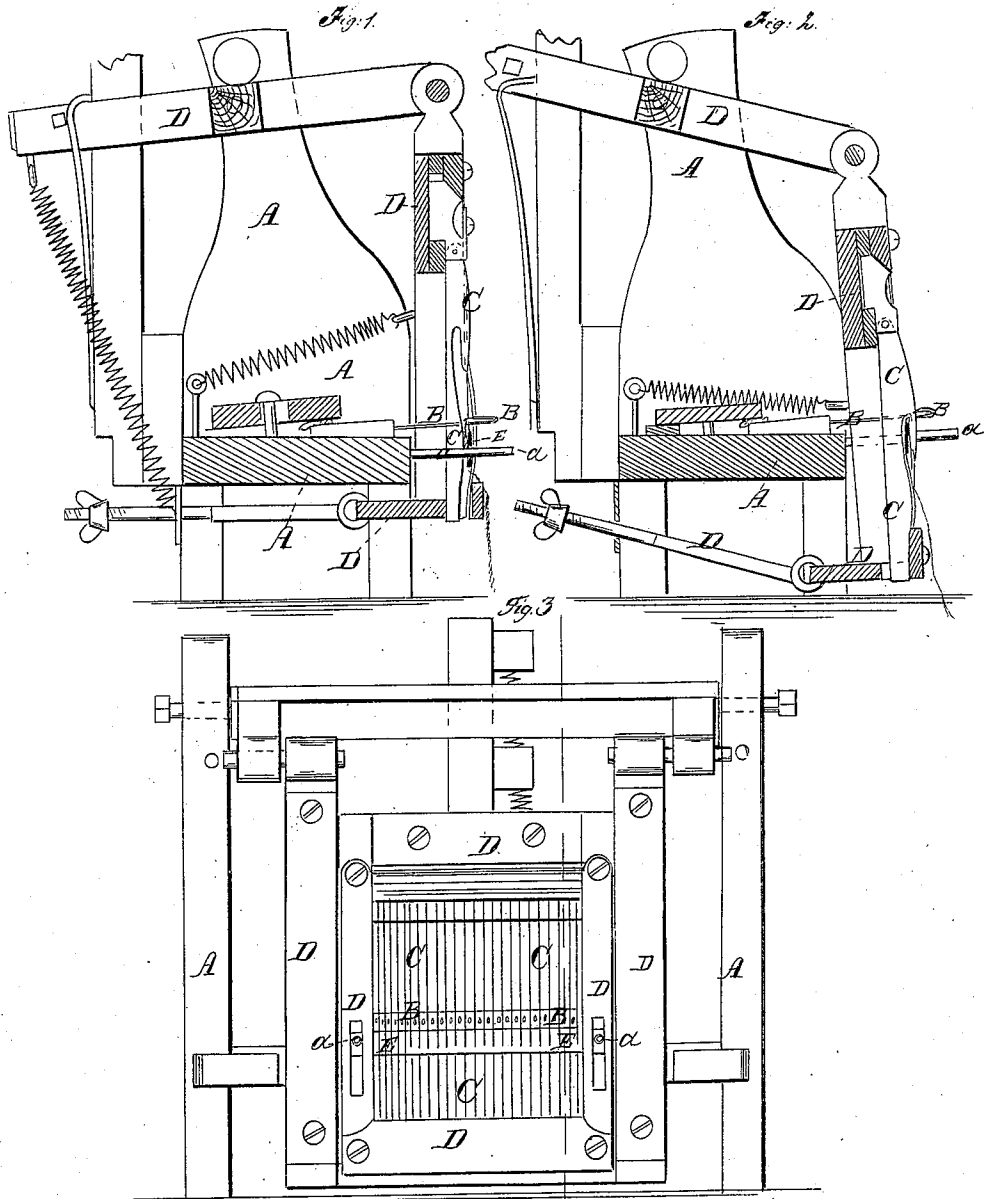


*G. Osborne,  
Knitting Machine.*

*No. 92,995.*

*Patented Jul. 27, 1869.*



Witnesses:  
*Chas. Nida  
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*Wm. S. [unclear]*  
Attorneys.

# United States Patent Office.

GEORGE OSBORNE, OF BROOKLYN, ASSIGNOR TO ABRAHAM G. JENNINGS, OF NEW YORK, N. Y.

Letters Patent No. 92,995, dated July 27, 1869.

## IMPROVEMENT IN LACE-MAKING 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, GEORGE OSBORNE, of Brooklyn, Kings county, New York, have invented a new and useful Improvement in Lace-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are vertical transverse sections of a lace-machine, provided with my improvements.

Figure 3 is a front elevation of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to so construct lace-machines, used for making fine silk, or other net-work of the kind used for invisible coverings of ladies' chignons, and for other purposes, that the operation can, with very fine material, be successfully carried on; and

The invention consists in an attachment to the ordinary lace-machines now in use, whereby the work can be readily moved back on the needles, as the sinker-web for that purpose is not strictly reliable, on fine work.

This attachment is a bar or strap, working back of the sinker-web, or rather in the same, and under the needles.

It is, during the backward motion of the sinker-web, carried back under the needles, and serves to carry the work back over the barbs of the same.

By means of this attachment slack-work can be produced, as the fine threads are not so severely strained as they are by the sinkers, and the operation is entirely reliable and successful.

A, in the drawing, represents the frame of a lace-machine of ordinary or suitable construction.

B B are the barbed needles, arranged in a horizontal row on the frame A, as usual.

In front of these needles is the well-known or suitable mechanism for placing the loops upon the needles in the requisite succession.

C C is the sinker-web, attached to an oscillating, that is to say, up-and-down, as well as backward-and-forward moving frame D, which is operated by suitable mechanism, in the ordinary or suitable manner.

E represents a bar or rod, or, if desired, a strap, which is arranged under the needles on a portion of the frame A, or on a separate frame, if desired.

It is in the drawing represented in form of a metal plate, fitted upon two pins *a a*, that project from the frame A, and on which it can be moved backward and forward.

It is near enough to the needles, that it will, when moved backward by the sinkers, draw the fabric back with it, beyond the points or hooks of the needles, without straining the thread, so that when the barbs are held down by the presser, the said fabric may be thrown off the needles by the forward motion of the sinkers.

The sinkers are indented or hook-shaped, and will, when let down, as in fig. 2, fit over the bar or strap E, and carry it back with them.

They are then elevated, as in fig. 1, and moved forward, to throw the fabric off the needles.

In the ordinary machines the sinkers alone had to carry the fabric back, and did it successfully where the threads were sufficiently tense and strong. But in light slack fabrics the threads are apt to be merely stretched and strained by the sinkers, without being moved back on the needle.

By the use of the bar or strap E, this inconvenience is entirely overcome, as it will move all the threads back, without any strain or other difficulty whatever.

I do not confine myself to nor claim any peculiar kind of lace-machine to which my improvement is attached, nor any particular mechanism for operating, nor means of supporting the same; but

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

In combination with the needles B, the sinkers C and the slotted frame D, the bar or strap E, arranged to slide upon the pins *a*, substantially as described, for the purpose specified.

The above specification of my invention signed by me, this 27th day of March, 1869.

GEORGE OSBORNE.

Witnesses:

FRANK BLOCKLEY,  
E. GREENE COLLINS.