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Lidstrom

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[54] **SUPPLY MEANS FOR A CONTINUOUS PAPER STRIP IN PRINTING OFFICE MACHINES**

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[52] **U.S. Cl.** .....**197/133 R,** 242/55, 242/55.53

[51] **Int. Cl.** **B41j 15/04**

[58] **Field of Search** ...242/55, 55.53, 67.1 R, 67.1 D, 242/67.2, 67.3; 197/133 F, 131, 133 R, 134

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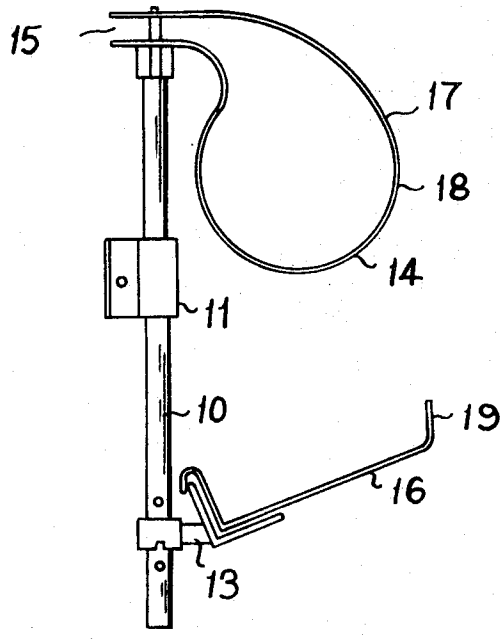
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[57] **ABSTRACT**

A paper supply holder from which a continuous strip of paper is fed to an office printing machine such as a typewriter or calculator and then returned from the machine to a collecting shelf. The paper holder which has generally the form of an open-ended cylinder includes a longitudinally extending slot from which paper e.g. in the form of a chain of blank forms is withdrawn the supply roll within the cylinder and fed to the machine. After leaving the machine, the chain of now-completed blanks, is returned to, and accumulates on, a shelf located beneath the paper holder. The paper holder and shelf are integrated into a common supporting structure which can be attached by brackets to the machine itself, or at the side of a table on which the machine is supported.

3 Claims, 2 Drawing Figures



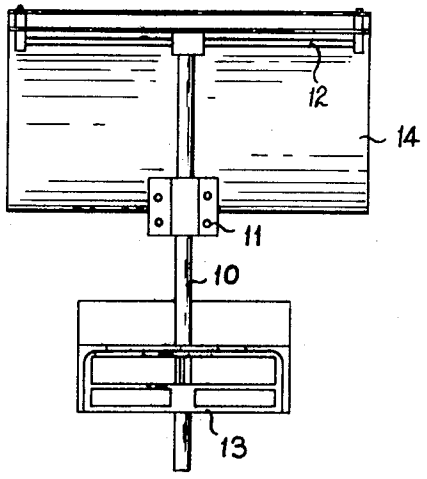
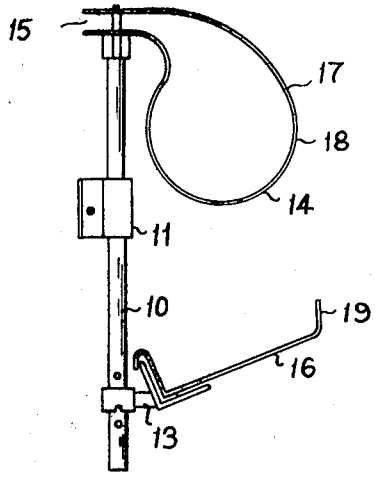


Fig. 1

Fig. 2



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SUPPLY MEANS FOR A CONTINUOUS PAPER STRIP IN PRINTING OFFICE MACHINES

The present invention relates to a device for use in conjunction with printing type office machines such as typewriters or calculating machines for storing paper or other materials to print on the paper being in the form of a continous strip, e.g. in the form of a number of interconnected blanks, so called chain blanks.

Previously there have been difficulties in feeding the paper through the printing mechanism. Customarily provided is a delivering supply for the paper that is fed into the machine and a receiving supply for the paper that is fed out. Previously the receiving supply has been placed on a shelf situated behind another shelf for the delivering supply, which occupies a large space and entails handling difficulties, especially in machines with a movable paper carriage.

The invention relates to an improved construction in which the delivering supply lies vertically above the receiving supply, and wherein a paper guide is arranged above the delivering supply for guiding the fed out paper part past the delivering supply to the receiving supply below.

According to a suitable embodiment of the invention the delivering supply is formed as a cylindrical container with a horizontal generatrix, made of plastic or similar material, inside which the paper is placed, the rounded outer top side thereof forming a guide for the fed out paper part.

The invention is more particularly described in the following specification and illustrated in the accompanying drawings wherein:

FIG. 1 is a rear elevation of a paper delivering and receiving device according to the invention, and

FIG. 2 is, a side view of the device in FIG. 1.

The device shown in the figures consists of a support in the form of a vertical rod **10** in a clamp **11** adapted to be attached to the office machine or the table on which the machine stands. The rod **10** carries at its upper end a transverse bar **12** and at its lower end a bracket **13**. On the bar **12** is attached a container **14** consisting of a plate that is bent to a curved shape with a straight generatrix in the horizontal direction, forming in the main a cylinder with open ends and having a slot **15** between the upper meeting ends of the plate.

The container **14** forms the delivering supply, the paper not shown, and in the form of a continuous strip or roll of interconnected blanks being placed at the inside with the strip passing through the slot **15** to the printing mechanism of the machine, not shown, but which would be located to the left of slot **15** if included in FIG. 2. The bracket **13** carries a shelf **16** which forms the receiving supply. After having been printed in the machine, the still interconnected blanks return to and slide over and downward along the uniformly curved top side **17** of the container to the shelf **16** and gathers there.

By a simple device the present invention thus provides an effective guiding of the paper. At the same time since the position of the delivering supply lies vertically above the receiving supply one achieves a substantial gain of space rearwardly from the machine in comparison with previous devices. The form of the container is important as it acts both as delivering supply and as a paper guide and thus by a simple construction and configuration performs two functions.

The space occupied by the device is further reduced in that the container has a rounded bottom, so that the blank supply has a rounded shape, thereby occupying a smaller space horizontally. The shelf **16** should protrude behind the rear part **18** of the container in order that the leading end of a chain blank returning from the machine will be certain to be received by the shelf. For this purpose the shelf **16** is inclined downwardly in the direction of the machine. The upwardly directed flange **19** also aids in gathering the paper on the shelf.

The device forms a unit which is mounted together with the clamp. For adaption to different working conditions it is suitable that the rod **10** is slidable in the clamp **11** and also that the bracket **13** with the shelf **16** is slidable on the rod **10**, so that the level of both supplies can be independently adjusted. In many cases it is advantageous to form the rod **10** as a separate stand with feet, standing on the floor behind the machine, or with wheels instead of feet so that the whole unit easly can be rolled to and from the machine.

The container **14** is suitably made from a somewhat flexible material such as the previously mentioned plastic, plexiglass or similar material. The material is suitably transparent so that the paper within the container can be easly inspected.

If the machine has a movable paper carriage the container should be of such length that the two paper parts can slide in the horizontal direction along the slot **15** and the surface **17** when the carriage moves.

I claim:

1. A device for use in conjunction with office machines of the type which print upon a continuous strip of paper material such as a chain of blanks which comprises a vertical support, a delivering supply constituted by a rounded delivery tube open at least at one end for receiving a supply of the paper strip material, said delivery tube including a laterally directed slot extending parallel with the tube axis and through which the paper strip is delivered to the machine for printing, means mounting said delivery tube on said vertical support for adjustment in the vertical direction, a receiving supply, and means mounting said receiving supply on said vertical support below said delivery tube, said receiving supply extending beyond the rearmost part of said delivery tube for receiving the printed-upon paper strip and which is guided to said receiving supply after leaving the machine by passing in a downward direction in sliding contact with the outer rounded surface of said delivery tube.

2. A device as defined in claim **1** wherein said means for mounting said receiving supply on said vertical support also provide for adjustment of said receiving supply along said support in the vertical direction.

3. A device as defined in claim **1** wherein said delivery tube includes a curved interior surface providing a sliding contact for the paper strip being delivered to the machine.

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