May 3, 1932. S. M. SWENSSON 1,856,977

FOLDING DESK AND CHAIR

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Fig. 2.

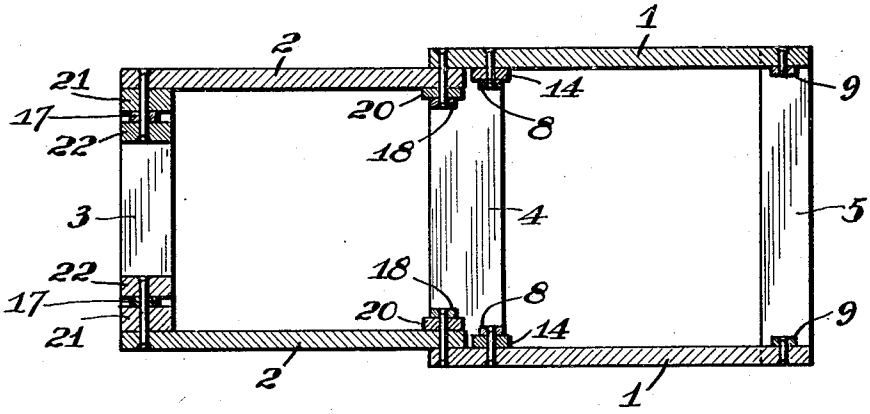

Fig. 1.

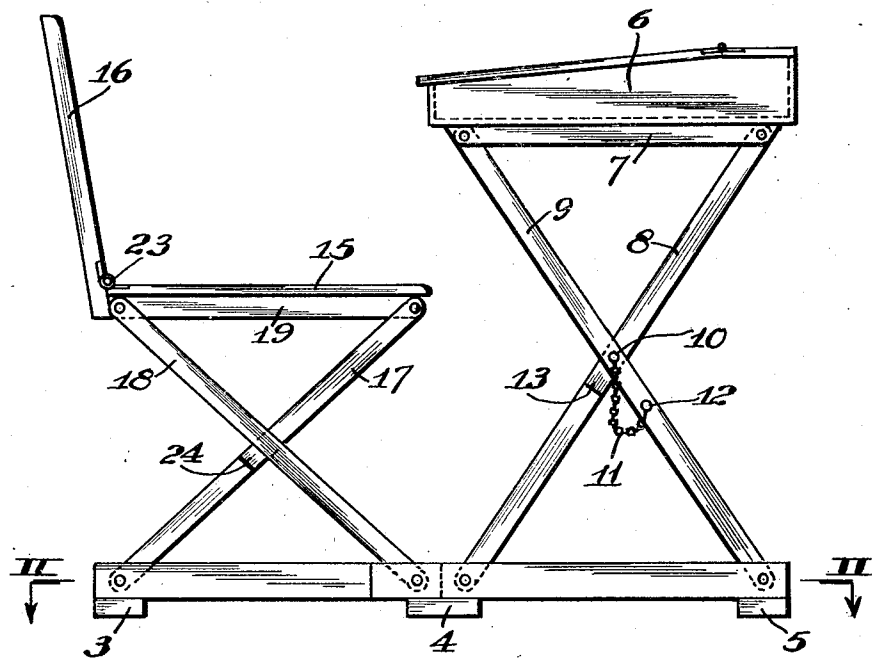

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Fig. 3.

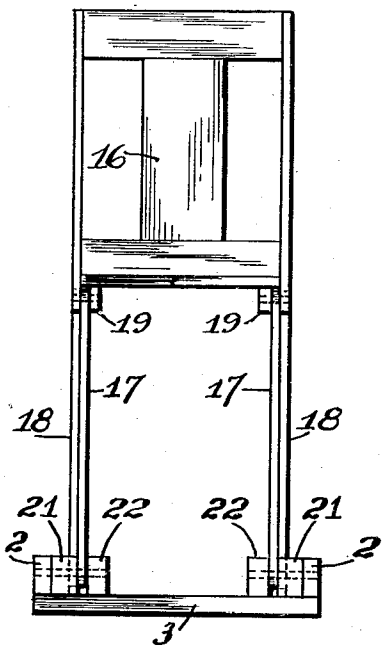


Fig. 4.

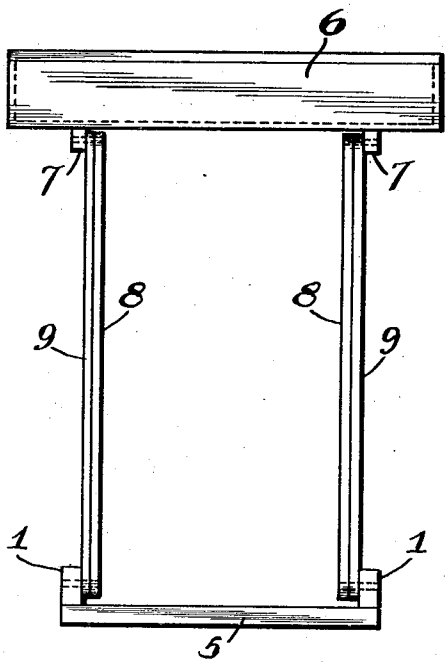


Fig. 5.

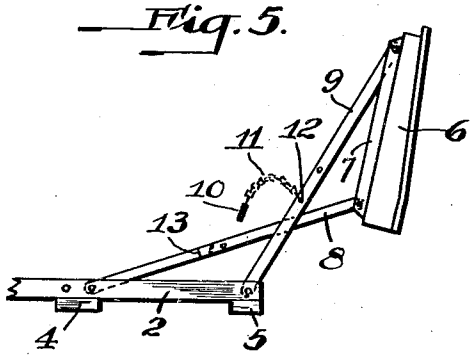


Fig. 7.

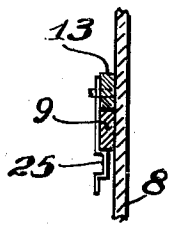
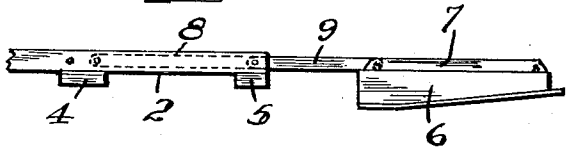


Fig. 6.



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Patented May 3, 1932 1,856,977

UNITED STATES PATENT OFFICE

SWEN M. SWENSSON, OF CHICAGO, ILLINOIS

FOLDING DESK AND CHAIR

Application filed November 27, 1929. Serial No. 410,163.

The invention relates to folding desks and chairs, particularly to the type designed for school work in which the desk and chair are mounted on the same base, although the invention is not limited to this combination. The invention has for its objects the provision of an improved chair or desk of very simple construction, which can be folded and unfolded very easily; which forms a very compact body when folded; which presents a neat appearance when set up in position of use and is very secure when in such position, and which can be constructed at a low cost of cheap, more or less standard, building material. Certain embodiments of the invention are illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation. Fig. 2 is a section on the line II—II of Fig. 1. Figs. 3 and 4 are partial end elevations. Figs. 5 and 6 are diagrammatic views showing the desk in process of folding and in folded position. And Fig. 7 is a detail showing a modification.

The desk and chair are mounted on a base or platform made up of side members 1, 1 and 2, 2 secured together by screws or spikes at their overlapping ends, and the cross members 3, 4 and 5 secured to the side members by screws or nails. The desk top 6 has on its under side the rails 7, 7 to which are pivoted the upper ends of the pairs of legs 8, 9 and 8, 9, the lower ends of the legs being pivoted to the base. Removable pins 10 passing through the legs where they cross prevent the top from swinging to the right when pressure is applied from the other side. Chains 11 secured to screws 12 prevent the loss of the pins when they are removed to fold the desk as later described. Stop blocks 13 secured to the legs 8, 8 serve to fix the position of the legs 9, 9 preliminary to the insertion of the pins 10. In order that the legs 8, 8 will fold inside the legs 9, 9 when they are moved to folded (horizontal) position, the lower ends of such legs 8, 8 are spaced inward from the side members 1, 1 by means of the blocks 14, 14 (Fig. 2).

In order to fold the desk down into horizontal position in line with the base, the pins 10 are withdrawn and the top 6 moved to the right, as indicated in Fig. 5. This movement progresses until the parts arrive at the position of Fig. 6, the desk top 6 at this time being turned upside down and end for end as compared with its starting position. The movement to this position is made possible by the fact that the pivots at the upper ends of the legs 8 and 9 are the same distance apart as the pivots at the bottoms of such legs, otherwise the complete folding movement to the position of Fig. 6 could not be made.

The chair which is mounted to the rear of the desk, comprises the seat 15, the back 16, and the pairs of legs 17, 18 and 17, 18, which are pivoted at their upper ends to the rails 19, 19. The legs 18, 18 lie outside the legs 17, 17 and are spaced away from the members 2, 2 by means of the blocks 20, 20. This serves to bring the legs 17, 17 inside the legs 8, 8 when folded down to horizontal position. The legs 17, 17 are pivoted at their lower ends between the blocks 21, 22 (Figs. 2 and 3). The back 16 is hinged at 23 to the seat, so that it will fold down against such seat. Stop blocks 24 are employed corresponding in function to the blocks 13, but no pins, such as the pins 10, are required, as there is no tendency in using the chair to tilt it toward folded position.

The chair folds down to horizontal position between the members 1, 1 and 2, 2 in the same manner as described in connection with the desk, the seat 15, with the back folded down thereon, being turned upside down and reversed end for end in the folding operation. Here, as in the desk, the pivots at the upper ends of the legs must be the same distance apart as those at the lower ends in order to permit of the complete folding action. It is also necessary that the legs shall be of the same length. It will be apparent that the parts can be folded into very compact form and that this may be accomplished quickly and without difficulty.

Fig. 7 illustrates a modification to take the place of the pins 10, a spring 25 being mounted on the stop block 13 to receive and yieldingly hold the leg 9. Various other releasable means might be used to hold the legs to-

gether releasably where they cross and thus prevent an accidental folding movement.

What I claim is:

1. In combination in a device of the character described, a fixed horizontal base, a top substantially parallel to the base, a pair of legs at each side of the top pivoted at their upper ends to such top with the members of each pair crossing each other at their central portions when the device is in position of use and pivoted at their lower ends to the base, and stop means cooperating between each pair of legs permitting them to swing in the same direction toward folded position but preventing movement in the reverse direction after the legs have reached their crossed position of use.

2. In combination in a device of the character described, a fixed horizontal base, a top substantially parallel to the base, a pair of legs at each side of the top pivoted at their upper ends to such top with the members of each pair crossing each other at their central portions when the device is in position of use and pivoted at their lower ends to the base, and stop means cooperating between each pair of legs permitting them to swing in the same direction toward folded position but preventing movement in the reverse direction after the legs have reached their crossed position of use, the distance between the pivots at the upper ends of the legs being the same as that between the lower ends of the legs, thus permitting the legs and top to move into alignment with the base when the parts are moved to folded position.

3. In combination in a device of the character described, a fixed horizontal base, a top substantially parallel to the base, a pair of legs at each side of the top pivoted at their upper ends to such top at a fixed distance apart with the members of each pair crossing each other at their central portions and having registering perforations where the legs cross when the device is in position of use and pivoted at their lower ends to the base at a fixed distance apart, and removable pins extending through said registering perforations for releasably locking the legs in crossed position, the distance between the pivots at the upper ends of the legs being the same as that between the lower ends of the legs, thus permitting the legs and top to move into alignment with the base when the parts are moved to folded position.

In testimony whereof, I have hereunto subscribed my name this 16th day of November, 1929.

SWEN M. SWENSSON.