S. FOURNIER.

Registering Clock.

No. 20,786. Patented July 6, 1858.

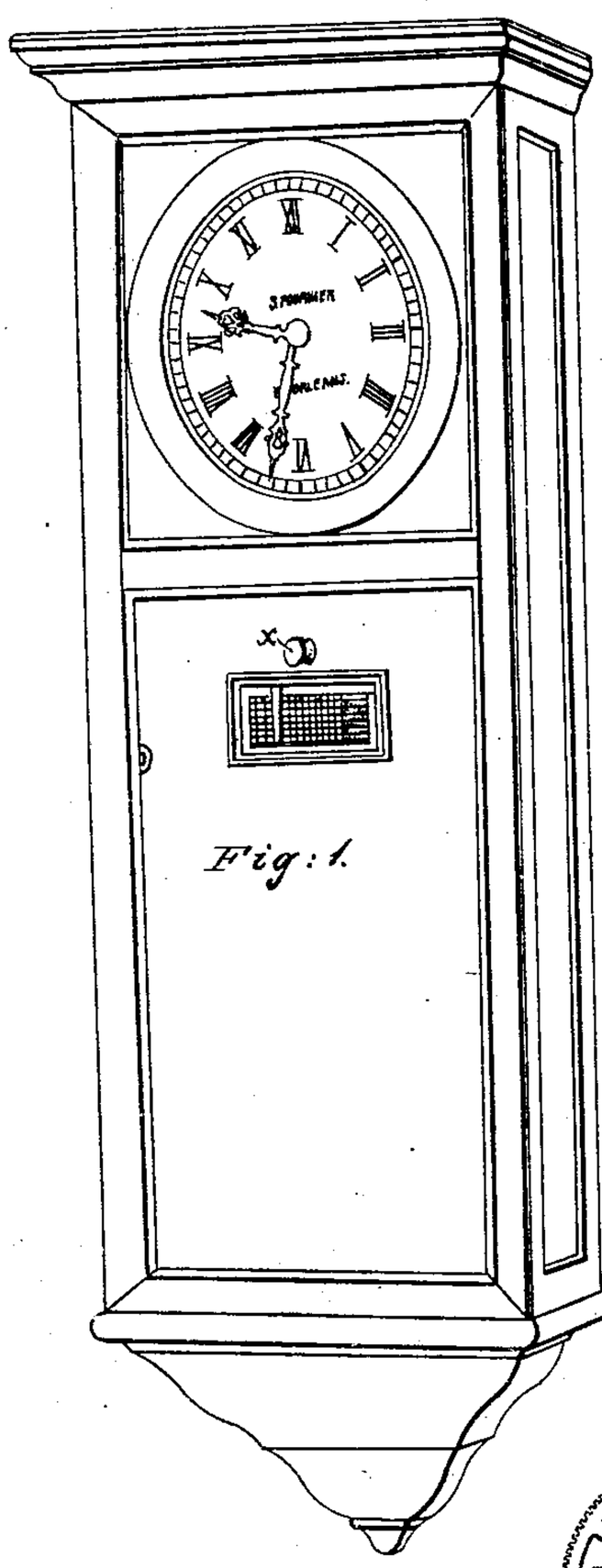

Fig: 1.

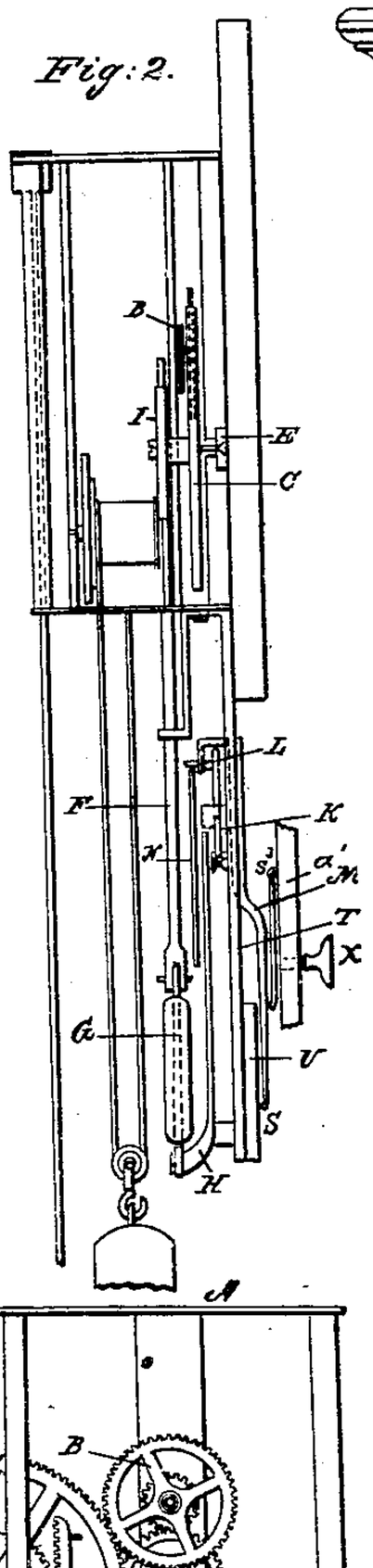

Fig: 2.

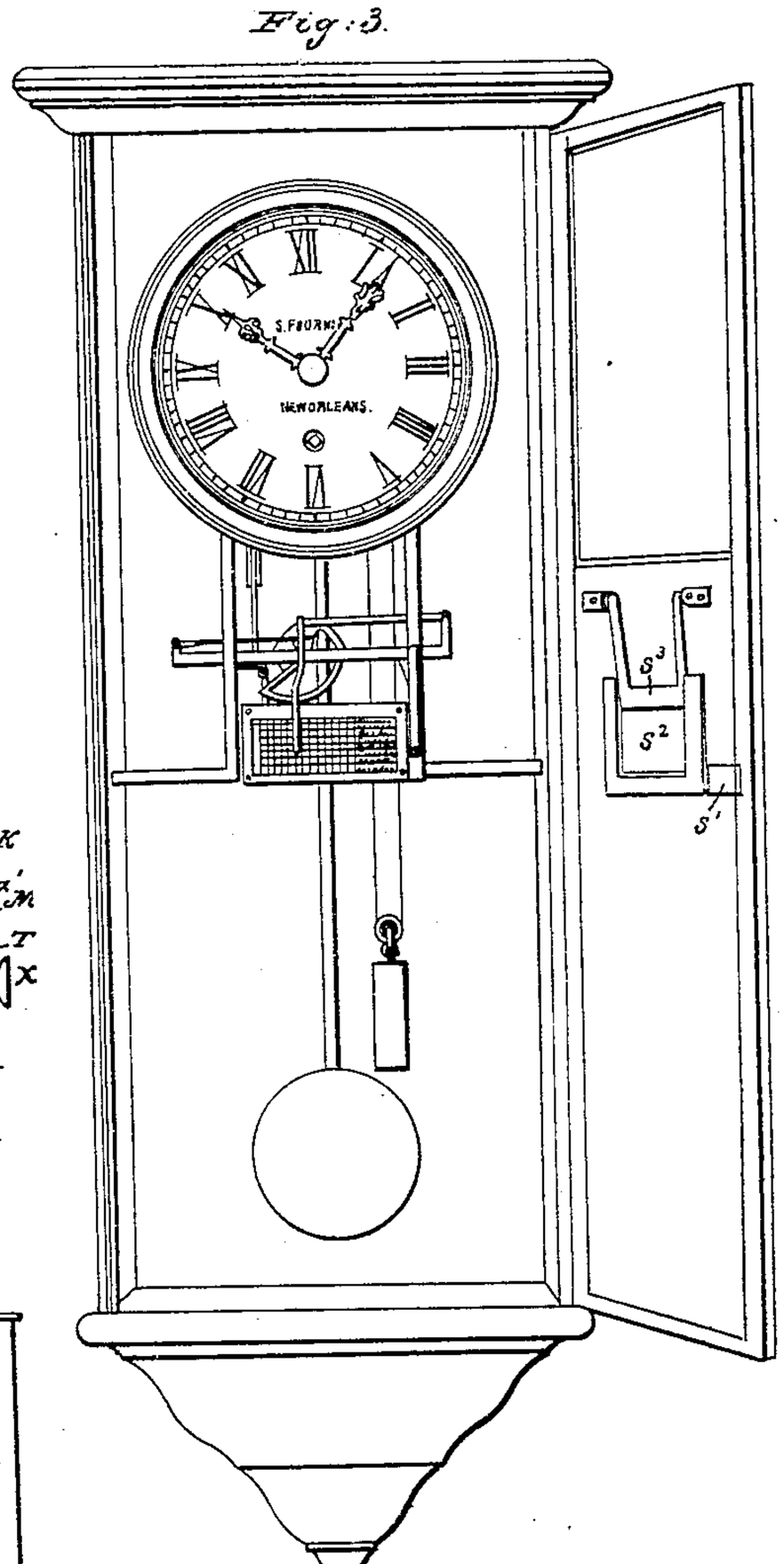

Fig: 3.

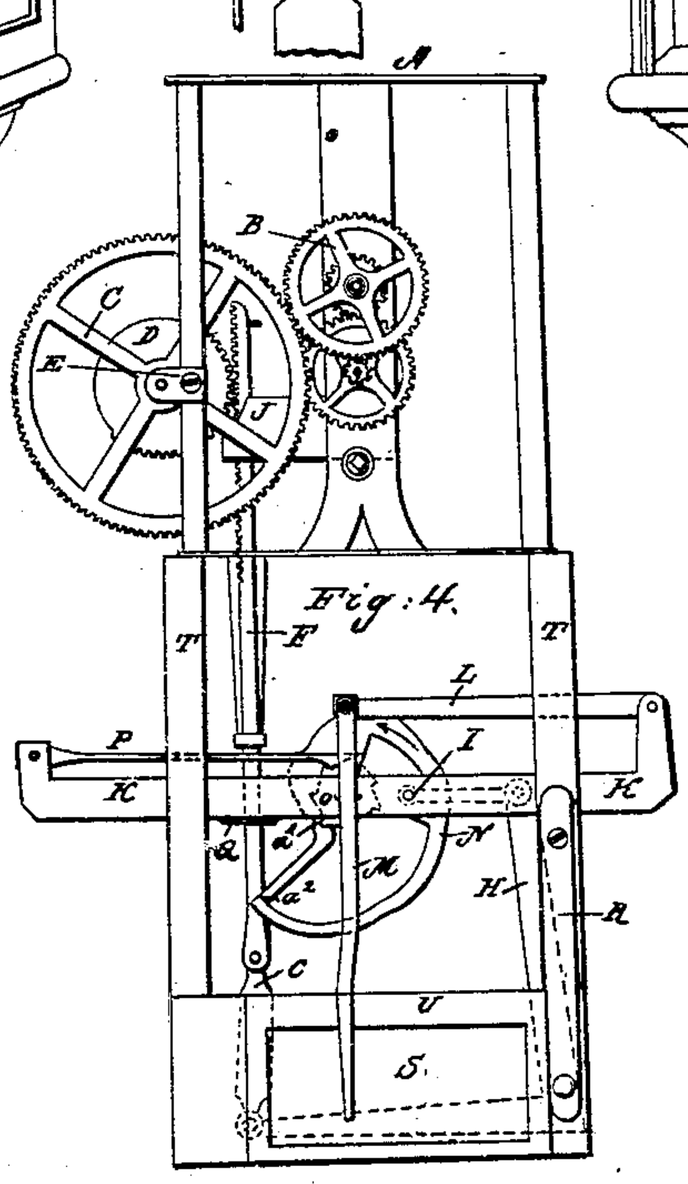

Fig: 4.

Inventor:
Silas Fournier.

UNITED STATES PATENT OFFICE.

S. FOURNIER, OF NEW ORLEANS, LOUISIANA.

REGISTERING ATTACHMENT FOR CLOCKS.

Specification of Letters Patent No. 20,786, dated July 6, 1858.

To all whom it may concern:

Be it known that I, STANISLAS FOURNIER, of the city of New Orleans, parish of Orleans, State of Louisiana, have made a new and useful register to be attached to clocks, from the use of which correct indications will be established to show the faithful attention or neglect of the persons keeping watch in the night; and I hereby declare the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, the same letters used to indicate the same parts shown in the respective figures.

Figure 1, front view of the clock. Fig. 2, side elevation of interior. Fig. 3, front view showing interior. Fig. 4, front view, clock face removed.

From the application of this arrangement persons who have charge of property as a watch on the same, or attending to invalids in the giving of medicines throughout the night, can leave positive evidence that at stated intervals during the night they were awake, and at their post of duty; and should they not be attentive, the instrument will record distinctly the number of omissions, and the periods of the same.

In the construction of the clock, and such parts strictly belonging to the clock, I will omit in my description, as I make no variations from that well known in the art of clock making.

This improvement consists in distinct separate attachments operating with and in combination with the clock.

Fig. 4 showing more of the arrangement than any others I will call attention to it. The wheel B, one of the wheels of the clock that makes a revolution once in 12 hours. The wheel (C) working into B and driven by B has a circumference twice that of B; consequently makes but one revolution in 24 hours. On the same shaft that C is mounted, I place the wheel D; this shaft mounted in the bearings E. The wheel D for a part of its circumference has teeth which catch the rack F and the number of teeth, are as well as the segment of the wheel, to allow this wheel to work in the rack for 12 hours, say from 6 p. m. to 6 a. m. During the time the wheel is not acting on the rack, the instrument is not in a condition to indicate. This time is supposed from 6 a. m. to 6 p. m. The rack is held in position by the guide J; and on the lower end has the weight G to cause it to fall down as soon as the cogs on wheel D have rolled out of it, the weight G being attached to one end of the triangular arm H the center which is mounted to the frame T, T, the other end of the arm H being attached to the carriage K by the link I; the carriage K mounted in guides on the frames T. Therefore the motion of the rack in being attached to the triangular arm H causes motion to be given to the carriage, so as the rack is uniformly ascending, the carriage is as uniformly sliding from one side to the other, and when the rack is let go by the wheel its descending changes the position of the carriage in causing it to slide to the same place from whence it started. To the carriage is attached also the ratchet wheel, *o*, having seven teeth and the eccentric spiral. The spiral is to give position to the index bar M by operating on the bar L; and the ratchet is to change position of the index each time the carriage changes position, and this is as often as the rack descends. The spring Q causes this change to be made in its catch on the teeth of the ratchet when the carriage is changing, moving the eccentric spiral the direction indicated by the arrow. The ratchet having seven teeth. one for each day of the week, as the instrument is constructed to indicate for that time and supposing the first day the bar L to lie on the spiral at *a;* on the seventh day, the last hour will fall over the point a^2 and rest again on the point a', and thus change the position of the index bar on the car on which the registering is made.

U the frame into which the card is placed and being held from moving by the spring, R, the register card marked S, and can be designated in the Figs. 1 and 3 by having the days of the week marked thereon at one end and the hours of the day on the top line.

In Fig. 3, showing the clock frame, with the door open; S′ the lock of the door; S^2 a glass in the door, through which the card can be seen; S^3 a swinging knocker that hangs in front of the index bar M, which can be acted on by the button X which passes through the door as seen by Fig. 2; the door indicated by *d′*; knocker S^3; register bar M.

P seen in Fig. 4 is a pawl to catch the ratchet wheel to hold the same steady; this

pawl is made in its form from the catch, to its attachment to the carriage, slender, and being elastic, will allow the catch to rise over the teeth of the ratchet and spring into position to hold the eccentric spiral until a change is required, which will be made in 12 hours after the apparatus starts, so the registering can commence, as this will only register 12 hours in the 24. If the change is made at 6 o'clock, a. m., the action of the clock will bring the wheel (D) so as to catch the rack F at 6 o'clock p. m. and thus be ready to indicate again.

The manner of making use of this apparatus: The cards are placed in the card frame, and they have division lines horizontal for each day of the week, as seen opposite the days, and also have divisions for the hours in a vertical position, starting at 6 to 12, and from 12 to 6, the card being stationary, and the index bar moving in a line on its face, this index bar having a needle point to make a small hole in the card when pressed against, which is done by a slight tap on the button X by a person who has to keep the watch and consequently make the indications; the time for doing so known from the clock, and should the indications be made regularly at intervals of any stated times, the card will show by the holes made therein, the time such registrations were made, and omissions to register, will also be clearly set forth by the absence of holes in the card, showing both the times of omissions, and the number of them.

After this my description what I claim as new and desire to secure by Letters Patent is—

1. I claim in combination with the clock, the wheel C by which I give motion to the wheel D that moves the rack F for a portion of the 24 hours. This I claim when either using the wheel D and the rack F as set forth, or any other analogous mode by which the apparatus can be made to register substantially the same, as regards the time specified.

2. I claim the carriage K in combination with the rack F when the action of the clock, through the use of the rack, or its equivalent gives motion to the carriage, and holds the index bar M over the card, ready to have the time indicated as already set forth, and for the purpose specified.

SLAS. FOURNIER.

Witnesses:

FRANCIS ARMSTRONG,

JAS. FRERET.