

R. H. BREMER, O. F. THIRY & S. HOLLANDS.  
PRINTING DEVICE.

APPLICATION FILED APR. 30, 1910.

978,839.

Patented Dec. 20, 1910.

2 SHEETS—SHEET 1.

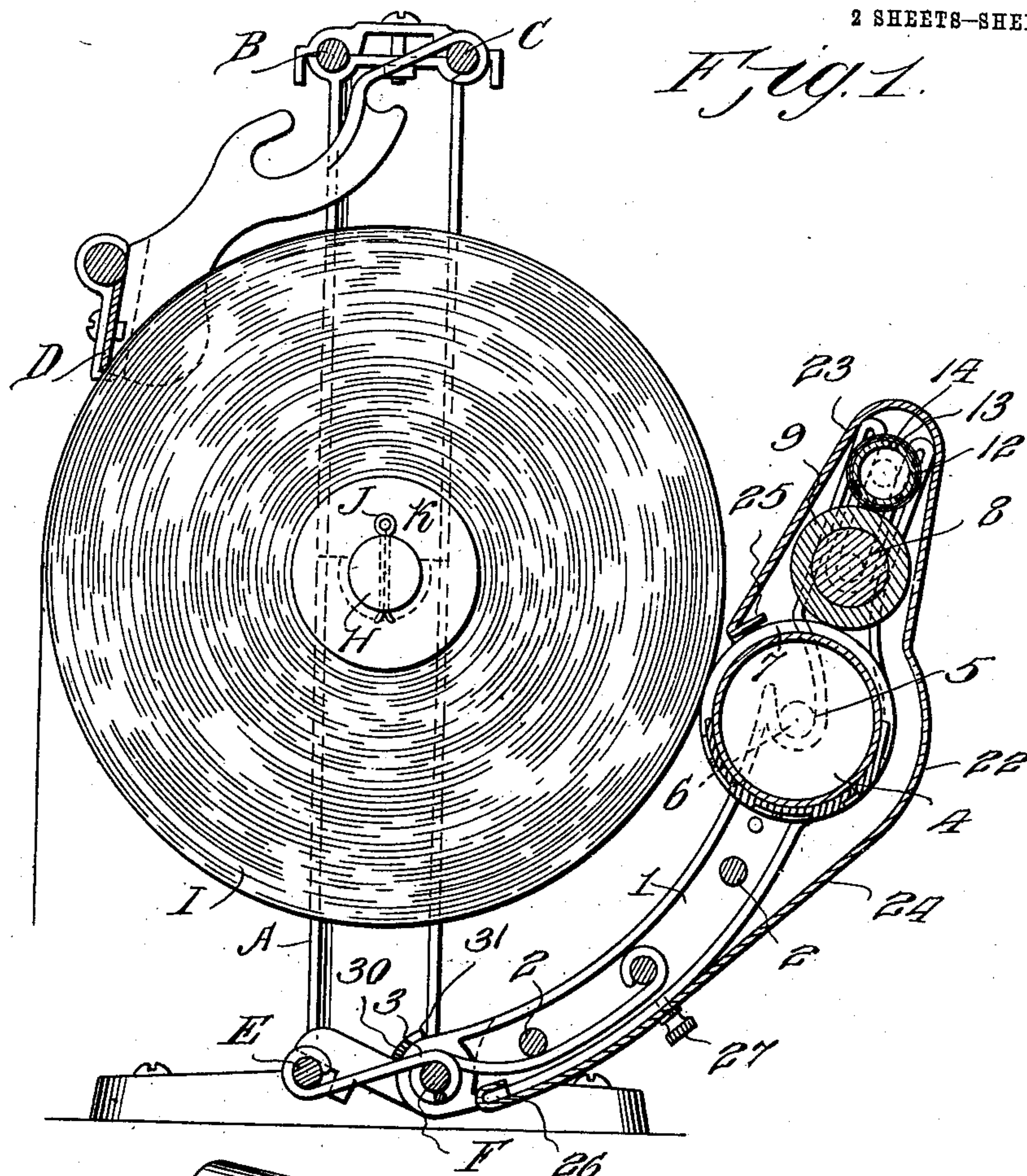


Fig. 1.

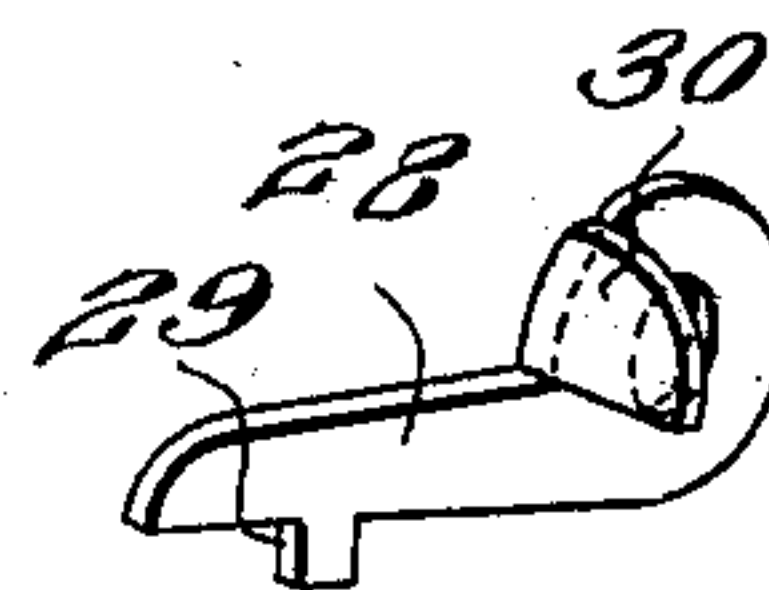
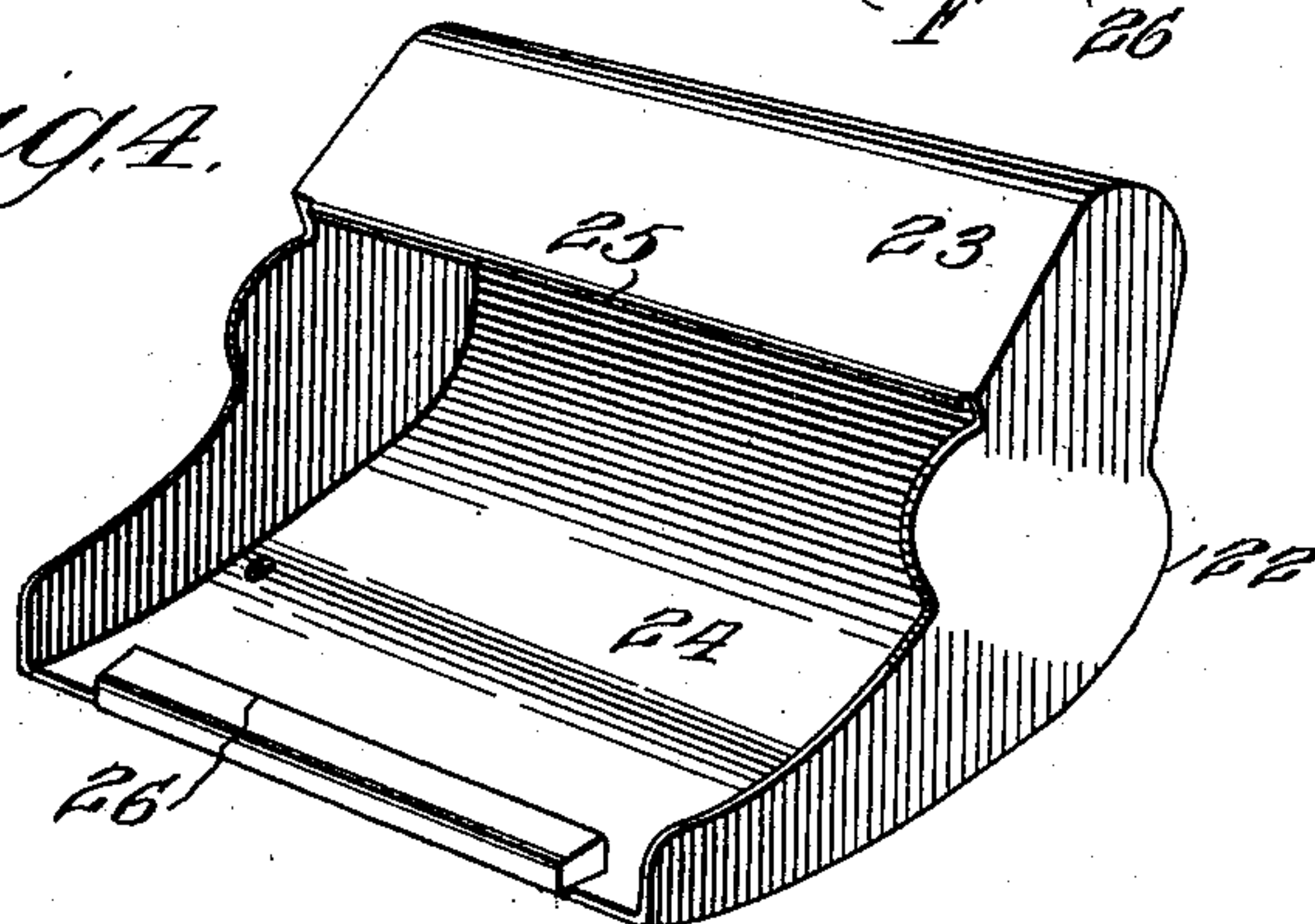


Fig. 5.

Witnesses

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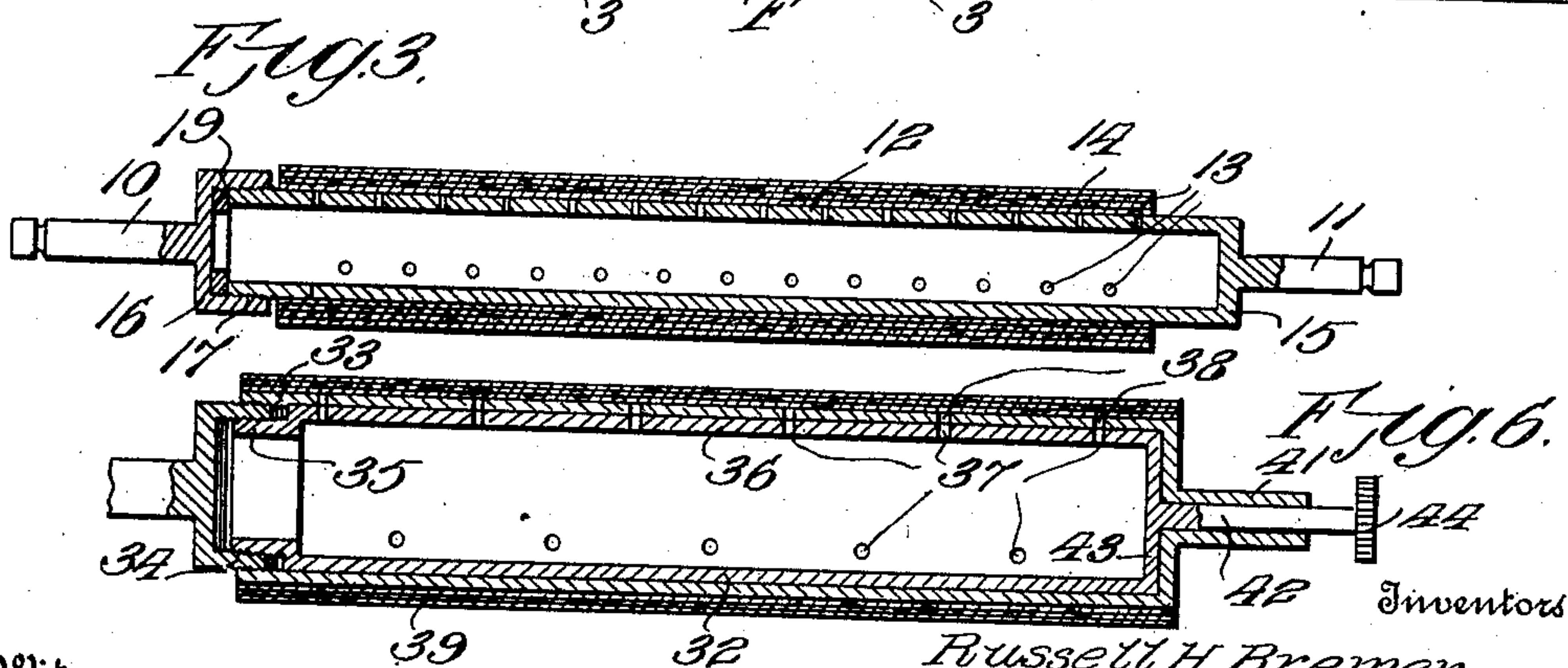
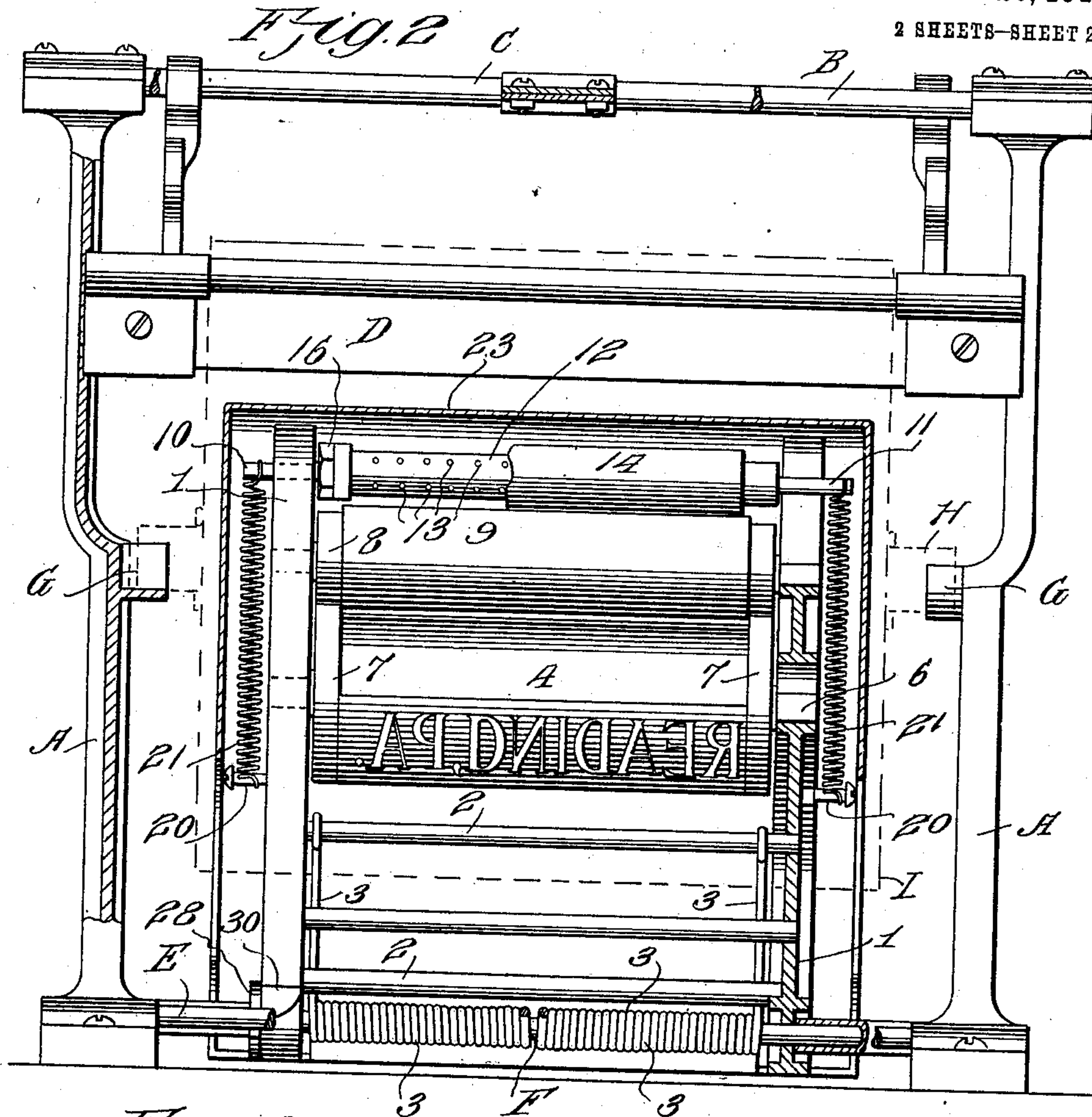
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2 SHEETS-SHEET 2.



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# UNITED STATES PATENT OFFICE.

RUSSELL H. BREMER, ODEN F. THIRY, AND STEPHEN HOLLANDS, OF READING,  
PENNSYLVANIA.

## PRINTING DEVICE.

978,839.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed April 30, 1910. Serial No. 558,582.

*To all whom it may concern:*

Be it known that we, RUSSELL H. BREMER, ODEN F. THIRY, and STEPHEN HOLLANDS, citizens of the United States of America, residing at Reading, in the county of Berks and State of Pennsylvania, have invented new and useful Improvements in Printing Devices, of which the following is a specification.

10 This invention relates to printing attachments for paper roll holders, and it has for an object to provide an attachment of this character that can be conveniently applied to the roll holder.

15 Another object of the invention is to provide a novel form of spring tension or controlled roll carrier for supporting the printing roll, the inking roll and the reservoir and to provide a stop member which is operable to bear against the carrier to limit the movement thereof in one direction.

20 A still further object of the invention is to provide a hood covering the printing roll, the inking roll and the reservoir, constructing the hood to provide gutters or receptacles for receiving any surplus ink which may be discharged from such rolls.

25 In the drawings, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is an end view of a roll and roll holder showing our improved inking attachment applied thereto, the said attachment being shown in section and parts 30 of the holder being shown in section to clearly illustrate the invention. Fig. 2 is a front elevation of the roll holder and the printing attachment, parts being shown in section for the purpose of clearness. Fig. 3 40 is a detail longitudinal section through the reservoir. Fig. 4 is a detail perspective view of the hood. Fig. 5 is a detail perspective view of the stop member. Fig. 6 is a detail longitudinal section through a slightly modified form of reservoir.

45 The holder for the roll of paper forms no particular part of the invention but it will be briefly described as consisting of a pair of spaced standards A which are connected with 50 each other at their upper ends by horizontal brace rods B and C, the latter supporting a knife D which may be of any approved well known construction. At the lower ends the standards A are connected together by brace 55 rods E and F. The standards A are formed

to provide horizontal bearings G for the reception of the ends of the supporting shaft H for the roll of paper I.

Our improved inking attachment consists of a frame comprising companion spaced 60 members 1 which are curved upwardly and rearwardly from the back of the roll I having their lower ends pivotally mounted on the brace rod F so that the frame is movable toward or away from the said roll I. The 65 members 1 are connected with each other by suitable brace rods 2 and as shown, to one of such rods is secured the outer terminals of springs 3, the inner terminals of the said springs being secured or suitably associated 70 with the brace rod E so that the tension of the springs is to normally hold the printing roll 4 yieldingly engaged with the roll I.

The members 1 are formed to provide the bearing recesses 5 for receiving the trunnions 75 6 of the printing roll. This roll is formed at its ends to provide collars 7 against which the ends of the inking roller 8 are engaged. The upper extremities of the members 1 are 80 forked to form bearing recesses for the trunnions of the inking roll and as shown, these recesses are so formed that the inking roll frictionally bears against the printing roll. The inking roll is covered approximately 85 throughout its length with absorbent material 9 of any suitable well known character, the ends of the surface formed by such material being disposed directly between the collars 7 of the printing roll. The recesses 90 formed at the upper ends of the members 1 also receive the trunnions 10 and 11 of a reservoir 12. This reservoir is in form of a cylinder whose walls are formed to provide 95 rolls of suitable perforations or feed openings 13. The said reservoir is covered approximately throughout its length with suitable absorbent material 14 which may be saturated sufficiently to distribute onto the inking roll the desired quantity of ink. The 100 trunnion 11 of the reservoir is formed at the closed end 15 thereof and the trunnion 10 is formed at the end of a cap 16 which is interiorly threaded to engage the exteriorly threaded portion 17 of the reservoir, a suitable gasket 19 being provided to form 105 a liquid tank connection between the reservoir and the cap thereof.

The construction of the reservoir is such that it may be conveniently removed from the members 1 when it is desired to replenish 110



it with ink as will be understood. On removal of such reservoir it is obvious that the cap 16 thereof can be removed for the purpose of filling such reservoir. The members 1 are provided with pins 20 to which the lower ends of retractile springs 21 are attached. The upper ends of these springs are suitably secured to the trunnions 10 and 11 of the reservoir. The springs as described, are such that the rollers 4 and 8 are yieldingly engaged with each other. The construction is also such that the reservoir is yieldingly engaged with the inking roll.

A hood 22 is employed for housing the rolls 4, 8 and 12 and as shown, the said hood is formed to provide a forwardly and downwardly directed front portion 23 and a forwardly and downwardly directed back portion 24. The edge at the lower end of the front portion 23 is formed to provide a trough or receptacle 25 which is located between the rolls 4 and 8 and slightly in advance thereof. The lower edge of the portion 24 is formed to provide a similar receptacle or trough 26. These troughs are designed for the reception of such surplus ink that may be discharged from the rolls onto the hood. The hood is preferably secured in place by means of suitable fastening screws 27 which are engaged with the members 1.

To limit the swinging movement of the roll-carrying frame of our improved attachment we provide a stop member 28 which is pivotally mounted on the brace rod F. This stop member is formed with a notched forward portion 29 which receives the brace rod E. The said stop member is formed to provide an ear 30 which is curved transversely and disposed across the upper surface of one of the side members 1 at the lower end thereof, the edge 31 of the said ear being designed to engage such side member so as to limit the movement thereof toward the shaft H of the roll I. In this construction it will be readily understood that when the paper is entirely removed from the axle the carrier formed by the members 1 will be held against coming in direct contact with said shaft H. It may be mentioned that the shaft H is provided at its ends with removable cotter pins J which serve to hold the

cones K operatively positioned in the roll and against longitudinal movement on the shaft, thus insuring a perfect engagement of the printing roll with the paper at all times.

In the modified form of our invention shown in Fig. 6, the reservoir 32 is formed at one end to provide an interiorly threaded portion 33 to receive the exteriorly threaded portion of a cap 34. This cap is interiorly threaded to receive the exteriorly threaded surface of the reduced end 35 of a hollow cylindrical valve 36. This valve is designed for the reception of the ink and through the provision of the passages 37 in the valve the desired quantity of ink will be permitted to flow from the passages 38 onto the absorbent surface 39. The closed end of the reservoir 32 is provided with a cylindrical bearing 41 through which extends the stem 42. This stem extends from the head 43 of the valve and as illustrated, it is formed with a manipulating knob 44. It will be understood that upon rotation of the stem 42 the valve may be rotated and moved longitudinally to a slight extent in the reservoir to cause the openings 37 and 38 to move into or out of registration with each other.

We claim:—

In a printing device for paper roll holders, the combination with a roll holder having a pair of horizontally disposed rods which are located beneath the roll, a printing roll, a carrier therefor having pivotal connection with one of the said rods of the roll holder, spring means operatively connecting the other rod with the carrier for holding the printing roll yieldingly engaged with the paper roll, and a stop supported by one of the rods and designed to engage the carrier to limit the movement thereof in one direction.

In testimony whereof we affix our signatures in presence of two witnesses.

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