

(No Model.)

M. T. MEYER.
COUNTING REGISTER.

No. 507,023.

Patented Oct. 17, 1893.

Fig. I,

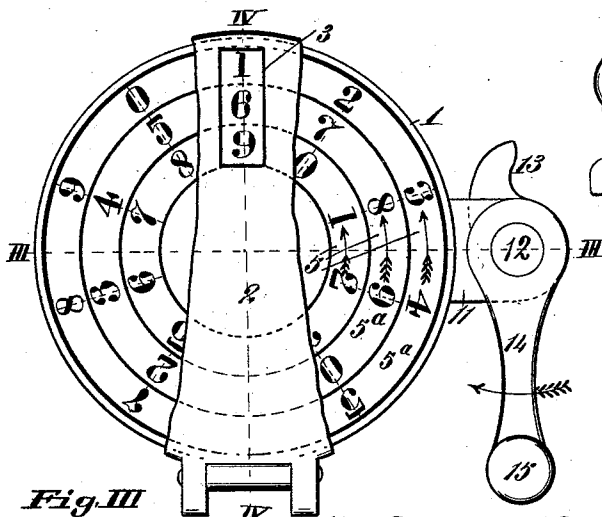


Fig. II

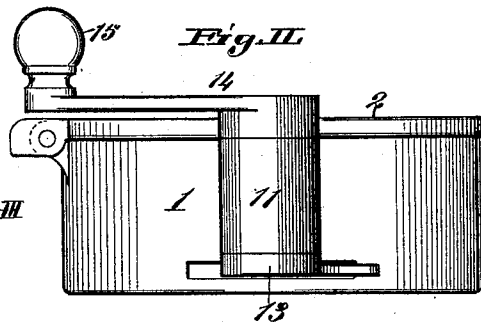


Fig. III

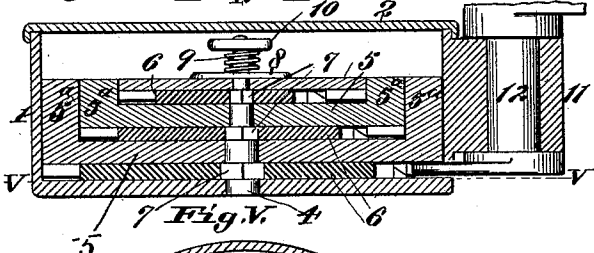


Fig. IV

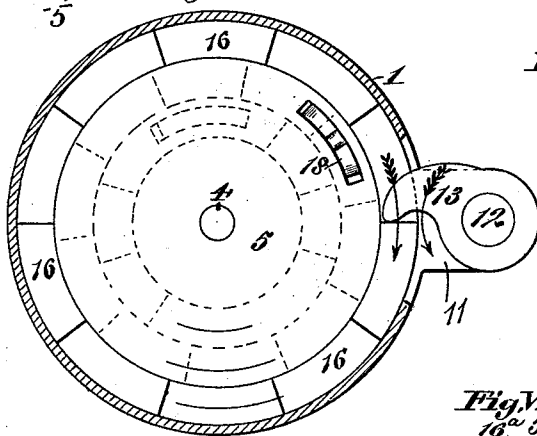
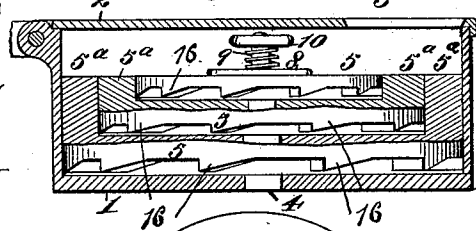


Fig. VI

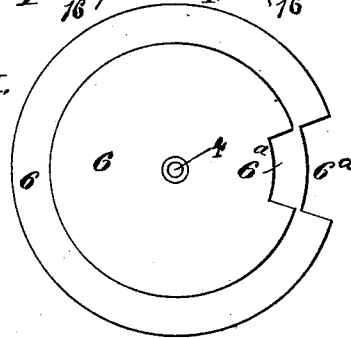


Fig. VII

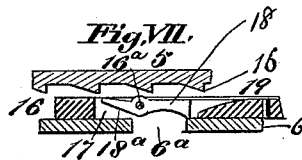


Fig. VIII

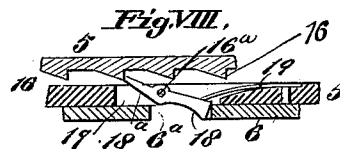
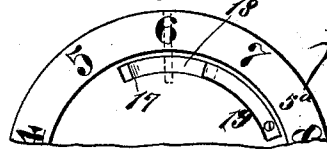


Fig. IX



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UNITED STATES PATENT OFFICE.

MARTIN T. MEYER, OF CALIFORNIA, MISSOURI.

COUNTING-REGISTER.

SPECIFICATION forming part of Letters Patent No. 507,023, dated October 17, 1893.

Application filed February 27, 1893. Serial No. 463,878. (No model.)

To all whom it may concern:

Be it known that I, MARTIN T. MEYER, of California, in the county of Moniteau and State of Missouri, have invented a certain new and useful Improvement in Registers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a register adapted to be used for scoring, where it is desired to keep a register of movements, &c., in connection with printing presses, or for registering messages at a telephone switch-board, and my invention consists, in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a top view or plan of my improved register, part of the cover being broken away, to show the dial beneath. Fig. II is a side elevation. Fig. III is a vertical, cross-section, taken on line III—III, Fig. I. Fig. IV is a view, the lower portion of which is in elevation, and the upper portion in vertical, cross-section, taken on line IV—IV, Fig. I. Fig. V is a horizontal section, taken on line V—V, Fig. III, looking from the bottom of the register. Fig. VI is a detail, top view of two of the separating plates between the dials, showing the plates as they appear mounted on their supporting stem. Fig. VII is a vertical, detail section, through two adjoining dial plates, showing a dial pawl in its at-rest position. Fig. VIII is a vertical, detail section, similar to Fig. VII, but showing the pawl in position for moving the dial above it forward one notch, and number. Fig. IX is a detail, top view of a portion of one of the dials, indicating the location and construction of the pawls.

Referring to the drawings, 1 represents the case of my improved register, which is preferably cylindrical in form, as shown. Pivoted to the case 1 is a cover 2, provided with a sight opening 3, through which but the numbers directly beneath may be observed, such numbers as there appear being those counted in the revolutions in the register. Centrally secured in the case 1 to its base, is an upright stem 4, and on this stem dials 5 are mounted, and revolve. Beneath the lower dial, and between the others are plates 6, secured from

turning on the stem 4 through the portions of the stem on which they fit being square, as illustrated at 7, Fig. III. Above the upper dial is a washer 8, on which bears a spring 9, held by a nut 10, whereby the dials are held in proper relation, at the same time allowing the free movement of each dial, whether moving by itself, or in conjunction with the one next to it. The upper dial 5 is level across its face, and the dials beneath it have rims 5^a on which the numbers appear, which rims bring all of the faces of the dials on a level.

At one side of the case 1 is an extension 11, in which a shaft 12 revolves, said shaft carrying on its lower end an arm 13 that operates the dials of the register through the point of said arm 13 coming in contact with the teeth 16 on the underside of the lower dial 5, and moving said dial around for the space of the length of one of the teeth, as will be readily understood on referring to Fig. V. On the upper end of the shaft 12 is a handle 14, with a knob 15 through means of which the arm 13 is turned.

On the lower face of each dial are the ratchet teeth 16, and in an opening 17 of each of the lower dials, is a pawl 18 pivoted at 16^a, on top of which bears a spring 19, secured to the dial. In each of the plates 6 is a notch 6^a, into which, on each revolution of the dial above, the rear end of the pawl 18 falls, and is depressed by the spring 19, raising the point 18^a of the pawl into engagement with the ratchet teeth 16, the notch 6^a being formed to correspond with the distance apart of the ratchet teeth, so that as the dial 5 that is moving carries the pawl 18 past the notch 6^a, it will remain in contact with one of the ratchet teeth just long enough to move the dial above forward one number, the rear end of the pawl, as soon as the notch 6^a is passed, striking the plate 6, and following around the top of the plate until the notch is again reached at the end of another revolution. The tens are thus carried from the units, and the hundreds from the tens, and so on.

There may be as many of the dials 5, as desired, the number I have shown in the drawings being adapted to count up to 999, but it is obvious that by adding another dial, 9,999 could be counted, and by still another, 99,999,

and so on, to any number to which it might be desired to count.

I have shown my register operated through means of a crank, consisting of a handle 14 and knob 15, but do not wish to confine myself to such means of operation, for it is evident that many other means of driving the shaft of the arm 13 could be used, as, for instance, a pulley with belt attachment, or any suitable gearing.

I claim as my invention—

1. A register comprising a bottom-plate having a notch, a lower dial plate having ratchet-teeth on its lower face, and formed with an opening, a pawl pivoted in the opening, a spring for pressing the heel of the pawl into the notch, an upper dial-plate having ratchet-teeth on its lower face, and means for engaging the ratchet-teeth of the lower dial-plate for rotating the dial-plates; substantially as described.

2. A register comprising a case having a side extension, a rotating shaft located in the extension, an arm fixed to the lower end of the

shaft and operating through the side of the case, a handle fixed to the upper end of the shaft whereby the shaft is rotated in one direction, a lower dial-plate having ratchet-teeth on its lower face with which the arm engages, an upper dial-plate, and means by which the dial-plates are interlocked at each rotation of the dial-plates; substantially as described.

3. A register comprising a case, a stem, the dial-plates having ratchet-teeth on their lower faces, the plates, located beneath the dials, having notches, the spring pawls pivoted in the upper dial plates, the washer, the spring bearing on the washer, the nut bearing on the spring, and the shaft having an arm engaging the ratchet-teeth on the lower dial-plate, and a handle by which the shaft is rotated; substantially as described.

MARTIN T. MEYER.

In presence of—

JOS. W. HUNTER,
AUGT. SEYFFERT.