

No. 894,771.

PATENTED JULY 28, 1908.

S. J. BASTIEN.

FLIER.

APPLICATION FILED DEC. 21, 1906.

Fig. 1.

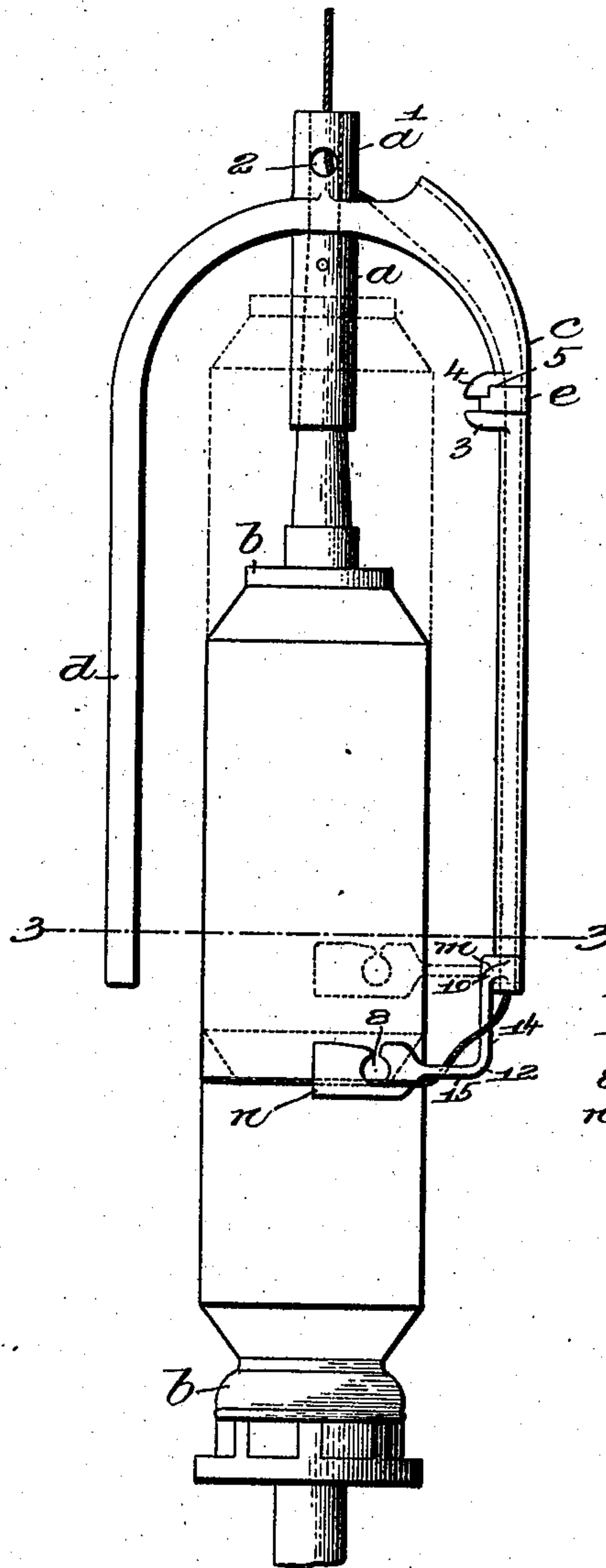


Fig. 2.

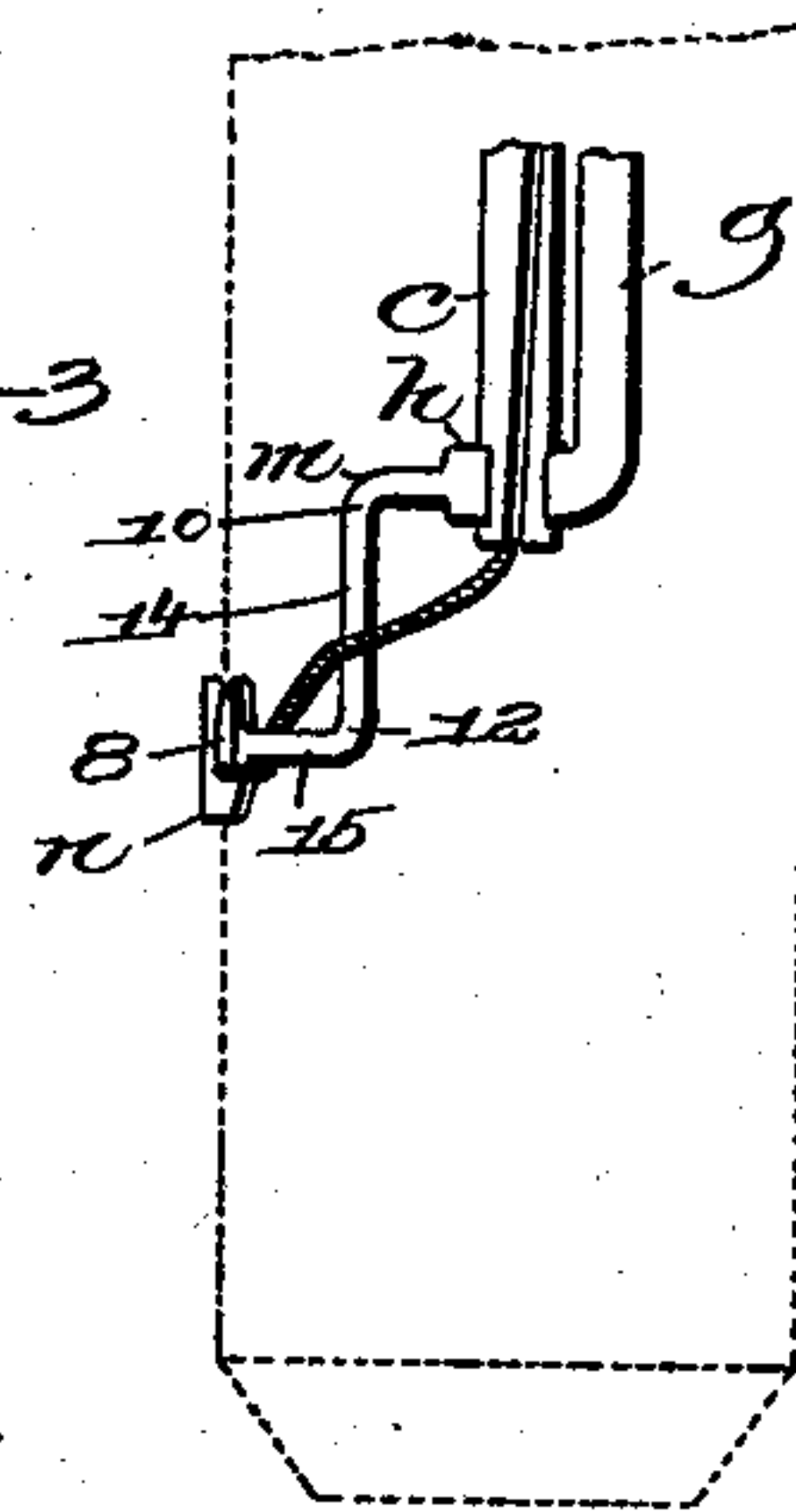
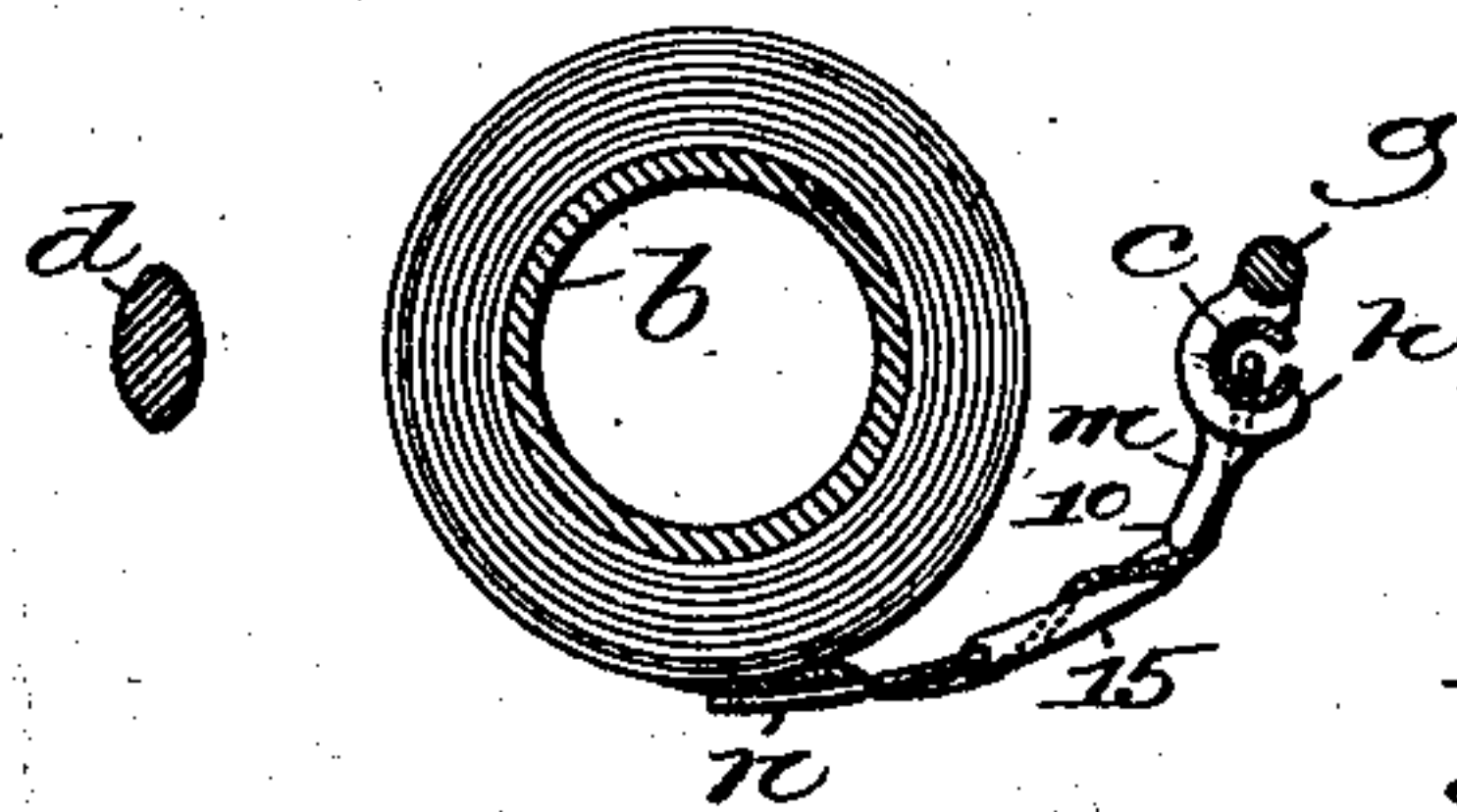


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

SIMEON J. BASTIEN, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR TO BAKER MACHINE CORPORATION, OF NEW BEDFORD, MASSACHUSETTS, A CORPORATION OF MAINE.

FLIER.

No. 894,771.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed December 21, 1906. Serial No. 348,833.

To all whom it may concern:

Be it known that I, SIMEON J. BASTIEN, a citizen of the United States, residing in New Bedford, county of Bristol, and State of Massachusetts, have invented an Improvement in Fliers, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

During recent years, it has been demonstrated that it is practicable to use a longer bobbin than heretofore on roving machines, the longer the bobbin the more roving that may be wound thereon, and the longer the roving the more economically it can be used in making thread and cloth. Certain mills, to make available the longer bobbin, have discarded the roving fliers employed with the short bobbins, and have installed new roving fliers adapted to use the longer and more profitable bobbin.

In my experiments, I have discovered that the present old style of short fliers may be employed to advantage and be made to lay the roving on the longer bobbin referred to, provided the pad or part of the presser that contacts with the roving being wound on the bobbin is made to occupy a position wholly and at a distance below the end of the hollow leg of the flier, rather than to occupy the usual position substantially in the horizontal plane with the lower end of said hollow leg. To effect this change of position of the flier presser, I have provided a flier presser in which the arm carrying the pad is so bent as to enable the pad to travel in a considerably lower horizontal plane than the lower end of the hollow leg of the flier embraced by the forked lower end of the weighted upright part of the flier presser that is free to be turned about the hollow leg of the flier during the winding operation.

Herein I have designated the flier presser by the term "drop presser" inasmuch as the arm provided at its end with a pad is bent or dropped to position the pad in a horizontal plane at a considerable distance below the lower end of the hollow flier leg.

Figure 1 shows a flier provided with a drop presser, the dotted lines in the drawing showing the position of the usual straight arm presser, and also extreme positions of the bobbin; Fig. 2 is a partial side view to illustrate the bent arm of the flier presser, and Fig. 3 a section in line 3—3, Fig. 1.

The flier body comprises a central sleeve-like portion *a* to fit the spindle (not shown) of any usual flier frame, said sleeve-like portion receiving at times over it the bobbin *b*, while *a'* represents the open nose at the upper end of the flier, said nose having an outlet 2, and *c* the hollow leg of the flier having an irregular slot from top to bottom at its outer side for the reception of the roving, and *d* represents the counterbalancing leg. The hollow leg *c* has at its inner side about level with the lower end of the central sleeve two projections 3, 4 that receive the usual curved or loop-shaped end *e* at the upper end of the flier presser, said loop having its upper edge notched to leave shoulders 5 to act against one or the other side of one of said projections and constitute a stop to limit the extent of movement of the pad of the flier presser toward and from the longitudinal axis of the usual bobbin.

The flier presser comprises the upright portion *g* shaped at its upper end, as described, the lower end of the upright portion having a mouth or portion *h* that embraces the lower end of the hollow leg, a part of the flier presser constituting said mouth having extended from it at one side an arm *m* provided at its end with a pad *n* having an open eye 8 through which the roving passes to the usual bobbin. The arm *m* is bent between its ends at 10 and 12 leaving an upright portion 14 between said bends that is interposed and forms a thread-rest between the lower end of the hollow leg of the flier from which the roving emerges, and the eye 8 of the pad *n*, said rest permitting the roving to leave the lower end of said hollow leg and cross the portion 14 of the drop presser in such a direction as to lessen the sharpness of the bend in the roving beyond that customary in the usual flier, wherein the roving has been commonly led from the lower end of the leg at right angles to its longitudinal axis, so that the friction on the roving is materially decreased as it leaves the hollow leg on its way to the hole 8 in the pad *n*. After crossing the rest 14 the roving is wrapped once around the portion 15 of the drop presser and led thence into the hole 8. Decreasing the bend or angle in the roving being drawn from the end of the hollow leg of the flier head by bending the same to a less extent over the lower end of said hollow leg, reduces the friction or abrasion of said roving

on the usual sharp corner at the lower end of said leg, and as the friction and abrasion is lessened, the formation of lint is correspondingly lessened and the lessening of the lint tends to reduce the clogging of the roving, insuring more uniform delivery of the roving from the hollow leg of the flier to the pad. Further, by leading the roving across the rest 14 and then about the portion 15 of the drop-presser, into the eye 8 of the pad, the tendency of the roving wrapped about said portion 15 to hug up on said portion and rub one part on another is obviated. By leading the roving from the lower end of the hollow leg of the flier over the rest 14 forming part of the drop presser, it is possible to keep the roving taut on the leg of the flier, thus reducing the tendency of the roving to fly outwardly and balloon, as it is called, and thus escape from the threading slot of the flier.

To adapt the usual flier for use with the long bobbin, I have only to take off the flier presser commonly used and apply to the hol-

low leg of the head of the flier my novel drop presser, and by its use, it is possible to get the advantages in the production of roving of the greatest length at the minimum of cost on ordinary short legged flier heads.

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

The combination with a flier having a hollow arm, of a drop presser pivoted to said hollow arm, said drop presser presenting an arm extending laterally from the lower extremity of the flier arm, then downwardly to form a roving rest, then laterally, and a pad at the extremity of said last laterally-extending portion.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

SIMEON J. BASTIEN.

Witnesses:

LESTER W. JENNEY,
ISABEL S. HERR.