My invention relates to a utility art cabinet designed for use by artists, draftsmen, engineers, designers, students and many others in the office, home, studio or factory.

It is among the objects of my invention to provide a cabinet which is a complete self-contained unit providing a drawing board which is adjustable to any desired height or angle, integral lighting and storage space for all materials.

It is a further object of my invention to provide such a cabinet which is compact and collapsible so as to occupy a minimum amount of space when not in use.

My invention also comprises such other objects, advantages and capabilities as will later more fully appear and which are inherently possessed by my invention.

While I have shown in the accompanying drawings a preferred embodiment of my invention, yet it is to be understood that the same is susceptible of modification and change without departing from the spirit of my invention.

Referring to the drawings, Fig. 1 is a front perspective view of the outside of my cabinet; Fig. 2 is a front perspective view of the interior of both sections of my cabinet, when opened or partly closed; Fig. 3 is a front perspective view of both sections of my cabinet when in use; Fig. 4 is a top plan view on a reduced scale of my cabinet in use; Fig. 5 is an enlarged detailed view of the sprocket assembly; Fig. 6 is an enlarged broken view of the track; Fig. 7 is a vertical sectional view of my cabinet, showing adjustments of the drawing board as to height in dotted lines; Fig. 8 is the same, showing adjustments as to angle; Fig. 9 is an enlarged top plan view of the light bracket, showing its movement outside the cabinet in dotted lines and Fig. 10 is an enlarged sectional view of the track and pin assembly.

A preferred embodiment of my invention comprises a cabinet 10, which is preferably made of walnut or mahogany with a furniture finish.

Cabinet 10 is divided into two sections, a stationary section 11 and a roll-open section 12, which are held together by hinges extending vertically for substantially the full length of cabinet 10. Although the dimensions may vary, I prefer to have cabinet 10 about 49 inches long, 34 inches wide and 16½ inches deep. In this size, my cabinet occupies less than 4 square feet of floor space when in closed position. The two sections of my cabinet 10 are held together by a lock 13, which has a curved or hook shaped fastening member which helps to pull the sections together to facilitate the closing of the cabinet.

Roll-open section 12 of cabinet 10 is provided at its base with a circular caster 14. When my cabinet is to be used, lock 13 is released and roll-open section 12 is rolled away from stationary section 11 on caster 14, pivoting on the hinge which connects it to stationary section 11. Caster 14 travels in an arcuate path and is designed to permit my cabinet to be opened and closed repeatedly without damage to the flooring or carpet on which the cabinet stands.

When in open position, roll-open section 12 of cabinet 10 provides a top shelf 15, which is adapted to hold books, paper, radio, clock, filing cases, artists' supplies or any other material desired by the user. Directly beneath top shelf 15 are two shallow drawers 16 and 17, each of which extends for half of the width of roll-open section 12. Drawers 16 and 17 extend for the full depth of roll-open section 12 and are slidable mounted therein. They are adapted to hold paper, pens, ink and any miscellaneous supplies.

Beneath drawers 16 and 17 is a middle shelf 18, which is provided with a front drop-shelf or taboret 19, which is pivoted attached to middle shelf 18. When my cabinet is closed, taboret 19 is pivoted upwardly to extend diagonally across the open front of middle shelf 18. When my cabinet is in use, taboret 19 folds down to a horizontal position to form an outward extension of middle shelf 18 and is adapted to hold ink, paints, coloring materials, papers or anything else which the user desires to keep handy.

Middle shelf 18 is provided adjacent its center position with a pair of circular openings 20. Directly beneath openings 20 is a pan shelf 21. Circular openings 20 are designed to hold water jars and pan shelf 21 is adapted to hold a small flat pan beneath the jars to catch any spillage or overflow. Water jars placed in openings 20 may be left open when the cabinet is closed without damage to the contents of the cabinet.

The bottom of roll-open section 12 comprises a bottom shelf 22, which is adapted to hold stacks of paper or supplies.

The stationary section 11 of my cabinet 10 comprises a base 23, which extends outwardly from the bottom of stationary section 11 and fits beneath bottom shelf 22 of roll-open section 12 when my cabinet is closed.

Mounted within stationary section 11 is a collapsible drawing board 24, which is preferably 30 x 36 inches and which is also adaptable for use as a utility table or desk. Drawing board 24
is so mounted in stationary section 11 that it may be raised to any desired height and positioned at any desired angle as described later herein.

Positioned along the inside of the side walls of stationary section 11 are a pair of vertical tracks 25 and 26 which are U-shaped with their closed portions outward. Tracks 25 and 26 are provided with a plurality of circular openings which extend for their entire length and which are preferably spaced about two inches apart.

Attached to the under-surface of drawing board 24 is a metal plate 21, which has a pair of upright members 28 and 29 at its opposite ends extending outwardly from drawing board 24. A pair of hollow metal tubes 30 and 31 have their upper ends flattened and positioned against the inside of upright members 28 and 29, where they are held by a metal rod 33, which extends across plate 27 and by bolts 32 and 34.

Metal tubes 30 and 31 are curved and have their opposite ends attached to sleeves 70, the longitudinal axes of said sleeves perpendicular to the longitudinal axes of said tubes, said sleeves telescopically mounted within a lower channel member 35 adjacent the opposite ends thereof.

Lower channel member 35 is preferably formed of U-shaped metallic material, with its upper surface open. Mounted within the center of lower channel member 35 is a double pulley 36. Attached to the ends of lower channel member 35 are a pair of elevator shoes 37 and 38, which have hollowed end portions adapted to fit around tracks 25 and 26 and which have openings correspondingly in size to the openings in said tracks.

Positioned freely within each of the ends of lower channel member 35 is a movable pin 39, which has a beveled end adapted to extend through the openings in elevator shoes 37 and 38 and into the openings in tracks 25 and 26. The other end of each pin is slidably mounted in sleeve 70.

Mounted within each end of lower channel member 35 is an inner coil spring 40, which has one end bearing against pin 39 and the other end bearing against a stop member 41, which is held by a crimp in lower channel member 35. Inner coil spring 40 normally exerts outward pressure upon pin 39 to cause it to extend into a selected opening in track 25 or 26.

Positioned on the outside of pin 39 between the elevator shoe 37 or 38 and metal tube 30 or 31 is an outer coil spring 42. Outer coil spring 42 exerts outward pressure upon elevator shoe 37 or 38, causing it to bear firmly against track 25 or 26.

Attached to one edge of drawing board 24 is an upper channel member 43, a pair of sleeves 71 are attached to one edge of said drawing board 24 with the longitudinal axes of said sleeves parallel to said edge. Said sleeves are telescopically mounted adjacent the end of said upper channel member 43. A pair of spaced shoes pivotally engages said sleeves 71.

Extending between metal tubes 30 and 31 and attached thereto is a metal cross tube 44, which is positioned beneath drawing board 24. Pivotedly mounted on cross tube 44 at a point past its center is an angle control rod 45. Attached to angle control rod 45 at a point along the horizontal center of drawing board 24 are a pair of control wires 46 and 47. Control wires 46 and 47 extend downwardly to pulley 38 and around it to the pins 39 which are mounted in each end of lower channel member 35.

The ends of control wires 46 and 47 are attached to pins 39, so that vertically upward movement of the wire is translated through pulley 38 into horizontal movement of pins 39 against the pressure of inner coil springs 48, causing pins 39 to be pulled out of their openings in tracks 25 and 26. When pins 39 are so removed, elevator shoes 37 and 38 are free to move up and down tracks 25 and 26, to change the positioning of lower channel member 35.

This vertically upward movement of control wires 46 and 47 is accomplished by the upward movement of angle control rod 45. A bracket 48 is mounted on metal tube 30 and cross tube 44 over angle control rod 45 to limit the range of movement of angle control rod 45 and to hold it in place. Pivotedly mounted on metal plate 27 at a point past its center is a height control rod 49. A pair of control wires 50 and 51 are attached to said rod at a point along the horizontal center of drawing board 24. Control wires 50 and 51 extend to the pulley and pins mounted in upper channel member 43 and permit the movement of upper channel member 43 along tracks 25 and 26.

A bracket 52 is mounted on the lower surface of drawing board 24 to limit the movement of height control rod 49 and to hold it in place. Attached to each of the top pair of elevator shoes 51 and 52 is a chain 53, which extends to the top of stationary section 11. Chain 53 passes over a sprocket 54, which is fixedly mounted on a rod 55, which extends across the top of stationary section 11 and is rotatably mounted therein. Rod 55 has a sprocket 54 at each end thereof for each of the two chains 53.

The opposite end of chain 53 is attached to a steel tape 56 which extends to a spring balance 57, mounted in the lower corner of stationary section 11. Spring balance 57 provides a counterbalance which facilitates the movement of my drawing board 24 and acts as an equalizer to keep drawing board 24 level at all times.

Mounted at the top corner of stationary section 11 is a light holder 58, which is rigidly attached to the inside of the cabinet. Rotatably mounted on light holder 58 is a pivot arm 59, to which is attached to the extension arm 60 of an electric light 61. Pivot arm 59 may be rotated for substantially 90 degrees so that drawing board 24 can be moved in and out of its folded position within stationary member 11.

Two additional extension arms 62 and 63 are provided with pivots at each end, so that electrical light 61 may be pivoted into any desired position with respect to drawing board 24. Electrical wiring leads from electric light 61 through its extension arms and cut a cord which extends outwardly from cabinet 10 to a suitable source of electrical supply.

When my cabinet 10 is closed, electric light 61 and its extension arms lie flat against the under-surface of drawing board 24 within stationary section 11.

In order to provide storage space for large flat pieces of paper or drawing material, I provide two storage compartments within stationary section 11 behind drawing board 24. A shelf 64 extends horizontally across the center of stationary section 11 behind drawing board 24. Drawing materials may be placed in the upper part of stationary section 11, resting on and behind shelf 64 or in the lower part resting on the bottom of stationary section 11. A pair of small coil springs
65 and 66 extend across stationary section 11 to hold the drawing materials and paper in place. In use, my cabinet is normally kept in closed position as shown in Fig. 1. It is an attractive piece of furniture which does not detract from the appearance of a living room, bedroom, office, store or any other place where it may be kept.

When my cabinet is to be used, lock 13 is released and roll-away section 12 is rolled on caster 14 away from stationary section 11 somewhat more than 90 degrees as shown in Fig. 2.

Light 51 is then swung out of stationary section 11. Angle control rod 45 is then lifted vertically to permit drawing board 24 to be moved out of stationary section 11 with the assistance of spring balance 57. Drawing board 24 is moved until it is at the desired angle for use. Height control rod 43 may then be used to adjust the height of drawing board 24 to the desired position.

When angle control rod 45 and height control rod 49 are used, they release pins 39 at each end of lower channel member 35 and upper channel member 43 from the openings in tracks 25 and 26. The elevator shoes are then free to travel up or down the tracks 25 and 26 until control rods 45 and 49 are released, at which time inner coil springs 48 force the pins 39 into the nearest openings in tracks 25 and 26. Each of the control rods may be operated independently of the other.

The spring balances 51 and the chain and sprocket assembly assure that both of the top elevator shoes travel together and that the upper channel member 43 remains level. A similar construction may also be provided for lower channel member 35, if desired.

It should be noted that drawing board 24 may be adjusted to any height above the minimum required by the length of metal tubes 30 and 31. Drawing board 24 may also be adjusted to almost any angle, its variations as to height and angle being limited only by the openings in tracks 25 and 26. Some of the possible variations in its movement and positioning are illustrated in Figs. 7 and 8 of the drawings.

When drawing board 24 has been adjusted to the desired position, angle control rod 45 and height control rod 49 are released and the pins 39 snap firmly into place in the openings in tracks 25 and 26. This provides a firm and positive lock which can withstand any pressure normally exerted on drawing board 24 and which requires no adjustment of thumb screws or other mechanisms.

Light 61 may then be swung into desired position and taboret 19 lowered. My cabinet is then in the condition shown in Figs. 3 and 4. The drawing board 24 is before the user at the desired height and angle, the light 61 is positioned above it to provide illumination. Taboret 19 is directly adjacent drawing board 24, with its front edge extending parallel to the side edge of drawing board 24 and shelves 18, 19 and 22 and drawers 16 and 17 are all at the proper height and the user.

When the use of my cabinet is completed, it may be quickly and easily restored to closed position. Work in process may be kept behind drawing board 24. When my cabinet is open, it provides a complete studio or working place for the user. When closed, it is an attractive piece of furniture which requires a minimum of space and holds all of the user's materials without disturbance.

The variety of uses to which my cabinet may be put is almost infinite. Drawing board 24 may, for example, be used as a drawing board, easel, desk, work bench, table, game board, typewriter desk, platform or display stand. My cabinet may be used any place where the occasional use of such a device is desired. Security may be provided by adding locking means to hold the two sections of my cabinet together.

Having thus described by invention, I claim:

1. A utility art cabinet having a stationary section and a movable section pivotally attached to said stationary section, a pair of vertical tracks positioned within the sides of said stationary section and extending for substantially the entire height thereof, said tracks having a plurality of spaced openings therein, a drawing board mounted within said stationary section, a metal plate attached to the under-surface of said drawing board, a pair of metal tubes pivotally attached at one end to said metal plate, sleeves attached to the other end of said tubes, the longitudinal axes of said sleeves perpendicular to the longitudinal axes of said tubes, a lower channel member, said sleeves telescopically and slidably mounted within said lower channel member adjacent the opposite ends thereof, spaced elevator shoes adapted to fit around said tracks, each of said shoes having spaced opening corresponding with the openings in said tracks, movable pins each having a beveled end adapted to extend through the openings of said elevator shoes and said tracks the other end of said movable pins slidably mounted in said sleeves, an inner coil spring positioned behind each of said pins and adapted to exert outward pressure on said pins, an outer coil spring positioned behind each elevator shoe and adapted to exert outward pressure to hold the elevator shoe against the track, a pair of said sleeves attached on one edge of said drawing board with the longitudinal axes of said sleeves parallel to said edge an upper channel member said sleeves telescopically mounted adjacent the ends of said upper channel member, a pair of spaced shoes pivotally engaging said sleeves and adapted to fit around said tracks, a cross tube extending between and attached to said tubes, a control rod pivotally mounted on said cross tube and having a pair of control wires extending through pulleys in said lower channel members to the pins mounted in the ends of said lower channel members, and counterbalance means attached to said drawing board.

References Cited in the file of this patent

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>174,404</td>
<td>Atkinson</td>
<td>Mar. 7, 1876</td>
</tr>
<tr>
<td>1,240,997</td>
<td>Moore</td>
<td>Sept. 25, 1917</td>
</tr>
<tr>
<td>1,729,003</td>
<td>Smith</td>
<td>Aug. 27, 1929</td>
</tr>
<tr>
<td>1,961,744</td>
<td>Clark</td>
<td>July 31, 1934</td>
</tr>
<tr>
<td>2,089,999</td>
<td>Greene</td>
<td>Aug. 17, 1937</td>
</tr>
<tr>
<td>2,238,266</td>
<td>Johnson</td>
<td>Apr. 15, 1941</td>
</tr>
</tbody>
</table>

FOREIGN PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>478,995</td>
<td>Great Britain</td>
<td>Jan. 29, 1938</td>
</tr>
</tbody>
</table>