

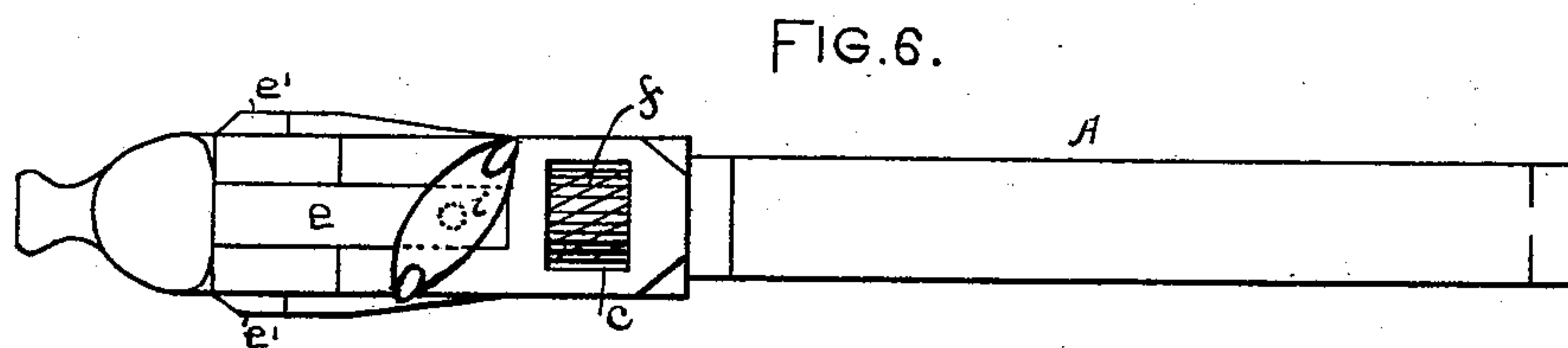
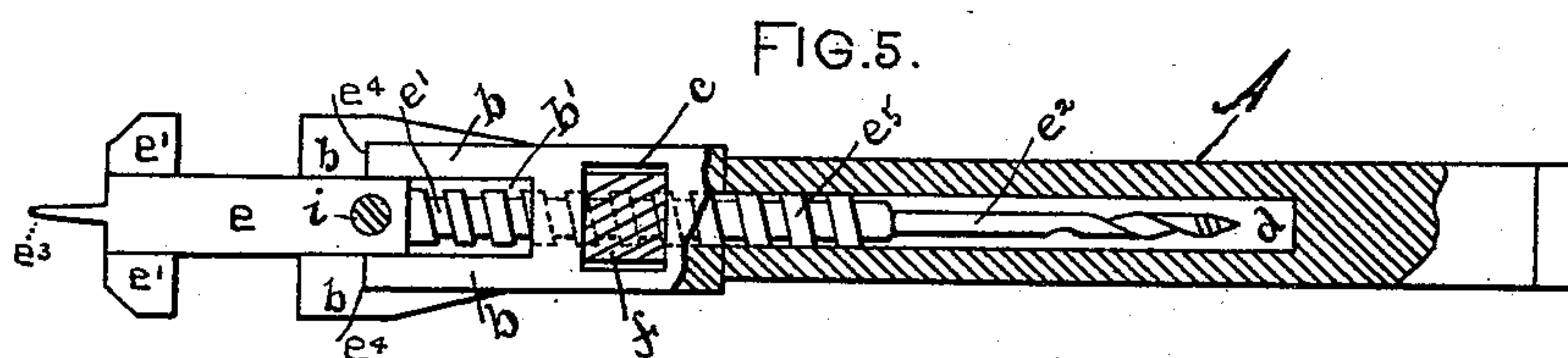
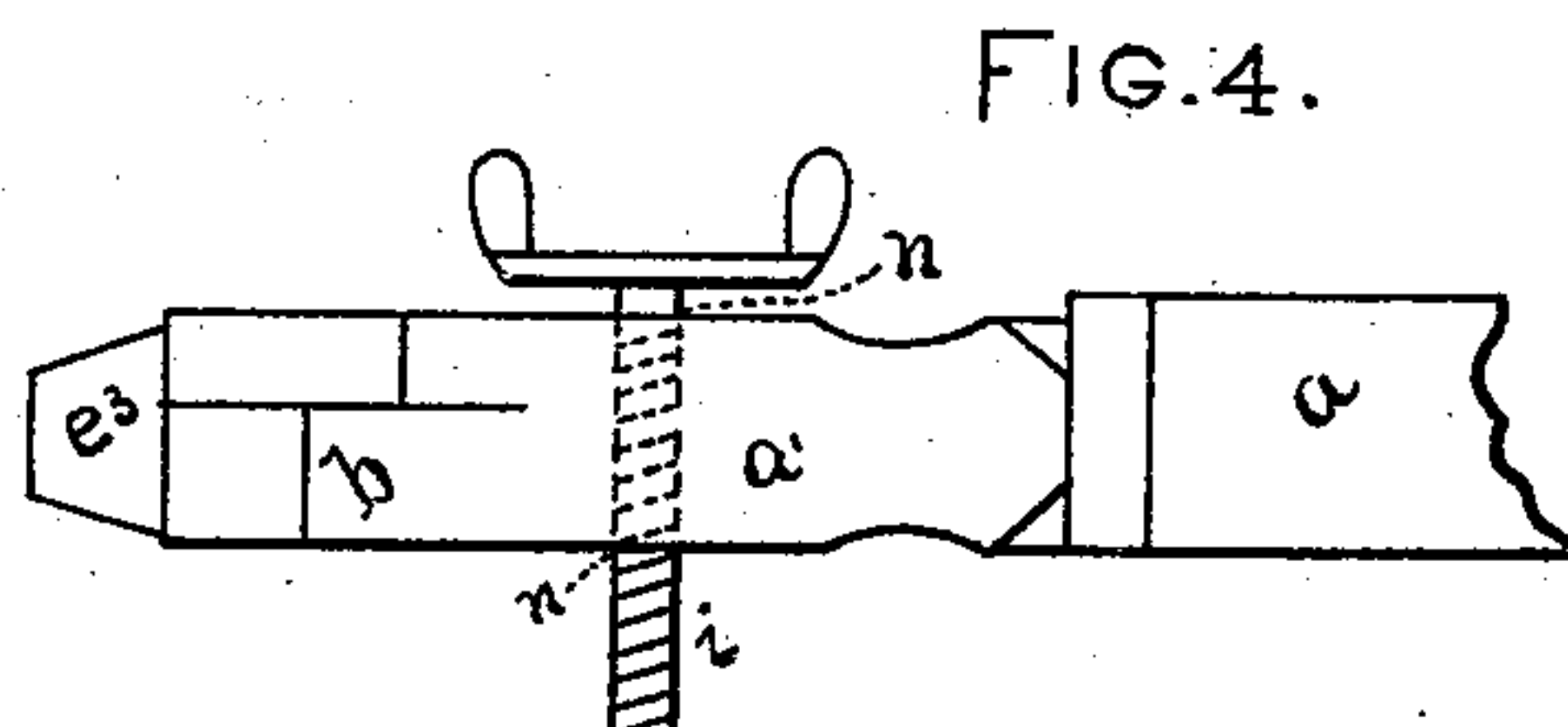
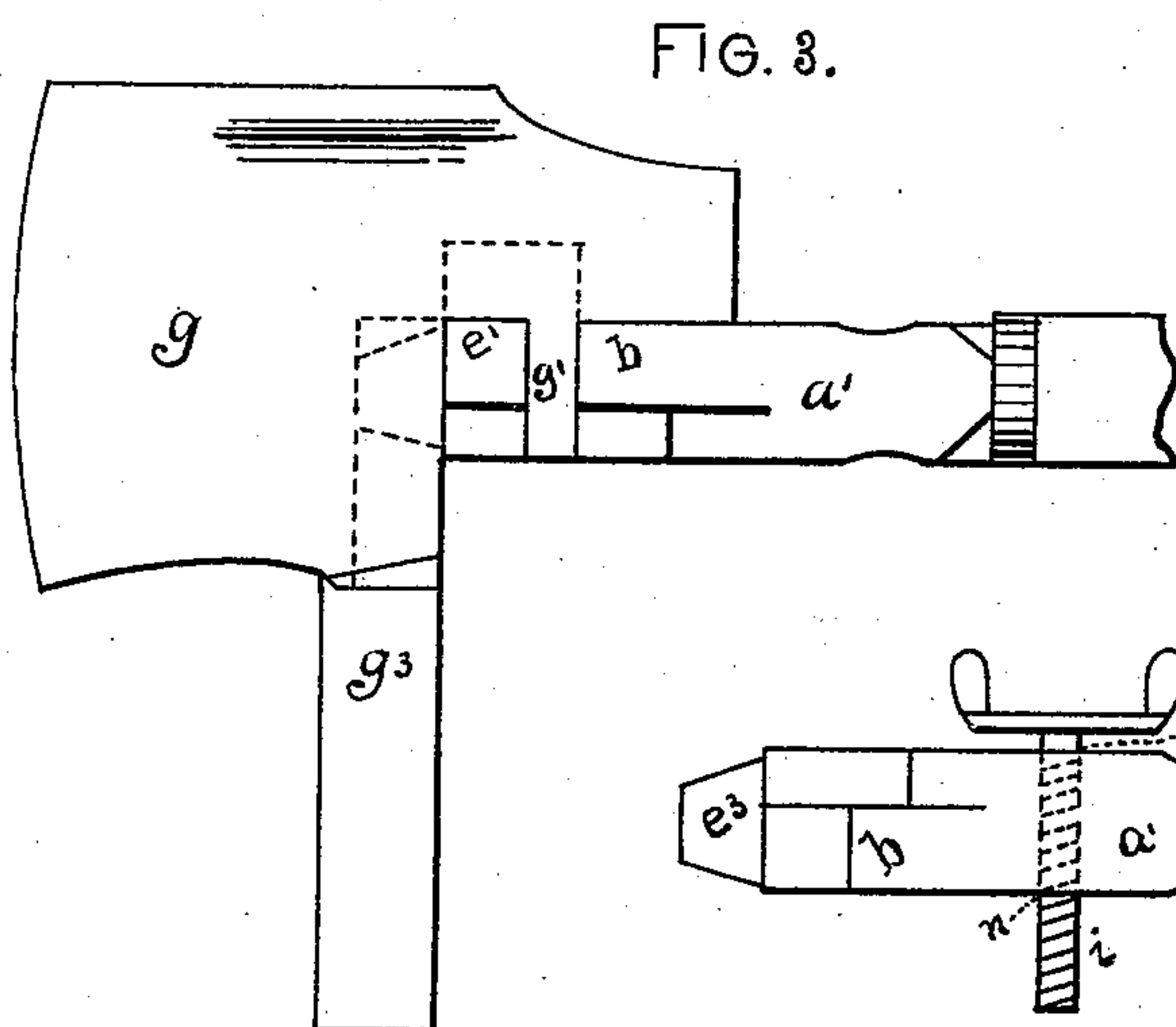
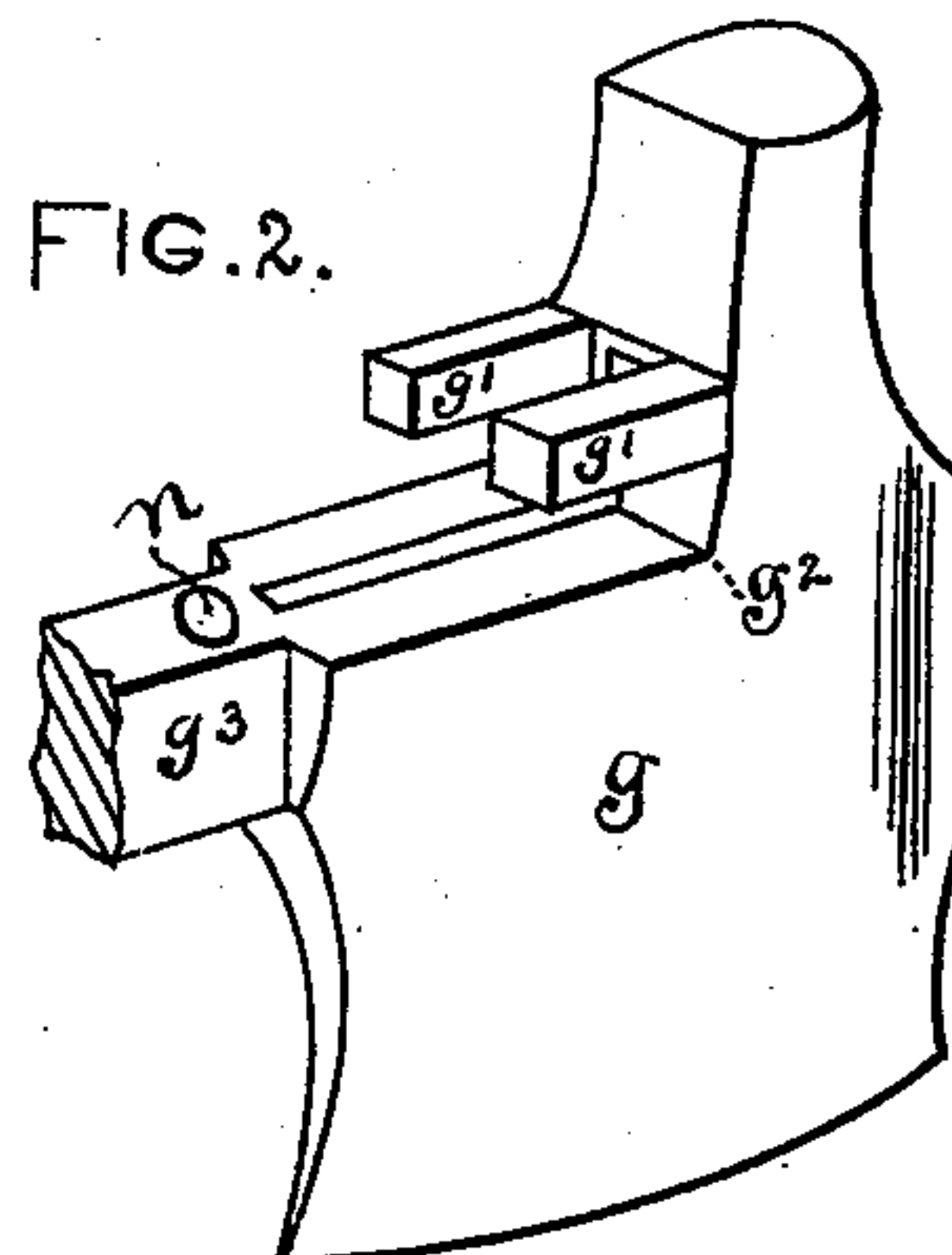
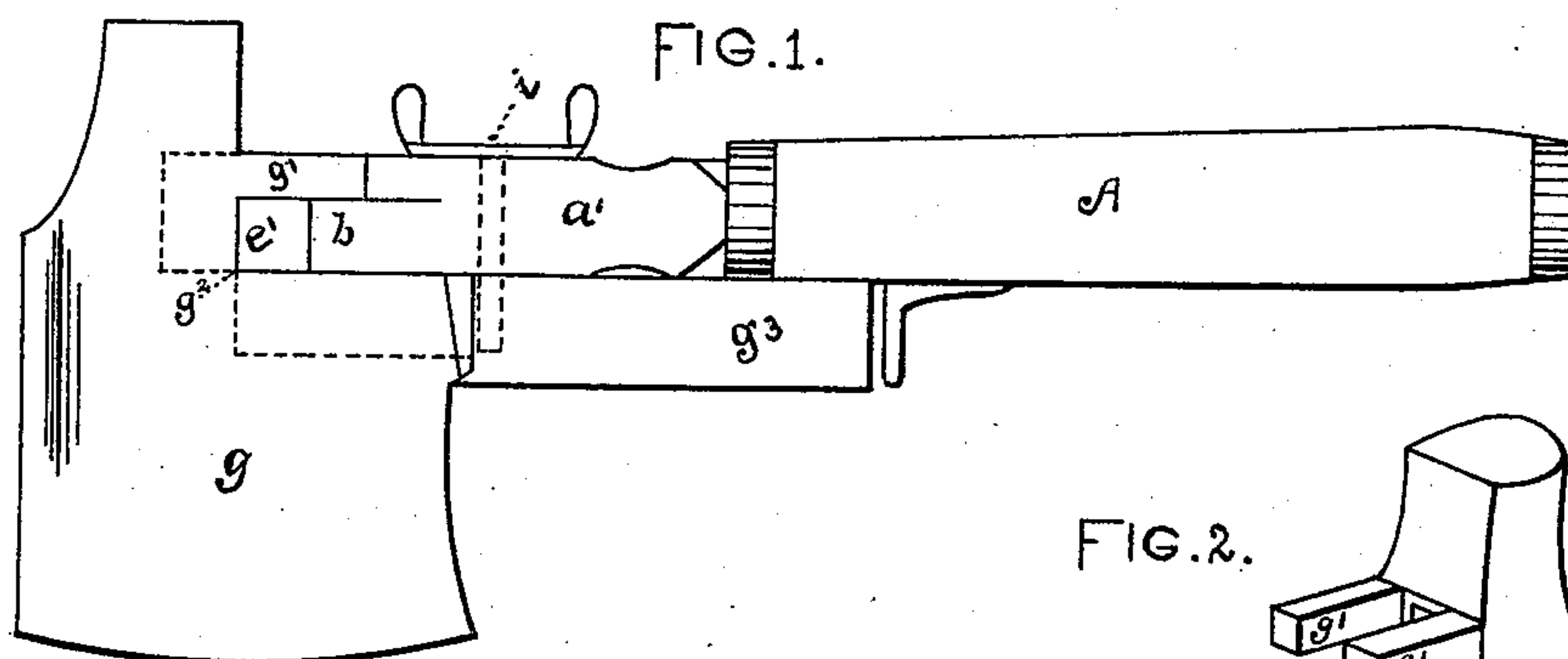
(No Model.)

J. H. DONALDSON.

COMBINATION TOOL.

No. 353,023.

Patented Nov. 23, 1886.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 353,023, dated November 23, 1886.

Application filed August 9, 1886. Serial No. 210,381. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. DONALDSON, a citizen of the United States, residing at Gore, in the county of Hocking and State of Ohio, have invented a certain new and useful Improvement in Combination-Tools, of which the following is a specification.

My invention relates to improvements in the combination of a number of different tools; and the object of my invention is to produce and combine, in a simple, neat, and compact form, a number of useful tools. This object I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the device with all the parts connected, showing the same as a hatchet. Fig. 2 is a perspective view of the hatchet-blade detached. Fig. 3 is a side elevation of the device in position for use as a chisel. Fig. 4 is a side view of the same as a screw-driver. Fig. 5 is a plan view, partly in section, showing the tongue extended to form a wrench, and Fig. 6 is a plan view of the device with the parts connected to form a hatchet.

Similar letters refer to similar parts throughout the several views.

A represents a hatchet-handle, having its rear portion of the usual shape, and having its forward portion, a' , flattened on the top and bottom sides, and made somewhat wider than its rear portion. This flattened forward portion, a' , is provided with an open slot, b' , extending rearwardly from the front end, thus forming on either side thereof parallel arms b . That portion of said portion a' slightly in rear of the rear end of said slot b' is mortised, to form a vertical oblong transverse hole, c , therein.

Formed within the handle A, and beginning at the rear end of the slot b' , is a central hole, d , which extends horizontally rearward to a point near the rear end of the portion A of the handle, thus forming a hollow handle.

Made to fit loosely within the slot b' is a tongue, e , having formed on its head lugs e' , made to project laterally on each side thereof. Said lugs extend upward one-half the height of the portion a' , and have their lower sides flush with the lower side thereof. The rear end of the tongue e is continued in the form

of a screw, e^3 , which, projecting rearwardly into the hole d , or hollow of the handle, to about the center of the length of the latter, is continued to within a short distance of the end of said hole d in the form of a gimlet, e^2 .

Formed on the outer end of the tongue e of the handle, and projecting outwardly, is a short sharpened blade forming a screw-driver, e^3 .

When the tongue e is inserted within the slot b' , its screw e^3 is made to pass through and engage with the internal screw-thread of a thumb-nut, f , within the hole c . By turning this thumb-nut f , the periphery of which projects slightly without the upper and lower sides of the portion a of the handle, it will be seen that the tongue e may be gradually forced outward, thus forming, when extended a sufficient distance, as shown in Figs. 5 and 3 of the drawings, a wrench, the jaws of which consist of the lugs e' and the outer ends of the arms b , the latter being cut away sufficiently to bring their upper surface on a line with the upper surface of the lugs e' , thus forming shoulders e^4 near the front end and on the upper half of arms b .

Formed near the rear end of the tongue e is a vertical screw-hole, n .

g represents the blade of a hatchet, having its rear upper portion cut away to form a right angle, g^2 , and having projecting rearwardly from the rear side of the hammer portion, at equidistant points from the center of its width, two short parallel arms, g' .

Made to project longitudinally rearwardly from about the center of the rear side of the blade g , so that its upper surface is flush with the upper surface of the base of the angle g^2 , is a chisel-shaped extension, g^3 .

In order to secure the hatchet to the handle in position for use, the tongue e is, by means of the thumb-nut f , forced into its seat between the arms b until its lugs e' bear against the ends of said arms. That portion of the tongue e which projects beyond the shoulders e^4 is then inserted between the parallel arms g' until the projecting screw-driver blade e^3 is inclosed within a vertical groove formed in the rear side of the hammer end of the hatchet-blade, said parallel arms g' resting on the top side of the lugs e' and projecting ends of the arms b . The hatchet-blade is held in this po-

sition by means of a screw, i , made to pass through the screw-hole n in the tongue, and into a continuation of said screw-hole formed in the chisel g^3 .

5 In order to use the chisel g^3 , the hatchet-blade may be detached by removing the screw i , and the blade of the hatchet turned at right angles with its former position, so that its chisel-shaped projection points downwardly, and securing the arms g' between the jaws of the wrench above described, allowing the screw-driver blade to project into a groove cut in the base of the angle g^2 , as shown in dotted lines in Figs. 1 and 3.

15 The front side of the hatchet-blade, which, when in the last-described position, (as shown in Fig. 3 of the drawings,) becomes the top side thereof, is somewhat flattened to admit of pounding thereon to aid in forcing the chisel into any substance beneath the same.

Made to project downwardly from the under side of the handle to which it is secured is a metallic guard, which forms a rest for the hand, and prevents the latter from coming in contact with the sharpened end of the chisel.

25 It will be seen that by turning the thumb-nut f until the threads of the screw e^5 are entirely disengaged therefrom the tongue may be withdrawn from the handle in order that the gimlet may be used.

30 Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the hollow tool-handle with the tongue adapted to fit within the slotted end of the handle, said tongue having its front end provided with a forwardly-projecting screw-driver blade and laterally-projecting lugs, having its rear portion provided with a vertical screw-hole, and having projecting rearwardly a screw adapted to pass through and engage with a thumb-nut located in an oblong hole in the handle, and to enter the hollow of the handle, said screw having a rearwardly-projecting gimlet on its end, substantially as and for the purpose specified.

2. The combination of the hollow tool-handle having its forward portion slotted to receive a tongue, the latter having its front end provided with a forwardly-projecting screw-driver blade and laterally-projecting lugs, having its rear portion provided with a vertical screw-hole, and having projecting rearwardly a screw adapted to pass through and engage with a thumb-nut located in an oblong hole in the handle, and to enter the hollow of the handle, said screw having a rearwardly-projecting gimlet on its end, with a hatchet-blade having a chisel formed on its rear side, detachably secured to the front end of said handle, substantially as and for the purpose specified.

JOHN H. DONALDSON.

Witnesses:

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