F. SUMPF.

Price-Indicator.

No. 163,542. Patented May 18, 1875.

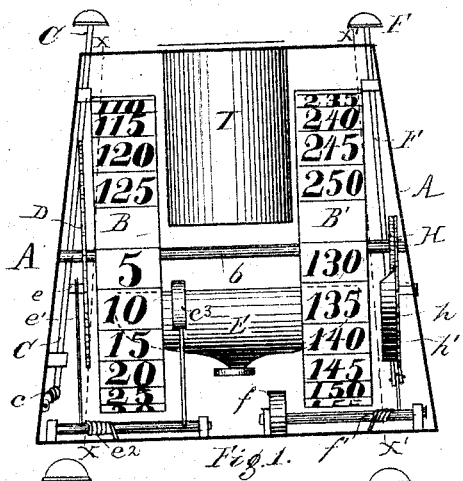

Fig. 1.

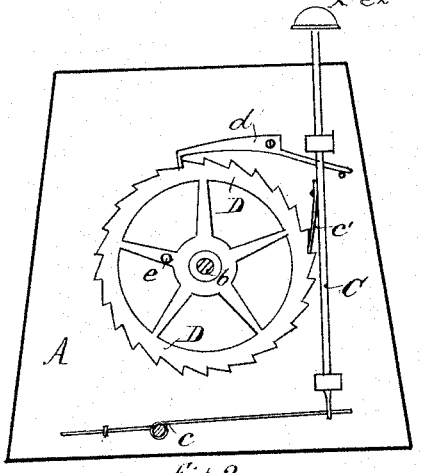

Fig. 2.

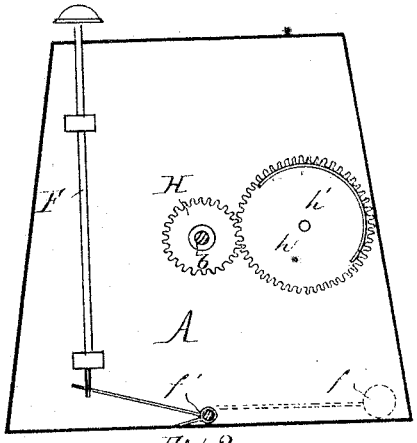

Fig. 3.

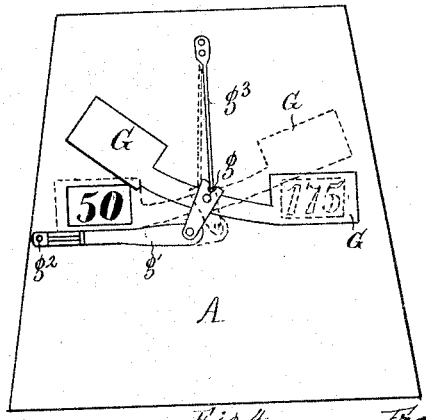

Fig. 4.

Witnesses:
J. W. Berthel,
Chas. F. Meisner

Inventor:
Frederick Sumpf,
per Berthel & Co
Attys.

UNITED STATES PATENT OFFICE.

FRIEDERICH SUMPF, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN PRICE-INDICATORS.

Specification forming part of Letters Patent No. **163,542**, dated May 18, 1875; application filed March 4, 1875.

To all whom it may concern:

Be it known that I, FRIEDERICH SUMPF, of St. Louis, in the county of St. Louis and State of Missouri, have invented an Improved Price-Indicator, of which the following is a specification:

This invention is specially designed for use in bar-rooms, restaurants, and the like, though of use in general for household and similar purposes.

The object of this invention is to serve in the place of tickets, metallic stamps, checks, or the like, that are served to notify persons or customers of the price or amount to be paid for articles of food, or drinks ordered, or for service rendered of a similar nature, and to obviate the frequent disputes, false representations, mistakes, and inconveniences arising from such a cause.

My invention, therefore, relates to the combination of parts that form a device for indicating and registering prices to be paid, in the manner now more fully to appear.

Of the drawing, Figure 1 is a front elevation, showing interior mechanism, the front part of casing being removed. Fig. 2 is a side elevation on line *x x* of Fig. 1. Fig. 3 is a side elevation on line *x' x'* of Fig 1. Fig. 4 is a front elevation, showing the movable plate that controls the face-openings.

A is a suitable casing to contain the mechanism. B B' are wheels secured to the shaft *b*, which turns in the case A. Surrounding the circumferential face of each wheel B B' are printed figures. These figures are to indicate prices. Thus, figure 5 indicates five cents, figures 115 one dollar and fifteen cents, &c. Hence, as here shown, the order of the figures shown on the wheel B begin with figures 5, 10, &c., and end with figures 125; those figures shown on the wheel B' begin with 130 and end with 250. At the end of the figures 125 and figures 250 is left a blank for the purpose of permitting a bell-signal to strike to indicate the change of the price from the wheel B that is next to be calculated from the figures on the wheel B'. The mechanism to control the turning of the wheels and the passing of the figures is as follows: I arrange a stem, C, so that its upper knob end extends top of the casing A, while its lower end is secured to a spring, *c*, more clearly shown in Fig. 2. Forming part of the stem C is a further spring, *c'*, brought in line to engage a tooth of a ratchet-wheel, D, (see Fig. 2.) The wheel D is secured to the shaft *b*, (see Fig. 1,) so as to turn same. Thus arranged it is apparent that, by a downward pressure imparted to the stem C, its spring *c'* actuates the ratchet-wheel D to turn the distance of a tooth, and this movement is imparted to the wheels B B'. The spring *c* next returns the stem C to original position for a repetition of the same movement. The motion of the wheels B B' takes place at the same time, and, as this turn movement is intermittent and in the same direction, every figure on the wheels is brought in proper order to be seen by the operator through the openings in front of the casing. The ratchet-wheel is prevented from reverse action by a suitable spring-pawl, *d*, shown in Fig. 2. Between the wheels B B' I arrange a signal-bell, E, (see Fig. 1.) This bell is to serve a double purpose: First, to indicate the change of the price being carried forward to the wheel B' when the figures on the wheel B have been exhausted; secondly, the bell is to serve the purpose of an ordinary call-bell. To operate, therefore, the bell E for the first purpose alluded to, I provide the ratchet-wheel C to have a projecting pin *e*, (see Fig. 1.) This pin, by the revolution of the ratchet-wheel, is brought to engage a stem, e^1, forming part of a spring rock-shaft, e^2, and which carries the striker e^3, all shown in Fig. 1. Hence, only when the wheels B B' have completed a revolution does the ratchet-wheel, by its pin, actuate the striker to strike the bell, and this it does whenever the wheels B B' present their blanks. The striking of the bell at this period, therefore, calls attention to the proper parties that one or the other wheel with its figures, as the case may be, has its price indicated, transferred, or carried forward. A similar striker, *f*, and rock-shaft *f'*, and its vertical connected stem F, (see Figs. 1 and 3,) constitute the call-bell. The stem F being pressed down actuates the striker to signal the bell E, and this can be done or the call-bell used at any time without interfering with the wheel mechanism. The openings in the front of case A are controlled to show alternately the complete series of figures on one

of the wheels B or B′ at a time. For this purpose I provide the front plate of the casing A with a movable plate, G, which is of the constructive shape shown in Fig. 4, so as to close one opening at a time. This plate G I pivot, with its arm g, to the casing A. The arm g I further pivot to a horizontally-acting lever, g^1, the end of which carries a projecting pin, g^2, all shown in Fig. 4. A pin and slot guides the movement of the lever g^1, while a spring, g^3, returns the parts to original position.

The movable plate G is further to be connected so as to be operated by the turning of the wheels B B′. Therefore, on the shaft b is a pinion, H, fitted to mesh with a gear-wheel, h, (see Figs. 1 and 3.) This gear h has a cam-flange, h', extending but half round, (see Figs. 1 and 3,) the object thereof being to engage and act upon the pin g^2, and move the plate G to change its position, so that the opposite face-opening of the casing which was closed shall be opened, the return movement of the plate G itself performing the same result, as soon as its pin g^2 is released from contact with the cam-flange h'. In this wise the movable plate is so controlled that it closes each opening alternately, to display all the figures on each wheel, nor does the change of the position of the movable plate take place until the completed showing of all the figures of one wheel has first been done.

The manner of using this instrument consists simply in the operator depressing the stem C, and that so often until the required figure is displayed that stands for the price. It is thus a safeguard both to the buyer or seller, and either can keep their accounts correctly.

I is a match-receptacle, and in conjunction with this one of the sides of the casing can be roughened.

What I claim is—

1. In a price-indicator and register device, the combination of the wheels B B′, having figures, the stem C, spring c', ratchet-wheel D, its pin c, the stem e^1, rock-shaft e^2, striker e^3, bell E, all arranged to operate in a casing, A, as herein shown and described, and by means whereof the price to be paid is indicated and stands registered, in the manner and for the purpose set forth.

2. The movable plate G, arm g, lever g^1, its pin g^2, gear-wheel h, having cam-flange h', pinion H in combination with wheels B B′, to operate in manner and for the purpose set forth.

In testimony whereof, I have hereunto set my hand.

FRIEDERICH SUMPF.

Witnesses:

WILLIAM W. HERTHEL,

CHAS. F. MEISNER.