C. H. GUNN.

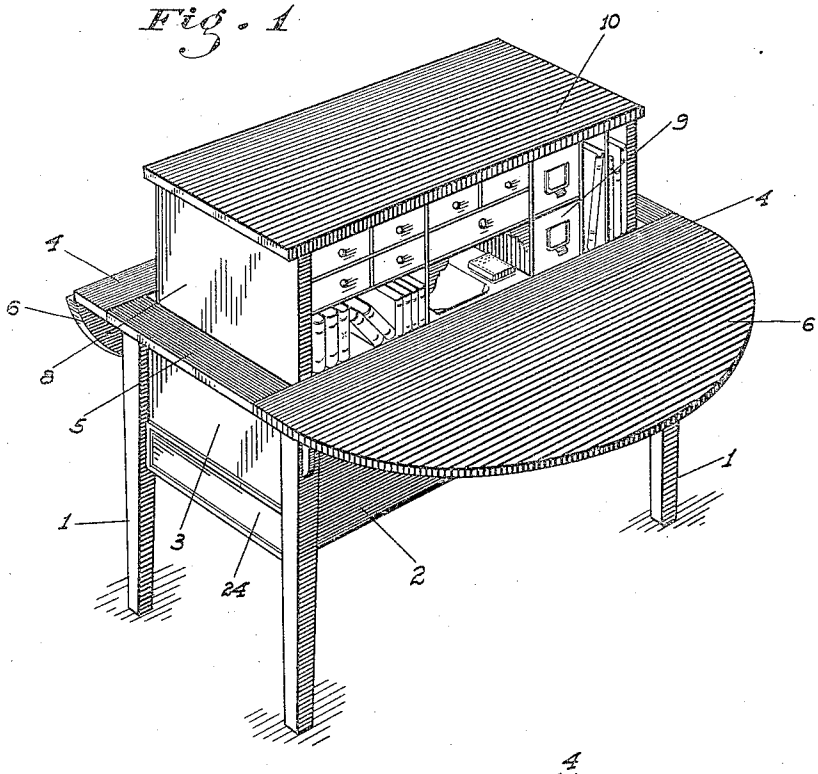
COMBINED TABLE AND BOOKCASE.

APPLICATION FILED MAY 16, 1921.

1,428,629. Patented Sept. 12, 1922.

2 SHEETS—SHEET 1.

Fig. 1



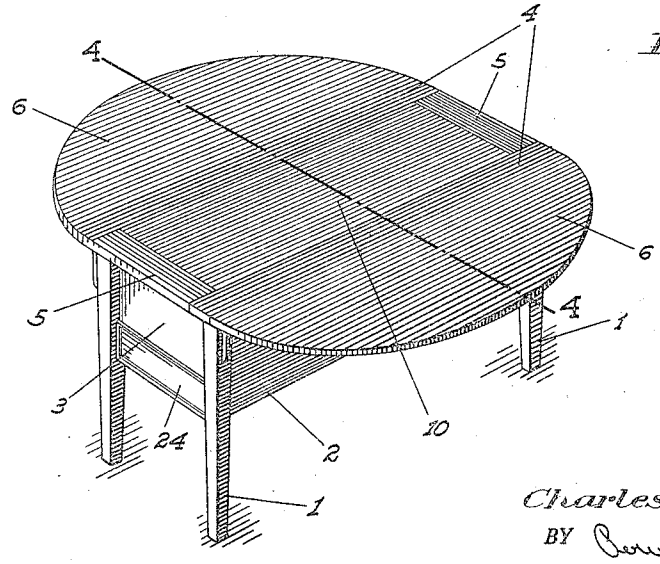


Fig. 2

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2 SHEETS—SHEET 2.

Fig. 3

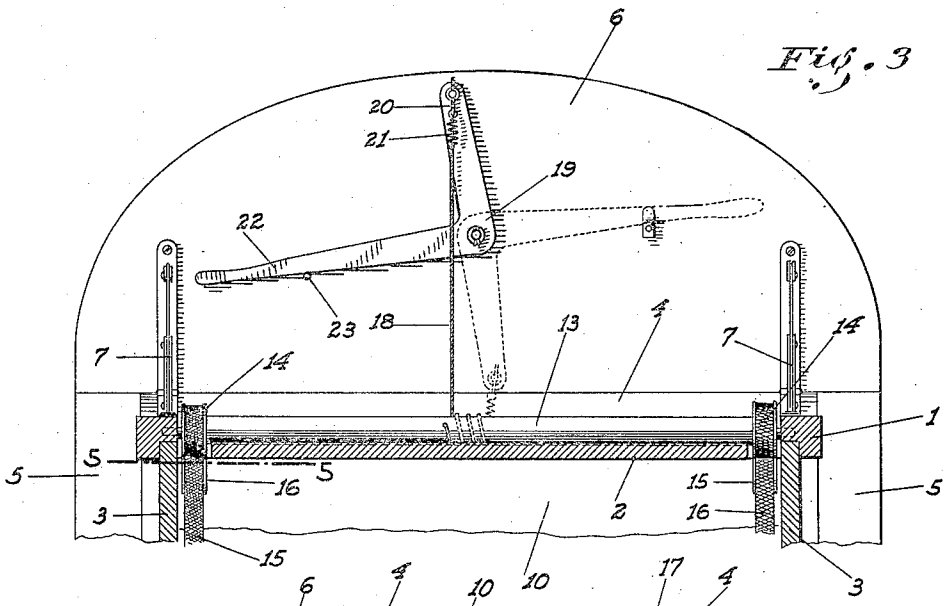


Fig. 4

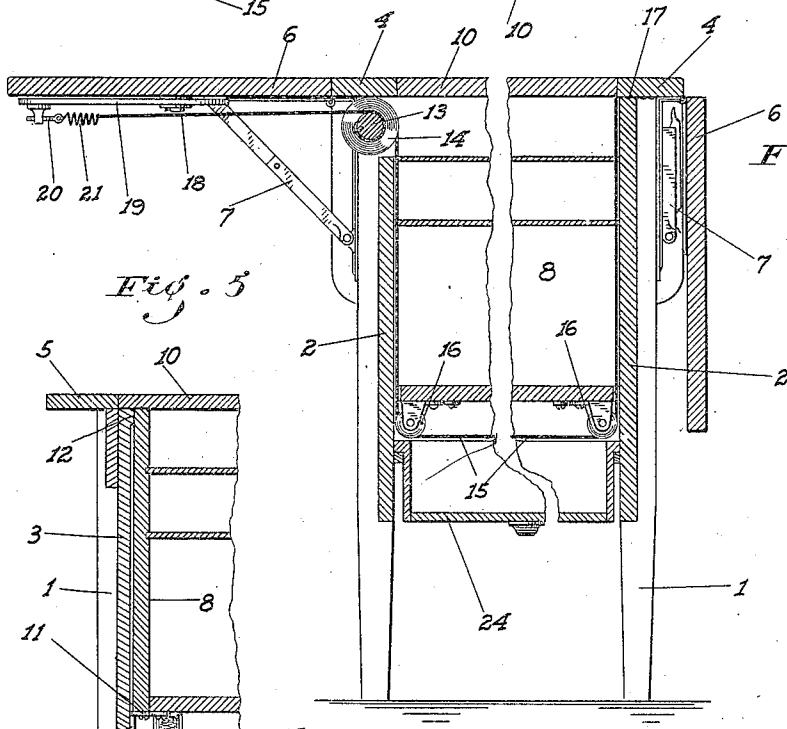


Fig. 5

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Patented Sept. 12, 1922. 1,428,629

UNITED STATES PATENT OFFICE.

CHARLES H. GUNN, OF OAKLAND, CALIFORNIA.

COMBINED TABLE AND BOOKCASE.

Application filed May 16, 1921. Serial No. 469,802.

To all whom it may concern:

Be it known that I, CHARLES H. GUNN, a citizen of the United States, residing at Oakland, county of Alameda, State of California, have invented certain new and useful Improvements in Combined Tables and Bookcases; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in furniture and particularly to a folding or collapsible article of furniture especially adapted for use in flats or apartments where space is limited and at a premium.

The principal object of my invention is to provide a combined table and bookcase, so arranged and constructed that the device may serve as an ordinary table capable of being extended to various sizes and provided with a bookcase and desk structure normally out of sight but arranged to be moved into view and to be then positioned within natural and easy reach of a person sitting at the table, so that the books, etc., carried therein may be readily handled, while at the same time a certain area of the table remains undisturbed if desired and may be used by the owner to place the books on, or to write letters, etc., especially if the movable structure is provided with draws, "pigeon holes," etc., and generally fitted up similar to roll-top and other forms of desks.

My device therefore is admirably adapted to serve not only as a library table combined with a bookcase, but as a desk also if desired, while at the same time, the normal setting of the device is such as to permit the table to be used for eating and similar purposes, since the table area is then entirely unobstructed.

As previously stated therefore, my device is particularly suited for use in cramped quarters, since while combining and having the advantages as above stated, it takes up no more room, or even less, than the average table.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Fig. 1 is a perspective elevation of the table, showing the bookcase or desk portion in view and positioned to be used.

Fig. 2 is a perspective view showing the bookcase member out of sight, and the table extended to its full size.

Fig. 3 is a bottom plan view of a portion of the device.

Fig. 4 is a cross section taken on a line 4—4 of Fig. 2.

Fig. 5 is a fragmentary section at one end taken on a line 5—5 of Fig. 3.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes the supporting legs to which are fitted side and end-boards 2 and 3 respectively, thus enclosing an area of a certain size and preferably rectangular in shape.

This area is outlined and enclosed on top of the legs by horizontal side and end strips 4 and 5, of suitable width, which form part of the table top.

The members 1, 3, 4, 4, and 5 are secured rigidly together, and form the permanent or fixed framework of the device.

Table top members 6 are secured to the side strips 4, being arranged to lie horizontally on a level therewith, or to fold down vertically, being preferably secured to said strips 4 by means of hinged and collapsible brackets 7 of a self-locking type, such as are now on the market, either one or both of the tops 6 being adapted to be raised at a time.

Slidably mounted in the central enclosed area for vertical movement is a movable structure 8, fitted up as at 9 with shelves, drawers and the like to serve as a bookcase, cabinet or similar repository.

When in its lowermost position, the top 10 of this structure lies flush with the table tops, so as to serve as a part of the table area, as shown in Fig. 2.

Movement of said structure in either direction is limited by means of lugs 11 thereon adapted to abut against stops 12 on the end boards 3.

Movement is imparted to said structure by means of the following mechanism:—

Turnably and permanently mounted un-

der one of the top strips 4 is a shaft 13 on each end of which are drums 14 on which are secured the ends of broad flexible but non-elastic bands 15 which extend downwardly inside the boards 2 and across and under the bookcase structure around rollers 16 on the latter, said bands then extending upwardly inside the other board 2 to the top thereof, the ends being rigidly fixed at that point, as shown at 17.

It will therefore be evident that on winding the bands of the drums, the bookcase structure will be raised, until the lugs 11 strike the upper blocks 12, when the bands, from their fixed points on one side of the permanent frame to the drums on the other, will lie substantially horizontal.

Rotative movement is imparted to the shaft 13 by means of a cable 18 fixed thereto and adapted to be wound thereon and extending to the outer end of one arm of a bellcrank 19 pivotally mounted under the adjacent one of the table tops 6, the latter end of said cable being provided with an adjustment means 20 and with a spring 21 interposed therein, so that the tension on the cable may be maintained.

The other arm of the bellcrank is shaped to serve as a handle 22, and when the bookcase is either raised or lowered to its full extent the bellcrank is entirely concealed under the top 6.

The bellcrank is pivoted relative to the connection of the cable therewith and with the shaft that when the cable is unwound, and the bookcase then raised, the outer end of the cable will be slightly beyond a "dead center" point, so that the handle 22 will then abut against a suitable stop 23 on the top 6, and will remain thereagainst without any possibility of the bookcase lowering of its own weight.

This weight, which is of course due to gravity, is employed both to lower the bookcase and to wind the cable on the shaft, a rotative movement being imparted to said shaft as soon as the handle 22 is moved to throw the cable past dead center in the opposite direction. This allows the full weight of the bookcase, which always rests on the bands 15 when raised, to cause the latter to unwind on the drums, causing the latter to rotate and at the same time winding the cable on the shaft. The handle 22 will then lie opposite its former position, as shown in dotted lines in Fig. 3.

To raise the bookcase, the handle is merely pulled toward the outer edge of the top 6, thus causing the cable to be unwound from the shaft while rotating the latter, and winding the bands on the drums at the same time.

To raise and lower the bookcase, the adjacent top 6 must of course first be raised, but when once the bookcase is in either position, the top may be again lowered if desired, since the straight-line distance from the drum to the outer end of the cable is about the same whether the top 6 is raised or lowered.

The end boards 3 are preferably somewhat shorter as to depth than the side boards 2, so that drawers 24, whose depth is equal to the difference in depth of the side and end boards, may be slidably mounted at the ends between the side boards.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail my be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

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

1. A combined table and cabinet comprising a permanent table portion provided with an enlarged opening, a cabinet slidably mounted in said openings for vertical movement therethrough, a folding table-top member hinged to the permanent table portion, raising mechanism for the cabinet, and actuating means for said mechanism mounted on the under side of the folding table member, said means being actuable at will after the folding member has been raised to an operative position.

2. A combined table and cabinet comprising a framework enclosing a central horizontal area, a table portion built with the frame, a cabinet structure slidably mounted in said area for vertical movement, flexible bands fixed at one end to the framework and passing under the movable member, rotatable drums on the framework and to which the other ends of the bands are secured, folding table members hinged to the framework along the outer edges thereof, and means for controlling the rotation of the drums mounted on the folding table member adjacent the drums and under said table member.

3. A combined table and cabinet comprising a framework enclosing a central horizontal area; a table portion built with the frame, a cabinet structure slidably mounted in said area for vertical movement, flexible bands fixed at one end to the framework and passing under the movable member, rotatable drums on the framework and to which the other ends of the bands are secured, a shaft connecting the drums, a cable adapted to be wound on the shaft in the opposite direction form the winding of the bands on the drums, and a handle member operatively connected to one end of the cable and mounted on the table structure.

4. A combined table and cabinet comprising a framework enclosing a central horizontal area, a table portion built with the frame, a cabinet structure slidably mounted in said area for vertical movement, flexible bands fixed at one end to the framework and passing under the movable member, rotative drums on the framework and to which the other ends of the bands are secured, folding table members hinged to the framework along the outer edges thereof, a shaft connecting the drums, a cable adapted to be wound on the shaft with the unwinding of the bands from the drums, and a lever member pivotally mounted on the under side of the adjacent one of the folding table members, one end of said lever serving as a handle and the other end being operatively connected to the free end of the cable.

In testimony whereof I affix my signature.

CHARLES H. GUNN.