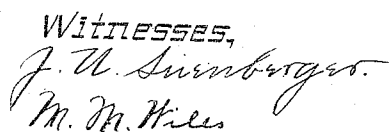


2 Sheets—Sheet 1.

DEWEY ENDBACH & C. FISHER.
 DEVICE FOR HOLDING AND DISTRIBUTING SLIPS, TICKETS, OR SHEETS
 OF PAPER.

No. 536,690.

Patented Apr. 2, 1895.



Inventors,
Hugo Loewenbach
Charles Fisher,
By John E. Wiles,
Attorney.

(No Model.)

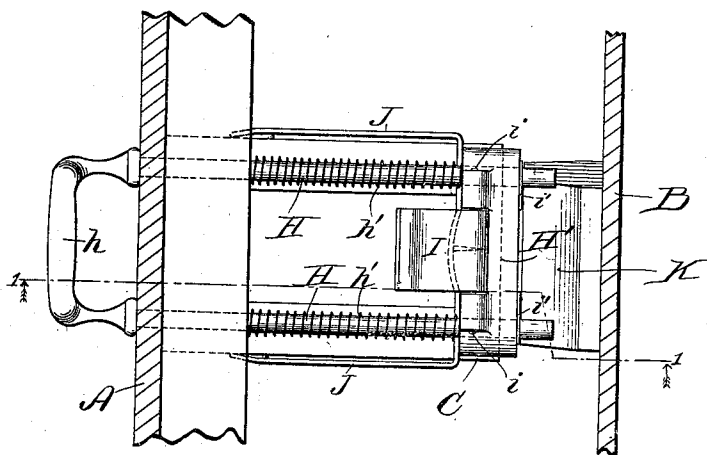
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Fig 3



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UNITED STATES PATENT OFFICE.

HUGO LOEWENBACH AND CHARLES FISHER, OF MILWAUKEE, WISCONSIN,
ASSIGNORS TO THE GLOBE REGISTER COMPANY, OF SAME PLACE.

DEVICE FOR HOLDING AND DISTRIBUTING SLIPS, TICKETS, OR SHEETS OF PAPER.

SPECIFICATION forming part of Letters Patent No. 536,690, dated April 2, 1895.

Application filed January 6, 1894. Serial No. 495,909. (No model.)

To all whom it may concern:

Be it known that we, HUGO LOEWENBACH and CHARLES FISHER, citizens of the United States, residing at Milwaukee, county of Milwaukee, State of Wisconsin, have invented a certain new and useful Improvement in Devices for Holding and Distributing Slips, Tickets, or Sheets of Paper; and we declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to devices for holding and distributing sheets or slips of paper, such for instance as employed in cash and sales registers of the construction illustrated in our applications for patents filed respectively on August 18 and October 19, 1893, and respectively serially numbered 483,490, and 488,581, or for holding and distributing stationery, toilet paper and the like.

In the accompanying drawings, illustrating our invention, Figure 1 is a vertical central longitudinal sectional view of our improved device, taken on line 1—1 of Fig. 3. Fig. 2 is a rear elevation of the same. Fig. 3 is a plan view of the same.

The particular form of device illustrated in said drawings, is that used by us in our cash and sales registers in which a number of receptacles or compartments are provided for holding sales slips or tickets of various denominations, a slot or opening being provided in the front of the machine adjacent to the top of each compartment or receptacle through which the sales slips or tickets may be singly advanced, and a suitable friction device arranged above the receptacle or compartment in such manner as to engage with the uppermost slip or ticket, to advance the same through the slot upon an operation of a suitable handle.

Referring by letter to said drawings, A and B designate respectively the front and back walls of a cash register.

a designates a transverse rib upon the inner face of the front wall A, upon which the receptacle or compartment for the slips or tickets is arranged to rest.

C designates the compartment or receptacle which is conveniently formed from a single sheet of metal bent up into a substantially rectangular form and arranged so as to leave an opening in its upper side for the admission of the friction device.

A movable plate D is arranged in the lower part of the receptacle or compartment C and is pressed upwardly by means of a spring E which rests upon the bottom of the receptacle C. Across the forward upper part of the receptacle is arranged a transverse rib or flange F which is arranged to engage with the forward side of a depending transverse flange *f*, which is secured to the inner face of the front wall A of the machine. As shown in the drawings, the upper side of the transverse rib *a* is beveled slightly so as to permit the flange or rib F to be engaged with the depending flange *f*, and the receptacle then swung into position as indicated in Fig. 1 of the drawings. In this position, the receptacle is secured to the front wall of the machine by means of a screw *a'* passed through a depending lug or ear *a''*, secured to the lower part of the compartment.

In the front wall A adjacent to the upper edge of the compartment C is provided a suitable transverse slot G, through which the slips or tickets may be successively advanced by the friction device. In this particular form of construction the friction device is of substantially the same form as that shown in our aforesaid prior application, Serial No. 488,581, said friction device consisting of a pair of longitudinally movable rods H H, extending through the front wall A and terminating in a suitable pull handle *h*, said rods carrying at their rear ends a transverse yoke H' against which suitable springs *h'* are arranged to bear, so as to normally retract the friction device. Upon the yoke H' is arranged an arm I which is pivotally secured thereto as at *i*, and carries at its lower end a suitable cushion or shoe I' of rubber or analogous material, arranged to rest by gravity upon the upper side of the uppermost slip or ticket of the series. The arrangement of the pivoted arm I is such that when the device is in its retracted position, said arm will rest in an oblique position; and when the pull handle *h* is operated, the en-

gement of the cushion or shoe I' with the uppermost slip or ticket of the series will cause said arm to assume a more nearly perpendicular position and bear forcibly upon the said slip or ticket. By a continued operation of the handle, the uppermost slip or ticket will be advanced by reason of the forcible engagement of the cushion or shoe I' therewith.

In our former application we have shown and described the yokes as secured to the longitudinally movable rods by means of set-screws, but in our present form of construction we prefer to provide in the upper sides of said rods, suitable notches or slots, and to secure to the face of the yoke suitable pivoted latches *i' i'*, which are arranged to engage with said slots or notches in a manner shown more particularly in Fig. 2 so as to retain the transverse yoke in position upon the rods.

In order to insure the delivery of but one slip or ticket at a time, and also to enable slips or tickets made from a light grade of paper to be used, we employ a suitable retaining device, which is conveniently formed from a suitable spring J secured to the compartment C and carrying at its central part a suitable pin or point J' arranged to normally rest in engagement with the uppermost slip or ticket adjacent to the rear end thereof, and as shown more particularly in Fig. 1, this pin J' is arranged obliquely so as to enable it to more readily penetrate the uppermost slip or ticket as the same is drawn forward.

As shown more particularly in Fig. 2 of the drawings, the spring J is conveniently arched upwardly adjacent to the point of attachment of the pin or point J', so as to permit the slip or ticket to ride upwardly upon the oblique pin, as it is drawn forward by the friction device.

The operation of our device is as follows: The pull handle *h* is operated in precisely the same manner as is described in our aforesaid applications, thereby causing the friction device to engage with the uppermost slip or ticket of the series, so as to advance the same through the transverse opening or slot G. As said slip or ticket is drawn forward it will be pierced by the pin or point J', and the continued operation of the friction device will cause said pin or point to tear its way through the rear portion of the slip or ticket in an obvious manner, until said slip or ticket is entirely freed from the pin or point and is left free to be withdrawn entirely through the slot G. As soon as the uppermost ticket has been engaged by the friction device, and has begun its forward movement, so as to be pierced by the pin or point J' said point will engage with the next slip or ticket below, and serve to retain the latter in place, as the frictional engagement between the two slips or tickets is not sufficient to force the second slip forward and cause the pin or point to tear its way through the rear portion thereof as it

does in the slip or ticket which is directly engaged by the friction device.

The tendency of the friction device when the handle *h* is operated, is obviously to press the entire series of slips or tickets downwardly within the receptacle or compartment C, so that if the pin or point J' were secured to a rigid or immovable support, the pressure of the friction device upon the series of slips or tickets and the consequent yielding of the spring E might permit the slips or tickets to drop below and out of line with said pin or point, so that more than one slip or ticket might be advanced by a single operation of the friction device. To overcome this difficulty, we arrange the spring J in substantially the manner shown in Fig. 1, with two forwardly extending arms, arranged adjacent to opposite sides of the receptacle or compartment C, which arms each terminate in one or more convolutions, the extremities of which are secured in any suitable or desired manner to the side walls of the receptacle or compartment C. By this construction, the pin or point is caused to constantly exert a downward pressure upon the series of slips or tickets, notwithstanding any downward movement or yielding of said series of slips or tickets, and thereby a positive engagement of the retaining device with the uppermost slip or ticket and the ticket next below it in the series is insured.

In the constructions illustrated in our former applications we have shown the backs of the compartments or receptacles, as provided with suitable hinged covers or lids, arranged to retain the series of slips or tickets in position. As a separate and further improvement, however, we prefer in our present form of construction to provide upon the forward side of the hinged back B of the machine, suitable ribs or flanges K, which are arranged to rest adjacent to the rear edges of the slips or tickets within the compartment so as to prevent accidental displacement of any of said slips or tickets, thereby enabling us to entirely dispense with the backs or covers to the compartments or receptacles.

As a further and separate improvement in order to facilitate the filling of the receptacles or compartments with slips or tickets, we find it convenient to provide in the lower or bottom wall of the compartment C, a suitable aperture *c*, and to secure to the under side of the movable supporting plate D a suitable depending spring *d* provided at its lower end with a hook *d'* adapted for engagement with the margin of the aperture *c*, when the movable plate D is depressed. By this construction, when one of the compartments has been emptied, and it is desired to refill the same with slips or tickets, it is only necessary for the operator to depress the plate D until the hook *d'* at the end of the spring arm *d* engages with the margin of the aperture *c*, when the movable plate D will be securely held in

its depressed position. The operator may then place the desired number of slips or tickets in the compartment, and after they have been properly arranged therein, may release the plate D by simply pressing forward upon the lower end of the spring *d* which projects through the aperture *c*, in the bottom of the receptacle or compartment, when the spring E will immediately elevate the plate D and the series of slips or tickets resting thereon, so as to hold the uppermost ones of said slips or tickets against the flanges at the upper part of the compartment or receptacle in an obvious manner.

By means of our present improvement, we are enabled to greatly simplify the construction of cash and sales registers and devices for holding and distributing sheets of paper, and to greatly reduce the cost of manufacture of the same, while at the same time great accuracy of operation is insured, and we are enabled to employ slips or tickets made from thin or light grade paper without the necessity of punching or perforating said slips or tickets for engagement with retaining devices.

As a separate and still further improvement, we prefer to provide in the rear margin of the supporting plate D, a suitable notch or aperture L arranged in line with the pin J' into which said pin will project when the plate D has been elevated by the spring E so as to bring the last ones of the slips, tickets or sheets of the series, into position for engagement with the friction device. Furthermore if desired, we may also employ a facing or covering of felt, rubber, leather or other elastic or yielding material upon the upper face of the plate D, as shown in Fig. 1 at *l*, which will serve to retain the last ones of the slips, tickets or sheets by frictional engagement therewith and prevent more than one slip, ticket or sheet from being advanced by a single operation of the friction device, as the end of the series is reached. By this means we are enabled to insure absolute accuracy of feeding or advancing the slips, tickets or sheets, until the very last slip, ticket or sheet of the series has been advanced.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. A device for holding and distributing slips, tickets or sheets of paper, comprising a suitable receptacle or casing provided with a discharge aperture or slot, a movable plate adapted to support a series of slips, tickets or sheets, and normally pressed upward by a spring, a friction device for engagement with the uppermost slip, ticket or sheet to advance the same through said aperture or slot, and a retaining device comprising a movable arm

and a sharp pin or point adapted to be held in engagement with said uppermost slip, ticket or sheet, substantially as and for the purpose described.

2. A device for holding and distributing slips, tickets or sheets of paper, comprising a suitable receptacle or casing provided with a discharge aperture or slot, a friction device adapted for engagement with the uppermost slip, ticket or sheet, to advance the same through said slot, and a retaining device provided with a pin or point adapted for engagement with said slip, ticket or sheet, said pin or point being arranged obliquely with respect to said slip, ticket or sheet, substantially as and for the purpose described.

3. A device for holding and distributing slips, tickets or sheets of paper, comprising a suitable receptacle or casing provided with a discharge aperture or slot, a movable support for a series of slips, tickets or sheets, a friction device adapted for engagement with the uppermost slip, ticket or sheet, to advance the same through said aperture or slot, and a retaining device comprising a spring arm carrying at its free end an oblique pin or point adapted for engagement with the uppermost slip, ticket or sheet, substantially as described.

4. A device for holding and distributing slips, tickets or sheets of paper, comprising a suitable receptacle or casing, a movable spring supported plate for supporting said slips, tickets or sheets, a friction device for engagement with the uppermost slip, ticket or sheet of the series, a retaining device provided with an oblique pin or point for engagement with said uppermost slip, ticket or sheet, and an aperture in the margin of said supporting plate for the reception of said pin or point substantially as described.

5. A device for holding and distributing slips, tickets or sheets of paper, comprising a suitable receptacle or casing, a movable spring supported plate for supporting a series of said slips, tickets or sheets, a friction device adapted for engagement with the uppermost slip, ticket or sheet of the series for advancing the same through a suitable slot or aperture, a retaining device provided with an oblique pin point adapted for engagement with said uppermost slip, ticket or sheet, and a facing of felt or other yielding material upon the upper surface of said supporting plate, substantially as described.

In testimony whereof we sign this specification in the presence of two witnesses.

HUGO LOEWENBACH.
CHARLES FISHER.

Witnesses:

JOHN E. WILES,
JOHN N. SENENBERGER.