C. W. SNOWDEN.

DEVICE FOR PRINTING ON WRAPPING PAPER.

APPLICATION FILED APR. 29, 1918.

1,293,963.

Patented Feb. 11, 1919.

2 SHEETS—SHEET 1.

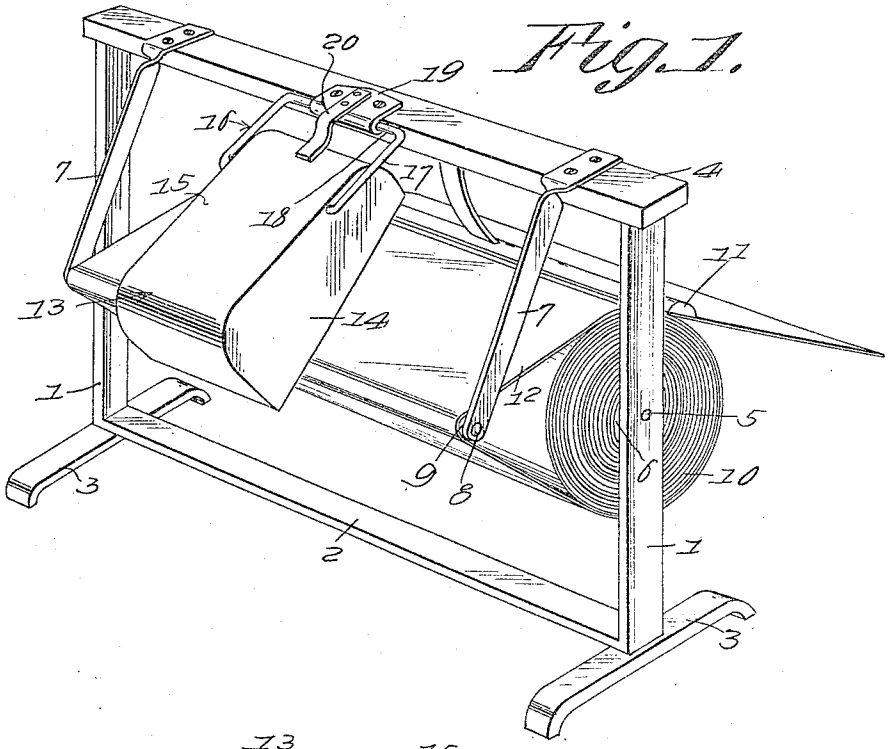


Fig. 1.

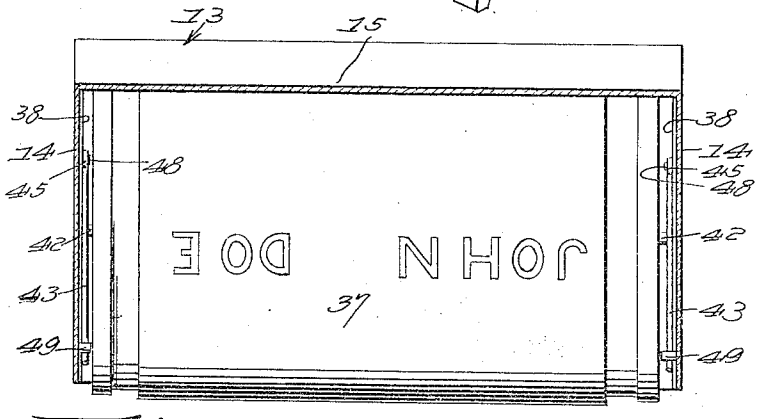


Fig. 3.

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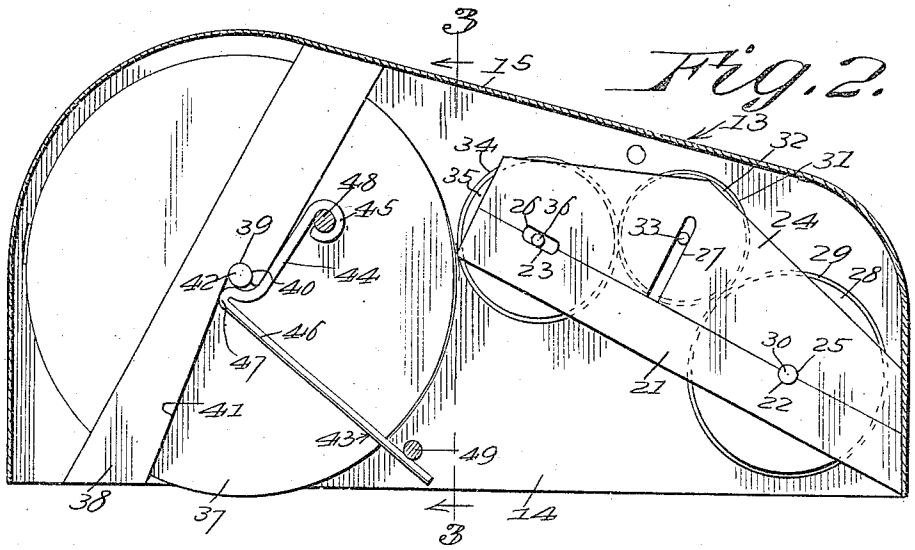


Fig. 2.

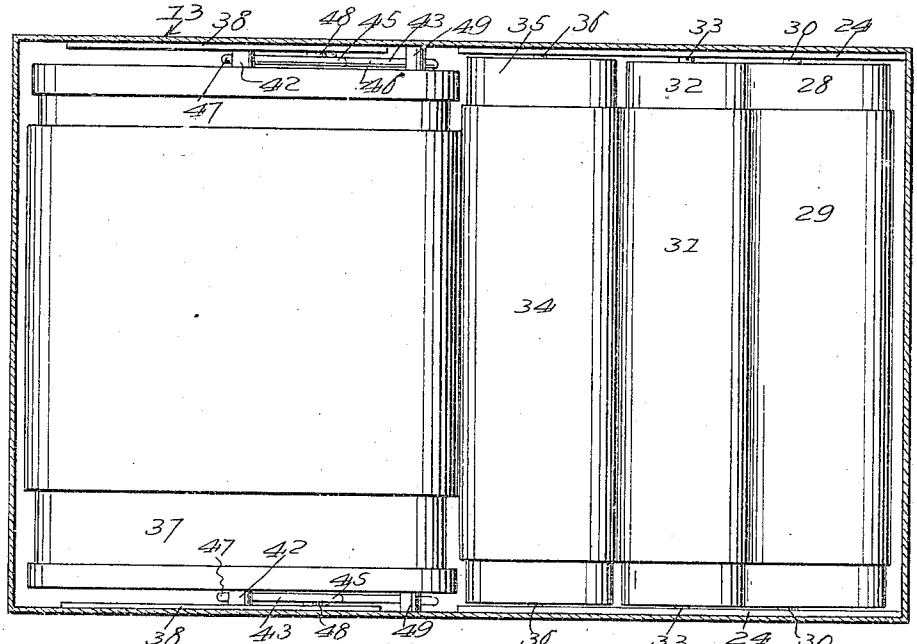


Fig. 4.

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UNITED STATES PATENT OFFICE.

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DEVICE FOR PRINTING ON WRAPPING-PAPER.

1,293,963. Specification of Letters Patent. Patented Feb. 11, 1919.

Application filed April 29, 1918. Serial No. 231,337.

To all whom it may concern:

Be it known that I, CHARLES W. SNOWDEN, a citizen of the United States of America, residing at Bay City, in the county of Bay and State of Michigan, have invented new and useful Improvements in Devices for Printing on Wrapping-Paper, of which the following is a specification.

This invention comprehends generally improvements in that class of inventions known as printing and more particularly has reference to a device for printing on wrapping paper.

It is the primary aim and object of the present invention to provide a device of the above mentioned character designed to be attached to a paper roll support for printing advertising matter on the paper as it is being unwound therefrom.

As an additional object this invention embraces the provision of a device of the above mentioned character wherein a casing is movably connected to the paper support and is designed to removably and operably receive the printing and inking means in such a manner as to assure of the printing of advertising matter on the paper while it is being moved beneath the casing and unwound from the roll.

It is the more specific object of the present invention to provide improved means for removably and rotatably supporting the printing roll in the casing; and to also provide improved means for journaling the series of the inking rolls.

Among the other aims and objects of this invention may be recited the provision of a device of the character described with a view to compactness, and in which the number of parts are few, the construction simple and the cost of production low and the efficiency high.

Other improvements and novel details in the construction and arrangement of the various parts of the apparatus will be brought out more in detail in the description to follow, which for a clear understanding of the invention should be considered in connection with the accompanying drawings forming a part hereof, and wherein is disclosed for the purpose of illustration a convenient and satisfactory embodiment of the invention. It is to be noted in this connection that minor changes may be made without departing from the principle of operation of the various parts.

The invention is clearly illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the device applied in position on a paper roll support.

Fig. 2 is a side elevation of the casing with the one side wall removed.

Fig. 3 is a vertical section taken on line 3—3 of Fig. 2 in the direction in which the arrows point, and

Fig. 4 is a top plan view of the casing with the top of the casing removed.

Similar characters of reference are employed in all of the above described views to indicate corresponding parts.

Referring now, more particularly, to the accompanying drawings there is provided a paper roll support which may be said to consist of spaced standards 1 the lower ends of which are connected by a cross bar 2 and also cross feet 3 while the upper ends of the standards are in turn connected to each other by means of an upper transverse or cross bar 4. The standards are provided intermediate their ends with bearing openings 5 in which are journaled the respective ends of the paper holding roll 6. Brackets 7 have their inner ends secured to the cross bar 4 near the standards and are inclined rearwardly and downwardly from the standards terminating in bearings 8 in which are journaled the respective ends of an auxiliary roller 9 which serves as a means for supporting the paper 10 as it is being unwound from the roll 6 preparatory to being drawn beneath the paper cutting means on the support.

As intimated, improved means have been provided for printing advertising matter on the portion of the paper 12 between the auxiliary roller 9 and the cutting means 11 as the paper is being unwound from the roll holder 6. In reducing this feature of the invention to practice a casing or housing indicated in its entirety by the numeral 13 is employed and consists of spaced side pieces 14 having straight edges and curved edges, the latter being connected by a top piece 15. A U-shaped clip 16 is now employed and has its side arms 17 secured to outer surfaces of the side pieces of the casing while the intermediate portion 18 is journaled in a combined bearing and attaching bracket 19 which is secured to the upper cross bar 4. A spring member 20 is secured to the attaching bracket and bears against the cas-

ing so as to yieldingly hold the casing against the portion 12 of the paper.

Secured to the inner face of the side piece 14 of the casing are inclined strips 21 which are formed on the upper surfaces and near the respective ends of the opposed semi-circular recesses 22 and the opposed oblong recesses 23, the latter being positioned near the upper ends as indicated in Fig. 2 while perpendicularly secured to the opposed inner surfaces of the sides are other inclined strips 24, the lower edges of which intimately contact with the upper edges of strips 21 and are also provided with opposed semi-circular recesses 25 and opposed oblong recesses 26 which are respectively arranged to register with the recesses 22 and 23 so as to consequently form opposed circular bearing openings and oblong bearing openings as is apparent. The strips 24 are further provided medially of their lower edges and perpendicular thereto with opposed vertical slots 27 which form adjustable bearings for a purpose that will presently appear. A main inking roller 28 is now employed and carries a pad 29 while the trunnions 30 of this roller are journaled in the opposed circular bearing openings formed by the recesses 22 and 25. The periphery of the pad 29 on the roller 28 is at all times engaged by the pad 31 carried by another inking roller 32, the trunnions 33 of which are in turn journaled in the opposed slots 27 while the pad 31 on the roller 32 bears against a pad 34 carried by still another inking roller 35. The trunnions 36 of the roller 35 are journaled in the oblong bearing openings formed by the recesses 23 and 26 and by the peculiar positioning of the roller 32 with respect to the rollers 28 and 35 it is apparent that the weight of the intermediate roller will at all times have a tendency to hold the roller 35 in engagement with a printing roll indicated in its entirety by the numeral 37.

In order to removably and rotatably mount the roller 37 in the casing, opposed diagonally arranged bars 38 are connected to inner faces of the side pieces 14 of the casing and are formed on their lower side edges approximately intermediate the upper and lower ends with recesses 39. These recesses are formed with an abrupt and substantially semi-circularly curved wall 40 and a gradually inclined wall 41 which extends toward the lower edge of the bar as is apparent upon reference to Fig. 2 and it is in these recesses 39 that the trunnions 42 with the printing roller 37 are journaled. Coöperating with the recesses 39 are movably mounted resilient retainers each indicated in its entirety by the numeral 43. Each retainer is desirably formed by a single piece of resilient wire and is preferably of a right-angular or L-shaped configuration bending a short portion 44 which terminates at its upper end in a loop 45 at the rear end of the short portion and at a point of juncture with the long portion 46, which retainer is formed with a nib 47 for a purpose that will presently appear. The loops 45 are designed to be pivotally arranged about opposed inwardly extending opening 48 on the inner surface of the side pieces 14 near the lower inclined edges of the bars 38 while the said retainers are designed to be swung toward the lower edges of the bars 38 so that the nibs abut the inclined walls 41 of the recesses 39 and coöperate with the recesses in assuring of the proper journaling of the trunnions 42 of the printing rollers 37. The long portions are removably arranged beneath the inwardly extending pins or lugs 49 which project from the inner surface of the side pieces 14 and are thus prevented from accidental displacement though it is apparent that by removing the long portions from beneath the pins that the trunnions 42 may be readily released from the supporting bars 38. It is likewise apparent that when desired the strips 24 may be detached from the casing to permit the removal of the inking roll.

In use assuming that the parts have been assembled in the manner described and as indicated in the drawings by reason of the fact that the spring member 19 depresses the casing 13 and as the lowermost point of the periphery of the printing roller 37 is positioned beneath the lower edge of the casing a frictional engagement will be created between the printing roller and that portion 12 of the piece of paper as it is being withdrawn so that advertising matter will be printed upon such portion of the paper.

It is believed in view of the foregoing description that a further detailed description of the invention is entirely unnecessary. Likewise it is believed that the advantages of the invention will be readily apparent.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limited sense. It is also understood that the language used in the following claims is intended to cover all the generic and specific features of the invention herein described and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

Having thus fully described the invention what is claimed and desired to be secured by Letters Patent is:

1. A device of the character described including a casing, opposed bars carried by the inner surface of the sides of the casing

and arranged at an incline formed on the lower side edges with recesses, each recess being formed with an arcuate curved wall and an inclined wall which extends toward the lower edge of the bar, a printing roller, trunnions projecting from the ends of the printing roller and arranged within the recesses, resilient retaining elements pivotally mounted on the inner surfaces of the sides of the casing and designed to coöperate with the recesses in the bars to support the trunnions and permit of rotation of the printing roller, means for preventing accidental movement of the retainers and inking means operably arranged within the casing for acting on the printing roller.

2. A device of the character described including a casing, opposed bars carried by the inner surface of the sides of the casing and arranged at an incline formed on the lower side edges with recesses, resilient retaining elements each formed from a piece of wire and bent into a rightangular configuration and embodying a short portion and a long portion, a nib formed at the point of juncture between the short and long portions, loops formed on the upper ends of the short portions and pivotally mounted on the inner surface of the sides of the casing to permit of the swinging of the retainers so that the nibs will abut the inclined walls of the recesses and coöperate therewith in journaling the trunnions of the printing roller, and means on the casing and under which the long portions of the retainers are engageable so as to prevent accidental displacement of the printing roller.

3. In a device of the character described including a casing, a printing roller journaled therein, opposed inclined strips secured to the inner surfaces of the casing and each provided on the upper surface with an oblong recess near the upper end and a semi-circular recess near the lower end, other strips detachably secured to the upper sides of the first strips and provided on the lower edges with vertical slots, the lower edges of the second strips being also provided near the upper ends of the oblong recesses and near the lower ends of the semi-circular recesses registering respectively with each other in forming oblong bearing openings and circular bearing openings, a series of pad carrying inking rollers and trunnions projecting from each of the rollers and journaled in the oblong bearing openings, the vertical slots and the circular bearing openings, the intermediate roller and the slots yieldingly bearing on the upper and lower rollers, and the oblong bearing openings permitting of a substantial horizontal movement of the upper inking roller so that the latter will be held against the printing roller during actuation of the printing roller.

In testimony whereof I affix my signature.

CHARLES W. SNOWDEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."