

F. H. SHAW.
DESK.
APPLICATION FILED MAY 28, 1920.

1,396,291.

Patented Nov. 8, 1921.

2 SHEETS—SHEET 1.

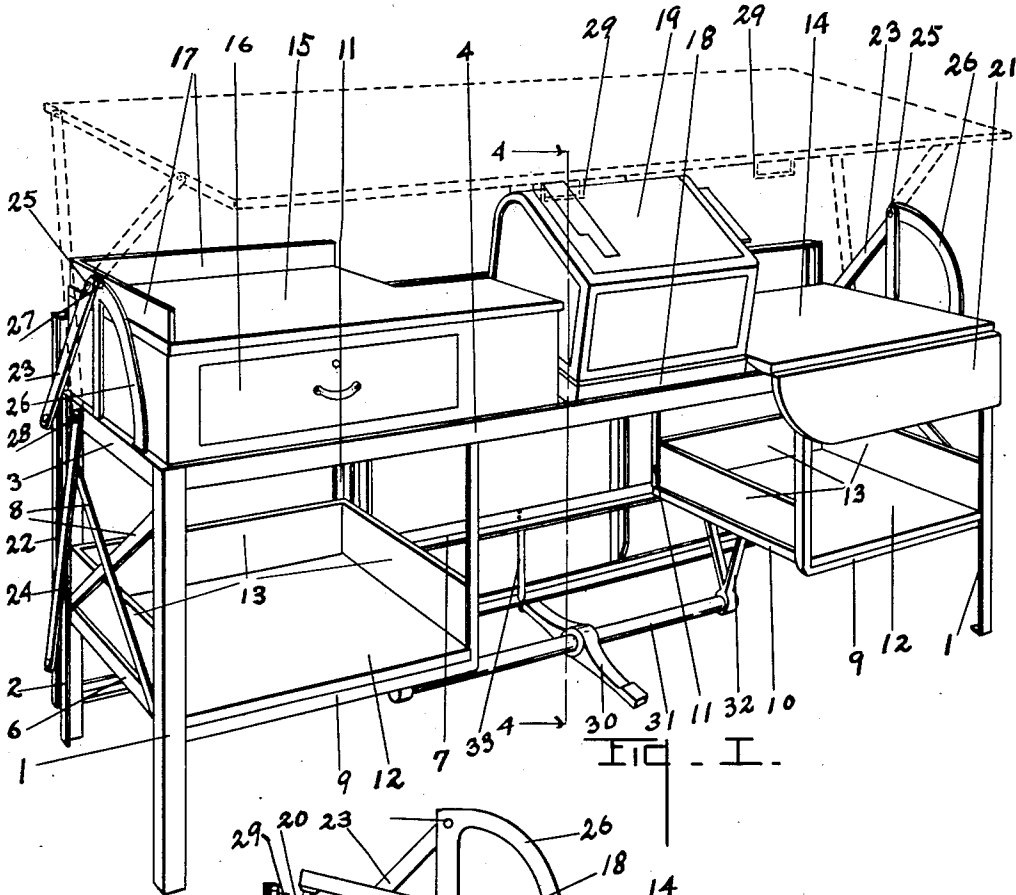


FIG. I.

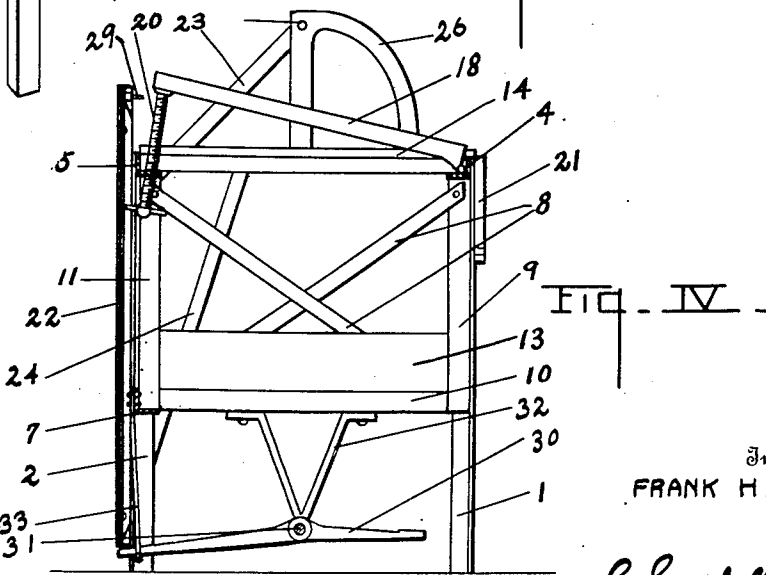


FIG. IV.

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2 SHEETS—SHEET 2.

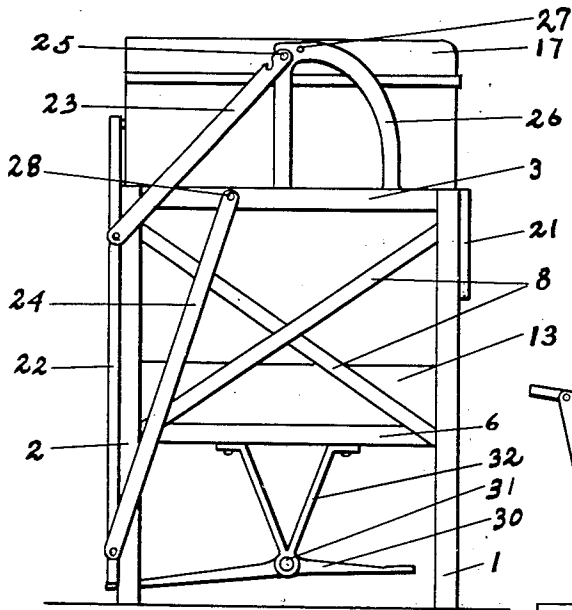


Fig. II.

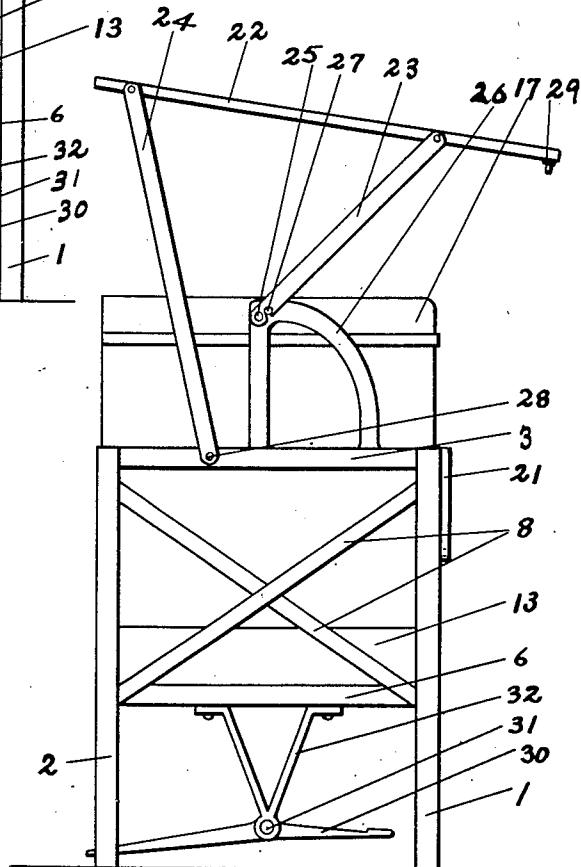


Fig. III.

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UNITED STATES PATENT OFFICE.

FRANK H. SHAW, OF CHICAGO, ILLINOIS, ASSIGNOR TO KALAMAZOO LOOSE LEAF BINDER CO., OF KALAMAZOO, MICHIGAN, A CORPORATION OF MICHIGAN.

DESK.

1,396,291.

Specification of Letters Patent.

Patented Nov. 8, 1921.

Application filed May 28, 1920. Serial No. 384,954.

To all whom it may concern:

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

This invention relates to improvements in desks.

The main objects of this invention are:

First, to provide an improved combination desk especially adapted for use in machine accounting or bookkeeping.

Second, to provide an improved convertible desk which may be used with the desk top erected as a bookkeeping desk for hand work or sorting slips or arranging accounts for posting, or the top collapsed to expose the posting machine and sheet handling equipment or outfit.

Third, to provide an improved desk having these advantages which is quite compact in structure and very convenient to use.

Further objects, and objects relating to structural details will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing forming a part of this specification in which:

Figure I is a front perspective view of a desk embodying the features of my invention, the top being shown in collapsed position by full lines and in erected position by dotted lines.

Fig. II is an end elevation with the desk top in collapsed position.

Fig. III is an end elevation with the desk top in elevated position.

Fig. IV is a transverse section on a line corresponding to line 4-4 of Fig. I.

Referring to the drawing, in the embodiment of my invention illustrated, I provide a frame comprising front and rear legs 1 and 2, respectively, connected at their upper ends by the end rails 3 and front and rear side rails 4 and 5, respectively. The legs are further connected by the end cross pieces

6 and the rear cross piece 7. Braces 8 are also provided to provide rigidity. The L-shaped shelf brackets 9 also constitute frame members. These brackets 9 are disposed in an opposed relation with their vertical arms secured to the front rail 4 and their horizontal arms secured to the front legs.

The inner cross pieces 10 extend from the angles of the bracket members 9 to the rear cross piece 7. The uprights 11 connect the rear cross piece 7 and the rear top rail 5. These uprights are disposed at the rear ends of the rear cross pieces 10. This provides a very rigid frame, the parts being preferably formed of angle iron.

The hangers 9, cross pieces 6, 7 and 10 constitute supports for the shelves 12 which in the structure illustrated are provided with rear and side pieces 13, there being no side pieces at the front of the shelves.

A table member 14 is arranged at one end of the frame and a table member 15 is arranged at the other end. The table member 15 is provided with a drawer 16 and has side pieces 17 at the outer side and rear. Between the table members is a support 18 for the accounting or bookkeeping machine shown conventionally at 19. This support 18 is adjustably supported at its rear end by means of the screws 20 so that it may be tilted to suit the convenience of the user.

The table member 14 is provided with a hinged leaf or extension 21 and is adapted to support a binder device or sheet posting outfit such as are well known to the trade for the handling of ledgers and sheets in machine bookkeeping and accounting.

To adapt the structure as a sorting desk or as a bookkeeping and general purpose desk, I provide a collapsible top 22 supported by the links 23 and 24 so that it may be swung to erected position as shown in Figs. I and III above the table members, machine support and objects supported thereby, or collapsed at the rear of the frame as shown in Figs. I, II and IV.

The links 23 are pivoted at 25 on supporting brackets 26 mounted on the end rails 3 of the frame, stops 27 being provided on the brackets to engage the links when the top is in its erected position. The links 24 are pivoted at 28 on the end rails 3.

Thus arranged, when collapsed, the top lies close against the back of the frame and may be easily swung to erected position. Hand holds 29 are provided at the front edge of the top and a foot lever 30 is preferably provided to assist in raising the top. This lever is mounted on the rock shaft 31 carried by the hangers 32 depending from the inner cross pieces 10. The rear end of the lever engages the top so that when the front end of the lever is pushed down the top is raised. A hook 33 is provided to limit the downward movement of the lever. The rock shaft 31 is positioned so that it serves as a foot rest.

My improved combination desk is especially designed for use in connection with bookkeeping or accounting machines and machine posting equipment. When the top is collapsed, the user of the desk has an unobstructed view about the room and may be observed from any position relative to the desk, both of which are particularly desirable in large institutions.

I have not attempted to illustrate or describe certain modifications and structural details which I contemplate or which might be desirable in adapting my improved desk for use with certain accounting equipments as I believe the disclosure made will enable those skilled in the art to which my invention relates to embody or adapt the same to meet particular conditions or requirements.

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

1. In a structure of the class described, the combination of a frame comprising legs, end and side top rails, and end and rear cross pieces connecting said legs, uprights connecting the rear top rail and cross piece, oppositely disposed L-shaped shelf brackets having their vertical arms secured to the front rail and their horizontal arms secured to the front legs, inner cross pieces extending from the angles of said brackets to the rear cross piece, said uprights being positioned at the rear ends of said inner cross pieces, shelves supported by said cross pieces and brackets, table members arranged at the ends of said frame, a machine support mounted on said frame between said table members, a desk top, top supporting brackets on said end rails, a pair of supporting links pivotally mounted on said top brackets and pivotally connected to said top member toward its forward edge, stops on said top brackets coacting with said links when in erected position, a second pair of links pivotally mounted on said end rails and pivotally connected to said desk top near its rear edge so that it may be swung to an erected position over said table members and the machine mounted on said machine

support or collapsed at the rear of the frame, a rock shaft constituting a foot rail, hangers mounted on the inner cross pieces, and a lever mounted on said rock shaft to engage the rear edge of the desk top when it is collapsed to assist in raising the same.

2. In a structure of the class described, the combination of a frame comprising legs, end and side top rails, and end and rear cross pieces connecting said legs, uprights connecting the rear top rail and cross piece, oppositely disposed L-shaped shelf brackets having their vertical arms secured to the front rail and their horizontal arms secured to the front legs, inner cross pieces extending from the angles of said brackets to the rear cross piece, said uprights being positioned at the rear ends of said inner cross pieces, shelves supported by said cross pieces and brackets, table members arranged at the ends of said frame, a machine support mounted on said frame between said table members, a desk top, top supporting brackets on said end rails, a pair of supporting links pivotally mounted on said top brackets and pivotally connected to said top member toward its forward edge, stops on said top brackets coacting with said links when in erected position, and a second pair of links pivotally mounted on said end rails and pivotally connected to said desk top near its rear edge so that it may be swung to an erected position over said table members and the machine mounted on said machine support or collapsed at the rear of the frame.

3. In a structure of the class described, the combination of a frame comprising legs, end and side top rails, and end and rear cross pieces connecting said legs, uprights connecting the rear top rail and cross piece, oppositely disposed L-shaped shelf brackets having their vertical arms secured to the front rail and their horizontal arms secured to the front legs, inner cross pieces extending from the angles of said brackets to the rear cross piece, said uprights being positioned at the rear ends of said inner cross pieces, shelves supported by said cross pieces and brackets, table members arranged at the ends of said frame, and a machine support mounted on said frame between said table members.

4. In a structure of the class described, the combination of a frame comprising legs, end and side top rails, and end rear cross pieces connecting said legs, oppositely disposed L-shaped shelf brackets having their vertical arms secured to the front rail and their horizontal arms secured to the front legs, inner cross pieces extending from the angles of said brackets to the rear cross piece, table members arranged at the ends of said frame, a desk top, supporting links for said top disposed so that it may be swung to an erected position over said table mem-

bers or collapsed at the rear of the frame, a rock shaft constituting a foot rail, hangers mounted on the inner cross pieces, and a lever mounted on said rock shaft to engage the rear edge of the desk top when it is collapsed to assist in raising the same.

5. In a structure of the class described, the combination of a frame comprising legs, end and side top rails, and end rear cross pieces connecting said legs, oppositely disposed L-shaped shelf brackets having their vertical arms secured to the front rail and their horizontal arms secured to the front legs, inner cross pieces extending from the angles of said brackets to the rear cross piece, table members arranged at the ends of said frame, a desk top, and supporting links for said top disposed so that it may be swung to an erected position over said table members or collapsed at the rear of the frame.

6. In a structure of the class described, the combination of a frame comprising legs, end and side top rails, and end rear cross pieces connecting said legs, oppositely disposed L-shaped shelf brackets having their vertical arms secured to the front rail and their horizontal arms secured to the front legs, inner cross pieces extending from the angles of said brackets to the rear cross piece, table members arranged at the ends of said frame, a rock shaft constituting a foot rail, hangers mounted on the inner cross pieces, and a lever mounted on said rock shaft to engage the rear edge of the desk top when it is collapsed to assist in raising the same.

7. In a structure of the class described, the combination of a frame comprising legs and end and top side rails, a shelf support comprising an L-shaped bracket having its vertical arm secured to the front rail and its horizontal arm secured to a front leg, a table member arranged over said shelf support, a machine support at the side of said table member, a desk top, and supporting links therefor disposed so that the top may be erected over the table member and machine support or collapsed at the rear thereof.

8. In a structure of the class described, the combination of a frame comprising legs, end and side top rails, and end and rear cross pieces connecting said legs, table members arranged at the ends of said frame, a machine support mounted on said frame between said table members, a desk top, top supporting brackets on said end rails, a pair of supporting links pivotally mounted on said brackets and pivotally connected to said top member toward its forward edge, stops on said brackets coacting with said links when in erected position, and a second pair of links pivotally mounted on said end rails and pivotally connected to said desk top near its edge so that it may be swung to an erected position over said table members and the machine mounted on said machine support or collapsed at the rear of the frame.

its edge so that it may be swung to erected position over said table members and the machine mounted on said machine support or collapsed at the rear of the frame.

9. In a structure of the class described, the combination of a frame, table members arranged at the ends of said frame, a machine support mounted on said frame between said table members, a desk top, top supporting brackets on said end rails, a pair of supporting links pivotally mounted on said brackets and pivotally connected to said top member toward its forward edge, stops on said brackets coacting with said links when in erected position, and a second pair of links pivotally mounted on said end rails and pivotally connected to said desk top near its edge so that it may be swung to erected position over said table members and the machine mounted on said machine support or collapsed at the rear of the frame.

10. In a structure of the class described, the combination of a frame, a table member on said frame, a machine support on said frame at the side of said table member, a desk top, top supporting brackets at the ends of said frame, a pair of supporting links pivotally mounted on said brackets and pivotally connected to said top member toward its forward edge, stops on said brackets coacting with said links when in erected position, and a second pair of links pivotally mounted on said end rails and pivotally connected to said desk top near its rear edge so that it may be swung to an erected position over said table member and the machine mounted on said machine support or collapsed at the rear of the frame.

11. In a structure of the class described, the combination of a frame, a table member on said frame, a machine support mounted on said frame at the side of said table member, a desk top, top supporting links arranged so that the top may be swung to an erected position over said table member and the machine mounted on said machine support or collapsed at the rear of said frame, and a lever mounted to engage said desk top when it is collapsed to assist in raising the same.

12. A structure of the class described comprising a table member, a machine support at the side of said table member, a desk top, supporting links for said top arranged so that the top may be swung to an erected position over said table member and the machine mounted on said machine support or collapsed at the rear thereof, and a lever mounted to engage said desk top when it is collapsed to assist in raising the same.

13. In a structure of the class described comprising a table member, a machine support at the side of said table member, a desk top, and supporting links for said top arranged in coacting pairs so that the top may

be swung to erected position and supported my hand and seal in the presence of two witnesses.
by said links above said desk top table member and machine support and in a spaced relation thereto without disturbing objects arranged therein, or collapsed at the rear thereof.

FRANK H. SHAW. [L. S.]

Witnesses:

HARRY S. COVINGTON,
J. S. GOVAN.

In witness whereof, I have hereunto set