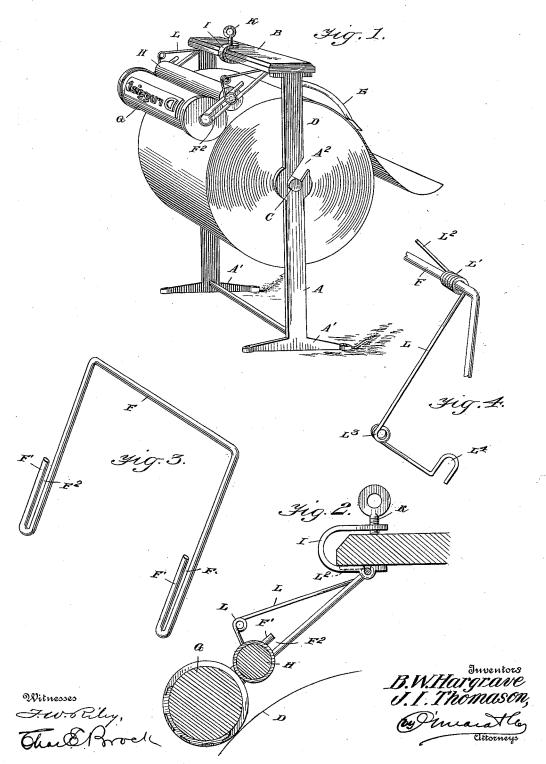
## B. W. HARGRAVE & J. I. THOMASON. PRINTING DEVICE FOR PAPER ROLLS.

(Application filed June 12, 1899.)

(No Model.)



## UNITED STATES PATENT OFFICE.

BENJAMIN W. HARGRAVE AND JAMES I. THOMASON, OF WILSON, NORTH CAROLINA.

## PRINTING DEVICE FOR PAPER-ROLLS.

SPECIFICATION forming part of Letters Patent No. 647,963, dated April 24, 1900.

Application filed June 12, 1899. Serial No. 720,211. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN W. HAR-GRAVE and JAMES IRA THOMASON, citizens of the United States, residing at Wilson, in the 5 county of Wilson and State of North Carolina, have invented a new and useful Improvement in Printing Devices for Paper-Rolls, of which the following is a specification.

This invention is an improved construction of printing device for paper-rolls, the object being to provide an exceedingly cheap and simple appliance which can be quickly and easily attached to any of the paper-roll frames now in use for the purpose of printing an advertisement upon the wrapping-paper as it is unrolled.

With this object in view the invention consists, essentially, of a wire frame adapted to be clamped to the roll-supporting frame and carrying the printing and inking rolls at its end, said printing and ink rolls being held in the proper position by means of a spring attached to the frame, which spring also holds the entire printing device firmly upon the paper-roll.

The invention consists also in certain details of construction and novelties of combination, all of which will be fully described thereinafter and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a perspective view of our invention applied to the ordinary paper-roll frame. Fig. 2 is a detail sectional view of a portion of the top bar and printing and inking rolls. Fig. 3 is a detail perspective view of the frame for carrying the printing and inking rolls. Fig. 4 is a detail perspective of the spring for holding the said rolls in place.

In the drawings we have shown our invention applied to the ordinary paper-roll and support, consisting of the standards A, connected at the top by the top piece B and provided with feet A' at their lower ends, the standards being slotted obliquely, as shown at A<sup>2</sup>, in order to receive the shaft C of the

paper-roll D.

E represents the ordinary cutting-knife.

All of the parts hereinafter described may
to be of any desired construction, as they form
no part of our invention, inasmuch as our in-

vention relates especially to a printing device to imprint a name or any advertising matter upon the paper as it is unrolled for wrapping

or other purposes.

In constructing our improved device we provide an essentially rectangular - shaped frame F, made of stout wire, the side members thereof being bent back upon themselves, as shown at F', in order to provide parallel 60 guideways F<sup>2</sup>, in which are journaled the shafts of the printing-roll G and inking-roll H, the printing-roll being journaled in the extreme end of said guideway, while the inking-roll is journaled adjacent to the upper 65 end thereof. The top member of the frame is clamped to the under side of the top bar by means of a suitable clamp I and thumb-screw K, thereby securely binding the printingframe to the paper-holding frame. In order 70 to hold the printing-roll firmly upon the roll of paper and at the same time hold the inking-roll in contact with the printing-roll, we provide spring - arms L, which are coiled around the top member of the frame, as 75 shown at L', and the extreme upper ends  $L^2$ , arranged to bear upon the under side of the top piece B. The arms L are constructed with a coiled elbow L3 adjacent to their lower ends, and at said lower ends they are pro-80 vided with hooks L4, which fit over the ends of the shaft of the inking-roll and thereby press the said roll down upon the printingroll, and inasmuch as the entire tendency of the spring-arms is downward it will be read- 85 ily understood that they will not only hold the inking-roll upon the printing-roll, but will also press said printing-roll down upon the roll of paper, so that as the paper is unreeled it will receive an impression from the type 90 arranged upon the printing-roll, it being of course understood that rubber or metal type may be employed, as preferred, but in practice we prefer to use rubber type, inasmuch as they can be made to conform to the sur- 95 face of the roller.

It will thus be seen that our device consists of very few parts and can be quickly and easily attached to any of the paper-rolls now in use and will effectually carry out all of the 100 objects for which it is intended.

Having thus fully described our invention,

what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a printing device for paper-rolls, a pendent frame essentially rectangular in 5 shape and having guideways at the ends of the side members, the printing and inking rolls journaled in the said guideways, the spring-arms coiled around the upper member and having hooks at their lower ends adapted to bear upon the inking-roll shaft, said spring-arms having coils adjacent to said hooked ends, and the clamp for securing the pendent frame to the main frame of the paper-roll, substantially as shown and described.

2. An improved printing device for paperrolls, consisting of a stationary frame and a

pendent frame secured thereto, said pendent frame having guideways in its sides, printing and inking rolls journaled in said guideways, 20 and spring-arms attached to the said frame, the upper ends of which abut against the stationary frame, and the lower ends being bent to form right-angular extensions provided with hooks engaging the rolls in the guide-25 ways so that they will be held against displacement and at the same time the pendent frame will be projected downward substantially as described.

B. W. HARGRAVE. J. I. THOMASON.

Witnesses:

W. E. WARREN, JNO. F. BONTSON.