

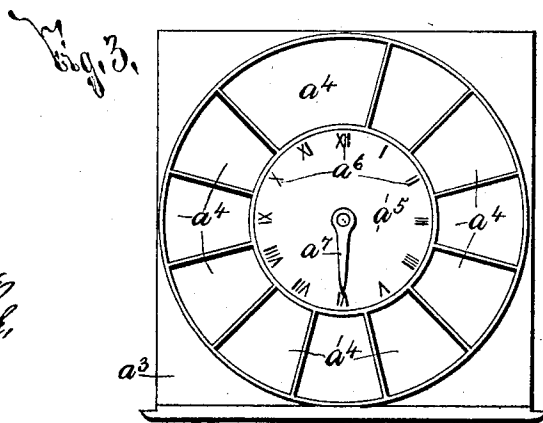
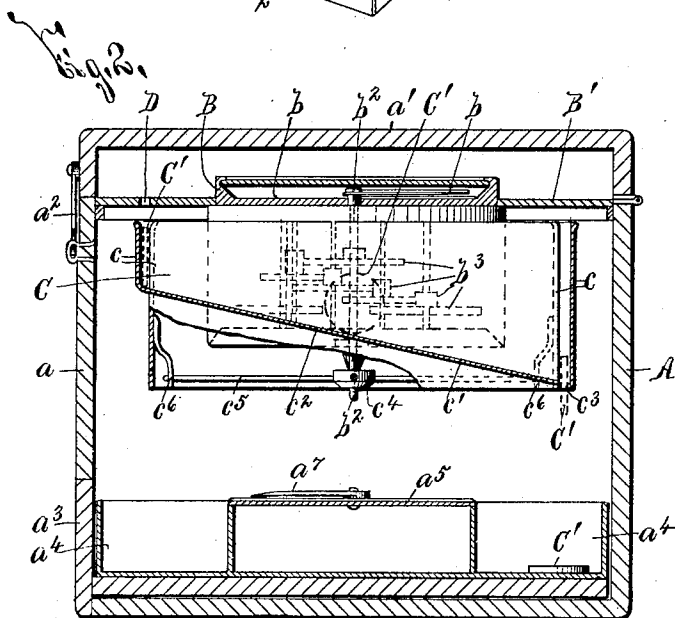
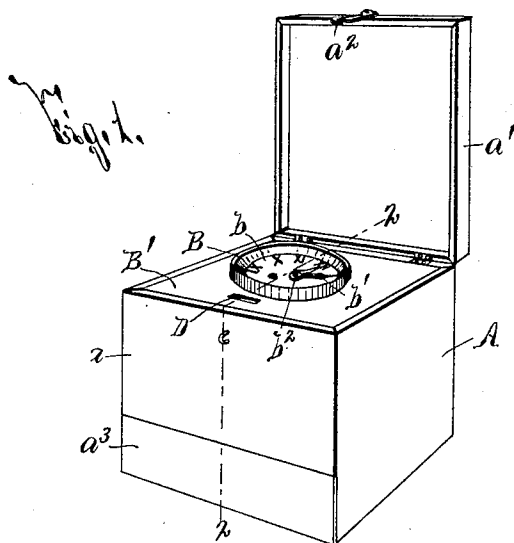
(No Model.)

2 Sheets—Sheet 1.

A. J. HENRY.
TIME CHECK RECEIVER.

No. 520,848.

Patented June 5, 1894.



WITNESSES:

H. Chase,
L. Schoenck,

INVENTOR

Archie J. Henry

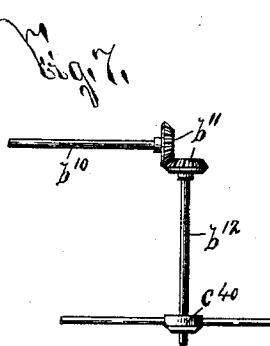
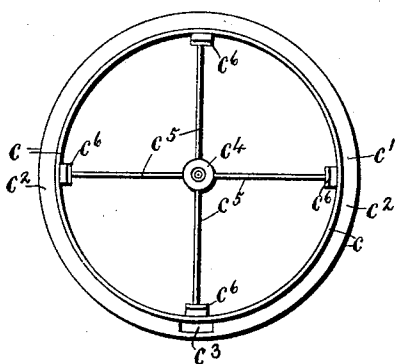
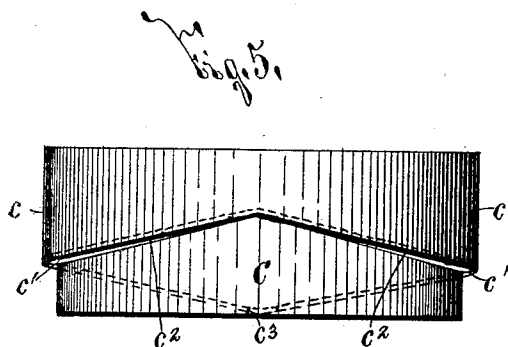
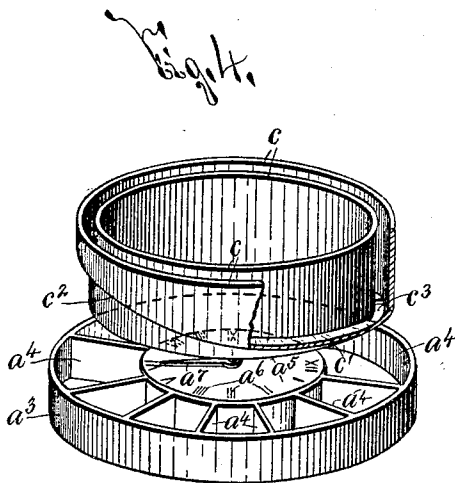
BY

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ATTORNEYS,

UNITED STATES PATENT OFFICE.

ARCHIE J. HENRY, OF WATERTOWN, NEW YORK.

TIME-CHECK RECEIVER.

SPECIFICATION forming part of Letters Patent No. 520,848, dated June 5, 1894.

Application filed March 11, 1893. Serial No. 465,543. (No model.)

To all whom it may concern:

Be it known that I, ARCHIE J. HENRY, of Watertown, in the county of Jefferson, in the State of New York, have invented new and useful Improvements in Time-Check Receivers, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in time check receivers of the particular class designed to receive checks deposited by employes when returning to work, and has for its object the production of a simple and effective construction, which is economically manufactured, so as to permit of its purchase by employers having but a minimum number of employes, and is of such construction as to reduce to a minimum the additional work to be performed by the clock-train for operating said recorder; and to this end it consists in the general construction and arrangement of the parts, all as hereinafter more particularly described and pointed out in the claims.

In describing this invention, reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is a perspective of my improved invention, the cover of the outer case being swung upwardly for exposing the time indicating dial of the time piece. Fig. 2 is a vertical sectional view, taken on line —2—2—, Fig. 1, the cover being shown as in its normal closed position. Fig. 3 is a top plan view of the detached drawer provided with the check-receiving receptacles beneath the check-guide. Fig. 4 is an isometric perspective of the detached check-conductor and the check-receiving receptacles. Figs. 5 and 6 are respectively elevation and inverted plan view of the detached check-receiving conductor, and Fig. 7 is a detail view of a slightly modified form of my invention.

It is well known that it is customary for employes on returning to work to deposit at an office or other locality designating checks, which indicate the presence at work of the employes whose numbers or other distinguishing characters correspond to those of the checks deposited. It is highly essential, how-

ever, that a correct and automatic record be made when the respective checks are deposited, and various receivers have been devised for this purpose. As usually constructed these receivers consist of more or less complicated mechanism driven by a clock-train or a series of receptacles carried by the clock-train. Consequently the clock-train is required to do a great amount of additional work other than that necessitated to keep time correctly, and said clock mechanism must be very carefully constructed, is necessarily expensive, and liable to become deranged and inoperative. My invention differs from such constructions of time receivers, in that, the only additional work required of the clock-train is the movement of a comparatively light check-conductor, which is compelled to support the check only momentarily during its passage along the guide of said conductor, and which practically and effectively guides the checks to positions corresponding to the time when they are passed into said conductor, and does not retard the checks in their passage or carry the same into registration with guides therefor.

The outer casing —A— for my invention may be of any desired form, size, and construction, and preferably consists of a base —a—, a cover —a'— secured by a suitable fastening means —a²— to the base —a— and a removable drawer —a³— provided with a series of check-receiving receptacles —a⁴—.

Supported within the casing —A— beneath the cover —a'— is a clock mechanism —B—, which is of any desired form, size, and construction, and is provided with a dial —b—, a minute-hand —b'—, a minute arbor or spindle —b²—, and a suitable clock-train —b³—. It is unnecessary, however, to further describe the clock mechanism or its train —b³—, as the same forms no part of my present invention. The clock mechanism —B— is preferably supported in a horizontal plane by a removable plate —B'— having its edges supported by the side walls of the body —a— of the casing —A—.

—C— is the check-conductor of my improved check-receiver, and, as clearly seen at Figs. 2, 4, 5, and 6, this conductor consists of upright annular walls —c—c— and a bot-

tom check-supporting wall— c' —having similar opposite downwardly extending portions— c^2 — c^2 —extending downwardly from adjacent ends and having an exit opening— c^3 —
 5 at the bases of said portions— c^2 — c^2 —. The upright walls— c — c — and the bottom wall— c' — thus form an annular guide having opposite downwardly inclining portions extending from an interposed elevated portion to a
 10 diametrically opposite depressed portion provided with an exit. At one end of the spindle— b^2 — for the minute-hand is rigidly secured a hub— c^4 —, which is connected by
 15 arms— c^5 — to ears— c^6 — provided upon the inner face of the inner wall— c — of the conductor— C —. Consequently as the minute spindle— b^2 — is revolved the conductor— C — is also revolved.

— D — is a guide slot extending through the
 20 plate— B' —, which slot is aligned with the annular groove or guide interposed between the upright walls— c — c — of the conductor— C —. Consequently as the checks— C' — are passed through the opening or slot— D —
 25 they enter between said walls— c — c — and quickly move or roll downwardly along one of the portions— c^2 — c^2 — of the check-supporting wall of the conductor— C — and escape downwardly from the exit opening— c^3 —
 30 of said conductor.

The conductor— C — is so relatively arranged and connected to the spindle— b^2 — that the exit opening— c^3 — is directly in alignment with the radial plane of the minute-hand— b' —, and consequently when the
 35 minute-hand is at one side of the numeral, the checks— C' — pass downwardly in a line corresponding to the position of the minute-hand, and are deposited in one of the receptacles— a^4 — presently described, also corresponding to the position of the minute-hand. On the contrary if the minute-hand is at the
 40 opposite side of the numeral the position of the conductor— C — is varied, and the checks are deposited in another of said receptacles— a^4 —. This conductor— C — may be composed of tin, aluminum, or other very light material, and, owing to its simplicity of construction, is readily manufactured and attached
 50 in operative position, and, as is evident to one skilled in the art, the conductor does not add materially to the work required of the clock-train, and does not support the checks, except momentarily as the same pass
 55 or roll downwardly along the inclined portions— c^2 — c^2 — thereof.

I have here illustrated the receptacles— a^4 —
 60 a^4 — for receiving the checks as consisting of a series of radial pockets in the drawer— a^3 —, the partition between the pockets standing midway between the numerals and I have provided the central portion of this drawer with a raised surface— a^5 — having thereon
 65 numerals— a^6 — corresponding to the numerals of the dial— b — and aligned with the pockets— a^4 —. This raised surface is also provided with a finger— a^7 — movable to the

numerals— a^6 —, which, if desired, may be used to more clearly indicate any one of said numerals; as, for instance, to remind the employer of the hour when he last emptied the
 70 drawer, so that the checks received since that time indicate, by the pockets or receptacles in which they are found, the respective minutes past such hour. I have also shown the
 75 receptacle— a^4 — corresponding to the numeral XII as greatly larger than the other receptacles and by omitting the partition between XI and XII this receptacle is formed
 80 as of sufficient size to include the space which would otherwise be occupied by a receptacle corresponding to the numeral XI, since a greater number of checks are deposited in the few minutes immediately preceding the
 85 commencement of the hour when all the employed, or at least the greater number should commence their labor. It will be readily evident, however, that the receptacles— a^4 —
 90 may be constructed in conformity with the needs of the particular business for which my improved receiver is designed, and that, if desired, conveyers may lead from the receptacles— a^4 — through the lower wall of the
 95 casing— A — and conduct the checks deposited in said receptacles to other receptacles of considerable larger size. It is, however, unnecessary to illustrate this slight modification, as the same will be readily understood by one skilled in the art.

At Fig. 7 I have shown a horizontal minute-hand spindle— b^{10} — as connected by miter
 100 gearing— b^{11} — to an upright spindle— b^{12} — connected to a hub— c^{10} — corresponding to the hub— c^4 — shown in the preceding figures, and, if desired, the clock dial may be arranged in an upright instead of a horizontal
 105 plane, and may be connected in this or any equivalent manner to the guide— C —.

The operation of my invention will be readily perceived from the foregoing description and upon reference to the drawings, and it will be particularly noted that the same is simple in construction, cheaply manufactured, durable and effective in use, does
 110 not add materially to the work required of the clock-train, and practically controls the passage of the checks so as to clearly indicate within five minutes the time between any two even hours of their deposit within my
 115 improved time check-receiver. It is evident, however, that the detail construction and arrangement of the parts of my improved time check receiver may be somewhat varied without departing from the spirit of my invention; hence I do not herein specifically limit
 120 myself to such exact detail construction and arrangement.

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

1. In a time check-receiver, the combination of a clock train and a check conductor surrounding and movable by the clock train and composed of upright vertical annular concentric

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tric walls —c—c— and a bottom wall —c'— having similar inclined portions —c²—c²— extending downwardly from adjacent ends and having an exit opening at their bases or opposite ends, whereby the checks are unretarded in their passage through said guide, substantially as and for the purpose set forth.

2. In a time check-receiver, the combination of a clock train, a check conductor movable by the minute arbor of the clock train and composed of upright walls —c—c— and a bottom wall —c'— having similar inclined portions —c²—c²— extending downwardly from adjacent ends and having an exit opening at their bases or opposite ends, whereby the checks are unretarded in their passage through said guide, and an annular series of check receiving receptacles arranged beneath said conductor, one of said receptacles being of double size substantially as and for the purpose specified.

3. In a time check-receiver, the combination with a clock train and an annular check conductor surrounding and movable by the clock train and composed of upright concentric walls —c—c— and a bottom wall —c'— having similar inclined portions —c²—c²— extending downwardly from adjacent ends and having an exit opening at their bases or opposite ends, whereby the checks are unretarded in their passage through said guide, of a plate above the conductor a dial thereon through the center of which the arbor of said clock train passes, a hand on this arbor, and at one point in said plate an opening formed above the space between said walls for conducting the checks to the guide of the check conductor, and check receiving receptacles arranged beneath said conductor, substantially as specified.

4. In a time check-receiver, the combination of an outer case, an annular series of check receiving receptacles supported at the base of the case, a dial arranged at the center of said series, a movable finger pivoted at the center of this dial a plate removably supported in the case above the check receiving re-

ceptacles and provided with a clock dial, a hand moving over said clock dial and turned by a depending revoluble shaft, a clock train for revolving said shaft, and a hollow check conductor surrounding said train and turned thereby, said conductor being arranged above said check receiving receptacles and beneath said plate and provided with an annular guide having opposite downwardly inclining portions extending from an interposed elevated portion to a diagrammatically opposite depressed portion provided with an exit, whereby the checks are unretarded in their passage through said guide, substantially as and for the purpose set forth.

5. In a time check-receiver, the combination of an outer case, an annular series of check receiving receptacles supported at the base of the case, a plate removably supported in the case above the check receiving receptacles and provided with a dial, a minute hand moving over said dial and turned by a depending revoluble shaft, a clock train for revolving said shaft, which constitutes the minute arbor thereof, an annular check conductor arranged above said check receiving receptacles beneath said plate and around said shaft, a hub on the latter connected by arms with ears within the conductor, the latter being provided with an annular guide having opposite downwardly inclining portions extending from an interposed elevated portion to a diagrammatically opposite depressed portion provided with an exit, whereby the checks are unretarded in their passage through said guide, and a hinged cover for the case arranged above said plate, substantially as and for the purpose specified.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 21st day of February, 1893.

ARCHIE J. HENRY.

Witnesses:

CLARK H. NORTON,
E. A. WEISBURG.