

No. 662,268.

Patented Nov. 20, 1900.

F. HAMMOND.

PRESSER FOR SPRING NEEDLE KNITTING MACHINES.

(Application filed Dec. 7, 1899.)

(No Model.)

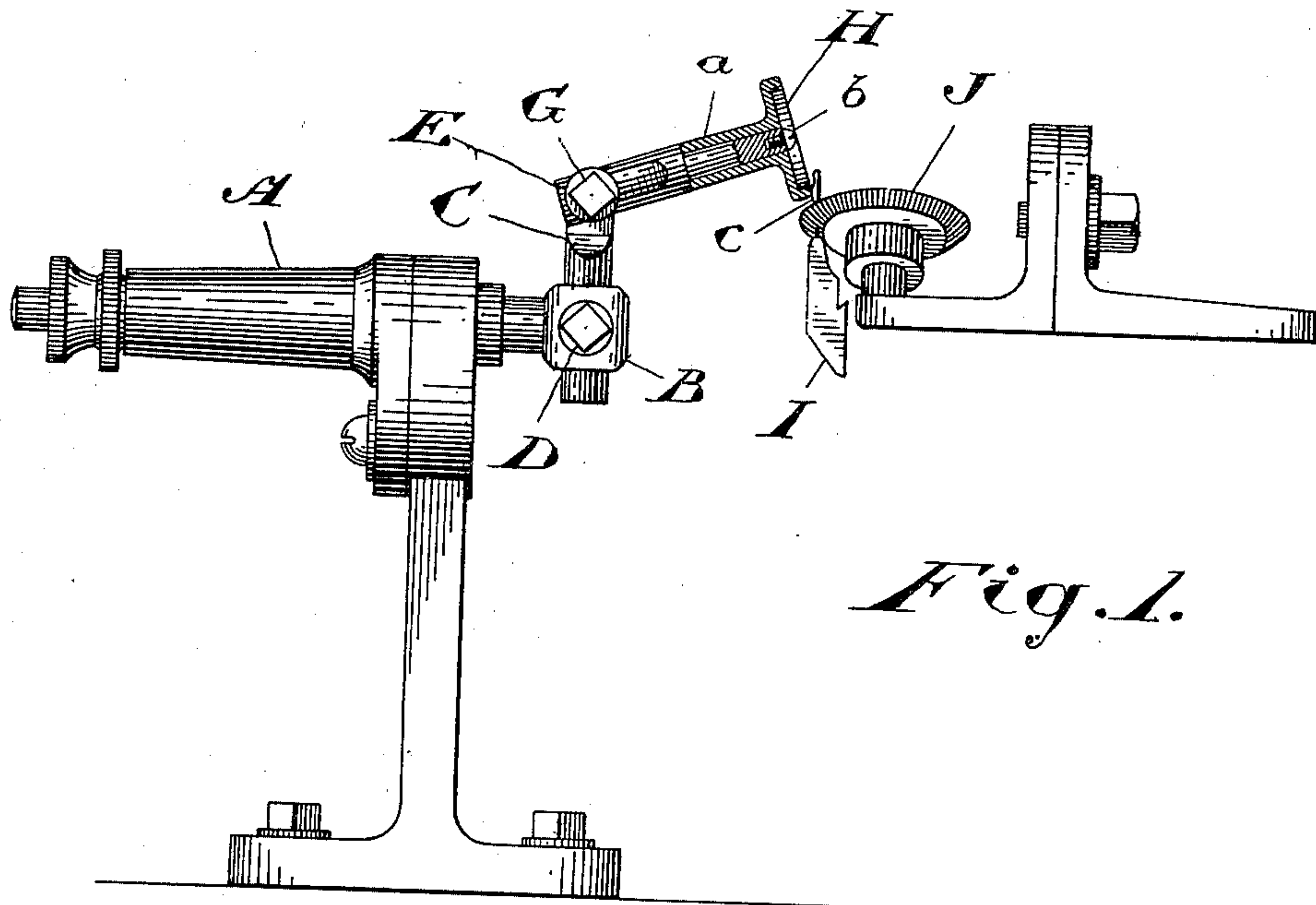


Fig. 1.

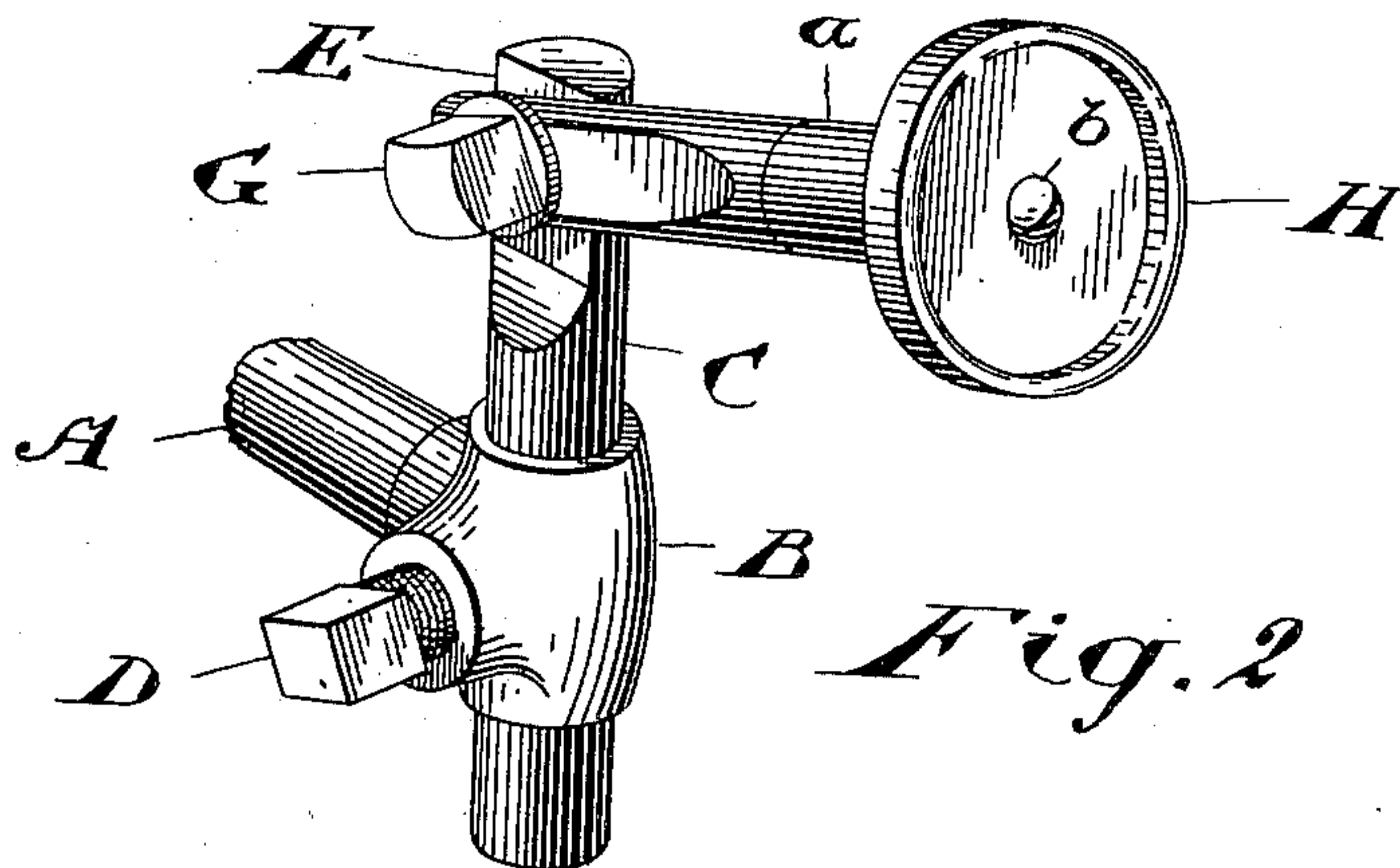


Fig. 2.

Witnesses

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# UNITED STATES PATENT OFFICE.

FRANK HAMMOND, OF PARIS, CANADA, ASSIGNOR OF ONE-THIRD TO THE  
PENMAN MANUFACTURING COMPANY, LIMITED, OF SAME PLACE.

## PRESSER FOR SPRING-NEEDLE KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 662,268, dated November 20, 1900.

Application filed December 7, 1899. Serial No. 739,505. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK HAMMOND, foreman, of the town of Paris, in the county of Brant, Province of Ontario, Canada, have  
5 invented a certain new and useful Improved Presser for Spring-Needle Knitting-Machines, of which the following is a specification.

The object of my invention is to devise a  
10 presser for spring-needle knitting-machines which will occupy as little room as the present stationary pressers and at the same time possess the advantages of the ordinary rotary presser; and it consists, essentially, of a dished or cupped wheel so supported on a stem that  
15 the side of the lower portion of its edge may be pressed against the beards of the needles and of such details of construction as are hereinafter more specifically described and then definitely claimed.

20 Figure 1 is an elevation, partly in section, showing my improved presser in position for use, and Fig. 2 is an enlarged perspective detail of the presser.

In the drawings like letters of reference indicate corresponding parts in both the figures.

25 A is the frame supporting the presser, which is of the usual construction used with the stationary and revolving pressers now in use.

30 B is the presser-socket, in which the presser-stem C is adjustable by means of set-screw D. The presser-stem C is preferably jointed at E and the parts clamped together by means of a clamping-bolt G.

35 H is the presser-wheel, preferably dished or cupped, as shown. A sleeve *a* is secured to or formed on the presser-wheel, by means of which it is journaled on the end of the stem C, which is preferably turned down and tapered, as shown, to afford a suitable bearing.  
40 The screw *b* serves to retain the presser-wheel in place.

I represents one of the needles, and J the landing-wheel, which performs its usual function of lifting the work upon the needles.  
45 The landing-wheel is journaled, as usual, upon a suitable support.

The presser-wheel is preferably set so that the side of its lower edge presses against the beards *c* of the needles. By loosening the set-screw D and the clamping-bolt G the stem

C may be so adjusted as to cause the presser-wheel to come in contact with precisely the proper portion of the beards of the needles opposite to it, and at the same time contact may be made with the wheel at varying angles  
55 from vertical to several degrees therefrom.

It will be readily understood that if a small wheel, such as shown, were presented to the needles in a horizontal position not more than about one needle would be touched  
60 thereby, while if it is presented to the needles in a vertical position a considerable number of the needles would be touched, so that by varying the angle from the vertical, at which the presser-wheel is presented to the needles,  
65 a varying number may be acted upon within certain limits, about three needles being the usual number.

Rotary pressers have been used before; but as they have revolved on a horizontal plane  
70 they have necessarily been of considerable size in order to operate upon the necessary number of needles and have not therefore been serviceable in machines using more than about four threads. For such machines  
75 stationary pressers have been generally used which are of small size, but cause great wear and tear upon the needles.

My presser-wheel has all the advantages of rolling friction obtained by the horizontal  
80 presser-wheel and at the same time possesses the small size of the stationary presser, so that it may be used in machines using any number of threads. A cupped wheel, as shown, is preferable, though not in all cases  
85 absolutely necessary. The cupping of the wheel is important when the axis of the wheel is horizontal, as the plain face of the disk would press upon a larger proportion of the beard and front of the needle than is advis-  
90 able. By cupping the wheel a rim is provided which will engage the beard at the proper point, no matter whether the surface of the wheel be vertical or inclined at an angle thereto.  
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What I claim as my invention is—

1. A presser for spring-needle knitting-machines, comprising a wheel adjustably supported in proximity to the needles so that the lower side of its edge may be pressed into  
100



contact therewith, and means for altering the angle of the wheel to the needles, substantially as specified.

2. A presser for spring-needle knitting-machines comprising a cupped or dished wheel journaled in proximity to the needles on an axis set at such an angle to the length of the needle that the side of one portion of its edge may be pressed into contact therewith, substantially as described.

3. A presser for spring-needle knitting-machines comprising a wheel arranged to press with the edge of its face against the needles and journaled on one part of a hinged or jointed stem provided with means whereby the two parts may be clamped at varying angles to one another, substantially as and for the purpose specified.

4. A presser for spring-needle knitting-machines comprising a wheel arranged to press with the edge of its face against the needles

and journaled on one part of a hinged or jointed stem provided with means whereby the two parts may be clamped at varying angles to one another, the other part of the stem being so supported that it may be vertically adjusted, substantially as and for the purpose specified.

5. A presser for spring-needle knitting-machines comprising a dished or cupped wheel arranged to press with the edge of its face against the needles and journaled on one part of a hinged or jointed stem provided with means whereby the two parts may be clamped at varying angles to one another, substantially as and for the purpose specified.

Paris, Canada, November 4, 1899.

FRANK HAMMOND.

In presence of—

JAY Y. WOOD,  
FRANKLIN SMOKE.