

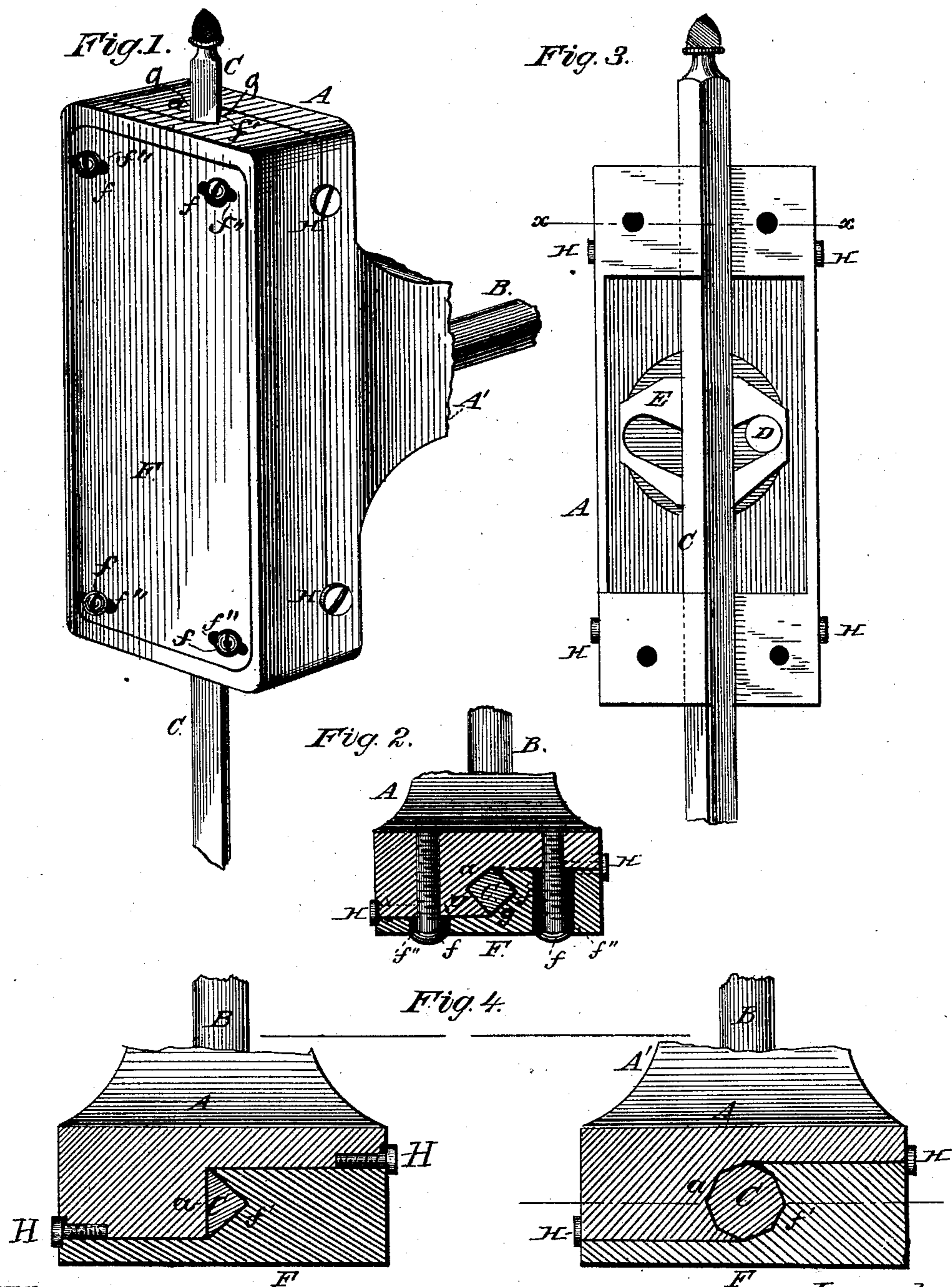
(No Model.)

J. A. WIEDEMANN.

GUIDE FOR SEWING MACHINE NEEDLE BARS.

No. 250,468.

Patented Dec. 6, 1881.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH A. WIEDEMANN, OF MENDON, ILLINOIS.

GUIDE FOR SEWING-MACHINE NEEDLE-BARS.

SPECIFICATION forming part of Letters Patent No. 250,468, dated December 6, 1881.

Application filed December 13, 1880. (No model.)

To all whom it may concern :

Be it known that I, JOSEPH A. WIEDEMANN, a citizen of the United States, residing at Mendon, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Guides for Sewing-Machine Needle-Bars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of sewing-machines in which the needle-bar has a longitudinal reciprocating movement in guides; and the object of my improvement is to provide guides in which the needle-bar slides, which guides can be adjusted toward the needle-bar as the parts become worn from use, and which guides will fit upon more than two sides of the needle-bar, and thereby hold it from movement laterally in any direction while it slides endwise.

In the accompanying drawings, which illustrate my invention, and in which the similar letters used as marks of reference apply to the like parts in all the figures, Figure 1 is a perspective of the end of the fixed arm and needle-bar, showing my improvement. Fig. 2 is a horizontal sectional plan in the line xx in Fig. 3. Fig. 3 is an elevation of the parts seen when the face-plate is removed. Fig. 4 shows modifications of my improvement.

The construction and relative arrangement of the parts of the improvement and the adjacent parts of the general machine in which said parts may be incorporated are as follows:

Letter A represents the enlarged end or head of the fixed arm A', in which the shaft B rotates, which gives a reciprocating motion to the needle-bar C through the instrumentality of the crank-pin D and cam slotted plate E.

F is a face-plate, secured to the head A by set-screws f .

The foregoing parts described by reference-letters constitute parts of an ordinary sewing-machine, and may be constructed in any ordinary manner, except as hereinafter described

in the matter of features which constitute my improvement.

In my improvement I prefer to use a needle-bar square in its cross-section, as shown at Fig. 2; but needle-bars of various polygonal forms in their cross-section may be used, some of which forms are shown at Fig. 4, together with the mode of seating them in the guides.

The adjacent faces of the head A and face-plate F are formed, as shown at Figs. 1 and 2, with shoulders a and f' , respectively, the faces of which are confronting, and each face or shoulder a and f' has a longitudinal L-shaped groove, g , therein, as shown at Fig. 2. The needle-bar is placed with two of its sides in the groove g in the face-plate F and two of its sides in the similar groove in the head A, in such position that all of its sides severally are at an angle of about forty-five degrees with the front side of the face-plate F. The holes f'' in the face-plate, through which the set-screws f pass, are slightly elongated transversely to the face-plate, so as to permit adjusting the face-plate to bring the grooves g closer together, as required to fit the needle-arm as the parts become worn. The adjustment of the face-plate laterally on the head A last described is effected by set-screws H, which enter the head A in such manner that one side of their heads rests on the side of the face-plate, as shown at Figs. 1 and 2. The face-plate is firmly held after the adjustment described by the set-screws f . As the sides of the needle-arm or the adjacent sides of the grooves g wear away the face-plate may be adjusted, as described, to bring the grooves g snug up to the needle-arm, and both the needle-arm and grooves will retain their angular form as they are worn away, so that when again adjusted to each other the grooves will still fit snugly to all the four sides of the needle-arm, and thereby hold it so that it will slide in a direct path or line, and not incline to either side, nor to a twisting movement.

The modifications at Fig. 4 will illustrate a more extended application of the main features of my invention. In said modifications the confronting shoulders a f' have grooves to correspond with the adjacent faces of the needle-arm, which is of such angular shape in its cross-

section that as the parts become worn the guide grooves or faces $a f'$ may be adjusted thereto and come in contact with more than two faces of the needle-arm, so as to hold it firmly in line while in operation.

What I claim as new is—

1. In combination with a needle-bar polygonal in its cross-section, the head A, having a grooved shoulder, a , and laterally-adjustable face-plate F, having a grooved shoulder, f' , which grooved shoulders fit the adjacent sides of the needle-bar, whereby the shouldered face-plate may be adjusted toward the fixed shouldered head A, and the guides or grooves in their confronting shoulders be thereby adjusted to the needle-bar when the parts are worn, substantially as herein shown and described.

2. In combination with a needle-bar square in its cross-section, the head A and face-plate

F, having confronting shoulders, with grooves g , which are adjustable to the needle-bar by lateral adjustment of the plate F on the plate A, substantially as and for the purpose specified.

3. In combination with the polygonal needle-bar, the head A, having grooved shoulder a , and face plate F, having grooved shoulder f' , the set-screws H and f , adapted to adjust the plate F laterally on the plate A, and to hold the parts together, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH A. WIEDEMANN.

Witnesses:

EDWARD WIEDEMANN,
FRANK FRENCH.