A. L. JAYNES.

CARD INDEX CABINET.

APPLICATION FILED SEPT. 2, 1921.

1,407,656.

Patented Feb. 21, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

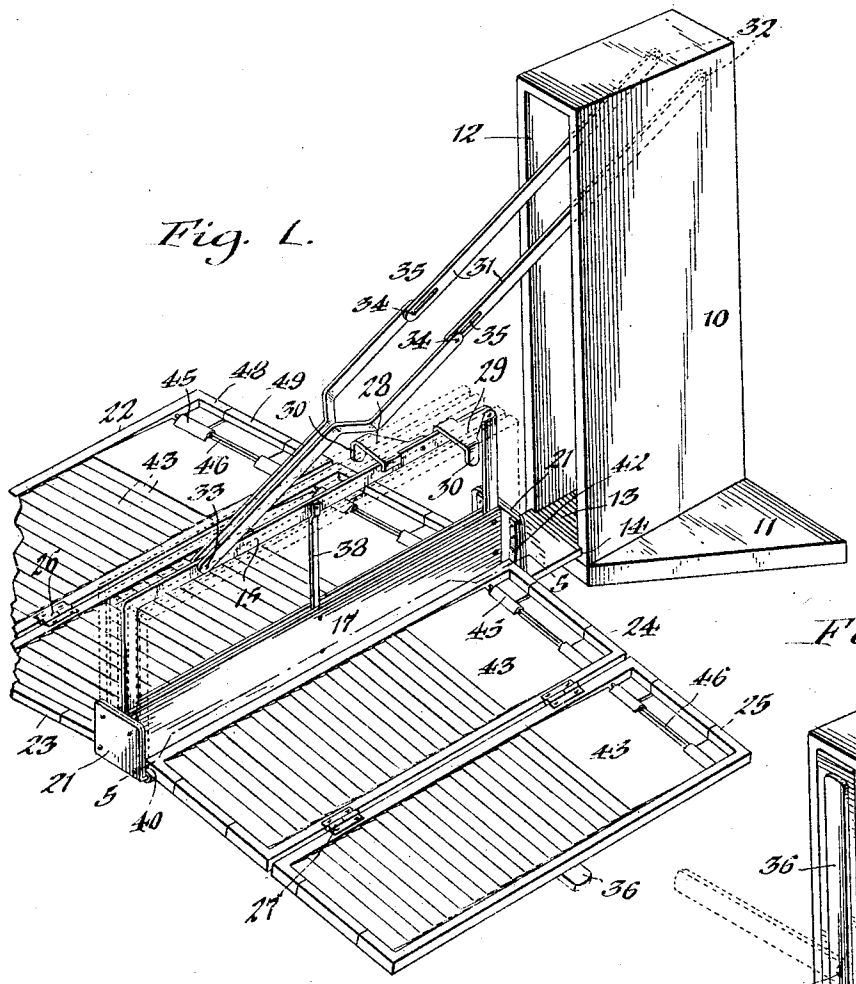


Fig. 2.

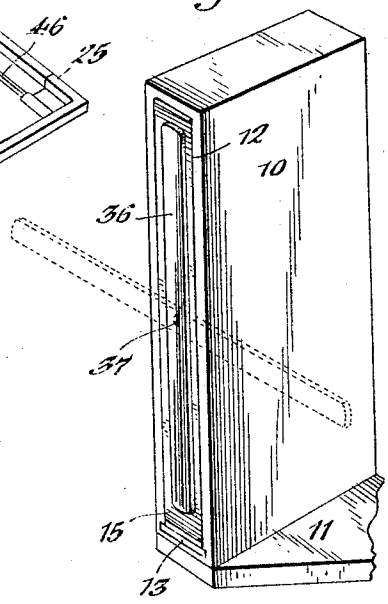
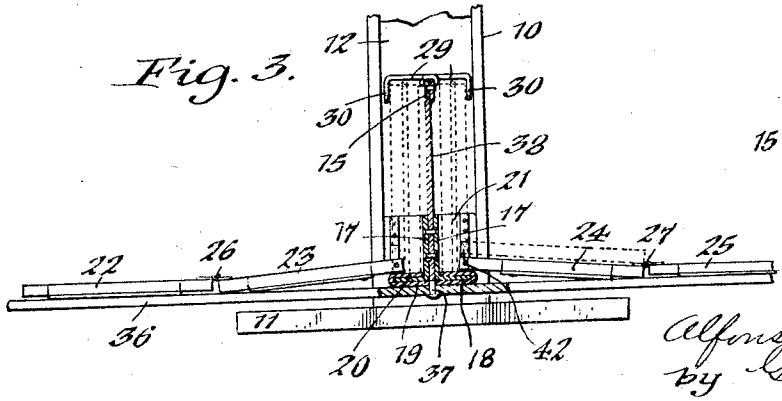


Fig. 3.



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Fig. 4.

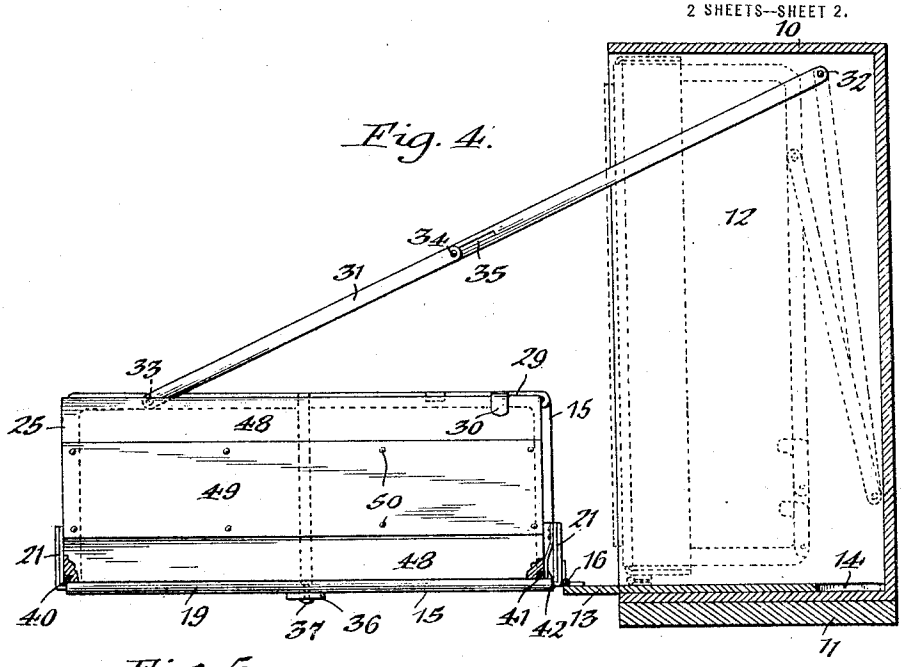


Fig. 5.

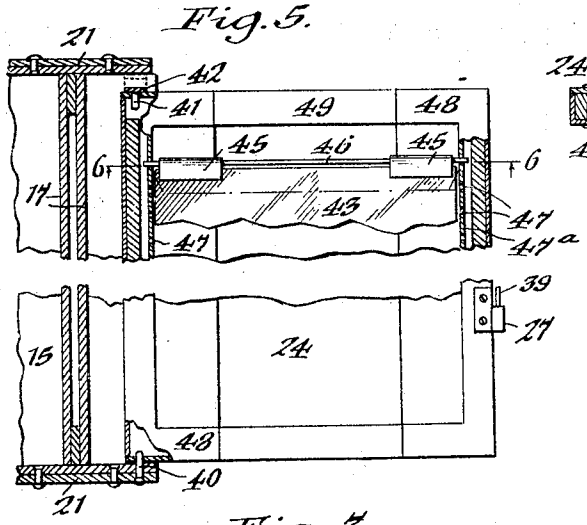


Fig. 6.

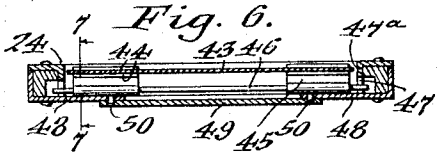


Fig. 9.

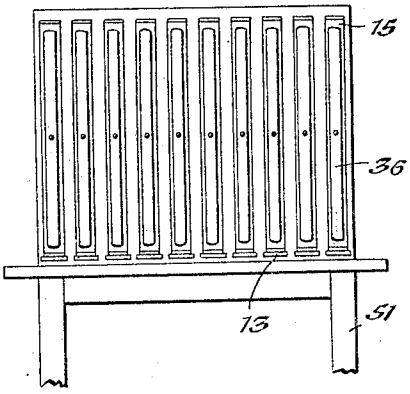


Fig. 7.

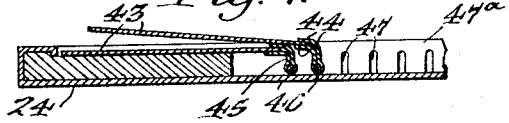
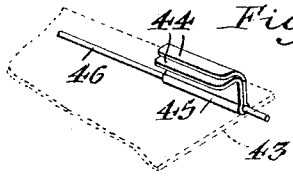


Fig. 8.



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UNITED STATES PATENT OFFICE.

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CARD-INDEX CABINET.

1,407,656. Specification of Letters Patent. Patented Feb. 21, 1922.

Application filed September 2, 1921. Serial No. 497,916.

To all whom it may concern:

Be it known that I, ALFONSO L. JAYNES, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Card-Index Cabinets, of which the following is a specification.

One of the objects of my invention is the production of a card index cabinet which has a large capacity relative to its size, so that a considerable number of index-cards or records may be filed in a comparatively small space.

A further object is the provision of a cabinet having card-holding leaves or panels which can be readily unfolded to a convenient position for use, or folded into a small compass within the cabinet when out of use.

Further objects are to provide simple means for firmly supporting the index leaves in their unfolded position, and to improve the cabinet in other respects, as will hereinafter appear.

In the accompanying drawings:

Figure 1 is a perspective view of the improvement embodied in a cabinet having a single card-holding unit which is shown unfolded for use. Figure 2 is a similar view showing the parts of the unit folded into the cabinet. Figure 3 is a fragmentary front view of the unit, partly in section, the same being shown in its unfolded position. Figure 4 is a vertical longitudinal section of the cabinet, showing the card-holding unit unfolded. Figure 5 is a fragmentary horizontal section, on an enlarged scale, of the vertically-folding carrier and one of the vertically-folding leaves hinged to it, the plan of the section being on line 5—5, Fig. 1. Figure 6 is a transverse section on line 6—6, Fig. 5. Figure 7 is a longitudinal section of one of the card-holding leaves or panels on line 7—7, Fig. 6. Figure 8 is a fragmentary perspective view of one of the card clasps. Figure 9 is a front elevation of a cabinet having a plurality of card-holding units arranged side by side.

Similar characters of reference indicate corresponding parts throughout the several views.

Referring to the embodiment of the invention illustrated in Figs. 1–8, inclusive, 10 indicates the body or casing of the cabinet having a suitable base 11 adapted to rest on a wall-bracket, a table or other support, not shown. This casing is comparatively narrow when adapted to receive a single card-carrying unit, as shown in Figs. 1–4, and is closed on all sides, except its front 12, where it is open from top to bottom and from side to side.

Arranged lengthwise in the bottom of the casing is a movable support or slide 13 guided in ways 14 in the side walls thereof, so that it may be partly withdrawn, as shown in Figs. 1 and 4, or wholly pushed into the casing, flush with its front wall, as shown in Fig. 2. Hinged at its lower end to the front end of this slide, as shown at 16, is a vertically-swinging carrier or frame 15, capable of being folded into the cabinet, as shown by dotted lines in Fig. 4, and by full lines in Fig. 2, or unfolded to the horizontal position shown by full lines in Figs. 1, 3 and 4. This carrier may be of any suitable construction, but preferably consists of an open skeleton frame of oblong or inverted U-form having its legs secured between a pair of longitudinal plates 17 provided with outwardly-extending flanges 18 which are enclosed by a base plate 19 having flanges 20 which are folded inwardly over the flanges 18, as best shown in Fig. 3. Extending inwardly or upwardly from the ends of the plates 17 are end pieces or flanges 21 the inner one of which is hinged to the slide 13.

The carrier 15 forms a foldable support for a number of folding card-holding leaves or panels 22, 23, 24 and 25, which when not in use, are adapted to be folded side by side upon each other and against one or both sides of the carrier 15, as shown by dotted lines in Figs. 1 and 3, or to be unfolded to the horizontal position shown by full lines in Figs. 1 and 3 for referring to the index cards or making entries thereon. For this purpose, the leaves or card holders are pivotally connected to each other and to the carrier 15 in any suitable manner. In the embodiment of the invention shown in the drawings, four of such leaves are employed, the inner leaves 23, 24 being hinged at their inner edges to opposite sides of the outer or base portion of the carrier 15, while the outer leaves 22 and 25 are hinged at their inner edges to the outer edges of the leaves 23 and 24, as shown at 26 and 27, so that the outer leaves when in a horizontal position, may be folded over the leaves 22 and 24, and the two sets of leaves then folded

against opposite sides of the carrier, after which the latter may be folded into the cabinet 10, as shown by dotted lines in Fig. 4, and by full lines in Fig. 2.

Suitable means are employed for holding the folded leaves in position against the carrier, preparatory to swinging the latter into the cabinet, the preferred devices consisting of vertically-swinging clamps or holders 28 and 29 pivoted to the inner member of the carrier 15 at opposite sides thereof, one for each set of leaves. These holders have depending fingers 30 which embrace the folded leaves of each set, as shown in Figs. 1 and 4.

In their unfolded position, the carrier and the leaves are supported by one or more folding braces or stays 31 which are pivoted at their rear ends to the inner side of the cabinet, as shown at 32, and at their front ends to the carrier, as shown at 33. In the preferred construction shown, these braces consist of front and rear sections connected at their adjoining ends by transverse pivot pins 34 and slots 35, so that upon folding the carrier and the card leaves into the cabinet, the braces partake in this movement, the same then occupying the space of the cabinet in rear of the leaves, as shown by dotted lines in Fig. 4.

In order to firmly support the hinged leaves in their unfolded position, a swinging supporting bar 36 is preferably pivoted centrally to the outer face of the base member 19 of the carrier 15, so that it may be swung at right angles to the carrier for supporting the unfolded leaves, as shown in Fig. 3, or swung to a position in line with the carrier when the latter is folded into the cabinet, as shown by full lines in Fig. 2. For this purpose this supporting bar swings in a plane parallel with the front face 19 of the carrier 15 and is mounted on a pivot 37, preferably forming an extension of a central cross brace 38 of the carrier, as shown in Fig. 3.

It is desirable to make the card-holding leaves detachable from one another and from the carrier 15, so that the leaves may be used by different employees or in different parts of an office or other establishment. For this purpose, the outer leaves 25 and 22 may be made detachable from the inner leaves 23 and 24 by providing them with hinges having the usual removable pintles, or by providing one member of each hinged with an integral pintle 39 removably seated in the socket of the companion member. In the construction shown in the drawings, each of the inner leaves is provided at one end with an opening which receives a hinged pintle 40 secured to the adjacent end-piece 21 of the carrier 15 and at its opposite end with a similar opening which receives a retractable pintle 41 carried by a leaf-spring 42 secured to the inner end piece 21 of the carrier, as shown in Figs. 1, 4 and 5. Any other suitable means may obviously be used for detachably connecting the leaves to the carrier and to one another.

It is sometimes desirable to remove the carrier 15 together with all of the leaves from the cabinet. To do this, it is only necessary to withdraw the slide 13 from the cabinet after removing the front pivot pin 33 of the folding braces 31.

In their preferred form, the leaves are oblong and chambered or recessed to receive the index cards 43, which may be of any suitable or well-known construction. In the example shown, they are of the overlapping type, and each card is frictionally gripped at its upper edge between the jaws 44 of one or more clips or clasps 45 fastened to a flexible or resilient cross-rod 46 whose ends are sprung into a pair of notches or openings 47 formed in a pair of opposing strips 47^a secured within the chamber of the leaf parallel with its side bars and at a distance therefrom, as shown in Fig. 5. Each of these clips is preferably formed by doubling a strip of resilient material, such as spring steel, the fold or bight of the strip embracing the rod 46 to which it is secured in any suitable way, such as soldering or by simply compressing its fold to frictionally grip the rod. To allow the index cards to overlie one another, the portions of the clip forming the gripping jaws are bent substantially at right angles to their shank-portions, as shown in Figs. 7 and 8.

In their preferred construction, the leaves comprise two lateral sections 48, 48 spaced apart and extending from end to end thereof, and a central connecting section 49 coextensive therewith and riveted or otherwise secured along its edges to the bottom portions of said lateral sections, as shown at 50 in Fig. 6. By this construction, the same lateral sections 48 may be used in constructing leaves of different widths for various sized index-cards, it being only necessary to use connecting plates 49 of different widths to suit the different sized leaves, thus effecting an important saving in the manufacture of the cabinets.

When the index members are folded into the cabinet and it is desired to refer to any of the cards, the supporting bar 36 is unfolded to the transverse position shown by dotted lines in Fig. 2, and by using this bar as a handle, the slide 13 and the carrier 15 are partly withdrawn from the cabinet and the carrier together with the folded leaves 22—25, is then unfolded to the horizontal position shown in Fig. 4. The leaf-holders 28 and 29 are next swung up to release the leaves which may then be unfolded with the cards face upward, as shown in Figs. 1 and 3, the leaves being

supported upon the cross bar 36. In this position, the cards of all of the leaves are easily accessible and any of them can be turned back to expose the underlying ones for examining them or making entries thereon. To return the parts into the cabinet, the outer leaves are first folded upon the inner ones (one of such folded leaves being shown by dotted lines in Fig. 3) and the two pairs of folded leaves are then folded against opposite sides of the carrier 15. The leaves are next secured in place by the holders 28, 29, the carrier 15 is swung upward into the cabinet and the supporting bar 36 is finally turned to its upright position, as shown in Fig. 2. In this position of the carrier, its face plate 20 snugly fits into and closes the front side of the cabinet, producing a neat finish.

By thus combining a vertically-foldable carrier with one or more foldable leaves hinged to the carrier, the several leaves can be folded into a very small compass, providing an index which has an exceedingly large capacity in proportion to its size.

The folding index-unit consisting of the carrier and the attached card-holding leaves, may obviously be multiplied to form a cabinet of greater or less capacity. Such a multiple cabinet having twelve units and mounted on a table 51 is illustrated in Fig. 9.

By constructing the leaf-carrier 15 in the form of an open or skeleton frame, as shown, it in the unfolded position of the index presents as small an obstruction as possible to the view of the user.

By hinging the carrier at its lower end to a slide 13 or similar movable support, the carrier may be partly withdrawn from the cabinet before swinging it down to its unfolded position. This permits the cabinet to be made just high enough to receive the carrier and the leaves, which would not be possible if the carrier were hinged directly to the fixed bottom of the cabinet. This construction materially reduced the height of the cabinet.

I claim as my invention:

1. A card index cabinet comprising a casing, a carrier foldable into said casing and unfoldable therefrom, a foldable inner card-holding leaf hinged to the side of said carrier, and a foldable outer leaf hinged to the free edge of said inner leaf.

2. A card cabinet comprising a casing open at its front side, a horizontal slide arranged in the lower portion of said cabinet and movable into and out of the same, a vertically-swinging carrier hinged at its lower end to said slide and foldable into said casing and unfoldable therefrom, and card-holding leaves hinged to the sides of said carrier.

3. A card index cabinet, comprising a casing, a carrier foldable into said casing and unfoldable therefrom, a foldable inner card-holding leaf detachably connected to the side of said carrier, and a foldable outer card-holding leaf detachably connected to said inner leaf.

4. A card index cabinet, comprising a casing, a carrier foldable into said casing and unfoldable therefrom, a foldable card-holding leaf hinged to said carrier, and a leaf-support pivoted to the front side of said carrier to swing into line therewith when out of use, or at an angle thereto for supporting said leaf in its unfolded position.

5. A card index cabinet comprising a casing, a carrier foldable into said casing and unfoldable therefrom, foldable card-holding leaves hinged to opposite sides of said carrier, and a swinging supporting bar for said leaves pivoted to the outside of said carrier and movable in the plane thereof.

ALFONSO L. JAYNES.