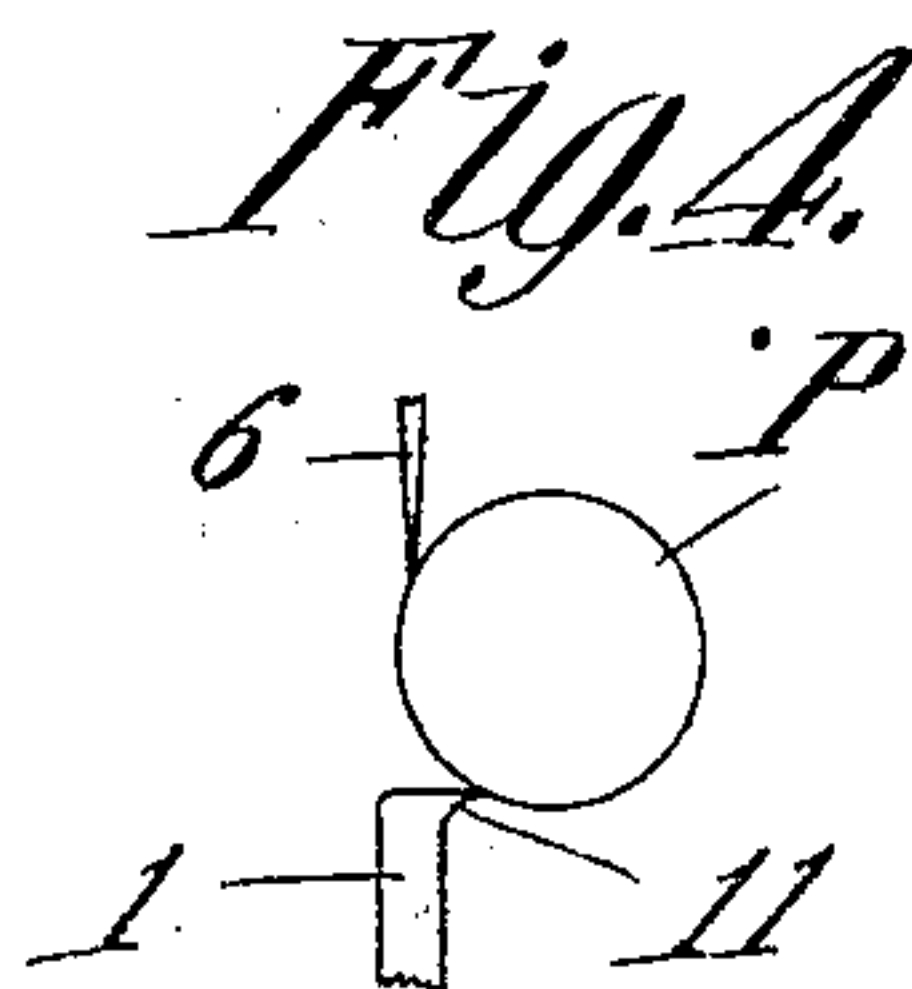
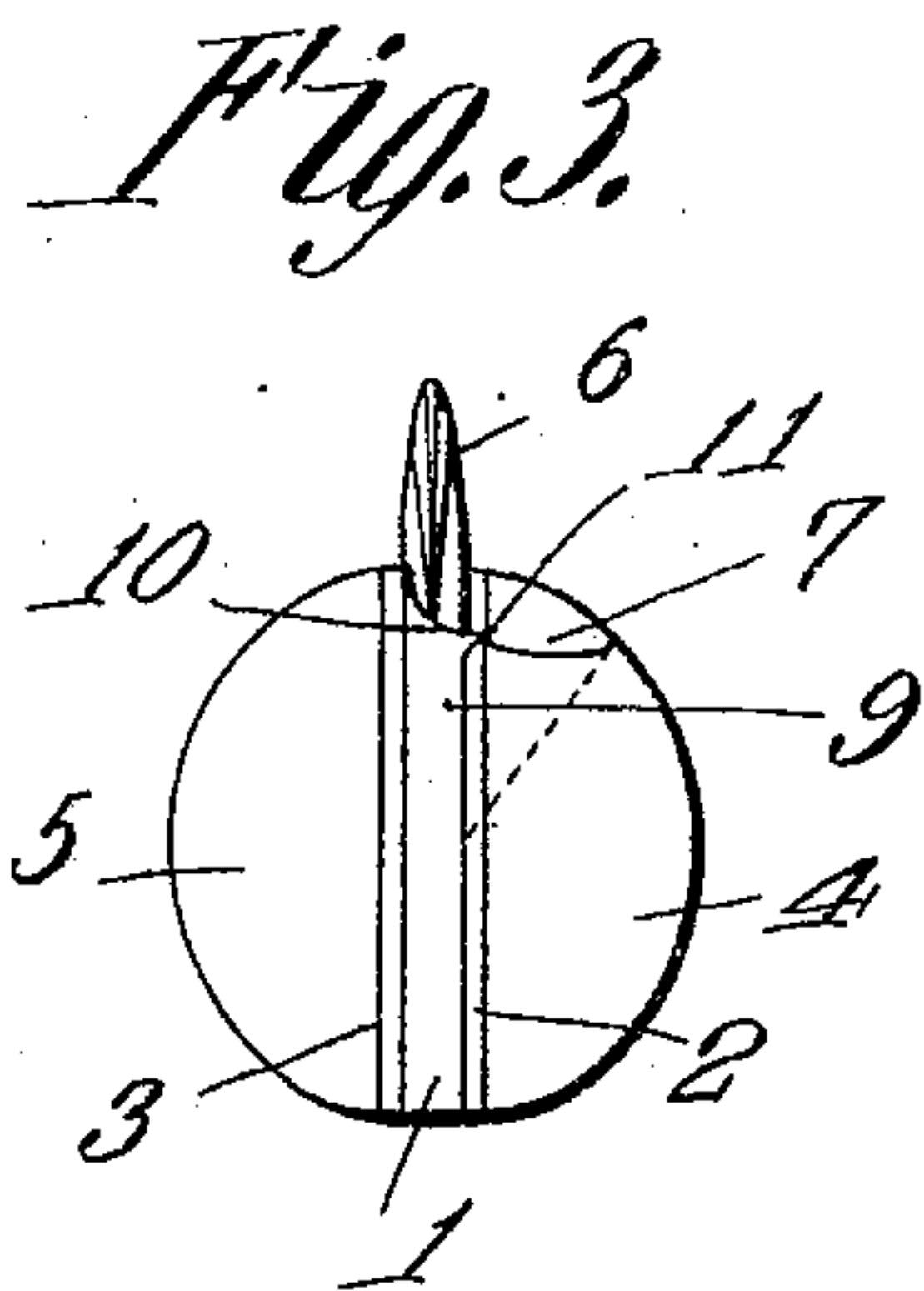
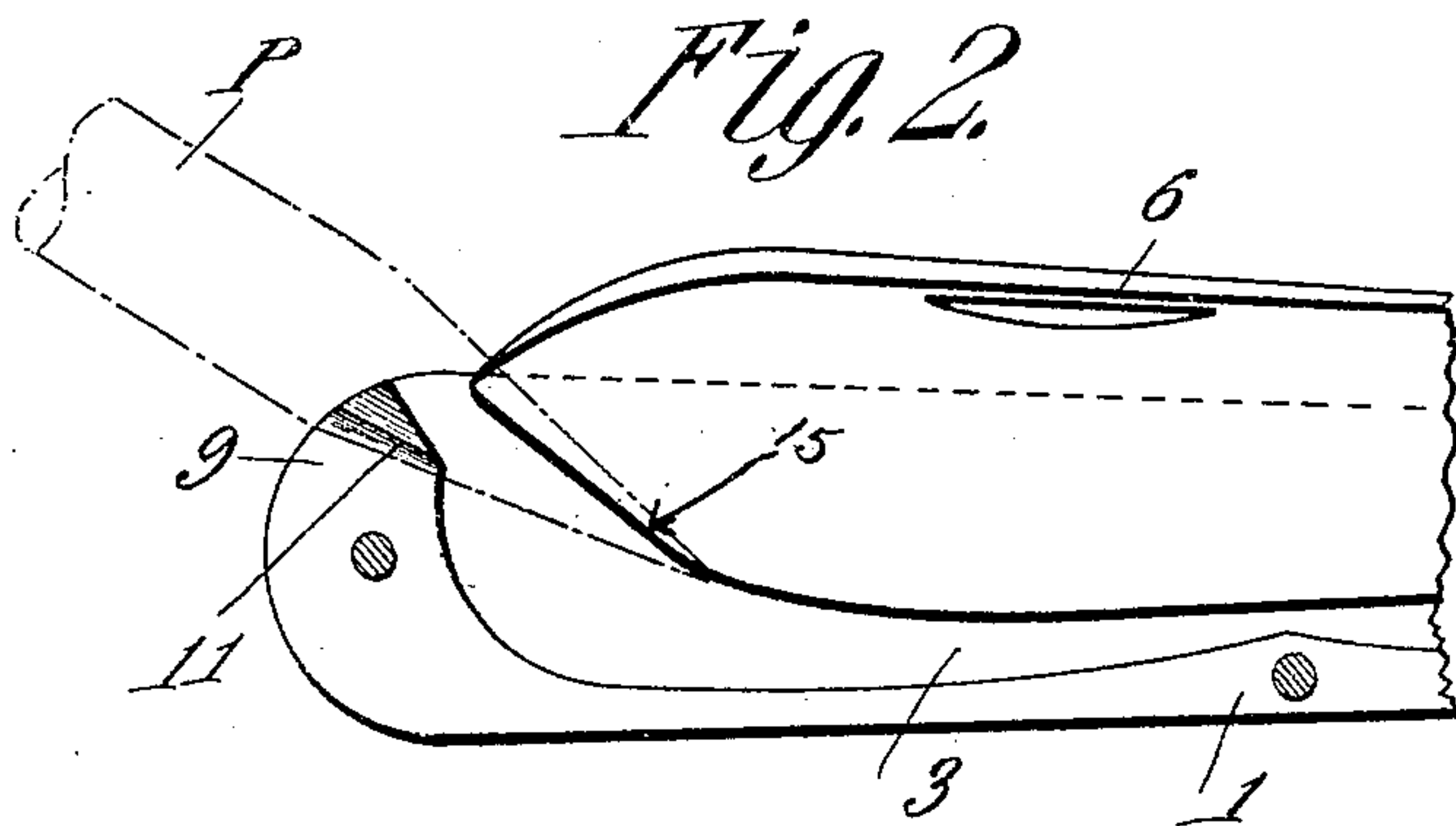
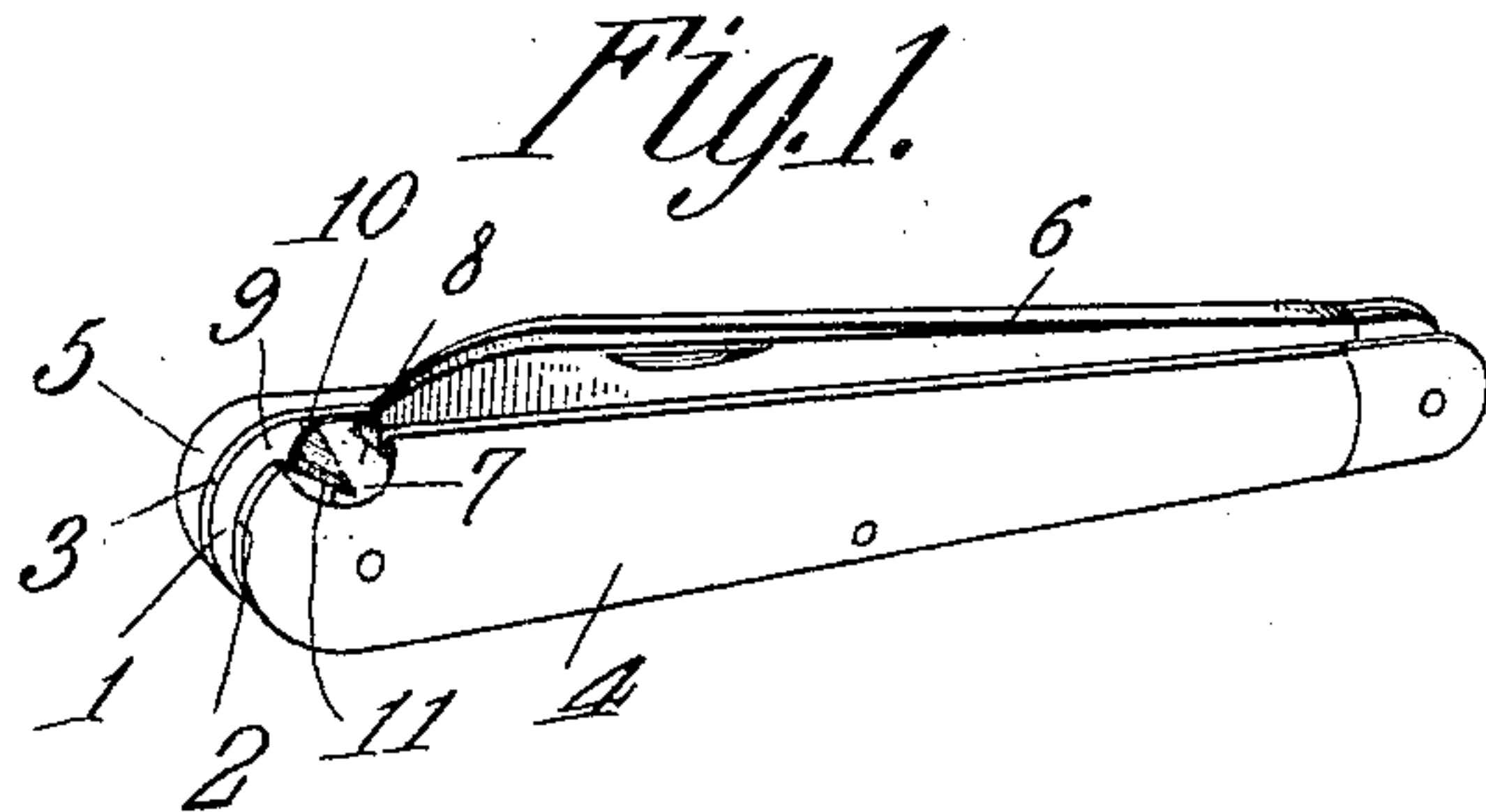


J. H. NANTZ.
COMPOUND TOOL.
APPLICATION FILED JAN. 14, 1909.

948,240.

Patented Feb. 1, 1910.



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UNITED STATES PATENT OFFICE.

JOHN HENRY NANTZ, OF HARTFORD, ALABAMA.

COMPOUND TOOL.

948,240.

Specification of Letters Patent.

Patented Feb. 1, 1910.

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To all whom it may concern:

Be it known that I, JOHN HENRY NANTZ, a citizen of the United States, residing at Hartford, in the county of Geneva and State of Alabama, have invented a new and useful Compound Tool, of which the following is a specification.

The object of the invention is, in a ready and practical manner, to adapt an ordinary pocket knife to perform the function of a pencil sharpener of that class in which rotary motion is imparted either to the implement or to the pencil to effect cutting away of the stock of the latter to expose the lead, and to secure this result without the inclusion of additional parts, or materially changing the construction of the knife, or in any way interfering with its use in the usual manner.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists, generally stated, in a knife having the butt end of its handle provided with a substantially cone-shaped recess or socket, the major axis of which is disposed at an angle to the side face of the knife blade corresponding to the taper it is desired to impart to the pencil stock, and also at an angle to the cutting edge of the body-proper of the blade to cause the pencil to engage with the point portion forming the terminal portion of said cutting edge, the inner wall of the recess being substantially parallel with one side of the blade and spaced therefrom to form a chip-throat, and also to insure the proper shearing of the pencil stock into shavings without tearing or splintering.

As a matter of further and specific improvement, the back spring is provided with a laterally projecting knife, or cutting edge disposed in approximate parallelism with the edge of the point portion of the blade end which operates to make the initial cut on a new pencil in order to permit it to enter the recess and thus engage with the knife blade.

The present improvement in no way interferes with the use of the knife for ordinary purposes, and further will remain effective in use until a considerable length of the point of the blade has been worn or ground away.

The invention consists further in the various novel details of construction of a compound-tool of the pocket-knife type, as

will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification and in which like characters of reference indicate corresponding parts:—Figure 1 is a view in perspective of a pocket knife equipped with the improvements of the present invention. Fig. 2 is a vertical longitudinal sectional view on an enlarged scale, through the butt end of the knife, showing more particularly the coaction between a pencil and the two cutting members. Fig. 3 is a butt end view of the knife. Fig. 4 is a diagrammatic view exhibiting the positions occupied by the cutting members and a pencil.

The invention is shown as applied to a single-bladed knife, but it is to be understood that it is equally adapted for use in connection with one having two blades, and as this will be readily understood, detailed illustration of the latter arrangement is omitted.

The knife comprises, as usual, a handle embodying a back spring 1, two side plates 2 and 3, two hand grips 4 and 5, and a blade 6, the point of which is of the Bowie or arrow shaped type. These parts may be of usual or any preferred construction, and further detailed description thereof is deemed unnecessary.

Arranged in the butt end of the handle is a pencil receiving recess or socket 7 which, as clearly shown in Fig. 3, is approximately cone-shaped, the major axis of which is disposed at an angle to the side face of the knife blade corresponding to the taper it is desired to impart to the pencil stock, and also at an angle to the longer dimension of the handle to cause the pencil P to engage with the upcurved terminal 15 of the cutting edge of the blade 6, the inner wall 8 of the recess, which is formed by the side plate 3, being substantially parallel with one side of the blade and spaced therefrom to form a chip-throat and also to insure the proper shearing of the pencil stock into thin shavings without tearing or splintering. The recess 7 is formed partly in the hand grip 4 and the adjacent side of the plate 2, and partly in the upturned end 9 of the back spring, which by reason of the angular disposition of the walls of the recess relatively to the terminal portion of the cutting edge of the blade and to the longitudinal axis of the handle, secures the maximum efficiency

of operation with the minimum danger of imperfect sharpening or breakage of the lead.

5 A feature of importance in the manner of constructing the recess is that tapers of different degrees of angularity may be cut—that is to say, a long or short point may be formed on a pencil according to the taste of the user. This novel result is secured by
10 utilizing the seat 10 in the back spring as a fulcrum on which the pencil may be rocked to move it toward or away from the knife blade.

As will be obvious by reference to Fig. 1,
15 it will be necessary to chamfer away the end of a new pencil in order to permit it to reach the point of the knife blade 6 to complete the sharpening of the pencil point. This result is secured by forming the terminal of the upturned end 9 of the back spring
20 with a laterally projecting knife or cutting edge 11 which projects into the recess a sufficient distance to intercept an inserted pencil and effect beveling of its end. The
25 knife 11 is disposed in approximate parallelism with the terminal portion of the cutting edge of the blade 6 but projects beyond the adjacent face thereof, and thus gives the initial taper to the pencil stock.

30 Owing to the fact that there is no positively defined upper wall for the recess,

which would limit the insertion of the pencil, it will be seen that the knife blade will be effective in operation even when a considerable portion of its length has been
35 ground away.

What is claimed is:—

1. A knife embodying a handle, a blade and a back spring, the handle being provided with a recess that is intercepted
40 by the blade to provide a pencil sharpener, and the free end of the back spring being provided with a laterally extending cutting edge to impart an initial cut to a pencil.

2. A knife embodying a handle, a blade
45 and a back spring, the handle being provided with an approximately cone-shaped recess at the butt end thereof and disposed at an angle to the longer dimension of the handle and to the terminal portion of the
50 cutting edge of the blade, the free end of the back spring being provided with a seat constituting a fulcrum, and formed with a laterally projecting cutting member.

In testimony that I claim the foregoing
55 as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN HENRY NANTZ.

Witnesses:

VAN R. CARPENTER,
H. F. CARR.