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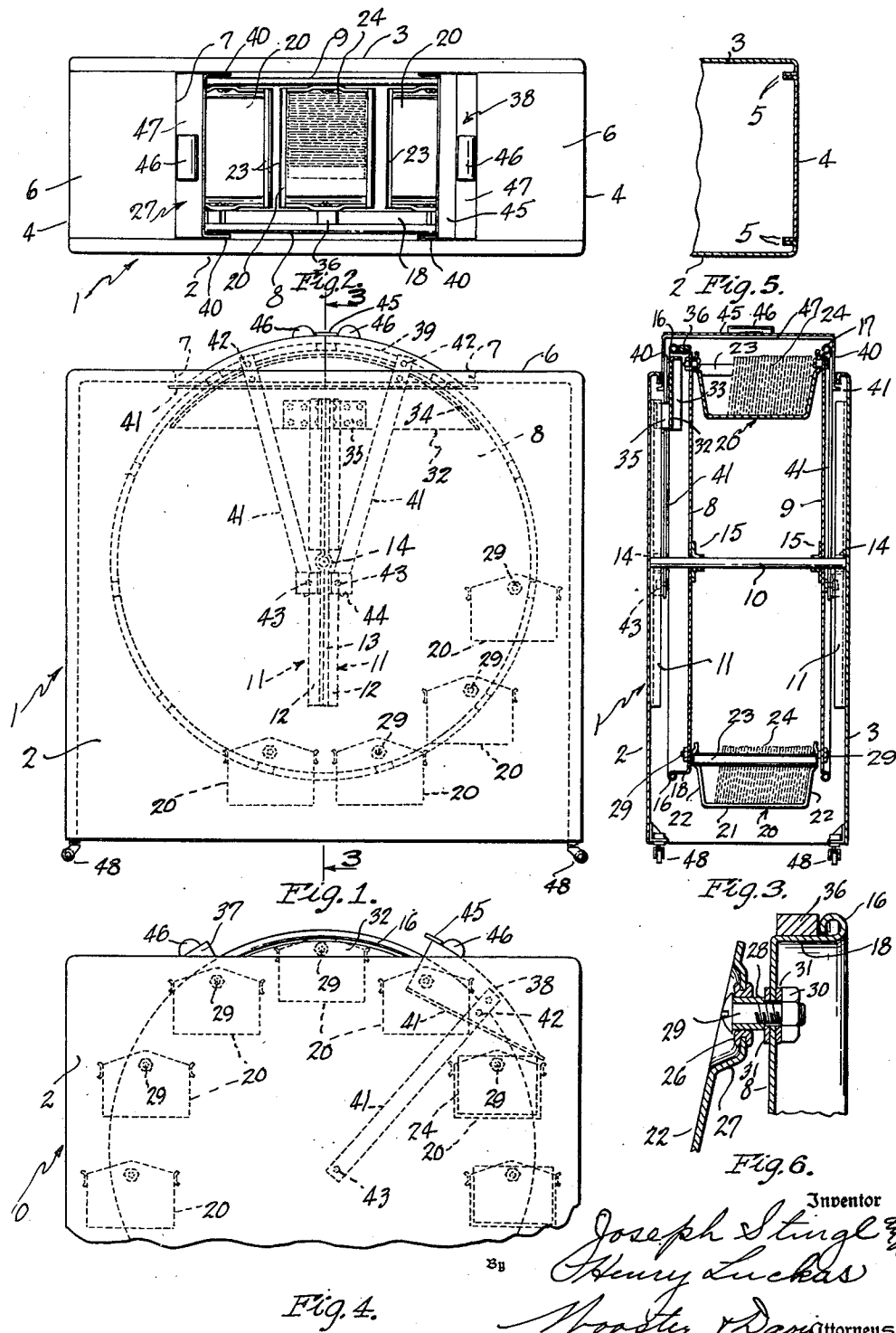
J. STINGL ET AL

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ROTARY CARD FILING CABINET

Filed June 29, 1949

2 Sheets-Sheet 1



Inventor
Joseph Stingl
Henry Lucas
Wooder & Davis Attorneys

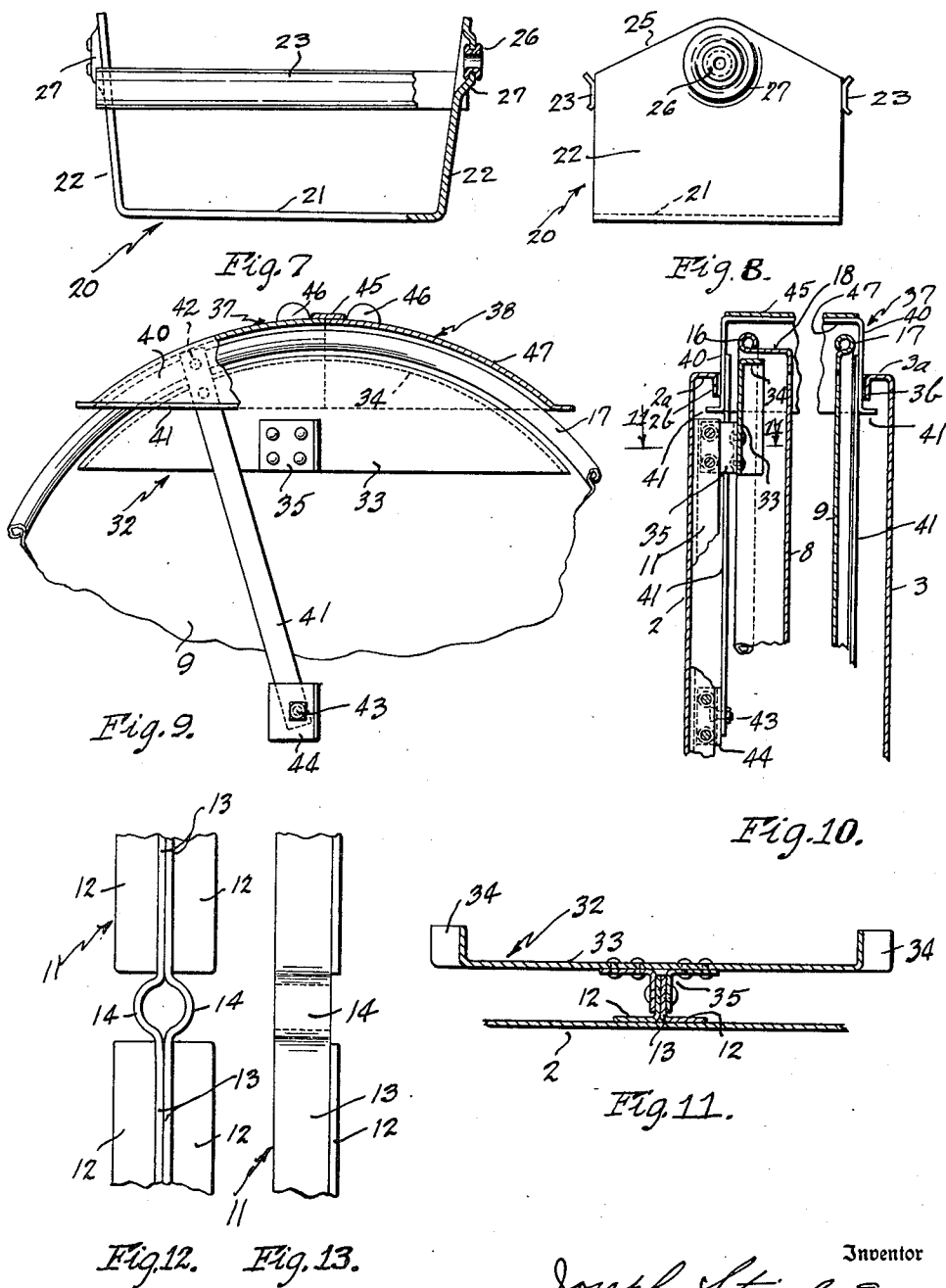
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Mooster & Davis Attorneys

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ROTARY CARD FILING CABINET

Joseph Stingl, Stratford, and Henry Luckas, Devon, Conn.,
assignors, by mesne assignments, to The Ferris Manu-
facturing Company, Stratford, Conn., a corporation of
Connecticut

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9 Claims. (Cl. 312—267)

This invention relates to a filing cabinet, particularly one for filing record cards, and has for an object to provide such a cabinet which has a rotary support for the card holders so that by a simple operation any holder with its cards may be easily and quickly brought to a position where any card is easily accessible for observation.

It is also an object to provide such a cabinet in which it is not necessary to punch the cards or provide rods for holding them in the containers, nor it is necessary to provide belts or similar retaining means for keeping the cards in the holders.

Another object is to provide such a cabinet in which there is no rubbing of the cards on each other when turning the rotatable support, to wear off the writing or smear it, and the cards will always be level so they may be easily read.

Another object is to support them so that they may be easily and individually removable, and further to provide a cabinet which will hold more cards than other cabinets of the same size.

With the foregoing and other objects in view, we have devised the construction illustrated in the accompanying drawings forming a part of this specification. It is, however, to be understood the invention is not limited to the specific details of construction and arrangement shown, but may embody various changes and modifications within the scope of the invention.

In these drawings:

Fig. 1 is a side elevation of the cabinet;

Fig. 2 is a top plan view showing the closure elements in the open position;

Fig. 3 is a vertical section substantially on line 3—3 of Fig. 1;

Fig. 4 is a side view similar to Fig. 1 of the upper portion of the cabinet showing the closures in the open position;

Fig. 5 is a detail section through one side of the cabinet;
Fig. 6 is a detail section through the pivot for the card supporting tray;

Fig. 7 is a partial side elevation and partial section of one of the trays;

Fig. 8 is an end view thereof;

Fig. 9 is a partial section and partial elevation showing the closure elements in closed position;

Fig. 10 is a transverse section thereof;

Fig. 11 is a detail section through one side wall of the cabinet and a guard member showing the method of mounting the member, the section being substantially on line 11—11 of Fig. 10, and

Figs. 12 and 13 are a front and side view respectively of the means of mounting the shaft for the rotating elements.

This improved cabinet comprises an enclosing casing or housing 1 including sheet metal side members 2 and 3, and end walls 4 connecting the side walls. The side and end walls may be connected together by any suitable means. They are preferably provided with abutting in-turned flanges 5, as shown in Fig. 5, which may be secured together by any suitable means, as bolts, rivets or welding. As these flanges are turned inwardly they are enclosed in the cabinet and not exposed on the outside thereof, providing a smooth uniform outer surface. The side walls are extended a short distance over the top of the cabinet, as shown at 6, to provide a top wall, but the inner edges of these walls are separated to form an opening 7 to gain access to the files enclosed in the

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cabinet. The top edges of the side panels 2 and 3 at the side of top opening 7 are bent inwardly and downwardly, as indicated at 2a, 3a and 2b and 3b, to give a finished appearance and to strengthen and stiffen these edges of the opening.

The supporting means for the file cards comprises a pair of laterally spaced rotary members of any suitable construction. In the present device they are sheet metal rotary discs 8 and 9 mounted and spaced a proper distance on a supporting shaft 10. The opposite ends of this shaft are supported in suitable bearing elements on the inner sides of the side walls 2 and 3. These are shown more in detail in Figs. 12 and 13 and comprise a pair of angle irons 11, one flange 12 of which is secured to the supporting side walls 2 and 3 by welding or other suitable means, with their opposite flanges 13 side by side. At the point of supporting the shaft 10 flanges 12 are cut away and the flanges 13 are bowed outwardly in opposite directions as shown at 14 to form a loop, one on each side 2 and 3, to receive the end of the shaft 10 and also provide a bearing for this shaft if desired, or the discs 8 and 9 could rotate on the shaft by bearings 15.

The discs 8 and 9 are rolled over at their peripheral edges as indicated at 16 and 17 respectively, but the front disc 8 just behind the front side or panel 2 of the cabinet is extended laterally at 18 to provide a flange between the body of the disc 8 and the curled edge 16. The rolled over edges 16 and 17 obviate any sharp edge on the peripheries of these discs and also greatly stiffen and strengthen the discs.

These discs form the support for the containers carrying the record cards. Details of one of these containers, indicated as a whole by the numeral 20, is shown in Figs. 7 and 8. They each comprise a strip of sheet metal bent to the form shown in Fig. 7, including a bottom wall 21 and upwardly and somewhat outwardly inclined spaced end walls 22, and to strengthen these trays or containers a more or less angularly shaped strengthening strip 23 of sheet metal is welded to the opposite edges of the end walls 22 adjacent the tops thereof. These strips also retain the cards from sliding sideways in the trays, the cards being indicated by the dotted lines 24. The end walls 22 are tapered upwardly at their upper edges, as indicated at 25 in Fig. 8, to improve the appearance of the trays and also to make the cards carried thereby more accessible from the side. In each end of the trays are means for supporting a bearing for each end of the tray in the rotatable discs 8 and 9, these bearings being located near the top of the end walls so that no matter in what position they may be as the discs 8 and 9 are rotated they are always in the horizontal or upright position. This bearing means, as indicated in Figs. 7 and 8, comprises a bushing 26, preferably of brass or similar material, mounted in an opening in a recessed portion 27 in the end wall, so that the bushing lies horizontally, its opposite ends being rolled over to secure it in the opening in the end wall 22. The completed bearing is indicated in detail in Fig. 6, there being a sleeve 28 extending through the bushing 26 and embracing the bolt 29, which passes through an opening in either the disc 8 or 9, and is held therein by a nut 30 on the outer end of the bolt with washers 31 on opposite sides of the disc 8 or 9. One of these washers and the head of this bolt rest against the opposite ends of the sleeve 28, so that by tightening the nut 30 the bolt is rigidly clamped to the disc 8 or 9. However, the sleeve 28 is longer than the bushing 26 which has a bearing on this sleeve, so that it is free to turn on the sleeve and also has certain lateral play on the sleeve to prevent binding. It will be clear that as these bearings are adjacent the top edges of the end walls 22 of the trays, the weight of the trays or any cards which may be placed in them will always hold the tray in the upright position and it will turn on these bearings as the discs 8 and 9 are rotated. These trays are arranged so that they extend transversely of the cabinet and the record cards 24 are placed in them so that they extend transversely of the trays in an upright position, so that anyone wishing to examine them may easily do so from a position at the front of the cabinet, or that is, beside the front side wall 2. Also in this

arrangement no rods or other means are required to retain the cards in the trays, and no punching of the cards is therefore necessary. The cards are kept from sliding sideways in the tray by the connecting strips 23.

The shaft 10 and therefore the discs 8 and 9 are so located in the cabinet that a portion of the upper edges of the discs 8 and 9 are exposed above the top wall 6 of the cabinet and also the upper container 20 is also exposed and accessible through this opening, as indicated by Figs. 1, 2 and 4, but to prevent the user becoming injured by getting fingers caught in the rotatable means, a guard 32 is provided immediately under the flange 18 of the front disc 8 at the top of this disc, where it is exposed above the top edge of the front wall 2. This is an arc-shaped guard forming a segment of a circle including the flat body portion 33 and a curved flange 34. This is located as shown in Figs. 3 and 10 with the flat portion 33 substantially in the plane of the outer edge of the turned-over edge 16 of the disc and with the flange 34 located just within the flange 18. It is secured to the front wall or panel 2 by a pair of angle brackets 35 secured to the flanges 13 of the angle members 11, and it extends sufficiently below the top edge of the front panel 2 to form an effective guard. On the flange 18 of disc 8 may be mounted certain elements, as for example, curved plastic bars 36 forming handles by means of which the rotatable elements including the discs 8 and 9 and the trays 20 may be rotated to bring the different trays into the opening 7 for examination of any of the cards desired. The trays 20 are so located and spaced on the discs 8 and 9 that they can each turn independently of those next to it and they will not interfere with each other and each will always maintain its upright position.

Closures are also provided for the opening 7. These include arc-shaped or segmental members 37 and 38 located so that when in the open position, as shown in Figs. 2 and 4, they are located at opposite ends of opening 7. Each has a curved top wall 47 forming the arc of a circle and located just outside of the rims of the rotatable elements 8 and 9, and they also include segment-shaped side walls 40 filling the space between the curved wall and the top wall 6 of the cabinet when these closures are in the closed position, as shown in Figs. 1, 3, 9 and 10. They also have outward extending flanges 41 at their lower edges which may engage the edge of opening 7 to limit outward movement of the closure and also form abutments when they are closed. They are each mounted on pivoted arms 41 one on each side of the closure secured to the side walls thereof at 42 and pivoted at their inner edges as at 43 on angle brackets 44 secured to the angle strips 11, as shown in Figs. 1, 9 and 10. On the inner edge of one of these closures, as for example closure 38, is welded a strip 45 which overhangs the edge of the closure and when in the closed position overlaps the free edge of the other closure 37, as shown in Fig. 9. Handles 46 may be provided on each closure for use in swinging them to and from the open and closed position. The whole device may be mounted on suitable supports, as, for example, suitable casters 48, to facilitate moving the device to different locations.

It will be clear from the above that the device is of very simple construction, the rotatable assembly is a very simple one, and it is balanced by the cards and trays mounted in it so that it turns easily and automatically retains it in any position to which it may be turned. No rods and no punching of the cards is necessary to retain them in the trays of baskets, nor are there any belts or exterior elements required for the purpose. There is no rubbing of the cards together during the rotating operation to either wear off the writing on the cards or to smear the ink if moist. The cards always stay level so that any card in the top tray or basket is always easily read and each card is easily and quickly removable. The device will also hold a larger number of cards than with the usual form of cabinet of the same size, and cabinets of the same height and width can be made to hold a much larger number of cards by simply building it thicker so as to accommodate longer trays or baskets. There are no bolts exposed outside of the cabinet to catch on the operator's clothes or other elements and the outer walls are smooth and clear of any such projection.

Having thus set forth the nature of invention, we claim:

1. A filing device for cards comprising an enclosing cabinet including side and end walls and a top wall provided with an opening, said side and end walls pro-

vided with inwardly extending flanges about said opening, a pair of laterally spaced upright rotary supports mounted in the cabinet, a series of trays adapted for carrying a plurality of cards in an upright position extending transversely of the trays, means mounting said trays on the supports between them arranged about the peripheries of the supports, means mounting the supports in the cabinet with the upper part of their peripheral edges projecting through said opening and to carry said trays into the opening for easy access by the operator, and curved closure means pivotally mounted in the cabinet comprising a pair of inverted substantially U-shaped sheet metal segmental members including spaced opposite side walls and a connecting top wall between them mounted to swing from opposite ends of the opening to and from a position over the rotatable supports and close and expose said opening, said segmental members being provided with outwardly extending flanges at the lower edges of their side and top walls located under said flanges about the opening when said members are in closed position.

2. A filing device for cards comprising a cabinet including spaced front and rear walls, and end and top walls connecting them, said top wall being provided with an opening, a pair of laterally spaced upright front and rear rotary supports mounted in the cabinet with their top edges located in said opening and extending above the top wall, said front support being provided with a forwardly extending peripheral flange, hand grips on this flange for rotating the supports, an upright guard extending upwardly from the top wall in front of said latter support and provided with a curved top edge located within and under said flange, a series of card holding trays extending transversely between the supports, and said trays being of a width to hold a series of cards in an upright position extending transversely of the trays.

3. A filing device for cards comprising an enclosing cabinet including side and end walls and a top wall provided with an opening, said side and end walls provided with inwardly extending flanges about said opening, a pair of laterally spaced upright rotary supports mounted in the cabinet, a series of trays mounted on and between the supports adapted for carrying a plurality of cards in an upright position extending transversely of the trays, means mounting the supports in the cabinet with the upper part of their peripheral edges projecting through said opening and to carry said trays into the opening for easy access by the operator, a pair of curved closures for the opening in the top walls movable toward and from each other over the rotatable supports to close and open said opening, each closure being of inverted substantially U-shape including spaced side walls and a connecting top wall between them provided with outwardly extending flanges at their lower edges located under said flanges about the opening when said closures are in closed position, a supporting means secured to each closure adjacent each end, and pivot means for each means secured in the cabinet.

4. A filing device for cards comprising a cabinet including spaced front and rear walls connected by end and top walls, said top wall having an opening, a pair of laterally spaced upright rotary supports mounted in the cabinet with their upper edges extending through said opening, a series of card holding trays mounted between the supports, the support nearest the front wall being provided with an outwardly extending peripheral flange having hand grips for turning the supports, and a curved guard mounted on the inner side of the front wall between the nearest support and the front wall, said guard including an upright wall substantially closing the space between the forward support and the front wall and a curved flange at its outer edge extending under and overlapping a portion of the peripheral flange of the support.

5. A filing device for cards comprising an enclosing cabinet including side and end walls and a top wall provided with an opening, a pair of laterally spaced upright rotary supports mounted in the cabinet, a series of trays adapted for carrying a plurality of cards in an upright position extending transversely of the trays, means pivotally mounting said trays on the supports between them arranged about the peripheries of the supports and on pivots located above the centers of gravity of the trays, said trays having their end walls extending upwardly and pressed outwardly adjacent their upper edges to form bosses including an upright outer wall with an opening through it, a bushing mounted in the opening, a bolt

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extending through the bushing and an opening in the adjacent rotary support, washers on the bolt on opposite sides of the support, a sleeve on the bolt extending between the adjacent washer and the head of the bolt and longer than the bushing, and a nut on the bolt clamping the head and latter washer against opposite ends of the sleeve and clamping the bolt sleeve and washers on the support.

6. A filing device for cards comprising a cabinet including spaced side and end walls and a top wall provided with an opening, a pair of laterally spaced upright rotary supports in the cabinet, a series of card holding trays mounted between the supports, said trays each comprising a substantially U-shaped flat strip forming the bottom wall of the tray and spaced upwardly extending end walls, separate reinforcing strips connecting and secured to the end walls at their opposite side edges spaced above the bottom wall to strengthen the tray and engage the edges of the cards to retain the cards in the tray, and pivot means adjacent the upper edge of each end wall for pivotally connecting the trays to the rotary supports.

7. A filing cabinet for cards comprising an enclosing cabinet including side and end walls and a top wall provided with an opening, a pair of laterally spaced upright rotary supports mounted in the cabinet, a series of trays for carrying a plurality of cards in an upright position mounted on and extending between the supports adjacent their peripheries, means mounting the supports in the cabinet with the upper part of their peripheral edges projecting through said opening and to carry the trays into the opening comprising a transverse shaft projecting at its opposite ends beyond the outer sides of the supports, and means for supporting each end of the shaft comprising a pair of angle members arranged with one flange of each secured to the adjacent side wall of the cabinet and their opposite flanges side by side, the first flanges being cut away at an intermediate point and the second flanges at this point being bowed outwardly in opposite directions forming a loop in which the end of the shaft is inserted and supported.

8. A filing device for cards comprising an enclosed cabinet including side and end walls and a top wall provided with an opening, a pair of laterally spaced front and rear upright sheet metal disks independently mount-

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ed in the cabinet, means in the cabinet mounting the disks for rotary movement in an upright position with their top edges in said opening and projected above the top wall, the peripheral edges of each disk being rolled over to round and strengthen the edges of said disks, the front disk being provided with a horizontal peripheral flange extending between and connecting the body of the disk and the turned over edges, and a series of card supports extending between and supported on the disks so located that the cards in these supports are accessible in the opening in the top of the cabinet as the disks are rotated.

9. A filing device for cards comprising a cabinet including spaced front and rear walls, end walls extending between the front and rear walls and a top wall provided with an opening, a pair of laterally spaced front and rear upright disks independently mounted in the cabinet, a shaft in the cabinet mounting the disks for rotary movement in an upright position with their top edges in said opening and projecting above the top wall, the peripheral edges of the disk being rolled over to form a rolled beaded edge, the disk near the front wall being provided with a longitudinal flange extending between and connecting the rolled over edge and the body of the disk, hand grip means on said flange for rotating the disks, a series of card holding trays mounted between the disks adjacent their peripheries, and means mounting said shaft to expose the upper edges of the disks and trays successively in the top opening of the cabinet.

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