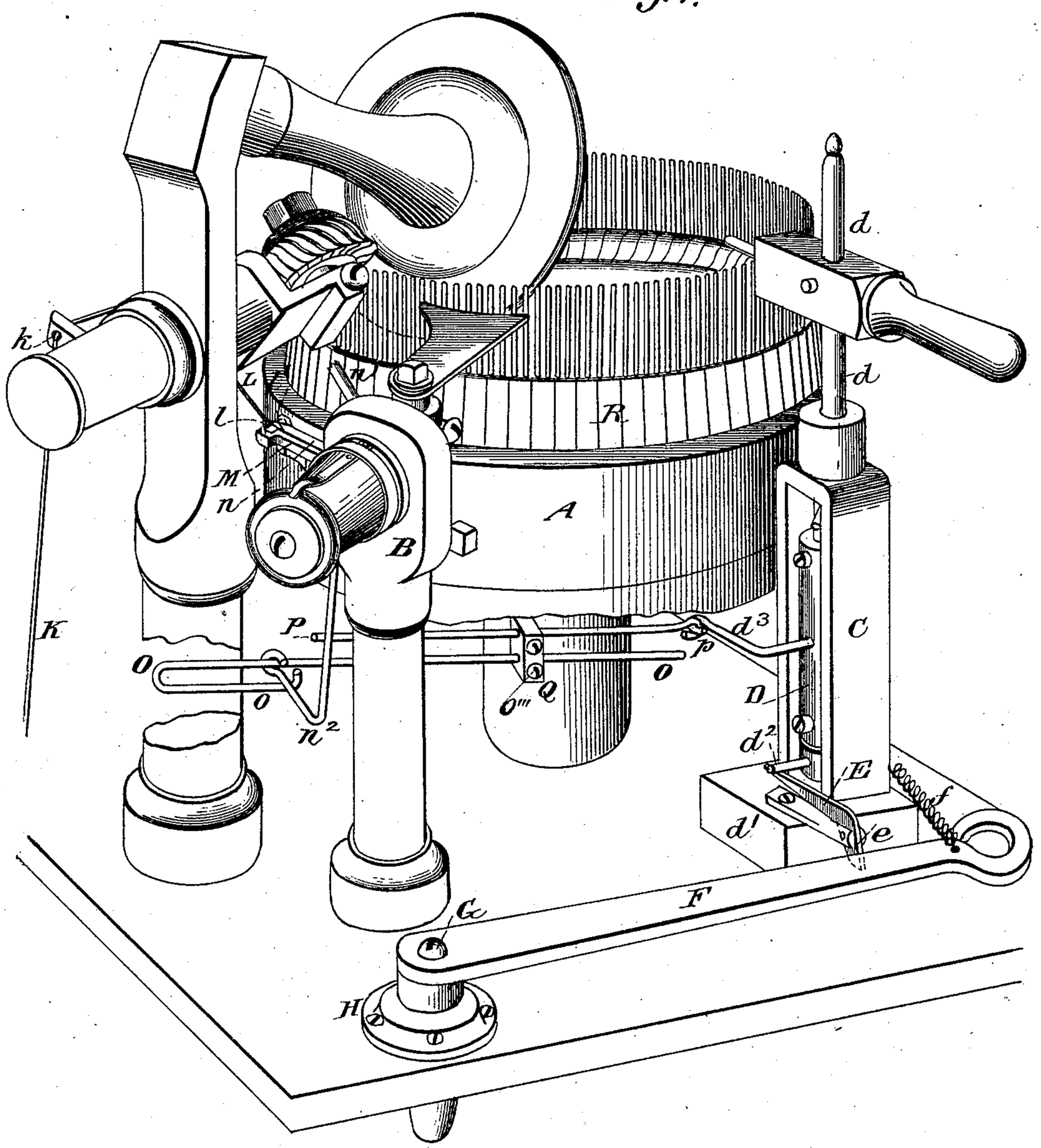
(No Model.) 2 Sheets—Sheet 1.

R. B. MUIRHEAD.

STOPPING MECHANISM FOR CIRCULAR KNITTING MACHINES.

No. 364,726. Patented June 14, 1887.

Fig. 1.



Witnesses.
A. Ruppert
J. S. Rusk

Inventor.
Richard B. Muirhead,
Per
Thomas P. Simpson,
Atty.

(No Model.) 2 Sheets—Sheet 2.

R. B. MUIRHEAD.

STOPPING MECHANISM FOR CIRCULAR KNITTING MACHINES.

No. 364,726. Patented June 14, 1887.

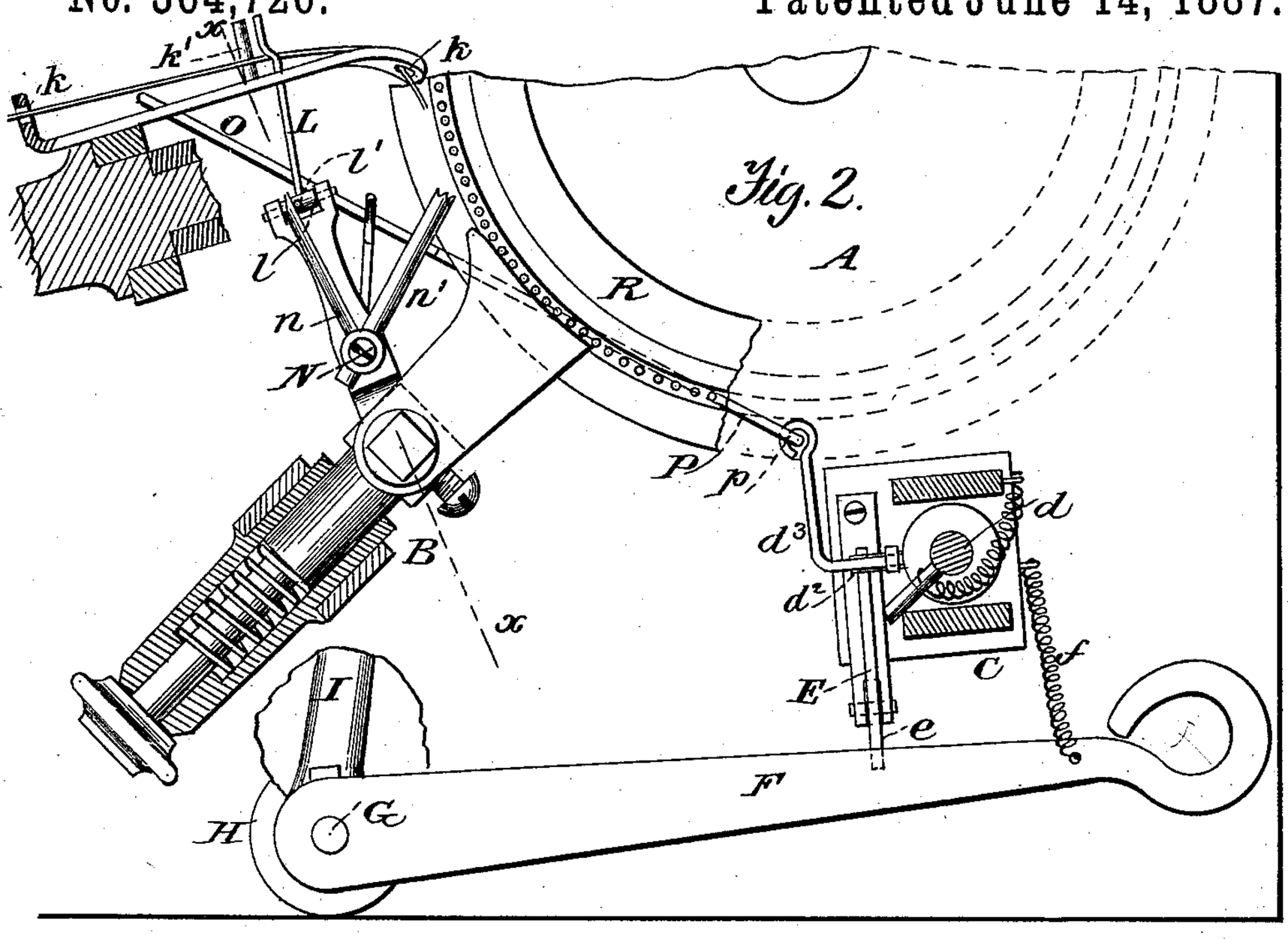


Fig. 2.

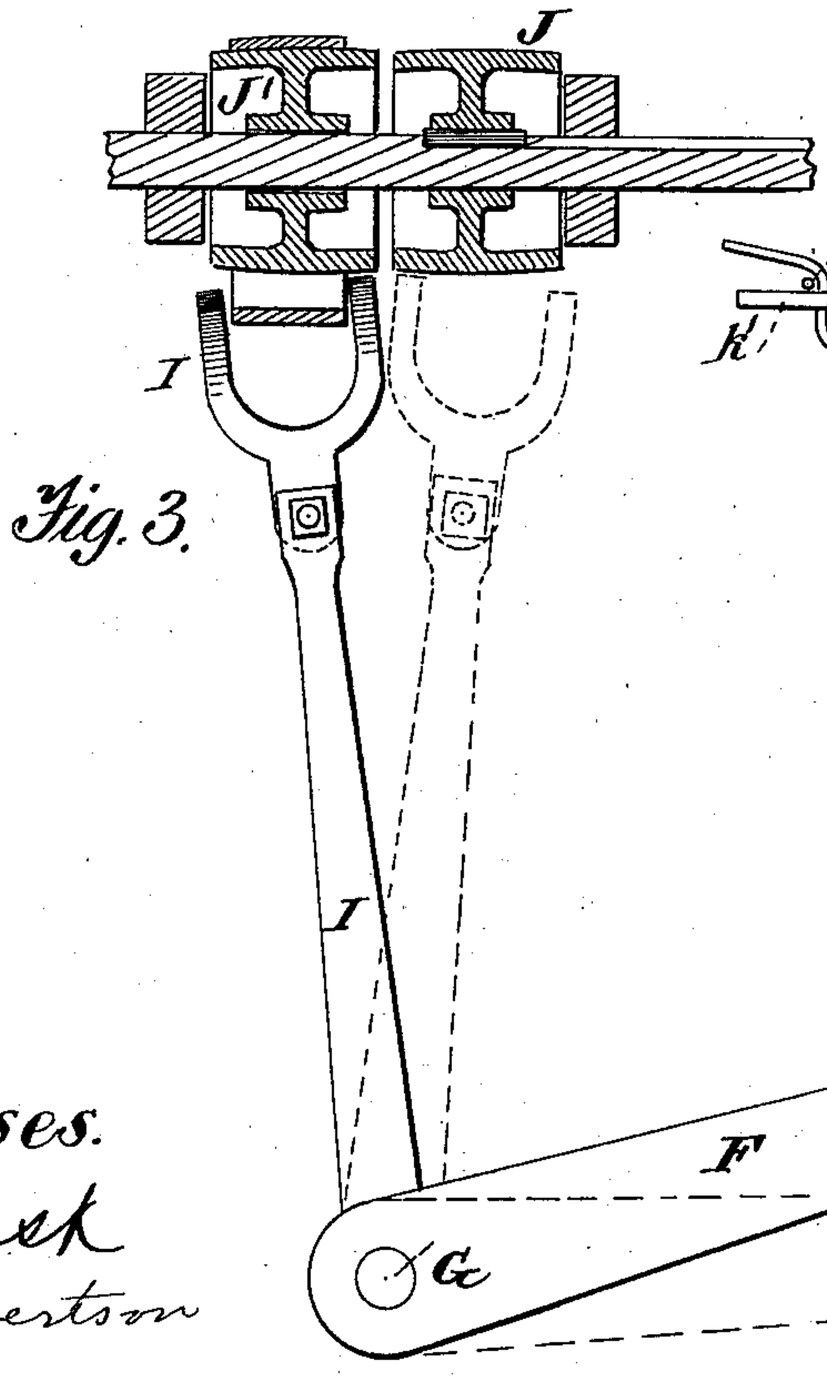


Fig. 3.

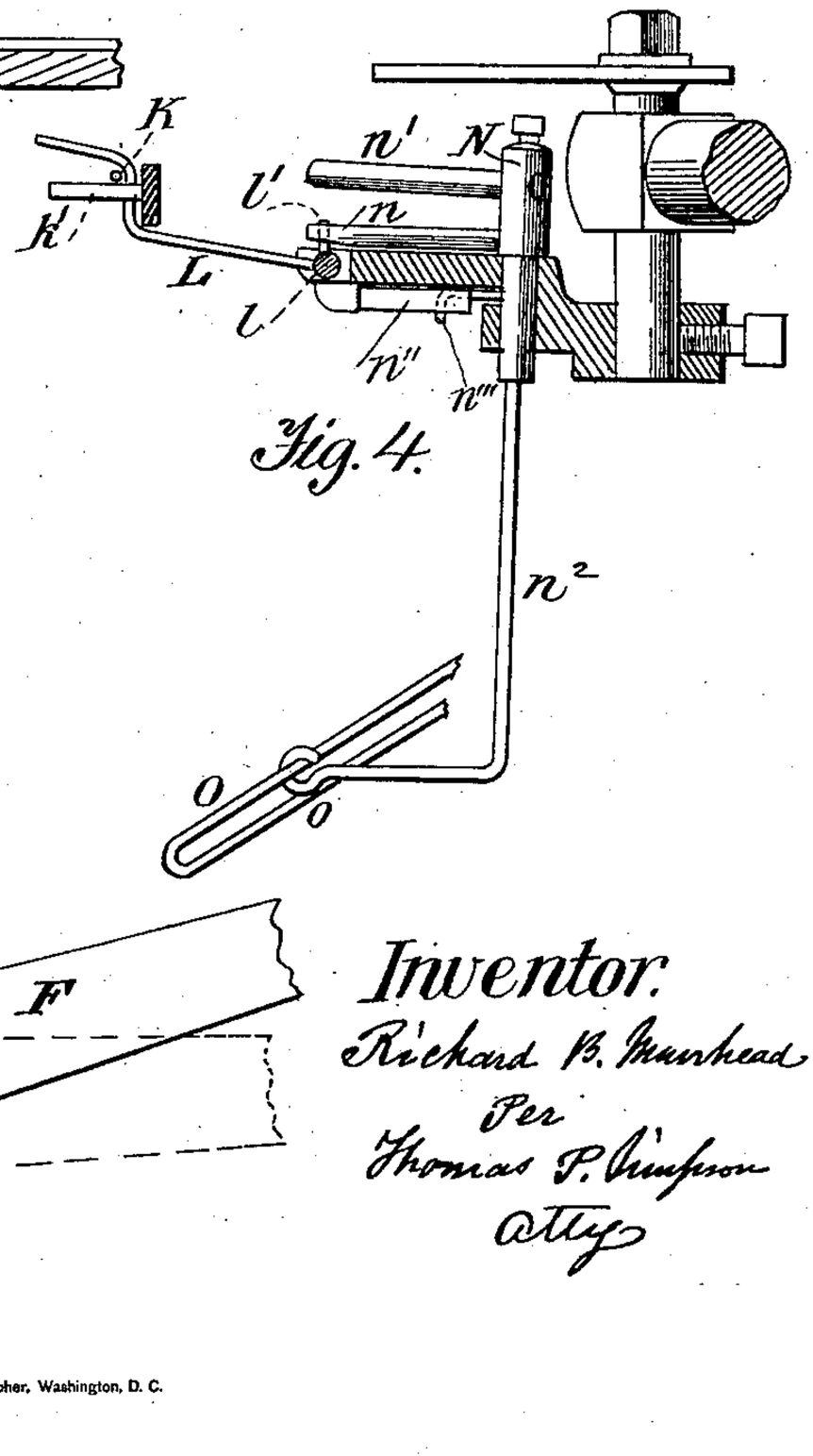


Fig. 4.

Witnesses.
J. S. Rick
T. J. W. Robertson

Inventor.
Richard B. Muirhead
Per
Thomas P. Simpson
Atty

UNITED STATES PATENT OFFICE.

RICHARD B. MUIRHEAD, OF CATSKILL, NEW YORK.

STOPPING MECHANISM FOR CIRCULAR-KNITTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 364,726, dated June 14, 1887.

Application filed September 14, 1886. Serial No. 213,510. (No model.)

To all whom it may concern:

Be it known that I, RICHARD B. MUIRHEAD, a citizen of the United States, residing at Catskill, in the county of Greene and State of New York, have invented certain new and useful Improvements in Knitting-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The special object of the invention is to connect the stop-motion and quarter-saving mechanism of a knitting-machine, so that the former will be indirectly operated by the latter, through intervening mechanism, substantially as hereinafter described.

Figure 1 of the drawings is an elevation in perspective of a circular-knitting machine provided with my invention. Fig. 2 is a plan view partly in section. Fig. 3 is a bottom view with the pulleys in section, and Fig. 4 a section on line *x x* of Fig. 2.

In the drawings, A represents the cylinder of a circular-knitting machine, B the post which supports the quarter-saver, and C the hollow post in which the stop-motion shaft *d* turns, said shaft being stepped in a bed, *d'*. This shaft *d* has an arm, d^2, under which is held trip-lever E, whose bent end *e* holds out the arm F against the spring *f*, said arm being made fast at one end to a shaft, G, which turns in the bed H and carries on the under side thereof the belt-shifter I. J is the fast pulley and J' the loose pulley, by one or the other of which the belt is always carried. This stop-motion is not of my invention. K represents a thread which passes through the guide-eyes *k k* and over an intermediate rest, *k'*, on its way to the knitting-machine, and as long as the feed progresses without any "break" in the thread the wire L is supported thereby. This wire is hinged and journaled in a T-head, *l*, so that when unsupported by the thread it will swing on its hinge and hang down. On the head *l* is a catch-pin, *l'*, which stands up vertically, and as long as the wire L is supported horizontally holds the arm *n* of the shaft N so that the other arm *n'* cannot touch the cylinder A; but when the thread breaks the wire L drops, the catch-pin ceases to support the arm *n*, and the arm *n'* is swung, by the action of spring *n''* upon pin *n'''* on the shaft N, into frictional contact with the cylinder. The arm *n'* is then carried by the cylinder, so as to turn the shaft N. This quarter-saver mechanism is no part of my invention; hence it will be perceived that I admit that the feed, quarter-saver, and stop-motion are all old and well-known to those acquainted with this branch of art. What I have done, and believe to be essentially new, is as follows: On the stop-motion shaft *d* I make fast a cylinder, D, and provide it with the right-angled arm d^3, which is jointed at *p* to a rod, P. O is a second rod, connected with the rod P by a block, Q, in which both are made adjustable by set-screws Q''', so as to suit knitting-cylinders of different diameters. On the quarter-saver shaft N, I make a right-angled hook-arm, n^2, which is jointed to the arm O. As soon as the shaft N of the quarter-saver is turned the arm n^2, through the rods O P, turns the arm d^3, and with it the stop-motion shaft *d*, so as to occasion the throwing of the driving-belt upon the loose pulley. This stops the machine.

What I claim as new, and desire to protect by Letters Patent, is—

The combination, with the needle-cylinder and the shaft carrying the stop-motion cylinder D, and having the arms d^2 d^3, of the belt-shifting mechanism E F G I, the frame having guide-eyes *k* and rest *k'*, the wire L, having the journaled T-head *l*, with its catch-pin *l'*, the shaft N, having the arms *n n'* and right-angled hook-arm n^2, the spring which rocks said shaft, the rod O, having the loop *o*, the rod P, having the end hook, *p*, and the connecting-piece Q, said hook *p* connecting with the eye of the right-angled arm d^3, as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD B. MUIRHEAD.

Witnesses:
ALFRED COX,
W. H. FULLER.