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A. VANDERVELD
PRESSER ROLLER CONSTRUCTION

Original Filed Oct. 13, 1921

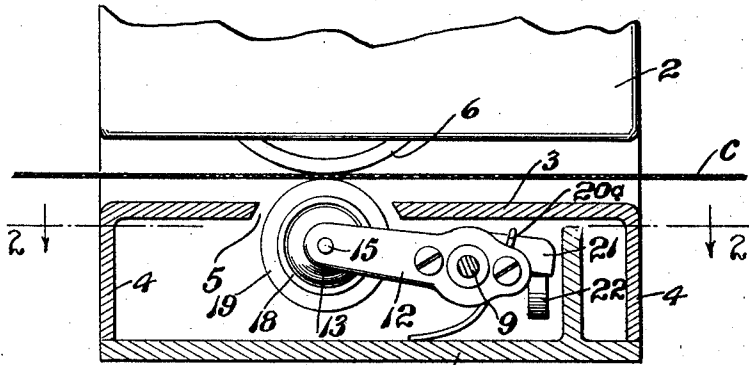


Fig. 1.

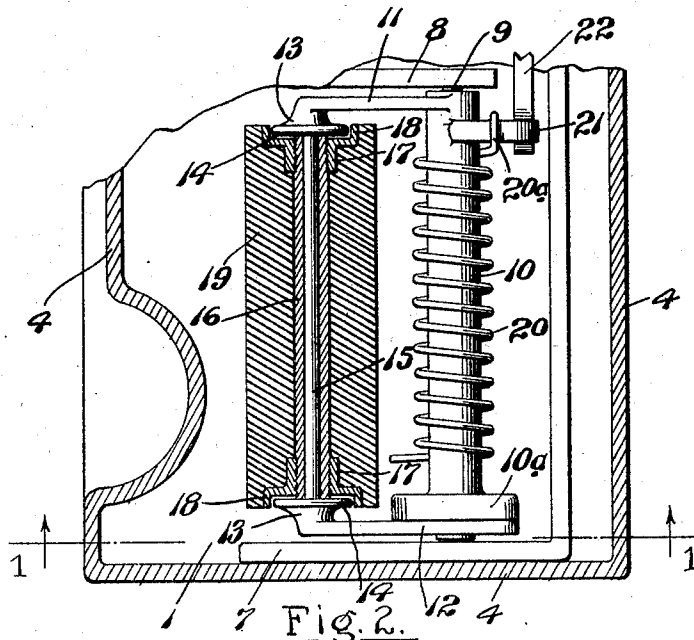


Fig. 2.

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PRESSER-ROLLER CONSTRUCTION.

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To all whom it may concern:

Be it known that I, ANTHONY VANDERVELD, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Presser-Roller Constructions; 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.

This invention relates to improvements in measuring machines in which a measuring roller is operated by frictional engagement of a length of cloth or like material drawn between the measuring roller and a presser roller which presses the cloth against the measuring roller to insure proper contact therewith for its sure and positive actuation. The present invention is concerned primarily with novel constructions pertaining to the presser roller which is located under the measuring roller and over which the length of cloth, ribbon or the like is drawn, as fully disclosed in my Patent No. 1,420,612, granted June 20, 1922, for measuring and computing machine.

When the cloth or ribbon is drawn over the presser roller it is not unusual for threads to separate from the same at its edges, or lint to be given off therefrom which, unless provision is made therefor, will get between the roller and the shaft or journals on which it is mounted, thereby clogging the movement thereof with a resultant interference with the effective operation of the machine. It is a primary purpose of the invention to provide a novel construction and mounting of presser roller, and equip the same with guards at its ends which will insure against the possibility that the presser roller shall be thus clogged and stopped from movement, the presser roller at all times being freely rotatable irrespective of how much or little lint, threads, or the like is gathered from the cloth or ribbon on and around the guarding means at the ends of the presser roller.

For an understanding of the invention and the mechanisms embodying the same, reference may be had to the following description, taken in connection with the accompanying drawing, in which,

Fig. 1 is a fragmentary front elevation

and vertical section through the lower part of a machine equipped with my invention, the section being taken on the plane of line 1—1, of Fig. 2, and

Fig. 2 is a fragmentary horizontal section taken on line 2—2, of Fig. 1.

Like reference characters refer to like parts in the different figures of the drawing.

The measuring and computing machine includes an outer housing or casing within which the mechanism is enclosed. This housing is mounted on and above a base 1, and is indicated at 2, at its front end being located a distance over the base and leaving a space in which a table member may be placed and secured. The table member comprises an upper horizontal plate 3 from which at its front and side edges integral depending flanges 4 extend to the base, as shown. The plate 3 has an elongated opening 5 therein directly below the measuring roller 6 and through which the presser roller passes to either bear against the measuring roller or against the cloth run between the two rollers.

Supporting arms 7 and 8 within the table member are provided to carry a rod 9 on which a sleeve 10 is mounted from which at its inner end an arm 11 extends to a point under the opening 5. The opposite end of the sleeve is enlarged into a head 10^a and a similar arm 12 secured thereto by screws, the same paralleling arm 11. The ends of the arms 11 and 12 terminate in heads 13 which are turned in toward each other and which are progressively enlarged from their juncture with the arms to their ends where they terminate in flanges 14, as shown, the heads on their outer surfaces being substantially bell-shaped. A rod 15 is disposed horizontally between the two heads and carried thereby, the head on arm 12 being connected to the end of the rod in any suitable manner after assembly of the roller construction on the rod.

An elongated sleeve 16 threaded at both ends is loosely mounted on rod 15 between the heads 13 and on each end of the sleeve a member is attached, comprising a neck 17 interiorly threaded to engage with the threaded end of sleeve 16, and an enlarged cup-like portion 18 into which the heads 13 and flanges 14 thereof may extend. The presser roller 19 of rubber or rubber-like material is mounted on the sleeve 16 being

held between the two parts 18, the ends of the roller 19 having recesses therein to receive the same, as shown.

The presser roller is normally held against the measuring roller 6 by the force of a spring 20 located around sleeve 10, having one end bearing against the base 1, and the other end 20^a hooked over an arm 21 integral with and projecting from the sleeve 10. The end of the lever 22 for operating the presser roller away from the measuring roller is shown as extending under the arm 21. This construction is fully shown in my prior application to which reference has been made, and need not be further described, it forming no part of the present invention.

When the cloth, indicated at C, is drawn between the two rollers, any lint or threads coming therefrom at its edges is carried to the heads 13 outside of the flanges 14 thereof and cannot get between the sleeve 16 and the rod 15 to obstruct the rotative movement of the roller. The heads 13 set partly into the ends of the roller serve as effective guards against the entrance of threads or lint and the rotation of the roller will wind the same around the bell-shaped guard heads 13 where they are harmless to interfere with the rotative movement of the roller. Of course, in time the table member will have to be removed and the lint and threads cleaned out and removed, this being necessary, however, in any case. But no interference with the free turning movement of the presser roller can occur. The construction is practical, easily and economi-

cally made and durable and has so proved in practice.

I claim :

1. In a construction of the class described, two spaced apart supporting arms, each terminating in a bell-shaped head, said heads being turned in toward each other from the ends of the arms, a rod located between and carried at its ends by said heads, a sleeve mounted on the rod and extending between the heads, two cup-like members secured one at each end of the sleeve, and a roller located around the sleeve between said members, said roller at its ends having recesses into which said members are inserted and said heads extending into the said members, substantially as described.

2. In a construction of the character described, two spaced apart supporting arms, each terminating in a bell-shaped head, said heads being turned inwardly toward each other and progressively enlarging from the ends of the arms, a rod disposed between and supported at its ends by said heads, a sleeve threaded at both ends mounted on the rod and extending from one head to the other, a member having an interiorly threaded neck and an enlarged cup-like portion threaded on to each end of the sleeve, and a roller located around the sleeve and between said members, said roller having recesses at its ends for the reception of said members, and the enlarged portions of the heads entering the cup-like portions of said members, substantially as described.

In testimony whereof I affix my signature.

ANTHONY VANDERVELD.