

No. 754,420.

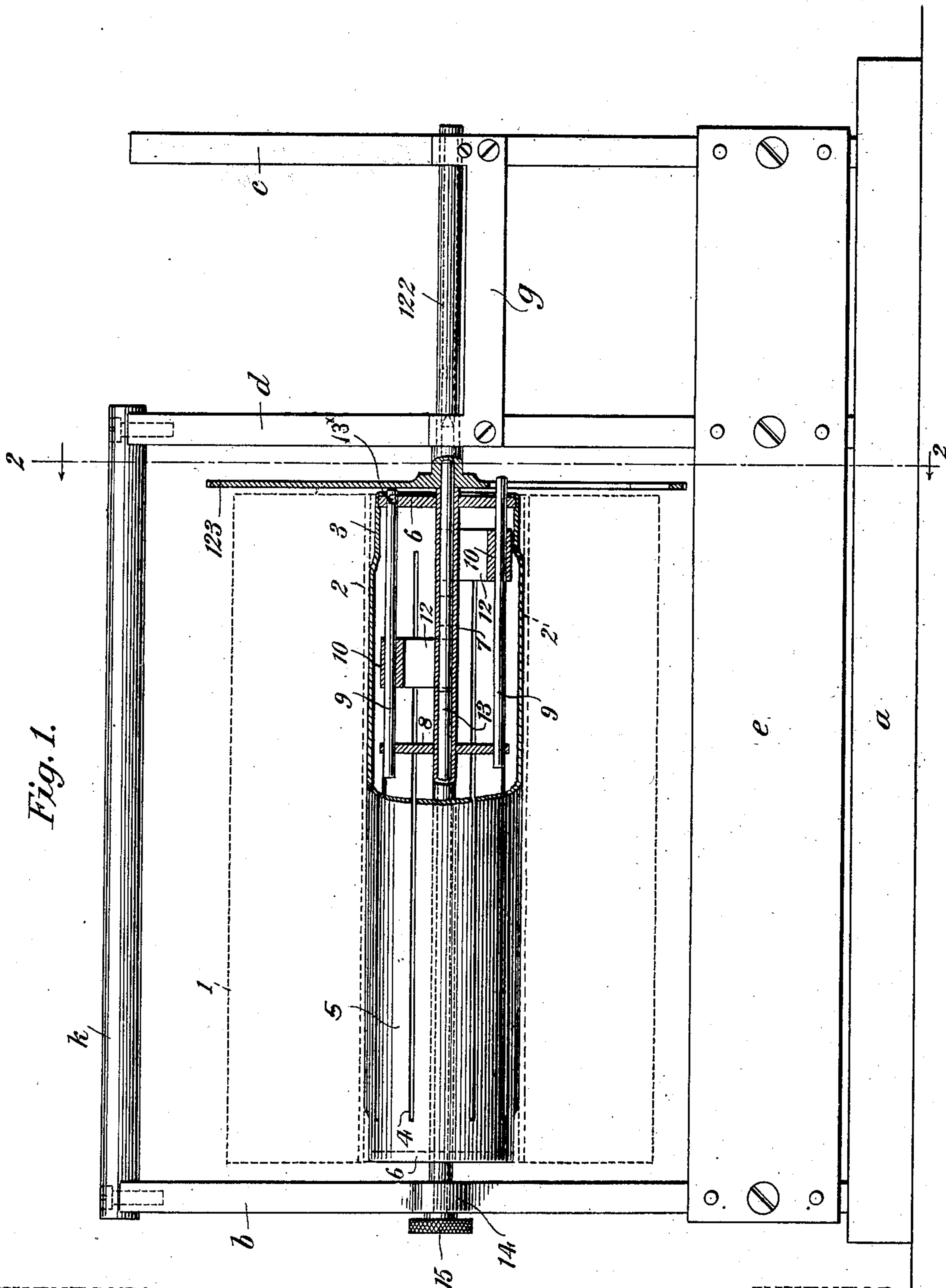
PATENTED MAR. 15, 1904.

J. BURRY.
ROLL HOLDER.

APPLICATION FILED OCT. 10, 1901.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

C. E. Ashley

Eus. C. Hemming

INVENTOR:

John Burry
By his Attorney

Richard W. Parkley

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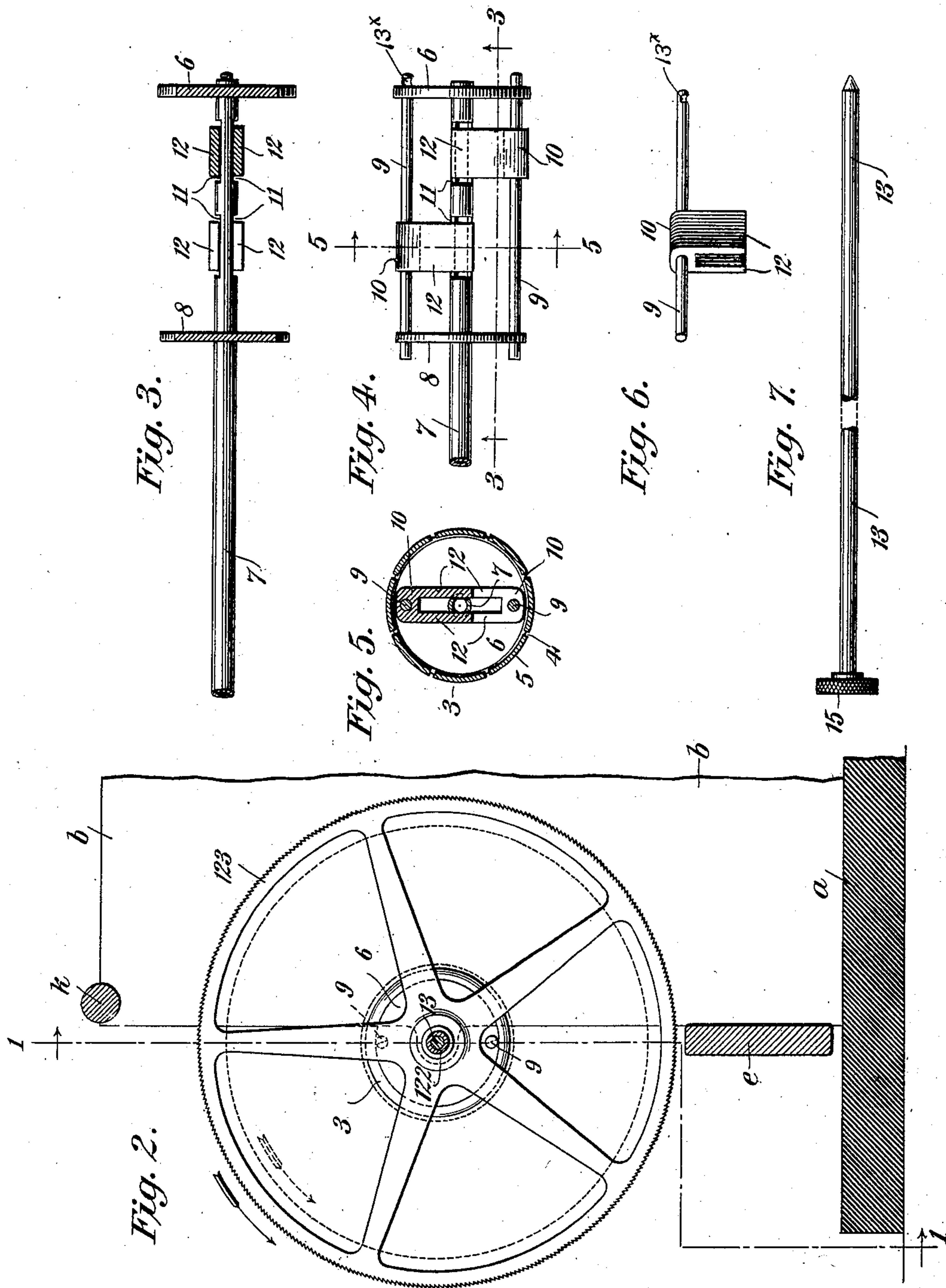
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C. E. Ashley
Geo. C. Herming

INVENTOR:

John Burry
By his Attorney
Richard W. Barkley

UNITED STATES PATENT OFFICE.

JOHN BURRY, OF RIDGEFIELD PARK, NEW JERSEY, ASSIGNOR TO STOCK QUOTATION TELEGRAPH COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ROLL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 754,420, dated March 15, 1904.

Application filed October 10, 1901. Serial No. 78,175. (No model.)

To all whom it may concern:

Be it known that I, JOHN BURRY, a citizen of the United States, and a resident of Ridgefield Park, in the county of Bergen and State of New Jersey, have invented a certain new and useful Improvement in Roll-Holders, of which the following is a specification.

The present invention relates to roll-holders for webs, strips, or ribbons of paper or the like, the primary object of the invention being to have the axis of the roll coincident with its axis of motion during the unwinding of the web, strip, or ribbon.

Another object of the invention is the ready connection of the roll with a controller whereby the unwinding action may be controlled and regulated.

Other objects will appear hereinafter during the description of the invention and its uses.

The invention consists of features of construction and combinations of devices hereinafter described, and more particularly pointed out in the appended claims.

The preferred form of the invention is illustrated in the accompanying drawings, forming part of this specification, in which—

Figure 1 is an end elevation, partly in section, of a machine in which the invention is embodied, parts of the machine being omitted for the sake of clearness, &c. Fig. 2 is a view, partly in section, on the plane indicated in Fig. 1 by the line 2 2. Figs. 3 to 7 are detail views of various parts shown in Figs. 1 and 2.

For the purpose of illustration I have elected to show the present invention in connection with so much of the machine illustrated in my Letters Patent of the United States, granted August 20, 1901, No. 680,693, as will suffice to clearly show the use of the invention in such machine, those parts of that machine herein shown being marked by the same reference characters as in said patent.

The reference *a* indicates a suitable base-plate; *b c d*, vertical plates or frames attached to the base *a*; *e g h*, ties connecting the plates or frames *b c d* or some of them; 122, a hol-

low shaft journaled in the above framework, and 123 a ratchet-wheel fast on the shaft 122 and forming part of a controlling mechanism for the paper-feeding mechanism shown in said patent.

The parts above described are or may be the same in arrangement and construction as in said patent.

The rolls of paper 1, designed for use in a machine such as that above referred to, are sometimes made by winding the web upon a tube 2 much longer than the roll required, and the rolls are then formed by sawing the long roll into lengths such as are required, the tube 2 being of paper or the like. A plain wooden mandrel shoved into the tube 2 and then inserted in the patented machine causes the development of troubles, such as uneven feeding of the web at times, since the mandrel cannot always be truly centered either in the machine or in the roll. The present invention is, as stated above, primarily intended to overcome such defect and to secure that at all times the roll shall be truly centered, so that the paper-feed shall be even in all respects.

In the preferred form of the present invention there is a metal tube 3, which is slitted longitudinally at a number of points, (see reference 4,) and the ends are left intact, whereby strips 5, fast at both ends, are formed. The strips are then bulged outward slightly, so that they will obtain a good grip by friction on the tube 2 when forced thereinto. The tube 3 is reamed out at the ends thereof to receive the disks 6, and the thinned end of the tube is turned down outside these disks to hold them firmly in place. A central tube 7 extends through one or both disks 6 and has a disk 8 fast thereon. For reasons that will appear hereinafter there are a plurality of rods 9, mounted to slide in disk 8 and in the adjacent disk 6. The rods 9 have blocks 10 fast thereon, and the tube 7 is cut away at 11, so that the jaws 12, formed on the blocks 10, may extend within the hollow part of the tube 7, the ends of the cut-aways 11 forming stops for limiting the motion of the blocks 10 and

rods 9. The rods 9 are of a length such that they may project beyond the end disk 6 when at the limit of their motion in that direction, and the ends so projecting are notched at 13^x, the notches facing in opposite directions, so as to adapt them for engaging with the edges of the flat spokes of the ratchet-wheel 123, and thereby to prevent the accidental displacement of the rod 13, by which the holder and wheel 123 are connected together. The rod or shaft 13 passes through a bearing 14 on plate 7, through the tube 7 and between the jaws 12, and into the tube 122 and forms the axis of the holder. The rods 9 are moved endwise in each direction by the frictional engagement between the rod 13 and the jaws 12 until arrested by the stops 11. The roll is inserted between plate 7 and wheel 123 while rod 13 is withdrawn, and that rod is then inserted through bearing 14, tube 7, and between jaws 12 into the shaft 122 until its head 15 is arrested by the bearing 14. During such insertion the rod 13, through the jaws 12 and blocks 10, moves the rods 9 endwise until one or both are carried to the extreme limit of motion in that direction, thus carrying one or both of the rods 9 into position between the spokes of the controlling-wheel 123, so that said end will be brought into engagement with a spoke by its notch 13^x. The withdrawal of the rod 13 also draws in the rods 9, they having first been disengaged from the wheel 123 by turning the roll backward a bit.

The use of two or more rods 9 instead of merely one such rod insures that at least one of them will be moved outward so as to engage with the wheel 123 to lock the roll to the wheel, so as to cause the wheel to be rotated, as in said Letters Patent; otherwise the workman would have to make sure by examination that the rod 9 should be out in such position, and in case it were not he would have to draw shaft 13 partly out, turn the roll, and try again. It will thus be seen that the use of two rods 9 eliminates errors on the part of the workman and saves time, for the workman knows that when button 15 abuts against the plate 7 at least one rod is out in position to engage with the wheel 123 as soon as the roll is turned forward a bit.

It is obvious that the present invention may be used in relations other than those above indicated and that it may be embodied in forms other than that above described. Consequently I do not limit myself to the precise form of the invention shown in the drawings and hereinbefore described.

Having thus fully and clearly described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A roll-holder consisting of a rotary tube slitted lengthwise to form strips united at the

end, said strips being forced outward to make a split tube larger in diameter than the unslitted end, and a tubular roll-core with which said split tube engages frictionally, the split tube and the roll-core rotating together.

2. A roll-holder consisting of a rotatory tube slitted lengthwise to form strips united at the end, said strips being forced outward to make a split tube larger in diameter than the unslitted end, said split tube being adapted to engage frictionally with the inside of a roll-core and said split tube and roll-core rotating together, a central through-tube, and means for connecting the central and the split tubes, in combination.

3. A roll-holder consisting of a rotatory tube slitted lengthwise to form strips united at each end, said strips being forced outward to make a split tube larger in diameter than the unslitted ends, said split tube being adapted to engage frictionally with the inside of the roll-core and to rotate therewith, disks fast in the ends of said tube, and a central tube mounted in said disks and providing bearings for a removable shaft or rod, in combination with a controlling-wheel, said removable shaft or rod, and means actuated by said rod for connecting and disconnecting said split tube and said wheel.

4. A roll-holder comprising a tube slitted longitudinally to form resilient strips adapted to engage frictionally with the inside of the roll, disks in said tube, a central tube mounted in said disks and forming a bearing for a shaft or rod, a disk fast on said central tube, a rod mounted to slide in the last-mentioned disk and in an end disk of the first-mentioned tube, and a block fast on the last-named rod and having jaws extending into the hollow part of said central tube, combined with a controlling-wheel, and a rod or shaft adapted to pass through said central tube and engage with said jaws and take bearing in the hollow shaft of said wheel.

5. A roll-holder comprising a tube slitted longitudinally to form resilient strips adapted to engage frictionally with the inside of the roll, disks in said tube, a central tube mounted in said disks and forming a bearing for a shaft or rod, a disk fast on said central tube, a plurality of rods mounted to slide in the last-mentioned disk and in an end disk of the first-mentioned tube, and blocks fast on the last-mentioned rods and provided with jaws which extend within the hollow part of said central tube, combined with a controlling-wheel, and a rod or shaft adapted to pass through said central tube and engage with said jaws, and take bearing in the hollow shaft of said wheel.

6. In a roll-holder, a rotatable longitudinally-slitted tube, a central inner tube connected to turn therewith, said inner tube forming a shaft-bearing and being slotted longitudinally

at opposite sides thereof, a rod connected with
and movable endwise independently thereof,
jaws on said rod projecting into said slots, a
controlling-wheel engaged by said rod, and a
5 shaft passing through said inner tube and en-
gaging said jaws, all in combination, substan-
tially as described.

Signed at New York city, in the county of
New York and State of New York, this 8th
day of October, A. D. 1901.

JOHN BURRY.

Witnesses:

RICHARD W. BARKLEY,
GUS. C. HENNING.