

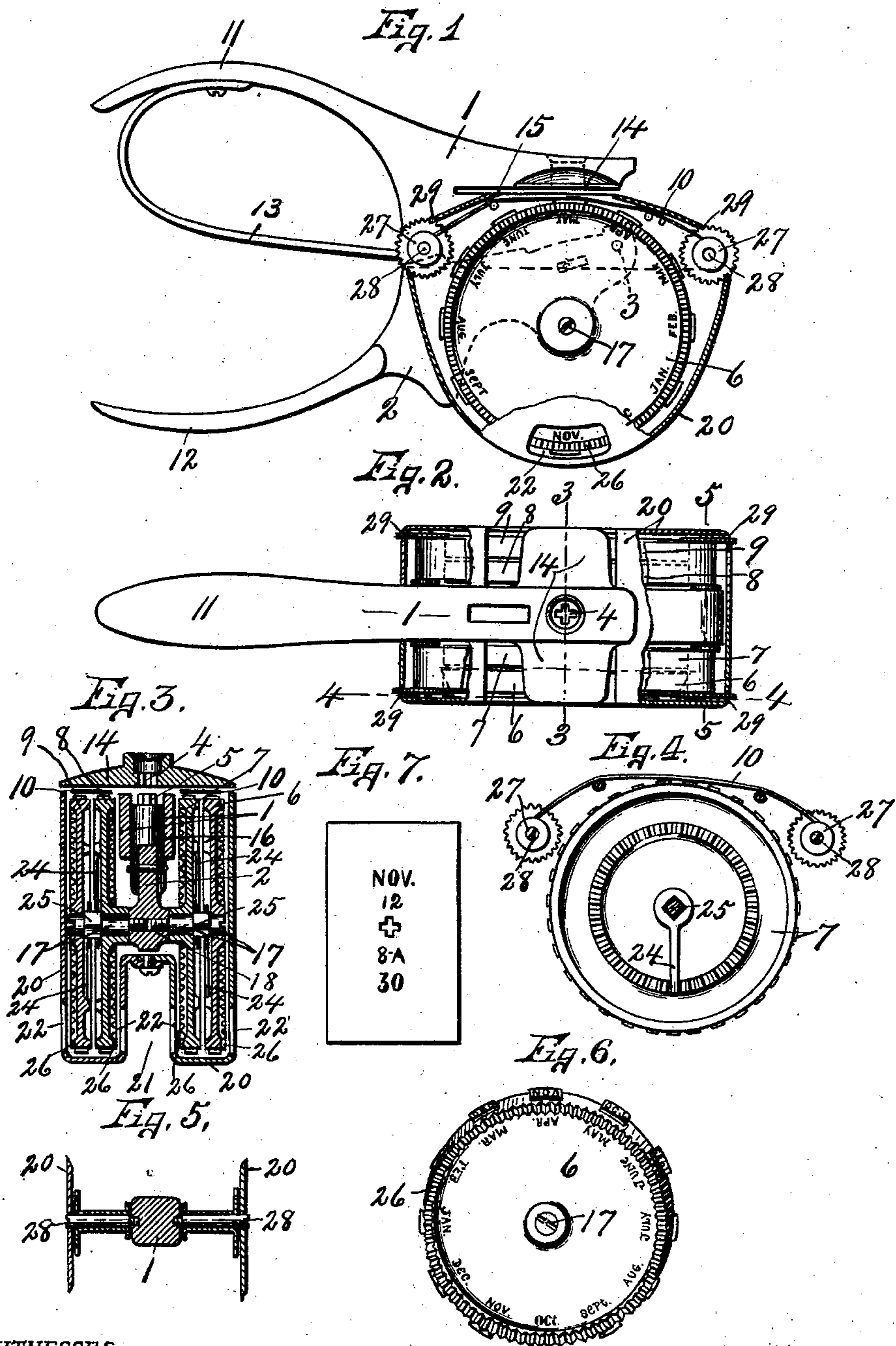
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E. G. CONNETTE.
COMBINED PUNCH AND TIME STAMP.

(Application filed Nov. 15, 1901.)

(No Model.)



WITNESSES:

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COMBINED PUNCH AND TIME-STAMP.

SPECIFICATION forming part of Letters Patent No. 713,287, dated November 11, 1902.

Application filed November 15, 1901. Serial No. 82,401. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. CONNETTE, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in a Combined Punch and Time-Stamp, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to a combined punch and stamp adapted for conductors' use on street-railways in which the transfer system is employed.

It is well known that in the management and operation of cars of the street-railways and in large cities, where business is usually very much congested, and in which the system of transferring passengers from one point to another is employed considerable work and responsibility devolves upon the conductors, particularly where the cars are run on schedule time, and it has been found that the issuing and proper stamping of transfer-tickets takes up a large portion of the time and attention of the conductors.

Under the present system of transferring passengers from one route to another tickets are generally issued to the passengers bearing the route, month, the day of the month, and the time of day, which are printed or otherwise indicated upon the tickets at different points, and a suitable punch is employed by the conductor for perforating the ticket at the points designated. This requires several operations of the punch by the conductor, and owing to the limited time and other responsibilities resting upon the conductor errors in stamping the tickets are frequently made, which results in much confusion and trouble, not only to the passengers, but to the management of the railway system.

The object of my invention is to simplify the work of the conductor and to avoid any mistakes in stamping the transfer-ticket and also to permit the use of smaller transfer-tickets than those generally adopted on most of the large railway systems.

To this end the invention consists in providing a transfer-ticket upon which is printed the several routes or branches in the transfer system and in providing a suitable punch and stamp whereby the route is punched and

the month, date, and hour of the day are simultaneously printed upon the ticket.

Referring to the drawings, Figure 1 is a side elevation of a device embodying my invention, portions of the inclosing case being broken away for disclosing one of the type-wheels and the ribbon-feed. Fig. 2 is a top plan, partly broken away, of the device seen in Fig. 1. Figs. 3, 4, and 5 are sectional views taken on line 3 3, 4 4, and 5 5, Fig. 2. Fig. 6 is a view of one of the detached type-wheels, having type representing the twelve months in the year upon its periphery. Fig. 7 is a face view of the printed transfer-ticket.

Similar reference characters indicate corresponding parts in all the views.

As seen in the drawings, this invention consists, essentially, of a pair of levers 1 and 2, pivoted together at 3 and provided with matrix and patrix dies 4 and 5, type-wheels 6, 7, 8, and 9, and ink-ribbons 10. The levers 1 and 2 are similar in operation to the ordinary conductor's ticket-punch, being provided with hand-engaging portions 11 and 12, adapted to be compressed against the action of a spring 13 for forcing the dies 4 and 5 to their operative position, the lever 1 being provided with lateral extending shoulders or projections for forming a platen 14, which is adapted to receive the impact of the type-wheels for printing upon the ticket presently described.

The matrix-die 4 preferably consists of an aperture in the lever 1, which aperture may be of any desired form for receiving a corresponding form of the die 5, and thereby forming a corresponding aperture in the ticket when the levers 1 and 2 are moved to their operative positions. In order to facilitate the entrance of the ticket between the dies 4 and 5, I provide the lever 1 with a lengthwise slot 15 beneath the platen 14 and extending a sufficient distance beyond said platen to permit the ticket to be punched at any desired point or position thereon.

The dies 4 and 5 are preferably disposed in a plane between the pivotal point 3 and hand-engaging portions 11 and 12 of the levers 1 and 2, so that as the lever is compressed the patrix-die 5 enters the aperture 4 for cutting away a portion of the ticket at the desired point, the position of this aperture upon the

ticket being determined by the route over which the conductor wishes to transfer the passenger. The die 5 is preferably mounted upon the lever 2 with a slight lost motion and is guided in a suitable way 16, formed in said lever 1 and arranged at substantially right angles with the slot or ticket-way 15, the loose connection between the plunger or die 16 and the lever 2 being necessitated by the movement of the plunger in a straight line, while its connection to the lever 2 is movable in an arc of a circle with the pivot 3 as the center. Any other form of connection may be used, however, and the plunger and its guide may be modified, if desired, this feature of the device forming no part of my present invention except in combination.

The type-wheels 6, 7, 8, and 9 are revolvably mounted upon the lever 2, being journaled upon suitable pins or bearings 17, the inner ends of which are threaded and secured in threaded apertures 18 in said lever 2, and the outer ends are provided with suitable slots for receiving a screw-driver or similar tool, whereby the type-wheels may be readily removed from opposite sides of the lever, if desired. These type-wheels are preferably arranged in pairs, one pair at each side of the lever 2, and the type-wheels of each pair are moved independently of each other. The periphery of the type-wheel 6 is provided with a series of type representing the months of the year—that is, "Jan.," "Feb.," "Mar.," &c., to "Dec."—these month-indicating characters being arranged substantially equidistant from each other upon the periphery of the wheel 6 and normally rest in close proximity to the lower face of the platen 14, there being just sufficient separation between the adjacent faces of the platen and the adjacent type to admit the ticket and inking-ribbon freely, so that it is only necessary to compress the levers a slight distance to impinge the ticket and ink-ribbon between the platen and face of the adjacent type. The type-wheels 7, 8, and 9 are of substantially the same diameter as the type-wheel 6 and are similarly provided with peripheral type, the type of the wheel 7 representing the day of the month, and are arranged consecutively and substantially equidistant from each other from "1" to "31," inclusive. The type of the wheel 8 represents the hour of the day, being numbered consecutively from "1" to "12," and the type of the wheel 9 represents the minutes or subdivisions of the hour, being divided into twelve equal spaces. The distance of each type-space represents an interval of five minutes, although it is evident that a greater or less number of type may be provided upon this wheel, representing either minutes, quarter-hours, or half-hours. Each of these type-wheels is provided with a series of characters upon its face and corresponding to the type upon its periphery—as, for instance, the type-wheel for the months of the year is provided with duplicate type upon one of

its end faces, which may be printed thereon to represent the months of the year. In like manner the type-wheel representing the days or day of the month is provided with printed characters upon its inner end face corresponding with the type upon its periphery, and the type-wheels 8 and 9 are similarly provided with printed characters upon their end faces corresponding to the type upon their respective peripheries, whereby the type at the printing-point may be readily ascertained.

In order to protect the type-wheels from injury or undue rotation or displacement, I preferably inclose the same in a suitable casing 20, which is preferably formed in sections and is secured to the lever 1. This casing is preferably bifurcated at its lower side, being provided with an upwardly-extending recess 21, and the side walls of this recess and also the outer side walls of the casing are provided with suitable apertures or sight-openings 22, alined with the printed characters upon the end faces of the type-wheels, whereby the printed characters representing the type at the printing-point upon the peripheries of the type-wheels may be readily seen, it being understood that the type which are registered with the platen to print at the printing-point has a corresponding type-indicating print or character registering with the sight-openings 22, so that whatever type is presented to the platen the corresponding character will be displayed at the sight-opening. For instance, suppose the type-wheel for the months is turned so that "Nov." is registered with the platen or printing-point. The similar character or print, as "Nov.," is displayed through one of the sight-openings 22 adjacent to the end face of the said wheel, and it is apparent that this opening may be located at any desired point in the casing and the type-designating characters correspondingly changed upon the type-wheels.

It is desired that some means be provided for holding the type-wheels in their adjusted position, and I have therefore provided each type-wheel with a series of serrations or notches, corresponding to the number of the type upon its periphery, which notches are adapted to be engaged by yielding arms or catches 24, which normally enter the notches and hold the type-wheel from revoluble movement except when rotated by the operator. In order to hold these spring-arms from rotary movement, I preferably provide the spindle 17 with angular portions 25, the spring-arms being provided with angular openings adapted to receive the angular portions 25 of the spindles 17, these angular portions 25 and the spring-arms or notches 24 being preferably interposed between the adjacent type-wheels of each pair in order to economize in space and to make a compact practical ticket-punch and time-stamp.

In order to permit the type-wheels to be readily rotated by the operator in changing the month, day, hour, or minute, I provide

each of the type-wheels with a serrated annular surface 26, which registers with the adjacent sight-opening 22, which openings are sufficiently large to permit the entrance of the operator's fingers or any suitable instrument to engage the serrations and rotate the desired type-wheel against the frictional contact of its spring or catch 24 and until the desired type is registered at the printing-point, whereupon the catch 24 automatically engages a corresponding notch or shoulder of said wheel and holds the type-wheel from further rotary movement. In like manner either of the type-wheels may be rotated to shift any one of the type to the printing-point, the respective catch of each type-wheel serving to hold the type-wheel in its adjusted position.

The inking-ribbon 10 is mounted at its opposite ends upon oppositely-arranged reels 27. I preferably provide one of these ribbons for each pair of type-wheels at opposite sides of the levers 1 and 2, the reels 27 for supporting the ribs being journaled upon suitable pins 28, projecting laterally from the opposite faces of the lever 1, and preferably consist of screws having their inner ends threaded and engaging with threaded apertures in the lever 1 and their outer ends projecting through suitable apertures in the casing 20 and serving as supporting means for said case as well as the ribbon-reels. One of the flanges of each wheel is preferably enlarged in diameter and provided with a serrated periphery projecting through slots 29 in the end walls of the casing, whereby the serrated flanges of the reels may be engaged by the finger of the operator and rotated when desired to change the position of the ribbon relative to the printing-point. This construction and manner of mounting the ribbon and its reels form a convenient means for shifting the ribbon when desired or when the ribbon becomes worn at the printing-point or otherwise impaired. The upper walls of the casing 20 preferably terminate at opposite sides of the printing-point, thereby leaving an opening in said casing aligned with the platen, through which the type and adjacent portions of the inking-ribbon are movable toward and away from the platen in the act of printing upon the ticket previously inserted in the slot 15.

In the operation of my invention, assuming that it is desired to issue a transfer-ticket from route "A" to route "B" on November 12, 8.30, the type-wheel 6 is first rotated so as to bring the "Nov." type at the printing-point. Then the type-wheel 7 is adjusted to bring

the numeral "12" to the printing-point. In like manner the wheels 8 and 9 are adjusted to bring the numerals "8" and "30" into registration with the printing-point. The printed route, as route "B," upon the ticket is then registered with the dies 4 and 5, and the levers are then compressed to operate the dies and to move the type-wheels to impinge the ink-ribbon between the platen and type, thereby imprinting "Nov. 12" at one side of the aperture and "8.30" at the other side of the aperture. It is now apparent from a single glance at the ticket that the transfer is over route "B" and issued November 12, 8.30 o'clock, the other matter being printed upon the tickets to indicate the time limit for the acceptance of the transfer-ticket.

The operation of my invention will now be readily understood upon reference to the foregoing description and the accompanying drawings, and it will be noted that considerable change may be made in the detail construction and arrangement of the parts of my invention without departing from the spirit thereof. Therefore I do not limit myself to the construction and arrangement shown and described.

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

1. A ticket-punch and a type-wheel mounted to print upon the ticket as the same is punched, and an inclosing case recessed between the wheels and provided with sight-openings in the side walls of said recess.

2. A ticket-punch comprising levers pivoted to each other and provided with dies, one of the levers having a platen and a slot to receive the ticket, rotary type-wheels mounted in pairs on the other lever at opposite sides of the dies, reels on the former lever, and ink-ribbons mounted on the reels to move parallel with the travel of the type, for the purpose specified.

3. A ticket-punch comprising levers pivoted to each other and provided with dies, one of the levers having a platen and a slot to receive the ticket, rotary type-wheels mounted in pairs on the other lever at opposite sides of the dies, reels on the former lever, and ink-ribbons mounted on the reels and an inclosing case for the type-wheels having sight-openings for the purpose set forth.

In witness whereof I have hereunto set my hand this 9th day of November, 1901.

EDWARD G. CONNETTE.

Witnesses:

H. E. CHASE,

HOWARD P. DENISON.