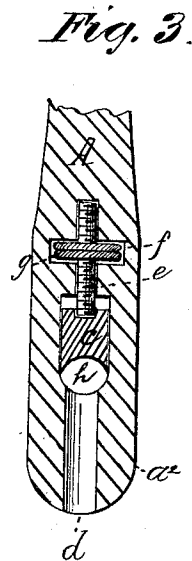
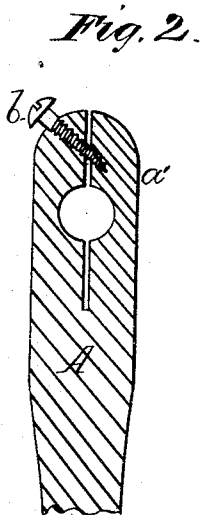
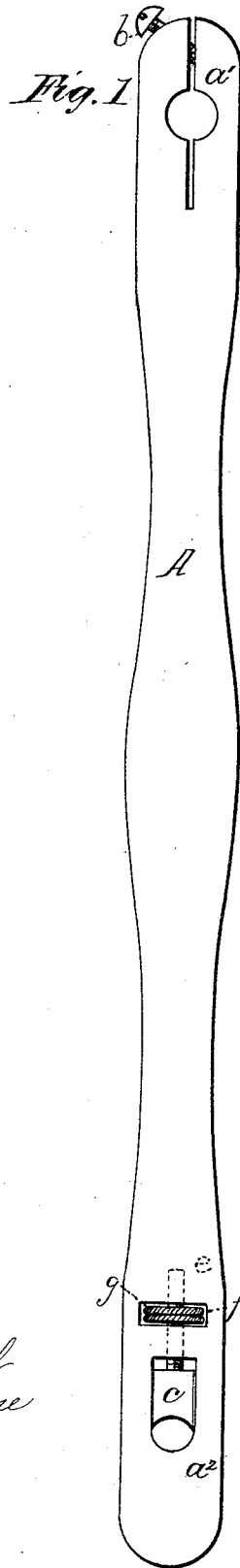


J. H. HOLLY & J. F. ROBERTSON.
Pitmen.

No. 145,947.

Patented Dec. 30, 1873.



Witnesses.
N. B. Duhamel
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Inventor.
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UNITED STATES PATENT OFFICE.

JAMES H. HOLLY AND JOHN F. ROBERTSON, OF WARWICK, NEW YORK.

IMPROVEMENT IN PITMEN.

Specification forming part of Letters Patent No. **145,947**, dated December 30, 1873; application filed November 12, 1873.

To all whom it may concern:

Be it known that we, JAMES H. HOLLY and JOHN F. ROBERTSON, of Warwick, county of Orange and State of New York, have invented certain new and useful Improvements in Sewing-Machine Treadle-Bars, of which the following is a specification:

The accompanying drawing represents a longitudinal sectional view of our improvement.

A represents the treadle-bar, the general form of which is similar to those commonly used in sewing-machines, to connect the treadle with the fly-wheel shaft. The lower end, *a*¹, is split, and provided with a screw, *b*, passing through one of the halves of the split portion, and engaging with a female thread in the other half, so that when the bearing becomes worn loose from friction the screw may be tightened, so as to draw the parts toward each other, and thus tighten the bearing, and cause it to fit neatly on the pivot with which it engages. The opposite end *a*² has an elongated opening formed in it, one end of which is semicircular, and forms one-half of the bearing for the crank of the fly-wheel. The other end of this opening is angular, and its sides are parallel, and in it fits a block or follower, *c*, the upper end of which presents a concave semicircular surface, which completes the circle, of which the end of the opening forms one-half. The remaining portion of the follower corresponds in form with the elongated portion of the opening. In the end of the treadle-bar a recess, *d*, is drilled, passing through and below the crank-shaft bearing. In this recess works a screw-threaded rod, *e*, the outer end of which is angular, and fits in a depression in the follower *c*, so as to prevent it from turning on its axis. A slot, *f*, is cut transversely in the treadle-bar,

so as to intersect the recess *d*, and in this slot is placed a nut, *g*, through which the screw-threaded rod *e* passes. The diameter of this nut is somewhat greater than the thickness of the treadle-bar, so that its edges project slightly on either side, said edges being milled or roughened, to facilitate its manipulation by the thumb and finger.

The slot *f* may, if preferred, be formed in the portion of the treadle-bar between the bearing and the extreme end, and the screw-rod *e* and follower *c* arranged to correspond. When they are arranged between the bearing and the center of the treadle-bar, and the end *a*² is uppermost, the portion of the recess *d* nearest the end serves as a receptacle for oil to lubricate the bearing. When the bearing has become loose from wear and friction, it is tightened by turning the nut *g*, so as to cause the rod *e* to bear upon the follower *c*, and press it closely against the crank-pin.

I do not claim the invention of a follower, as it is in common use in various machines; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The combination, in a sewing-machine treadle-bar, of the bar *A*, having elongated opening *h*, slot *f*, and recess *d*, with follower *c*, and rod *e*, having nut *g*, all constructed and operating to effect the ready adjustment of the follower *c*, substantially as shown and described.

In testimony that we claim the foregoing as our invention we hereunto affix our signatures.

JAMES H. HOLLY.
JOHN F. ROBERTSON.

Witnesses:

ANDREW McEWEN,
GEO. W. PITT.