(No Model.)

## M. TOWNSEND, Dec'd.

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## NEEDLE FOR KNITTING MACHINES.

No. 367,767.

Patented Aug. 2, 1887.

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## United States Patent Office.

GEORGE F. SUMNER, OF CANTON, MASSACHUSETTS, ADMINISTRATOR OF MATTHEW TOWNSEND, DECEASED, ASSIGNOR TO MARIA T. SUMNER, OF SAME PLACE.

## NEEDLE FOR KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 367,767, dated August 2, 1887.

Application filed September 30, 1886. Serial No. 214,982. (No model.)

To all whom it may concern:

Be it known that I, George F. Sumner, of Canton, in the county of Norfolk and State of Massachusetts, do hereby make application for a patent upon Improvements in Knitting-Needles invented by Matthew Townsend, late of Canton, Massachusetts; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The invention relates to needles for knittingmachines; and it consists in the needle having
its point turned inward toward the shank, so
that the yarn cannot catch upon the point,
and having a curved latch, which, when turned
back against the shank, presents its convex
side or edge to the loop, as will be more fully
described hereinafter.

The objects of the invention are to produce a needle for knitting-machines, in which the point of the hook is turned inward, so as to prevent the yarn or thread from catching upon it and becoming broken, as is the case where the point projects downward in the usual manner, and to so shape the latch that the loop slides gradually off from it, and thus obviates the sudden jerk which is brought to bear upon the loop where it slips off from the latch, which extends parallel with the shank.

The accompanying drawing represents a needle to which the invention is applied, the latch being shown in one position in solid lines and in another position in dotted lines.

A represents the needle-body, and B the latch, which are connected together in the usual manner. Instead of the point C of the 10 needle being made to project downward or outward in the usual manner, it is here turned inward toward the body of the shank, as shown, so as to prevent the yarn or thread from catching upon it and being broken, as is very frequently the case where the point projects

downward or outward in the usual manner. As this point is turned inward toward the shank or body of the needle, it will readily be seen that the yarn or thread can never be caught upon the point, but will be guided into 50 the hook of the needle without coming in contact with the point, except passing by it as it slips into the hook. The latch B, instead of being made straight, or nearly so, in the usual manner, is here curved, as shown, so that when 55 it is turned back in line with the body of the needle for the loop to pass over it, it presents its convex side or edge to the loop, and the loop is allowed to gradually contract as it slides down from the highest portion of the 60 convex curve toward the body of the needle, and as it leaves the end of the latch it slips upon the body of the needle without a jerk or strain, as is usually the case where the latch extends parallel with the body of the needle. 6; This curve of the latch can be made greater or less than is here shown, the only object of the curve being to prevent that sudden jerk which is brought to bear upon the loops as they pass over the latch upon the body or stem 70 of the needle.

Having thus described the invention, what is claimed is—

1. A needle for knitting-machines, having its point turned inward toward the shank, so 75 that the yarn cannot catch upon the point, and having the latch curved, as described, so that when turned backward against the shank the convex side will be presented to the loop, substantially as shown.

2. A needle for knitting-machines, having the latch curved, as described, whereby when it is turned backward it presents a convex surface to the loop from one end to the other, substantially as described.

GEORGE F. SUMNER.

Witnesses:
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