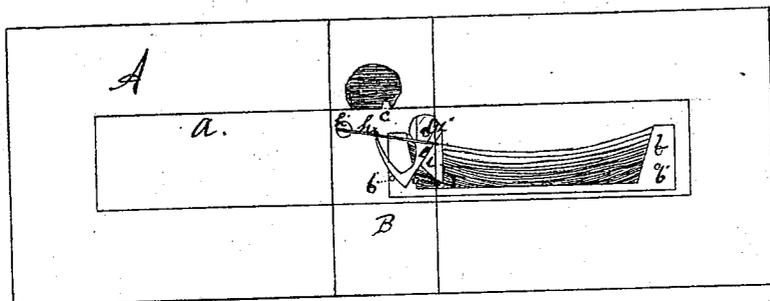


N. MEYERS.  
SEWING MACHINE.

No. 84,959.

Patented Dec. 15, 1868.



Witnesses  
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# United States Patent Office.

NICHOLAS MEYERS, OF BUFFALO, NEW YORK.

Letters Patent No. 84,959, dated December 15, 1868.

## IMPROVEMENT IN SEWING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, NICHOLAS MEYERS, of Buffalo, in the State of New York, have invented a new and useful Improvement in an Attachment for Producing the Grover & Baker Stitch from a Shuttle Sewing-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 represents a plan view of my invention, the throat-plate supporting the curved needle, being supposed to be transparent.

To enable those skilled in the art to make and use my invention, I now proceed to describe its construction and operation.

Similar letters in the drawings refer to like parts.

This invention consists in adapting, to a shuttle sewing-machine, a mechanism for producing the Grover & Baker stitch, the same being composed of a curved under needle, pivoted to the under side of a plate, so as to be within the shuttle-race, and provided with a spur, which is impinged against by projections from the shuttle-carrier, during the reciprocating motion of the latter, by means of which the said needle receives a vibratory motion on its axis, suitable to the formation, in connection with the upper needle, of the ordinary loop-stitch.

A represents a section of the cloth-table of a sewing-machine.

A shuttle-race is seen at *a*, within which slides a shuttle-carrier, *b*, which is here represented as devoid of a shuttle, and provided with two pins, *b'*, one at each end.

B represents a metallic plate, let into the surface of the table A, crosswise of the shuttle-race *a*, and provided with an orifice, *c*, through which the upper needle may play.

From a suitable point of the under side of the plate B extends downward a pin, *d*, which serves as a pivot for the curved under needle *e*.

The aforesaid needle is of the form shown, and has an eye near the point, and another at a suitable distance back of the first, and it has a shank, *e'*, through which passes the pivot.

A portion of the shank *e'*, nearest the plate B, is made two-faced, the faces being inclined to each other at an obtuse angle; and against one or the other of said faces, alternately presses the free end of a small spring-bar, *h*, the opposite end of the bar being confined in a stud, *h'*, projecting from the under side of the plate B.

A spur, *i*, projects from the shank *e'*, parallel with the general direction of that part of the needle between the eyes, and extending in the opposite direction from the same, over the shuttle-carrier *b*, and between the pins *b'* of the same.

A further description of my mechanism, part by part, is not deemed necessary.

The operation of the same, from the foregoing, may easily be deduced, to be as follows, it being premised that the use of the curved needle and the shuttle is not contemporaneous, but when the loop-stitch is desired to be produced, the shuttle is removed, and the plate B, with its described attachments, fitted to its proper place.

The shuttle-carrier *b* continues its reciprocating movement, as before, and each pin, *b'*, alternately strikes the spur *i*, by which means a vibratory motion of the needle on its fixed axis is produced, such motions being synchronous with the proper motions of the upper vertical needle, to produce the desired form of stitch, in the well-known manner.

The functions of the spring-bar *h* are to hold the curved needle in position between the impacts of the pins *b'*.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The above-described loop-stitch attachment to a shuttle sewing-machine, consisting essentially of the shuttle-carrier *b*, provided with the pins *b'*, the pivoted thread-carrier *e*, provided with the spur *i*, and the spring-bar *h*, when constructed as described, arranged in a shuttle-race, *a*, and combined to operate in the manner and for the purposes described.

NICHOLAS MEYERS.

Witnesses:

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