

N. MEYERS.  
Sewing Machine.

No. 83,398.

Patented Oct. 27, 1868.

Fig: 1.

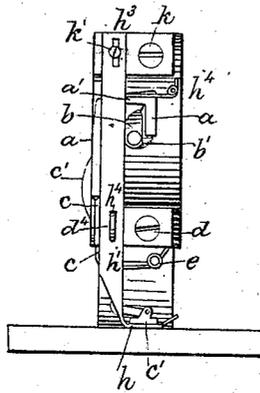


Fig: 2.

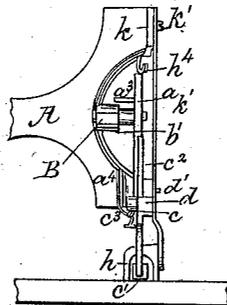
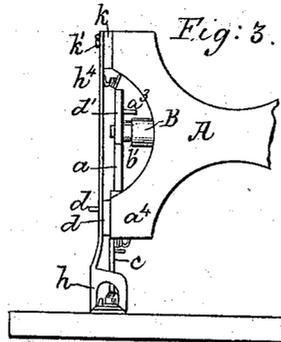


Fig: 3.



Witnesses.

C. O. Brown  
W. Hilmer

Inventor.

Nicholas Meyers.  
by Geo. E. Brown  
Atty.

# United States Patent Office.

NICHOLAS MEYERS, OF BUFFALO, NEW YORK, ASSIGNOR TO EDWARD L. CHAMBERLAYNE AND EMERSON C. POMEROY, OF SAME PLACE.

Letters Patent No. 83,398, dated October 27, 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 a Combined Feed and Presser-Foot for Sewing-Machines; and 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 an end elevation, and Figures 2 and 3, elevations of opposite sides.

This invention consists of a skeleton presser-foot, so made as to enclose and protect a feed-plate, situated, together with the mechanism which operates it, above the cloth-surface of a sewing-machine; and also of various devices for giving due motion to said feed-plate, as will hereafter more fully appear.

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.

A represents the bent arm of a sewing-machine, supporting a driving-shaft, B, near one end of which is an eccentric, *b*, above and on two sides of which eccentric, and within touching distance of the same, are the arms *a' a'*, the arms *a'* and *a''* being parallel, and the arm *a* being at right angles with the others, and connecting them. The arm *a* is pivoted at its lower end to the upper end of the shank *c* of the feed-plate *c'*, which feed-plate is also pivoted to the lower end of the said shank. The upper end of a spring-bar, *c''*, is placed in a notch in the outer side of the shank, *c*, and, in a manner, binds the said arm and shank together, so that the latter partakes, in a great measure, of the motion of the former. A slot is made longitudinally in the shank *c*, through which slot a screw, *c'*, passes, and enters a plate, *d*, attached to the fork *a'* of the bent arm A. A portion of the said fork is removed, in order to admit of the introduction of the arm *a* and shank *c* between the plate *d* and the end of the arm A, and leave a clear space for the movements of the same. The shank *c* slides up and down, and also vibrates upon the screw *c'*, and between the head of the same and the plate *d*.

The motion of the shank *c* and the arm *a* is derived from the eccentric, *b*, which, during its revolution, forces the arm *a''* in one direction, and, by consequence, the feed-plate *c'* in the opposite. It is this motion of the

plate that feeds the cloth forward. The arm *a''* is kept constantly in contact with the eccentric, *b*, by the spring-bar *c''*, and as the said eccentric has but two curves which are equal and uniform, at the completion of a half revolution, the arm *a''* begins to move, in following the eccentric, in a direction opposite to its former movement, which throws the feed-plate back over the cloth, the teeth being arranged to bite only during the forward throw.

There is probably no absolute necessity for more than these two described motions of the feed-plate, but, lest by some accident, the said plate should fail to go backward by reason of catching in the cloth, certain devices are employed to lift it clear of the cloth, the backward motion being still due to the pressure of the spring-bar *c''*.

The aforesaid device consists of a second eccentric, *b'*, upon the shaft B, near the first, so placed as to be complementary thereto, and a horizontal flange, *a'''*, on the inner side of the arm *a'*, projecting over the said eccentric, *b'*. Thus, when the revolution of the eccentric, *b*, is nearly complete, and the feed-plate is or should be at the rear end of its throw, the eccentric, *b'*, strikes the flange *a'''*, and raises the arm *a*, and, by consequence, the feed-plate, clear of the cloth.

A spring, *e*, attached to the under side of the arm A, and bearing upon a pin on the inner side of the shank *c*, controls the vertical motion of the feed-plate.

The pressure-foot *h* is made in the form of a bent loop, as seen in figs. 1 and 2, or in skeleton-form, as I choose to term it, so as to enclose and protect the feed-plate. It is attached to a shank, *h'*, which has in it a slot, *h''*, through which passes a pin, *d'*, from the plate *d*, and also a slot, *h'''*, through which passes a screw, *k*, which enters the plate *h*, on the upper fork of the arm A. These slots and pins, together with a spring, *h'*, control the vertical movements of the pressure-foot.

Having thus described my invention,

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

The feed-plate *c'*, in combination with the shank *c*, arm *a' a'*, spring-bar *c''*, and eccentric, *b*, as and for the purpose described.

NICHOLAS MEYERS.

Witnesses:

HERMANN OHLMER,  
ALBERT J. PAIGE.