

(No Model.)

H. A. DODGE & W. T. RICHARDS.
WEAR COMPENSATING DEVICE FOR NEEDLE-BARS OF SEWING MACHINES;
No. 518,836.

Patented Apr. 24, 1894.

Fig. 1.

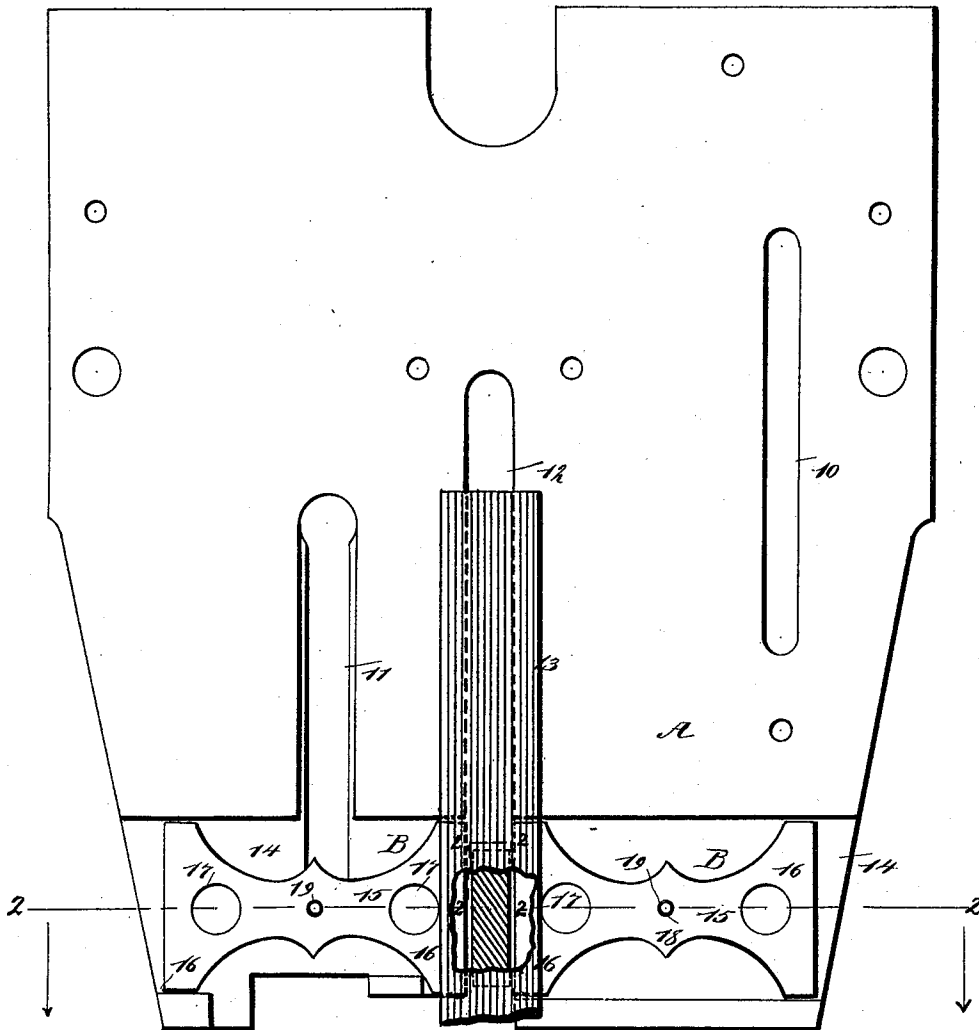


Fig. 2.

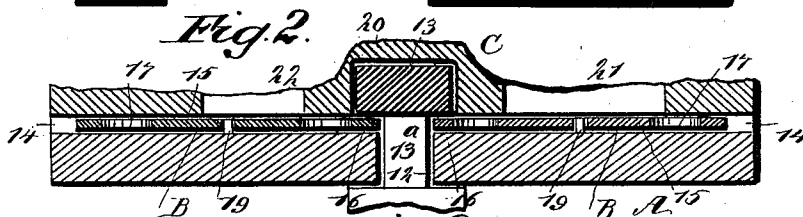
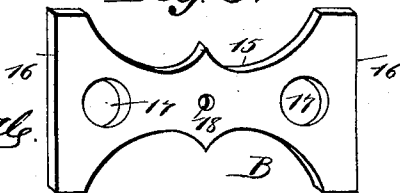


Fig. 3.



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UNITED STATES PATENT OFFICE.

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WEAR-COMPENSATING DEVICE FOR NEEDLE-BARS OF SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 518,836, dated April 24, 1894.

Application filed August 16, 1893. Serial No. 483,242. (No model.)

To all whom it may concern:

Be it known that we, HENRY ALVIN DODGE, of Boston, in the county of Suffolk, and WILLIAM THOMPSON RICHARDS, of Newton, in the county of Middlesex, State of Massachusetts, have invented a new and useful Improvement in Sewing-Machines, of which the following is a full, clear, and exact description.

Our invention relates to an improvement in sewing machines, and especially to an improvement in leather sewing machines, and the object of the invention is to provide the face plate with gibs so arranged as to effectually take up the wear of the needle bar and prevent the bar from wearing in the face plate.

A further object of the invention is to so construct the gibs that they will be interchangeable, right or left, and wherein the surfaces adapted for engagement with the needle bar will be hardened in a manner to resist wear.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is an inner face view of the face plate of a leather-sewing machine. Fig. 2 is a horizontal section, taken practically on the line 2—2 of Fig. 1; and Fig. 3 is a detail perspective view of one of the gibs.

The face plate A, is provided with the usual slot 10 for the reception of the presser foot spring, and likewise with a slot 11 for the reception of the take-up lever, the plate being substantially the same as that shown in Letters Patent granted to C. F. Bosworth for a machine for sewing shoes, dated April 13, 1880, No. 226,481, and the said face plate is provided at or near its center with the usual slot 12, over which the needle bar 13, slides and in which the needle bar driving stud 13^a, has reciprocating movement.

Heretofore in the construction of leather sewing machines, the needle bars have had

more or less contact with their guide walls, and therefore their face plate walls, which also serve as guides to the needle bar, become worn to such an extent that the guide walls no longer serve as true guides for the needle bar. When this occurs the face plate must be repaired, and the said plates are quite costly to manufacture and are more or less difficult to repair satisfactorily, especially when worn at the needle bar guide walls, and the wear has been found to be especially damaging at the lower portion of said guide walls. In order to remedy this defect, gibs B, are employed one of which is located at each side of the needle bar stud slot 12, and the gibs are fitted in grooves 14, made transversely in the face plate, whereby when the gibs are in position their outer faces will be substantially flush with the true outer surface of the face plate, and their inner ends substantially flush with the side walls of the stud slot 12. The gibs being in this position, their outer faces at their inner ends engage with the inner faces of the needle bar, and constitute their lower or prime bearing or guide walls; therefore whatever damaging wear has been heretofore sustained by the face plate is borne by the gibs. The gibs are preferably constructed as shown in Fig. 3, in which it will be observed that each gib consists of a body section 15 and a head 16 at each end of the body. The heads of the gibs are much wider than their body portions, and the gibs are hardened at their head sections, or where they are adapted to be in engagement with the needle bar. The heads are flat, and each gib is preferably rectangular in cross section; however, the gibs may be of any desired shape, as for example they may be strictly rectangular, or their upper and lower edges may be given any desired outline. When made as shown in the drawings they may be readily grasped by the fingers to be changed in position, and to further facilitate the changing of the gibs, finger or tool holes 17 may be made in them. An aperture 18, is made preferably in the center of each gib. When the gibs are placed in the grooves 14, their upper and lower edges, or portions of them, will engage with the upper and lower walls of the grooves 14,

and the apertures 18 in the gibs are made to receive studs 19, projected from the base wall of the grooves, as shown in Figs. 1 and 2, and act to prevent the gibs from shifting. When
5 the gibs are located as above described, one head or end of each gib will be in frictional engagement with the back surface of the needle bar, and consequently the gibs will receive all of the severe wearing contact of the
10 needle bar heretofore sustained by the face plate. It is evident that these gibs are interchangeable, as they are identical in construction, and that they may be manipulated by any person of ordinary intelligence.
15 In Fig. 2 we have illustrated the face plate in position upon the head C of a machine, the head being provided with a groove 20 in which the needle bar has guided movement;

and in the said Fig. 2, the awl-bar slot 21, and a presser foot slot 22, are shown. 20

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

In a sewing machine, the combination, with a face plate having a guide slot for the needle 25 bar stud, and opposing transverse grooves, of gibs arranged one in each of said grooves, each gib having a projecting edge flush with one of the guide walls of the needle bar stud, as and for the purpose described.

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Witnesses:

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