

Nov. 20, 1951

W. O. CARLSON

2,575,745

ROTARY FILE

Filed May 7, 1947

2 SHEETS—SHEET 1

Fig. 1.

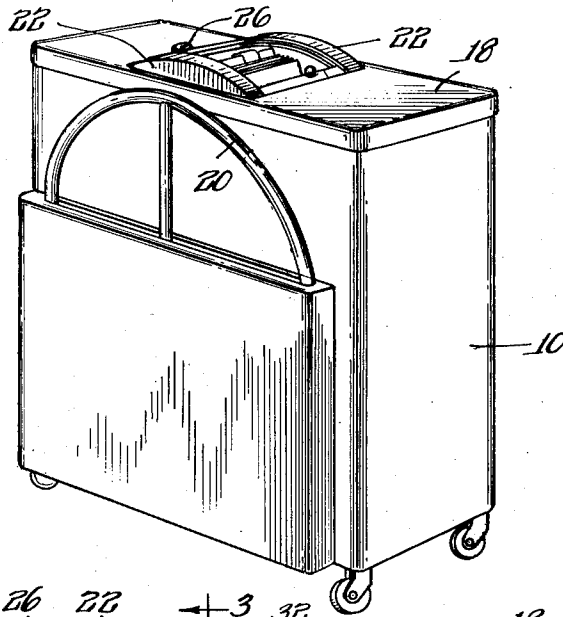
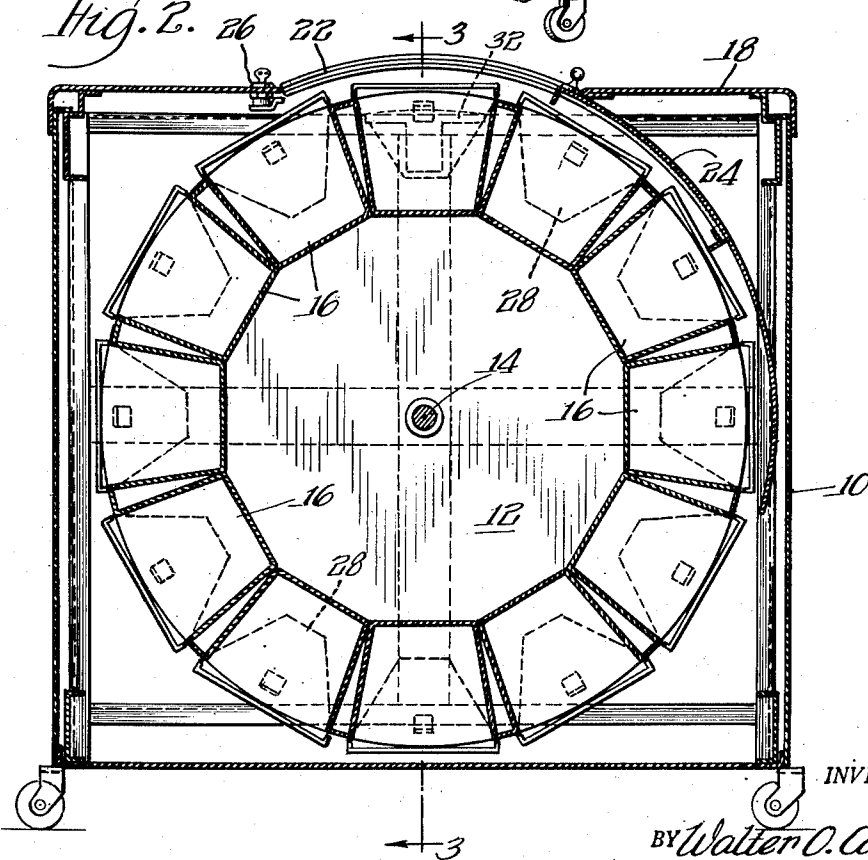


Fig. 2.



INVENTOR.

BY *Walter O. Carlson*

*By: Moore, Olson & Trevel
Atty.s.*

Nov. 20, 1951

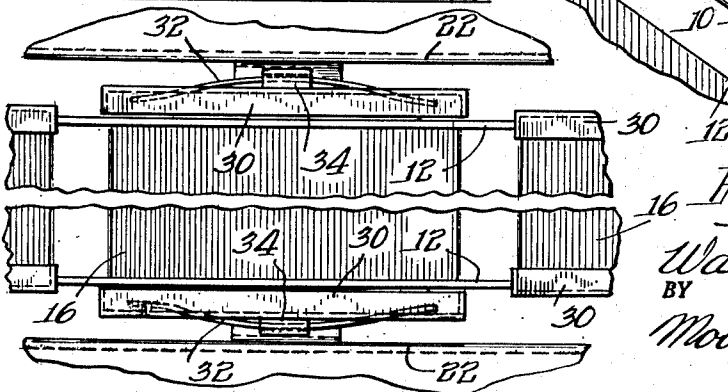
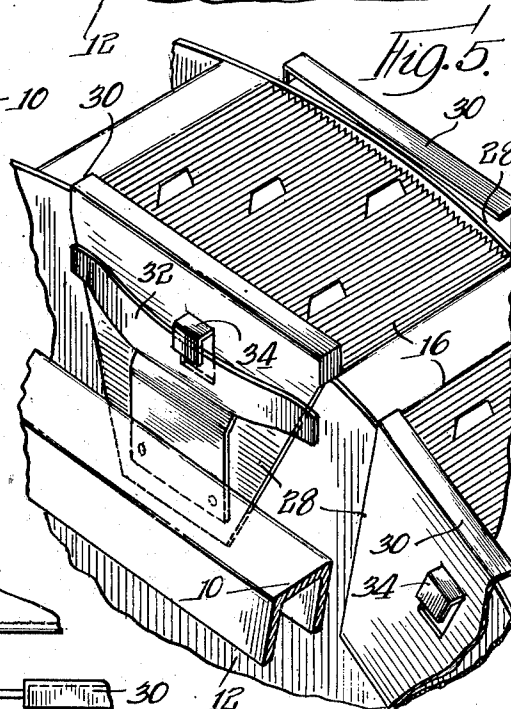
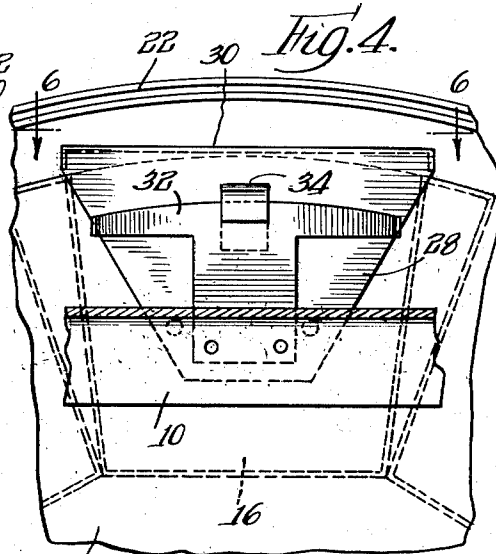
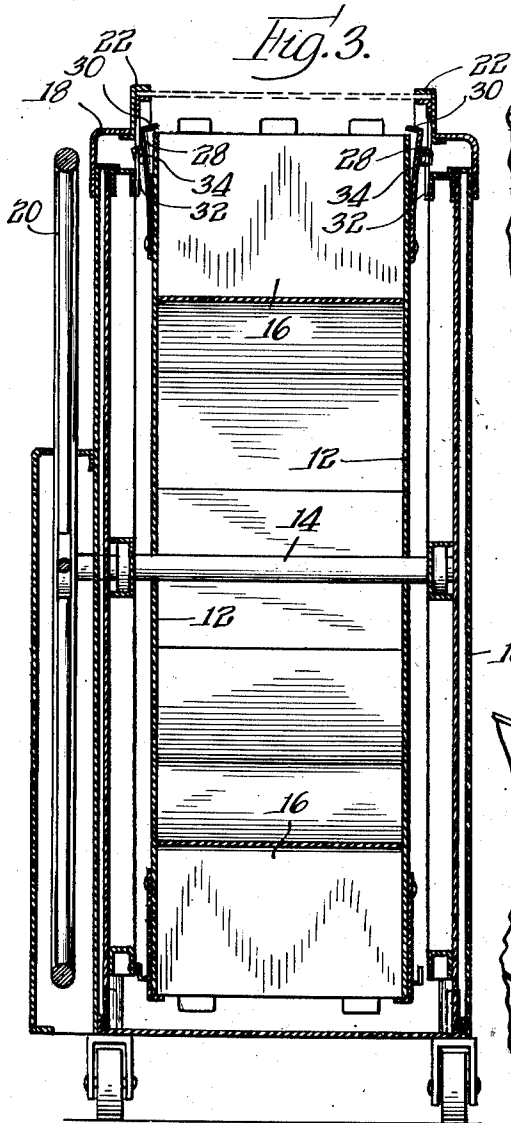
W. O. CARLSON

2,575,745

ROTARY FILE

Filed May 7, 1947

2 SHEETS—SHEET 2



INVENTOR.

Walter O. Carlson

BY

Moore, Olson & Tucker
attys.

UNITED STATES PATENT OFFICE

2,575,745

ROTARY FILE

Walter Oscar Carlson, Jamestown, N. Y., assignor
to Spin-Dex, Inc., Chicago, Ill., a corporation
of Illinois

Application May 7, 1947, Serial No. 746,449

5 Claims. (Cl. 45—3)

1

This invention relates to rotary index files and has for its main object the provision of improved means for automatically actuating the retaining devices on the file compartments into their open positions as the respective compartments are brought into a predetermined file-transfer station.

A further object is to provide a rotary card file having file retainers that normally are urged toward their closed positions, and a stationary cam means of relatively limited extent located at the file-transfer station for actuating the file retainers of each compartment into their open positions when the compartment is disposed so that files may be transferred into or out of it.

A still further object is to provide a rotary file characterized by the feature that frictional contact and wearing of the parts is reduced to a negligible amount, and in which only slight effort is required to operate the filing mechanism.

The above and various other objects, advantages and features of the invention will be apparent from the following specification when taken in connection with the accompanying drawings wherein a certain preferred embodiment is set forth for purposes of illustration.

In the drawings, wherein like reference numerals refer to like parts throughout:

Fig. 1 is a perspective view of a rotary file constructed in accordance with and embodying the principles of the invention;

Fig. 2 is a vertical sectional view of the apparatus;

Fig. 3 is a vertical section on the line 3—3 in Fig. 2;

Fig. 4 is a fragmentary view showing, in elevation, a file retaining device and the cam for operating this device when a file compartment is in file-transfer position;

Fig. 5 is a fragmentary perspective view showing a filing compartment and associated parts in file-transfer position; and

Fig. 6 is a horizontal section on the line 6—6 in Fig. 4.

Referring to the drawings, the file cabinet 10 includes a rotary frame or drum 12 mounted on a shaft 14 that is carried by the cabinet 10. The drum 12 carries a series of filing compartments 16 which are disposed around the periphery of the drum. The flat top 18 of the cabinet 10 has a rectangular opening therein through which access may be had to the contents of a compartment 16 disposed in file-transfer position. The drum 12 may be rotated by a wheel 20 which is disposed outside of the cabinet 10 and mounted

2

on the shaft 14, thereby to bring any selected compartment 16 into the aforesaid transfer position at which the contents of the compartment may be inserted or extracted.

The filing compartments 16, as they approach the transfer position or station, project slightly above the top 18. Arcuate flanges or rails 22 disposed on either side of the opening in the top 18 serve as guides for a lid or cover 24, that may be slid into or out of position for closing the aperture. The cover 24 may be secured by a lock 26 when the filing cabinet is not in use.

In accordance with the invention, each of the filing compartments 16 is provided with a pair of 15 retaining devices 28 which are secured to the outer faces of the drum 12 in any suitable manner on either side of the compartment 16. These retainers 28 are in the form of substantially flat, wing-like members of yieldable material such as 20 sheet metal, preferably having inherent resiliency and normally tending to lie against the outer surfaces of the drum 12. The upper ends of the retainers 28 are bent inwardly to afford lips or flanges 30 which are adapted to overhang the 25 cards, folders or other files in the compartment 16 when the retainers 28 are occupying their normal positions. The lips 30 prevent the contents of the compartment 16 from falling out or being 30 otherwise displaced when the compartments 16 are rotated from file-transfer position. It will be understood that the retainers 28 may also be merely flexible or pivoted on the drum 12 and urged inwardly by separate spring members if desired.

When the filing compartments 16 are rotated 35 into the file-transfer position, it is necessary that the retainers 28 be moved outwardly from the drum 12 to withdraw the lips 30 into their open positions as shown in Figs. 3 and 6. For this purpose I have provided a pair of relatively thin cam members 32 of limited extent which are stationarily supported by the frame of the cabinet 10 on either side of the drum 12 at the 40 file-transfer station. Each of the retainers 28 is provided with a bracket, ear or lug 34 that is adapted to hook behind and ride on the adjacent cam 32 as the respective compartment 16 approaches the file-transfer station. Each cam 32 45 is of such configuration that the retainers 28 are pulled outwardly when the filing compartment 16 is near the file-transfer position as shown in Figs. 4 to 6. The cams 32 are relatively short so that as each compartment 16 moves out of 50 file-transfer position, the hooked members 34 ride off of these cams and the retainers 28 are per-

mitted to flex inwardly, thereby bringing the lips 30 into closed position wherein they are effective to engage the upper edges of the cards or other files in the compartment and retain these files against displacement.

My invention has the advantage that the retainers 28 are subjected to positive camming action only when the associated compartments 16 are in or near the file-transfer position. At all other times the retainers 28 are held inwardly by their own resiliency and are free of the cams 32. The file contents are securely held against displacement by the retainers 28 when they are in their closed positions. The file cabinet is mounted on casters so that it may readily be positioned with the drum-operating wheel 20 on either the right or left-hand side facing the operator.

It is obvious that various changes may be made in the specific embodiment set forth for purposes of illustration without departing from the principles of the invention. The invention is accordingly not to be limited to the precise details disclosed herein but includes all modifications thereof within the spirit and scope of the appended claims.

The invention is hereby claimed as follows:

1. A rotary file comprising a rotatable drum formed with a series of filing compartments arranged around the periphery thereof, stationary means defining a file-transfer station with respect to said drum, a series of file retainers carried by said drum and respectively associated with said compartments, each of said retainers including resilient means normally urging the retainer into a closed position, and stationary cam means cooperating with said retainers proximate to said file-transfer station to positively move each retainer into its open position as the respective filing compartment is disposed in said file-transfer station, said cam means being limited in extent commensurate with the length of said station.

2. A rotary file comprising a rotatable drum formed with a series of filing compartments arranged around the periphery thereof, stationary means defining a file-transfer station with respect to said drum, a series of file retainers carried by said drum, each of said retainers being resilient and normally occupying a closed position by virtue of its resiliency to retain the files in the respective compartment, and stationary cam means cooperating with said retainers proximate to said file-transfer station whereby each retainer is positively actuated into its open position as the respective filing compartment is disposed in said file-transfer station, said cam means being limited in extent commensurate with the length of said station.

3. A rotary file comprising a rotatable drum formed with a series of filing compartments arranged around the periphery thereof, stationary means defining a file-transfer station with respect to said drum, a series of file retainers carried by said drum on either side thereof and respectively associated with said compartments, each of said retainers being in the form of a resilient member normally lying against said drum in closed position by virtue of its resiliency, and sta-

tionary cam members cooperating with said retainers on either side of said drum proximate to said file-transfer station to positively move each retainer into its open position as the respective filing compartment is disposed in said file-transfer station, said cam members being interrupted so that they can engage only the file retainers disposed in said transfer station.

4. A rotary file comprising a support, a shaft carried by said support, a rotatable drum mounted on said shaft formed with a series of filing compartments arranged around the periphery thereof, stationary means on said support defining a file-transfer station with respect to said drum, a series of file retainers secured to and carried by said drum on either side thereof, each of said retainers including a flat resilient member normally tending to lie against a face of the drum and provided with a lateral hook-shaped portion and being bent at its outer end to afford a lip which is effective to retain the files in the respective filing compartment when the retainer is disposed inwardly against said drum, and stationary cam means on said support comprising short cam members disposed on either side of said drum at said transfer station, the hooked portions of said file retainers being adapted to ride on said cam members to draw the lips of the retainers away from the respective compartment when the compartment is brought into said transfer station and being out of engagement with said cam members when the compartment is not at said station.

5. A rotary card file comprising a housing having a service opening, a rotatably journaled drum within the housing, said drum having end walls and a circumferentially-arranged series of peripheral card compartments of which a number are accessible by way of said opening at any position to which the drum is rotated, a series of radially-arranged plates with inner portions carried by the drum end walls and outer portions yieldably held to the latter and formed with bends over the entrances to said compartments to bar the exit of cards therefrom, and means to retract the outer portions of such plates as occur opposite said opening, whereby to cause the bends of such plates to clear the compartment entrances opposite the same, the outer plate portions and bends returning to their original positions and the bends being maintained in card blocking position solely by the resiliency of the plates when the plates are carried beyond said means by the rotation of the drum, said means comprising stationary units disposed inside the walls of the housing which are opposite said end walls, and elements carried by said plates and cooperative with said units.

WALTER OSCAR CARLSON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
959,943	Jones	May 31, 1910
2,343,280	Cory	Mar. 7, 1944
2,428,442	West	Oct. 7, 1947