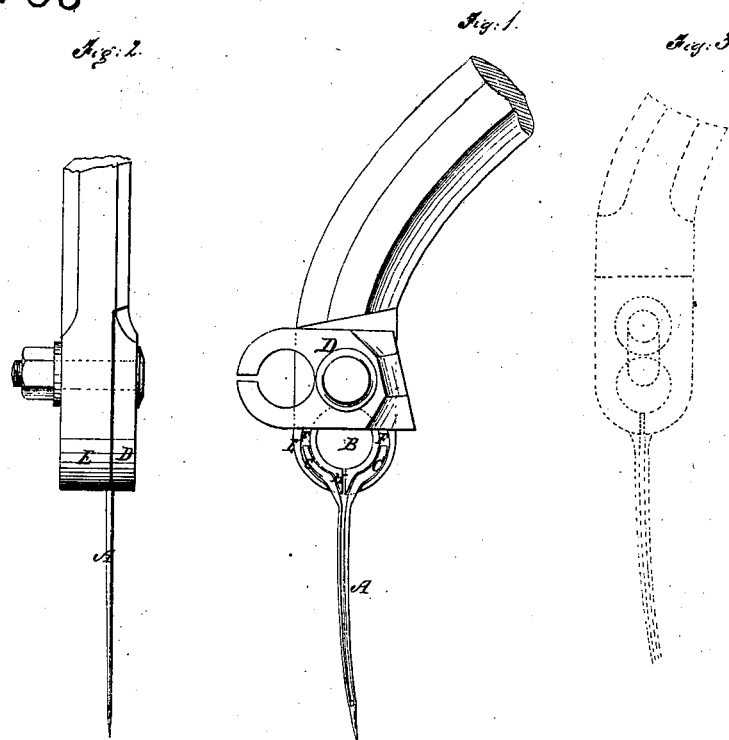


*C.H. Palmer's Improv<sup>d</sup> in Sewing Machines.*

109753

PATENTED NOV 29 1870



*Witnesses:*

*Chas. Nida*  
*L. S. Nabee*

*Inventor:*

*C. H. Palmer*  
*per* *Munn & Co*

*Attorneys:*

# United States Patent Office.

CHARLES HENRY PALMER, OF NEW YORK, N. Y., ASSIGNOR TO A. F. SAWYER, WILLIAM H. SHARP, JACOB REGENSBURGER, CHARLES D. CARTER, AND MARY P. CARPENTER.

Letters Patent No. 109,753, dated November 29, 1870.

## IMPROVEMENT IN NEEDLES AND THEIR CARRYING-ARMS FOR SEWING-MACHINES.

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, CHARLES HENRY PALMER, of the city of New York, in the county and State of New York, have invented new and useful Improvements in Sewing-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 drawing forming part of this specification.

This invention relates to improvements in attaching needles, constructed as hereinafter described, to arms or posts of sewing-machines.

Figure 1 is a side elevation of a part of a needle-arm, a clamping-plate, and a needle, arranged according to my improvement.

Figure 2 is a front elevation of the same.

Figure 3 is a side elevation of the same in dotted lines, showing a modified arrangement of the clamping-plate for shifting it, the clamping-plate being arranged to slide vertically.

Similar letters of reference indicate corresponding parts.

A represents a needle split or divided from the eye upward for admitting the thread from the hole B, and provided with flat or laterally-bent arms or shanks, C, at the upper end for attachment to the needle-arm by a clamp, D, being the same thus far as described in the patent granted to Mary P. Carpenter January 25, 1870, in which the needle is held by clamping the parts C between the plane faces of the clamp D and the arm or needle-post E; and it is stated in the said

patent that the two parts of the needle may be adjusted to the requisite distance apart below the parts C by placing a piece of paper about the thickness of the thread between them, and closing them against it previous to screwing down the clamp.

The needles being held between two plane surfaces, as represented in the said patent, are not easily adjusted to the right position, great care being required to prevent moving them to right or left of the true line when screwing up the clamp. It is also difficult to adjust them to the right height.

I have therefore provided the grooves F for the parts C, one on each side of the slot H, preferably in the face of the needle-arm or post, which grooves, together with the said parts C, I so adjust that when engaged in the said grooves the needles will not only be in the exact line, but the space between the parts; also the height will be regulated.

The said grooves may be made in the clamping-plates, but I prefer to make them in the post or needle-arm, as stated.

Having thus described my invention,

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

The arm E, having grooves F F, combined as described with the divided needle and the clamping device, for the purpose specified.

CHARLES HENRY PALMER.

Witnesses:

HUGO GORSCH,  
GEO. W. WICKS.