E. OHNSTRAND.

LEDGER OR FILING DESK.

APPLICATION FILED NOV. 18, 1919.

1,372,536.

Patented Mar. 22, 1921.

4 SHEETS—SHEET 1.

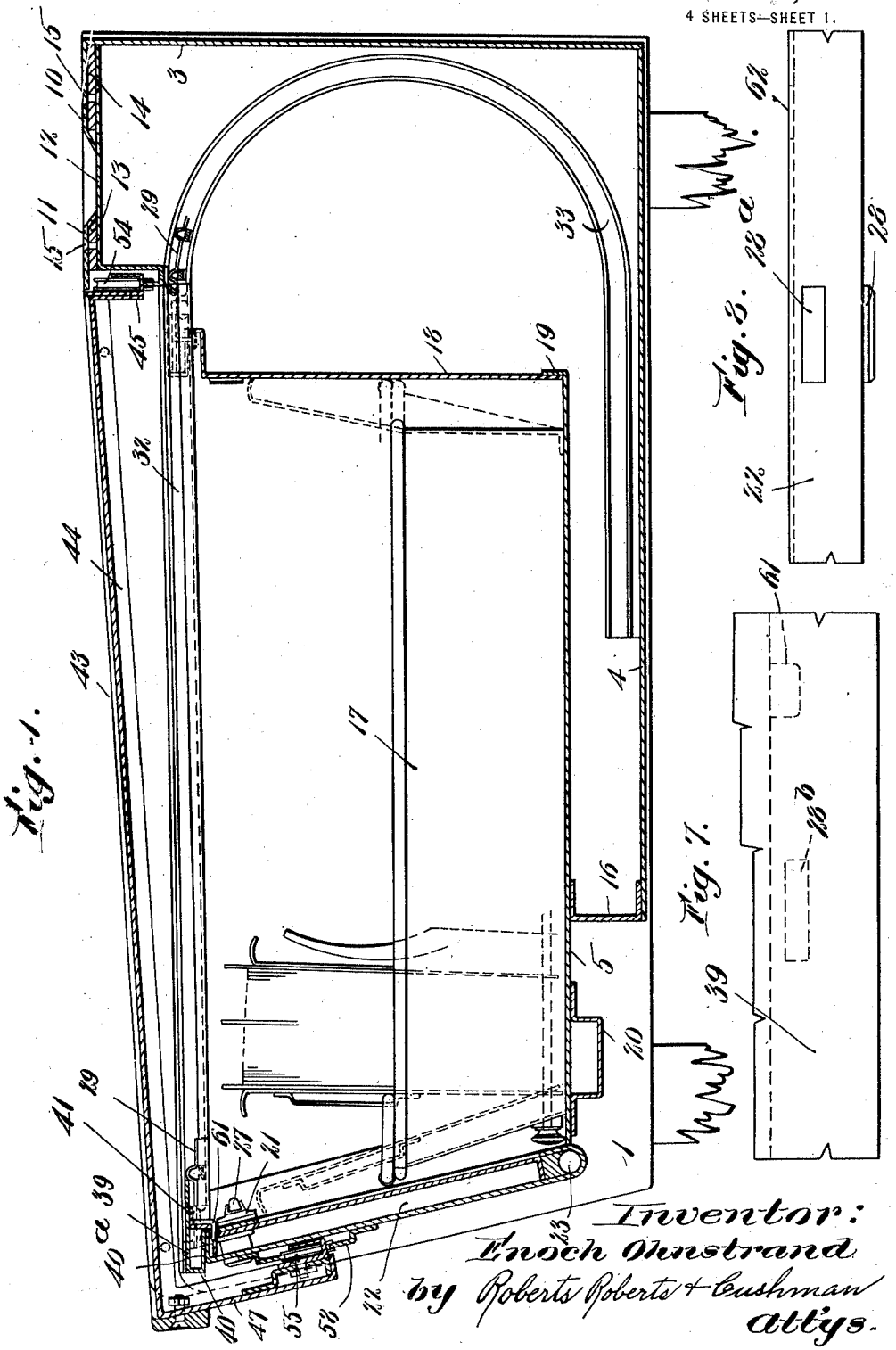


Fig. 1.

Fig. 3.

Fig. 7.

Inventor:
Enoch Ohnstrand
by Roberts Roberts & Cushman
Attys.

E. OHNSTRAND.

LEDGER OR FILING DESK.

APPLICATION FILED NOV. 18, 1919.

1,372,536.

Patented Mar. 22, 1921.

4 SHEETS—SHEET 2.

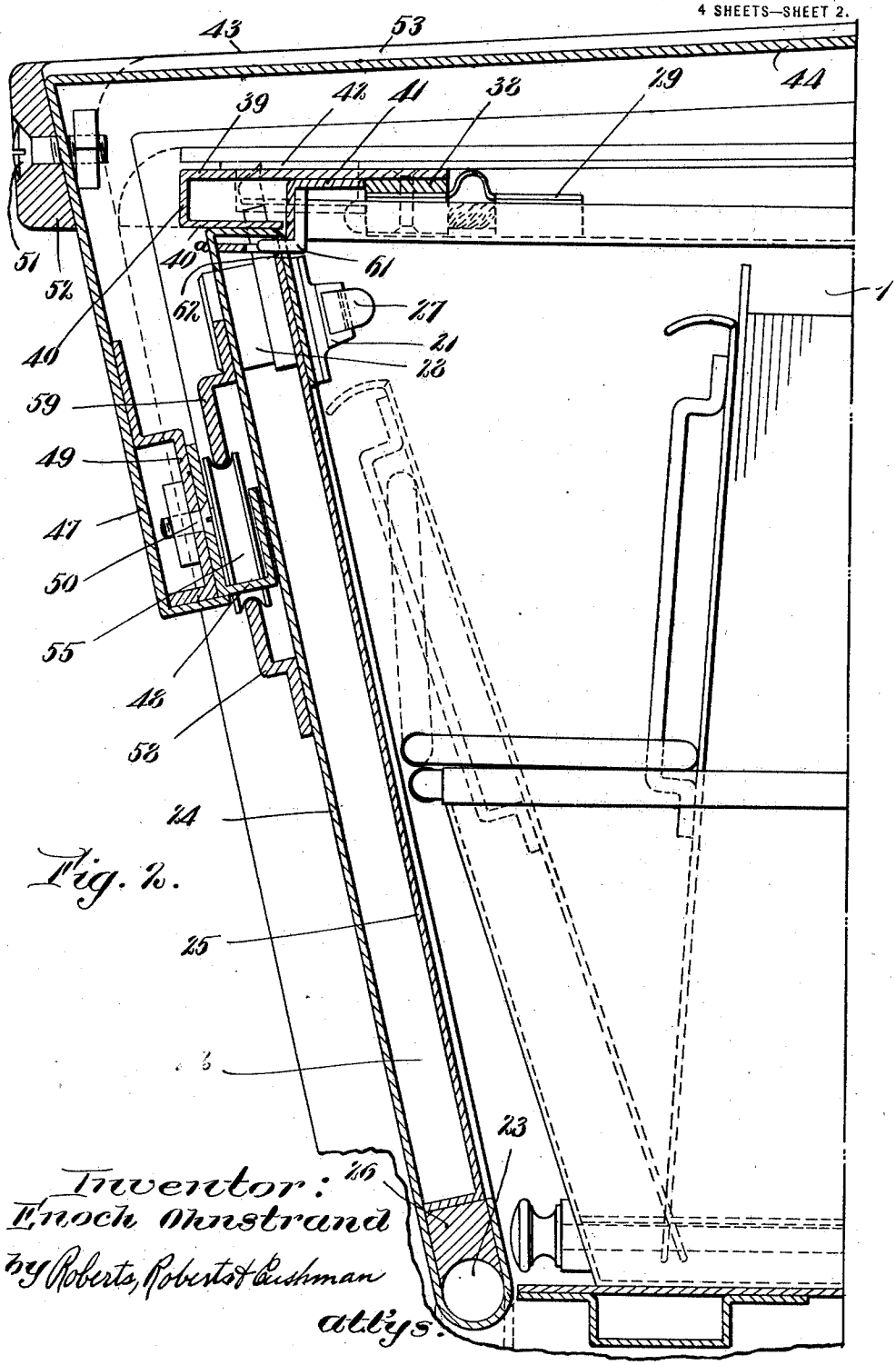


Fig. 2.

Inventor:
Enoch Ohnstrand
by Roberts, Roberts & Cushman
attys.

E. OHNSTRAND.

LEDGER OR FILING DESK.

APPLICATION FILED NOV. 18, 1919.

1,372,536.

Patented Mar. 22, 1921.

4 SHEETS—SHEET 3.

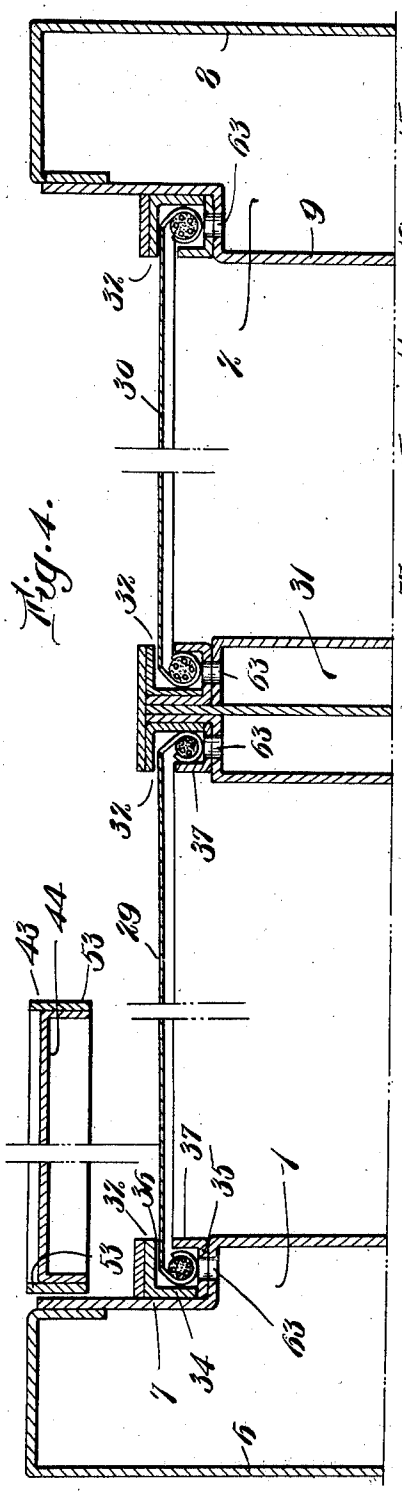


Fig. 4.

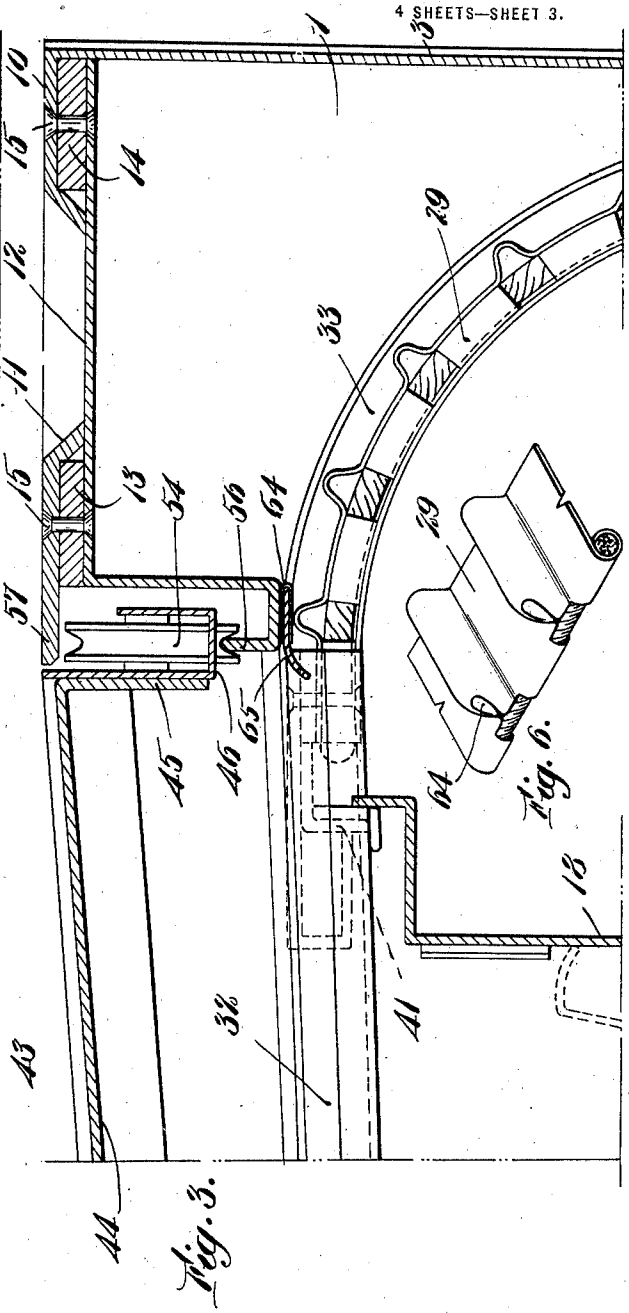


Fig. 3.

Fig. 6.

Inventor:
Enoch Ohnstrand
by Roberts Roberts & Cushman
attys.

E. OHNSTRAND.

LEDGER OR FILING DESK.

APPLICATION FILED NOV. 18, 1919.

1,372,536.

Patented Mar. 22, 1921.

4 SHEETS—SHEET 4.

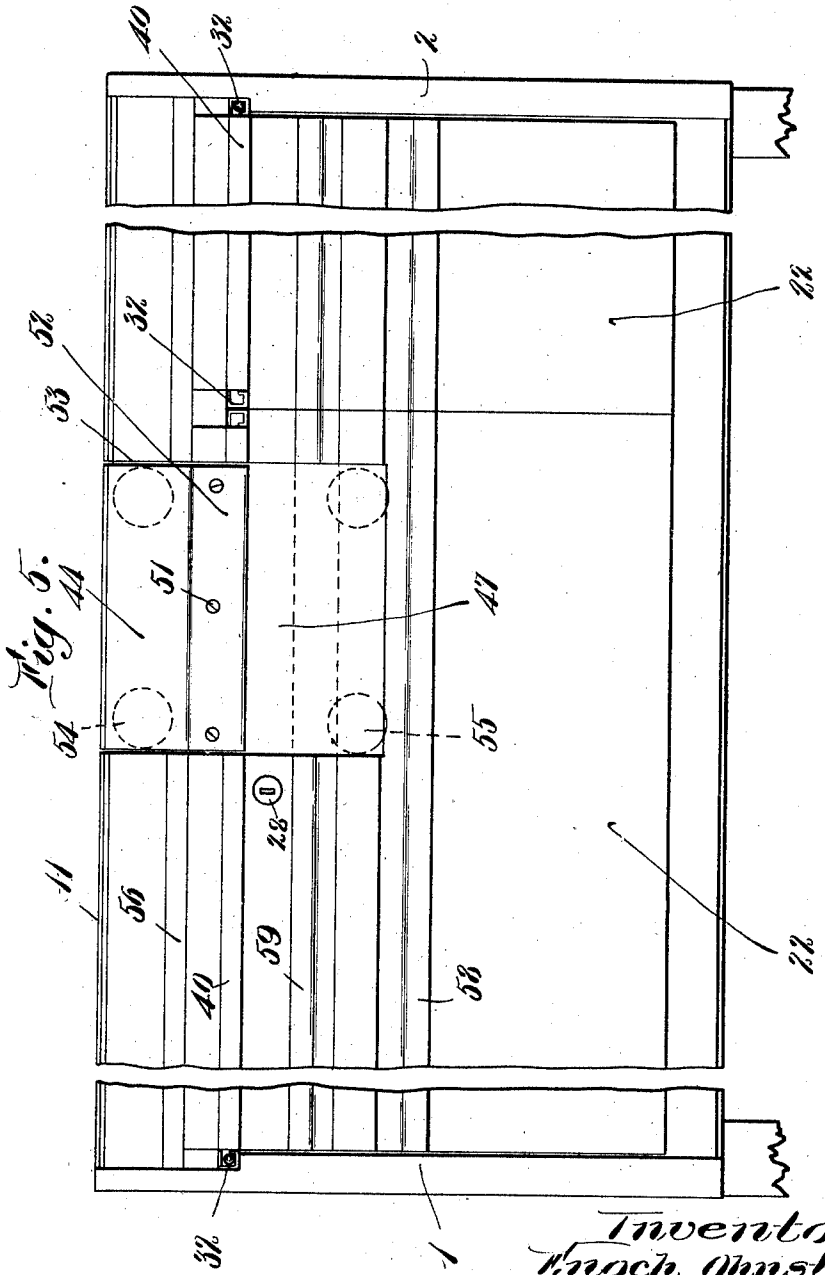


Fig. 5.

Inventor:
Enoch Ohnstrand
by Roberts-Roberts & Cushman
attys.

UNITED STATES PATENT OFFICE.

ENOCH OHNSTRAND, OF MOHAWK, NEW YORK, ASSIGNOR TO LIBRARY BUREAU, OF CAMBRIDGE, MASSACHUSETTS, A CORPORATION OF NEW JERSEY.

LEDGER OR FILING DESK.

1,372,536. Specification of Letters Patent. Patented Mar. 22, 1921.

Application filed November 18, 1919. Serial No. 338,877.

To all whom it may concern:

Be it known that I, ENOCH OHNSTRAND, a citizen of the United States of America, and resident of Mohawk, in the county of Herkimer and State of New York, have invented new and useful Improvements in Ledger or Filing Desks, of which the following is a specification.

This invention relates to a ledger desk, and more particularly to a desk of the type adapted to receive trays of filing cards and having a work table positioned above the trays of cards and movable with relation thereto.

Heretofore as far as I am aware ledger desks of the type now commonly used in banks and other kindred institutions and adapted to hold trays of ledger cards, have been constructed almost entirely of wood. Such wooden desks offer very slight protection to the cards filed therein in case of fire, and it is therefore customary to remove the trays of cards from the desk when the office is closed at night and store them in a fire proof vault. This entails a great amount of labor which would be rendered unnecessary if the desk itself offered sufficient protection from fire or water, and the danger of destruction by water is as great if not greater than the danger of destruction by fire.

The object of the present invention is to obviate the difficulties heretofore encountered by providing a ledger desk which is substantial and simple in construction, and which when closed protects its contents from damage or destruction by fire or water.

The invention will now be described in connection with one illustrative species only of the genus of the invention.

In the accompanying drawings,—

Figure 1 is a vertical transverse section through the improved desk;

Fig. 2 is a detail section of the front portion of the desk shown in Fig. 1;

Fig. 3 is a detail section of the rear portion of the desk;

Fig. 4 is a detail longitudinal section showing the means for supporting the flexible covers of the desk;

Fig. 5 is a front elevation of the desk;

Fig. 6 is a fragmentary perspective view showing the construction of the edge of the flexible cover;

Fig. 7 is a fragmentary plan view of the portion of the cover fitting over the lock; and

Fig. 8 is a fragmentary plan view showing the edge of the door where it carries the lock.

The particular embodiment of the invention illustrated in the drawings comprises side panels 1 and 2, a back panel 3, and a bottom comprising panels 4 and 5. The side panels are each built up from a plurality of sheets of material suitably united, the panel 1 comprising an outer member 6 and a shouldered inner member 7, and the panel 2 comprising similar members 8 and 9 as shown in Fig. 4. The rear panel 3 may be united to the side panels in any suitable manner as by welding or riveting and is provided with an inturned flange 10 on its upper edge as disclosed in Figs. 1 and 3 which in coöperation with the strips 11, 12, 13 and 14 forms a horizontally disposed pen rack closing the top of the desk in the longitudinal region adjacent the rear panel. The edges of strip 11 and flange 10 are sloped downwardly against the strip 12 thereby forming a depression having sloping sides from which pens or pencils may be easily removed. The strip 11 and flange 10 are secured to the strip 12 by means of rivets 15 which pass therethrough and through the spacing strips 13 and 14.

The bottom panel 4 is preferably formed integrally with the rear panel 3 and is held in spaced relation to the bottom panel 5 by a channel member 16 which extends between the side panels 1 and 2 and unites the forward edge of the panel 4 to the panel 5, a space being thereby provided between the bottom panels to receive the flexible curtains hereinafter described. The panel 5 serves as a support for the ledger trays 17 and is itself supported by the channel member 16 and a false back panel 18 to which it is secured in any suitable manner through the flange 19. The false panel 18 is secured at its ends to the side panels 1 and 2. The forward edge of the bottom panel 5 is supported by a channel bar 20, which bar is secured at its ends to the inner members 7 and 9 of the side panels 1 and 2.

The front of the desk is closed by sheet metal doors 22 pivoted upon a rod 23 which extends between the side panels 1 and 2 at

a point adjacent the forward end of the bottom panel 5. These doors are of hollow construction and each comprises an outer plate 24 and an inner plate 25 both suitably attached to the spacing bar 26 which is provided with one concave face to conform to the curvature of the pivot rod 23. Carried by the inner plates 25, adjacent their upper edge, are the push bolts 21 operated by the finger members 27. These bolts are disposed so as to fit into slots formed in the side members 1 and 2 or the central partition 31, to retain the doors in the closed position. In the center of the upper edge of each door is located the lock 28 having the upwardly operating bolt 28^a. This bolt fits into an opening 28^b in the member 40^a.

Two flexible steel curtains 29 and 30, of the type disclosed in application Serial No. 307,169 filed June 27, 1919 by Enoch Ohnstrand, are provided, positioned side by side and together effect a closure of the upper open face of the desk when they are pulled out into the position shown by full lines in Figs. 1 and 2. As shown in Fig. 6, the edges of these curtains are formed with the ends of the corrugations closed as at 64, so as to exclude water. The outer lateral edges of the curtains are supported and guided by channel-ways carried by the shouldered plates 7 and 9 respectively of the side panels, and the inner lateral edges are supported and guided by channel-ways carried by a central supporting partition 31. These channel-ways each comprise a straight sloping portion such as shown at 32 in Figs. 1 and 3 extending from a point directly above the upper edge of door 22 to the upper edge of the false back panel 18, and a curved portion 33 which extends downwardly between the back panel 18 and the back panel 3. The straight portion of this channel 32 is built up from two angle iron members 34 and 35 so positioned relative to each other as to leave only sufficient opening at 36 to allow the edge of the curtain to extend therein, the upwardly extending flange 37 serving not only as an additional guide rail for the curtain, but forming a trough to catch and carry away water in case any should flow over the lateral edges of the curtain. As shown in Fig. 4, the angle irons 34 have therein a plurality of drainage holes 63 which register with holes in the side panels or center panels as the case may be. These holes serve to carry off any water which may drain into the channel 32. These holes are preferably about three eighths of an inch in diameter and spaced approximately two inches center to center. The curved portion 33 of the channel comprises a simple channel member.

The forward edge of each cover is provided with a stiffening bar 38 the ends of which are adapted to be guided in the channel-ways 32. Attached to the bar 38 is an edge plate 39 having a downturned edge 40, and reversed at 40^a to bear upon the top of the doors 22. Secured to the under side of this plate is an angle bar 41 having one of its flanges extending downwardly to serve as a stop to limit the extent of forward movement of the curtain. When the curtain is pulled forward to close the desk the stop bar 41 engages the inner edge of the door 22. Attached to the bar 41, adjacent to the bolt opening 28^b are lock lugs 61 which fit into openings 62 in the inner face of the doors. These lugs serve to prevent the top curtains being sprung up sufficiently for the lock bolts 28^a to clear the openings 28^b. The relations of these parts are shown in Figs. 7 and 8. When the curtain is pushed back to open the desk the lugs 61 engage with the upper edge of the member 18, which serves as a stop to limit backward movement of the curtain. Attached to the downturned portion of the member 12 by a suitable clip 64 is the felt strip 65 which has the dual function of preventing the entry of dust into the rear portion of the desk and of shedding water on the curtain and thus preventing it from entering the rear of the desk. For convenience in operating the curtain flush pulls 42 may be provided and affixed to plate 39.

Supported above the desk and movable longitudinally thereof between the side panels 1 and 2 is a work table 43. This table comprises a flanged support 44 having a downwardly extending portion 45 upon its rear end to which a U-shaped roller support 46 is suitably secured, and a downwardly extending portion 47 upon its forward end to which the roller support 48 is fastened by means of the channel 49 and bolts 50. To the flange 47 at the forward edge of the table a wooden strip 52 is secured by bolts 51 for the purpose of retaining papers or other work upon the table. For a similar purpose metal strips 53 are secured to the lateral edges of the table. If desired the face of the table may be covered with felt, linoleum or other suitable material.

To enable the table to be moved from one end of the desk to the other, grooved ball bearing rollers 54 are rotatably secured to the roller support 46 at the rear end of the table, and rollers 55 are secured to the support 48 at the forward end of the table. To form a track for the rollers 54 the plate or strip 12 at the rear of the desk is bent downwardly and then upwardly as at 56, the trackway 56 being depressed to a sufficient extent below the top of the desk to permit the top of the table 43 to lie flush with the strip 11 which is extended over the rollers 54 as at 57. The rollers 55 at the forward end of the table roll upon a trackway 58 secured to the front panels of the doors 22, and

are retained on the trackway by a retaining guide 59 secured to the doors above the trackway 58.

The desk may have any desired card capacity but as illustrated is designed to accommodate ten trays of ledger cards, five trays being disposed on either side of the central partition 31. As this invention does not involve the construction of the card trays they have been disclosed only in outline and designated 17. In view of the fireproof and waterproof nature of the desk these trays of cards may with impunity be kept in the desk at all times, being locked therein when not in use by closure of the doors 22 and closure of the flexible curtains 29 and 30 as indicated in Fig. 2. When it is desired to use the desk the curtains 29 and 30 are unlatched or unlocked and pushed back in the channel-ways to the dotted line position shown in Fig. 1, the curtains being guided around under the bottom panel 5 by the curved portions 33 of the channel-ways. The slidable table 43 may then be moved to a position over the desk most convenient to the particular tray of cards to be consulted and the desired information taken from the cards and noted on a memorandum or ledger book supported by the table. Trays of cards may be removed from a section of the desk by moving the work table to one side of the section and swinging the corresponding door to the dotted line position indicated at the bottom of Fig. 2.

I claim:

1. A ledger desk comprising a body open at the top, a work table traversable over said body, and a movable closure for said open top, said closure being disposed beneath said table.

2. A ledger desk comprising a body closed at the sides, back and bottom, a movable closure for the front of said body, a movable closure for the top of said body, and a work table traversable over said body.

3. A ledger desk comprising a body closed at the sides, back and bottom, a hinged closure for the front of said body, a flexible closure for the top of said body, and a work table traversable over said body and above said flexible closure.

4. A steel ledger desk comprising a back panel, a flange extending forwardly then downwardly and then upwardly from said back panel to form a supporting rail, and a work table traversable over the desk on said rail.

5. A ledger desk comprising a body having an opening at the front, a closure for the open front of said body, said closure being hinged to swing outwardly and downwardly, and a work table traversable over said body, the work table being movably supported on said closure when the closure is in closed position.

6. A steel ledger desk comprising a body open at the front and top, a movable closure for the front of said body, flexible steel closures for the top of said body, guiding rails secured to the body adjacent its upper rear edge and to said closure, and a work table traversable over said body upon said rails.

7. A steel ledger desk comprising a body open at the front and top, a hinged closure for the front of said body, one or more flexible steel closures for the top of said body, guiding rails secured to the body adjacent its upper rear edge and to said hinged closure, a work table, and rollers for supporting said work table upon said rails whereby said table may be traversed over said body from one end thereof to the other.

8. A steel ledger desk comprising a body closed at the sides, back and bottom by metal panels, said back panel being provided at its upper edge with a forwardly and downwardly extending flange, a plate attached to said flange and partially closing the top of said body the forward edge of said plate being bent downwardly and then upwardly to form a supporting rail, a hinged closure for the front of said body, a second rail carried by said closure, and a work table traversable over said body upon said rails.

9. A desk of the type described having a downwardly opening closure for the open front thereof, a slidable, flexible closure for the open top thereof, a locking bolt carried by said first named closure and engageable with said second closure, and means for preventing the springing of the latter out of engagement with said bolt.

10. A desk of the class described comprising a pair of downwardly opening doors for closing the open front thereof, a flexible curtain for closing the open top thereof, independent locking means for holding said doors in closed position, interengageable means carried by said doors and curtain for limiting forward movement of the latter and means for locking said curtain in operative position.

Signed by me at Ilion, New York, this 17th day of October, 1919.

ENOCH OHNSTRAND.