

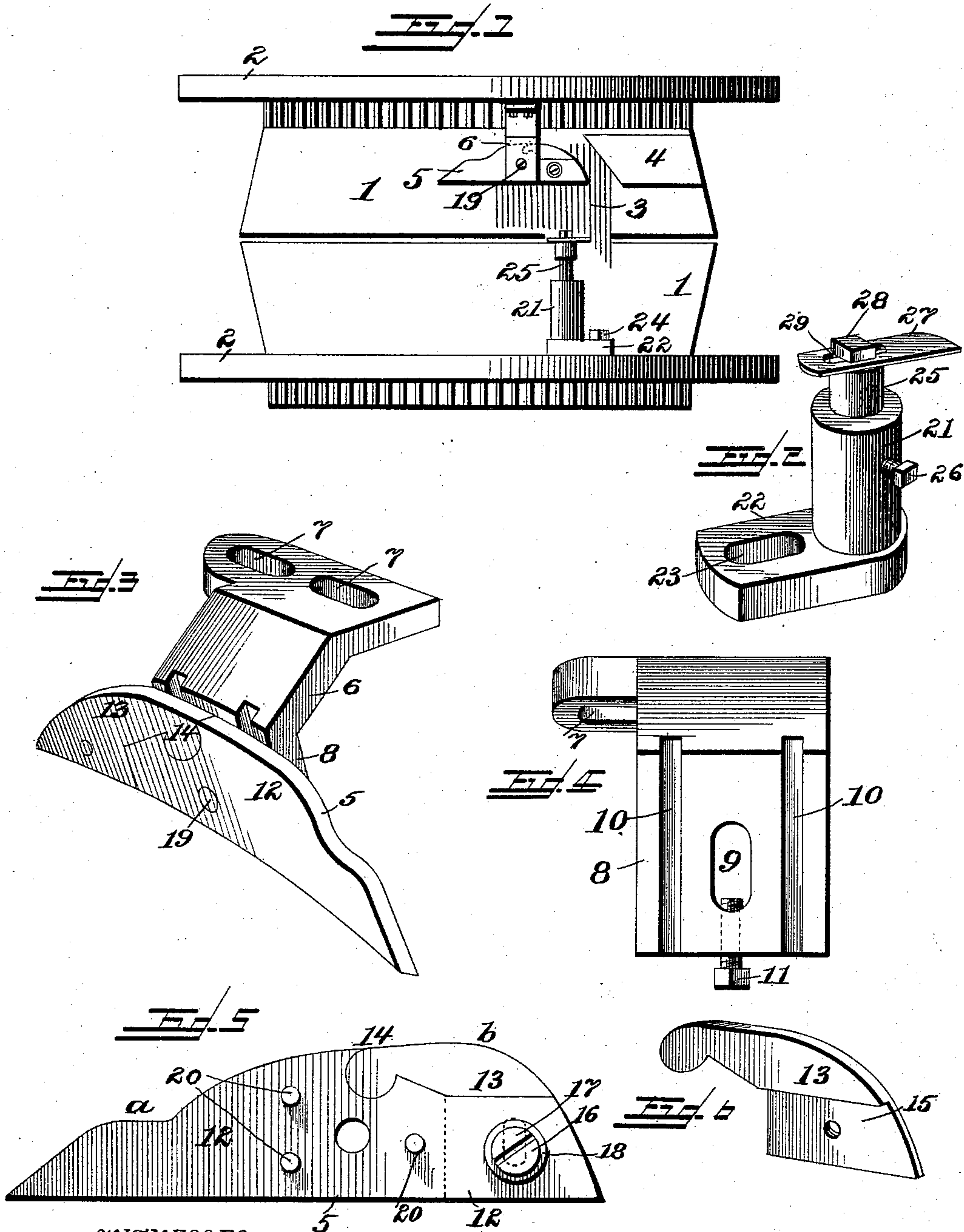
(No Model.)

W. T. BARRATT.

CAM AND WORK PRESSER FOR KNITTING MACHINES.

No. 572,690.

Patented Dec. 8, 1896.



WITNESSES

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CAM AND WORK-PRESSER FOR KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 572,690, dated December 8, 1896.

Application filed February 28, 1896. Serial No. 581,151. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. BARRATT, a citizen of the United States, residing at Bennington, in the county of Bennington and State of Vermont, have invented certain new and useful Improvements in Cams and Work-Pressers for Knitting-Machines; and I do hereby 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, which form part of this specification.

My invention relates to cams used on circular-knitting machines and to a presser-finger operating in conjunction therewith, and has for its object to provide a cam with a portion of its upper part adjustable on the body of the cam for the purpose of regulating the stitch and a presser-finger to press the work back so the descending needles will not come in contact with it when they are forced down by the cam secured to the upper rim for that purpose; and the invention consists in the detailed construction and combination of parts hereinafter fully described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an elevation of a portion of a circular-knitting machine, showing my improvements attached thereto in their relative position to each other. Fig. 2 is a rear perspective view of the presser-finger detached. Fig. 3 is a rear perspective view of the cam and its supporting-bracket detached from the machine. Fig. 4 is a rear elevation of the supporting-bracket. Fig. 5 is a front elevation of the cam, and Fig. 6 is a view of the adjustable portion of the cam detached.

Similar reference-numerals indicate corresponding parts in the several figures of the drawings.

1 represents the upper and lower needle-cylinders, and 2 the cylinder-supporting rings. The needles are indicated by 3, and 4 is the cam which forces the needles of the upper cylinder downward preparatory to forming a new stitch. These parts are of ordinary construction and form no part of the present invention.

5 represents the draw-up cam, and 6 the

supporting-bracket to which it is adjustably connected. The horizontal arm of the bracket is provided with two elongated holes 7, through which screw-bolts pass into the upper cylinder-ring 2, thereby adjustably securing the bracket on the ring. The vertical arm 8 of the bracket 6 is provided with an elongated opening 9 and on its rear face with two vertical grooves 10, and from its lower end a set-screw 11 passes upwardly in the vertical arm of the bracket and enters the elongated opening 9, as clearly shown in Fig. 4. The cam 5 consists of the two parts 12 and 13, hinged together by a knee-joint, as indicated at 14. The lower portion of the part 13 is halved out, as indicated at 15, to receive the corresponding halved-out portion of the part 12, and the part 13 is provided with a threaded opening to receive the end of the screw 16, which passes through the elongated opening 17 in the part 12, as indicated in dotted lines in Fig. 5, a washer 18 being interposed between the head of the screw and the face of the part 12.

From the front face of the cam 5 pins project into the grooves 10 in the bracket 6, and the cam is secured to the bracket by the screw 19, which passes through the elongated opening 9 into a threaded hole in the cam.

The action of the cam 5 on the needles causes them to perform the whole operation of drawing the stitch, and it is necessary that the cam be adjustable at two points in order that the needles can be brought into the exact position necessary to properly perform their functions under all circumstances. These two points are indicated by the letters *a* and *b*. The part *a* of the cam is that which brings the needles into position where their barbs can be acted on by the presser-disk to enable them to cast off the old loops, and *b* is the point that operates on the needles to draw the new stitches tight after the old loops are cast off. In order to adjust the part *a*, the screw 19 is loosened and the screw 11, which engages the screw 19, is set up or down, as may be necessary, thereby permitting the cam to be moved up or down on its supporting-bracket. In order to adjust the point *b*, the screw 16 is loosened and the part 13 moved up or down, as may be necessary, relative to

the part 12, the knee-joint 14 permitting this movement.

Referring now to Fig. 2, 21 is a hollow standard having a base 22 integral therewith and extending at right angles thereto provided with an elongated opening 23, through which a screw-bolt 24 passes to secure the standard to the lower cylinder-ring 2. A post 25 fits within the standard 21 and may be adjusted vertically therein and held in position by the set-screw 26. On the top of the post 25 the presser-finger 27 is adjustably held by a screw 28, which passes through an elongated opening 29 in the presser-finger into the end of the post.

It will be seen that the presser-finger can have vertical and lateral adjustment relative to the standard 21. The finger is so adjusted as to press against the knitted fabric just after the stitches have been drawn tight by the part *b* of the draw-up cam and just before the needles are given their return or downward movement by the cam 4, and the function of the finger is to press the fabric back out of the path of the descending needles and so prevent them from going through the body of the fabric and making imperfect work.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a knitting-machine, a draw-up cam consisting of two parts hinged together and adjustable relative to each other, and means to lock the parts together in their adjusted position, substantially as and for the purpose set forth.

2. In a knitting-machine, a draw-up cam consisting of two parts hinged together by a knee-joint, each of said parts having a halved-out portion which portions fit one within the

other, one of said portions having an elongated opening and the other a threaded opening, and a screw passing through the elongated opening into the threaded opening to lock the two parts together, substantially as and for the purpose set forth.

3. In a knitting-machine the combination with the cylinder-supporting ring, of a bracket secured to said ring and provided with an elongated opening and grooves in its vertical arm and a vertical threaded opening extending from its lower edge into the elongated opening, a draw-up cam consisting of two parts hinged together and provided with pins projecting from its face into the vertical grooves in the arm and with a threaded opening, a screw passing through the elongated opening in the bracket into the threaded opening in the cam and a screw in the vertical threaded opening in the bracket to engage the other screw, substantially as and for the purpose set forth.

4. In a knitting-machine the combination with the needle-operating cams, the needles and the lower cylinder-supporting ring, of a hollow standard secured to said ring, a post adjustably supported in the hollow standard, and a presser-finger adjustably secured to the top of the post to engage and press the knitted fabric out of the path of the needles when the cam operates on them to give them their return movement, substantially as and for the purpose set forth.

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

WILLIAM T. BARRATT.

Witnesses:

FRANK HERVEY,
CHARLES S. KEHOE.