

(No Model.)

R. KIRKPATRICK.
CAM CYLINDER FOR KNITTING MACHINES.

No. 491,118.

Patented Feb. 7, 1893.

Fig. 1.

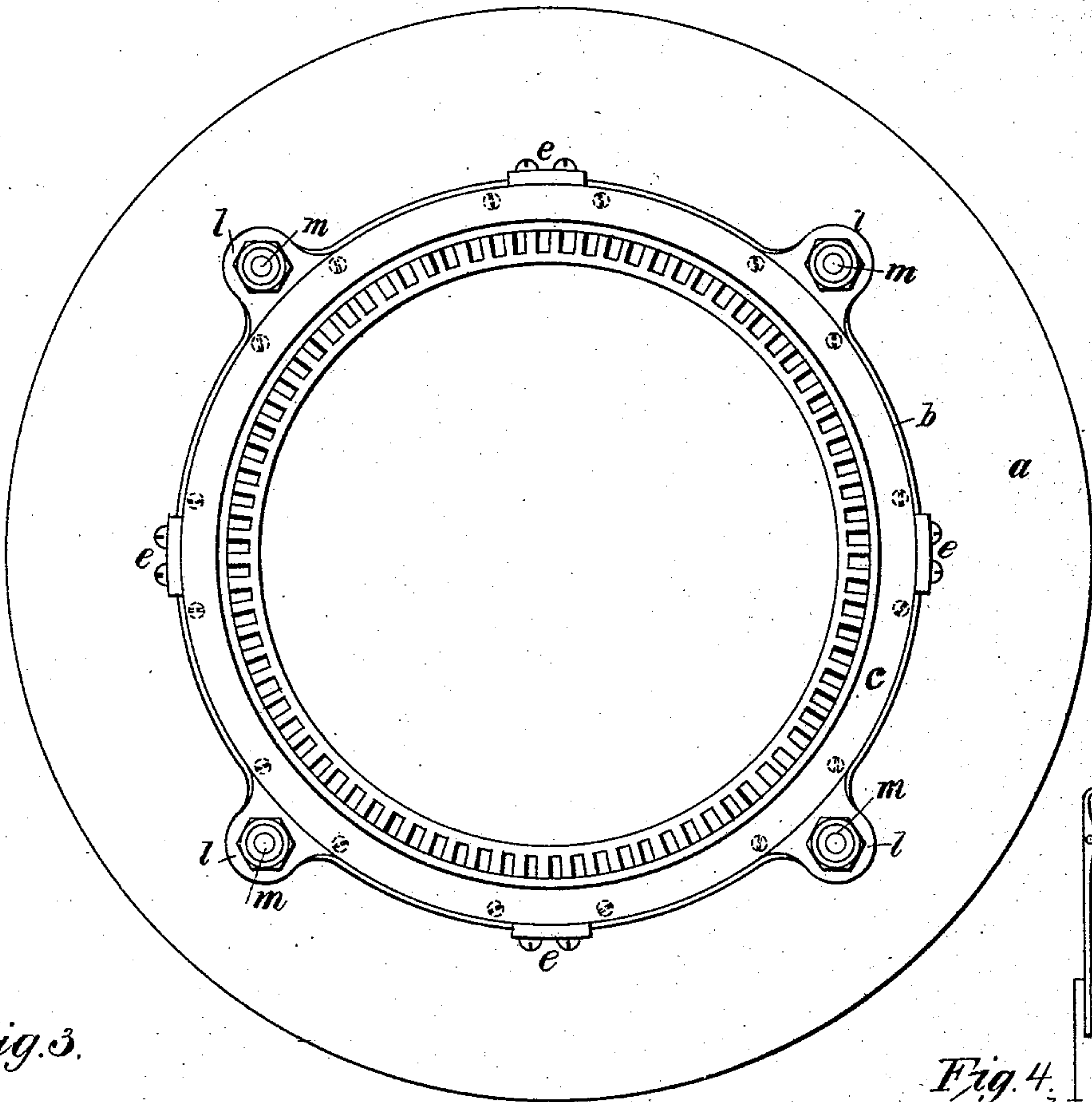


Fig. 3.

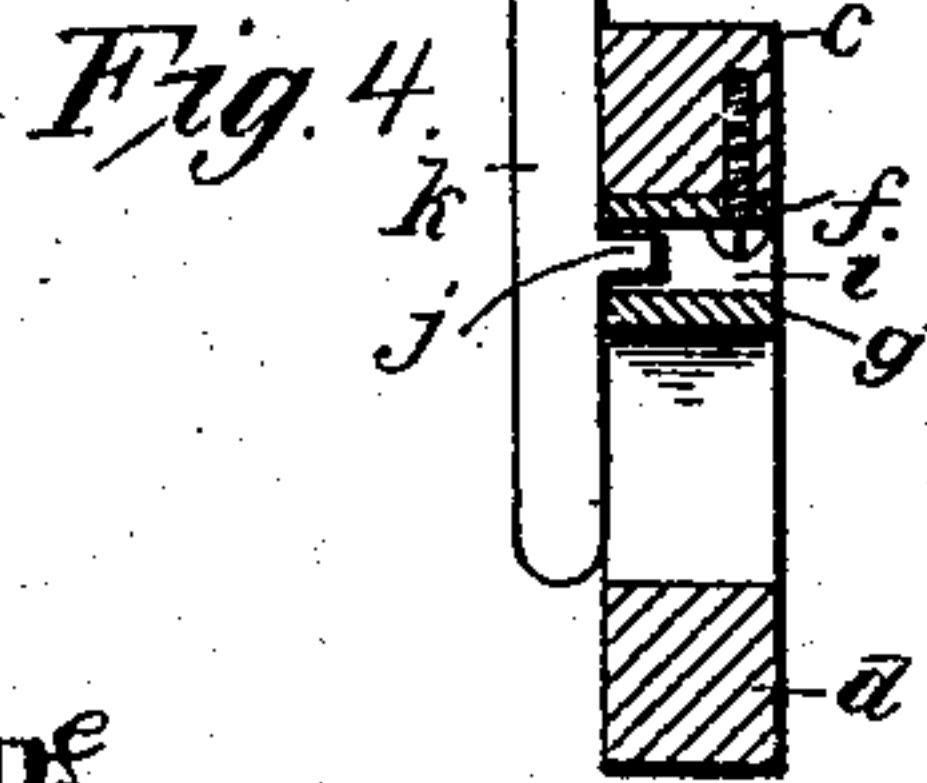
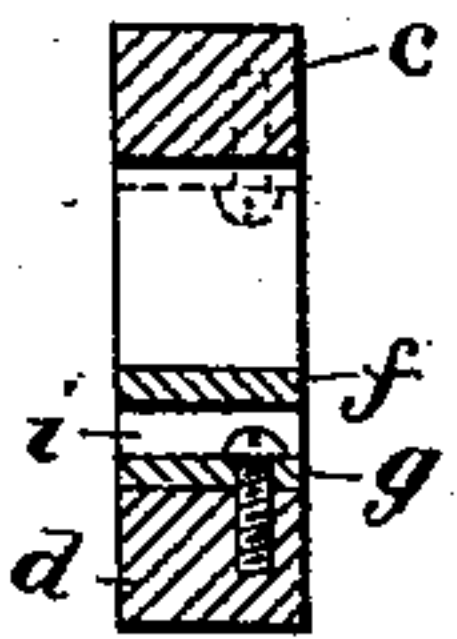


Fig. 2.

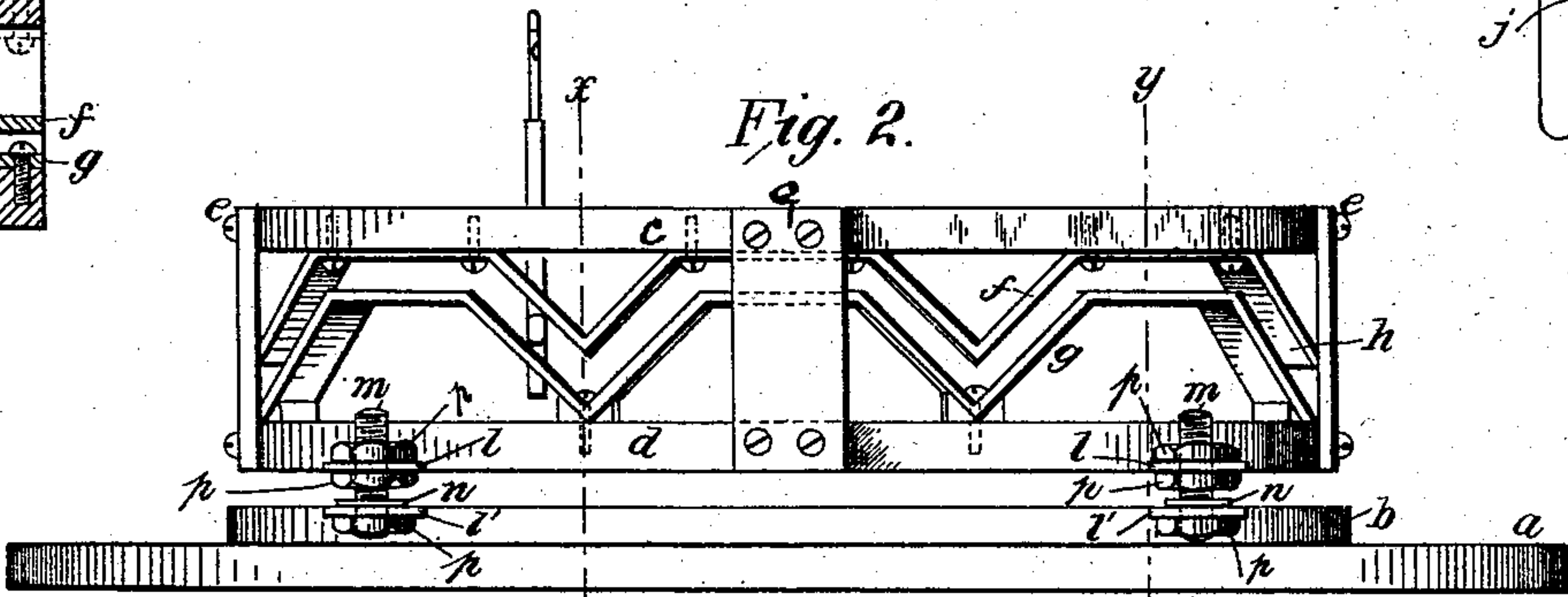
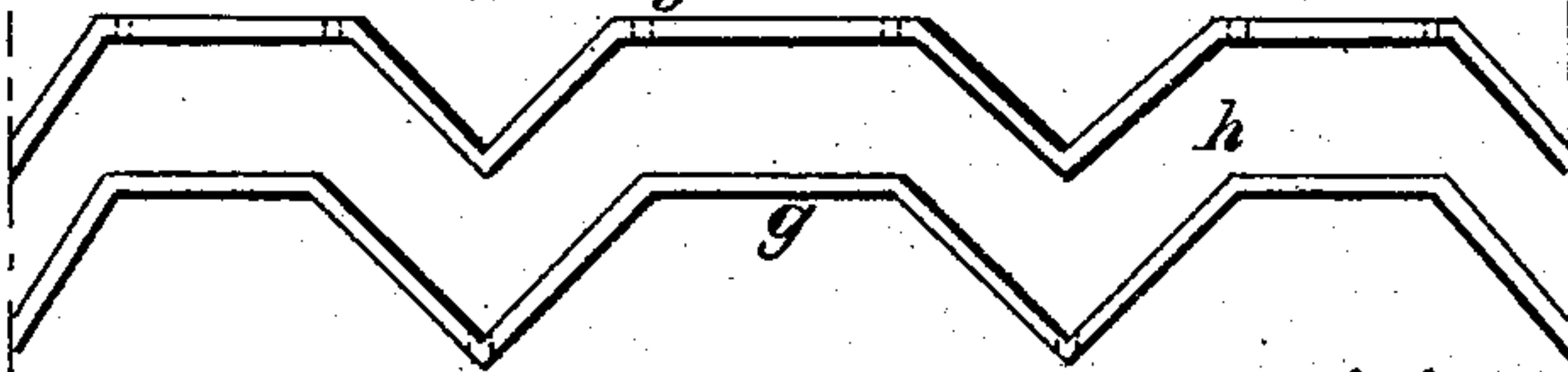


Fig. 5.



Witnesses:
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ROGER KIRKPATRICK, OF PHILADELPHIA, PENNSYLVANIA.

CAM-CYLINDER FOR KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 491,118, dated February 7, 1893.

Application filed June 5, 1890. Renewed June 15, 1891. Again renewed December 24, 1891. Again renewed July 6, 1892.
Serial No. 439,185. (No model.)

To all whom it may concern:

Be it known that I, ROGER KIRKPATRICK, a British subject, residing in the city of Philadelphia, State of Pennsylvania, have invented
5 a new and useful Improvement in Cam-Cylinders for Knitting-Machines, of which invention the following is a specification.

This invention relates to all rotary knitting machines and especially to weft thread machines.
10

The object of my invention is so to construct cam-cylinders that the needles with their jacks and cranks shall be exposed to view throughout the whole of their circuit, and also
15 that the lint which is constantly being deposited on the needles and jacks when the machine is in operation interfering with the action of these parts can automatically pass down and out.

20 My invention consists of a cam-cylinder wherein two plain rings, properly stayed, support in the open space between them a skeleton or open cam-race as below set forth.

In the annexed drawings, Figure 1 is a top
25 view of a knitting machine, showing the supporting table, the annular seat thereon for the cam-cylinder, the upper ring of this cylinder, the upright braces by which the upper ring and lower ring of the cam-cylinder are held
30 together; showing also the needle cylinder, the usual annular space between said two cylinders, and the lugs and screw bolts by which the cam-cylinder is adjusted up and down as required to change the length of the stitch;
35 Fig. 2 is a side elevation of the table (legs omitted) the annular seat thereon and the cam-cylinder; Fig. 3 a section of the cam cylinder on the line *x, x* of Fig. 2; Fig. 4 a section of the same on the line *y, y* of Fig. 2;

showing also a needle with its jack and crank 40 in elevation. Fig. 5 is a side elevation of a portion of the bars forming the cam-race, on an enlarged scale.

In Figs. 1 and 2 *a* represents a table, and *b* an annular seat thereon; these parts being in 45 the usual form.

c represents the upper ring, *d* the lower ring of the cam-cylinder, and *e* the upright braces by which the rings *c* and *d* are held together.

f and *g* represent bars preferably made of 50 polished steel, secured in the open space between rings *c* and *d*, and forming the cam-race *h*. These bars are made of sufficient width to admit of their being fastened to the rings *c* and *d* near their outer edges as shown 55 in Figs. 3 and 4, leaving space *i* sufficient for the clear passage of the projection, or crank *j* of the needle jack *k*, (see Fig. 4.)

l, Figs. 1 and 2 represents lugs of ring *d*; *l'* Fig. 2, lugs of seat *b*, which seat is secured 60 to table *a* by screws or any other sufficient fastenings. *m* represents screw bolts; *n* collars integral with bolts *m* respectively; *p* represents nuts. By means of these devices the cam cylinder as a whole is secured to seat *b* 65 and also as occasion may require to produce a shorter or longer stitch, is adjusted up and down.

I claim:

In a rotary knitting machine a cam-cylinder 70 consisting of two plain rings braced together with an intervening space between them, and supporting in said space a skeleton or open cam-race, substantially set forth.

ROGER KIRKPATRICK.

Witnesses:

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