April 26, 1932. D. N. HYMAN 1,855,352

PAPER SLIP CUTTING DEVICE

Filed May 23, 1929

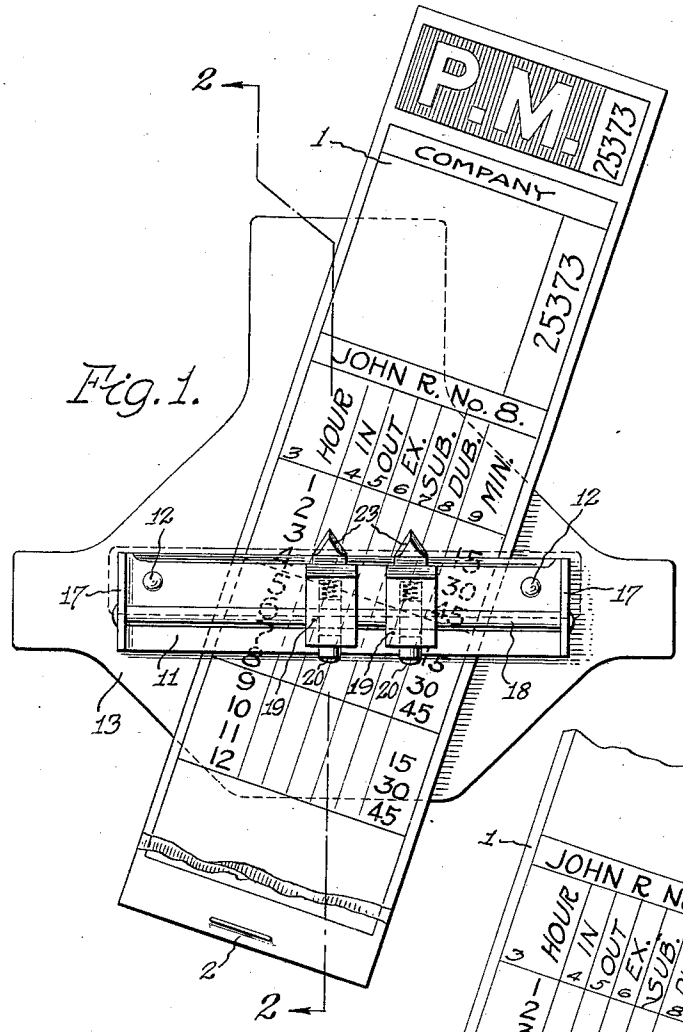

Fig. 1.

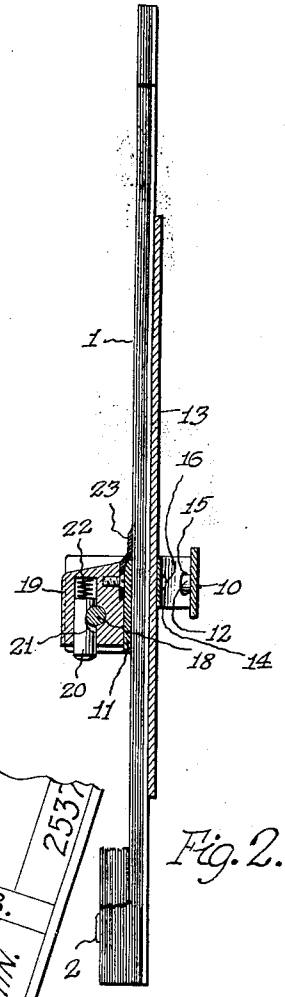

Fig. 2.

Fig. 4.

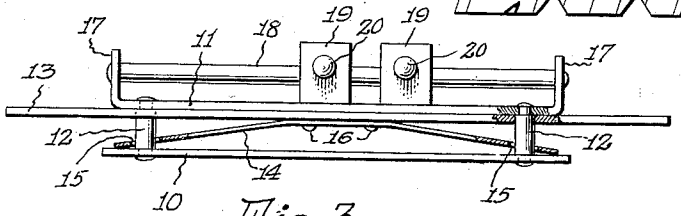

Fig. 3.

INVENTOR

Daniel N. Hyman,

BY

ATTORNEYS

Patented Apr. 26, 1932 1,855,352

UNITED STATES PATENT OFFICE

DANIEL N. HYMAN, OF DETROIT, MICHIGAN, ASSIGNOR TO HYMAN REGISTER CORPORATION, OF BUFFALO, NEW YORK, A CORPORATION OF NEW YORK

PAPER SLIP CUTTING DEVICE

Application filed May 23, 1929. Serial No. 365,400.

This invention relates to a device for cutting or tearing tickets, transfers or other paper slips or strips, in a manner to indicate, through certain indicia printed upon said strips, time or other matter necessary or expedient for record, validation or other purposes in the system in connection with which the slips or strips are used.

An object of the present invention is to facilitate the tearing or cutting of such slips or strips in a manner to give the desired indications, and to provide a device for the purpose which is very simple in construction and cheap to manufacture. It is a further object to provide a device of this character whereby the cutting or tearing of these paper strips along various lines with variously positioned indications or notches, is greatly facilitated, and further, to provide a device having certain other new and useful features, all as hereinafter more fully set forth.

With the above and other ends in view, the invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims, reference being had to the accompanying drawings in which—

Figure 1 is a plan view of a device illustrative of an embodiment of the present invention and showing a slip or strip to be cut thereby, in place thereon to illustrate the operation of the device;

Fig. 2 is a section, substantially upon the line 2—2 of Fig. 1;

Fig. 3 is an end elevation of the device with the work removed; and

Fig. 4 is a detached portion of a strip illustrating the manner in which it is cut by the device.

In the accompanying drawings, the device is illustrated for use in cutting transfer slips to indicate the time of issue, direction of travel, and other matters, but it will be understood that the same may be used for similar purposes in connection with other strips or slips, such as tickets, etc., which are usually made up in packages or blocked, that is, a plurality of the printed strips is secured together at one end for convenience in handling.

As illustrated, a block or package of transfer strips 1 is shown, said strips being secured together at one end as indicated at 2, and for the purpose of illustrating the use of the device embodying the invention, each transfer, printed with a series of columns extending longitudinally of the strip, each column bearing indicia for certain purposes in connection with the use of the transfer, as for instance, column 3 indicates the hour of issue of the transfer, columns 4 and 5 indicate the direction of travel of the car from which the transfer was issued, column 6 indicates the kind of car, such as express, column 7 indicates the route over which the car travels such as suburban, and column 8 indicates the kind of transfer, that is, that it is the second or double transfer. Column 9, which is adjacent the edge of the strip opposite that along which the hour column extends, is a column of figures indicating quarter hours.

The device embodying the present invention may be carried about for use wherever desired, or preferably, will be rigidly supported by some convenient support where it will be at the hand of the conductor, motorman, or driver who is designated to issue transfers upon payment of fares. Those conveyances which are provided with stationary fare boxes will provide a convenient support for this device, such as the fare box itself or other support adjacent the fare box, so that the motorman or conductor, or driver of the car may quickly manipulate the device with one hand in issuing transfers.

The device embodying the present invention includes a suitable transverse supporting bar 10 which may be secured in any suitable manner (not shown) to a suitable support. Mounted upon this bar 10 in parallel spaced relation thereto, is a strip or strap of sheet metal 11 secured to the bar 10 by means of studs 12 and slidable upon these studs is a plate 13 of any desired configuration. Interposed between the bar 10 and the plate 13, is a flat spring 14 having openings 15 adjacent its ends to receive the studs 12, the spring 14 being riveted or otherwise rigidly secured intermediate its ends as at 16 to the underside of the plate 13. The plate 13 may,

therefore, be pressed toward the bar 10, the spring arms 14 yielding under such pressure, and by so depressing the plate 13, the block of transfers 1 may be slipped endwise between the plate 13 and the strap 11, said strap extending transversely across the face of the uppermost transfer. The block of transfers is thus held frictionally in position upon the upper surface of the plate 13 but may be moved in any desired direction upon said plate.

The ends of the strap 11 are turned upwardly as at 17 to provide for a rod 18 extending parallel with the strap 11, plate 13 and bar 10. Slidable along this rod 18 are blocks 19, each bored transversely to receive the rod and also bored longitudinally to receive pins 20 which extend at right angles to the rod 18, each pin being formed with a notch 21 through which the rod 18 extends and interposed between the inner end of the pin 20 and the inner end of the bore in the block for the pin, is a coil spring 22 exerting a constant pressure to move the pin longitudinally and hold its notch in frictional engagement with the rod 18 so that each block will be firmly held in the position to which it is moved along the rod 18. Each block 19 carries a sharp cutting point or projection 23, adapted to project beyond one edge of the strap 11, which edge is formed to provide a cutting edge.

In operation, the device being secured in operating position by means of the bar 10, a block of transfers is slipped endwise between the plate 13 and the strap 11 by first pressing downwardly upon the plate against the action of the flat spring 14. After the block of transfers is in place and frictionally held upon the surface of the plate 13 by the engagement of the strap 11 extending across the strip of transfers, said block of transfers may be moved upon the surface of the plate to any desired angular position or moved endwise between the plate and strap. The party issuing the transfer determines the hour and quarter hour of issue which is as illustrated, 4:15. He then swings the block of transfers until the forward cutting edge of the strap 11 lies across the figure 4 in column 3 and the figure 15 in column 9. He then moves one of the blocks 19 along the rod 18, but first depressing the pin 20, until the sharp cutting V-shaped projection 23 carried by the block lines directly over column 4 of the transfer. This is to indicate that the vehicle is inbound. If this is the only indicating mark which he desires to indicate on the transfer, then he will move the other block from its position over the transfer, or laterally to the end of the strap 11 where it will be out of the way and not operative. If, however, he wishes to indicate, as in the present example, that the vehicle is a suburban car, he will then move the block to bring its cutting projection 23 over the column 7 of the transfer. Having thus positioned the parts, he will grasp the upper free end of the uppermost strip of transfers and tear it off, the paper being cut along the line at the edge of the strap 11 and this severing line notched at the columns 4 and 7.

As indicated in Fig. 4, the severed transfer will show at a glance the hour and quarter hour of issue by reason of the line of severance cutting through the figures 4 and 15 in columns 3 and 9. The notches formed by the projections 23 in this line of severance, will indicate the other data desired.

Manipulation of the block of strips or transfers is facilitated by the manner in which the block is held and the ease with which it may be positioned upon the plate 13 to sever the strip along the desired line and to indicate the desired indicia printed on the strip or transfer. The plate forms an adequate support for the block of transfers and holds them in plain sight of the operator and the blocks 19 are also in a position where they may be quickly moved relative to the transfer slip.

Obviously changes may be made in the device within the scope of the appended claims to suit the conditions of use and as such changes are contemplated, I do not limit myself to the particular construction and arrangement shown.

Having thus fully described my invention, what I claim is:—

1. A device for severing strips having indicia thereon and in a manner to indicate selected indicia, said device including a support for the strip comprising a flat plate upon which plate said strip may be freely moved in any direction, and a severing member extending transversely of said strip and of greater length than the width of said strip, whereby said strip may be moved angularly between said members to provide for severing said strip at an angle greater or less than a right angle.

2. A device for severing strips having indicia thereon and in a manner to indicate selected indicia, said device including a supporting flat plate having a plane unrestricted upper surface and of greater width than said strip and upon which said strip may be moved freely in any direction, a severing member extending transversely of said strip and of greater length than the width of said support, and means for yieldingly moving said members relatively toward each other to clamp said strip therebetween, said strip being frictionally held and movable between said members to bring said severing member to a position relative to said strip to sever the same transversely at any desired angle.

3. A device for severing strips having indicia thereon, and in a manner to indicate selected indicia, said device including a plate

having a plane unrestricted upper side for supporting said strip and of greater width than said strip, a severing member having a cutting edge and extending transversely of said strip, means for yieldingly holding said severing member in contact with the face of said plate to frictionally hold said strip between said plate and member and permit swinging said strip to an angular position relative to said cutting edge, and means projecting beyond and adjustable longitudinally of said cutting edge of said member to form an indicating notch in the strip at the severed edge thereof.

4. A device for severing strips having indicia thereon and in a manner to indicate selected indicia, said device including a supporting plate having a plane unrestricted upper side and edges for said strip, a severing bar of greater width than said strip extending transversely of said plate and strip to rest upon said plate with said strip between said bar and plate, said bar having a cutting edge, a supporting member beneath said plate, a spring interposed between said plate and supporting member to urge said plate toward said severing bar and yieldingly clamp said strip between said plate and bar to be moved therebetween upon the surface of said plate to any desired angle relative to said cutting edge, a guide mounted upon said severing bar, and a cutting member adjustable along said guide and having a cutting portion projecting beyond the cutting edge of said bar.

5. A device for the purpose described including a plate for the support of a strip to be severed, a supporting member beneath said plate, studs on said supporting member movable freely through openings in said plate, a spring interposed between said member and plate, a bar having a cutting edge and secured to the upper ends of said studs, a guide rod extending longitudinally of said bar, blocks slidable along said rod and having cutting portions projecting beyond the cutting edge of said bar, and means carried by each block for holding the same in the position to which it is adjusted along said rod.

In testimony whereof I affix my signature.

DANIEL N. HYMAN.