

(Model.)

F. J. FREESE.  
SEWING MACHINE NEEDLE.

No. 489,800.

Patented Jan. 10, 1893.

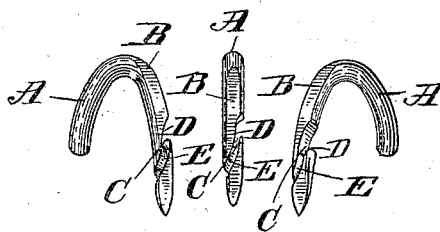


FIG. 1.

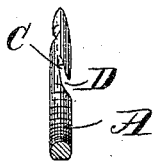


FIG. 2.

WITNESSES.

*R. Henry Marsh.*  
*J. C. Kennedy.*

INVENTOR.

*Francis J. Freese*  
*by A. D. Pencer, Attorney*

# UNITED STATES PATENT OFFICE.

FRANCIS J. FREESE, OF LOWELL, MASSACHUSETTS.

## SEWING-MACHINE NEEDLE.

SPECIFICATION forming part of Letters Patent No. 489,800, dated January 10, 1893.

Application filed January 12, 1892. Serial No. 417,875. (Model.)

*To all whom it may concern:*

Be it known that I, FRANCIS J. FREESE, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and  
5 useful Improvement in Sewing-Machine Needles, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of this invention is to provide  
10 an improved, curved sewing-machine needle, especially adapted to both welt and turn shoe work, and so formed as to have the thread-receiving capacity of a large-sized needle without making in the leather so large a per-  
15 foration as heretofore has accompanied the use of needles of the same number of size. My improved needle also enters the leather easier than those hitherto known, because its point is not so blunt, or, in other words, it is  
20 not so thick from front to back at and near the eye; and it is less liable to dip or gouge in the work while sewing, owing to the bottom of the needle being flat. My improved  
25 needle has a curved body flattened or ground away on its outer convex or bottom face, from the point rearwardly to and beyond the eye, and has also a lateral barb formed in one edge of such flattened face, the eye opening through  
30 said face. The bottom face of the needle is flattened for at least one third of its length, and the thread groove runs obliquely across such flattened face from the eye toward the point.

In the drawings, Figure 1 shows my improved needle, somewhat enlarged, in three  
35 different positions, the groove traversing its flattened face. Fig. 2 shows it in elevation and cross section.

The needle A has a body of the usual curvature, longitudinally, and is peculiar in hav-  
40 ing the flattened outer face B extending from

the point rearwardly beyond the eye C which opens directly through said flattened face, with the lateral barb D in one edge of such face. The thread-groove E runs obliquely  
45 from the eye and barb across the outer face of the needle toward its point, such groove thus traversing the flattened face of the needle as shown in Fig. 1. The bottom of the needle being flat it runs steadily, with-  
50 out liability to dip or gouge in the work, and the thread lying in the sunken groove obliquely across this flattened face is thus brought closer to the axis of the needle than in like grooves formed in the convex periph-  
55 ery of ordinary curved needles. The advantage of this flattening of the needle is that, without reducing the size of the eye and the consequent capacity of the needle to receive a large, strong thread, I lessen the diameter  
60 of the needle and hence make a smaller hole through the leather, requiring thus less power to drive the needle and permitting the use of thinner stock. In shoe-making it is desirable to use as large a thread and as small a needle  
65 as possible. This my improvement accomplishes without weakening the needle.

I claim as my invention:

A curved machine-needle having its outer or bottom face flattened, and formed with a  
70 barb in one edge of such flattened face and with a thread groove extending obliquely across said face from the eye and barb toward the point, substantially as set forth.

In testimony whereof I have signed my  
75 name to this specification, in the presence of two subscribing witnesses, on this 1st day of June, A. D. 1891.

FRANCIS J. FREESE.

Witnesses:

A. H. SPENCER,  
J. C. KENNEDY.