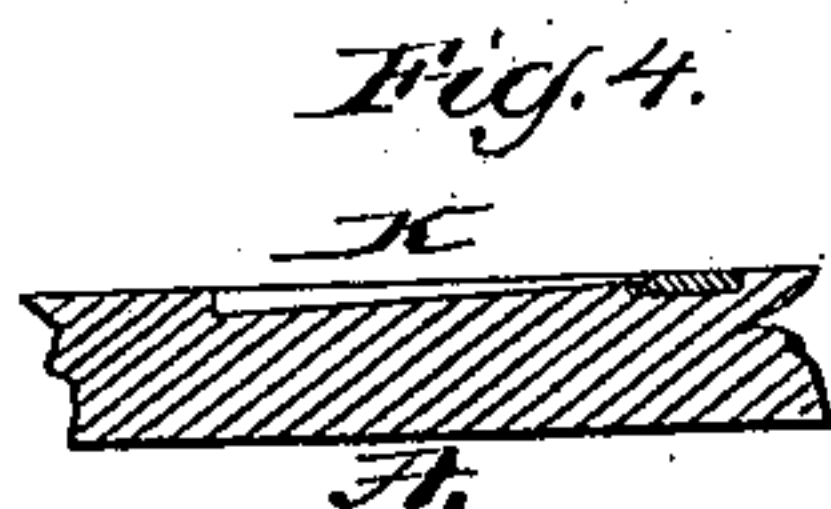
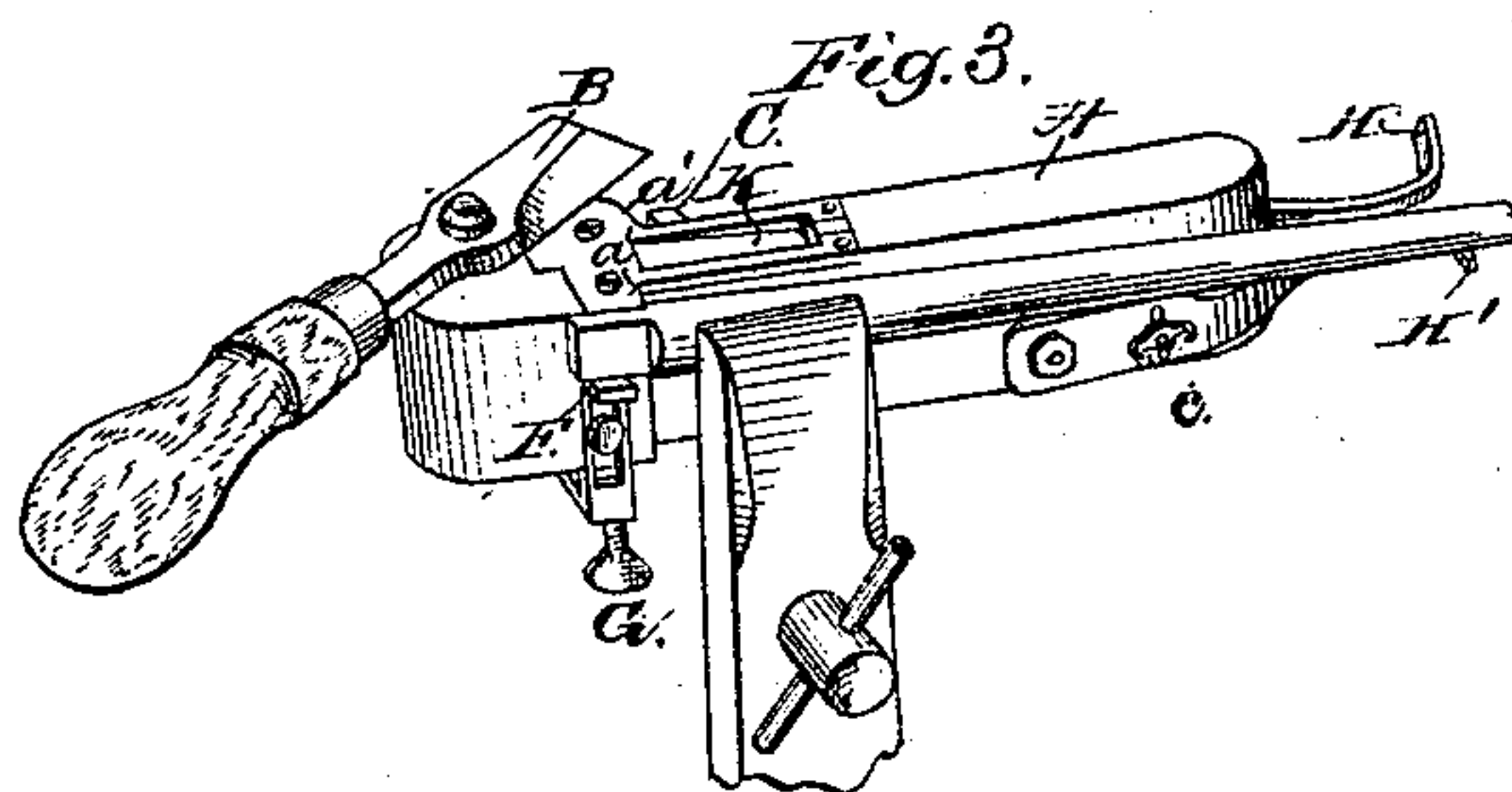
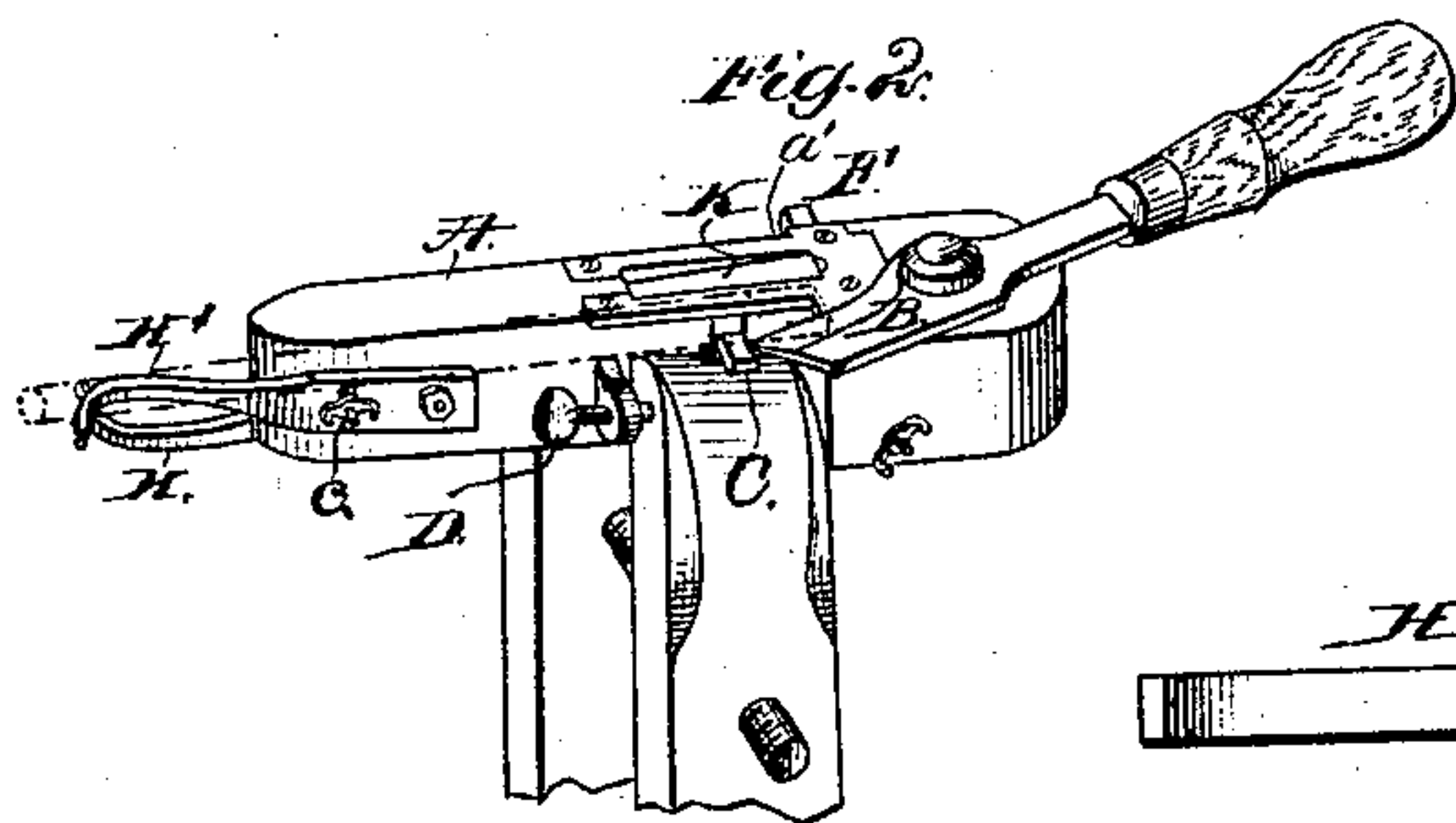
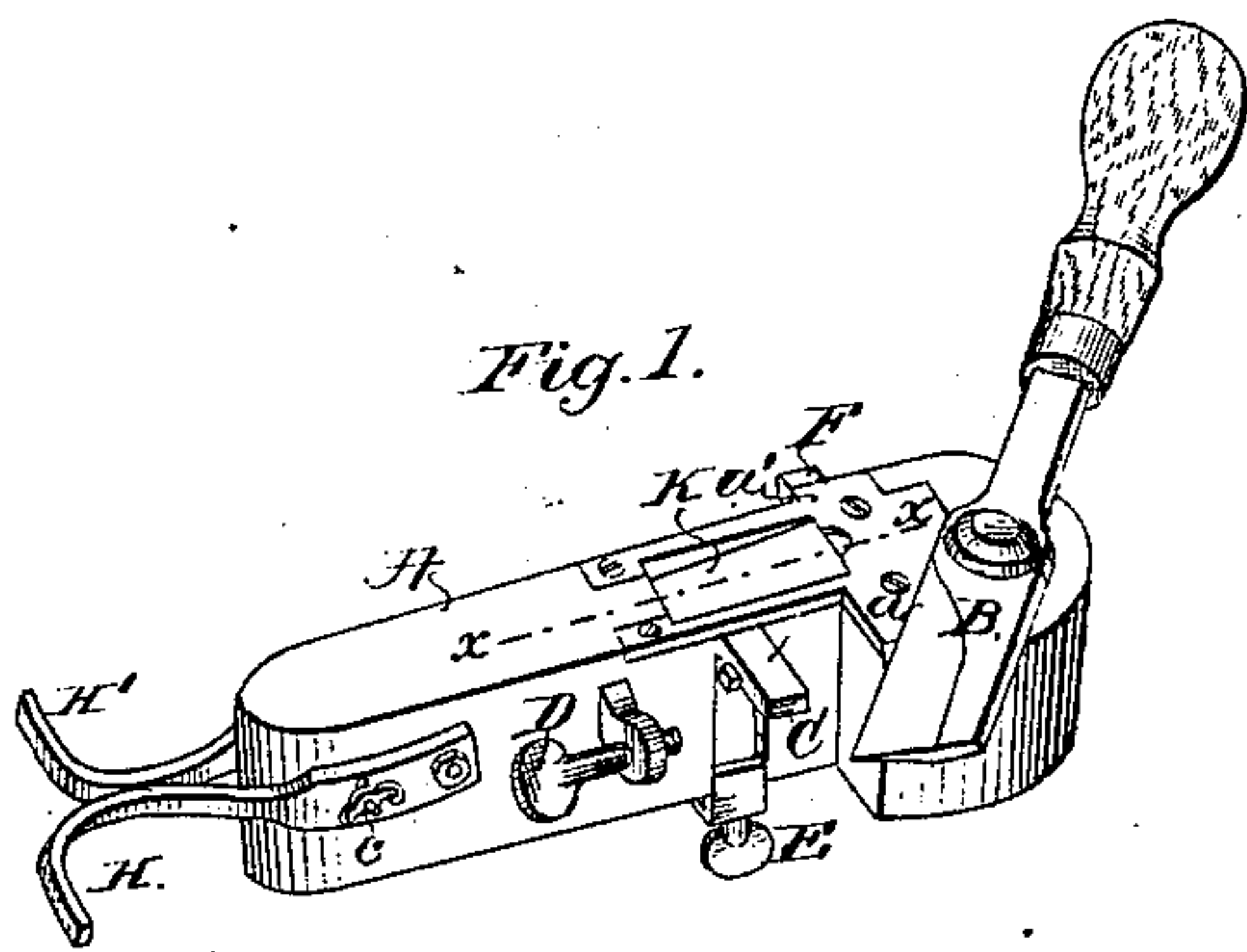


A. P. ALMQUIST.
Machine for Trimming Spoke Tenons.

No. 234,937.

Patented Nov. 30, 1880.



WITNESSES:

John F. C. Printkett.
Amos W. Hart

INVENTOR:

A. P. Almquist

BY

Wm. C. G.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ANDREW P. ALMQUIST, OF NEW WINDSOR, ILLINOIS.

MACHINE FOR TRIMMING SPOKE-TENONS.

SPECIFICATION forming part of Letters Patent No. 234,937, dated November 30, 1880.

Application filed May 17, 1878.

To all whom it may concern:

Be it known that I, ANDREW P. ALMQUIST, of New Windsor, in the county of Mercer and State of Illinois, have invented a new and Improved Device for use in Trimming Spoke-Tenons; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is a device for trimming tenons of wagon and carriage wheels, and also tenons of bars composing or forming part of the frame-work of wagon-bodies.

It consists, essentially, of a wooden block having a cutter pivoted thereto for trimming the spoke-tenons, and suitable gages for supporting the spokes while being trimmed. In practical operation said block is clamped in a bench-vise, and thus held firmly in horizontal position.

In accompanying drawings, forming part of this specification, Figure 1 is a perspective view of the device. Figs. 2 and 3 are different perspective views illustrating the manner of using the device. Fig. 4 is a detail longitudinal section on line *xx*, Fig. 1. Fig. 5 is a detail view, showing one of the gages or spoke-supports detached and enlarged.

The body of the device is an oblong wooden block, A, having one end enlarged so as to form the lateral shoulders *a a'*. The knife or cutter B, by which the spoke-tenons are trimmed, is pivoted horizontally to such enlarged end of the block A on the flat face thereof.

To the side of the block A, near the face of the shoulder *a*, is attached an angular gage, C, which may be adjusted at different heights by means of a thumb-screw, E. The function of this gage is to support a spoke-tenon so that its wider sides may be trimmed by use of the knife B, as hereinafter described.

A similar gage, F, is attached to the other vertical side of the block A at a point opposite the shoulder *a*, and is similarly adjusted by means of a screw, G. This gage F supports a spoke-tenon while its narrower sides or edges are being trimmed.

Two angular bars, H H', are attached to and project from the smaller end of block A

in the direction of its length. These bars support the tapered or outer ends of the spokes during the trimming operation. The attachment is made by means of bolts, one of which is provided with a clamp-nut, *c*, and passes through slots *d* in the bars, which allow the outer ends of the latter to be adjusted vertically and held in different adjustments, as required, for spokes differing in thickness, or to vary the angle at which the tenons are to be trimmed.

The mode of use of the device above described is as follows: As shown in Fig. 2, the block A is clamped in a bench-vise, whose jaws are, in turn, clamped between the shoulders *a* and a thumb-screw, D. The tenon end of the spoke is laid on the gage *c*, so as to abut shoulder *a'*, and its tapered end on the bar H, as shown in dotted lines, and while so held the knife B is turned on its pivot, thus removing a portion of the wood from the spoke, and reducing its thickness, or, in other words, trimming one of its broader sides. The spoke is then turned on its opposite side and trimmed, as before.

In order to trim the narrower sides of the spoke it is laid upon gage F and bar H', in the position indicated in Fig. 3. The block and spoke are then clamped together by the jaws of the vise, and thus held securely while the knife B is swept across the tenon, thereby trimming the same neatly and accurately.

I show the face of the block A provided with a triangular or wedge-shaped cavity, K, which is designed to receive the end of a wooden block and hold the same while the knife A is operated to sever the portion of such block which fills the cavity. Such severed portion will obviously be wedge-shaped. In this manner wedges may be formed quickly and accurately of uniform size.

I do not claim, broadly, the employment of adjustable gages for holding a spoke in place while its tenon is being cut or trimmed by a knife operated by a lever or equivalent; but What I do claim is—

1. The combination, with a block having gages attached to its sides and end for supporting the respective ends of a spoke, of knife or cutter B, which is pivoted to one end

of said block, as shown, whereby it is adapted to sweep over the face of the block and operate on the spoke-tenon, as specified.

5 2. The combination, with the block A, having the shoulder *a* and contiguous spoke-support C, of the angular bar H, attached to the end of said block, and having a slot, *c*, and

the clamping-bolt for securing the bar adjustably, as and for the purpose specified.

ANDREW P. ALMQUIST.

Attest:

CLINTON SHAW,
HENRY L. LOOMIS.