

(No Model.)

D. E. PURSELL.
TIME RECORDING MECHANISM.

No. 483,767.

Patented Oct. 4, 1892.

Fig. 1

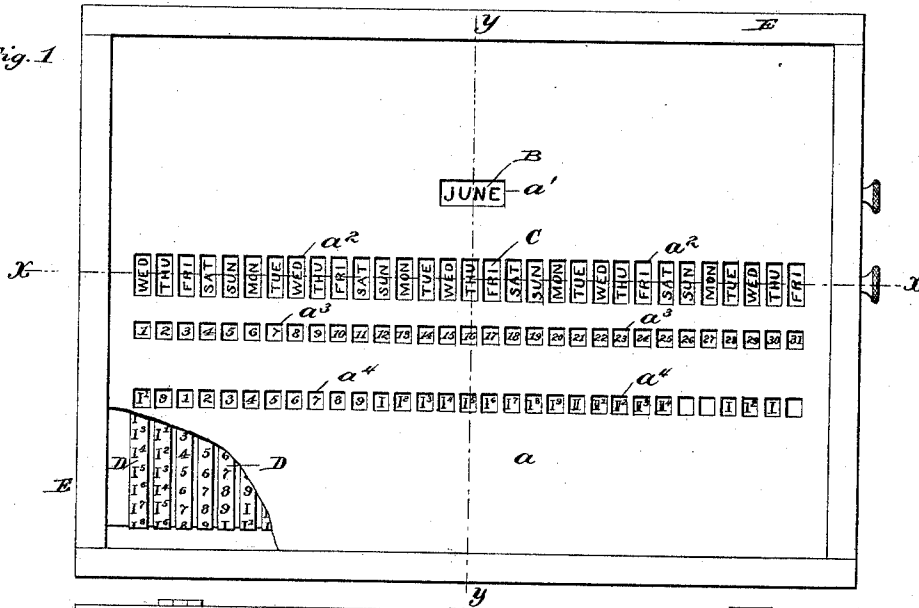


Fig. 2

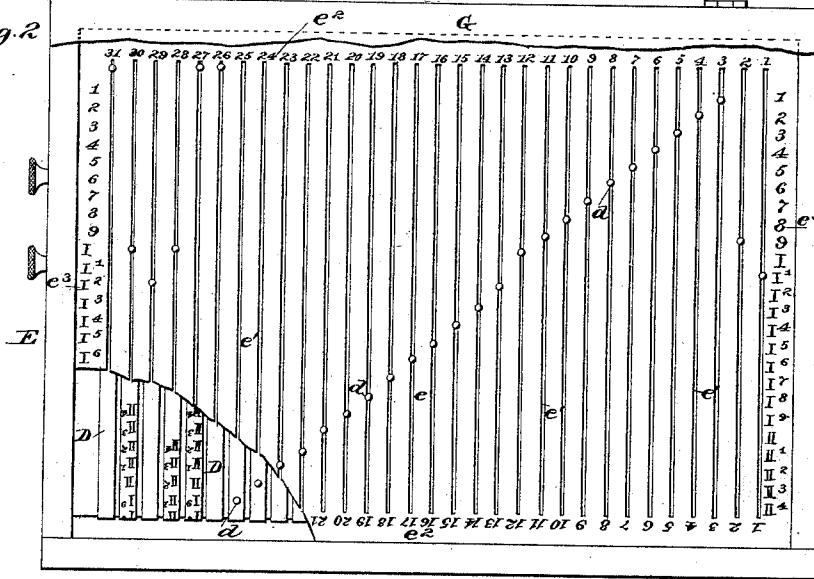


Fig. 3

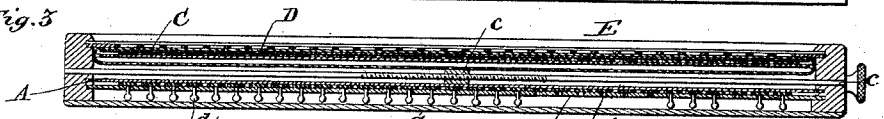


Fig. 4

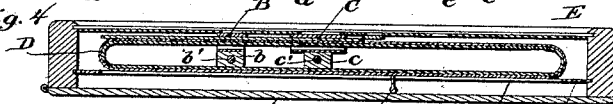
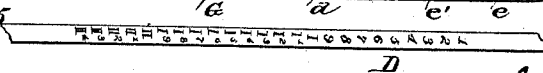


Fig. 5



Witnesses

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UNITED STATES PATENT OFFICE.

DAVID E. PURSELL, OF MAUCH CHUNK, PENNSYLVANIA.

TIME-RECORDING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 483,767, dated October 4, 1892.

Application filed July 1, 1892. Serial No. 438,714. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. PURSELL, a citizen of the United States, residing at Mauch Chunk, in the county of Carbon and State of Pennsylvania, have invented certain new and useful Improvements in Time-Recording Mechanisms, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of my invention is to provide a device for recording the time or the number of working hours made by mechanics and those engaged in railroading and similar occupations upon a certain day or date. To
15 that purpose I have invented, and hereinafter claim and describe, a pocket perpetual calendar, upon which are arranged traveling straps or bands bearing numerals indicating hours or days and fractions thereof, so that by comparing the recording-numerals with the calendar it can be determined at the end of a
20 stated period how many days and hours the mechanic has worked.

In the drawings, Figure 1 is a face view of
25 the calendar. Fig. 2 is a rear view. Fig. 3 is a section on the line $x x$, Fig. 1. Fig. 4 is a section on the line $y y$, Fig. 1. Fig. 5 represents one of the bands.

A represents a rectangular frame, which
30 for convenience I have constructed of sheet metal, so as to have a hollow interior. Arranged longitudinally around one side of this frame and extending through its interior are two endless bands B C, each secured to a nut
35 $b c$, mounted and working upon a screw-rod $b' c'$, extending beyond the end of the frame. Each screw has a milled head which can be grasped to turn the screw and advance or retract the nut, thereby moving the traveling
40 bands B C one way or the other. The band B has marked thereon the names of the months of the year, beginning with "January," while the band C has the days of the week in regular rotation for five or six weeks.

45 Running transversely around the frame A are thirty-one small endless bands D, upon which are noted the hours, beginning with one and ending with twenty-four, or as they are shown expressed in days they run from one
50 to ten, which completes one day, and then from I to II⁴, as shown in Fig. 1. These bands have each a pin d projecting from the back

of the frame, so that they can be grasped by the fingers. They each project through a slot e' in a rear plate e .

55 On the front of the frame A is a face-plate a , having an aperture a' over the band B of sufficient size that the name of but one month is visible. It has also a series of apertures a^2 over the band C, upon which the days of the
60 week are noted. The face-plate a has in line with the apertures a^2 and parallel therewith a row of numerals a^3 , corresponding to the days of the month and ending with the numeral "31." There is also a third set of ap-
65 ertures a^4 , corresponding to the row of numerals a^3 and directly over the bands D, so that the hours on the said band may be seen through the apertures directly in line with
70 the day of the week and the day of the month.

Upon examining Fig. 2 it will be seen that the rear plate has two rows of numerals $e^2 e^2$, corresponding to the bands D and to the rows of numerals a^3 on the other side, and also two
75 other rows $e^3 e^3$, corresponding to the numerals on the traveling bands D. The last-said numerals are so spaced apart that when the pin d is in line with one of the numerals, say I², that number appears in the aperture a^4 on the other side of the frame.

80 The whole frame A, together with the face and the rear plates a and e , are inclosed in a light binding-frame E, there being glass or other transparent material over the face-plate and a lid or cover G to protect the pins d ,
85 projecting through the slots in the rear plate.

It will be easily understood how the device is used. After the band B, on which are noted the months, has been shifted by means of the screw b' and nut b , so that the proper month
90 appears in the aperture a' , and the band C has been likewise moved by the screw c' and nut c until the days of the week correctly correspond to the numerals a^3 on the face-plate,
95 the calendar is then ready for recording of time. As the ordinary working-day is ten hours, I prefer to note the time in days of ten hours each and fractions thereof, as five hours, one day and four hours, (or fourteen hours,) or two days and four hours, (or twenty-four
100 hours,) as the employes of a railroad sometimes work twenty-four hours on a stretch, and are at such times entitled to be paid for two days and four hours of time. Suppose,

for example, on Wednesday, June 1, an engineer has made a run of eleven hours. He then by means of the pin d shifts the first of the bands D until the pin is in line with I' of the numerals e^3 , the same numeral appearing in the first aperture of the row a^4 corresponding to that day and date. Then on June 2 he works but nine hours, the second band being shifted until "9" appears in the second aperture. He continues this to the end of the month, recording the number of hours and days worked, and at the end of the month he has a complete record of the time, together with the days and dates.

I do not wish to be construed as limiting myself to this exact construction and arrangement of parts, as there can be many variations made without affecting the spirit and scope of the invention.

I am aware of the fact that calendars have been used or proposed with a series of movable characters indicating the month of the year, together with a series of characters indicating the days successively of one or more weeks, and also a series of characters indicating the numbers of the days of a month, and in combination therewith a number of blank spaces adapted to have entries made thereon with pencil or pen to suggest the days on which should be performed certain acts, as the collecting or the paying of sums of money, and I do not claim such devices as of my invention; but the purpose of the device herein is entirely different. The object is not to provide a calendar or something to assist memory concerning a future matter, but to provide an assistant in keeping account of past matters, based particularly on fractional parts of a day of twenty-four hours—that is to say, provide a series of indicators of such nature that at the end of or at any time during a month an interested party can instantly ascertain the total number of hours of one or more days which have been devoted to some given object.

I believe myself to be the first to have provided a calendar having a series of characters for each of several days from which can be readily ascertained at any time the total number of hours, such as aforesaid.

What I claim is—

1. The herein-described method of recording time, it consisting in marking by means of interchangeable characters upon a calendar opposite the respective days of the week or month the hours of working time, said hours being expressed in days, and fractions thereof, of ten hours each, substantially as and for the purpose set forth.

2. In a recording device, the combination, with a determinate set of signs indicating the days of the week, of devices, substantially as set forth, for indicating the hours, as described.

3. A recording device having a determinate set of signs or symbols indicating days of the

month or week and movable devices for indicating the hours of such days, substantially as shown and described.

4. In a recording device, the combination, with a frame having a row of symbols for indicating the days, of a set of movable bands respectively opposite the said row of symbols and having thereon symbols indicating hours, substantially as set forth.

5. A recording device having a frame, a movable month-indicator, a day-indicator, and movable devices for indicating the hours of the day, substantially as set forth.

6. The combination, with the frame, a traveling band for indicating the months, and a traveling band for indicating the days, of bands, one for each day of the month, for indicating the hours, substantially as set forth.

7. The combination, with the frame having a determinate set of symbols indicating days, of devices, one for each day, having symbols indicating hours and movable relatively to said set of symbols, and means for moving said devices, substantially as set forth.

8. The combination of the frame, the longitudinally-moving band indicating the month, the longitudinally-moving band indicating the days, and transversely-moving bands for indicating the hours, substantially as set forth.

9. In a calendar, the combination of a series of characters indicating months adapted to have each month distinguished from the others, a series of characters indicating the days of the month, and a series of sets of characters arranged, respectively, opposite to the characters of the second aforesaid series and those of each of the last said sets indicating one or more fractional parts of a day, substantially as set forth.

10. In a calendar, a series of movable indicators, each provided with characters indicating fractional parts of a day and each being in whole or in part a duplicate of another or others and arranged to move parallel to each other, substantially as set forth.

11. In a calendar for indicating fractional parts of a day, a series of indicators which are in whole or in part duplicates of each other and have characters indicating fractional parts of a day, a series of characters indicating months and adapted to have each month distinguished from the others, and a series of characters indicating the days of the month, substantially as set forth.

12. In a calendar for indicating fractional parts of a day, a series of characters indicating the days of the month, and a series of sets of characters respectively opposite the aforesaid characters, those of each set comprising characters of two distinguishable kinds, respectively, adapted to indicate different fractional parts of a day, substantially as set forth.

13. In a calendar, a series of duplicate movable indicators, each provided with characters indicating fractional parts of a day, and a series of characters indicating entire successive

days, respectively, opposite to said indicators, substantially as set forth.

14. In a calendar, a frame or holder, a movable indicator supported therein and having
5 a series of characters, of which one or more are visible from the front side of the calendar, means for moving the indicator, and a duplicate stationary set of characters behind

the calendar to guide in moving the indicator, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID E. PURSELL.

Witnesses:

FREDERICK BERTOLETTE,
DAVID H. BARBER.

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