

H. M. Stow,

Ticket Punch,

No 85,409,

Patented Dec. 29, 1868.

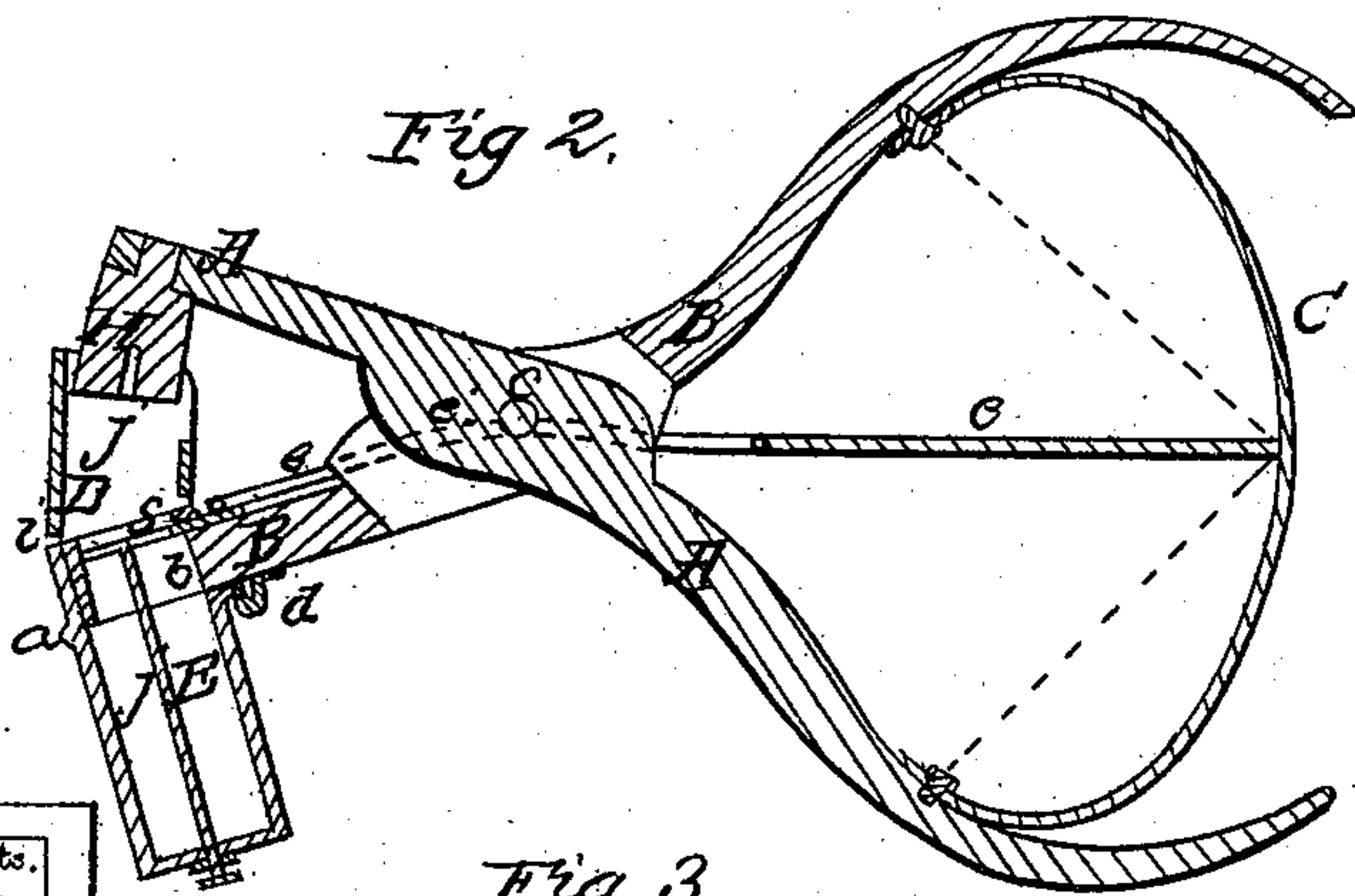


Fig. 1.

Fig. 3.

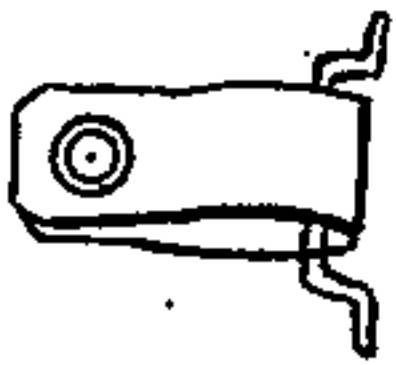


Fig. 4.

25 cts. R. R. Co.
RULES OF THE
.....R. R. CO.
The conductor shall deliver to each payee a package containing the proper change, less one fare, first having clipped off the end of the package.
The conductor shall collect fare as above directed, and in no other manner, from each and every person riding on the cars, only excepting persons with a proper pass and employees of the Company.
NINETEEN CENTS CHANGE.

6 cts. R. R. Co.	6 cts. R. R. Co.	6 cts. R. R. Co.	6 cts. R. R. Co.
RULES OF THE			
.....R. R. CO.			
The conductor shall deliver to each payee a card containing the proper number of tickets less one fare, first having clipped off the end of the package.			
The conductor shall collect fare as above directed, and in no other manner, from each and every person riding on the cars, only excepting persons with a proper pass and employees of the Company.			

Witnesses,
J. J. Coombs
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UNITED STATES PATENT OFFICE.

HENRY M. STOW, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN RAILROAD-TICKETS AND PUNCH FOR CUTTING COUPONS THEREFROM.

Specification forming part of Letters Patent No. 85,409, dated December 29, 1868.

To all whom it may concern :

Be it known that I, HENRY M. STOW, of San Francisco, in the county of San Francisco and State of California, have invented a new and useful Improvement in Railroad-Tickets, and in an instrument for cutting coupons therefrom and preserving the same; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a representation of a coupon pouch-ticket made in pursuance of my invention. Fig. 2 is a central longitudinal section of my improved instrument for cutting off and preserving coupons. Fig. 3 is a view of a detective-lock which I apply to said instrument; and Fig. 4 is a representation of another coupon-ticket, adapted to use in connection with my instrument, but on which no invention is claimed.

My invention is especially adapted to use on city-railroad cars, but may be used on any conveyances for carrying passengers, by land or water, or on toll-gate roads, or for other similar purposes.

One of the great difficulties which street-railroad companies have hitherto had to contend with is the dishonesty of conductors in failing to account faithfully for the fares collected by them on their routes. My invention is intended to obviate this difficulty, as well as greatly to facilitate the making of change by the conductors. To this end I provide a system of pouch coupon-tickets, as follows: Each ticket is printed on one side of a small paper pouch, as represented in Fig. 1. Each of said pouch-tickets contains, securely pasted in it, an amount of money corresponding with some one of the denominations of small currency in common use, less one fare, as ten cents, twenty-five cents, fifty cents, &c., and each has a coupon printed on one corner or one end, with figures thereon representing the amount of money contained in the pouch, with the price of one fare added. For instance, if the fare be six cents, the ten-cent pouches will each contain four cents change, but the figures on the coupon will indicate ten cents; the twenty-five-cent pouches will con-

tain nineteen cents change, but the figures on the coupon will represent twenty-five cents; and the fifty-cent pouches will contain forty-four cents change, but the figures on the coupon will represent fifty cents. I also provide blank tickets, or tickets containing no change, the figures on the coupons of which represent the price of one fare. These tickets are to be issued or given out by the conductor only on his route. Tickets issued by the company, and not given out by the conductor, should have coupons differing in color, or in some other way, from the conductor's tickets, so as to be readily distinguishable therefrom.

The instrument hereinafter described (resembling a common ticket-punch) severs the coupon from the ticket, and deposits it (the coupon) in a locked box attached to the instrument, from which it cannot be removed without unlocking the box.

If a passenger gives the conductor the exact amount of one fare, the conductor hands him a blank ticket, (containing no change,) first cutting off the coupon. If the passenger pays in ten cents, twenty-five cents, fifty cents, or one dollar, the conductor will give him a pouch-ticket containing the proper change, first cutting off the coupon, which is automatically deposited in the locked box of the instrument.

On his return the conductor delivers his instrument to the proper clerk or officer, who unlocks the box and takes the coupons therefrom, and the coupons cut from the conductor's tickets (which, as before stated, must be distinguishable from the coupons of tickets issued by the company) will show the exact amount of money which the conductor has to pay over, and the tickets on hand will show how many and of what denominations he has sold. It is manifest that it will be impossible for the conductor to appropriate any money to his own use without detection, except by receiving fare and giving no ticket therefor, and this could not be practiced to any considerable extent without detection.

I will now proceed to describe the instrument by means of which the coupons are cut off and preserved.

The instrument consists of two limbs, A and

B, riveted together at *c*, like a pair of scissors, and of certain attachments, hereinafter described. The front ends of these limbs form two jaws, A' and B'.

The jaw A' has a cutting-head, H, attached thereto, having a face of the size and form of the coupon to be severed from the ticket. The lower jaw B' has an aperture, *b*, through it, into which the cutting-head H will closely fit, so that when a piece of paper or card is laid over said aperture, and the cutting-head forced down so as slightly to enter the same, it will shear out a piece of the size and shape of the face of said cutting-head. Immediately below said aperture *b* is a box, E, which opens outward, turning upon a hinge, *a*, and which is secured in the position shown in the drawings by means of a hasp and staple, *d*, and the detective-lock hereinafter described, or any other suitable lock or fastening.

A sliding guard-plate, *s*, covers the aperture *b* and the box E when the instrument is opened, but recedes out of the way of the cutting-head when the jaws close. This sliding plate *s* is operated by a bow-spring, C, between the handles of the instrument, being connected thereto by a connecting rod or wire, *e*. When the handles are forced together to close the jaws, the middle portion of the spring C necessarily bulges out rearward, carrying the sliding plate *s* back out of the way of the cutting-head, and when the pressure upon the handles is released the spring C throws them apart, resuming the position shown in the drawing, and in so doing pushes the guard-plate back, so as to cover the aperture *b* and the box E.

The connecting-rod *e* has a bracket or stirrup, *e'*, embracing both limbs of the instrument where they cross each other, and the length of this bracket limits the movement of the spring C, and consequently the extent to which the jaws may open and close.

Instead of the spring C to operate the sliding plate *s*, a toggle may be substituted, as shown in the drawing; but in that case a spring of some kind would be necessary to throw open the jaws of the instrument.

Attached to the lower jaw of the instrument is a sheet-metal case or shield, D, into which the cutting-head H fits. The front end and one side of this case D has a narrow opening, *i*, at the base, to allow a piece of paper or cardboard to be inserted over the aperture *b*, and said case or shield renders it impracticable to remove a coupon from the box without unlocking and opening it.

An eye-pointed needle, *j*, is screwed into the center of the bottom of the box E, its point extending through an open slot in the sliding plate *s*, and up into a hole, *j'*, in the face of the cutting-head H when the jaws are closed.

The operation of the instrument is as follows: The jaws being open, as shown in the drawing, the corner of the ticket on which the coupon is printed is inserted in the opening *i*, so as to be immediately over the sliding plate

s, and under the face of the cutting-head. The jaws of the instrument are then brought together by gripping the handles, the sliding plate *s* at the same time receding out of the way of the cutting-head, the face of which slightly enters the aperture *b*, severing the coupon and forcing it down upon the needle *j*. As the jaws open, the sliding plate *s* moves forward, so as to close the box in which the coupon has been deposited. When it is desired to remove the coupons from the box they may be all instantly strung together by passing a thread through the eye in the point of the needle and withdrawing the needle rearward through the bottom of the box.

As a cheap and convenient means of securing the box E, so that the coupons cannot be tampered with by the conductor without detection, I have devised a detective-lock, consisting of a narrow strip of paper or thin paste-board passed through the staple, and the two ends fastened together by means of a metallic eyelet, such as is in common use for fastening papers together, or by any similar paper clasp or fastener which cannot be removed without tearing the paper. Strips of thin leather, parchment, or other suitable material may be used instead of paper.

Before the instrument is delivered to the conductor at the commencement of his trip, it is thus locked, and when returned by him for the purpose of delivering up the coupons, it is unlocked by breaking the strip of paper or other material used.

It is manifest that the conductor cannot unlock and relock the instrument on his route without being provided with eyelets and an eyelet-punch.

Tickets issued by the company containing no change (which, as before stated, should have coupons easily distinguishable from those given out by conductors) may have a number of coupons on each, as shown in Fig. 4. When one of these tickets is handed to the conductor he cuts off one coupon and returns the ticket to the passenger.

Where there are several street-railroads in the same city, each charging the same rate of fare, it has been found a great convenience to make an arrangement by which each road will receive for fare the tickets issued by each of the other roads, the companies having periodical times for settlement, by exchanging tickets and paying balances.

The companies may issue tickets having coupons exactly alike, except in color, or they may otherwise vary, so as to be easily distinguishable, provided they are all of the same size. My instrument is admirably adapted to this system, as when the conductor delivers up his coupons they may be instantly strung together and laid aside to be assorted at any convenient time.

In making the pouch-tickets hereinbefore described, at the end on which the coupon is printed the two sheets should be closely

pasted together the whole width of the coupon, to prevent any change from getting in the way of the cutting-head, and also because two sheets pasted together will be easier cut by my instrument than a single sheet.

Instead of having a lock-box to receive and retain the coupons as they are cut off, the box may be dispensed with, and the needle *j* may be supported, by a stirrup, skeleton-frame, or other equivalent device, under the cutting-head, so that it will pierce and retain upon it each coupon as it is severed from the ticket, in the same manner as shown and described, except that the coupons will not be inclosed in a box. In this case the conductor will all the time have access to the coupons that have been cut off; but, as he would be required to account for all the tickets delivered to him, he could have no pecuniary inducement to abstract or destroy the coupons.

Having thus fully described my invention, and the several modes of carrying it into effect, what I claim, and desire to secure by Letters Patent, is—

1. A pouch-ticket adapted to contain change, with a coupon printed thereon or attached thereto, substantially as and for the purpose set forth.

2. In combination with an instrument for severing coupons and automatically depositing them in a box or other receptacle, substantially as described, a needle so located in the box or other receptacle that it will

perforate and retain upon it each coupon as it is deposited, and which, on being withdrawn, will draw a thread through all the said coupons, as set forth.

3. In combination with an instrument for severing coupons and automatically depositing them in a box or other receptacle, substantially as described, a sliding cover to such box or other receptacle, which will automatically slide over the box or other receptacle, and close it when the jaws of the instrument open, and recede from said box when the jaws close, the same being operated substantially as herein described.

4. In combination with an instrument for severing coupons from tickets, substantially as described, a needle so located in relation to the cutting-head, or other equivalent cutting device, that it will pierce and retain upon it each coupon as it is cut off, and so constructed and arranged that, by withdrawing it from said coupons, it will draw a thread through all of them, substantially as and for the purpose specified.

5. In combination with the cutting-head and retaining-box herein described, the case or shield D, substantially as and for the purpose set forth.

HENRY M. STOW.

Witnesses:

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