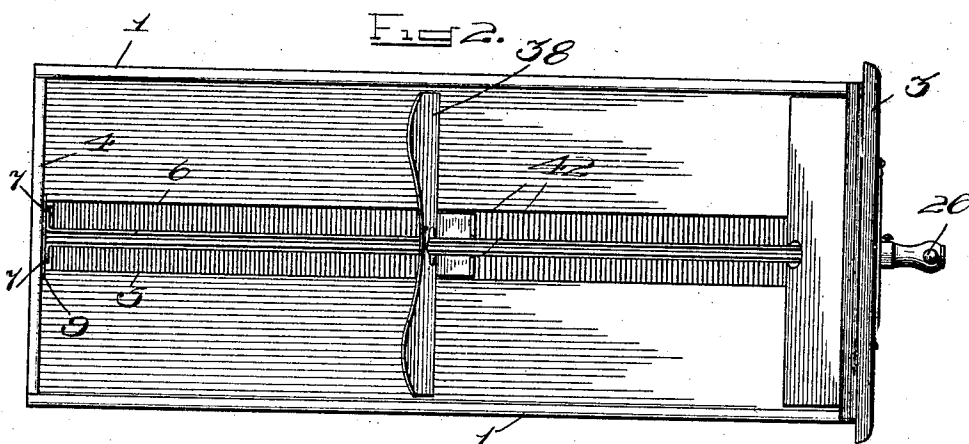
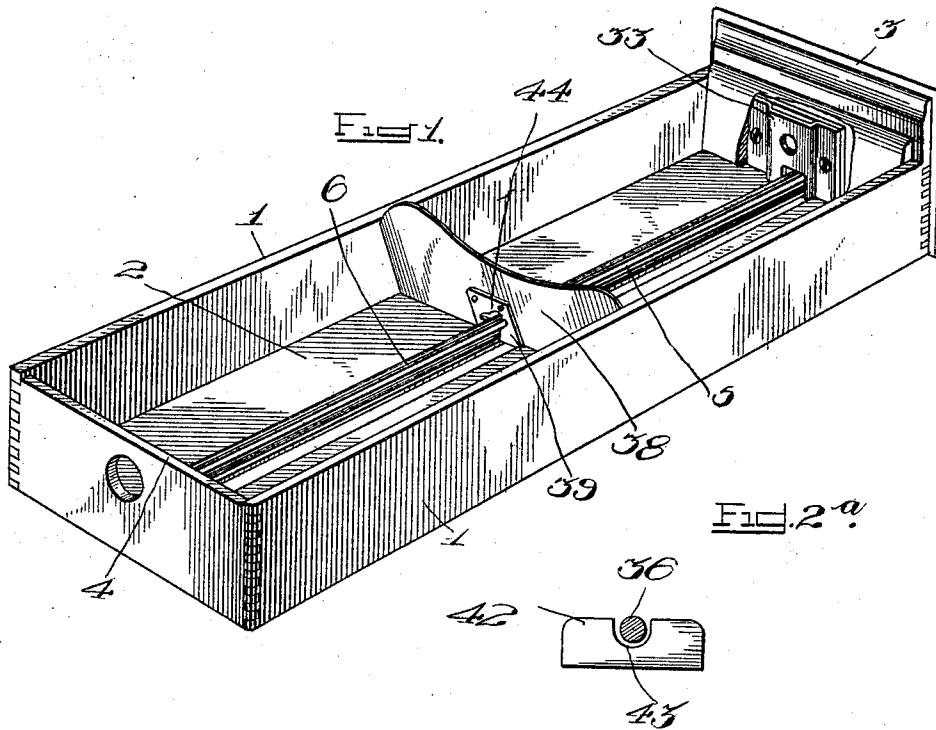


No. 819,367.

PATENTED MAY 1, 1906.

C. McPIKE.
CARD INDEX DRAWER.
APPLICATION FILED NOV. 28, 1904.

2 SHEETS—SHEET 1.



Witnesses:
J. C. Donatus.
Robert H. Weir

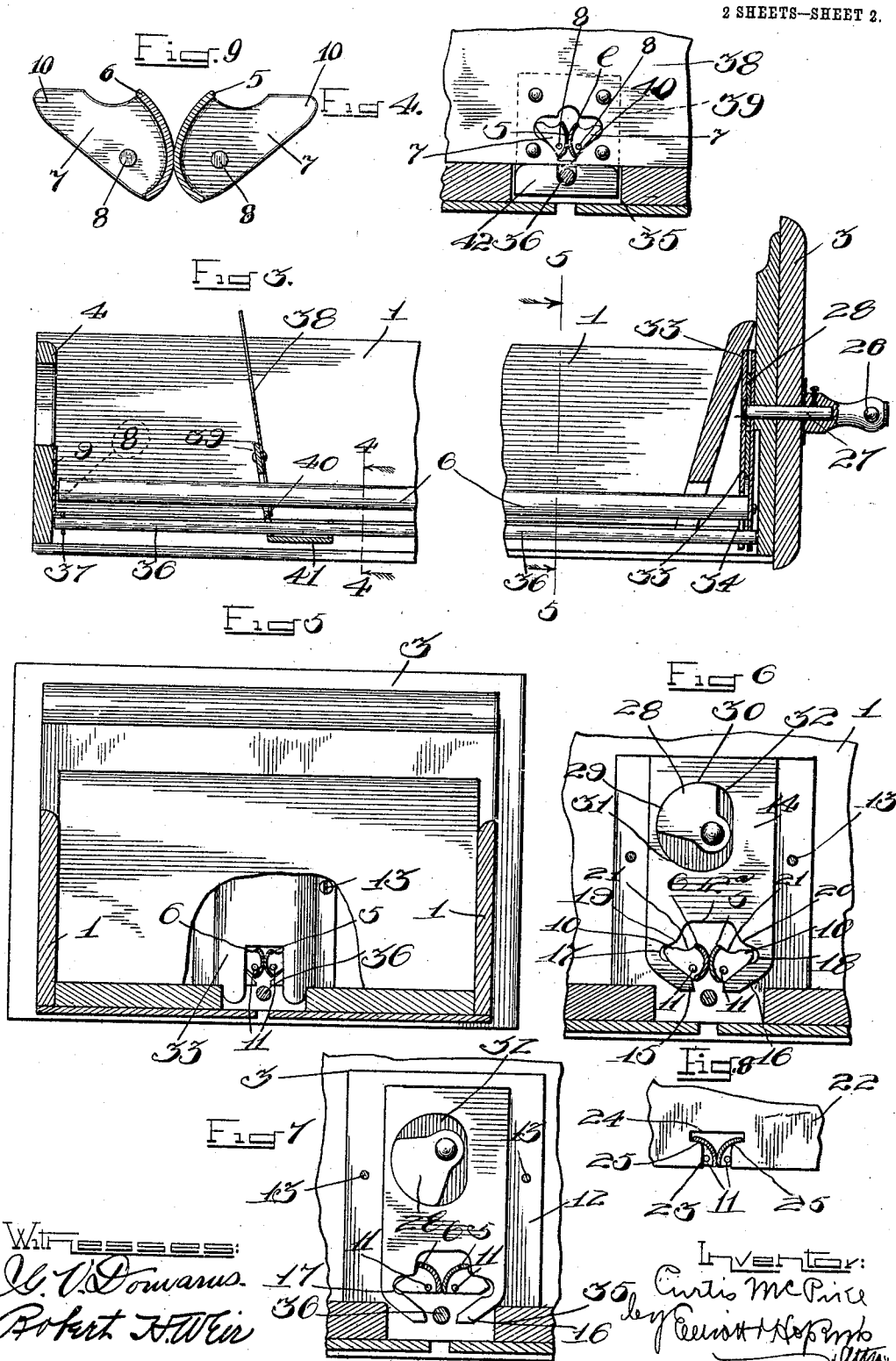
Inventor:
Curtis Mc. Pike
by Elliott H. Perry atty

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2 SHEETS—SHEET 2.



Witnesses:
W. V. Downard.
Robert H. Wein

Inventor:
Curtis McPike
by Curtis McPike

UNITED STATES PATENT OFFICE.

CURTIS McPIKE, OF WABASH, INDIANA.

CARD-INDEX DRAWER.

No. 819,367.

Specification of Letters Patent.

Patented May 1, 1906.

Original application filed April 17, 1905, Serial No. 255,938. Divided and this application filed November 28, 1904. Serial No. 234,506.

To all whom it may concern:

Be it known that I, CURTIS McPIKE, a citizen of the United States, residing at Wabash, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Card-Index Drawers, of which the following is a full, clear, and exact specification.

My invention relates to the general construction of card-index drawers, and relates more specifically to the means for holding the cards from being withdrawn and to the follower against which they rest.

One of the objects of my invention is to provide an improved card-holding means which will occupy but the minimum amount of space, and whereby the aperture in the lower edge of the card may be made of considerably less depth than heretofore required.

Another object of my invention is to provide an improved and simple means for holding and clamping the follower, which will enable the follower to be readily adjusted to the desired position and will automatically lock the follower from being pushed by the cards when released.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a perspective view of my improved card-index drawer. Fig. 2 is a plan view thereof. Fig. 2^a is a cross-section of the follower guide-rod, showing also a part of the follower. Fig. 3 is a vertical longitudinal section of the card-index drawer, partly broken away. Fig. 4 is a detail transverse section on the line 4 4, Fig. 3. Fig. 5 is a transverse section on the line 5 5, Fig. 3. Fig. 6 is a detail face view of the rod-operating mechanism with the covering-plate of said mechanism removed and the rods standing in their lowered or unlocked position. Fig. 7 is a similar view with the rods in their locked position. Fig. 8 is a cross-section or diagram showing the manner in which the rods engage the slots or apertures of the cards, and Fig. 9 is an enlarged cross-section of the locking-bars.

The drawer proper is composed of sides 1, divided or slotted bottom 2, front 3, and back 4, as usual, or the drawer may be of any

other suitable construction. The card-retaining means consists of a pair of rods 5 6, which are preferably formed of two thin metallic strips, each curved in cross-section and arranged back to back or with their convex sides together, as better shown on Sheet 2 of the drawings, and the ends of these strips at one end of the drawer are each formed with an arm 7, preferably made integrally therewith, but at right angles thereto, so as to serve not only as a support for the rod, but as a means of stiffening the rod and preventing it from resuming a flat form. These arms 7 are arranged at the back end and are pivoted upon pins 8, which project inwardly from a plate 9, secured to the back 4 in any suitable way. The forward or other end of each of the rods 5 6 is formed with a lever 10, which, like the arms 7, projects substantially at right angles to the longitudinal axes of the rods and serve the threefold purpose of stiffening the forward ends of the rods and preventing them from resuming a flat form, as well as constituting a means of support and a means of operation, suitable pivot-pins 11, on which the arms 10 are journaled, being provided on the plate 12, which is secured to the inner side of the front of the drawer by screws 13 or other suitable means.

The arms 10 project outwardly or away from each other in substantially a horizontal position, and they are both embraced in an aperture 12^a, formed in the lower end of a vertically-sliding operating-plate 14, which is arranged flat against the inner face of the plate 12 and in a plane coincident with the plane occupied by the arms 10. The aperture 12^a is so formed as to constitute lugs or fingers 15 16, one on each side of the plate 14, which engage beneath the arms 10 and serve to lift the latter, and thereby lock the rods 5 6 on their pivots when the plate 14 is elevated, as shown in Fig. 6, the plate 14 at the edge of the aperture 12^a being provided with recesses 17 18 opposite the ends of the arms 10, which receive and confine the latter during the vertical movement of the plate 14, and just above these recesses 17 18 are formed shoulders 19 20, which engage against the upper edges of the arms 10, respectively, when the plate 14 is depressed, thereby lifting the rods 5 6 or causing them to move upwardly around their pivots into the position shown in Fig. 7, and when in said position, which is the locked position of the rods, to be rigidly

held against accidental movement by the interlocking action of the shoulders 19 20 engaging in curved seats 21 in the upper edges of the arms 10. When the rods 5 6 are in the position shown in Fig. 7, the cards, one of which is indicated at 22, are locked or secured by said rods against withdrawal and when the rods are in the position shown in Figs. 4, 5, and 6 the cards may be removed.

To that end the cards are provided with a keyhole-slot in the lower edge comprising the usual narrow inlet-passage 23; but, unlike the ordinary card, the keyhole slot or aperture, according to my invention, is made with a comparatively shallow enlargement 24, the entire aperture being substantially in the form of a T with rounded shoulders 25, over and against which the upper edges of the rods 5 6 engage when the rods are turned upwardly into the position shown in Figs. 7 and 8, and consequently this outward movement of the rods serves not only to lock the cards in place, but by engaging the shoulders 25 the rods pull the cards down and laterally so that they will centralize in the drawer should they at that time be too far to one side or the other. It will also be seen that during the unlocked position of the rods 5 6, as shown in Fig. 6, the rods occupy a position almost wholly within the inlet-passage 23, which is wide enough to pass over the rods when they are in that position, and when they are in their locked position they project not only a slight distance above the upper end of the passage 23, but extend laterally a sufficient distance to engage over the shoulder 25. When they move from this position to their unlocked position, as shown in Fig. 6, their edges do not pass upwardly any material extent, and consequently the enlargement 24 of the aperture may be very shallow, thereby increasing the capacity of the card, and, in fact, the part of the aperture above the upper end of the passage 23 need be only as deep as necessary for accommodating the edges of the rods, and these, owing to their cylindrical formation and their ability to brace each other back to back, may be made comparatively thin and yet possess the requisite strength.

As shown more clearly in Fig. 9, the rods 5 6 are each formed on two arcs or curves, one of which extends from the lower edge upward to the point of divergence when the rods are unlocked, Fig. 9, and the other from this point to the upper edge, and the latter arc is of much greater radius, so that when the rods reach their unlocked position, Fig. 9, they will bind together back to back by virtue of this greater arc, which is eccentric to the centers 8 11, from which the lower and smaller arc is struck, so that in practice the lower edges of the rods remain substantially in contact during their rocking movements on said pivots; but the upper edges of the rods being considerably eccentric come together with

greater pressure when the rods have turned downwardly to the position where the edges of each rod are in the same perpendicular line, thus minimizing the combined width of the two rods when in position to permit the card to be withdrawn; but when the rods are turned upwardly the upper edges project over and engage the shoulders 25, while the lower edges are substantially in contact or so close together at least that any force exerted against one in the act of pulling the card out of place would be resisted also by the other, the slight flexibility of each rod permitting them to be thus forced into contact as soon as any pressure is applied to either, but owing to their peculiar formation this flexure can take place only in one direction, and that in the direction of the other rod. The plate 14 is raised and lowered for giving the rods 5 6 the described operation by a knob or other suitable outside connection 26, having a stem 27, journaled in the end of the drawer and carrying a cam 28, which has a circular edge 29 and a shoulder 30 and is arranged in the aperture in the plate 14, which has a circular side 31 and a non-circular side 32. This circular side 31 is concentric with the circular edge 29 and permits the cam 28 to turn freely in the aperture of the plate 14 until the shoulder 30 reaches the non-circular side 32 of the aperture, when the turning movement of the cam is arrested, as shown in Fig. 6. When the cam 28 turns from this position toward the left downwardly into the position shown in Fig. 7, the plate 14 is lowered thereby and the rods 5 6 are raised and the cards locked. The plate 14 is held and guided during this movement by a face-plate 33, formed around the edges of the plate 14 to hold the latter against lateral movement and its edges against the plate 12 by the screws 13, and this plate 33 is bifurcated or cut away, as shown at 34, for the passage of rods 5 6.

The bottom of the drawer, as usual in this class of device, is provided with a longitudinal recess 35, and arranged lengthwise of this is a rail or bar 36, which has its rear end secured in the opposite flange 37 on plate 9 and is held against longitudinal movement in one direction by the back 4 of the drawer, while the forward end of this bar is secured in the plate 12 and held against longitudinal movement in that direction by the front of the drawer. This bar is for guiding and upholding the follower 38, usual in card-index drawers for supporting the cards in an inclined position, and the recess 35 is for the reception of the slide and clamp of said follower, which in my invention is of a special construction and preferably consists of a single piece of metal having an end 39 turned upwardly behind and riveted to the follower 38 and provided with a passage 40 for the bar 36, while the lower end of this plate or piece of metal is bent horizontally to form a slide 41, which

rests in the bottom of the recess 35 and guides the follower when the follower is pushed by hand, with the slide 41 parallel or substantially parallel with the bottom. The extremity of the slide 41, however, is formed with two upwardly-projecting ears 42, one of which is arranged on each side of the bar 36, and the contiguous edges of these ears are rounded together at their lower edges to constitute a notch 43, in which the bar 36 is situated, and thereby guides the follower whose notched end bears against the bar when the end of the slide 41 is thrown upwardly by rearward pressure against the follower 38, thus locking the follower from being pushed rearwardly by the cards. At other times, however, this pressure of the slide against the rod does not interfere with the free movement of the follower, and the ears 42, by engaging on opposite sides of the bar 36, constitute guides for holding the follower from twisting in the drawer. The plate 39 is of course provided with a suitable aperture 44 for the passage and operation of the rods 5 6. With a follower thus constructed it will be seen that the follower proper and the plate or projection 39, to which it is secured, being both composed of thin sheet metal, occupy but the minimum amount of space in the length of the drawer, and consequently the follower may be placed very close to the back of the drawer and as close, in fact, as the

thickness of the plate 39 will permit, it being understood that when so placed it may assume a substantially perpendicular position by reason of the open character of the crotch 43, which permits the forward end of the slide 41 to be depressed.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In a card-index drawer the combination with a drawer proper of a pair of rods each curved in cross-section on the arc of a circle and arranged with their convex or curved faces together, pivots supporting said rods and arranged eccentric to the arcs of their respective faces, and means for rocking the rods on said pivots.

2. In a card-index drawer the combination with a drawer proper, of a longitudinal bar in the bottom thereof, a follower, a slide secured to said follower and having a perforation through which said bar passes, said slide including a horizontal portion arranged below the bar and two lugs or ears projecting upwardly from the end of said horizontal portion on both sides of said bar, for guiding the slide or gripping the bar.

CURTIS McPIKE.

Witnesses:

J. D. CONNER, Jr.,
G. BANISTER.