M. SCHILLER.

SEWING MACHINE.

APPLICATION FILED DEC. 28, 1911.

1,049,408. Patented Jan. 7, 1913.

FIG. 1

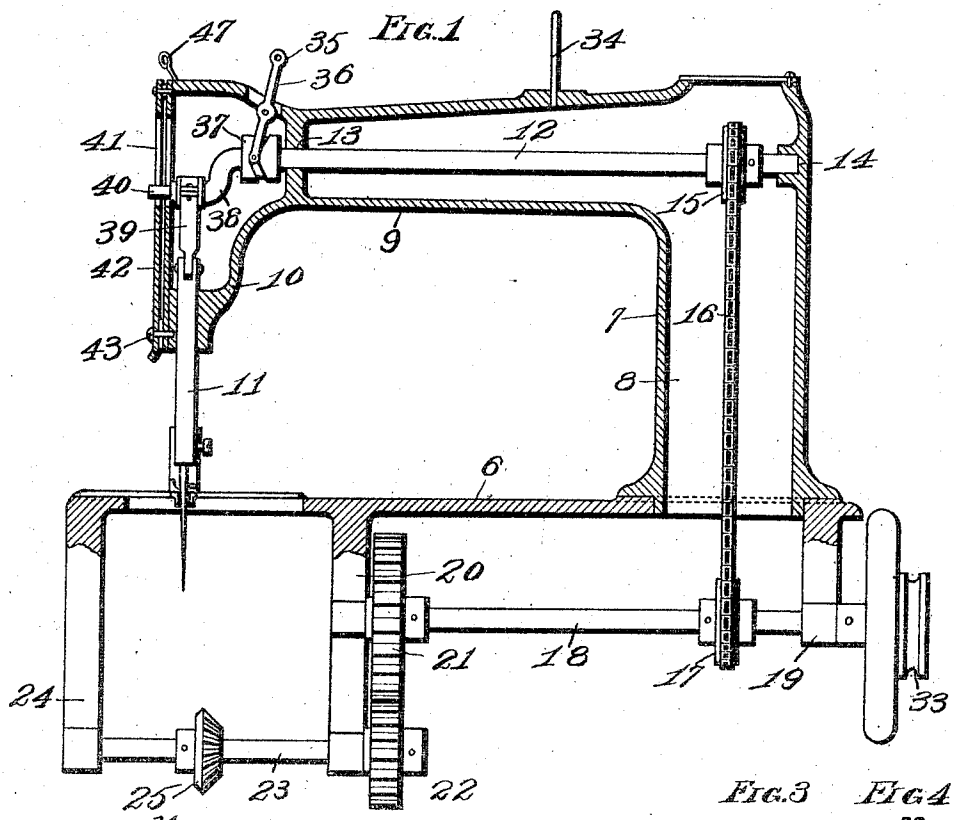


FIG. 2

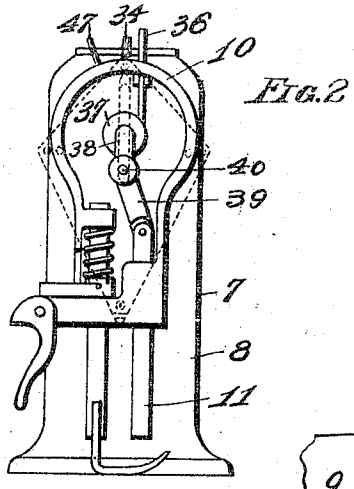


FIG. 3

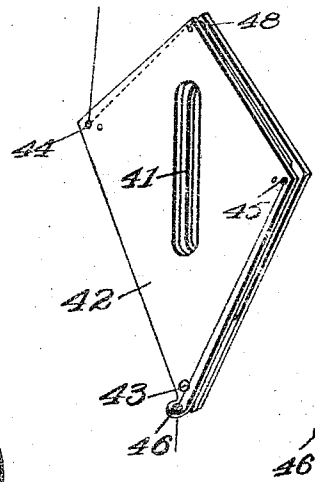


FIG. 4

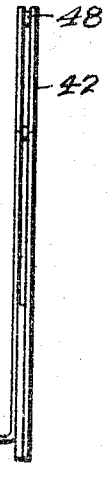
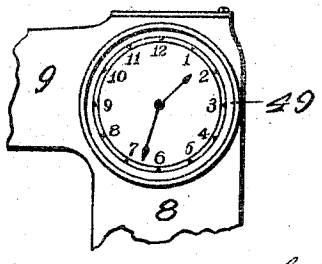


FIG. 5



Witnesses

W. C. Stein

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UNITED STATES PATENT OFFICE.

MORRIS SCHILLER, OF ST. LOUIS, MISSOURI.

SEWING-MACHINE.

1,049,408. Specification of Letters Patent. Patented Jan. 7, 1913.

Application filed December 28, 1911. Serial No. 668,201.

To all whom it may concern:

Be it known that I, MORRIS SCHILLER, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a specification.

This invention relates to improvements in sewing machines and has for its object an oscillating attachment located on the head of the machine frame whereby the thread is properly fed from the spool to the needle, said mechanisms being driven by a shaft located beneath the table.

Figure 1 is a vertical sectional view of my invention showing the interior construction by which the operating parts are manipulated. Fig. 2 is a front view of the head showing the oscillating plate removed. Fig. 3 is a perspective view of the oscillating plate detached from the machine. Fig. 4 is an edge view of the same. Fig. 5 is a detail of a portion of the machine frame, showing a time recording dial or watch positioned in the same.

In the construction of my invention I provide a bed plate 6 mounted in any desirable manner upon a table or machine frame. On the bed plate is mounted the head 7, which consists of a vertical portion 8 and a horizontal portion 9, the horizontal portion having an enlargement 10 in which is suitably guided the needle operating bar 11. In the horizontal portion 9 is located a shaft 12, which has bearing in the same at the points indicated by the numerals 13 and 14. This shaft is provided with a sprocket wheel 15 over which the sprocket chain 16 operates, the said chain extending downwardly through the vertical portion 8 and around a sprocket wheel 17 mounted on the driving shaft 18 located beneath the bed plate 6. This shaft has bearing on the brackets 19 and 20 and on said shaft near the bracket 20 is supported a gear wheel 21, which meshes with a gear pinion 22 mounted on a shaft 23, supported in the bracket 20 and the bracket 24. This shaft in turn is provided with a bevel-gear 25 by which an ordinary shuttle mechanism is operated. The shaft 18 is provided with a balance and drive-wheel 33 over which the belt is passed for placing the shaft in operation. On the horizontal member 9 of the head is provided a pin 34 on which the ordinary spool of thread is placed, the thread being passed from the spool through the eye 35 of the pivoted lever 36 and motion is imparted to the lever 36 by means of the cam 37 mounted on the shaft 12, and by the oscillatory movement of the lever the thread is unwound from the spool. The end of the shaft 12 is formed into a crank 38 and to the crank is attached a connecting bar 39, which is attached to the upper end of the needle bar 11 so as to impart vertical movement to the needle bar and needle by the operation of the shaft 12. The projecting end of the crank 38 is provided with a pin 40 so arranged as to project into the elongated slot 41 of the oscillating plate 42 and by the movement of the crank the plate 42 is placed in oscillatory operation on its pivot 43, this plate acting as the face plate concealing the mechanism in the enlargement. The oscillating plate is preferably constructed of two members connected together and provided with eyes 44 and 45 through which the thread is passed. The thread is then passed downwardly through the loop 46 at the bottom before entering the eye of the needle point. The thread in passing from the eye 35 of the lever 36 is guided through the loop 47 attached to the top of the machine head and from thence the thread is passed through the eye 44 of the plate up over the guide 48 located in the apex of the plate down through the opening 45 and through the loop 46. By this construction the thread is readily guided to the needle point with little, if any friction, the oscillatory movement of the plate 42 producing a much more effective result than the ordinary vertical reciprocating lever now used on the ordinary sewing machines for guiding the thread.

In Fig. 5 I show a watch 49 located in the vertical portion 8 of the head 7, which is for the convenience of the operator for timing the work.

Having fully described my invention what I claim is:

A sewing machine comprising a hollow head, a base plate supporting the same, a horizontal shaft mounted in the hollow head, a horizontal driving shaft supported beneath the base plate, a chain connecting both shafts, a crank formed on the end of the shaft in the head, a cam mounted on said shaft, a lever pivoted to the head, its one end communicating with the cam, an oscillating plate covering the opening of the

head and pivotally mounted at its bottom, said oscillating plate having an elongated slot through which the crank projects, said plate provided with eyes through which the thread is passed from the spool on the head and a loop formed at the bottom of the plate for guiding the thread to a needle, substantially as specified.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

MORRIS $\overset{\text{his}}{\underset{\text{mark}}{\times}}$ SCHILLER.

Witnesses:
D. S. FEINBERG,
WALTER C. STEIN.