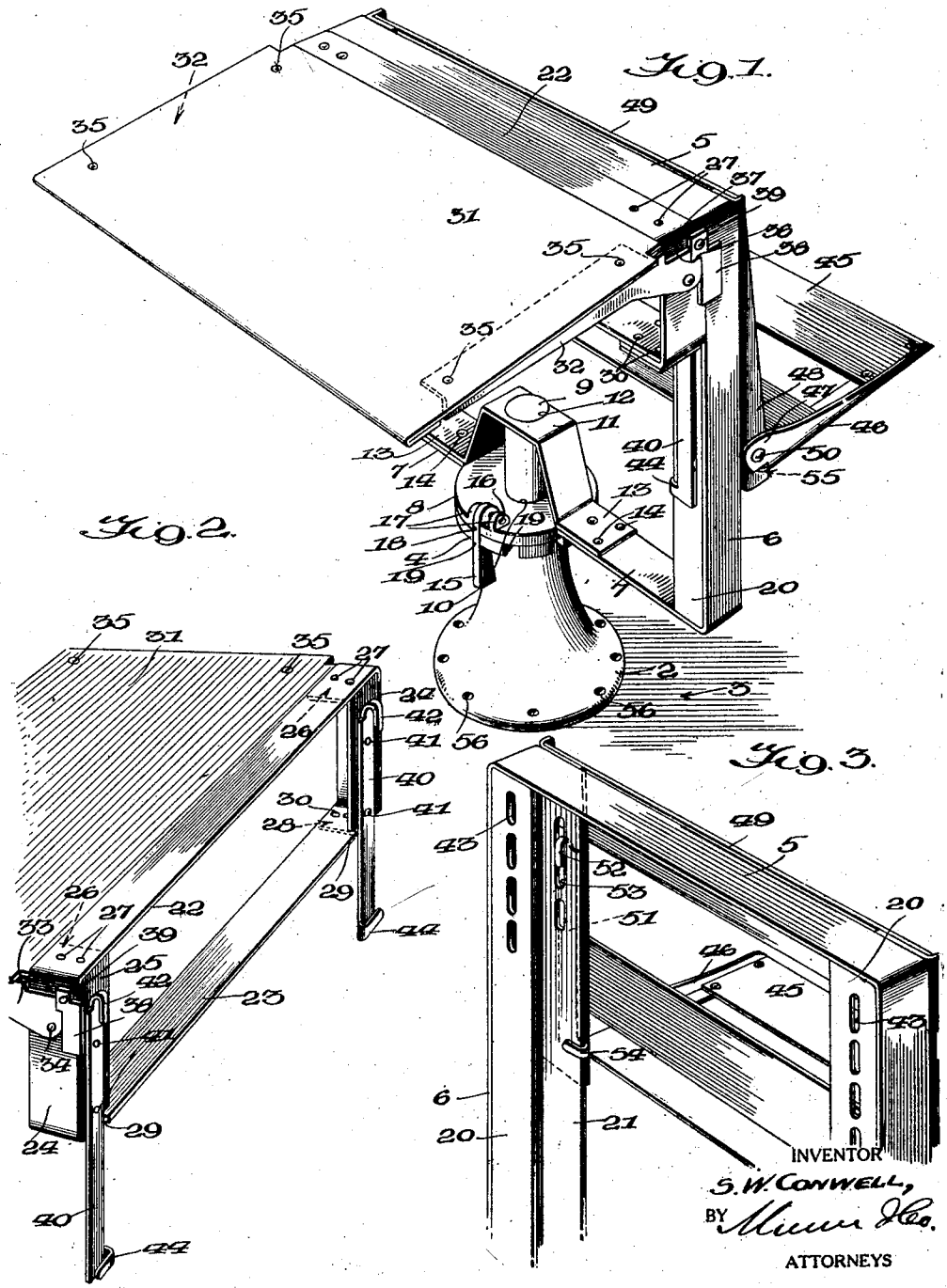
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COMBINED SEAT AND DESK

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COMBINED SEAT AND DESK.

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My invention relates to improvements in combined seats and desks, which are especially adapted for school use, and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of the invention is the provision of a combined seat and desk in which the seat and desk can be turned as a unit about a vertical axis and releasably secured in any one of a plurality of different positions to which the seat and desk may have been turned as a unit about said vertical axis.

A further object of the invention is the provision of a combined seat and desk of the character described which has means for supporting both the desk and the seat of the device for independent adjustment vertically.

A still further object of the invention is the provision of a combined seat and desk which is simple in construction, strong and durable and capable of being folded to occupy but relatively little space.

Other objects and advantages of the invention will be apparent from the following description, considered in conjunction with the accompanying drawings, in which

Figure 1 is a perspective view of the combined seat and desk,

Figure 2 is a fragmentary perspective view of the desk as it appears when detached from the supporting structure of the device, and

Figure 3 is a fragmentary perspective view of the seat and associated elements of the supporting structure of the device, the desk being omitted.

The supporting structure of the device may include a vertically disposed base member 1 having a relatively large horizontal flange 2 at its lower end, on which the base member 1 may rest on a floor 3 or like supporting surface. The base member 1 preferably decreases in cross sectional area from the bottom flange 2 toward the upper end of the base member and the base member is provided at its upper end with a horizontal flange 4 which is axially aligned with the flange 2 and is of considerably less area than the flange 2. The device also comprises a vertically disposed substantially rectangular swivel frame which comprises a horizontal top bar 5, a pair of vertical end bars 6, and a horizontal lower member which may consist of a pair of similar bar-like end sections 7 and a disk-like middle section 8. The end bars 6 may be formed integrally with the horizontal upper bar 5 and with the end sections 7 of the lower horizontal member of the swivel frame. The disk-like middle section 8 of the lower horizontal member of the swivel frame may be joined integrally or otherwise to the adjacent ends of the sections 7 of the lower horizontal member of the swivel frame. The disk 8 preferably has a diameter equal to that of the flange 4. The disk 8 is adapted to rest flatwise on the flange 4 and to turn about the axis of a short vertical post 9 which extends vertically from the center of the base member 1 above the level of the flange 4 and through a central opening 10 in the disk 8. A brace bar 11 of substantially inverted U-shape has an opening 12 in its web or crown portion intermediate the length of the brace bar for the reception of the upper end portion of the post 9. The brace bar 11 has outturned attaching end portions 13 which rest flatwise on the end sections 7 of the lower horizontal member of the swivel frame and are secured to the latter by suitable fastening devices, such as the rivets 14.

With the arrangement just described, the swivel frame may turn on the top flange 4 of the base member about the axis of the vertical post 9. It is desirable that the swivel frame shall be held against turning about the axis of the post 9 accidentally from any predetermined position and to this end, a latch bar 15 may be connected by a horizontal pivot element 16 with a pair of ears 17 on an edge portion of the disk 8 so that the latch bar 15 may be swung in a vertical plane to and from position to enter a vertical notch 18 in the edge of the disk 8 and any one of a plurality of circumferentially spaced vertical notches 19 in the flange 4, whereby the swivel frame can be locked to the base member and held against turning accidentally about the axis of the post 9 from any one of a plurality of different positions.

The swivel frame is provided adjacent to each of its opposite ends with pairs of vertical supporting bars which may be inwardly turned parallel flanges on the vertical bars 6 of the swivel frame, as indicated at 20 and 21, respectively. The bars 20 are located at one side of the swivel frame and the bars 21 are located at the opposite side of the swivel frame. These bars 20 and 21 may be secured at their upper ends to the upper horizontal member 5 in any suitable known manner, as by welding, and may be similarly secured at

their lower ends to the end sections 7 of the lower horizontal member of the swivel frame whereby the bars 20 and 21 not only will be firmly secured in place but will tend to brace the end portions of the swivel frame. The desk of the device includes a frame comprising a flat upper horizontal bar 22, a flat lower horizontal bar 23 and a pair of vertical end bars 24. The end portions of the desk frame are braced by a pair of vertical bars 25 which are disposed at the side of the desk frame nearest to the swivel frame. The supporting bars 25 may have rearwardly turned upper end portions 26 which are disposed flatwise against the under face of the end portions of the top bars 22 and are secured to the latter by suitable fastening devices, such as the rivets 27. The bars 25 also may have rearwardly turned lower end portions 28 which extend from shallow cut-away portions 29 in the forward edge of the lower bar 23 rearwardly against the underface of the lower bar 23 and are secured to the latter by rivets 30. The forward edge of the lower bar 23 therefore will be flush with the forward or outer faces of the lower end portions of the vertical supporting bars 25. A desk top 31 is supported adjacent to its opposite ends by a pair of arms 32 having forwardly extending attaching portions 33 which straddle the upper end portion of the desk frame and are attached to the bars 24 by aligned horizontal pivot elements 34. The desk top may be secured to the arms 32 by rivets 35 or like fastening devices. The attaching extensions 33 of the desk top supporting arms have horizontal shoulders, as at 36, in the upper portions of the front edges thereof for engaging with downwardly facing horizontal shoulders, as at 37, in the rearward edges of latch plates, as at 38, which are supported by horizontal pivot elements, as at 39, on the upper end portions of the vertical bars 24 of the desk frame. The desk top then will be supported in raised position as shown in Figures 1 and 2 when the shoulders 37 of the latches 38 are in engagement with the shoulders 36 of the attaching extensions at the forward ends of the desk top supporting arms, and the latch plates 38 will swing by gravity to positions to engage with the shoulders 36.

The desk frame carries a pair of vertically disposed attaching bars 40, the upper end portions of which are secured by rivets 41 to the supporting bars 25 and against the front faces of the supporting bars 25 so that forwardly and downwardly turned hooks 42 at the upper ends of the bars 40 may enter and engage with corresponding vertically elongated openings 43 in the upper end portions of the bars 20 of the swivel frame. It will be observed that a vertical series of the openings 43 is provided in the upper end portion of each of the bars 20. Each of the bars 40 has a substantially right angular retaining lug 44 extending from the inner edge of the lower end portion of bar 40 forwardly and laterally outward. The lugs 44 are adapted to cooperate with the lower end portions of the bars 40 to slidably embrace the supporting bars 20 of the swivel frame, whereby the desk frame will be secured firmly in vertically adjusted position on the swivel frame when the vertical hook members 42 at the upper ends of the bars 40 are in engagement with corresponding openings 43 in the bars 20 and the lower end portions of the bars 40 and the lugs 44 are in embracing relation with the bars 20. The lower end portions of the bars 20 and the lugs 44 thus may be said to comprise horizontal hooks for slidably engaging with the bars 20. The bars 40 are sufficiently resilient to permit the hooks 42 to be moved slightly upward and rearward out of engagement with corresponding openings 43 when it is desired to move the desk vertically from a given adjustment.

The seat of the device is indicated at 45 and includes a pair of supporting end bars 46 having rearwardly extending attaching ears 47 arranged to straddle the lower end portions of the vertical end arms 48 of a seat back 49, the ears 47 being connected with the arms 48 by inclined horizontal pivot elements, as at 50. The vertical end arms 48 of the seat back have vertical attaching bars, as at 51, secured to their inner faces. These attaching bars 51 are similar to the bars 40 and have rearwardly and downwardly turned hook portions, as at 52, at their upper ends for engaging with vertically elongated openings 53 in the upper end portions of the supporting bars 21 of the swivel frame. It of course will be understood that a vertical series of the openings 53 is provided in the upper end portion of each of the supporting bars 21. The lower end portions of the bars 21 have substantially right angular lugs 54 extending rearwardly and then laterally outward from the inner edges of the lower end portions of the bars 51. The lugs 54 and the lower end portions of the bars 51 constitute horizontal hook members for slidably engaging with the supporting bars 21 and the swivel frame. Vertical adjustment of the seat independently of the adjustment of the desk thus may be effected.

The end bars 46 of the seat have horizontal shoulders, as at 55 for engaging with the lower end portions of the end bars 48 of the seat back when the seat is in horizontal position, whereby further downward swinging movement of the seat about the axes of the pivot elements 50 is prevented. However, the seat may be swung upwardly from the position shown in Figure 1 against the seat back.

The desk top may be swung downwardly

from the position shown in Figures 1 and 2 when it has been released from the latch members 38 to substantially vertical position against the swivel frame. The device when folded therefore will occupy but relatively little space. The lower horizontal member 23 of the desk frame is adapted to serve as a book rest.

The base member 1 may be sufficiently heavy to maintain the device firmly in upright position without there being any necessity of attaching the base member to the floor 3, particularly in view of the fact that the flanged lower end portion of the base is considerably larger than the flanged upper end portion of the base. However, if desired, screws 56 or like fastening devices may be projected through openings in the edge portion of the lower flange of the base into the floor for the purpose of securing the base in place.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. The device is simple in construction and at the same time is strong and durable and combines in one article all parts which are essential to the performance of the usual functions of a desk and a seat. The seat and the desk may be adjusted vertically independently of each other according to varying service requirements. Therefore both the desk and the seat may be used at different times by school children of different sizes and the desk and the seat may be used at the same time by school children of the same size or of different sizes.

Obviously, my invention is susceptible of embodiment in forms other than that illustrated in the accompanying drawings and I therefore consider as my own all such modifications and adaptations thereof as fairly fall within the scope of the appended claims.

I claim:—

1. In a device of the character described, a pair of spaced vertical supporting bars having similar openings in the upper portions thereof, and a pair of attaching bars having vertical hook portions at their upper ends for engaging said openings in the supporting bars and having horizontal hook portions at their lower ends adapted to embrace said supporting bars, said attaching bars being adapted for connection with an article that is to be supported on said supporting bars.

2. In a device of the character described, a pair of spaced vertical supporting bars each having a vertical series of spaced openings in the upper end portion thereof, and a pair of attaching bars, each having a vertical hook portion at its upper end adapted to be placed in engagement with the openings in the corresponding supporting bars selectively, each of said attaching bars having a horizontal hook portion at its lower end adapted to slidably embrace the corresponding supporting bar, and a rigid member connecting said attaching bars and maintaining said attaching bars in vertical position and spaced similarly to said supporting bars, whereby said connecting member may be adjustably and detachably connected with said supporting bars.

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