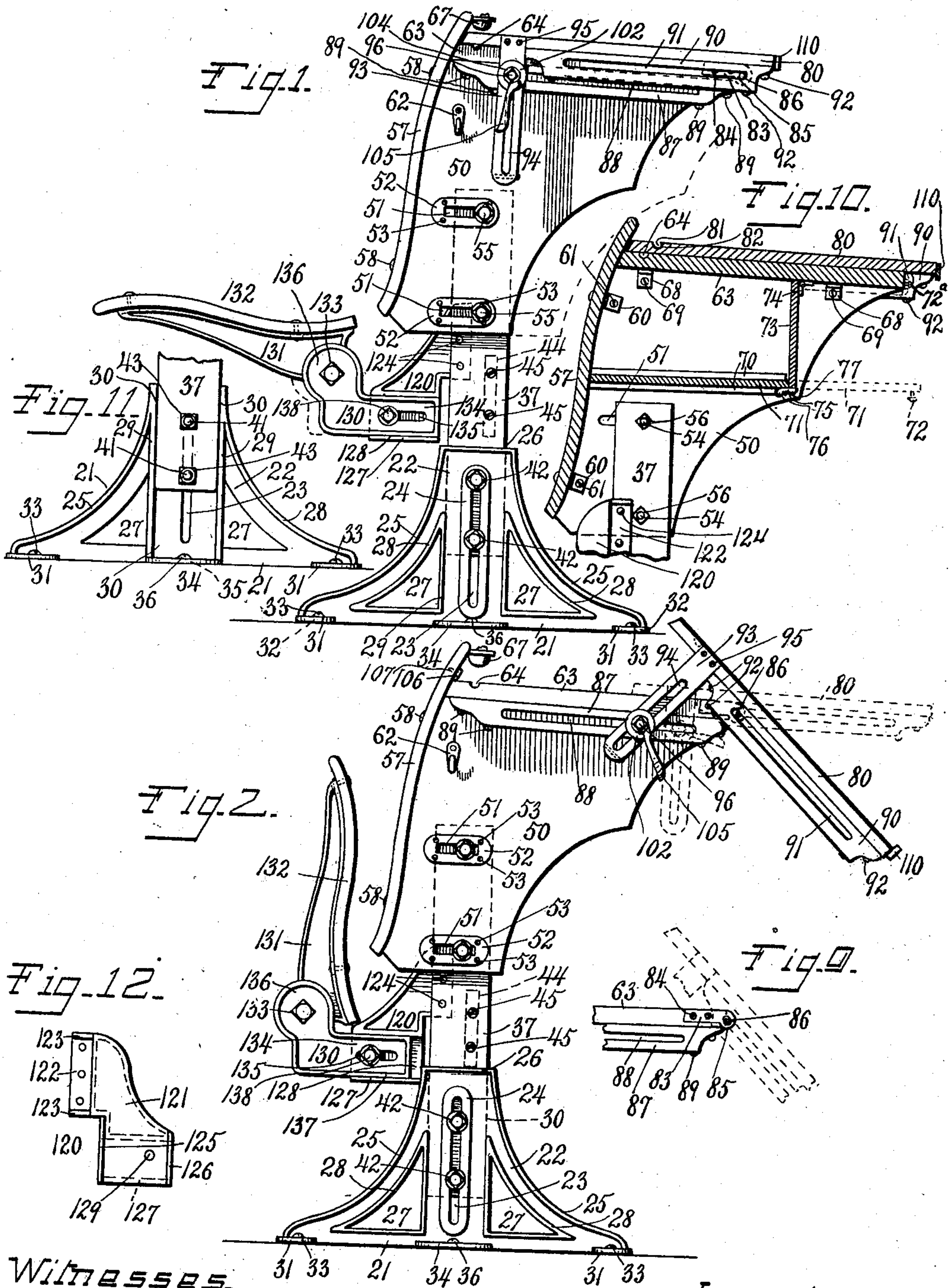
No. 889,577.

J. C. BROOKE.
COMBINED SCHOOL DESK AND SEAT.

APPLICATION FILED MAR. 1, 1907.

PATENTED JUNE 2, 1908.

2 SHEETS—SHEET 1.



Witnesses.
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INVENTOR.
John Carrington Brooke.
By Walter Allen
Attorney.

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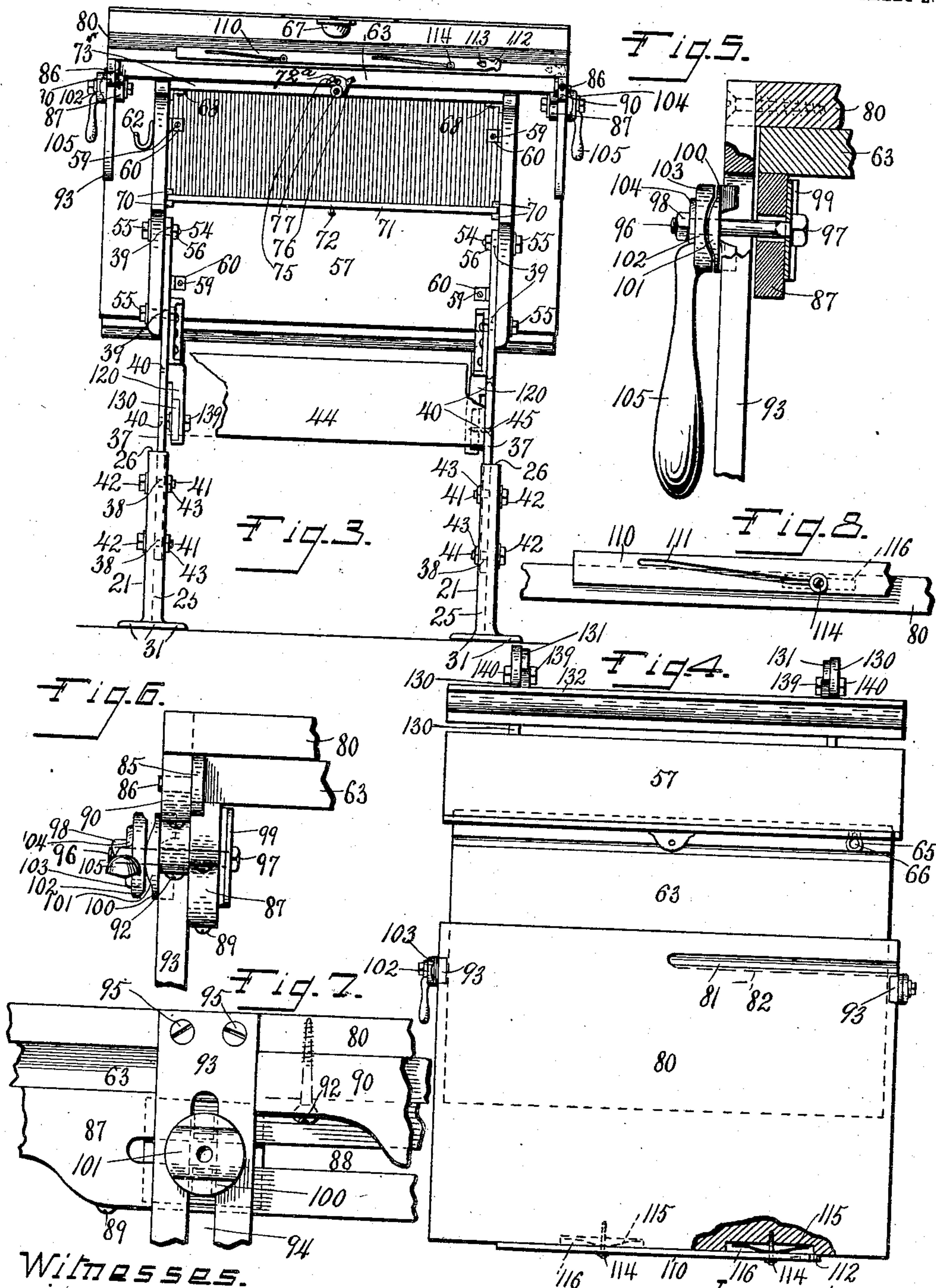
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UNITED STATES PATENT OFFICE.

JOHN CARRINGTON BROOKE, OF CINCINNATI, OHIO.

COMBINED SCHOOL DESK AND SEAT.

No. 889,577.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed March 1, 1907. Serial No. 360,013.

To all whom it may concern:

Be it known that I, JOHN CARRINGTON BROOKE, a citizen of the United States of America, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Combined School Desks and Seats, of which the following is a specification.

The first part of my invention relates to improved means for converting the interior of the desk body into a book box or closed receptacle in which my object is to provide means for receiving and protecting the pupil's books and stationery from dust and dirt when absent at any time or during vacation, as the school room is necessarily frequently cleaned.

The second part of my invention relates to an improved adjustable shifting and tilting supplemental top in which my object is to provide means for arranging the writing surface in correct position for the comfort of the pupils' eyes and thus prevent the constant straining thereof by having the work out of focus.

With these and other objects in view, so as to perfect such a structure, my improvements consists in the novel features of construction hereinafter described and claimed.

In order that my invention may be fully understood I will proceed to describe it with reference to the accompanying drawings in which:

Figure 1 is a side elevation of my improved combined school desk and seat; the lateral adjustment of the desk body and seat being indicated in dotted lines. Fig. 2 is a similar view showing the inner arms of the seat brackets drawn out and the supplemental top drawn out in dotted lines and tilted in full lines. Fig. 3 is a front elevation; the ends of the brace rail being broken away and the hinged cover to the book box being raised. Fig. 4 is a top view; the supplemental top being partly drawn out and its front part broken away to show the leaf spring cushion for the retaining slide. Fig. 5 is a detail view partly in elevation and partly in section showing the clamping device for the tilting supplemental top in normal inoperative position. Fig. 6 is a detail view of the clamping device for the tilting supplemental top in operative position. Fig. 7 is a detail side elevation of the same, the clamping bolt and outer member of the clamping device being omitted. Fig. 8 is a detail view of a part

of the front edge of the supplemental top and the retaining slide. Fig. 9 is a detail side view of the outer part of one end of the permanent desk top showing a pivot-plate for the supplemental top and the latter tilted in dotted lines. Fig. 10 is a vertical transverse section of the desk body showing the book box or receptacle closed by the hinged cover; and the position of the sliding shelf when drawn out. Fig. 11 is an inside view of the lower part of a side frame. Fig. 12 is a detail showing an inner view of a bracket arm.

In carrying out my invention I provide a pair of side frames, or standards, which form vertically adjustable supports for the desk body and seat. These side frames are constructed of malleable cast steel so as to combine lightness and strength with durability, and each side frame is formed with outer lower parts and inner upper parts adjustable upon the lower parts.

21 is the fixed lower part of a side frame providing a rigid base and is formed in one piece with a vertical thin web 22 of approximately triangular shape, a central vertical bolt slot 23, an exterior elliptical marginal flange 24 surrounding the vertical bolt slot 23, curved marginal flanges 25 capping the side edges of the web 22, an exterior horizontal marginal flange 26 at the top of the web 22, approximately triangular openings 27 between the vertical bolt slot 23 and the side edges of the web 22 in the lower part of the latter, exterior triangular marginal flanges 28 extending around the triangular openings 27, parallel vertical guide flanges 29 spaced apart at the inner side of the web 22, providing a vertical slide recess 30, and between which the vertical bolt slot 23 is located, and pairs of end feet 31 having holes 32 for suitable fastenings 33 and intermediate pairs of bracing feet 34, beneath the slide recess 30, and having holes 35 for suitable fastenings whereby the supports are secured rigidly to a floor.

37 is an inner plain vertically arranged rectangular plate forming the movable upper part of a side frame, adapted to slide in the vertical recess 30 between the parallel vertical guide flanges 29 (see Fig. 11), and having superposed bolt holes 38 in its lower end, superposed bolt holes 38 in its upper end, and superposed screw holes 40 intermediate of its ends at its front edge (see Fig. 3).

41 are lower bolts extending through the

vertical bolt slots 23 of the lower part 1 and through the superposed lower bolt holes 38 of the upper parts 37 having their heads 42 bearing against the marginal flanges 24 and provided with binding nuts 43 whereby the upper parts 37 are adjustably held upon the lower parts 1 at the desired height.

44 is a wooden brace rail and 45 are wood screws inserted through the superposed intermediate screw holes 40 and into the ends of the brace rail 44 by which the upper parts 37 of the side frames are secured together at their outer edges, and indirectly brace the side frames.

50 are a pair of side pieces formed with superposed horizontal bolt slots 51 in their lower parts, each surrounded by reinforcing correspondingly slotted outer plates 52 secured by suitable fastenings 53. Extending through these outer plates 52, bolt slots 51, and the superposed upper bolt holes 39 of the upper parts 37 of the side frames are bolts 54 having their heads 55 bearing against the outer plates 52 and provided with binding nuts 56 whereby the desk body is held to its horizontal adjustment.

57 is a suitable curved seat-back secured to the rear edges of the side pieces 50, and extending thereabove, by means of bolts 58 and nuts 59 to the outer wings of angle plates 60 whose inner wings are secured by suitable fastenings 61 to the side pieces 50.

62 are hooks secured to the side pieces 50 on which the school bags may be hung.

63 is the permanent desk top or hood having the usual pencil or pen groove 64, and ink well hole 65 provided with an ink well 66 whose top is flush with the desk top.

67 is a supplemental ink well bracket secured to the projecting part of the seat-back. The desk-top 63 and side pieces 50 are secured together by angle plates 68 and suitable fastenings 69.

The upper part of the interior of the desk body between the side pieces 50, the back 57, and the desk top 63 is partitioned off.

70 are superposed guide strips secured to the side pieces 50 and spaced apart sufficiently to receive a removable sliding shelf 71, having a depending headed stud 72 (in the present instance in the form of a wood screw) whereby the shelf can be moved in and out.

This shelf 71 provides the bottom of a book box.

73 is a front cover for the box suspended from beneath the desk top by means of a pair of hinges 74 located a distance in rear of the front edge of the top so as to give room for the pupil to sit comfortably. This cover 73 is supported when raised by a headed stud 72^a (which may be a wood screw) secured to the front edge of the desk top or when closed it may be fastened to the depending headed stud 72 by means of an eccentric catch or hook 75 having a finger piece

76 and pivoted by a headed stud 77 (in the form of a wood screw) to the outer edge of the cover.

80 is a shiftable and tilting supplemental top adapted to slide upon the desk top 63 and formed with a pencil or pen groove 81 having an undercut recess 82 adapted to retain a pencil or pen when the supplemental top is tilted to an inclined or vertical position. The ends of the supplemental top project beyond the desk top so as to enable the supplemental top to be readily grasped by the hands for shifting it.

For connecting the supplemental top 80 with the desk top 63 in desired and locked position, I provide the following means.

83 are pivot plates countersunk in the end edges at the outer corners of the desk top 63 and secured thereto by fastenings 84. These pivot plates 83, have, depending or offset rounded or oval parts 85, projecting beyond the front edge of the desk top 63, which support pivot studs or pins 86.

87 are depending inner and lower slides each having a longitudinal slot 88 and secured by fasteners 89 to the desk top 63 beneath the overhanging ends of the latter.

90 are depending outer and upper slides similar in form to the inner slides 87 and each having a longitudinal slot 91 receiving its respective pivot stud 86 and secured to the overhanging ends of the supplemental top 80 by fastenings 92. At each end of the supplemental top 80 near its inner edge are inwardly projecting brackets or arms 93 having longitudinal bolt slots 94 and mortised at their inner ends into the ends of the supplemental top 80 at right angles thereto and secured by fastenings 95. Through the slots 88 of the inner slides 87, and through the bolt slots 94 of the brackets 93, I insert outwardly extending bolts 96 having inner heads 97 and outer nuts 98 and upon these bolts 96 between their heads 97 and the inner sides of the inner guides 87 I mount inwardly curved spring sliding plates 99 and also upon these bolts 96 between their nuts 98 and the outer sides of the brackets 93, I mount inner fixed washers 100 each having a transverse central rib or projection 101 and outer movable washers 102 having transverse ribs or projections 103 providing a transverse groove or channel adapted to receive the central ribs or projections of the inner washers in one position and the ribs or projections of the outer washers adapted to bear upon the transverse ribs or projections 101 of the inner washers 100 in another position and having outer collars 104 adapted to impinge against the nuts. The outer washers are formed upon lever arms 105 by which they are rotated for clamping operation. Between the rear edge of the supplemental top 80 and the seat back 57 I provide rubber cushioning pads or blocks 106 secured by fastenings 107.

110 is a slide formed with a pair of longitudinal curvilinear slots 111, and with an advancing finger projection or head 112 and a returning finger recess 113 at one end. This slide 110 is secured to the front edge of the supplemental top 80 by headed pins 114 in the form of wood screws inserted therein through the curvilinear slots 111, so that when the slide 110 is pushed in one direction it will be lifted above the surface of the supplemental top 80 and when pressed in the opposite direction it will be lowered beneath said surface. To ease the travel of the slide 110 on the front edge of the supplemental top 80 I provide a pair of leaf springs 115 which I mount upon the shanks of the headed pins 114 between the slide and the front edge; the springs being seated in recesses 116 of the front edge of the supplemental top 80.

120 are bracket-arms constructed of malleable cast iron and each formed in one piece with a flat body 121, an offset inner upper part 122, having reinforcing end flanges 123, and secured by rivets 124 to the outer edges of the upper parts 37 of the side frames. The outer faces of the bracket arms 120 are reinforced by an inner marginal flange 125 and an outer marginal flange 126. The lower part of the body 121 of each bracket arm is also formed with a pair of horizontal reinforcing and guide flanges 127 spaced apart to provide a slide recess 128 in the web between the flanges 127.

129 is a bolt hole.

130 is the inner arm and 131 the outer arm of a pair of two arm seat-brackets for a seat 132, having a hinge joint 133, similar to that described, shown and claimed in Patent Number 707,547, issued to Finley S. Brooke, August 26, 1902. In the present instance the inner arm 130 is formed of malleable cast steel with a lower part 134, longitudinally adjustable in the slide recess 128 between the guide flanges 127 and having a longitudinal bolt slot 135 and an offset rounded upper part 136 which carries the hinge-joint 133. This inner arm 130 has a reinforcing marginal flange 137.

138 is a clamping bolt extending through the bolt hole 129 in the lower part 121 of the bracket-arm 120 and through the bolt slot 135 in the lower part 134 of the inner arm 130, and having a head 139 bearing against the lower part 121 and securing nut 140.

By locating the cover of the book box or receptacle beneath the permanent top the latter need not be hinged so as to lift up to gain access to the book box, and thus a more rigid top is provided as it can be immovably fastened.

One of the advantages of my shiftable and tilting supplemental top is that it can be readily applied to nearly all the desks which are now in use. This adjustment is also in-

tended to be applied to any table or drawing board for architects or artists or any other purpose where an inclination of the top, or a back and forward movement is required of the top so that it can be held in desired position. The cushioning pads for this top may be made of felt strips or pieces instead of rubber.

Having thus described my invention the following is what I claim as new therein and desire to secure by Letters Patent:

1. A desk body comprising side pieces, a back, a top having a horizontal stud at its free edge, a shelf having a depending stud at its free edge and extending to a point about half way beneath the top so as to provide a book box, in connection with the top, sides and back, and a cover hinged to the underside of the top over the free edge of the shelf for closing the box, having a pivoted catch for upholding the cover by its free edge from the stud on the free edge of the top or securing it by its free edge to the stud on the free edge of the shelf.

2. The combination of a top having pivot pins at its outer corners, and depending slotted inner slides, secured to the top beneath the ends thereof, a supplemental top having depending slotted outer slides secured thereto beneath the ends thereof and receiving the pivot pins and fixed slotted arms at right angles to the supplemental top, bolts extending through the inner slides and through the slotted arms, and fixed and movable washers having transverse ribs and mounted upon the bolts at the outer side of the slotted arms.

3. The combination of a top having pivot pins at its outer corners and depending slotted inner slides secured to the top beneath the ends thereof, a supplemental top having depending slotted outer slides secured thereto beneath the ends thereof and receiving the pivot pins and fixed slotted arms at right angles to the supplemental top, bolts extending through the inner slides and through the slotted arms, and fixed and movable washers having transverse ribs and mounted upon the bolts at the outer side of the slotted arms; the movable washers being provided with lever arms.

4. The combination of a top having pivot pins at its outer corners, and depending slotted inner slides, a supplemental top having depending slotted outer slides, receiving the pivot pins and slotted arms at right angles to the supplemental top, bolts extending through the inner slides and through the slotted arms, curved guide plates mounted upon the bolts at the inner side of the inner slides, and fixed and movable washers having transverse ribs and mounted upon the bolts at the outer side of the slotted arms.

5. The combination of a top having pivot pins at its outer corners, and depending slotted inner slides, a supplemental top hav-

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