W. WILLS.

BOX DESK.

APPLICATION FILED JAN. 17, 1913.

1,305,983.

Patented June 3, 1919.

5 SHEETS—SHEET 1.

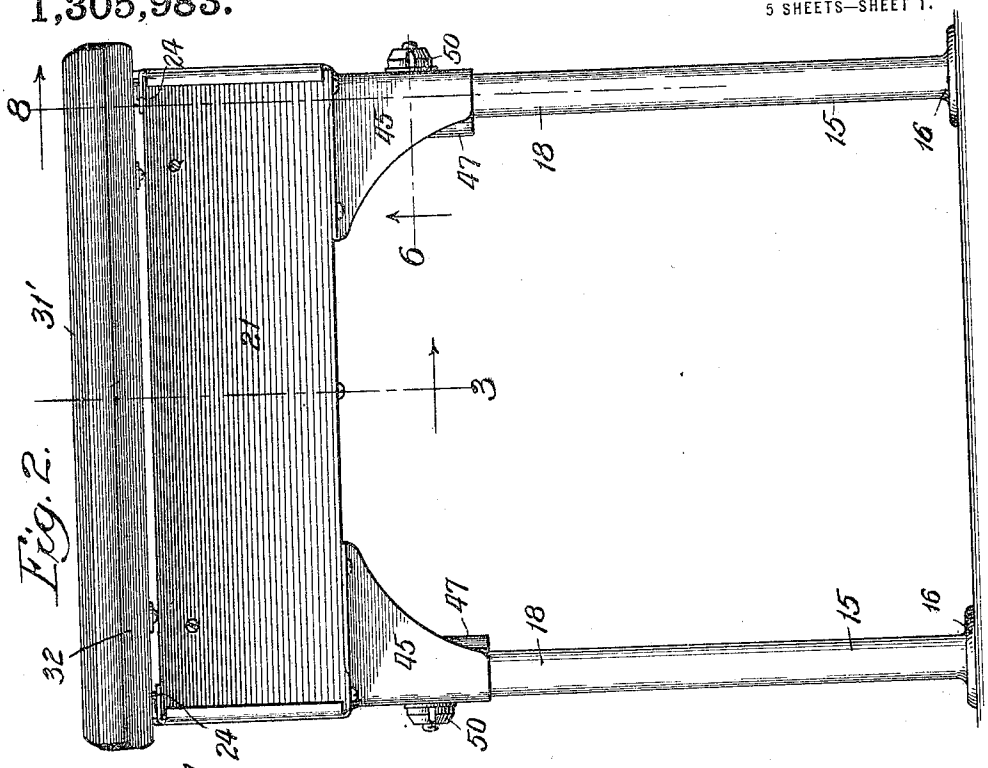


Fig. 2.

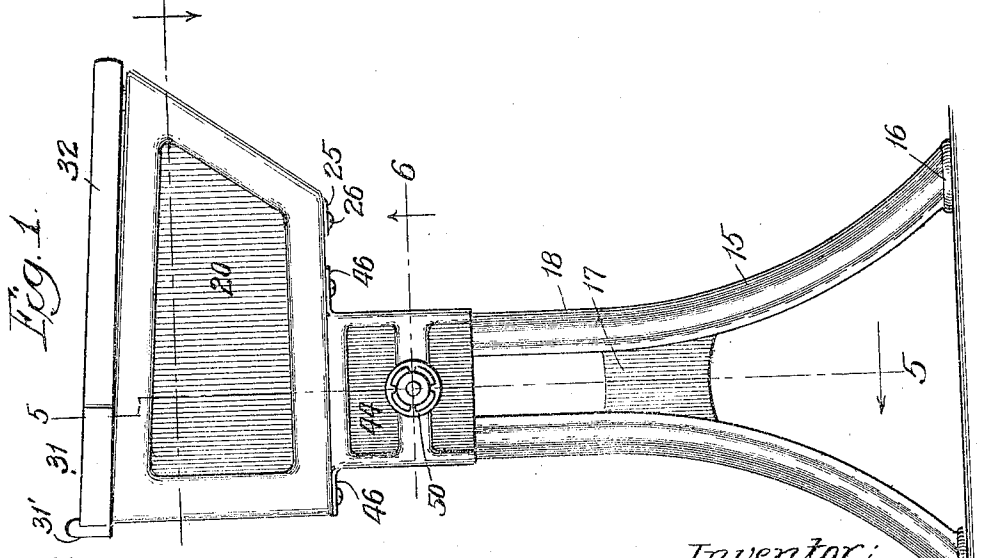


Fig. 1.

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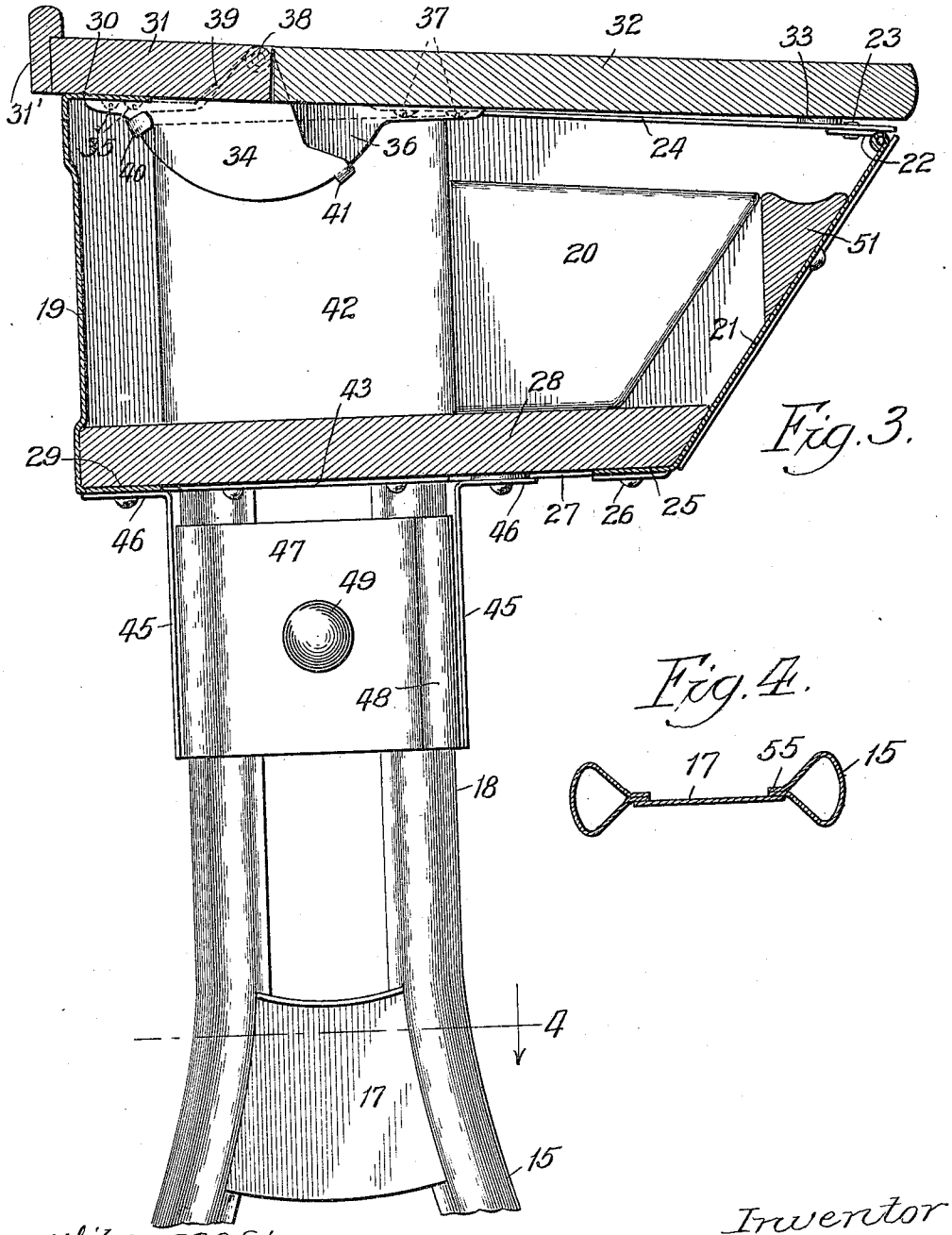


Fig. 3.

Fig. 4.

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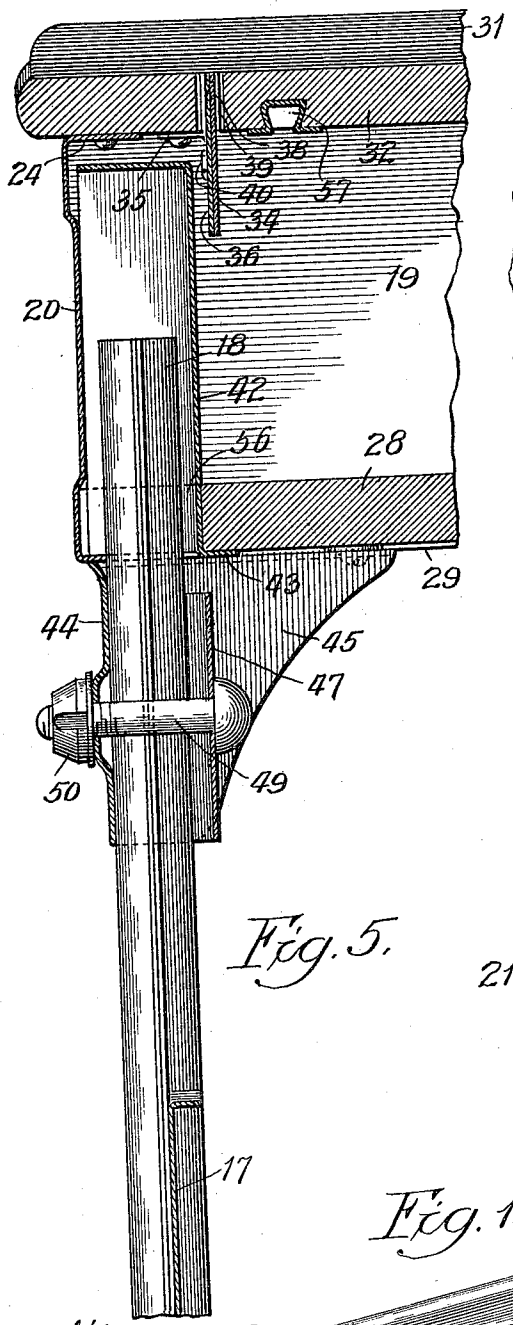


Fig. 5.

Fig. 6.

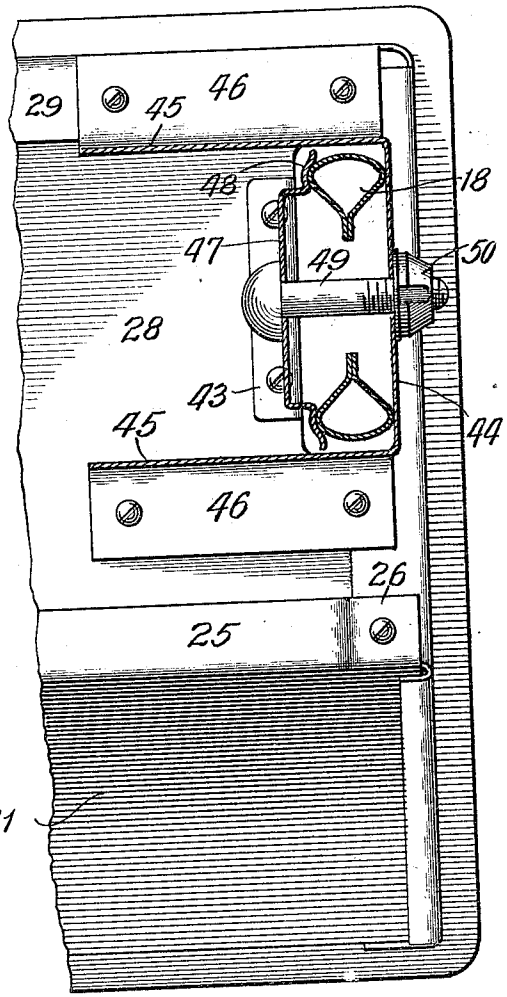
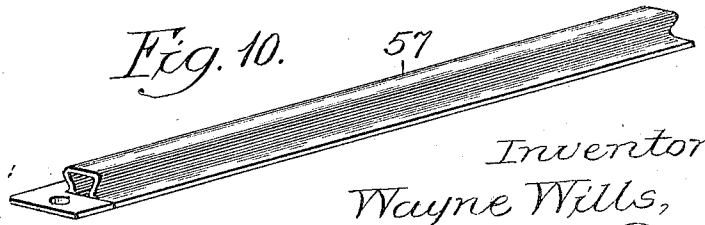


Fig. 10.



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5 SHEETS—SHEET 4.

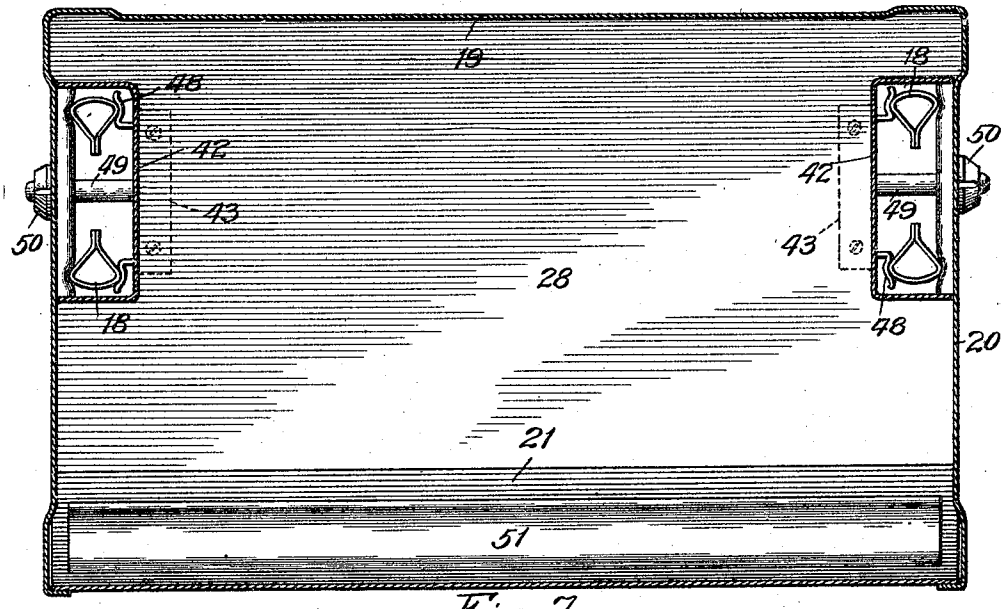


Fig. 7.

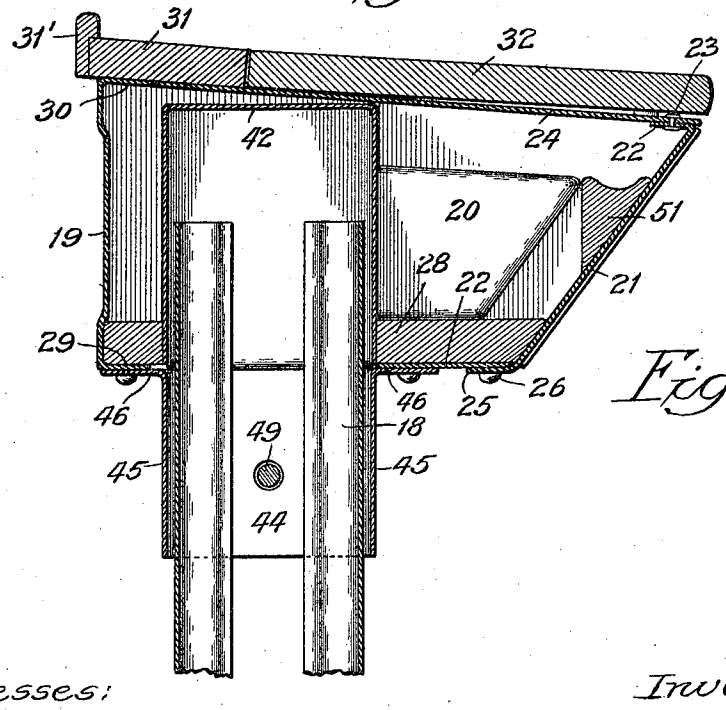


Fig. 8.

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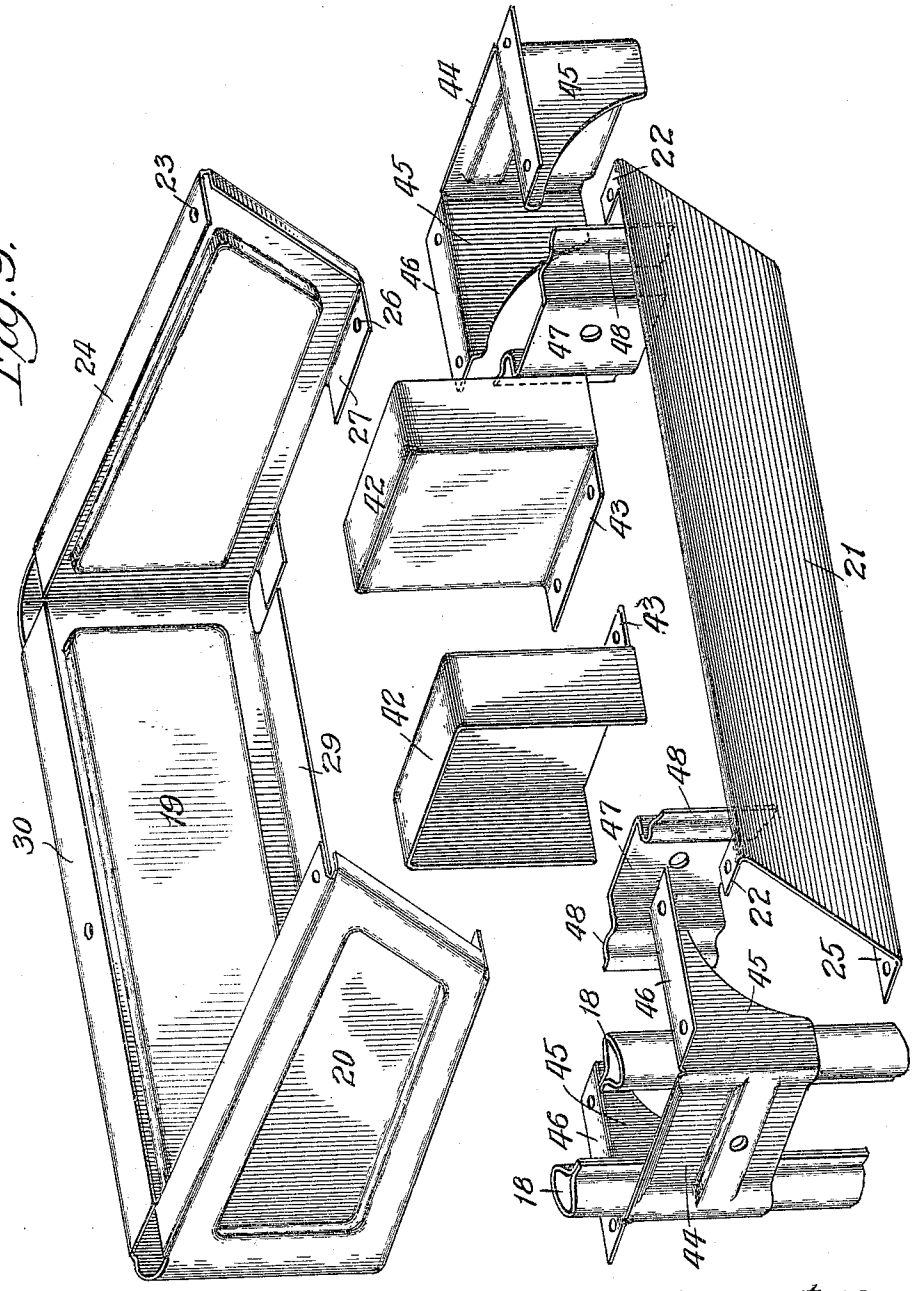
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5 SHEETS—SHEET 5.

Fig. 9.



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UNITED STATES PATENT OFFICE.

WAYNE WILLS, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO AMERICAN SEATING COMPANY, A CORPORATION OF NEW JERSEY.

BOX-DESK.

1,305,983. Specification of Letters Patent. Patented June 3, 1919.

Application filed January 17, 1913. Serial No. 742,668.

To all whom it may concern:

Be it known that I, WAYNE WILLS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Box-Desks, of which the following is a specification.

The principal object of my invention is to provide a new and improved box desk for the use of school children. Another object of my invention is to provide a box desk of improved construction adapted to be adjustable in height in accordance with the size of the user. Still another object of my invention is to provide a supporting frame for such a desk that shall be simple and economical to build and serviceable. Other objects of my invention relate to various features and details of construction of such a desk. All these objects will be made apparent in the following specification and claims, taken in connection with the accompanying drawings.

In these drawings I have illustrated one specific embodiment of my invention, and I will now proceed to describe the same. It will be understood that the invention is defined in the appended claims.

Referring to the drawings:

Figure 1 is a side elevation of my improved desk;

Fig. 2 is a rear elevation of the same;

Fig. 3 is a vertical section taken on the line 3 of Fig. 2, looking in the direction of the arrow;

Fig. 4 is a horizontal section taken on the line 4 of Fig. 3, looking in the direction of the arrow;

Fig. 5 is a vertical section taken on the line 5 of Fig. 1, looking forward;

Fig. 6 is a horizontal section on the line 6 of Fig. 2, looking up;

Fig. 7 is a horizontal section on the line 7 in Fig. 1, looking down;

Fig. 8 is a vertical section on the line 8 in Fig. 2, looking in the direction of the arrow;

Fig. 9 is a perspective view of various elements of the desk spaced apart but shown in angular position corresponding to that which they occupy when assembled;

Fig. 10 is a detail section showing a feature of the cover of the desk.

The desk is supported on the floor by two frames, one at each side. Each frame consists of two tubular standards 15, of approximate triangular cross-section, joined together by a plate 17 which is welded to them. Each tubular standard 15 is an "open" tube—that is, its meeting edges 55 are not welded together. The shape of the section is shown in Fig. 4. The plate 17 overlaps these meeting edges 55 and the two edges of the tube 15 and the one edge of the plate 17 are welded through by the method of "point" welding. The upper ends of the tubes 15, designated 18, are vertical. The lower ends flare apart and have feet 16 formed for attachment to the floor.

The box carried by the supporting frames just described comprises a plate of sheet metal bent to form the front wall 19 and the side walls 20. The rear wall is formed by another plate of sheet metal 21. The front and side wall piece 19—20 has its upper edge bent to form ledges 24 and 30 and its lower edge bent to form ledges 27 and 29, as shown in Fig. 9. Ears 22 at the upper corners of the rear wall 21 are secured by rivets at 23 to the rear ends of the ledges 24. Other rivets at 26 secure the corners of the ledge 25 along the lower edge of the rear wall 21 to the adjacent corners of the ledges 27.

The bottom of the box is a wooden member 28, which rests upon the ledges 27 and 29. The top of the box comprises a fixed wooden member 31 resting on the ledge 30, and a swinging leaf 32 hinged to the fixed member 31. The hinged cover 32 carries rubber pads 33 at its rear corners, which rest upon the rear ends of the ledges 24.

The hinge for the cover 32 comprises two circular sectors 34 and 36, of which 34 has a flange attached by means of screws 35 to the wooden member 31. The sector 36 also has a flange attached by means of screws 37 to the hinged cover 32. The two sectors 34 and 35 project into a notch 39 in the member 31 and are there pivotally connected at the point designated 38. The respective sec-

tors 34 and 36 carry hooks 41 and 40, which act as stops when the cover 32 is opened up to limit the extent of such opening.

At each end the wooden bottom 28 is deeply notched or cut away as indicated at the point 56 in Fig. 5. Projecting up through each such notch 56 is a housing 42, shown in Fig. 9, which carries a flange 43 along its lower edge through which screws pass to attach it to the wooden bottom 28. It will be seen that the space inclosed by the housing 42 and the side wall 20 opens downwardly through the bottom of the box—that is, through the notch 56 in the bottom 28. The two parallel standards 18 project up into this housing 42, as shown in Fig. 5.

A bracket 44, with side portions 45 and flanges 46, is attached to the under side of the bottom 28 and partially surrounds the tubular standards 18. Within this bracket 44, and opposed thereto, is a clamping plate 47, with its edges 48 modified to engage the respective tubular standards 18. A bolt 49 through the clamping plate 47 and the bracket 44 is engaged by the nut 50 and serves to clamp the tubular standards 18 between said plate 47 and the bracket 44 and thereby hold the box at any desired adjustment of height upon the standards.

A wooden ledge 51 is attached to the inner face of the rear wall 21 of the box and may be used as a pencil rest.

The leaf 32 is braced against warping by means of the metal braces 57, introduced in corresponding slots as shown in cross-section in Fig. 5.

It will be seen that the two side frames of the desk, each consisting of the two tubular standards 15 and the web 17, are securely fixed to the floor. The remaining portion of the desk consists of the box and parts carried thereby, which are mounted so as to be adjustable vertically upon said standards. The standards project up into the housings 42 within the box and the whole box can be raised or lowered by loosening the nuts 50 and then can be clamped at any desired height of adjustment by tightening the same nuts.

The cover for the desk cannot be thrown forward too far because its angular movement is limited by the co-acting stops 40 and 41.

I claim:

1. In a device of the class described, parallel standards, a box supported thereby, said box having its bottom wall notched in from its sides, a sheet metal housing projecting up through each such notch with a flange at its lower edge secured to the under side of the bottom of the box, said standards projecting up through such notches, and said housings together with the side walls of the box completely inclosing said standards.

2. In a device of the class described, two upwardly-extending standards, a box arranged to be carried thereby, the bottom of said box having an opening therethrough adjacent its side wall, said standards being arranged to extend through said opening, a sheet metal housing projecting up through said opening and forming with said side wall a closed chamber for the portions of said standards extending into said box, a bracket attached to the underside of said box around said opening and engaging one side of each of said standards, a plate attached to the underside of said box and having parts engaging said standards opposite said bracket, and clamping means engaging said bracket and said plate between said standards.

3. In a device of the class described, two tubular standards, a box having an opening in the bottom thereof to receive the ends of said stardards, a bracket having a body portion extending downwardly from the bottom of said box adjacent the end thereof and having parts extending inwardly on opposite sides of said standards and secured to said box, a plate engaging said standards on the opposite sides therefrom from the body portion of said bracket, and a bolt passing through said bracket and said plate between said standards.

4. In a device of the class described, a box having openings in the bottom wall thereof adjacent its ends, two pairs of standards, each pair extending upwardly into one of said openings, brackets extending downwardly from the ends of said box on the outer sides of said pairs of brackets, plates each mounted opposite one of said brackets and engaging one pair of standards, and separate bolts engaging said plates and said brackets for independently adjusting the positions of said brackets on said standards.

5. In a device of the class described, two upwardly extending standards, a box carried thereby, an opening through the bottom of the box adjacent the side wall thereof through which said standards extend, and a sheet metal housing projecting up through said opening and forming with said side wall a closed chamber for the portions of said standards extending into said box.

6. In a device of the class described, two upwardly extending standards, a box carried thereby, a bracket attached to the under side of the box and engaging one side of each of said standards, a plate attached to the under side of said box and having flexible ends engaging said standards opposite said bracket, and clamping means engaging said bracket and said plate between said standards.

7. In a device of the class described, two upwardly extending standards, a box carried thereby, a U-shaped sheet metal bracket

extending around said standards and having transverse flanges attached to the under side of said box, a sheet metal plate secured to the under side of said box between oppositely disposed arms of said bracket, said plate having flexible parts adapted to engage said standards, and a bolt engaging said bracket and plate between the standards, whereby the latter are clamped between said plate and bracket.

In testimony whereof I have subscribed my name.

WAYNE WILLS.

Witnesses:
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R. M. CURTIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."