April 25, 1933. E. S. HODGSON 1,906,064

FOLDING DESK

Filed Feb. 25, 1932

Fig. 1.

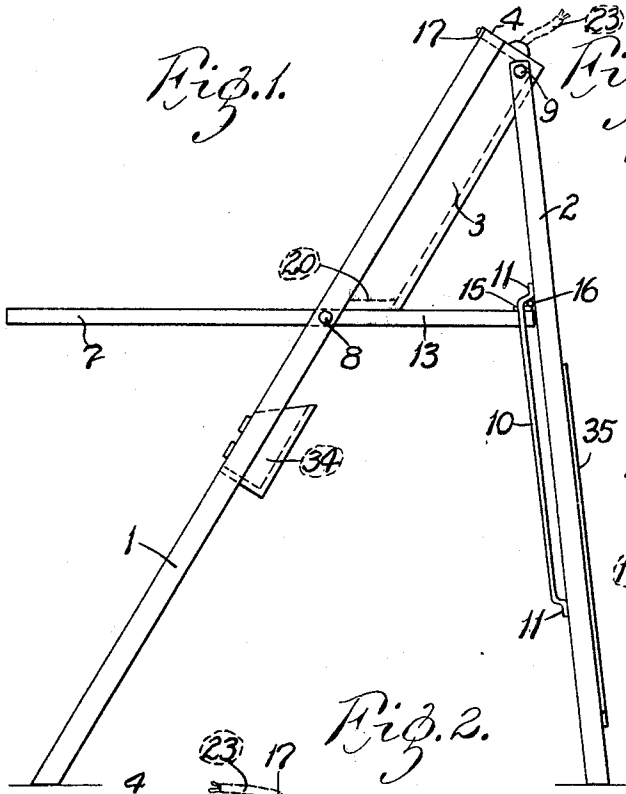


Fig. 3.

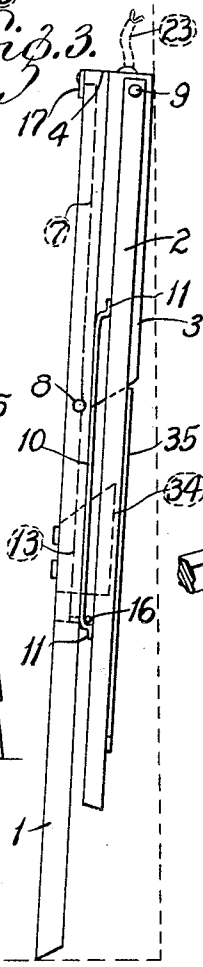


Fig. 4.

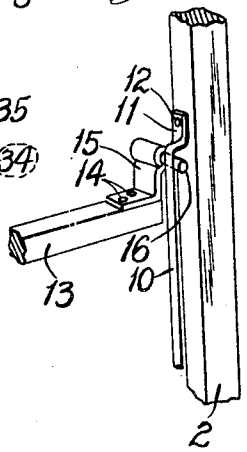


Fig. 2.

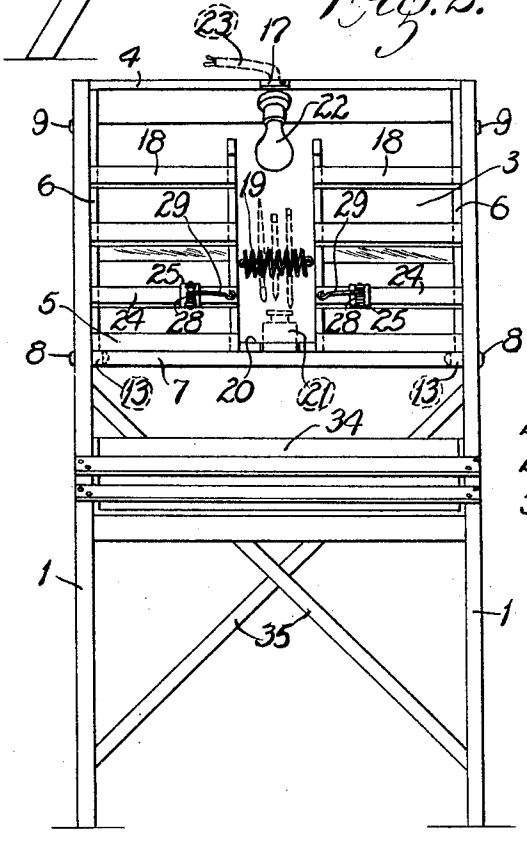
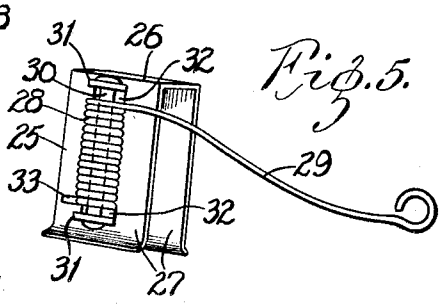


Fig. 5.



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UNITED STATES PATENT OFFICE

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FOLDING DESK

Application filed February 25, 1932. Serial No. 594,983.

This invention relates to certain new and useful improvements in folding desks, intended, more particularly, for use in homes where there are children of school age, and where the conservation of space is a matter of importance. While the desk is of substantial construction, it may be readily folded when not in use and placed against the wall, or behind a door, or in any other convenient place.

My invention is characterized by a folding desk in which the spreading of the legs is automatically effected in the same movement of opening the lid, or writing table, of the desk, and the folding together thereof in the closing movement of said lid, so that the desk may be quickly and easily placed in condition for use, or into folded condition to be set aside.

The invention is further characterized by a desk compartment, open at the front and which is adapted to be opened by lowering the lid to writing position and to be closed by raising the lid to a position to cover the open side of the compartment.

Finally, my invention is characterized by the provision of certain novel accessories which greatly increase the utility of the desk.

The invention is illustrated in the accompanying drawing, in which:—

Figure 1 is a view in side elevation showing my improved desk in condition for use;

Figure 2 is a view in front elevation of the same;

Figure 3 is a view in side elevation showing the desk folded and resting against a wall;

Figure 4 is a fragmentary view on an enlarged scale illustrating the mechanism for controlling the movement of the rear legs; and

Figure 5 is a perspective view on an enlarged scale of one of a pair of book clamps or holders.

Referring now to the drawing, the numerals 1 indicate the front legs, and 2 the rear legs of the desk, the rear legs being shorter than the front legs, as indicated in Figure 3, so that when folded together the desk may be placed in an inclined position against a wall and the rear legs be out of contact with the floor, thus minimizing the possibility of the desk tipping forward from its position of rest. Mounted between the front legs 1 at the upper portion thereof is a rectangular compartment, 3, comprising a top, 4, a bottom, 5, and sides, 6. The desk compartment 3 is open at its front side and may be secured to and between the legs 1 by means of screws, dowels or the like, or in any other preferred manner. The numeral 7 indicates the lid of the desk compartment which, when lowered to the position shown in Figure 1, also acts as a writing table, this lid being pivotally mounted between the legs 1 on pins, 8. The legs 2 are pivotally mounted on the compartment 3 at the upper end and on either side thereof, as indicated at 9, and each of these legs has secured on its front side a keeper 10, comprising a rod bent at right angles to itself at each end and flattened, as indicated at 11, and secured at such flattened portions to the front side of the leg 2, as indicated at 12, so that the body of the rod extends parallel with, but at a slight distance from the front surface of the leg 2. Projecting rearwardly from each side of the lid 7 is an integral arm 13 which, as shown in Figure 4, has secured on its rear end, as indicated at 14, a bracket, 15, carrying a stud, 16, which engages behind the rod or keeper 10 and is adapted to work in the space between said keeper and the front face of the leg 2. From this construction it will be seen that with the legs folded together, as shown in Figure 3, if the lid 7 be lowered, the studs 16 will engage the front sides of the legs 2 and force them outward, the studs moving up in the space between the keeper 10 and said legs until the table 7 reaches the horizontal position, where its movement is arrested by the studs 16 coming in contact with the upper ends of the keepers 10.

In like manner, with the parts in the position shown in Figure 1, if the lid 7 be raised, the studs 16 will engage the inner sides of the keepers 10 and draw the legs 2 inward, this movement continuing until the

lid has been turned into engagement with the front side of the compartment 3, at which time the studs 16 will rest against the lower ends of the keepers 10, as shown by Figure 3. The lid 7 may be provided near its upper end with a lock for securing it in its closed position, but for this purpose I have shown an ordinary turn button, 17, Figure 3, which, when turned downward, prevents the lid from being opened, and when turned upward permits the lid to be moved downward.

It is an important feature of my invention that when the lid is locked or otherwise secured in its closed position, the studs 16 will operate to prevent the legs 2 from swinging open, and hence the desk in its folded condition may be readily carried to a desired position in the room without liability of the legs 2 swinging open and striking articles of furniture in the room, or striking against the body of the person carrying it, or of pinching the fingers of the person carrying the desk should the legs swing inward.

In order to enhance the usefulness of the desk, I combine therewith certain accessories which will now be described.

Mounted on the interior of the compartment 3, on either side thereof, are a series of racks, 18, which may be used for holding writing paper, envelopes, cards, and the like. Between these racks I may mount a pen rack, 19, and at the bottom of this space provide a holder, 20, for an ink bottle, 21. I also preferably mount on the top 4 of the compartment, and within the latter, an electric light bulb, 22, with which an extension cord 23, is, or may be, connected. A suitable shade would, of course, be provided with the bulb, and this feature will be found to be of great utility, as it enables the desk to be used in parts of the room which is not directly supplied with sufficient light for writing.

Finally, in order to permit the entire surface of the lid or table 7 to be utilized for writing purposes, I mount on two opposite members 23 of the racks 18 a pair of book clamps or holders, 25, one of which is shown in detail in Figure 5. Each of these book holders comprises a metal clip, 26, having parallel spring side walls, 27, and having secured on one side a coil spring, 28, provided at one end with a long arm, 29. The spring 28 is coiled about a pin, 30, mounted in opposite ends, 31, of a bracket, 32, which is secured on the outer side of one of the side members 27 of the clip, said spring having an end, 33, projecting slightly outward and bearing against the face of the side member on which the spring is mounted. The clips are placed in position on the rack members 24 by simply forcing the open end thereof over said rack and pressing the clip downward until its top engages the top of the rack. As will be understood, when the spring arm 29 is pulled outward for the purpose of inserting one side of a book thereunder, the coil spring 28 will be placed under tension, so that when both sides of the book are so positioned, the arms will act to hold the book open. Thus, for example, if the book be an arithmetic, the student will have the book before him fully illuminated by the light 22, while the entire surface of the writing table can be used in the work of writing down and solving the particular problem on the pages of the arithmetic exposed.

In order to further enhance the usefulness of the desk, I mount on and between the front legs 1 a rack 34, which may be used for holding papers, books or any other like articles. This rack also serves to brace the lower portions of the legs 1; that is, that portion of the legs projecting below the compartment 3.

The rear legs are shown as being braced by cross rods, 35.

The bottom 5 of compartment 3 is so arranged as to form substantially a continuation of the upper side of the table 7 when the latter is lowered, thus increasing the working surface of the desk.

While I have shown the preferred embodiment of my invention, the latter is not limited to the precise details of construction shown, but various changes from such construction could be made without departing from the spirit of my invention as set forth in the appended claims.

I claim:

1. A folding desk comprising, in combination, a desk compartment, a pair of front legs secured at their upper portions on opposite sides of said compartment, a pair of rear legs pivotally mounted at their upper ends on opposite sides of said compartment at the upper end thereof, a lid for said compartment pivotally mounted between the front legs, and arms extending rearwardly from each side of said lid and having sliding engagement with said rear legs, whereby the legs may be moved together or spread apart by raising or lowering said lid.

2. A folding desk comprising, a combination, a desk compartment, a pair of front legs secured at their upper end portions to opposite sides of said desk compartment at the front side thereof, a pair of rear legs pivotally mounted at their upper ends on opposite sides of said compartment at the upper end thereof, a lid for said compartment pivotally mounted between the front legs, and arms extending rearwardly from each side of said lid having sliding engagement with said rear legs, whereby the legs

may be moved together or spread apart by raising or lowering said lid.

3. A folding desk comprising, in combination, a desk compartment, a pair of front legs secured at their upper portions to said compartment on opposite sides thereof to extend parallel with the front edge thereof, a pair of rear legs pivotally mounted at their upper ends on opposite sides of said compartment at the upper end thereof, a keeper secured on the front side of each of said rear legs, a lid for said compartment pivotally mounted between the front legs, arms extending rearwardly from each side of said lid, and a stud carried at the rear end of each of said arms and slidably engaging behind the keeper thereon, whereby the legs may be moved together or spread apart for raising or lowering said lid.

4. A folding desk comprising, in combination, a desk compartment, a pair of front legs secured at their upper portions to opposite sides of said compartment to extend along the front edge thereof, a pair of rear legs pivotally mounted at their upper ends on opposite sides of said compartment at the upper end thereof, a lid for said compartment pivotally mounted between the front legs, arms extending rearwardly from each side of said lid and having sliding engagement with said rear legs, whereby the legs may be moved together or spread apart by raising or lowering said lid, and means for locking said lid in its closed position whereby to prevent the legs from spreading apart until said lock is released.

5. A folding desk comprising, in combination, a desk compartment, a pair of front legs secured at their upper portions to opposite sides of said compartment at the front side thereof, a pair of rear legs pivotally mounted at their upper ends on opposite sides of said compartment at the upper end thereof, a keeper secured on the front side of each of said rear legs, a lid for said compartment pivotally mounted between the front legs, arms extending rearwardly from each side of said lid, a stud mounted at the rear end of each of said arms and engaging behind the keeper thereof, whereby the legs may be moved together or spread apart by raising or lowering said lid, and whereby when said lid is lowered said studs will engage the upper ends of said keepers and arrest the movement of the lid at a horizontal position.

In testimony whereof, I have hereunto set my hand.

EDWARD S. HODGSON.