R. C. BENDER.

ACCOUNT OR INDEX CABINET.

APPLICATION FILED MAR. 4, 1918.

1,279,969.

Patented Sept. 24, 1918.

4 SHEETS—SHEET 1.

Fig. 1

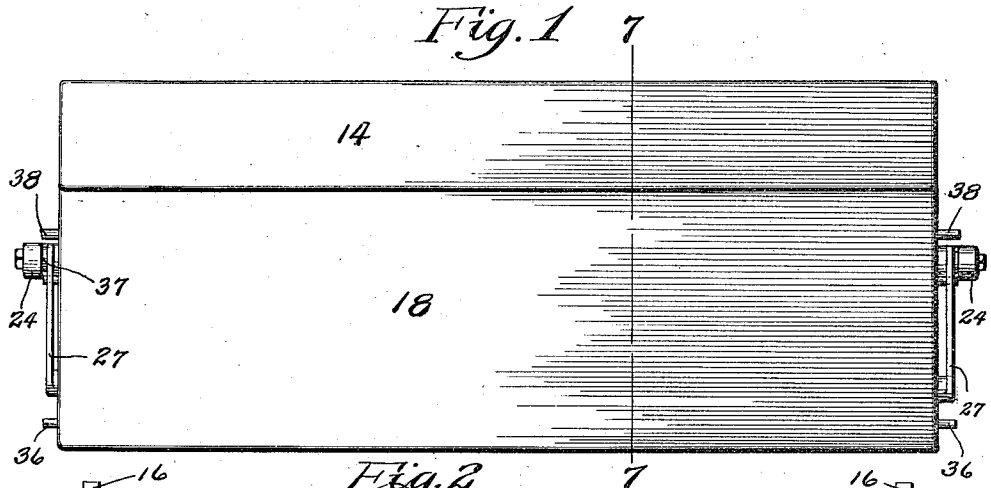
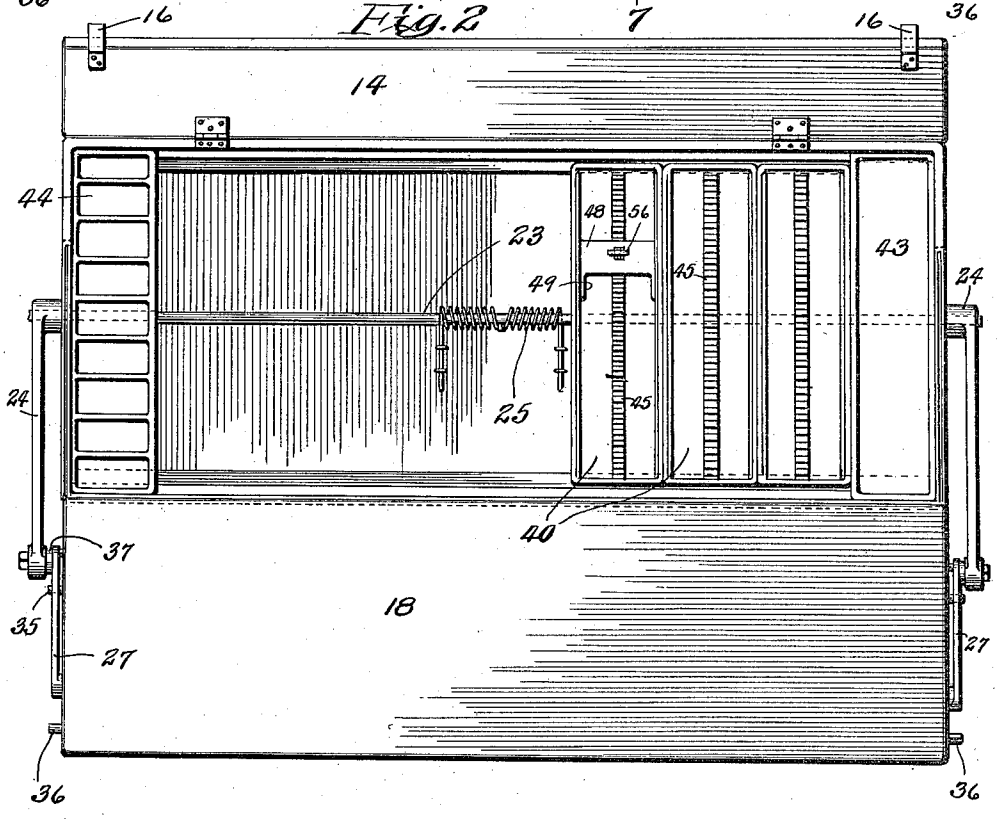


Fig. 2



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By F. W. Brownell, Atty.

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4 SHEETS—SHEET 2.

Fig. 3

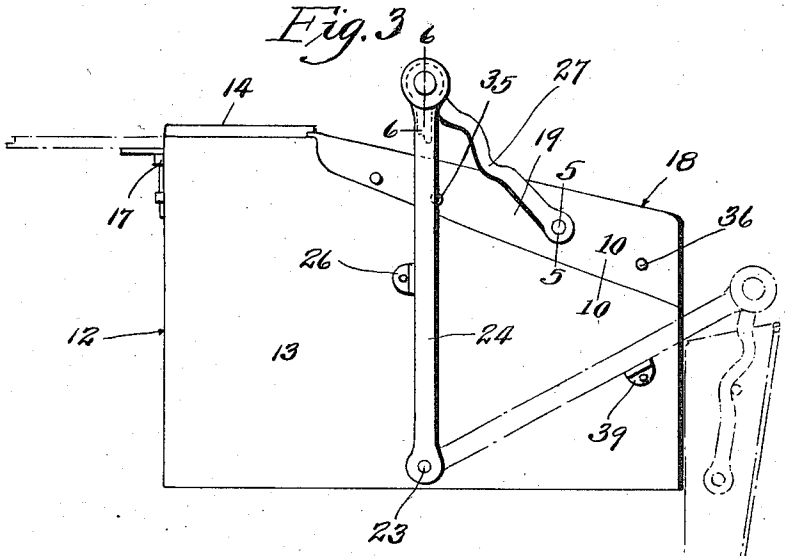


Fig. 4

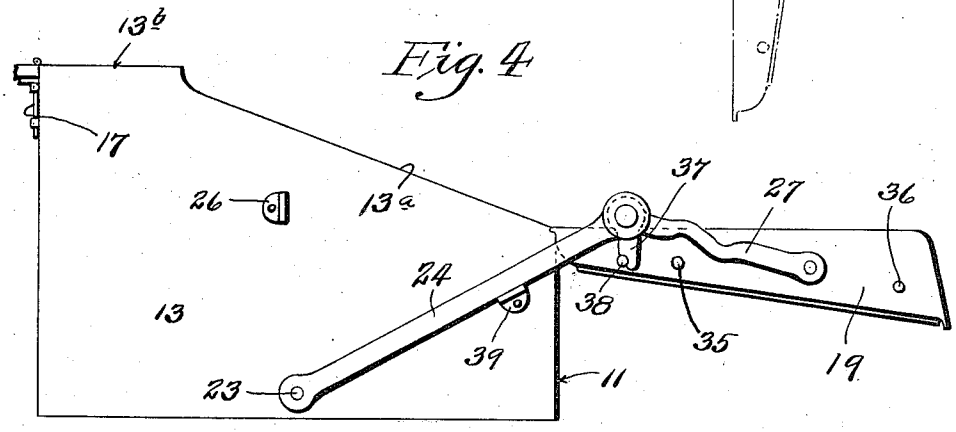


Fig. 5

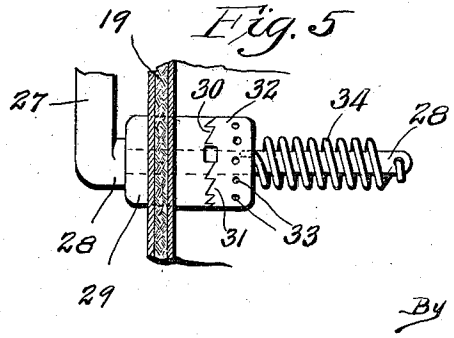
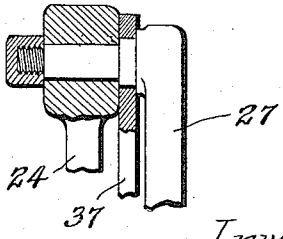


Fig. 6



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4 SHEETS—SHEET 3.

Fig. 7

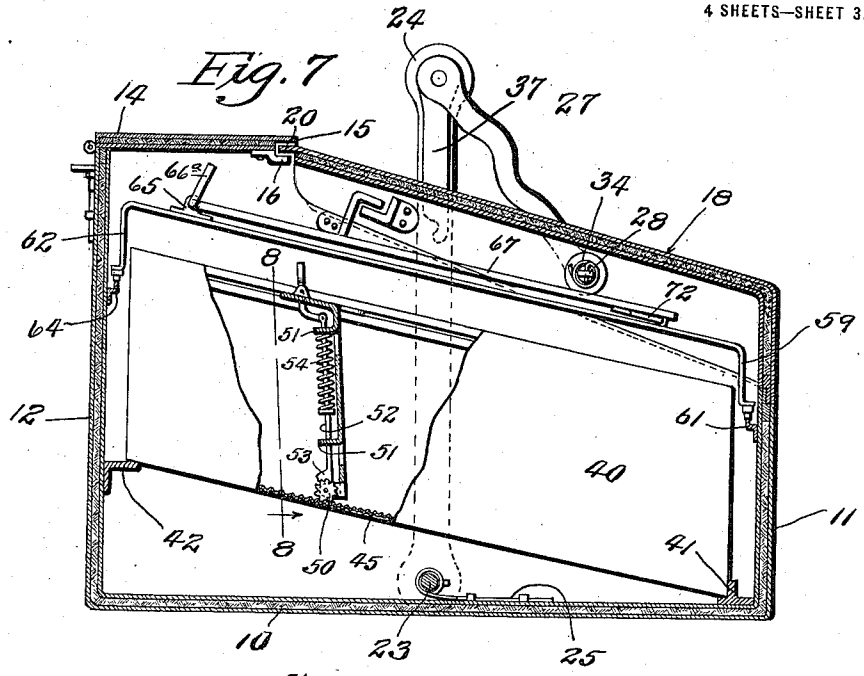


Fig. 8

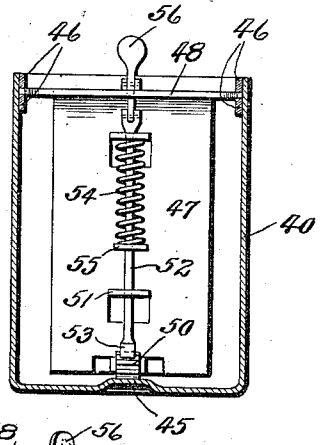


Fig. 10

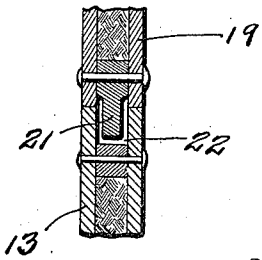


Fig. 9

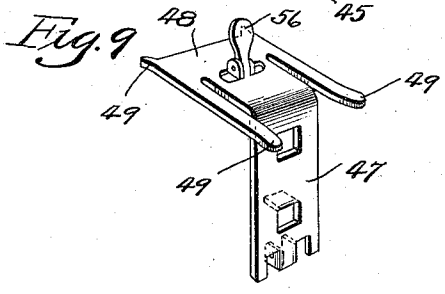
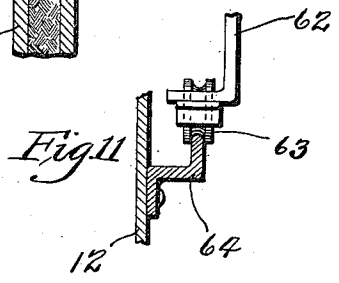


Fig. 11



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4 SHEETS—SHEET 4.

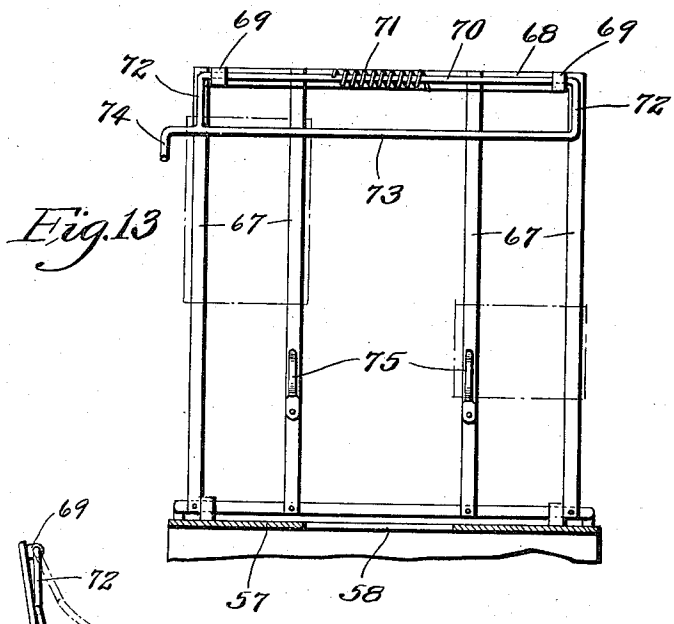


Fig. 13

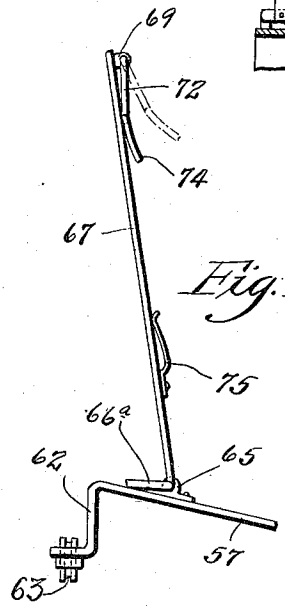
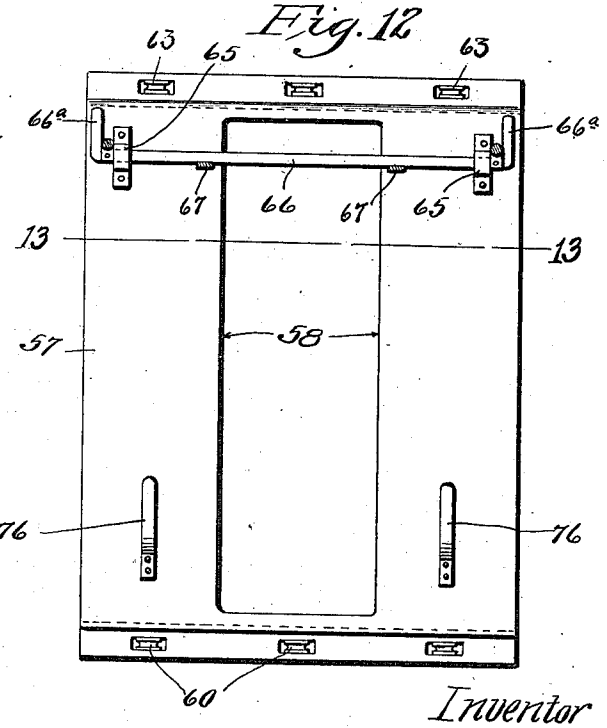


Fig. 14

Fig. 12



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UNITED STATES PATENT OFFICE.

ROBERT C. BENDER, OF ST. LOUIS, MISSOURI.

ACCOUNT OR INDEX CABINET.

1,279,969. Specification of Letters Patent. **Patented Sept. 24, 1918.**

Application filed March 4, 1918. Serial No. 220,222.

To all whom it may concern:

Be it known that I, ROBERT C. BENDER, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Account or Index Cabinets, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates generally to office furniture and more specifically to a cabinet for containing files, invoice holders, index cards, or the like, and said cabinet being essentially designed for facilitating the work of bookkeepers or persons handling the records of accounts of business houses.

The principal objects of my invention are, to provide a comparatively simple and inexpensive cabinet which is both fire and dust-proof when closed; to provide a cabinet having parts which serve as covers for the cabinet when closed, said parts capable of being swung into position to serve as table or desk tops upon which may be placed invoice holders, containers, cards and books utilized in connection with the cabinet and the records contained therein; to provide a cabinet with a series of adjustable and removable containers adapted to receive invoice holders, filing cards and the like; to equip the containers of the cabinet with readily adjustable follower plates; to arrange within the cabinet and above the containers a movable cover plate having a folding book or sheet holding rack; to provide a cabinet having a spring supported cover which can be easily and quickly shifted from closed to open position or vice versa; and further, to provide a cabinet which is very compact and at the same time has a relatively large capacity.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts, hereinafter more fully described and claimed and illustrated in the accompanying drawings in which—

Figure 1 is a top plan view of a cabinet constructed in accordance with my invention.

Fig. 2 is a top plan view of the cabinet with the covers thereof in open position.

Fig. 3 is an end elevational view of the cabinet with the covers in closed positions.

Fig. 4 is an end elevational view of the cabinet with the covers in open positions and serving as work supporting desk or table tops.

Fig. 5 is an enlarged detail section taken on the line 5—5 of Fig. 3.

Fig. 6 is an enlarged detail section taken approximately on the line 6—6 of Fig. 3.

Fig. 7 is an enlarged cross section taken approximately on the line 7—7 of Fig. 1.

Fig. 8 is an enlarged detail section taken approximately on the line 8—8 of Fig. 7.

Fig. 9 is a perspective view of one of the follower plates utilized in the containers within the cabinet.

Fig. 10 is an enlarged detail section taken approximately on the line 10—10 of Fig. 3.

Fig. 11 is an enlarged detail section showing a rolling support for the movable carrying frame utilized in the cabinet.

Fig. 12 is a plan view of the movable rack carrying frame.

Fig. 13 is a cross section taken approximately on the line 13—13 of Fig. 12 and showing the folding rack in its elevated position.

Fig. 14 is an elevational view of the rear end of the adjustable frame with the rack in elevated position.

As will be seen in the drawings, the main body of the cabinet is in the form of an elongated box-like structure, the same comprising a bottom 10, front wall 11, rear wall 12 and end walls 13. These walls and bottom are preferably constructed of inner and outer sections of sheet metal spaced apart and arranged substantially parallel with each other and the space between said sections being packed with asbestos, mineral wool or the like. The front wall 11 is not as high as the rear wall 12 and the side walls 13 are formed so that their upper edges are inclined from the top of said front wall 11 to points a short distance in front of rear wall 12. (See Fig. 4.) These inclined upper edges of the side walls are designated by the numeral 13^a and the straight upper edges of said end walls or the edges between the rear ends of inclined edges 13^a and rear wall 12 are designated by the numeral 13^b.

Hinged to the upper edge of the rear wall 12 is the rear end of a rear cover plate 14, the same being preferably formed of two sheets of metal with a layer of interposed mineral wool or the like and the front edge of this cover plate is provided with a lip or flange 15. Secured to the underside of this

cover plate and projecting forwardly beneath lip or flange 15 are retaining plates or fingers 16.

Secured to the upper portion of rear wall 12 are two or more inverted L-shaped brackets 17 which are adapted to maintain the cover plate 14 in a horizontal plane when it is swung into open position, as illustrated by dotted lines in Fig. 3.

The main cover 18 for the container or the cover which normally closes the opening between the front edge of cover plate 14 and the top of front wall 11 is preferably formed of two sections of sheet metal spaced apart and packed with mineral wool or the like and the ends of this main cover are bent into vertical planes to form comparatively narrow vertically disposed sections 19 which rest directly upon the inclined edges 13ª of the end walls 13.

The rear edge of the cover 18 is provided with a rearwardly projecting flange 20 which, when the covers 14 and 18 are in closed position, fits snugly within flange 15 and overlying the plates or fingers 16.

The lower edges of the end portions 19 of the main cover are provided with depending tongues 21 which, when said cover is closed, occupy grooves 22 formed in the inclined edges 13ª.

The front edge of main cover 18 is bent downward into a vertical plane and its lower edge rests directly upon the upper edge of front wall 11 and said meeting edges being preferably rabbeted in order to form a dust-proof joint.

Journaled in suitable bearings formed in the lower portions of end walls 13 immediately above bottom 10 and approximately halfway between front and rear walls 11 and 12 is a shaft 23 on the ends of which immediately outside end walls 13 are fixed arms 24 which normally occupy vertical positions as illustrated in Figs. 3 and 7.

Secured to a pin or projection near the center of shaft 23 is the center of a double torsional spring 25, the ends thereof being secured in any suitable manner to the bottom 10. This spring 25 normally resists a forward rotary motion of the shaft 23 and which motion is a result of the arms 24 swinging forward and downward from their normal vertical positions.

Secured to the outer faces of end walls 13 are small brackets 26 which perform the functions of stubs to limit the rearward swinging movement of the arms 24. Pivotally connected in any suitable manner to the upper ends of the arms 24 are relatively short links 27, the lower ends of which are provided with trunnions 28, the same projecting through bearings 29 formed in the depending end portions 19 of cover 18. The inner end of each bearing 29 is provided with a clutch face 30, preferably a series of ratchet teeth, and adapted to engage said clutch face is a corresponding clutch face 31 which is formed on the end of a collar 32, the latter being loosely mounted on trunnion 28. Formed in this collar 32 is a series of apertures 33 which are adapted to receive the end of a suitable tool utilized for rotating said collar on the trunnion.

Secured in any suitable manner to each collar 32 is one end of a torsional spring 34, the same being arranged on the corresponding trunnion and the other end of this spring being secured to said trunnion in any suitable manner. It will be understood that in rotating collar 32 in one direction or the other, the tension of spring 34 may be regulated.

Projecting outwardly from each end portion 19 of cover 18 and on opposite ends of each bearing 29 are stop pins 35 and 36 against which the corresponding link 27 is adapted to engage as the cover 18 is shifted from one position to another.

Pivotally secured to the upper end of each arm 24 and preferably between said arm and the corresponding link 27 is a relatively short dog or detent 37, the lower end of which is notched so as to engage a stop pin 38, the latter projecting outwardly from the end portion 19 of cover 18. These dogs or detents engage the pins 38 only when cover 18 is swung outward into position in front of the body of the cabinet as illustrated in Fig. 4. When the cover is thus positioned, it serves as a work-table in that it provides a substantially flat surface on which books, invoice holders, bills and the like may be temporarily placed.

Secured to the ends 13 at points near the front wall 11 of the cabinet are outwardly projecting brackets 39 which perform the functions of stops to limit the downward swinging movement of the arms 24. (See Figs. 3 and 4.)

The containers 40 for the invoice holders, index cards or the like are preferably formed of sheet metal and are open at their tops. These containers are removably and interchangeably positioned within the body of the cabinet, and their front lower ends rest upon a suitable supporting rail 41, which latter is positioned on the bottom 10 immediately adjacent the front wall 11. The rear ends of the containers rest on a rail 42 which is secured to rear wall 12 a short distance above bottom 10 and owing to the relative positions of the rails 41 and 42, the containers 40 occupy inclined positions with their rear ends elevated.

Removably positioned on the rails 41 and 42 and normally located directly against the righthand end wall of the cabinet is a container 43 which is adapted to hold index cards or heading cards for the invoice holders, and positioned in the opposite end

of the cabinet and immediately adjacent the lefthand end wall 13 is a container 44, the same being sub-divided into compartments which are adapted to receive various types of index tags and the like which are utilized in connection with invoice holders, card systems and the like.

The central portion of the bottom of each container 40 is pressed to form a longitudinally disposed row of teeth or corrugations 45, the same being adapted to be engaged by a pinion carried by an adjustable follower plate. Secured to the upper portions of the side walls of each container and on the inner faces thereof are parallel strips 46, the same forming guides for parts carried by the follower plate. Each follower plate 47 is composed of a substantially rectangular section of sheet metal, the upper portion 48 of which is bent into a plane substantially at right angles to the main body of the plate and formed on the side edges of this bent upper portion are fingers 49 which occupy and are adapted to traverse the grooves between the pairs of guide strips 46.

Journaled between a pair of ears pressed from the lower portion of plate 47 is a pinion 50 which meshes with the teeth or corrugations 45 formed in the bottom of the container 40 and arranged for sliding movement through ears 51 pressed rearwardly from the body of the plate 47 is a rod 52, the lower end of which is provided with one or more teeth 53 which are adapted to engage with the teeth of pinion 50. A compression spring 54 is arranged on this rod between one of the ears 51 and a collar 55, said spring normally exerting downward pressure to force the teeth 53 into engagement with the teeth of pinion 50.

Pivotally mounted on the rearwardly bent portion 48 of the follower plate is a small bell crank 56, the lower end of which is pivotally connected to the upper end of rod 52. Normally spring 54 holds rod 52 so that teeth 53 are in engagement with pinion 50, thereby locking the follower plate against movement in either direction and to release the parts so as to shift said plate, the upper end of bell crank 56 is moved rearwardly a slight distance, thereby elevating rod 52 and disengaging teeth 53 from pinion 50 and the follower plate can now be shifted in either direction.

Arranged to move longitudinally of the cabinet and in a plane immediately above the tops of the containers 40 is a frame or plate 57, preferably constructed of sheet metal and having a width substantially equal to the width of three of said containers 40. An opening 58 is formed in the center of this plate, said opening being approximately equal in width and length to the open upper end of one of the containers. The front end of this plate is bent downward to form a short vertically disposed leg 59 and mounted for rotation on the lower end of this leg is a series of grooved rollers 60 which travel directly upon rail 61, which latter is secured to the inner face of front wall 11 a short distance below the upper edge thereof. The rear end of this plate 57 is bent downward to form a short vertically disposed leg 62 and journaled on the lower end of the latter is a series of grooved rollers 63 which travel directly upon a rail 64, the latter being secured to the inner face of rear wall 12 at a point shortly below the upper edge thereof.

The rails 61 and 64 are located so that the body of plate 57 occupies an inclined plane substantially parallel with the plane occupied by the tops of the containers 40. Journaled in suitable bearings 65 which are arranged near the rear corners of plate 57 is a transversely disposed shaft 66, the ends of which are bent at right angles to the plane occupied by the body of said rod to form stops 66^a which are adapted to bear against the top face of the plate when shaft 66 is rocked to move the rack carried by said rod into a substantially vertical position.

Secured to rock shaft 66 are the ends of a series of small metal rails or strips 67, the opposite ends thereof being connected by a cross piece 68. Arranged to rock in bearings 69 on cross piece 68 is a shaft 70 upon the central portion of which is arranged a torsional spring 71 and extending at right angles from the ends of said shaft 70 are short arms 72, the same being connected to a cross rod 73, the latter being disposed substantially parallel to shaft 70. One end of this cross rod is provided with an outwardly projecting finger 74.

Secured to the lower portions of the central pair of rails or strips 67 are flat springs 75 which are adapted to grip cards or sheets of paper placed beneath them. Secured in any suitable manner to the face of plate 57 near the front end thereof are resilient retaining clips 76 which are for the purpose of holding cards or sheets of paper placed beneath them.

When my improved cabinet is closed and out of service, the various parts occupy the positions as illustrated in Figs. 1, 3 and 7. To open the cabinet, the operator manually engages the front portion of cover 18, preferably at the ends thereof, and pulls forwardly on the same, which action disengages flange 20 from its position beneath flange 15 and the entire cover can now be swung forwardly and downwardly during which movement said cover is supported by arms 24 and links 27. As the arms 24 thus swing forward, shaft 23 will be rocked forwardly, thereby storing power in torsional spring 25.

In order to swing the cover into an out-of-the-way position, the rear end thereof is depressed and swung downward past the upper edge of front wall 11 and as this downward swinging movement is continued, said cover will be shifted into a substantially vertical position immediately in front of and below the front wall 11 as shown by dotted lines in Fig. 3. When so positioned, the arms 24 will rest upon stop brackets 39 and links 27 will rest against stop pins 36 with the result that the cover 18 will be firmly held in its out-of-the-way position.

A reversal of the movements just described will necessarily reposition the cover plate on the front and side walls of the cabinet or in the position as shown by solid lines in Fig. 3, and as the torsional springs 34 are normally under tension, the return movement of the cover to normal position will be greatly facilitated for the tension of said springs 34 and the power stored in torsional spring 25 will coöperate to assist in lifting and repositioning the cover on the cabinet.

In the event that it is desired to utilize the cover as a desk or table when in open position, said cover is pulled horizontally outward during the opening movement and the rear portion of said cover is manipulated so that the flange 20 rests directly upon the upper edge of front wall 11 and when this has been accomplished, the dogs or pawls 37 are manipulated so that the notches in the lower ends thereof engage pins 38 and this provision, together with the engagement of the arms 24 on the stops 39, will maintain the cover in a substantially horizontal position in front of the body of the cabinet as illustrated in Fig. 4. When so positioned, books, invoice holders, invoice slips, index cards, or the like may be temporarily placed on the flat top surface of the cover with the result that the work of the bookkeeper or person having charge of the accounts is greatly facilitated.

The pins 35 projecting outwardly from the ends of the cover are for the purpose of limiting the upward swinging movement of the rear portion of the cover when the latter is elevated and repositioned upon the body of the cabinet.

As heretofore explained, the tension of the torsional springs 34 can be regulated by proper manipulation of the collars 32, which latter, when at rest, are interlocked with the bearings 29. If desired, rear cover 14 may be swung upwardly and thence rearwardly into a substantially horizontal plane as illustrated in Fig. 3 to form a shelf on which various articles associated with the cabinet may be placed when said cabinet is in use.

Invoice holders, index cards or the like are placed in upright positions in the containers 40 and are held in such positions by means of the follower plates 47 which latter can be readily adjusted backward or forward as heretofore described.

Plate 57 can be shifted lengthwise of the cabinet during which action the grooved wheels 60 and 63 traverse the rails 61 and 64. Opening 58 is adapted to coincide with the open top of one of the containers, and those portions of the plate to the sides of said openings mask or cover the two containers to the sides of the container beneath said opening 58, thereby providing an arrangement which is very convenient when a clerk or bookkeeper desires to work in a single compartment or container; for instance—in posting items or taking off records from all the cards or invoices positioned within a certain container, the operator can take out one card or container at a time and after taking off the necessary data, return said card or holder to the container without liability of mistake in getting the card or holder into the wrong container.

If desired, invoice slips, cards or the like may be temporarily placed beneath the resilient retaining members 76 and likewise, if desired, the rack which is hinged to plate 57 can be swung upward into the positions illustrated in Figs. 13 and 14 and a book or a number of sheets containing data can be positioned beneath the retaining device comprising the rods 70 and 73.

A cabinet of my improved construction is comparatively simple, can be readily opened or closed, provides a fire and dust-proof container for invoice holders, index cards and the like, and is particularly applicable for use in business houses where the keeping of records, involves the use of index cards, invoice slips, order sheets and the like.

It will be readily understood that minor changes in the size, form and construction of the various parts of my improved cabinet may be made and substituted for those herein shown and described, without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim:

1. The combination with a cabinet body, of a cover adapted to close a portion of the open top of said body, a shaft journaled in the lower portion of the cabinet, a torsional spring associated with said shaft, arms carried by said shaft, and links pivotally connected to said arms and to said cover.

2. The combination with a cabinet body, of a cover adapted to close a portion of the open top of said body, a shaft journaled in the lower portion of the cabinet, a torsional spring associated with said shaft, arms carried by said shaft, links pivotally connected to said arms and to said cover, and torsional springs associated with said links and cover.

3. The combination with a cabinet body,

of a cover adapted to close a portion of the top of said body, and pivotally connected links forming connections between the ends of said body and cover whereby the latter may be swung into a substantially horizontally disposed position in front of the body or swung into a substantially vertical position immediately against the front of said body.

4. The combination with a cabinet body, of a cover adapted to close a portion of the top of said body, pivotally connected links forming connections between the ends of said body and cover whereby the latter may be swung into a substantially horizontally disposed position in front of the body or swung into a substantially vertical position immediately against the front of said body, and resilient means for opposing the outward swinging movements of said links.

5. The combination with a cabinet body, of a cover adapted to close a portion of the open top of said body, a shaft journaled in said body, a torsional spring associated with said shaft, arms carried by said shaft, links pivotally connected to said arms and to the cover, supporting members pivotally connected to said links and arms, and means on the cover for engaging the lower ends of the supporting members when the cover is in open position in front of the cabinet body.

6. The combination with a cabinet body, of a cover adapted to close a portion of the top of said body, links connecting the ends of said body and cover whereby said cover may be swung into a substantially horizontal or a substantially vertical position in front of said body, and a cover hinged to the body and coöperating with said first mentioned cover to close the top of said body.

7. The combination with a cabinet body, of a cover adapted to close a portion of the open top of said body, a shaft journaled in said body, a torsional spring associated with said shaft, arms carried by said shaft, links pivotally connected to said arms and to the cover, supporting members pivotally connected to said links and arms, means on the cover for engaging the lower ends of the supporting members when the cover is in open position in front of the cabinet body, and means on the ends of the cover for limiting the swinging movement thereof relative to said links.

8. A cabinet comprising a substantially box-shaped body, a hinged cover adapted to normally close the rear portion of the open top of said body, a cover adapted to normally close the front portion of the open top of said body, and associated pairs of arms and links forming a connection between the front cover and body whereby said front cover may be swung into horizontal or vertical positions immediately in front of the cabinet body.

9. A cabinet of the class described comprising a substantially box-shaped body, a series of containers removably and interchangeably positioned in said cabinet body, a plate arranged to move lengthwise within the body over the tops of the containers, and said plate being provided with an opening which is approximately equal in size to the opening or chamber in one of the containers.

10. A cabinet of the class described comprising a substantially box-shaped body, a series of containers removably and interchangeably positioned in said cabinet body, a plate arranged to move lengthwise within the body over the tops of the containers, said plate being provided with an opening which is approximately equal in size to the opening or chamber in one of the containers, and a folding rack carried by said plate.

In testimony whereof I hereunto affix my signature this 28th day of February, 1918.

ROBT. C. BENDER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."