

Patented Sept. 20, 1859.



Thos Geo. Harold.

Lytha A. Wilkenson

UNITED STATES PATENT OFFICE.

JEPHTHA AVERY WILKINSON, OF BROOKLYN, NEW YORK.

REGISTERING APPARATUS.

Specification of Letters Patent No. 25,543, dated September 20, 1859.

To all whom it may concern:

Be it known that I, JEPHTHA AVERY WILKINSON, of Brooklyn, in the county of Kings and State of New York, have invented, 5 made, and applied to use certain new and useful Improvements in Counting-Machines, which I term the "Endless Register;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein— 10 Figure 1 is a plan, and Fig. 2 is a side view of said counting apparatus.

Similar marks of reference denote the same parts.

My invention relates to an arrangement of circular dials or disks, that are provided with a screw thread or worm around the 20 periphery taking teeth on the next dial, whereby all the disks have a movement that is rapidly decreased so that if the screw around the periphery of one disk be a single thread, and its matching gear have one hundred teeth the first disk must revolve one 25 hundred times to give one revolution to the next and so on.

This invention was originally devised for determining the number of impressions 30 thrown off from a printing press, but can be applied to any other purposes wherever available.

In the drawing v is a standard attached to any suitable support carrying brackets 41, 35 to one of which a small shaft v^1 , from the article itself whose revolutions are to be counted, or connected to such article by any known mechanism, and this prime mover is fitted with a screw or worm pinion v^2 , gearing into the teeth 42, of the dial or disk v^3 . 40 Around the edge of the disk v^3 , is a worm 43, taking the teeth 42 of the next disk v^5 , that stands at right angles to v^3 , this in turn moves v^6 , and so on.

44 is an index to each dial.

It will now be evident that the dial v^3 , will turn once for every 100 revolutions of shaft v^1 , and that v^5 will turn once for every 10,000 revolutions of shaft v^1 , and that v^6 50 will turn once for every 1,000,000 revolutions of shaft v^1 , and that v^7 will turn once for every 100,000,000 revolutions of shaft v^1 , and that v^8 will turn once for every 10,000,000,000 revolutions of shaft v^1 .

In all instances the previous number of 55 revolutions is multiplied by one hundred, or by the number of teeth (42) on each disk.

In printing it is often important to run off a certain number of impressions for a given edition and to compute this number 60 by adding the same to the number indicated by the register would involve some trouble. I therefore provide a loose wheel v^9 on the shaft v^3 that can be turned around until its nonius corresponds with the index and then 65 clamped firmly to the shaft by the nut 40. This will indicate up to 100 impressions and the wheel v^{10} and its index 44 will count the hundred impressions up to 10,000: In order to place this wheel v^{10} at the nonius, 70 I fit its bracket (41,) so as to lift up off a key or feather so that v^9 and v^{10} are disengaged and the latter can be turned around as required. The other wheels v^5 , v^6 , v^7 and v^8 , being geared together continue their register of the total number of revolutions of the press or other mechanism, independent of this portion for job work.

I do not claim a worm on a shaft taking into a gear wheel, as such device is common, 80 but I do not know of any previous instance in which a series of disks each formed with a worm around the periphery and teeth or a gear wheel, have been set at right angles, or nearly so, to form a counting machine, by 85 the disks acting directly on each other.

Therefore what I claim as my invention and desire to secure by Letters Patent is—

1. A series of counting disks standing at right angles or nearly so to each other, and 90 each formed with a thread or worm around its periphery taking teeth on the next counting disk in the manner and for the purposes specified.

2. I also claim the arrangement of the 95 counting disks v^9 and v^{10} in the manner specified, whereby they can be disconnected and set to commence counting when required, as and for the purpose described and shown. 100

In witness whereof I have hereunto set my signature this tenth day of June 1859.

JEPHTHA A. WILKINSON.

Witnesses:

LEMUEL W. SERRELL,
THOS. GEO. HAROLD.