June 17, 1930. J. I. FARRIOR 1,765,262

COUNTING DEVICE

Filed July 11, 1928 2 Sheets-Sheet 1

Fig. 1.

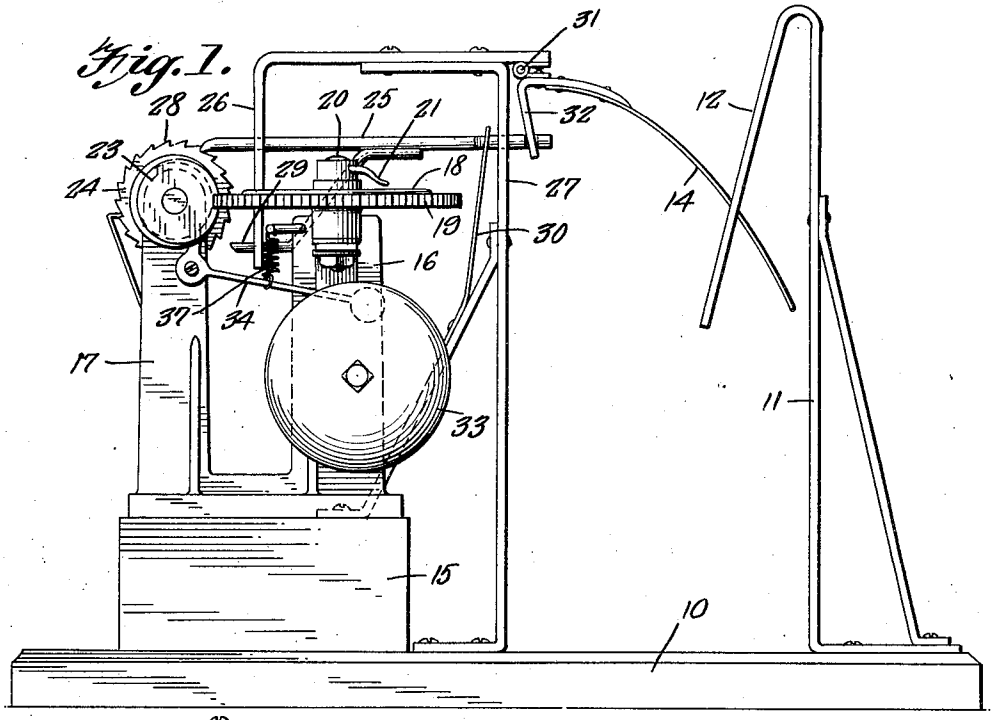


Fig. 3.

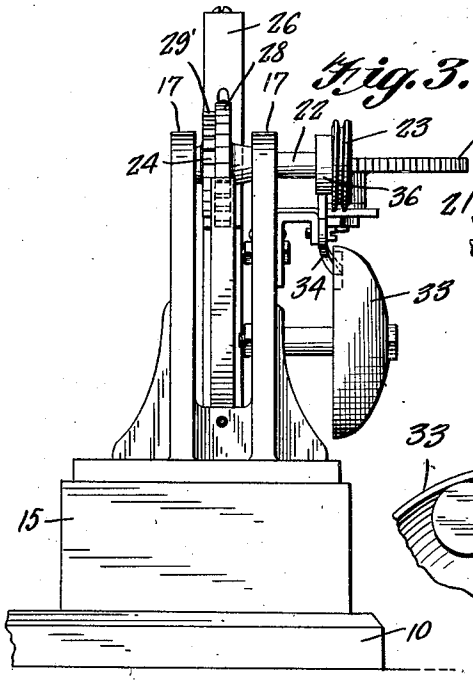
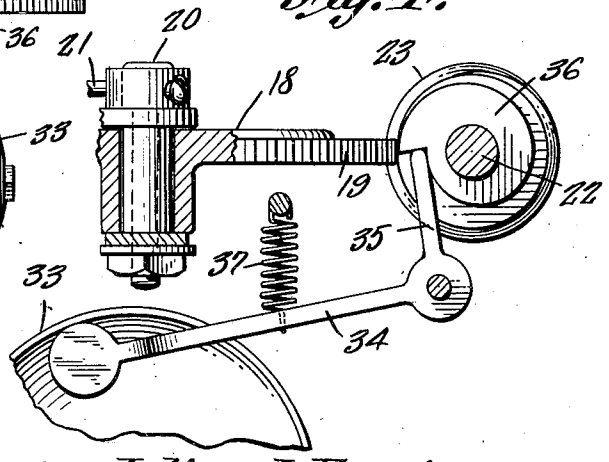


Fig. 4.



Julian I. Farrior,
INVENTOR

BY Victor J. Evans
ATTORNEY

P. J. Hickey.
WITNESS:

June 17, 1930. J. I. FARRIOR 1,765,262

COUNTING DEVICE

Filed July 11, 1928 2 Sheets-Sheet 2

Fig. 2.

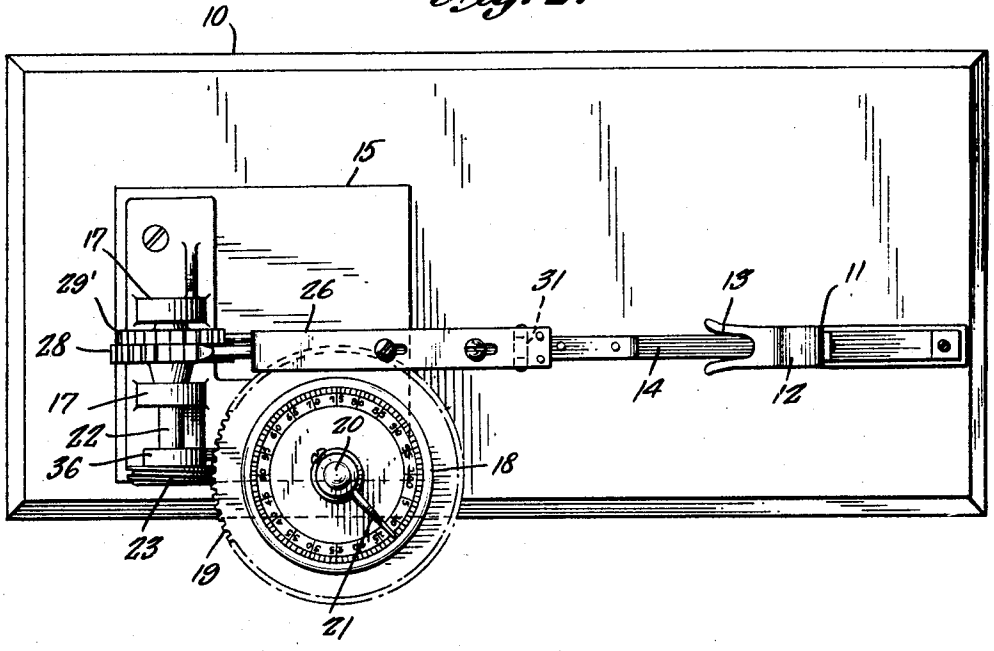


Fig. 5.

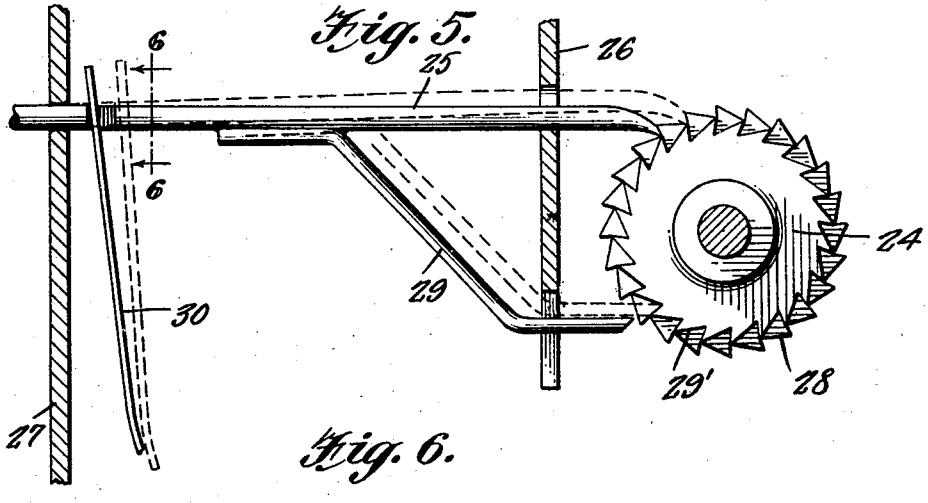
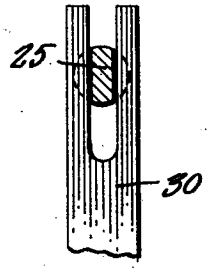


Fig. 6.



Julian I. Farrior,
INVENTOR

BY Victor J. Evans
ATTORNEY

P. J. Hickey.
WITNESS:

Patented June 17, 1930 1,765,262

UNITED STATES PATENT OFFICE

JULIAN I. FARRIOR, OF GIBSONVILLE, NORTH CAROLINA

COUNTING DEVICE

Application filed July 11, 1928. Serial No. 291,950.

In the hosiery manufacturing industry, inspectors are employed to examine each hose as a finished product, and at the same time count said articles with a view of tying them in packages of one dozen pairs. It frequently happens that a discrepancy in the count necessitates a recount, involving a loss of time on the part of the inspector, and some times results in both trouble and annoyance to the consignor as well as to the consignee. The loss of time on the part of the inspector is important as these employees are usually employed on a piece work basis, and their earning capacity is thereby lessened where discrepancies in the count necessitates time and trouble of making a recount.

It is therefore the purpose of the present invention to provide a machine including a base upon which each stocking is adapted to be placed after being examined by the inspector, the machine being operated by the article to provide an accurate count of the number of stockings so placed upon the base, an audible signal being sounded after a predetermined number of stockings have been so arranged on the table, thus notifying the inspector of the fact, so that the stockings can be tied in bundles of one dozen pairs. The machine is simple in construction, and efficient in operation so that the inspector does not have to rely upon his memory relative to the number of stockings examined and placed upon the base, thus insuring an accurate count of the stockings examined and tied into bundles of predetermined numbers.

The nature and advantages of the invention will be better understood when the following detail description is read in connection with the accompanying drawings. the invention residing in the construction, combination and arrangement of parts as claimed.

In the drawings forming part of this application like numerals of reference indicate similar parts in the several views and wherein:

Figure 1 is a side elevation of the machine forming the subject matter of the present invention.

Figure 2 is a top plan view.

Figure 3 is a view taken at a right angle to Figure 1.

Figure 4 is a fragmentary sectional view showing the manner in which the signal is operated.

Figure 5 is a detail view of the pawl and ratchet.

Figure 6 is a sectional view on line 6—6 of Figure 5.

Referring to the drawings in detail 10 indicates the base of the machine, upon which each stocking is adapted to be arranged after it has been examined by the inspector. Rising from the base is a standard 11 the upper end of which is bent upon itself and extended in the direction of the base, the extension being indicated at 12 and spaced from the standard 11 as clearly illustrated in Figure 1. The extension 12 is bifurcated as at 13 to accommodate a lever 14 which is curved and constructed of some light and preferably resilient material. The lever 14 is so disposed with relation to the extension 12, that each stocking after being examined is passed over the lever 14 while being placed upon the base, thereby operating the lever 14 for the purpose to be presently described.

Arranged upon the base 10 is a block 15 which supports a frame-like structure including a standard 16, and a plurality of spaced parallel standards 17 illustrated in Figure 2. The counting mechanism is supported by these standards, and includes a graduated dial 18 having teeth 19 formed on the periphery thereof, the dial being mounted upon the standard 16 for intermittent rotation. Supported by a stub shaft 20 is a stationary finger 21 arranged directly above the graduated dial to register the count as will be readily understood. Journaled in the standards 17 is a shaft 22 which carries a worm 23 at one end thereof, the worm meshing with the teeth 19 of the dial to rotate the latter intermittently. The shaft 22 also supports a double ratchet wheel indicated generally at 24 and which cooper-

ates with a sliding pawl illustrated in Figure 5. The pawl proper consists of a rod 25 which is slidably supported by the parallel members 26 and 27 of an inverted U-shaped element, the member 27 of which is riveted or otherwise secured to the base 10 as shown in Figure 1. This pawl 25 has its active end slightly curved in the direction of the teeth 28 of the ratchet wheel 24, while carried by the rod 25 is an auxiliary pawl 29 having its free end arranged to cooperate with the teeth 29 of the ratchet wheel to prevent retrograde movement of the latter. The rod 25 is received by a bifurcated extremity of a flat spring 30, and is preferably grooved to accommodate the spring as clearly illustrated in Figure 6. This spring 30 functions to hold the rod 25 in retracted position as illustrated in Figure 1, the rod 25 being shifted to its active position incident to the movement of the lever 14 upon its pivot 31. This lever is offset as at 32 to form a substantially bell crank lever, the offset portion or branch 32 straddling the adjacent end of the rod 25.

In practice, as each stocking is examined by the inspector and placed upon the base 10, it is moved across the lever 14 rocking the latter upon its pivot, and thereby shifting the pawl or rod 25 in the direction of the ratchet wheel 24. The wheel 24 is thus turned step by step with each operation of the lever 14, the pawl 29 preventing retrograde movement of the ratchet wheel as will be readily understood. The ratchet wheel rotates the shaft 22 which carries the worm 23, and the parts are so geared, that the dial 18 is rotated one step or degree for every twenty-four stockings placed upon the base 10. In other words the dial registers its count in one dozen pairs, and is rotated intermittently in the manner above described for every one dozen pairs of stockings placed upon the base 10. The stockings are tied in bundles of one dozen pairs by the inspector, and consequently the latter does not have to rely upon his memory to insure an accurate count of the number of pairs of stockings examined by him during a day or a certain period of time.

In order to direct the attention of the inspector to the fact that one dozen pairs of stockings have been placed upon the base 10, and so registered on the dial 18, I employ an audible signal that is automatically operated with each movement of the dial. In this connection I preferably employ a bell 33, mounted upon the standard 16, the hammer for said bell being indicated at 34. The hammer is provided with a finger 35 actuated by a cam 36 carried by the shaft 22, the cam normally holding the hammer in its inactive position until the dial 18 has been moved its one degree. In other words the cam 36 makes one revolution for each intermittent movement of the dial 18, and as the large part of the cam passes off the finger 35 of the hammer, the latter is actuated through the instrumentality of the spring 37 to sound the alarm or signal 33 as will be readily understood.

While it is believed that from the foregoing description the nature and advantages of the invention will be readily understood, I desire to have it known that I do not limit myself to what is herein shown and described and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What is claimed is:

1. In a machine of the character described, a base, a frame-like structure reposing upon the base, a shaft journaled on said frame-like structure, a ratchet wheel associated with said shaft, a horizontally disposed sliding pawl mounted on the frame-like structure, resilient means for holding the pawl normally inactive, a graduated rotatable dial intermittently rotated from said shaft, a stationary finger arranged above the dial and cooperating with the graduations thereon for the purpose specified, and a lever pivoted upon the frame-like structure and including an offset extremity connected with the adjacent end of said pawl, whereby the latter is actuated to rotate said shaft incident to the depression of the lever.

2. In a machine of the character described, a base, a frame-like structure reposing thereon, a shaft journaled on said structure, a ratchet wheel associated with said shaft, a horizontally disposed sliding pawl mounted on said structure, a graduated rotatable dial intermittently rotated from said shaft, a stationary finger arranged above the dial and cooperating with said graduations thereon for the purpose specified, a lever pivoted on the structure and including an offset extremity connected with the adjacent end of said pawl, whereby the latter is actuated to rotate the shaft when the lever is depressed, and a standard rising from the base and bifurcated to receive said lever and thereby limit the movement of the latter in one direction.

In testimony whereof I affix my signature.

JULIAN I. FARRIOR.