A. SHEDLOCK.

REGISTER.

No. 192,792 Patented July 3 1877.

Fig. 1.

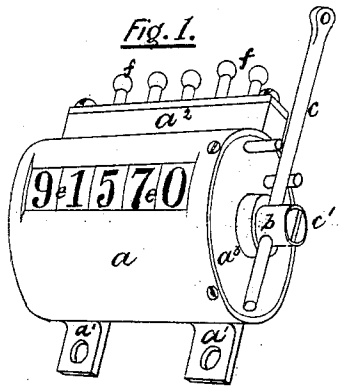


Fig. 2.

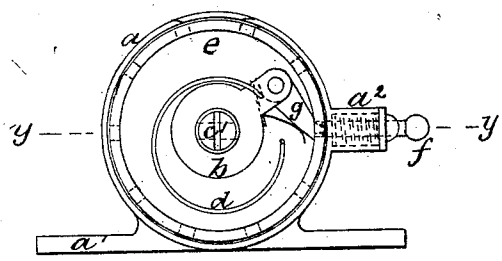


Fig. 3.

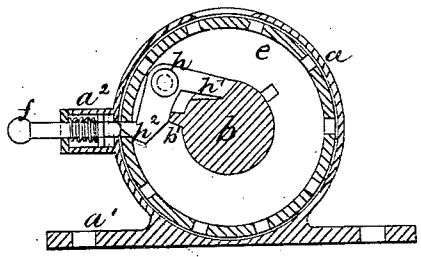
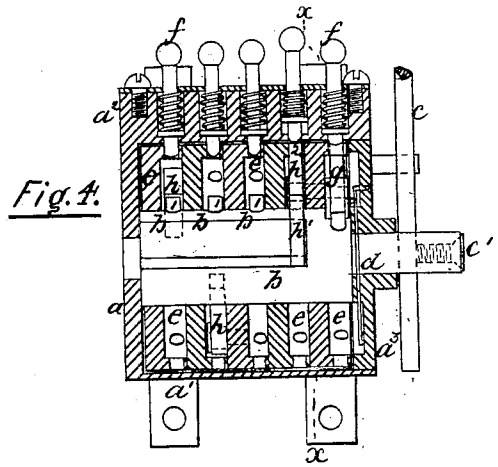


Fig. 4.



Witnesses.

William Shedlock

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Inventor.

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UNITED STATES PATENT OFFICE.

ALFRED SHEDLOCK, OF NEW YORK, N. Y., ASSIGNOR TO ALFRED GAGE, OF SAME PLACE.

IMPROVEMENT IN REGISTERS.

Specification forming part of Letters Patent No. **192,792**, dated July 3, 1877; application filed May 22, 1875.

To all whom it may concern:

Be it known that I, ALFRED SHEDLOCK, of the city of New York, county and State of New York, have invented a certain Improved Counter or Register, of which the following is a specification:

This counter is designed to be attached to printing-presses, to indicate the number of impressions run off, but can be used in all places where a counter or register is required. It is positive in its action, and can be readily adjusted so as to bring the 0 on each of the number-wheels opposite the sight opening in the case.

In the accompaying drawings forming part of this specification, Figure 1 is a perspective view of the improved counter. Fig. 2 is an end view with the end cover removed. Fig. 3 is a sectional view cut through the line *x x*, Fig. 4; and Fig. 4 is a longitudinal sectional view cut through the line *y y*, Fig. 2.

The case *a* is cylindrical in form, and is cast with one end complete, also with the feet a^1 and the projection a^2 extending the whole length of it. The object of this projection will be explained hereinafter. Into the open end of the case *a* is fitted the head a^3, which is held therein by screws. The shaft *b* works in bearings in the center of the closed end of the case *a* and head a^3. It projects beyond the outside of the case at one end a sufficient distance to allow the adjustable actuating-rod *c* to pass through it. Said rod is held firmly in the shaft by the screw *c'*. The rod *c* has a hole at one end of it, by which it is connected to any suitable moving part of the machine or press to which the counter is attached, and the rod is adjusted so that the shaft *b* shall receive an oscillating motion of a little more than one-tenth of a revolution. The return movement of the shaft is obtained by means of the spring *d*, one end of which is fixed to the head of the case and the other end to the shaft.

The indicating-wheels *e e* are bored out so as to revolve on the shaft *b*. They are a little smaller than the inside diameter of the case *a*. They are all alike, and are chambered out on one side, thus leaving a flange through which are drilled ten holes equidistant apart, and on the periphery between the holes are stamped the cardinal numbers from 1 to 0.

There is a longitudinal opening in the case *a*, through which one number of each of the wheels are seen, and by which the wheels are reached so as to be set.

In the projection a^2 of the case *a* are fitted the spring locking-pawls *f f*, which slip into the holes in the peripheries of the indicating-wheels *e e*, thus locking them securely and preventing them being moved until the pawls are raised. The pawls are provided with knobs to enable them to be raised by hand when it is required to set the wheels at zero, or any particular number.

On the shaft *b*, within the chambered space of the units-wheel, is pivoted the pawl *g*, which works into the inside of the hole in which the locking-pawl *f* is, thereby pushing the locking-pawl out of the hole and allowing the units-wheel to be turned until the locking-pawl falls into the succeeding hole, so that for every oscillating motion of the shaft *b* the units-wheel is turned the one-tenth of a revolution.

On the side of the units-wheel is pivoted a pawl or dog, *h*, of peculiar construction, which is controlled in its action by the shaft *b*. It is somewhat of a bell-crank shape, one end of it being provided with a projection, h^2, which fits into the holes through the periphery of the next wheel, or tens-wheel, when the pawl *h* is turned on its pivot. This can only take place when the pawl *h* is under the retaining or locking pawl *f*, as the shaft *b* is cut away so as to allow the tail end h^1 of the pawl *h* to move nearer to the center of it, the pin *b'* causing the pawl *h* to move on its pivot, pushing the retaining or locking pawl *f*, which holds the tens-wheel out of the hole in the periphery of the wheel, thus locking the units and tens wheels together, so that as the units-wheel is moved the tens-wheel moves with it, the pawl *f* falls into the succeeding hole of the tens-wheel and again locks it. The pawl *h* on the units-wheel is unlocked from the tens-wheel when the shaft *b* moves back, and is held in this position by the tail end h^1 sliding round on the perfect part of the shaft *b*.

All of the indicating-wheels *e e*, excepting the last one, are provided with pawls *h h*, and

all have the retaining or locking pawls *f f*. They are operated the same as the wheels just above described; so it is unnecessary to further describe them.

In the drawings are shown five indicating-wheels, registering up to ninety-nine thousand nine hundred and ninety-nine, but any number of wheels may be so arranged to register to any desired number.

What I claim, and desire to secure by Letters Patent, is—

The combination of the retaining or locking pawls *f f*, wheels *e e*, pawls *h h*, and shaft *b*, constructed and operating substantially as hereinbefore set forth.

ALFRED SHEDLOCK.

Witnesses:
WILLIAM J. SHEDLOCK,
I. PHINEAS ST. JOHN.