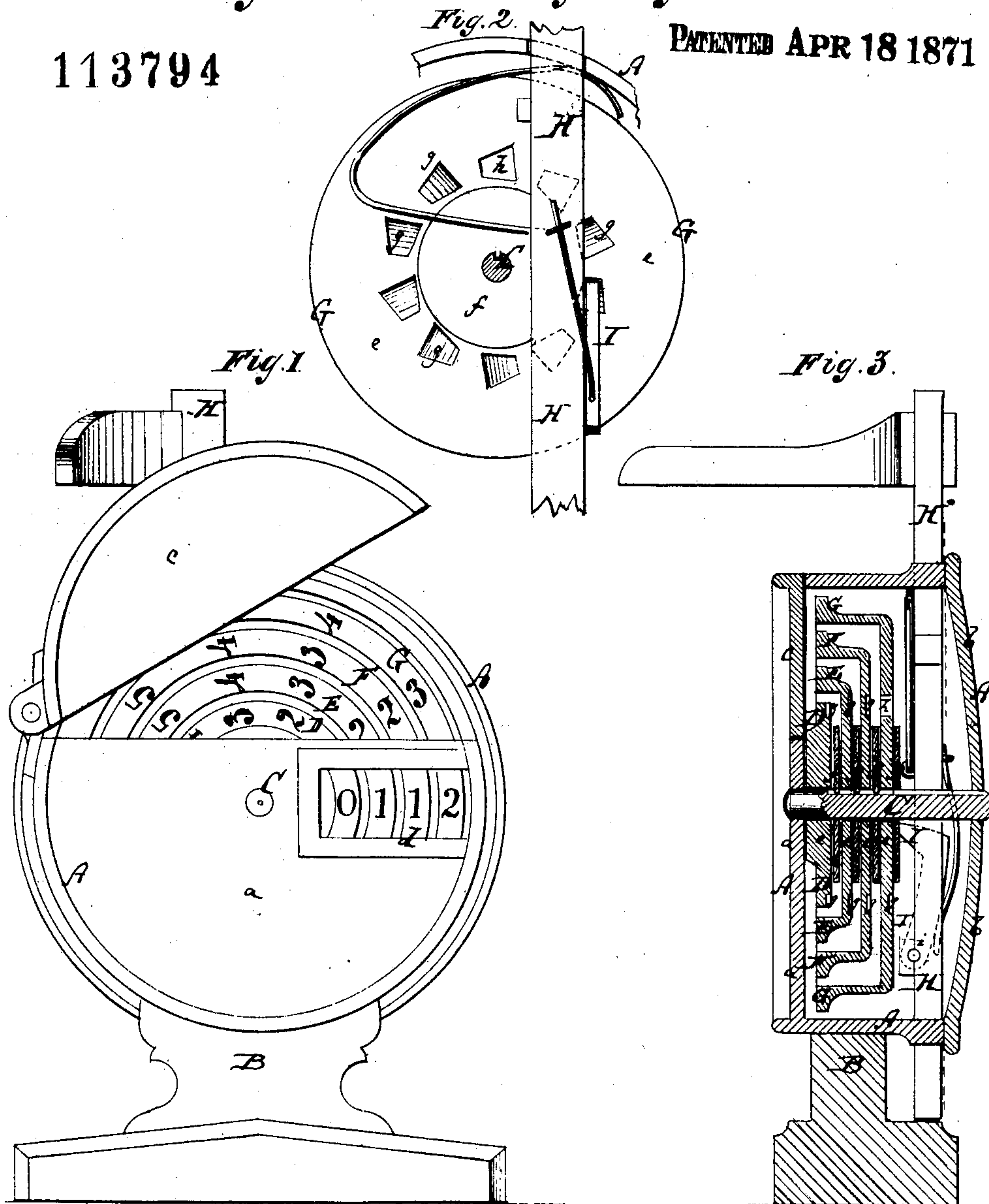


# C. W. Pyle. Counting Register.

113794

PATENTED APR 18 1871



Witnesses:

*E. Wolff*  
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Inventor:

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# United States Patent Office.

CHARLES W. PYLE, OF WILMINGTON, DELAWARE.

Letters Patent No. 113,794, dated April 18, 1871.

## IMPROVEMENT IN COUNTING-REGISTERS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, CHARLES W. PYLE, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and improved Counting-Register; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a front elevation of my improved adding-register.

Figure 2 is a back view, partly in section, of the same.

Figure 3 is a vertical transverse section of the same.

Similar letters of reference indicate corresponding parts.

My invention consists in an improvement upon registers, which will be first described in connection with all that is necessary to a full understanding thereof and then clearly pointed out in the claim.

A in the drawing represents a cylindrical case or box, which contains my improved registering apparatus. It is supported on a suitable standard, B, so as to be stationary.

O is a central axle or pin, fitted through the center of the case A, being supported by the face and back-plates *a b* of the same, so that it cannot revolve therein.

The face-plate *a* of the case has a hinged portion, *c*, which can be swung up, as in fig. 1, to give ready access to the interior of the apparatus. The back-plate *b* is held in place by screws, or otherwise, so as to be detachable.

Around the axle, are placed four, more or less, rings, D E F G, which are concentric and of different diameters, so that their numbered faces are all in the same vertical plane.

Each ring is, at its back, secured to a circular disk, *e*, to constitute, with the same, a cup, the said disk being hung upon the axle to easily revolve thereon. The smaller cup, D, is thus contained within E, this within F, which is embraced by the largest cup, G, as is clearly shown in fig. 3.

The annular faces of the several cups are, however, flush, and close behind the face-plate *a*. They are provided with figures, as in fig. 1, one figure of each ring being visible through a small aperture, *d*, in the face-plate *a*.

The several disks *e* of the aforesaid cups are held apart by washers, *f*, interposed between them, said washers being provided with feathers, which enter a groove of the axle, so that they cannot turn on the latter. They prevent, thereby, the transmission of motion by friction from one cup to another.

The back of each disk *e* has ten notches or indentures, *g*, arranged in a circle, of which one is, in all but the smaller disks, cut entirely through, to form an aperture, *h*.

H is a sliding bar fitted through the case behind the aforesaid cups, and provided with a spring pawl, I, which is held against the back of the largest disk. When the bar H is moved up its pawl enters one of the indentures *g* of the largest disk, and as it comes in contact with the upper sharp shoulder of the same it causes the said disk and its ring to turn one-tenth of a revolution, bringing, thereby, another figure behind the aperture *d*. When the pawl is drawn down it slips loose over the indenture without moving the disk. When the pawl reaches the aperture *h* of the largest disk it passes through the same and enters the notches in the next disk, and so on, thus producing the necessary movement of disks from units to tens, from tens to hundreds, &c. The largest ring G carries the figures which are used for units, the next the tens, the ring E the hundreds, and D the thousands.

The upper working edge of the pawl is curved on a circle, struck from its pivot *i*, so that the action of the pawl on the outer disk or disks will always be the same whether it touches or pierces them. A spring is or may be placed against the back disk to hold the disks properly together.

The cap *c* is very useful, as it permits the rings to be set to any desired position before starting a new count. The smaller ring, D, may be connected into a disk with its back *e*, as in fig. 3.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The series of disks *e*, notched at *g*, and apertured at *h*, combined, as described, with a single pawl, I, operating through said apertures and upon said notches, as and for the purpose specified.

CHARLES W. PYLE.

Witnesses:

ISAAC PYLE,  
A. C. PECKHAM.