

116331 Fig. 1.

G.H. Lenher's
Sewing Machines.

PATENTED JUN 27 1871

Fig. 2.

PATENTED JUN 27 1871

Fig. 2.

Fig. 3.

Fig. 5

Fig: 4.

Witnesses:

Chas. Nida
Wm H. C. Smith.

Inventor:

G. H. Lember.

PER

Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE H. LENHER, OF ELIZABETH, NEW JERSEY.

IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 116,331, dated June 27, 1871.

To all whom it may concern:

Be it known that I, GEORGE H. LENHER, of Elizabeth, in the county of Union and State of New Jersey, have invented a new and useful Improvement 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.

My invention consists of an improvement in sewing-machines, which will first be described in connection with all that is necessary to a full understanding thereof, and then fully pointed out in the claim.

Figure 1 is a side elevation, partly sectioned, of a machine having my improvements applied. Fig. 2 is a transverse section on the line *x x* of Fig. 1. Fig. 3 is a face-view of the shuttle. Fig. 4 is a side view of the bobbin, and Fig. 5 is a section of the shuttle and bobbin taken on the line *y y* of Fig. 3.

Similar letters of reference indicate corresponding parts.

A is the shuttle; B, the bobbin; C, the recessed block or plate in which the shuttle is arranged at one side of the axis; and D is the shuttle-carrier; all of which are constructed as described in my patent No. 60,021, dated November 27, 1866, except the devices for attaching the bobbin to the shuttle, which I now propose to do by applying a screw-threaded stud-pin, E, fixedly to the bottom of the recess in the shuttle in which the bobbin is carried; and I apply the nut F to the eye in the bobbin, as shown, so that it will turn freely but cannot escape therefrom, by which the dropping and loosening of the nut, which are so liable in consequence of the difficulty of handling and finding such small articles, are avoided.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The shuttle with fixed stud-screw E, and bobbin with nut F, combined, as and for the purpose specified.

GEORGE H. LENHER.

Witnesses:

GEO. W. MABEE,
ALEX. F. ROBERTS.