

1,339,744.

Patented May 11, 1920.

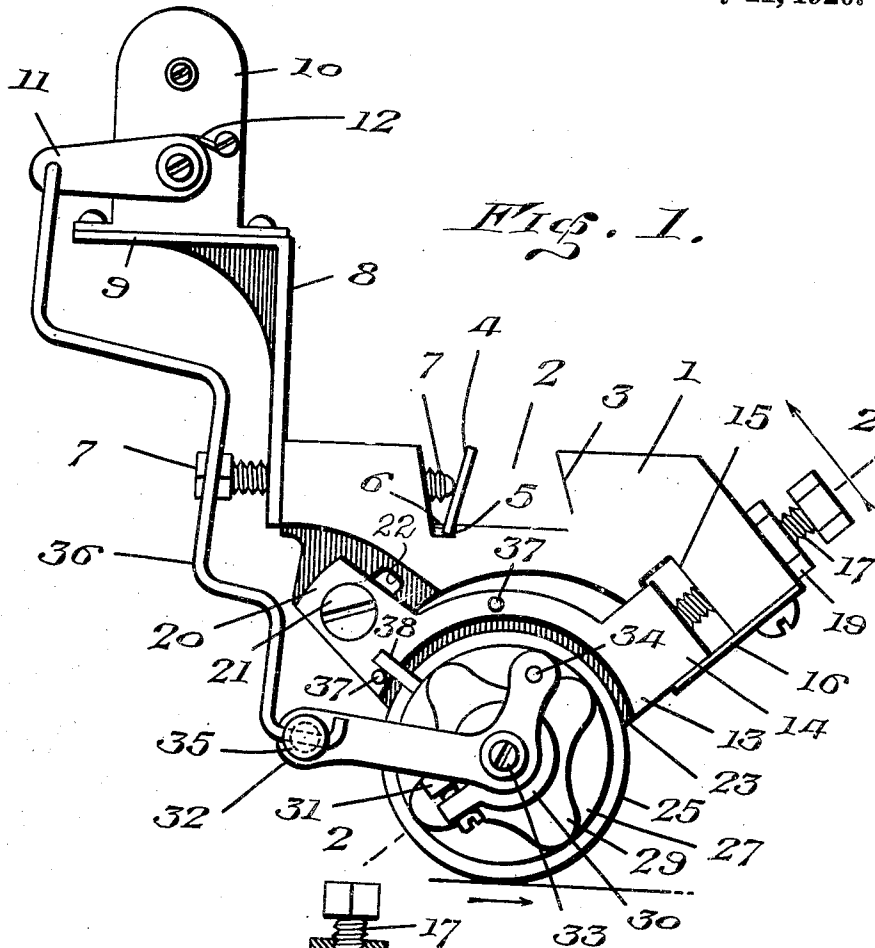
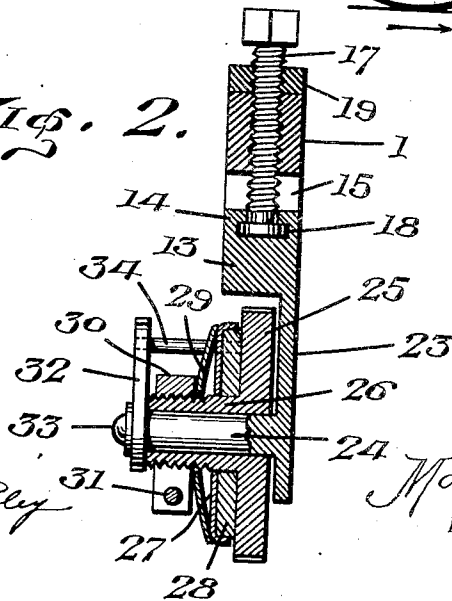


Fig. 2.



WITNESS:

Thomas E. Rely

INVENTOR.

Moses B. Diskin

BY *W. J. Fitzgerald & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

MOSES B. DISKIN, OF NEW YORK, N. Y.

ARTICLE-REGISTER.

1,339,744.

Specification of Letters Patent.

Patented May 11, 1920.

Application filed March 28, 1919. Serial No. 285,766.

To all whom it may concern:

Be it known that I, MOSES B. DISKIN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Article-Registers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to registers, or counters, such as used for registering or counting articles or objects, and it is the object of the invention to provide an article register of novel and improved construction and operation which can be applied to various machines for counting sheets, boards, plates, blanks, and various other articles or objects of paper, wood, metal, leather, celluloid, or other material.

A further object of the invention is the provision of such a register which will be operable to count articles or objects of different sizes which pass the register, and which can be readily adjusted on a machine to be operated by articles or objects of various kinds which move past the register.

A still further object is the provision of a register embodying an operating member to have a rolling contact with the sheets or other articles, said member being rotated by the articles as they pass, and being returned or rotated in the reverse direction when the articles are disengaged from said member, and means whereby the operation of said member operates a counting device of any suitable kind.

The invention also has for its object the provision of a register of the kind indicated embodying a novel construction and assemblage of the component elements whereby the register will be thoroughly practical and efficient in operation.

With the foregoing and other objects in view which will be apparent as the description proceeds, the invention resides in the construction and arrangement of parts hereinafter described and claimed, it being understood that changes can be made within

the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a side elevation of the mechanism.

Fig. 2 is a section on the line 2—2 of Fig. 1.

In carrying out the invention, there is provided a bracket 1 provided with means for conveniently attaching it to a support adjacent to the path of movement of the sheets or articles. Such means as illustrated, includes a recess 2 provided in the bracket 1 to receive the supporting member, one end of said recess being undercut as at 3, and a tilting jaw 4 is mounted within the other end of the recess, being seated in a notch 5 and held therein by retaining pins 6, permitting said jaw 4 to tilt toward and away from the opposite end of the recess. A screw 7 is threaded through the bracket 1, with its tip bearing against the jaw 4, so that when the bracket 1 is placed against the supporting member with the jaws 3 and 4 at the opposite sides of the said member, the screw 7 can be tightened to clamp the bracket to the supporting member, thus affording quick and convenient means for attaching the device to the machine.

The bracket 1 has a post 8 provided with a shelf 9 on which is secured an ordinary counter 10 provided with an oscillating operating arm 11 and a spring 12 for returning said arm. Any suitable type of counter can be used as will be obvious.

Supported adjustably from the bracket 1 is a carrier or member 13, the opposite sides of the bracket 1 and carrier 13 being preferably flush and the adjacent portions thereof being preferably of similar shape to fit together, although these points are arbitrary. One end of the carrier 13 has an angularly extending lug 14 slidable within a recess 15 in one end of the bracket 1, a guide piece 16 being secured to said end of the bracket to retain the lug 14 in the recess 15 and assist in guiding said lug. An adjusting screw 17 is threaded through the bracket 1 to project into the recess 15 and has a swiveled

end, as at 18, within the lug 14, so that said screw can be used for adjusting the carrier 13 toward and away from the bracket 1. A lock nut 19 is provided on the screw 17 to bear against the bracket 1, and prevent the parts from loosening accidentally. The carrier 13 is provided at its other end with an angularly extending ear 20 overlapping a portion of the bracket 1 and provided with a screw or bolt 21 working within a slot 22 in the bracket to assist in guiding the carrier 13.

This carrier 13 supports the roller that engages and is operated by the sheets or articles, and for this purpose, the carrier has a cheek 23 extending therefrom away from the bracket, and provided with a pintle or stud 24 projecting from one side thereof. On this stud 24 is mounted for rotation the roller or disk 25, the periphery of which is knurled or roughened so as not to slip when bearing against the sheet or article. The roller 25 is adjacent to the cheek 23 and has a hub 26 extending in the same direction as the stud 24. Mounted for rotation on the hub 26 is a disk 27, and a friction washer 28 of leather, rubber, or equivalent material, is disposed between the roller 25 and disk 27. In order to regulate the friction between the roller 25 and disk 27 which is of smaller diameter, a bowed or dished spring 29 is disposed on the hub 26 with its fingers bearing against the disk 27, and a nut 30 is threaded on said hub to bear against the spring 29. By adjusting the nut 30, this will regulate the pressure of the spring 29 and thus permit the washer 28 to be clamped between the disk 27 and roller 25 with the desired amount of friction. The nut 30 is split and provided with a clamping screw, as at 31, so that said nut can be tightly contracted onto the hub to prevent loosening thereof. The friction connection between the disk 27 and roller 25 permit said parts to rotate relatively, one slipping relatively to the other.

The disk 27 has a rocking movement at intervals, and this is used for operating the counter 10. Thus, a lever 32 has its elbow pivoted or fulcrumed on the end of the stud 24 by means of a screw 33 or the like, and one arm of the lever 32 is connected by the pin 34 with the disk 27, so that said lever will oscillate with the disk. The other arm of the lever 32 has a stud 35 which is connected by a suitable link 36 with the arm 11 of the counter. The movement of the disk 27 and lever 32 is limited by means of stops 37 carried by the carrier 13 and between which a pin 38 projecting from the disk 27 is movable.

In operation, the device is supported so that the sheets or objects contact with the roller 25 in passing it, and the carrier 13 is

adjusted so that proper contact is provided between the roller 25 and the sheets or articles, thus permitting sheets or articles of different thicknesses to be counted by properly adjusting the carrier 13. When a sheet or article passes the roller 25, moving in the direction of the arrow in Fig. 1 from the left to the right, the sheet or article in bearing against the roller will rotate the roller 25, and the friction existing between the roller and disk 27 will rotate said disk and swing the lever until they are stopped by the contact of the pin 38 with the stop 37. This will pull the link 36 down, as seen in Fig. 1, and the roller 25 continues to rotate until the rear end of the sheet has passed the roller 25. The roller 25 is thus released, and the spring 12 will return the arm 11, which in pulling the line 36 will also return the lever 32 and disk 27. The friction between the disk 27 and roller 25 will also rotate the roller 25 backwardly with said disk and lever, so that when the next sheet or article approaches and engages the roller, it will again be rotated to turn the disk and lever with it. The roller 25 thus has a rolling contact with the sheets or articles as they pass, and during the first part of the movement of the roller 25, the disk 27 and lever 32 are moved, after which the friction means between the disk and roller permit of slippage. Then, as the articles leave the roller 25, it is moved reversely with the disk and lever, and in this way the arm 11 is oscillated to count the sheets or articles. The present device is not apt to tear or injure the sheets or articles and can count articles of different lengths without requiring adjustment.

Having thus described the invention, what is claimed as new is:—

1. An article register embodying a roller to be engaged by passing articles and continuously rotated during engagement with a passing article, means for rotating said roller reversely when disengaged from the articles, and means operated by the oscillation of said roller for counting the articles passing said roller.

2. An article register embodying a roller to be engaged by passing articles and continuously rotated during engagement with a passing article, an oscillatory member having a friction connection with said roller so that said roller and member tend to turn with one another, a counter operated by the oscillations of said member, and means for returning said member from a position to which it is moved by the rotation of the roller by the article, when the roller is disengaged from the article.

3. An article register embodying a carrier having a stud, a roller having a hub

mounted on said stud, said roller adapted
to be engaged by passing articles, a disk on
the hub, a friction washer between said
disk and roller, a nut threaded on the hub,
5 a spring between said nut and disk, and a
counter operating lever mounted on the stud
and connected to said disk.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

MOSES B. DISKIN.

Witnesses:

BERTRAM H. ROUSE,
SAM H. ULMANN.