Nov. 20, 1962 R. L. VAN DE MARK 3,064,888

COUNTING MARKER

Filed Oct. 26, 1960

FIG. 1

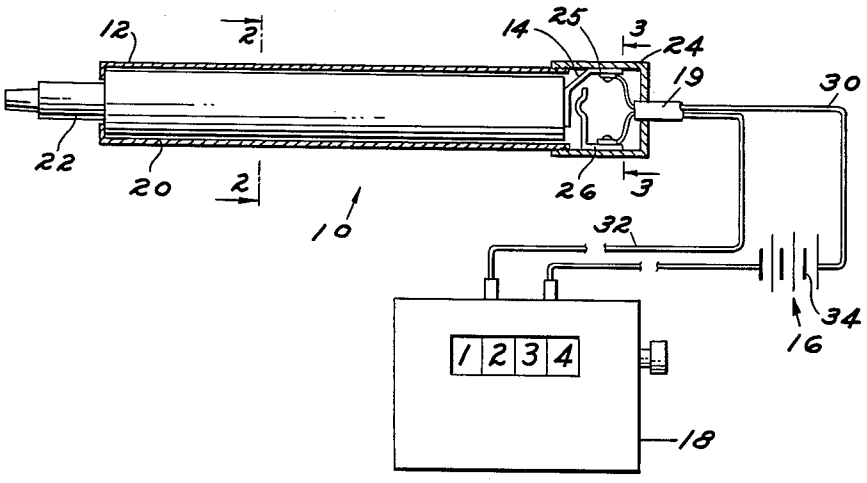


FIG. 2

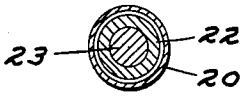
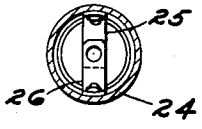


FIG. 3



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COUNTING MARKER

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This invention relates to a counting marker and refers more particularly to a marking and counting mechanism which is adapted to be utilized for production and inventory controls.

Previously, when an inventory or production count was being conducted, it was required that the person taking the inventory actually mark the items or articles and make a mental note as to how many articles were counted. After a certain number of articles had been marked and mentally recorded, as an example fifty, the person would make a permanent record thereof and would start over again mentally counting the articles being inventoried. This procedure would be repeated until the entire inventory or production count had been completed. Some persons mark and simultaneously mentally record the articles regardless of the number of articles to be counted.

From the above description, it is readily apparent that the prior art method is subject to many mental errors, particularly when a large number of articles are to be counted over a long period of time. With the marking and counting mechanism described herein, the need for continuous mental effort or memory on the part of the person utilizing the mechanism has been substantially reduced.

The invention is characterized by its ability to clearly identify the materials or articles counted and to keep an accurate total of the materials or articles counted. Such a mechanism eliminates certain time losses, fatigues and frustrations which are inherent in the prior art method.

It is an object of the present invention to provide a marking and counting mechanism which includes a marker and a counter remote from the marker.

It is another object of the present invention to provide a combination marking and counting mechanism which will place a mark on the articles inventoried and in addition thereto make a permanent record of the number of articles marked.

A further object of the present invention is to provide a marking and counting mechanism comprising a marker, a counter remote from said marker, actuating means for the counter and control means for the aforesaid counter actuating means comprising a movable member on the marker which is actuated by marking pressure applied to the marker and a flexible connection between the movable member and the counter actuating means.

Another object of the invention is to provide a combination marking and counting mechanism comprising a marker, a counter remote from said marker, electrical actuating means for the counter and a switch for the aforesaid counter actuating means comprising a movable contact member on the marker actuated by marking pressure applied to the marker and a flexible electrical conductor between the movable contact member and the counter actuating means.

A still further object of the invention is to provide a simplified, low cost marking and counting mechanism of the aforementioned type having certain advantages contributing to simplicity, efficiency, reliability, accuracy and long life.

Other objects and features of the invention will become apparent as the description proceeds, especially when taken in conjunction with the accompanying drawing illustrating a preferred embodiment of the invention, wherein:

FIGURE 1 is a front elevational view, partly in section, of the marking and counting mechanism.

FIGURE 2 is a sectional view taken on line 2—2 of FIGURE 1.

FIGURE 3 is a sectional view taken on line 3—3 of FIGURE 1.

The combination marking and counting mechanism is represented by the numeral **10** and comprises a plurality of components including a marking device **12**, an electrical switch **14**, a source of electrical energy **16**, an electrically actuated counting mechanism **18**, and a flexible conductor **19**.

The electrically actuated counting mechanism **18** is of the conventional type and includes actuating means within the housing of the mechanism **18** for advancing the counting mechanism **18** one digit each time marking pressure is applied to the marking device **12**. Although four banks of numerals are shown in FIGURE 1, it should be understood that any number of banks may be utilized.

The marking device **12** includes a cylindrical housing or holder **20** which is adapted to carry a longitudinally movable marking instrument or pen **22**. Pen **22** includes an ample supply of ink, valve actuated under the control of the operator, or other marking material designated by the numeral **23**. The instrument or pen **22** is disposable and different colored marking instruments or pens are available to facilitate or aid in the taking of an inventory. A different colored pen may be used to make each inventory count distinctive so that the articles which display ink spots of more than one color are quickly known as slow moving items.

The holder **20** has a threaded cap **24** at one end thereof which has mounted therein the electrical switch **14**. The switch **14** includes a pair of electrical contacts **25** and **26**. The electrical contacts **25** and **26** are suitably connected to the inner walls of the cap **24** by rivets.

The flexible electrical conductor **19** extends outwardly from the outside wall of the cap **24** and has a pair of electrical leads **30** and **32** therein which are adapted to be connected on one end thereof to the contacts **25** and **26** respectively.

The source of electrical energy **16** may take the form of a battery **34**. The battery **34** is interposed in the electrical lead **30** between the actuating means of the counting mechanism **18** and the contact **25**. The other electrical lead **32** connects the contact **26** with a terminal provided on the electrically actuated counting mechanism **18**.

FIGURE 1 shows the marking device **12** in its free state so that the contacts **25** and **26** are open with contact **25** in engagement with the inner end of the pen **22**. When marking pressure is applied to the marking pen **22**, the marking pen **22** is depressed in the holder **20** to move the contact **25** into engagement with the other contact **26**, thereby completing the electrical circuit. Once the switch **14** is closed, the electrically actuated counting mechanism **18** is advanced one digit in the conventional manner. When the marking pressure is released from the pen **22**, the contact **25** returns the pen **22** to its original position in the holder **20**.

The battery **34** and the counting mechanism **18** are mounted remote from the marking instrument **12** so that a person taking an inventory is permitted to take hold of the marker **12** and move freely within a given area due to the flexible conductor **19** without having to carry the electrically operated counting mechanism **18** and the battery **16**. The leads **30** and **32** may be of any length to accomplish this objective.

The marking holder **20** provides a convenient handle for utilizing the device **10** in operation. The marking device **12** is disassembled with the removal of the cap **24**. The old pen **22** is removed and the replacement pen installed in a few seconds.

This invention has provided a simple, economical,

handy, and light-weight accurate mechanism for simultaneously marking and electrically counting articles to be inventoried.

The drawing and the foregoing specification constitute a description of the improved counting marker in such full, clear, concise and exact terms as to enable any person skilled in the art to practice the invention, the scope of which is indicated by the appended claims.

What I claim as my invention is:

1. A marking and counting instrument comprising an elongated tubular casing, one end of said casing being threaded on the outer periphery thereof and the other end being provided with an inwardly turned annular flange, an elongated marking element within said casing and provided with an abutment between the ends thereof, a counter remote from said marking element and casing, one end of said marking element extending outwardly from said casing beyond said flange, a removable cap threaded to said one end of the casing, first and second contact members fixedly carried by the interior wall of said cap, said first contact member including a transversely extending resilient leg which is in continuous engagement with the other end of said marking element for biasing the abutment of said marking element in a direction to engage the aforesaid flange of the casing, said second contact member including a transversely extending leg which is resilient and longitudinally spaced from the leg of said first contact member when the aforesaid abutment is in engagement with said flange, electrical conduit means connecting said counter and said contact members, and a battery interposed in said electrical conduit means between said counter and said contacts, said marking element being effective when marking pressure is applied thereto to reciprocate in a straight line within said casing and urge the aforesaid legs together to complete the electrical circuit and advance said counter one digit, the resiliency of said legs permitting said marking element to move inwardly in said casing upon further application of marking pressure after the closing of said contact members.

2. A marking and counting instrument defined in claim 1 wherein said marking element has the same longitudinal axis as said casing.

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