Jan. 1, 1952 E. ST. PIERRE 2,580,971

SINKER CAP

Filed March 28, 1950

FIG. 1.

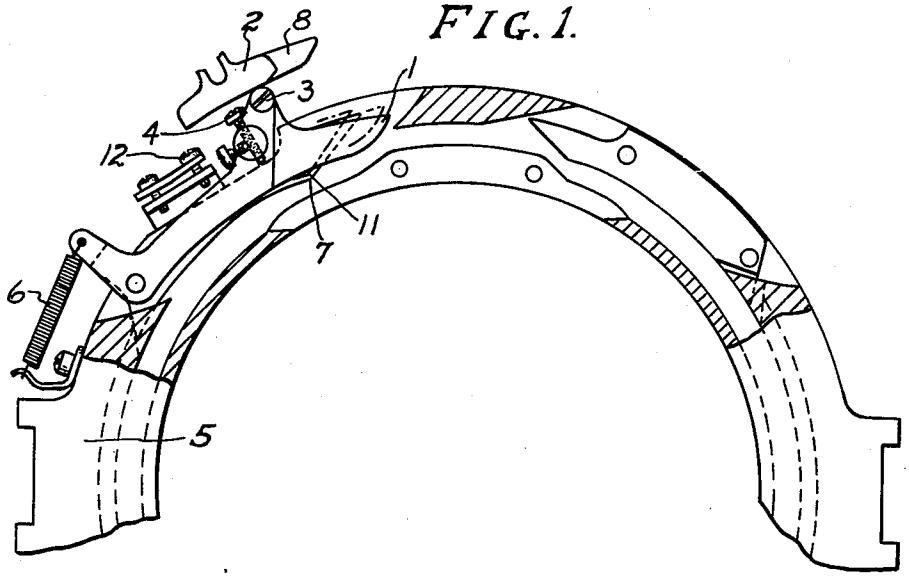
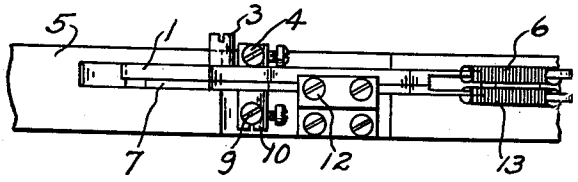


FIG. 2.



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SINKER CAP

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1 Claim. (Cl. 66—108)

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This application is a continuation in part of application Serial No. 103,551, filed July 8, 1949.

This invention relates to a modification of the well known type of sinker cap and in particular of the casting off cam carried thereby. The invention is of particular value in connection with the knitting of sheer fine gauge ladies' hosiery although it is not limited thereto. The characteristics and mode of operation of a sinker cap whereby the sinkers are controlled for the drawing, knitting and casting off loops is well known and requires no description. Ordinarily the casting off cam is a fixed cam which while it may be manually adjusted when the machine is idle retains a fixed position when the machine is in operation. This may be true even when the method of knitting described and claimed in Patent #2,374,857 in which the yarns are drawn over the backs of sinkers is being performed in conjunction with the usual method in which the yarns are drawn in the throats of sinkers. Although, theoretically, the position of the casting off cam should be deeper for the patented method referred to than for the usual method, the coarser gauges and heavier yarns used even in fine gauge men's hosiery provide ample strength and elasticity to permit the use of the same single fixed casting off cam for both. However, in sheer ladies' hosiery, 15 denier 51 gauge nylon, for example, the loops are so minute and the yarn so fine and correspondingly weak that undue strain upon them must be avoided. This is accomplished by this invention, one form of which is shown in the drawing of which:

Fig. 1 is a plan view partly in section of part of a sinker cap in which the invention is embodied; and

Fig. 2 is an elevation of a part of the same cap also showing the same form of the invention.

When knitting by the method of the patent mentioned above, the sinkers move in sooner and further than usual so that the yarn may be drawn over their backs behind their nibs. In this instance, this is accomplished by a pivoted or flopper cam 1 which is moved in to the full line position shown in Fig. 1 by any suitable mechanism such as that indicated at 2 operating upon stud 3 on the cam. The depth of such a movement is determined by the adjusting screw 4 engageable with the outer surface of the sinker cap 5. It is to be assumed that the operating mechanism 2 includes a resilient element so that the extent of inward movement of mechanism 2 need not be made to correspond exactly with the inward movement of cam 1 as determined by screw 4. When cam 1 is retracted by spring 6 through the retraction of mechanism 2 to its inoperative position the cap is in condition to so operate the sinkers that yarn will be drawn in their throats instead of over their backs.

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When cam 1 is in its innermost position as shown in full line in Fig. 1 for carrying out the method of knitting described in the patent referred to, the casting off cam should be correspondingly positioned. The casting off cam is shown in this position at 7 in Fig. 1. It has been moved into this position by the mechanism indicated at 8 which in general resembles the mechanism 2 already mentioned. The depth to which casting off cam 7 is moved is determined by an adjusting screw 9 which is threaded through stud 10 which stud is carried by casting off cam 7 and is the means by which the cam is operated upon by mechanism 8. Adjusting screw 9 engages with the outer surface of sinker cap 5 when the cam has been moved to its innermost position.

When the method of knitting is changed to the usual method in which the yarn is drawn in the throats of sinkers as for example when making the heel and toe, operating mechanism 8 is withdrawn and cam 7 is retracted to the position shown at 11 in Fig. 1 which is the correct casting off depth for this method of knitting. This depth is determined by adjusting screw 12 suitably mounted in a bracket affixed to the sinker cap so that its end will engage cam 7 when the cam is moved outwardly by a spring 13. It will be noted that the adjustments for both cam 1 and casting off cam 7 are self-contained within the sinker cap so that by means of suitable gauges these cams can be adjusted for both methods of knitting before the cap is applied to the machine. Obviously, this is a great advantage since it eliminates the necessity of running the machine and wasting time and yarn while the adjustments are being made.

I claim:

A sinker cap for a circular, independent needle, knitting machine having sinkers which includes a pivoted casting off cam, adjustable means on said cam which cooperates with said cap to limit the inward movement of said cam with respect to said cap and adjustable means on said cap which cooperates with said cam to limit the outward movement of said cam with respect to said cap, the two positions of said cam thus determined being two positions at which said cam can operate upon sinkers.

EUGENE ST. PIERRE.

REFERENCES CITED

The following references are of record in the file of this patent:

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