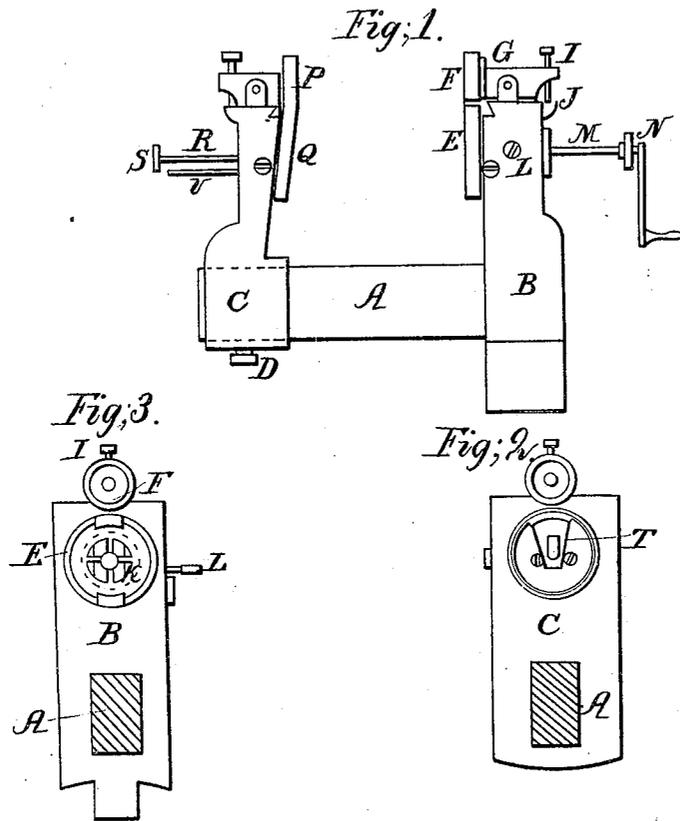


C. E. Murray,
Watchmakers' Tool.

No. 87,868.

Patented Mar. 16, 1869.



Witnesses.

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Letters Patent No. 87,868, dated March 16, 1869; antedated March 12, 1869.

IMPROVED WATCHMAKERS' TOOL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, C. E. MURRAY, of Lock Haven, in the county of Clinton, and State of Pennsylvania, have invented a new and useful Improvement in Watchmakers' Tools; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The present invention relates to a tool more especially intended for watchmakers, although it can be adapted to other uses, and is intended for straightening the pivots to the wheels of a watch-movement, for trimming off to finish the ends or heads to the pivots, and for finishing the wheels.

In the accompanying plate of drawings my improved tool is illustrated—

Figure 1 being a side elevation, or view of the same.

Figures 2 and 3, face views of the heads or puppets to the tool.

A, in the drawings, represents a bar, of metal, wood, or other suitable material, to which bar, at one end, is fixed a block or post, B, and at the other provided with a block or post, C, arranged loosely thereon, so as to slide and to be moved forward and backward, toward or away from the fixed post, and secured at any desired point by means of a set-screw, D, or other suitable device or devices.

The post B has fixed to it a circular disk-shaped jaw, E, above which is another similar but smaller jaw, F, fixed to one end of a rod, G, that is hung upon a fulcrum at H, so as to be swung up or down, by means of and through a set or thumb-screw, I, in its rear end, J, acting upon the top of the said block B.

The central portion of the post B is cut out, and in it is inserted a block, K, and there hung, so as to be swung up or down, being secured and fixed in position by a set-screw, L, of the post.

M, a spindle passing through the swinging block K.

This spindle M, at one end, is provided with a head, N, and at the other, upon the face of the jaw E, is secured the wheel to be trimmed or trued off on its rim.

The adjustable post C carries jaw-wheels Q and P, similarly arranged to those of the post B.

R, a screw-rod, screwing through post C, and larger circular jaw Q of the same, and provided at one end with a head, S, suitable for pressing the same in or out.

This screw is arranged to act upon the square shoulder, or arm T, of the rod U, passing through the centre of the said jaw Q, and thus, when the post C shall have been moved sufficiently near the fixed post B, to bring said shoulder T in contact with the rim of the wheel fixed or secured on the inner and opposite end of the spindle M, by turning the crank, or head, on the outer end of the said spindle M, it will be indicated whether the wheel is true on its rim, by said rim remaining in or removing from contact with the shoulder T during its revolution.

In order to straighten the pivots of a wheel, it is placed between the two posts B C, with its faces parallel to the face of the jaw E, and the pivots inserted between the jaws Q and P and E and F, respectively. By operating the screws in the rear, or outer ends of the horizontal bars, carrying at their opposite ends the smaller jaws P F, said jaws are lowered till they come in contact with the pivots, and the pressure thus brought to bear is increased by continuing to operate the screws till the desired result is obtained.

It will be perceived, from the above, that to trim or finish a pivot-head, it is only necessary to make use of one set of jaws, as said head may be filed or otherwise operated upon, as required, while that on the opposite side of the wheel, or its opposite end, as the case may be, is firmly griped, or held between the jaws.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The arrangement, herein described, of the several parts of a compound tool for holding watch-wheels while their faces are being trued, or their pivots trimmed or finished, all constructed, combined, and operated as described.

C. E. MURRAY.

Witnesses:

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