

No. 760,241.

PATENTED MAY 17, 1904.

A. N. PALMER.
TIME RECORDER.

APPLICATION FILED DEC. 18, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

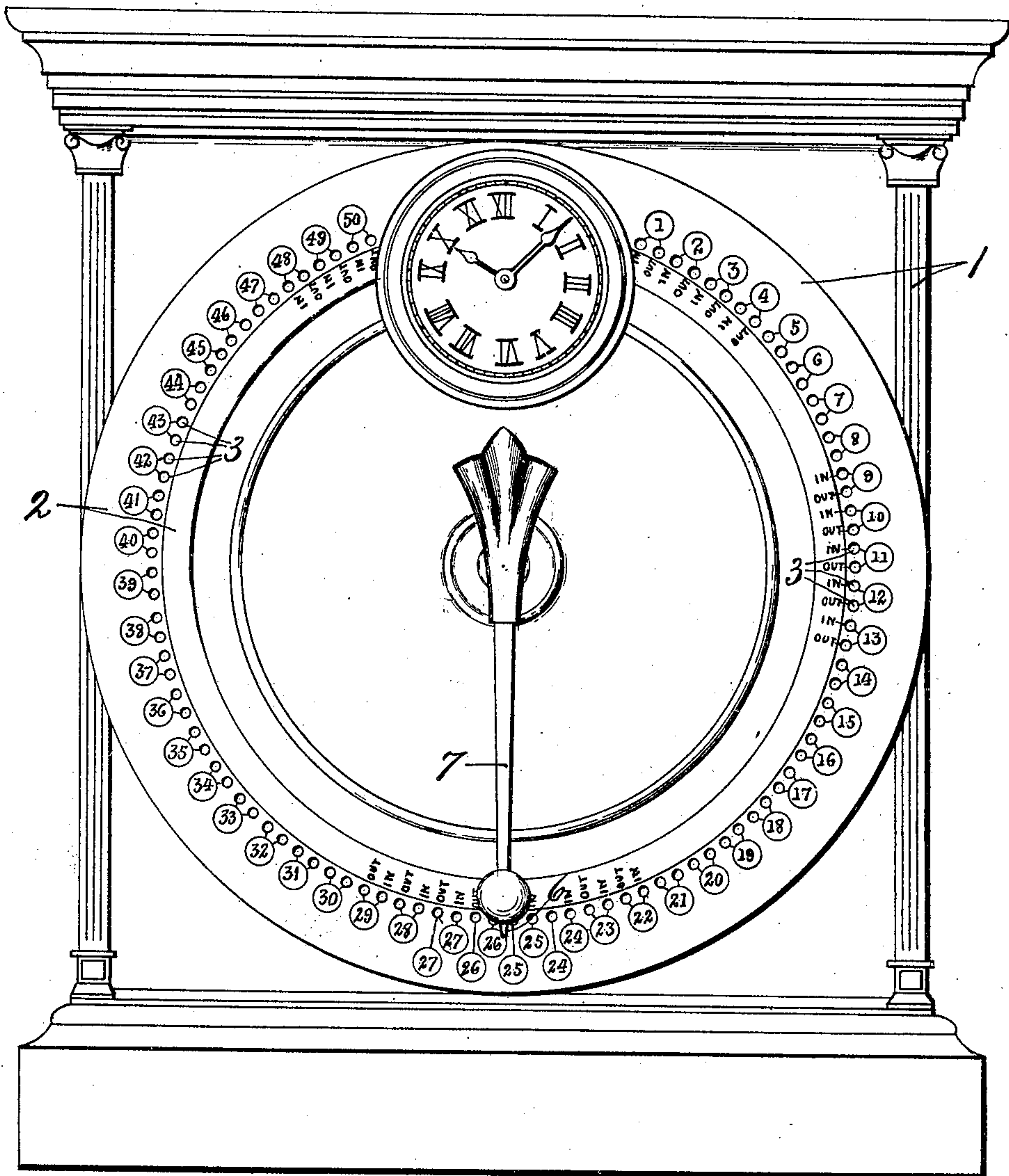


Fig. 3.

WITNESSES:

J. E. Arthur 2
W. B. Chase 8

IN	7:00	9:30	11:00	1:00	3:45	5:00
OUT	8:30	10:45	12:00	2:30	4:00	6:00
IN	8:30		12:00	4:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
OUT		10:45		2:45	7:00	
IN	7:00		1:00			

INVENTOR

Amos W. Palmer

BY

Howard P. Brinson
ATTORNEYS.

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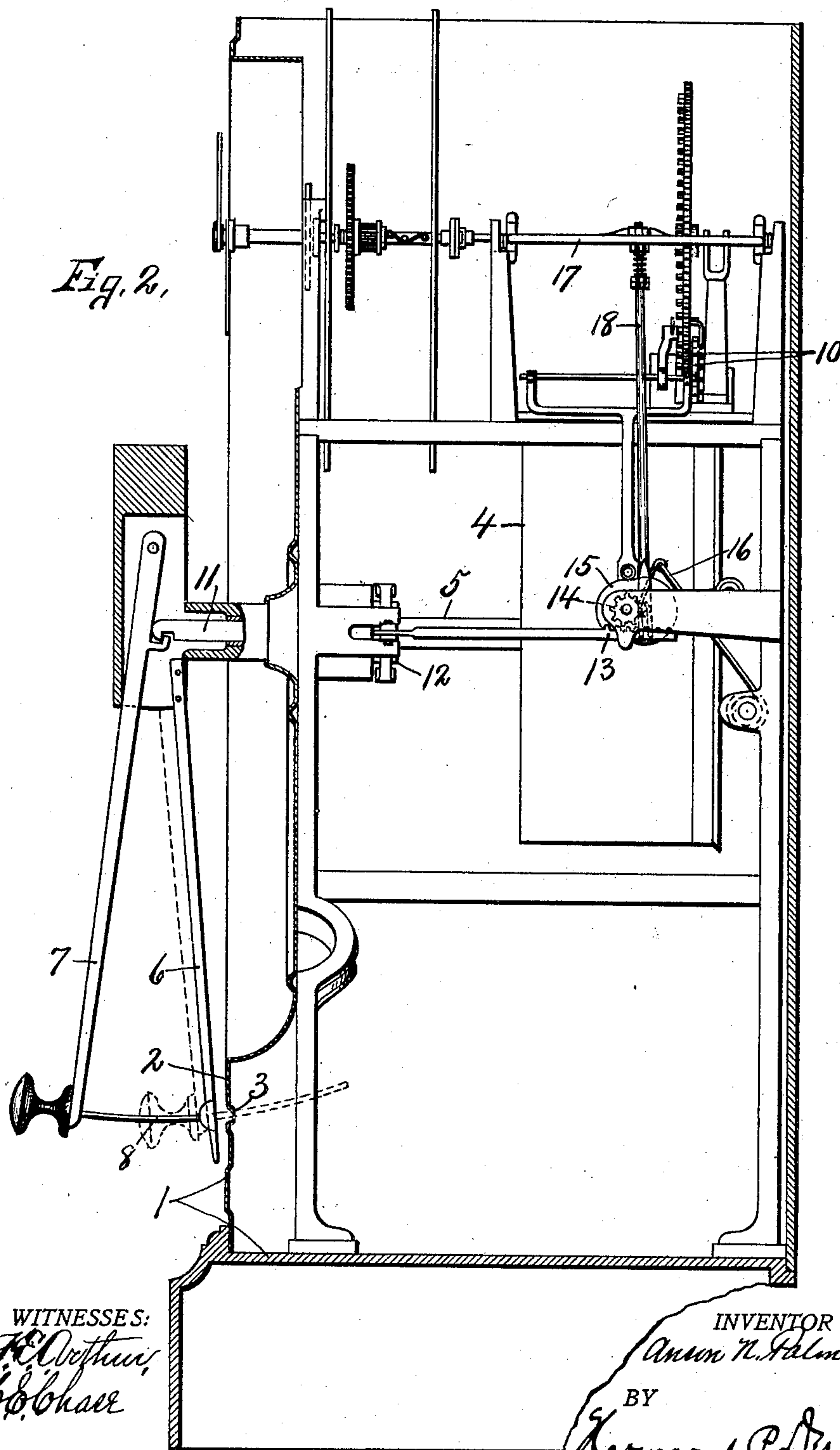
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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANSON N. PALMER, OF SYRACUSE, NEW YORK.

TIME-RECORDER.

SPECIFICATION forming part of Letters Patent No. 760,241, dated May 17, 1904.

Application filed December 18, 1902. Serial No. 135,811. (No model.)

To all whom it may concern:

Be it known that I, ANSON N. PALMER, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Time-Recorders, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in
10 time-recorders, and refers more particularly to the mechanism for locating and printing the times of arrival and departure of each employee in different lines upon the record-sheet opposite to his particular numeral or
15 other individual designating character. It is common practice in this class of machines to print upon the record-sheet the times of arrival and departure of the employee in the same line, but in successive columns, under
20 the headings "In" and "Out." This system is generally efficient where the times of arrival and departure for each day are comparatively few—as, for instance, in factories, stores, &c., in which the periods of employ-
25 ment are usually from morning until noon, from noon until evening, and sometimes certain periods at night; but in cases where the employees—such as letter-carriers, messengers, &c.—are in and out frequently during
30 each half of the ordinary working day it would become necessary to materially increase the width of the record-sheet and its supporting-platen and would therefore necessitate a complete reconstruction of practically the en-
35 tire interior mechanism of the recorder in order to record their several times of arrival and departure.

The object of the present invention is to enable each of these employees to record a
40 greater number of "ins" and "outs" opposite their particular numbers on the record-sheet without increasing its size or materially changing the present construction of the machine. This is accomplished by simply chang-
45 ing the employee-designating numerals on the index plate or face of the recorder-case, so that instead of numbering the successive apertures or stop-points singly and consecutively a plurality of such apertures or stop-points—
50 in this instance two—are indicated by the same

numerals, either by a single numeral or by duplicate numerals, and instead of providing the record-sheet with a series of columns each headed by the expressions "In" and "Out" each employee-designating numeral on said
55 record-sheet is provided with a plurality of lines—in this instance two—opposite his number and corresponding with the number of stop-points coupled to a corresponding number upon the index. These features form the
60 subject-matter of this invention and enables each employee to print a plurality of impressions in different lines opposite his individual number on the record-sheet.

In the drawings, Figure 1, is shown a front
65 elevation of a time-recorder which is substantially the same with the exceptions noted as that set forth in my pending application, Serial No. 75,023, filed September 11, 1901. Fig.
70 2 is a transverse vertical sectional view through the case of the recorder seen in Fig. 1, showing particularly the platen-printing mechanism in elevation and the means for rotating the platen and operating the printing mechanism, a portion of the clock mechanism be-
75 ing also shown. Fig. 3 is a detail view of a portion of the record-sheet and also a portion of the index on the face of the recorder-case, the purpose of this view being to demonstrate the application of this invention. 80

Similar reference characters indicate corresponding parts in all the views.

In carrying out the objects of this invention a case 1 is provided with an index plate or wall 2, having a series of stop-points consist-
85 ing of apertures 3, which are arranged concentric with a revoluble platen 4 within the casing 1. This index plate or wall 2 is also provided with a series of employee-designating characters, such as numerals "1," "2," "3,"
90 &c., which are printed or otherwise stamped upon the outer face of the wall 2, so as to be readily visible and are arranged consecutively and concentric with the row of apertures 3. A plurality of apertures—in this instance two—
95 are provided for each numeral of the same kind—that is, a pair of stop points or apertures are provided for the same or duplicate numerals, as seen in Fig. 1, in which is shown single numerals "1" to "23" and "28" to "50" as 100

each coupled to two apertures; but in the apertures numbered from "24" to "27," inclusive, I have shown duplicate numerals for successive apertures of each pair, the former arrangement being preferred. These apertures are arranged to designate the "ins" and "outs" of each employee, and are therefore indicated by the words "In" and "Out," and so on. For instance, the first stop point or aperture coupled to the numeral "1" indicates the time of arrival of the employee, and the succeeding aperture to the right indicates the time of departure of the same employee.

The platen 4 is secured to a rotary shaft 5, to which is connected an index finger or pointer 6 and operating member 7, by which the shaft is rotated to rotate the platen for the purpose of bringing the employee-designating numerals of the record-sheet into alinement with the printing-point, the indicator-finger 6 being movable into registration with the desired aperture 3, and the operating member 7 is movable axially of the platen and is provided with a spur 8, which enters the apertures and holds the platen from further rotary movement during the operation of printing.

The printing mechanism preferably consists of clock-rotated type-wheels 10, which are movable axially and toward and away from the platen.

The means for moving the type-wheels toward and from the platen and also axially is substantially the same as that set forth in my pending application above referred to, and as it is not important to a clear understanding of the present invention I will therefore only briefly refer to this mechanism.

The operating member 7 is connected to reciprocate a plunger 11, which is movable in a socket in the shaft 5 and is connected to a sliding collar 12, also mounted on the shaft 5. This collar is connected to operate a reciprocally-movable rack 13 and pinion 14, which meshes with said rack. This pinion is loosely connected to rotate a cam or eccentric 15 against the action of a spring 16, so that when the cam is rotated substantially half a revolution the spring 16 operates to complete the revolution, which latter movement serves to force the type-wheels 10 into engagement with the record-sheet to make the desired impression through the medium of a rock-arm 17 and a connecting-rod 18, which is actuated by the cam 15.

Any desired means may be employed for moving the type-wheels axially, the object of this movement being to shift the printing position upon the record-sheet, so as to avoid making one impression upon the other.

In the operation of my invention the record-sheet is placed upon the platen in such manner that when the spur 8 is registered with one of the numerals upon the index-plate 2 the corresponding numeral of the record-sheet is registered with the printing-point, and by

forcing the spur inwardly through one of the apertures of that particular numeral the type-wheels are simultaneously brought into action to print the time of arrival or departure, as the case may be, of the employee having that particular number upon the lines opposite his number on the record-sheet. For example, suppose the employee designated by the numeral "9" enters his place of business at seven o'clock. The operating member 7 is then rotated to register the spur 8 with the aperture designated by the word "In" coupled to the number "9" of the index-plate. This operation of the member 7 rotates the platen so that the numeral "9" of the record-sheet is in alinement with the printing-point, whereupon the member 7 is forced inwardly and prints his time "7:00" in the first line opposite the numeral "9." Now if the same employee goes out at ten o'clock the member 7 is rotated until the spur 8 is alined with the aperture indicated by the word "Out" coupled to the numeral "9" of the index-plate, which changes the position of the record-sheet one line with reference to the printing-point, but opposite the same numeral, the member 7 being then forced inwardly to print the time "10:00" in the next succeeding line opposite the numeral "9." In like manner each employee may print his time of arrival and departure in the different lines opposite his particular number upon the record-sheet.

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

1. In a time-recorder, a rotary platen carrying a record-sheet having a column of employee-designating characters and separate "in" and "out" lines for each character, a circular row of stop-points concentric with the axis of the platen, said stop-points being arranged in couplets and each couplet being designated by a different employee-designating character corresponding with those on the record-sheet, a printing mechanism and means connected to the platen and movable into registration with the stop-points.

2. In a workman's time-recorder, an index having a series of stop-points arranged in couplets, one point of each couplet representing the arrival and the other the departure of the same workman.

3. In a time-recorder, an index having a couplet of stop-points each designated by the same employee-designating character.

4. In a time-recorder, a series of employee-designating characters, each having two stop-points, one for the time of arrival and the other for the time of departure.

5. In a time-recorder, an index-plate having a series of employee-designating characters, each having an "in" stop-point and an "out" stop-point.

6. In a time-recorder, an index-plate having a series of employee-designating characters,

each having an "in" stop-point and an "out" stop-point, a handpiece registrable with the stop-points, a printing mechanism controlled by the handpiece, and a movable record-sheet support actuated by the handpiece.

- 5 7. In a time-recorder, an index-plate having a series of employee-designating characters and two apertures for each character, one representing the "ins" and the other the "outs."
- 10 8. In a time-recorder, a revoluble platen carrying a record-sheet having a column of employee-designating characters and two line-spaces for each character, an index-plate having a row of employee-designating characters
- 15 and two apertures for each character and an operating member for the platen registrable

with and having a stud to enter the apertures for the purpose set forth.

9. In a workman's time-recorder, an index-plate having a circular row of employee-designating characters, each having a couplet of apertures in the plate, a movable member registrable with and movable into said apertures, a platen for the record-sheet and a printing mechanism both operatively connected to and controlled by said member.

In witness whereof I have hereunto set my hand this 16th day of December, 1902.

ANSON N. PALMER.

Witnesses:

MILDRED M. NOTT,
HOWARD P. DENISON.