

(No Model.)

2 Sheets—Sheet 1.

J. S. GOLDSMITH.
TIME CHECK SYSTEM.

No. 326,495.

Patented Sept. 15, 1885.

Fig. 1.

MANHATTAN DISTRICT TELEGRAPH CO.

Date *3 Oct-84* 9009.

Messenger	Called	Returned	Occupied	Expenses	Charges
<i>#9</i>	<i>1.50</i>	<i>3-</i>	<i>1.10</i>	<i>.20</i>	<i>.55</i>

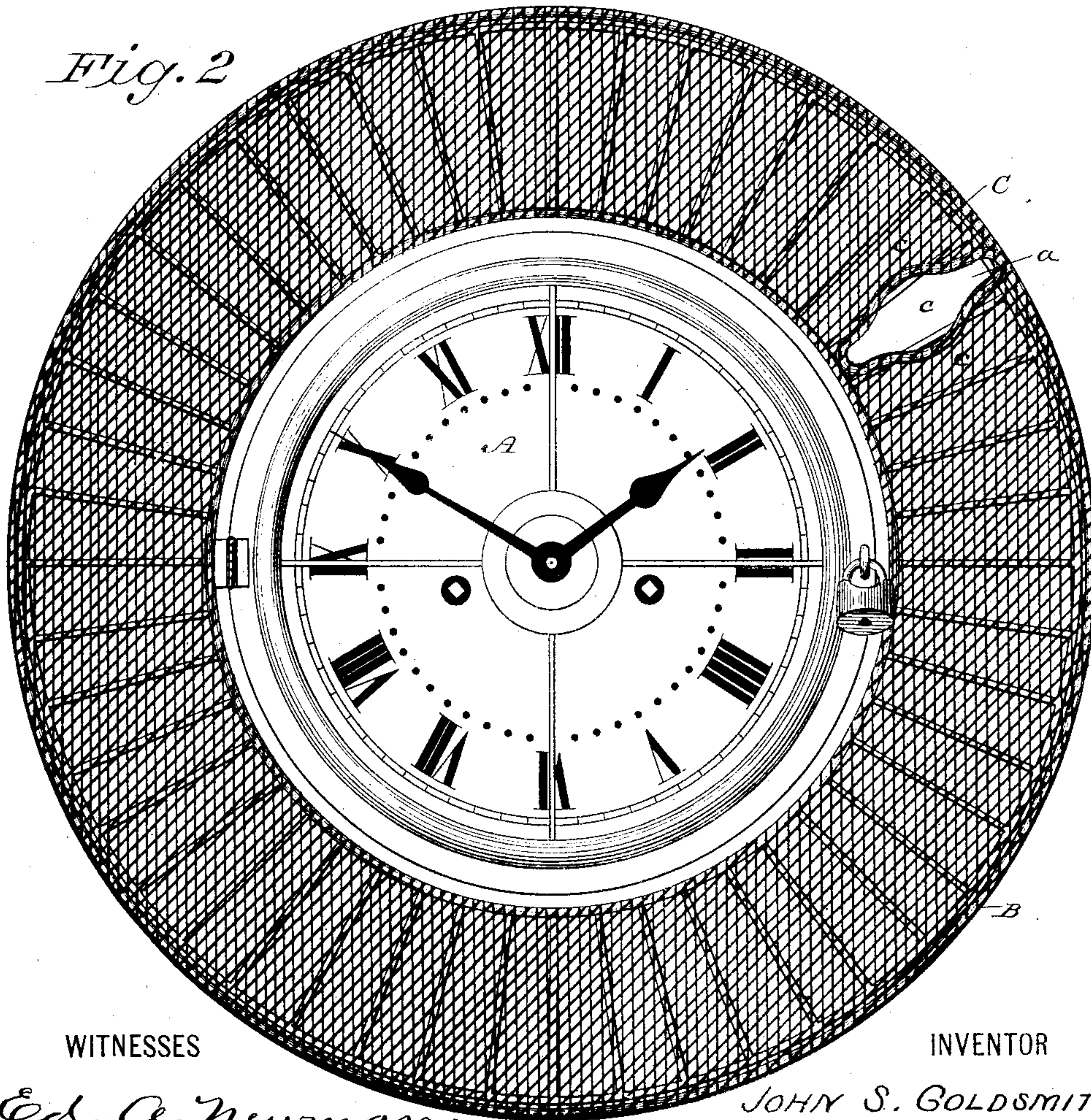
Pay No Car Fare or Money to Messenger

Where sent _____

Received by _____

PLEASE SIGN YOUR NAME.

Fig. 2



WITNESSES

Ed. A. Newman,
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INVENTOR

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By his Attorney

A. L. Ewin,

(No Model.)

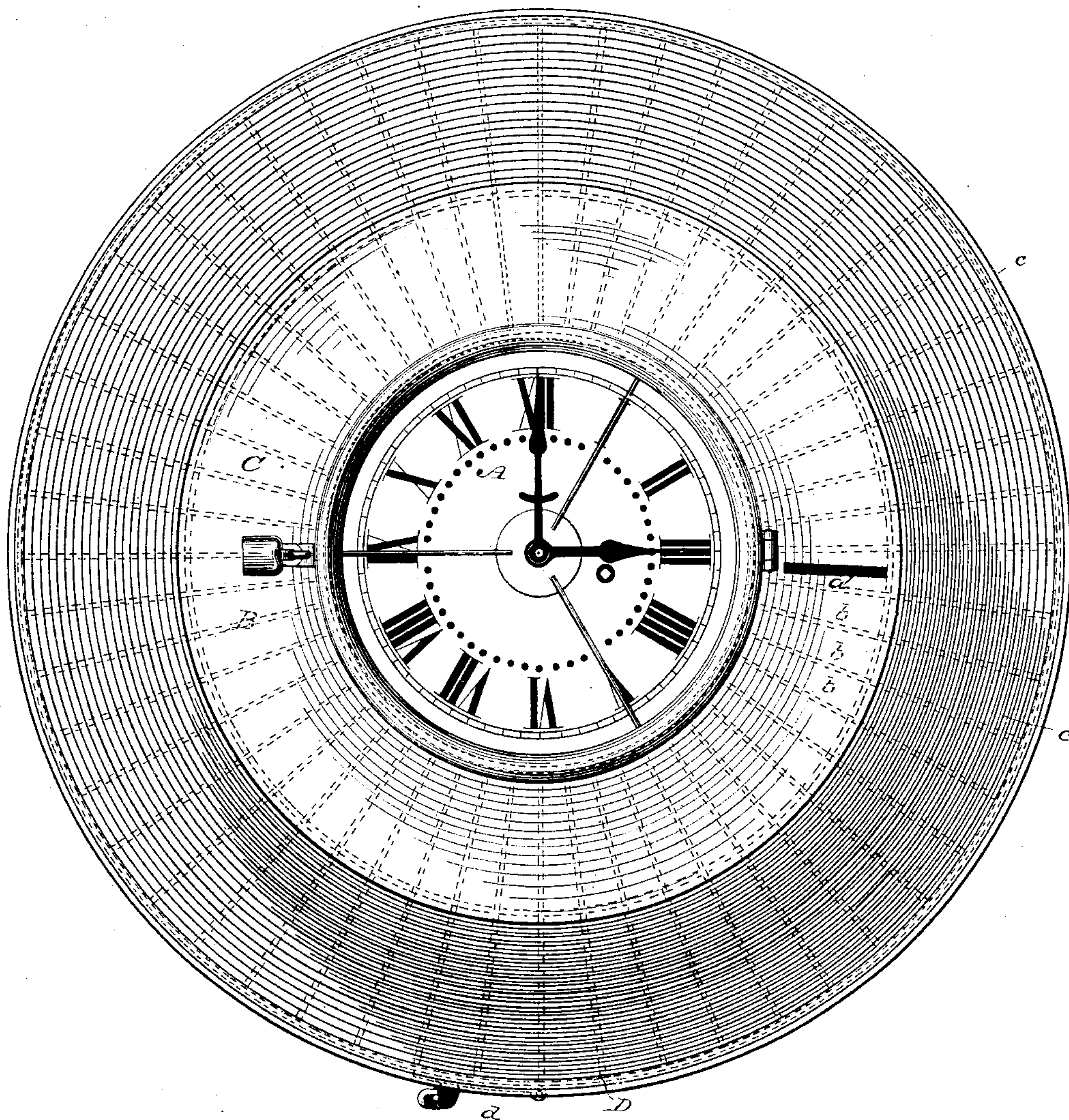
2 Sheets—Sheet 2.

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Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN S. GOLDSMITH, OF NEW YORK, N. Y.

TIME-CHECK SYSTEM.

SPECIFICATION forming part of Letters Patent No. 326,495, dated September 15, 1885.

Application filed March 21, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. GOLDSMITH, a citizen of the United States, residing at New York, in the State of New York, have invented a new and useful Improvement in Time-Check Systems, of which the following is a specification.

In common with my "improvement in apparatus for controlling the issue of time-checks," my "improvement in apparatus for receiving time-checks," and my "improvement in check-tickets for messenger-service," set forth in three several applications filed December 8, 1884, and serially numbered 149,798, 149,799, and 149,800, respectively, this invention relates, primarily, to means for insuring promptness and correct charges in messenger-service, and for preventing the concealment of pilfering and other fraudulent practices on the part of those employed to collect and account for all that class of monetary charges which are determined as to amount wholly or in part by the duration of the service or privilege charged for. The system may also be used as a substitute for watchmen's and workmen's time-recorders.

The present invention consists in a novel system or method of combining said check-tickets or equivalent time-checks with said receiving apparatus, or a mechanical equivalent thereof, and preferably with said issue-controlling apparatus, or its mechanical equivalent, whereby said control may be readily and reliably effected with a minimum of supervision, the same constituting an improvement in the art of using time-checks.

Two sheets of drawings accompany this specification as part thereof. Figure 1 of these drawings is a face view of one of a series of time-check tickets. Fig. 2 is a face view of said issue-controlling apparatus, and Fig. 3 is a face view of said receiving apparatus.

Like letters of reference indicate corresponding parts in Figs. 2 and 3.

The ticket, Fig. 1, is a messenger-ticket, representing a preferred form of time-check for messenger-service, and in other businesses where memoranda of several items must be preserved, as in billiard-rooms. In addition to ordinary permanent matter with suitable blanks for the required entries thereon, this

ticket is provided, in distinctive style, with conspicuous permanent time-control characters, such as "1.45—2," indicating a period of time to which its issue for use is limited, and furthermore, preferably, with a serial number "9,009," for example—differing from those of every other ticket in the series, so that the clerk in charge can be held strictly accountable for each ticket issued to him. Said ordinary permanent matter is the remainder of the lettering represented as printed in Fig. 1, including the caution, "Pay no car-fare or money to messenger," which distinguishes the ticket as a credit or account ticket. A cash-ticket would bear instead the caution, "Pay messenger only tariff rates," for example. These are ordinary forms. The two kinds of tickets when used together or in one series may be distinguished from each other by paper of different colors, to avoid confusion.

In using such messenger-tickets without my said time-control characters and serial numbers, frauds have heretofore been successfully practiced and concealed in ways examples of which I will now set forth, referring for illustration to said ticket, Fig. 1, which for this purpose must be supposed to be without said time-control characters "1.45—2" and serial number "9,009."

A has an account with the company and uses credit-tickets. He calls a messenger at fifty minutes past one, and dismisses him so that he should return to the district office at 3.15, having authorized an expenditure of twenty cents for car-fare. The time occupied is one hour and ten minutes; and, charged at thirty cents per hour, plus expenses, the charge against him is fifty-five cents, as noted in Fig. 1. Now, the clerk makes no entry under "called" until the messenger's return; then if no detective has been in he enters, for example, "called 2.10; returned 3; occupied 50; expenses 30; charge 55," and pockets ten cents, trusting to the identity of the amount charged with the correct amount to hide the fraud on the company; or he may enter an earlier hour under "called," and charge for time not occupied by the customer, thus defrauding the latter in order to bring up the apparent gross earnings of the office so as to cover other pilfering; or the messenger, for

the same purpose or purposes, may loiter on his way, and thus defraud the customer of both time and money.

B is a transient patron using a public call-box. The messenger who responds carries, consequently, a cash-ticket. He is called at 1.15, for example, and returns at three o'clock, having been occupied one hour and forty-five minutes, for which B pays the messenger fifty-five cents. The messenger is, instead, entered by the clerk as called at 1.55, for example, and twenty cents, falsely entered under "expenses," is pocketed or divided with the messenger, the latter being generally in collusion with the clerk.

Such false entries as those above referred to are prevented by said time-control characters on the time-check tickets.

Said time-control characters (shown in Fig. 1) represent a time-period of fifteen minutes' duration, and a series beginning with "12—12.15" and ending with "11.45—12," to correspond with the quarter-hour divisions of ordinary twelve-hour time-pieces. Longer or shorter periods could be adopted, but they would in all cases be uniform, and fifteen minutes is believed to be the best limit for messenger service. A sufficient number of tickets would bear each imprint—1.45—2, for example—to meet the estimated maximum demand or capacity of the office during the time-period, and the respective sets would be replenished each day, for example. Said ordinary permanent matter being printed in black, said time-control characters would preferably be printed red or of some other contrasting color; and two colors—red and green, for example—may distinguish the hours before noon from those after noon, or "day" hours from "night" hours in a double series.

Owing to the addition of said time-control characters to a messenger-ticket, for example, the messenger and the caller are both notified immediately of the beginning of the time to be charged for. Said characters themselves indicate the time within a specific short limit, and call attention to the entry under "called," the correctness of which is thus insured, as aforesaid.

The above depends, of course, to some extent on inability on the part of the clerk to substitute one ticket for another, or to destroy or suppress tickets without detection. This can be guarded against by simply counting the tickets and charging the clerk with a given number; but it is accomplished more effectively by said serial numbers. These numbers would be printed on the tickets by ordinary numbering-machines, all the tickets of every kind in the series originally, and those added from time to time being consecutively numbered. Thus the numbers of ten 1.45—2 credit-tickets, Fig. 1, sent to a given office on a given day would be 8,999, 9,009, for example; the numbers of 1.45—2 cash-tickets, 9,010, 9,020, and so on, and they could readily be so charged to the clerk.

Said issue-controlling apparatus, Fig. 2, facilitates and insures the issue of the correct ticket at each call. It is composed of a central clock, A, an annular ticket-case, B, subdivided by radial partitions into compartments *c*, corresponding with the successive time-periods represented by said time-control characters on the series of tickets or time-checks, and a rotary mask, C, having a finger-hole, *a*, through which access is afforded to one of said compartments at a time, and automatically actuated to open successive compartments at the beginning of the corresponding time-periods.

To prepare the apparatus for use, the several check-compartments *c* are supplied, respectively, with tickets or time-checks bearing corresponding time-control characters until the whole series is properly represented. The mask C is then applied and secured in place, and the clock, if need be, wound and set. Said finger-hole *a*, substantially in line with the hour-hand of the clock, affords access through the mask to the tickets or checks of the time-period corresponding with the time indicated—1.45—2, for example—and none other. The mask is shifted at the beginning of the next time-period, 2—2.15, by the clock-work, and immediately thereafter relocked, and thus the operation proceeds, the tickets or checks of each compartment being accessible through said finger-hole during the corresponding period of time and no longer.

Said receiving apparatus, Fig. 3, insures correct entries under "returned" on the said messenger-ticket, for example, and its employment in connection with tickets or time-checks bearing said time-control characters, and with said issue-controlling apparatus, or the former, at least, completes my said system.

This particular receiving apparatus, constructed on the same general principle as said issue-controlling apparatus, is composed of a central clock, A, a concentric rim, B, inclosing an annular series of check-chutes, *b*, corresponding with said uniform time periods, a rotary mask, C, which guards the upper ends of said chutes, and is provided with a radial slot, *a*, to admit time-checks into one of said chutes at a time, and automatically shifted to give access to the next of the series at the beginning of said time-periods successively, and a series of check-compartments, *c*, coinciding with said chutes and guarded at their outer ends by a ring-slide, D, having a hand-hole, which is adapted to be aligned with the open outer end of either of said compartments at will, and is fitted with a door, *d*, having a lock or seal fastening.

Supposing the check-tickets to be adapted for the messenger-service of a district-telegraph company, and the time-period throughout the system to be a quarter of an hour, as in the previous examples. A patron having an account with the company calls a messenger at fifty minutes past one o'clock—for example, and one is ready to go—the credit-ticket, Fig.

1, withdrawn from the finger-hole *a*, Fig. 2, of the receiving apparatus, by the clerk, bears the mark 1.45—2. Appropriate entries are made under "Messenger" and "Called" on the ticket, as shown, and the messenger starts. He is dismissed so that he should return to the district office at three o'clock, and is thus occupied one hour and ten minutes, having been authorized to spend twenty cents for car-fare. The caller is consequently charged fifty-five cents, being thirty cents per hour for the time occupied, plus expenses, as noted on the ticket. The ticket is now deposited in the receiving apparatus, Fig. 3. Its mask *C* has just come to rest, and the ticket dropped through the slot *a* passes through the chute *b* and into the check-compartment *c*, corresponding with the period 3—3.15, followed by all other checks received during this period, after which the mask is shifted for the period 3.15—3.30, and so on. Now, with all the checks afforded by said marked tickets and said issue-controlling apparatus, by collusion between the messenger and the clerk, in the example above stated, fraud could be accomplished in a way which has heretofore been successfully practiced by dishonest messengers and clerks—that is to say, the messenger, dismissed by the caller, walks back instead of riding, and returns consequently at four o'clock instead of at three. The twenty cents which he should have spent for car-fare or the corresponding car-tickets are divided between the messenger and clerk, and the company loses the same plus an hour of the messenger's time. As the ticket could not be deposited in the receiving apparatus with those of a period one minute earlier than the period during which the messenger actually returns, any such pilfering or the late return of a messenger would be detected.

In employing this system as a substitute for the use of watchmen's or workmen's time-recorders, each user would be required to take a check-ticket bearing a time-control mark from an issue-controlling apparatus, and having put his name, number, or mark thereon to deposit it in a receiving apparatus conveniently located and properly locked or sealed.

For a full description of the said issue-controlling apparatus, Fig. 2, I refer to the specification of my said application No. 149,798; for a full description of the said receiving apparatus, Fig. 3, I refer to the specification of my said application No. 149,799; and for a full description of said messenger-ticket, Fig. 1, I refer to the specification of my said application No. 149,800. My system is not, however,

limited to the employment of these particular apparatuses and this particular time-check ticket, as the essential features thereof, hereinafter stated in my claims, may be embodied in other apparatus and tickets or checks, as will be clear to those skilled in the art; and I hereby disclaim said messenger-ticket, issue-controlling apparatus, and receiving apparatus, *per se*, and every part and feature of each of them in favor of my said previous applications for patents thereon.

Having thus described my said improvement in time-check systems, I claim as my invention, and desire to patent under this specification—

1. In a time-check system, the within-described method of determining duration, consisting in limiting the issue of tickets or checks to given short-time periods, by permanent time-control characters on each indicating the beginning of the longer time-periods which are to be controlled, and providing for the reception of returned tickets or checks, a receiving apparatus having a series of check-compartments, each representing a given ending-time period, and opened and closed in proper succession under the control of time mechanism, substantially as and for the purposes herein set forth.

2. The within-described time-check system or method, consisting in providing a series of tickets or checks with permanent time-control characters to indicate the beginning of the longer time-periods which are to be controlled, controlling the issue of such tickets or checks by an apparatus having a corresponding series of check-compartments supplied with tickets or checks appropriate to the respective short-time periods which they represent, and opened and closed in proper succession under the control of time mechanism, and providing for the reception of returned tickets or checks, a receiving apparatus having a series of check-compartments, each representing a given ending-time period, and opened and closed in proper succession under the control of time mechanism, for insuring promptness and correct charges in messenger service, for example, and preventing the concealment of pilfering, in the manner herein set forth.

Dated at Brooklyn this 20th day of March, 1885.

JOHN S. GOLDSMITH.

Witnesses:

JACOB G. CARPENTER.

NEVILLE N. McEVoy.