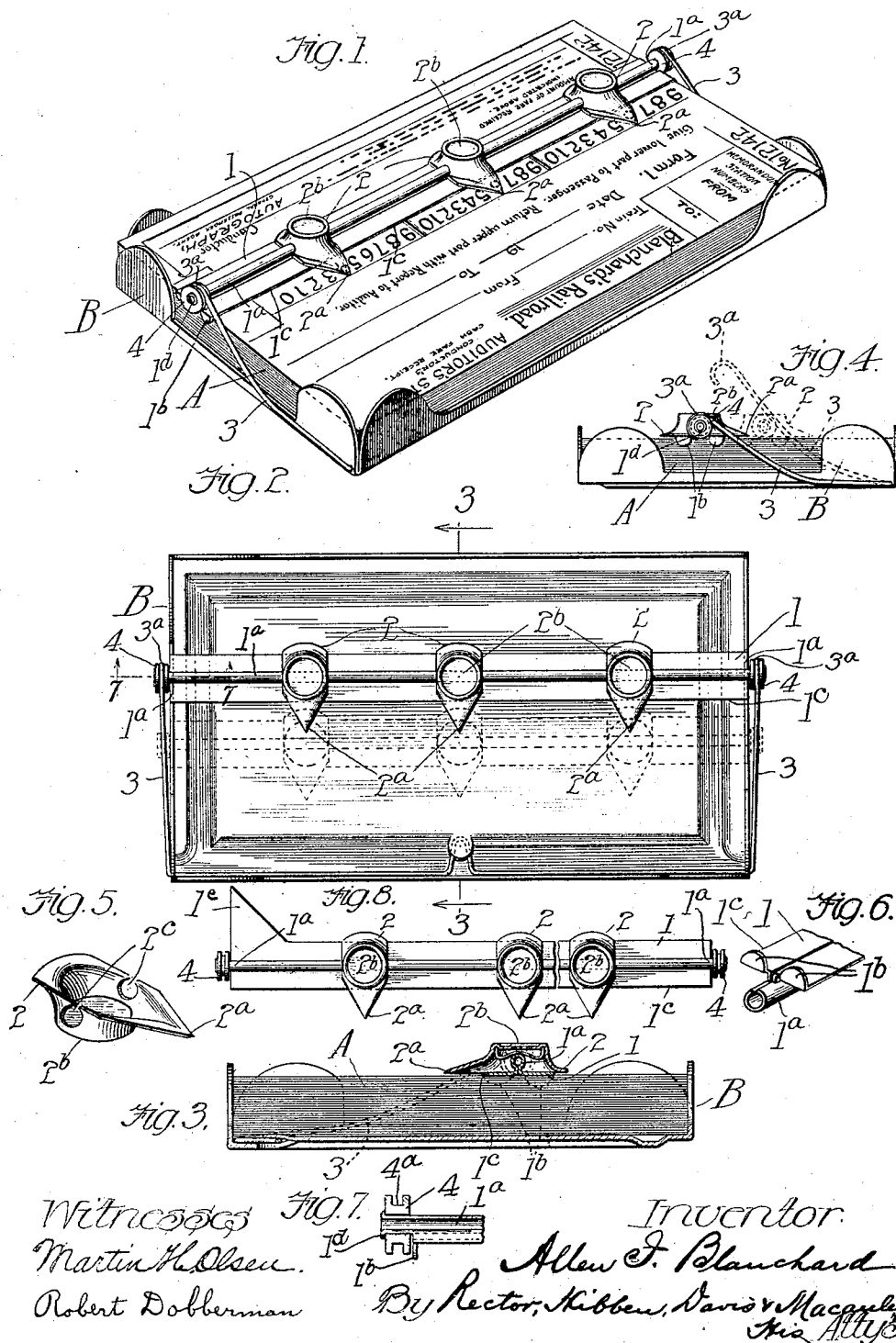


TICKET CUTTER.

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UNITED STATES PATENT OFFICE.

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TICKET-CUTTER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALLEN I. BLANCHARD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Ticket-Cutters, of which the following is a specification.

My invention relates to an improved ticket cutter for use in connection with railway tickets more particularly conductors' cash fare receipts or slips which are printed in such a manner that when separated lengthwise by the cutter into two portions or halves the amount is indicated upon both of such portions, one of which is handed to the passenger and the other retained by the conductor.

My invention has for its object the provision of a novel, simple and efficient construction of ticket cutter for so executing the receipts or slips, such cutter including a tearing knife or straight edge having mounted thereon a suitable number of projections which are adjustable on the straight edge in such a manner as to cause an indication of the amount of fare on both severed portions of the receipt. The straight edge and its projections are constructed and cooperate in such a way that they are both held together firmly and in proper relative position during the execution of the ticket or receipt so that the latter is properly and accurately manipulated.

Another object of my invention is to so mount the straight edge in a ticket holder that such straight edge while held more or less firmly in normal position by spring pressure, may be moved from such normal position for the purpose of enabling the conductor to readily remove the passenger's portion of the receipt.

My invention embodies other novel and advantageous features of construction which will be apparent from the description hereinafter given.

In the accompanying drawing Figure 1 is a perspective of a ticket holder and cutter embodying my invention and illustrating a supply of cash fare tickets or receipts within the holder; Fig. 2 a plan view of the ticket holder and cutter illustrated in Fig. 1 but with the tickets or receipts removed; Fig. 3 a cross section on the line 3—3 of Fig. 2; Fig. 4 an end view of the ticket holder and cutter; Fig. 5 a perspective of one of the

notch-forming projections illustrating the underside thereof; Fig. 6 a perspective of one end of the straight edge illustrating the formation of the same before the roller is secured therein; Fig. 7 a sectional detail on the line 7—7 of Fig. 2, and Fig. 8 a plan view of a modified form of straight edge.

Referring to the present embodiment of my invention as illustrated in the drawing the ticket cutter comprises essentially a straight edge 1 and one or more notch-forming projections 2 which are mounted to slide on the straight edge in the peculiar manner now to be described.

As shown more particularly in Figs. 3 and 6 the straight edge is folded and crimped upwardly along the substantially central longitudinal line to form a longitudinal rib 1^a which is rounded so as to be substantially tubular to act as a guide for said projections 2. The underside of the straight edge is therefore flat and adapted to rest upon the top surface of the pile of tickets A while the other or top side has projecting therefrom said guide or rib 1^a. In addition and by preference the ends of the straight edge are provided with flanges 1^b which engage over the ends of the pile of tickets to assist in the guiding of the transverse movements of the straight edge hereinafter explained. These flanges, however, are not essential but considered advantageous. The notch-forming projections 2 are similar, each being formed with a tooth 2^a projecting beyond the severing edge 1^c of the straight edge and also by preference formed with socketed heads 2^b for convenient manipulation by the fingers. Each of these projections is also provided in its two opposite sides and near the bottom thereof with notches 2^c which somewhat exceed a semi-circle and are thereby adapted to fit upon and engage the rib or guide 1^a with the result that such projections are held against detachment from such guide but permitted to be adjusted longitudinally thereon. By means of this construction of straight edge and projections the latter are held very firmly in proper relative position with respect to the straight edge particularly when the ticket is being executed, which is of much importance as it permits of uniform and accurate execution, besides which the construction described represents a very simple and economical one.

The ticket cutter above described may be associated with any suitable type of ticket holder and in the present instance I have illustrated a conventional form of holder

5 B. Moreover, my ticket cutter may be mounted upon its holder in any suitable manner but in order to give an additional function to the ticket cutter I prefer to mount it as illustrated in the drawing. Referring more particularly to Figs. 1, 2, 3 and 7, I secure to the opposite ends of the ticket holder spring wires 3, one end being secured in fixed relationship to the holder and the other being extended upwardly and transversely of the holder and terminating in a loop 3^a as more clearly indicated in Fig. 4. This free or loop end of each spring is adapted to engage its end of the guide 1^a, both ends of such guide being extended beyond the ends of the straight edge proper and therefore projecting beyond the ends of the pile of tickets. While provision may be made for the direct engagement between such extended ends of the guide and the spring wires, yet I prefer to provide such ends of the guide with small rollers 4 which are adapted to rotate freely on such ends and are held in place by upsetting or beading over the extreme ends of the guide at 1^d, it being understood that the notch-forming projections 2 are previously inserted at the ends of the guides, see Fig. 7. Each roller is provided with a circumferential groove 4^a to receive the loop end of its spring wire. These spring wires thus hold the ticket cutter to proper or normal position on the pile of tickets with a yielding pressure, the tension being exerted downwardly and also laterally upon the straight edge to normally hold the cutter in the normal position illustrated in Fig. 1. The proper position transversely of the pile of tickets is determined by the loop ends of the spring wires which by their engagement with the rollers 4 prevent the straight edge from being moved farther transversely than is shown in Fig. 1. At the same time the construction and arrangement are such that upon the application of positive force against the tension of the spring wires, as to the right in Fig. 4, the entire cutter may be moved transversely until the parts including the springs occupy the position illustrated in said Fig. 4, in this movement the rollers 4 rolling along the intermediate portion of the spring wires. In this operation the passenger's receipt is free from the cutter, that is, the cutter is moved off of the inner portion of the passenger's portion of the receipt. This is a very advantageous feature inasmuch as it permits the conductor to readily and easily grasp and remove his portion of the receipt or ticket whereas otherwise the pressure of the cutter upon such portion of the receipt holds

the same closely upon the pile of tickets and prevents the ready grasping of such portion along the outer edge.

For the purpose of enabling the straight edge to indicate the class of fare—whether full fare or half fare for which the ticket is issued, I provide the form of straight edge illustrated in Fig. 8 wherein it is seen that such straight edge is the same as that already described with the exception that it has on the side opposite its severing edge and at one end thereof a projecting portion 1^e whose severing edge is made inclined to the body of the straight edge. Assuming that the ticket is to be executed for a half fare the entire straight edge is moved or adjusted transversely as indicated by dotted lines substantially as shown in Figs. 2 and 4 or until the rear edge or side of the straight edge occupies a position on the ticket formerly occupied before the adjustment by the severing edge thereof. In other words the severing edge is moved transversely a distance equaling its own width. The passenger's portion of the ticket is now raised at one corner and torn along the inclined severing edge of the projection 1^e, this action stopping when the edge of the cut has reached the rearward edge of the straight edge. The latter is thereupon permitted to be automatically returned to its normal position and the ticket is executed in the usual manner. As a result the auditor's stub or portion of the ticket will have a projection at one end similar to the projection 1^e while the passenger's portion will be complementary thereto, that is, it will have a portion severed from one corner thereof.

By the use of my invention a ticket holder and cutter is provided which has several features of advantage over those now in general use particularly among which advantages may be stated the convenience and accuracy of execution of the ticket or receipt and the convenience and rapidity of removal of the conductor's portion of such ticket or receipt, as well as the simplicity and economy of the construction. Moreover, the described formation of straight edge and guide as a unit from a single piece of sheet metal not only causes the guide to be held firmly in proper relative position for accurate and uniform manipulation of the ticket but also provides a structure most economical of manufacture and extremely light without sacrifice of strength. Indeed, this formation of guide has a tubular rib which rises from the surface of the straight edge proper as an integral part thereof and serves to materially strengthen such straight edge while its extended ends which are thus rigid with the straight edge are utilized as members cooperating with the springs 3.

I claim:

1. In combination with a holder adapted to contain a pile of tickets, a ticket cutter adapted to rest upon a pile of tickets and means secured to the holder and engaging the cutter with a yielding pressure and having a stop to limit the movement of the cutter in one direction but permitting it to move in an opposite direction.
2. In combination with a holder adapted to contain a pile of tickets, a ticket cutter adapted to rest upon the pile, and springs secured to the holder and having open looped ends to engage the ends of the cutter to permit both upward movement and transverse movement of the cutter in one direction.
3. In a device of the character described, a straight edge having formed integral therewith a longitudinal guide whose ends are extended, a projection slidable on the guide, and springs secured to the holder and having open looped free ends to engage the ends of the cutter to permit both upward movement and transverse movement of the cutter in one direction.
4. In a device of the character described, a straight edge having formed integral therewith a longitudinal guide whose ends are extended, a projection slidable on the guide, rollers mounted on the extended ends of the guide, and springs secured to the holder and having open looped free ends engaging said rollers.
5. In a device of the character described, a straight edge having formed integral therewith a longitudinal guide whose ends are extended, a projection slidable on the guide, rollers mounted on the extended ends of the guide, the extreme ends of the latter being upset to secure the rollers in place, and springs secured to the holder and having open looped free ends engaging said rollers.
6. In a device of the character described, the combination, with a ticket holder, a straight edge having thereon means for in-

dicating on a ticket the amount of fare paid and also having means for indicating half fare thereon, said straight edge being adjustable transversely of the holder but held in a normal position with a yielding pressure.

7. In a device of the character described, the combination, with a ticket holder, a straight edge having thereon means for indicating on a ticket the amount of fare paid and also having at one side and at one end thereof a projection for indicating half fare on the ticket, said straight edge being adjustable transversely of the holder but held in a normal position with a yielding pressure.

8. In a device of the character described, the combination, with a ticket holder, a straight edge having thereon means for indicating on a ticket the amount of fare paid and also having at one side and at the end thereof a projection with a cutting edge inclined to the straight edge and arranged to indicate half fare on the ticket, said straight edge being adjustable transversely of the holder but held in a normal position with a yielding pressure.

9. In a device of the character described, the combination, with a holder for a pile of tickets or slips, of a straight edge mounted in the holder and capable of an adjustable movement transversely thereof, a projection mounted for adjustment upon the straight edge and extending beyond its severing edge for indicating on a ticket the amount of fare paid, and a projection extending from the other edge of said straight edge for the partial severing of a ticket when the straight edge is adjusted transversely of the holder and ticket, whereby the class of fare may be indicated on the ticket.

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Witnesses:

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