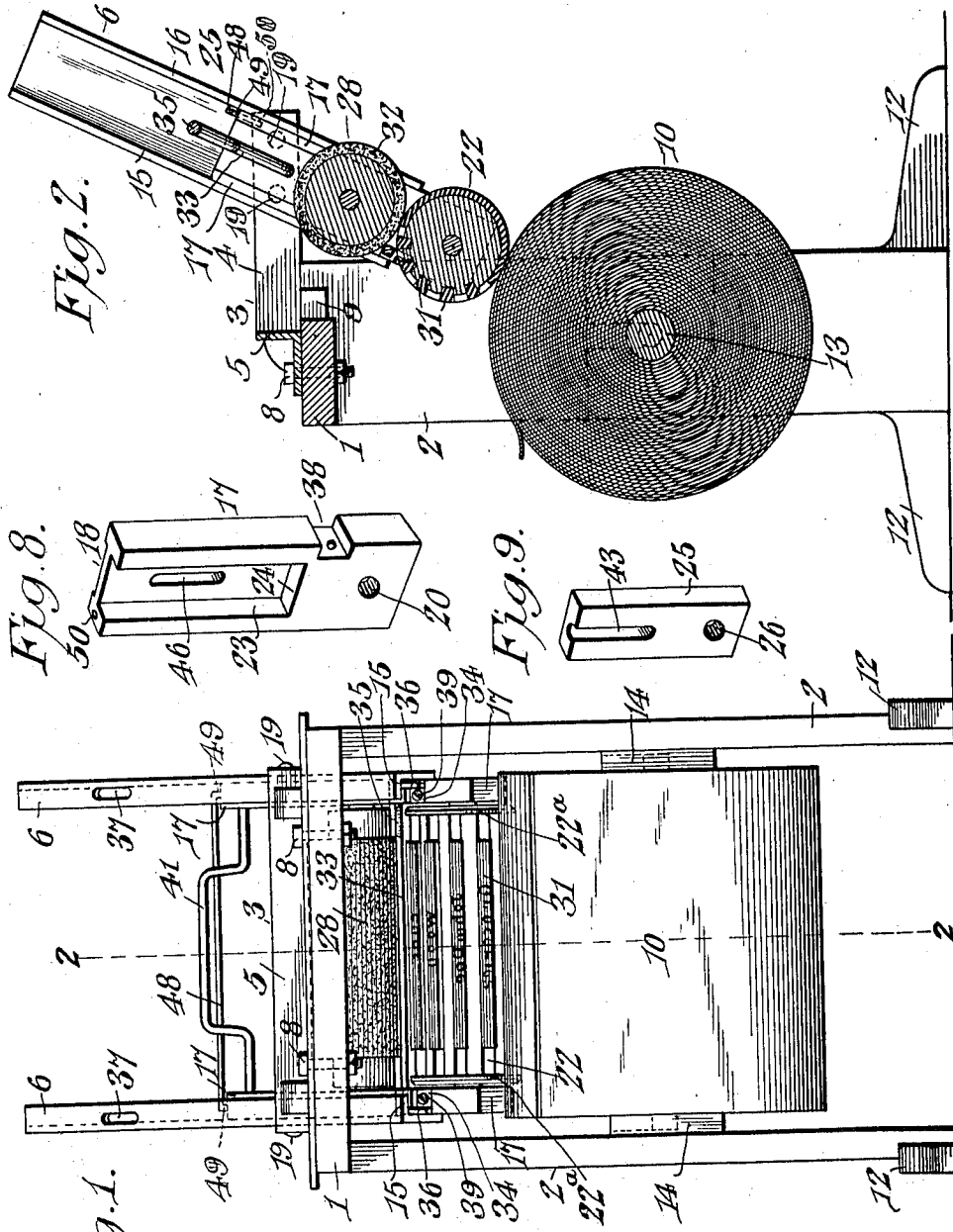


J. C. PARKER.
 PRINTING ATTACHMENT FOR PAPER ROLL HOLDERS.
 APPLICATION FILED APR. 29, 1911.

1,035,384.

Patented Aug. 13, 1912.
 2 SHEETS—SHEET 1.



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Fig. 5.

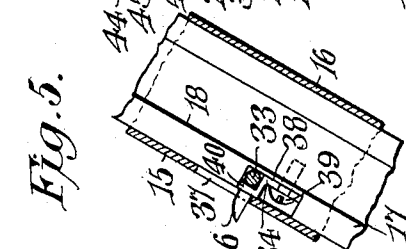


Fig. 3.

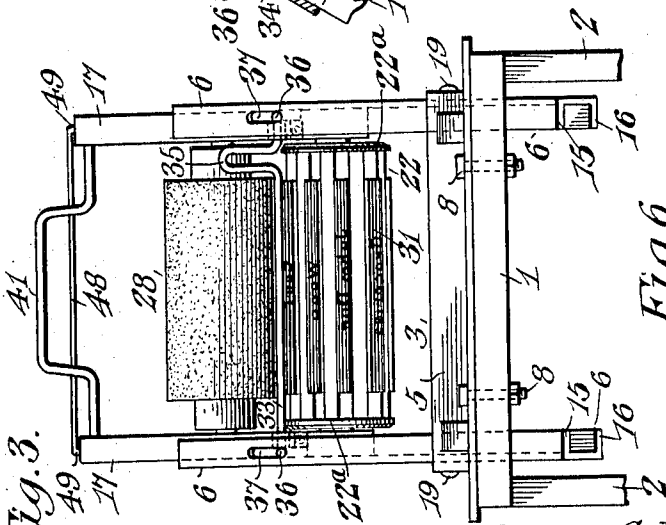


Fig. 6.

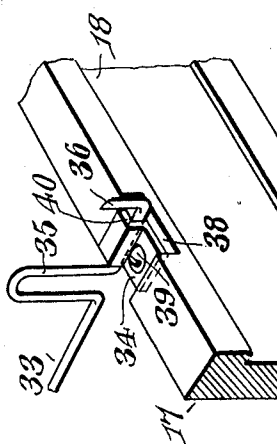
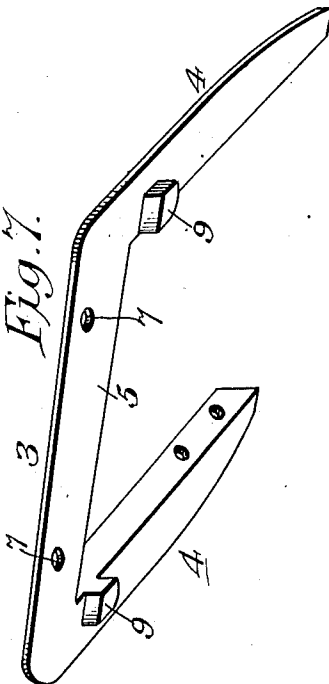


Fig. 7.



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UNITED STATES PATENT OFFICE.

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PRINTING ATTACHMENT FOR PAPER-ROLL HOLDERS.

1,035,384.

Specification of Letters Patent.

Patented Aug. 13, 1912.

Application filed April 29, 1911. Serial No. 624,226.

To all whom it may concern:

Be it known that I, JAMES C. PARKER, a citizen of the United States, residing at Woodston, in the county of Rooks and State of Kansas, have invented a new and useful Printing Attachment for Paper-Roll Holders, of which the following is a specification.

The invention relates to a printing attachment for paper roll holders.

The object of the present invention is to improve the construction of printing attachments for paper roll holders, and to provide a simple, efficient, and comparatively inexpensive printing attachment, adapted to be readily mounted in proper position on any ordinary paper roll holder, and capable of automatic operation by the same in removing the paper from the roll, and adapted to adjust itself automatically to the roll as the latter decreases in diameter through the consumption of the paper.

Another object of the invention is to provide a printing attachment, adapted without the use of springs to cause the printing roll to exert a relatively heavy pressure on the paper roll, and at the same time to enable the inking roll to exert a relatively light pressure on the printing roll.

The invention also has for its object to provide means for preventing the inking roll from dropping into contact with any blank portions on the printing roll, so that the entire surface of the printing roll or only a portion thereof may be utilized for holding type.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a front elevation of a paper roll holder, equipped with a printing attachment, constructed in accordance with this invention. Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1. Fig. 3 is a front elevation of

the attachment, the printing and inking rolls being held in an elevated position, so as to be out of contact with the roll of paper. Fig. 4 is a transverse sectional view. Fig. 5 is a detail sectional view of the latch for locking the printing and inking rolls in an elevated position. Fig. 6 is a detail perspective view of one end of the latch and a portion of the main slides on which the same is mounted. Fig. 7 is a detail perspective view of the horizontal supporting frame or bracket. Fig. 8 is a detail perspective view of one of the main slides. Fig. 9 is a detail perspective view of one of the auxiliary slides.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

In the accompanying drawings in which is illustrated the preferred embodiment of the invention, the printing attachment is applied to the top 1 of the main frame 2 of a paper roll holder by means of an approximately U-shaped horizontal frame or bracket 3, composed of spaced sides 4 and a transverse connecting portion 5, and preferably constructed of flanged metal to secure the requisite strength and lightness, and at the same time to provide opposite flanges for supporting spaced inclined guides 6. Instead, however, of supporting the guides in an inclined position by the frame or bracket, which off-sets the said inclined guides from the top of the main frame, the guides may of course be mounted directly upon the main frame in a vertical position at the upper portion thereof. The transverse connecting portion 5 is provided with perforations 7 for the reception of bolts 8 for securing the supporting frame or bracket to the top 1 of the main frame of the paper roll holder, and the sides of the frame or bracket are provided with depending integral lugs 9, forming gage stops and fitting against the rear edge of the top 1 of the main frame, in order to position the attachment properly with relation to the paper roll 10 without having to measure the parts. The main frame 2 of the paper roll holder is composed of spaced sides or standards, connected at their upper ends by the top 1 and provided at the bottom with feet 12 to form an enlarged base, but any other desired construction of main

frame may of course be employed. The roll 10 of paper is mounted on a wooden core or roll 13, which is journaled in suitable bearings 14 of the sides or standards of the main frame. Also the paper roll holder 5 may be equipped with suitable means for cutting or tearing the paper, but as the specific construction of the paper roll holder does not constitute a portion of the present invention, and as the printing attachment 10 is designed to be applied to various paper roll holders, further description and illustration of the paper roll holder are deemed unnecessary.

The guides 6, which are inclined, are arranged radially with relation to the axis of the paper roll, and they are constructed of suitable metal, being provided with parallel front and rear side flanges 15 and 16, forming grooves and receiving main slides 17, which fit snugly between the side flanges 15 and 16 which are movable upwardly and downwardly along the guides. The main slides 17 are oblong and are preferably provided in their outer faces with longitudinal channels 18 to reduce the frictional contact between the slides and the guides, and suitable anti-friction devices may be employed if desired. The guides, which are located 30 above the plane of the bearings of the main frame, terminate short of the roll of paper, as clearly illustrated in Fig. 2 of the drawings, and they are secured at points intermediate of the ends by rivets 19, or other suitable fastening devices to the inner faces 35 of the flanges of the spaced side portions of the U-shaped frame or bracket, which rigidly supports the inclined guides in their superimposed position above the roll of paper. The guides are open at their upper 40 and lower ends so that the slides may extend below the guides and also to permit the removal of the slides from the guides.

The main slides are provided at their 45 lower portions with opposite transversely alined bearing openings 20 for the reception of journals 21 of a printing roller 22, and they are provided in their upper portions with longitudinal grooves 23, extending 50 downward from the upper ends of the main slides to points below the centers of the same, and forming lower shoulders or abutments 24, which are spaced from the bearing openings 20. The grooves 23, which are arranged 55 at the inner faces of the main slides, form guides for supplemental slides 25, which are provided at their lower portions with transversely alined bearing openings 26 for the reception of journals 27 of an inking roller 28, located above the printing 60 roller and adapted to supply the same with ink. The auxiliary slides 25 are oblong and are movable upwardly and downwardly in the guide grooves 23, their downward movement being limited by adjustable screws 29,

mounted in threaded openings 30 in the lower ends of the auxiliary slides, and projecting downwardly therefrom and arranged to rest upon the shoulders or lower end walls 24 of the guide grooves 23. The screws 70 limit the downward movement of the auxiliary slides and are adapted to be set to permit the inking roller to bear against the type 31 of the printing roller with the desired pressure, and they prevent the inking 75 roller from dropping into contact with the body portion of the printing roller at any blank spaces between the type. By this construction, there is no liability of applying ink to such blank portions of the printing 80 matter, and liability of smearing the paper with ink is eliminated. This will enable the entire surface of the printing roller or only a portion thereof to be utilized for 85 printing the advertising or other matter on the paper as it is unreeling from the device. The adjustable screws 29 also permit the use of printing rollers of various sizes, larger or smaller printing rollers being employed 90 according to the quantity of matter desired to be printed on the wrapping paper. The adjusting screws 29 enable the auxiliary slides, which carry the inking roller, to be 95 raised or lowered to arrange the same at the proper elevation to cause the inking roller to occupy the proper position with relation to the printing roller. By means of the relative adjustment of the main and auxiliary slides, they may be arranged so as 100 to secure the proper contact between the inking and printing rollers, when there is type in the printing roller and at the same time prevent contact between the inking and printing rollers where there is no type 105 in order to enable blank spaces to appear in the printed matter without causing a smear. The inking roller, which may be of any desired construction, is provided with a suitable absorbent pad 32, and the type or other 110 printing means of the printing roll may be of any preferred construction and may be mounted on the printing roll in any desired manner. The main slides with which the printing roller is connected are relatively 115 heavy and cause the printing roller to bear against the roll of paper with considerable pressure, which is relatively heavier than the pressure of the inking roller, as the auxiliary slides are light compared with the 120 main slides. Also the pressure of the printing roller is the result of the combined weights of the printing and inking rollers with their respective slides, while the pressure of the inking roller is produced only by 125 the weight of such roller and the auxiliary slides.

The unreeling of the paper from the roll 10 rotates the latter, which, through frictional contact with the printing roller, op- 130

erates to rotate the latter, so that the type or other printing devices thereof are brought into contact with the paper and caused to print on the same. The inking roller is also rotated through frictional contact with the printing roller, and the ink is thereby caused to be distributed to the type. The printing roller is provided at its ends, or other convenient points with flanges 22^a of rubber or other suitable material, such as spring metal, arranged to contact frictionally with the roll of paper, whereby when the paper is unreeled from the paper roll, rotary motion will be positively communicated to the printing roller and through the printing roller to the inking roller. The rings 22^a cause a smooth uniform rotation of the printing roller and the type, which is preferably constructed of rubber, projects sufficiently beyond the plane of the peripheries of the rings 22^a to secure a proper contact with the paper. The paper roll engaging rings 22^a also avoids any irregular motion of the printing roller at points or spaces where there is no type, and prevent such portions of the printing roller from coming in contact with the paper. When it is not desired to use the printing attachment, the latter is held in an elevated position, as illustrated in Fig. 3 of the drawings, by means of a latch 33 consisting of a transverse rod connected at its end portions with the main slides by plates 34 and provided at an intermediate point, preferably adjacent to one end of the main slides with a projecting sleeve 35, forming a handle and adapted to enable the latch to be partially rotated to extend terminal arms 36 into slots 37 of the front flanges 15 of the fixed inclined guides 6, and to withdraw the arms 36 from the said slots. The ends of the rods are bent at right angles to form the terminal arms 36, and the main slides are provided at their front edges with recesses 38 in which the end portions of the latch are secured by the said plates 34. The plates 34 are fastened in the recesses 38 by screws 39, or other suitable fastening devices, and they have angularly bent approximately L-shaped portions 40, fitted against the upper end walls of the recesses 38 and extending partially around the end portions of the latch. By this construction, the latch is secured to the main slides and it serves as a brace or connecting means for the said slides. When the terminal arms 36 are swung outward to their engaging position, as illustrated in Figs. 5 and 6, they fit against the upper end walls of the recesses 38. The upper end walls of the recesses form stops to limit the outward swing of the terminal arms of the latch, which is adapted to firmly support the main slides with the printing and inking rolls in an elevated position.

The auxiliary slides are connected by a

handle 41, provided at the central portion with a U-shaped bend and having spaced terminal L-shaped portions 42, fitting in longitudinal grooves 43 in the upper portions of the auxiliary slides and engaging inclined openings 44 at the lower ends of the grooves 43. The L-shaped portions 42 have inclined terminal arms 45, extending upwardly and outwardly and passing through the inclined openings in the auxiliary slides and projecting beyond the same, and extending into longitudinal slots 46 of the main slides. The inclined terminal arms of the handle form hook-shaped portions, and the upper end walls 47 of the slots 46 of the main slides are inclined and extend upwardly and outwardly, whereby when the handle is grasped and lifted, the auxiliary slides will be moved upward until the projecting portions of the terminal arms engage with the inclined walls of the upper ends of the slots 46. The main slides will then rest upon the terminals of the handle and owing to the inclination of the parts they will be held against the outward lateral movement. This will enable the slides and the inking and printing rollers to be removed from the fixed inclined guides without liability of the parts becoming disconnected from the terminals of the transverse handle. The transverse handle also operates in the nature of a brace for spacing the top portion of the printing attachment when the device is in use, but the main slides are preferably connected by a transverse brace 48, consisting of a rod having its terminals bent at right angles to form arms 49, which are secured in sockets 50 in the upper ends of the main slides 17. The sockets are located at one side of the groove 23 in order to arrange the brace beyond the plane of the auxiliary slides. This brace 48 rigidly connects the upper end of the main slides and coöperates with the handle 41, the latch 33 and the rollers in spacing the slides and in maintaining the parts of the printing attachment firmly in proper position.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A printing attachment for paper roll holders including opposite fixed guides, main slides operating in the said guides, a printing roller mounted on and carried by the main slides, auxiliary slides movably mounted on and guided by the main slides and also carried by the same, and an inking roller mounted on and carried by the auxiliary slides and arranged to bear against the type in the printing roller and maintained out of contact with the printing roller where there is no type by the contact of the said slides.

2. A printing attachment for paper roll holders including opposite guides, main

slides movable upwardly and downwardly in the said guides and provided with abutments, auxiliary slides guided in the main slides above the abutments, a printing roller journaled in the main slides, and an inking roller carried by the auxiliary slides, the latter being arranged to permit the inking roller to bear against the type of the printing roller, and the auxiliary slides being also adapted to engage with the said abutments for supporting the inking roller out of contact with the printing roller where there is no type to enable blank spaces to appear in the printing.

3. A printing attachment for paper roll holders including opposite upright guides, main slides operable in the guides, a printing roller carried by the main slides, auxiliary slides mounted on the main slides and extending above the printing roller, an inking roller carried by the auxiliary slides, and arms mounted on the main slides and movable into and out of engagement with the upright guides, the latter being provided with means for engaging with the said arms for holding the main slides elevated to support the inking and printing rollers in an elevated position.

4. A printing attachment for paper roll holders including opposite upright guides, main slides operable in the guides, a printing roller carried by the main slides, auxiliary slides mounted on the main slides and extending above the printing roller, an inking roller carried by the auxiliary slides, and a cross bar connecting the main slides and provided with catches arranged to engage the guides, the latter having means for engaging with the catches for supporting the printing and inking rollers in an elevated position.

5. A printing attachment for paper roll holders including opposite upright guides, main slides operable in the guides, a printing roller carried by the main slides, auxiliary slides mounted on the main slides above the printing roller, an inking roller carried by the auxiliary slides, and a catch consisting of a transverse rod mounted on and connecting the main slides and having terminal means for engaging the guides to hold the printing and inking rollers in an elevated position.

6. A printing attachment for paper roll holders including opposite upright guides, main slides operable in the guides, a printing roller carried by the main slides, auxiliary slides mounted on the main slides above the printing roller, an inking roller carried by the auxiliary slides, and a catch consisting of a transverse rod secured at its end portions to the main slides and having a rotary movement and provided with terminal arms carried into and out of engagement with the guides by the said rotary

movement and adapted to support the printing and inking rollers in an elevated position.

7. A printing attachment for paper roll holders including spaced guides provided with slots, slides operable in the slots, printing and inking rollers carried by the slides, and a catch consisting of a rod connecting the slides and provided with arms arranged to extend into the slots of the guides for supporting the slides in an elevated position.

8. A printing attachment for paper roll holders including spaced guides, slides operable in the guides and provided with recesses forming shoulders, printing and inking rollers carried by the slides, a catch consisting of a transverse rod having its terminal portions arranged in the said recesses and provided with arms adapted to swing into and out of engagement with the guides and limited in their movement by the said shoulders, and plates mounted on the slides and journaling the rod in the said recesses.

9. A printing attachment for paper roll holders including opposite upright guides, main slides movable upwardly and downwardly in the guides and provided with guide grooves, auxiliary slides mounted on and guided by the main slides and having a limited sliding movement independently thereof, a printing roller carried by the main slides, an auxiliary roller mounted on the auxiliary slides, catches for connecting the main slides with the upright guides to support the inking and printing rollers in an elevated position, and means connecting the auxiliary slides for enabling the attachment to be lifted out of the guides.

10. A printing attachment for paper roll holders including opposite guides, main slides operable in the guides and provided with guide grooves, auxiliary slides mounted in the guide grooves of the main slides, a printing roller carried by the main slides, an inking roller mounted on the auxiliary slides, and adjusting screws arranged at the lower end of the auxiliary slides for limiting the downward movement thereof.

11. A printing attachment for paper roll holders including opposite guides, main slides operable in the guides and provided with guide grooves, auxiliary slides mounted in the guide grooves of the main slides, a printing roller carried by the main slides, an inking roller mounted on the auxiliary slides, and a transverse handle connected with the auxiliary slides and having means for engaging the main slides.

12. A printing attachment for paper roll holders including opposite guides, main slides operable in the guides and provided with guide grooves and having slots at the said grooves, auxiliary slides arranged in the guide grooves, a printing roller mount-

ed on the main slides, an inking roller carried by the auxiliary slides, and a handle connected with the auxiliary slides and having projecting portions operating in the slots of the main slides.

13. A printing attachment for paper roll holders including spaced guides, main slides operating in the said guides and provided with guide grooves and having slots, the latter being provided with inclined upper end walls, auxiliary slides arranged in the grooves of the main slides and provided with inclined openings, and a handle connecting the auxiliary slides and having inclined terminal portions extending through the openings thereof and operating in the slots of the main slides and arranged to engage with the inclined upper end walls thereof.

14. A printing attachment for paper roll holders including spaced guides, main slides operating in the said guides and provided with guide grooves and having slots, the latter being provided with inclined upper end walls, auxiliary slides arranged in the grooves of the main slides and provided with inclined openings and having grooves extending upward therefrom, and a handle provided with approximately L-shaped end portions fitting the grooves of the auxiliary

slides and extending through the openings of the same and operating in the slots of the main slides and adapted to engage with the inclined walls thereof.

15. A printing attachment for paper roll holders including opposite guides, main slides operable in the guides, a printing roller carried by the main slides, auxiliary slides mounted on the main slides, an inking roller journaled in the auxiliary slides, and means for adjustably supporting the auxiliary slides to enable printing rollers of different diameters to be used.

16. A printing attachment for paper roll holders including opposite guides, main slides operable in the guides, a printing roller carried by the main slides, auxiliary slides mounted on the main slides, an inking roller journaled in the auxiliary slides, a transverse brace connecting the main slides, and a transversely disposed handle connecting the auxiliary slides and provided with means for engaging the main slides.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES C. PARKER.

Witnesses:

J. L. JONES,

JOHN MUSGROVE.