

E. H. NYLIN.
COMBINATION TOOL.
APPLICATION FILED FEB. 17, 1908.

914,601.

Patented Mar. 9, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

Fig. 2.

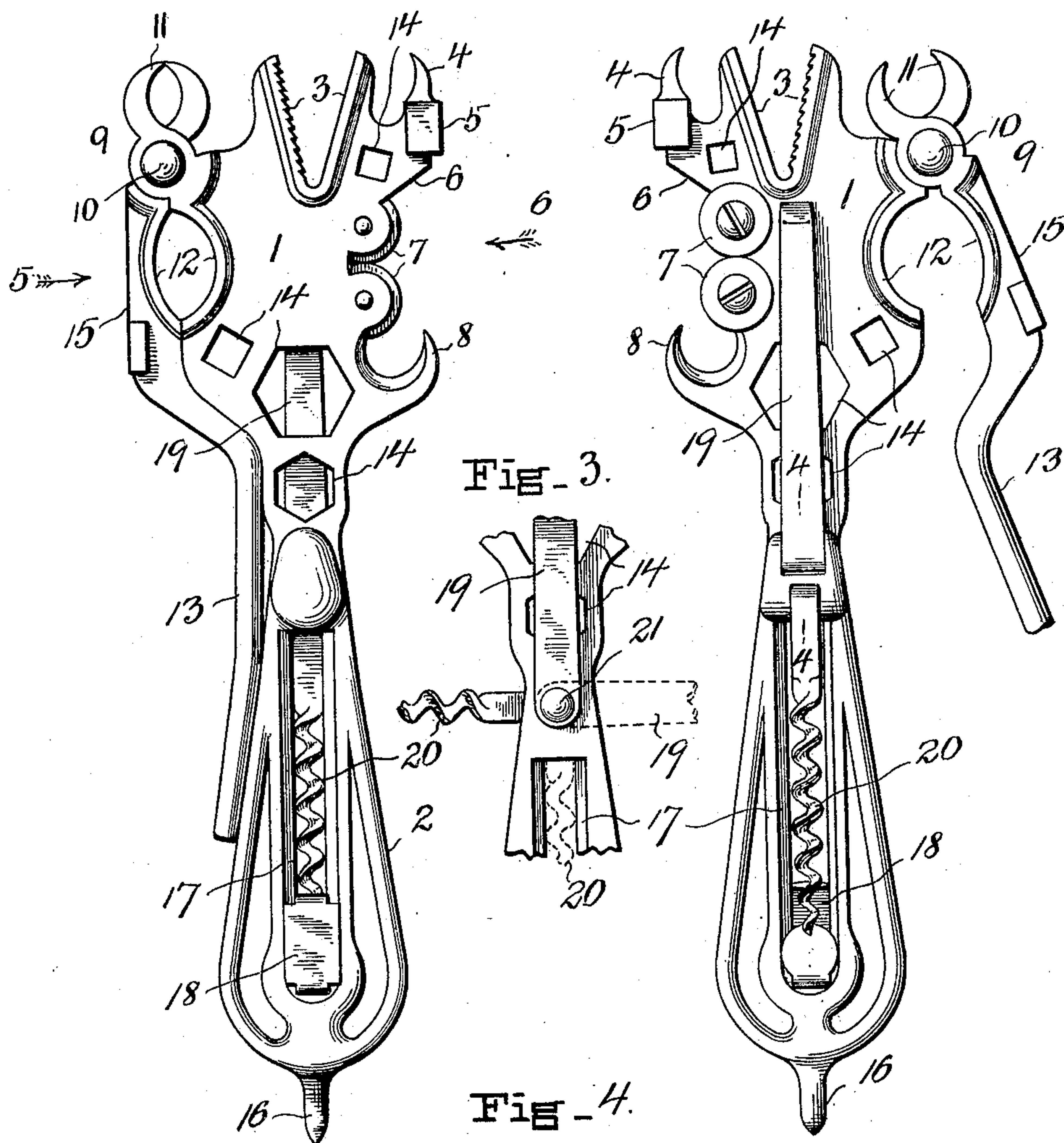
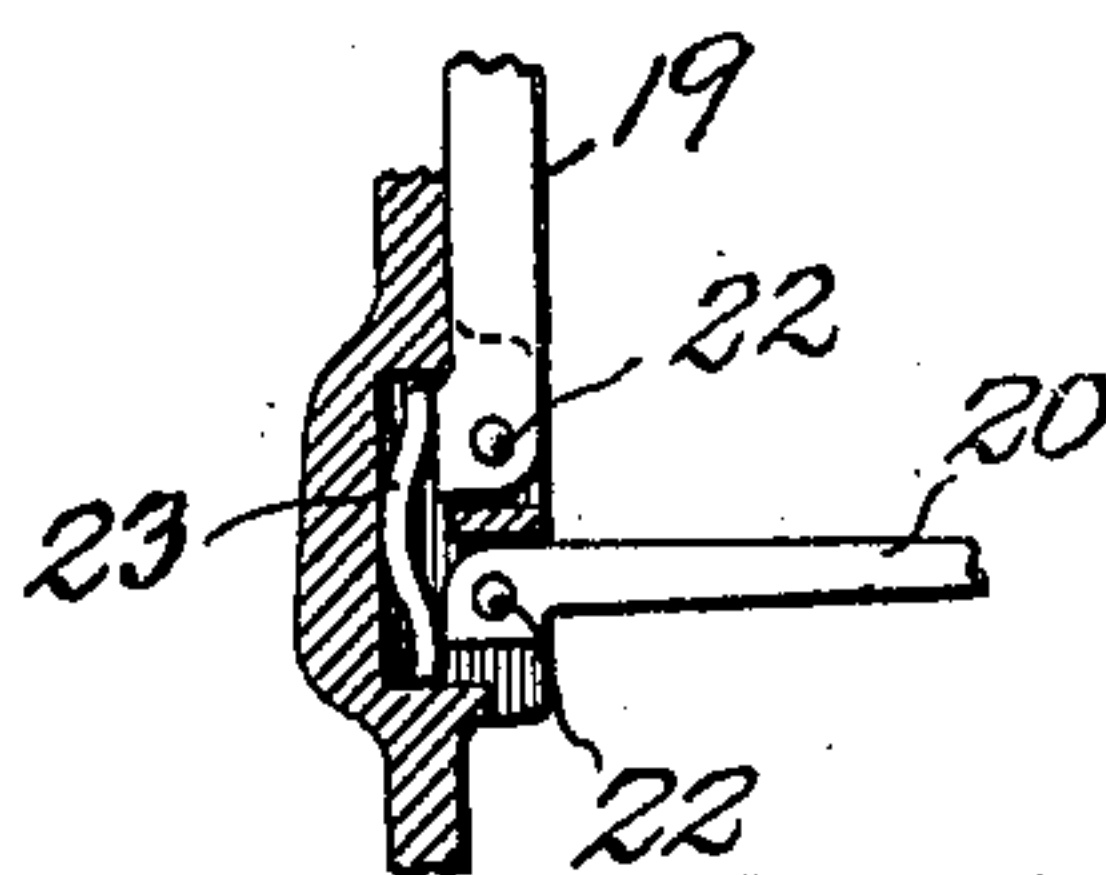


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

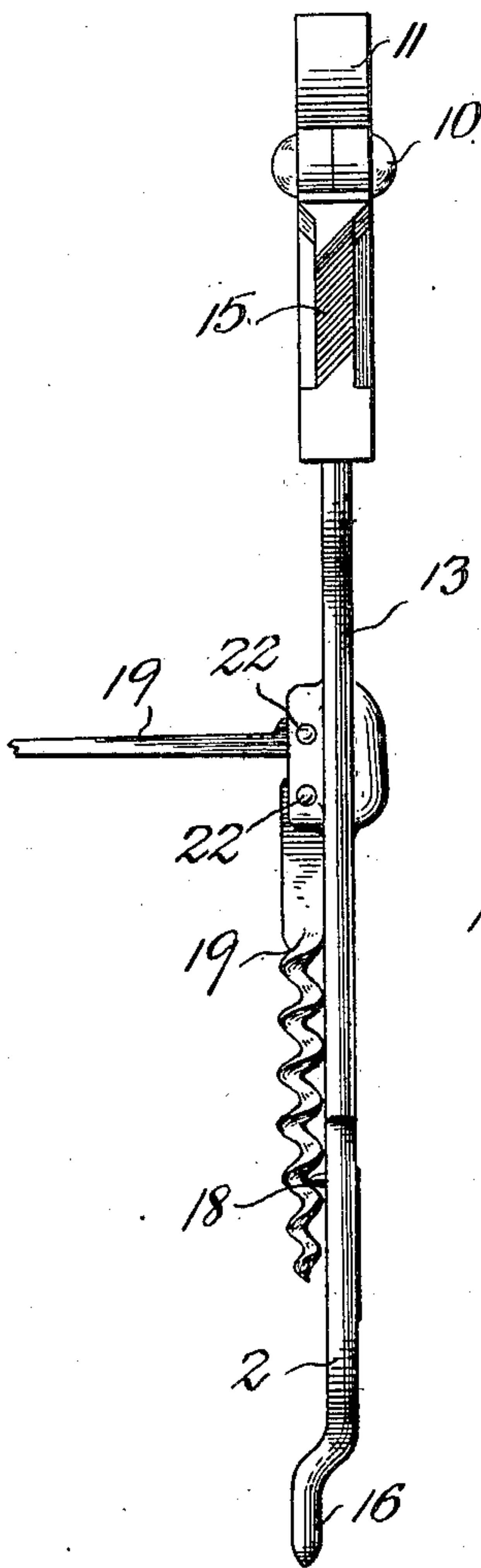


Fig. 7.

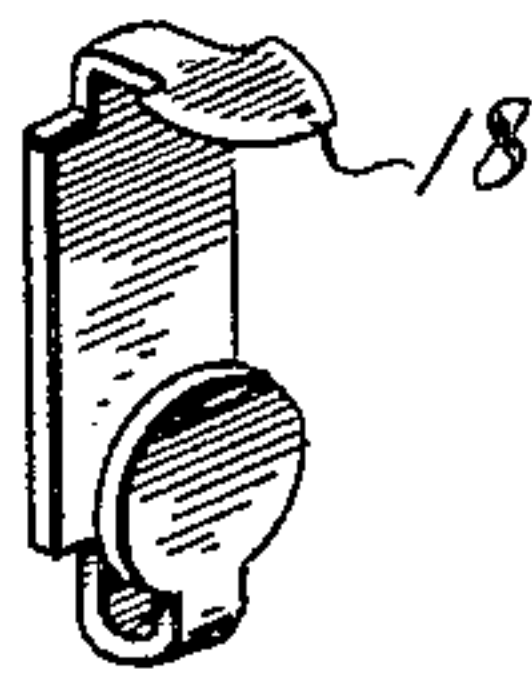


Fig. 6.

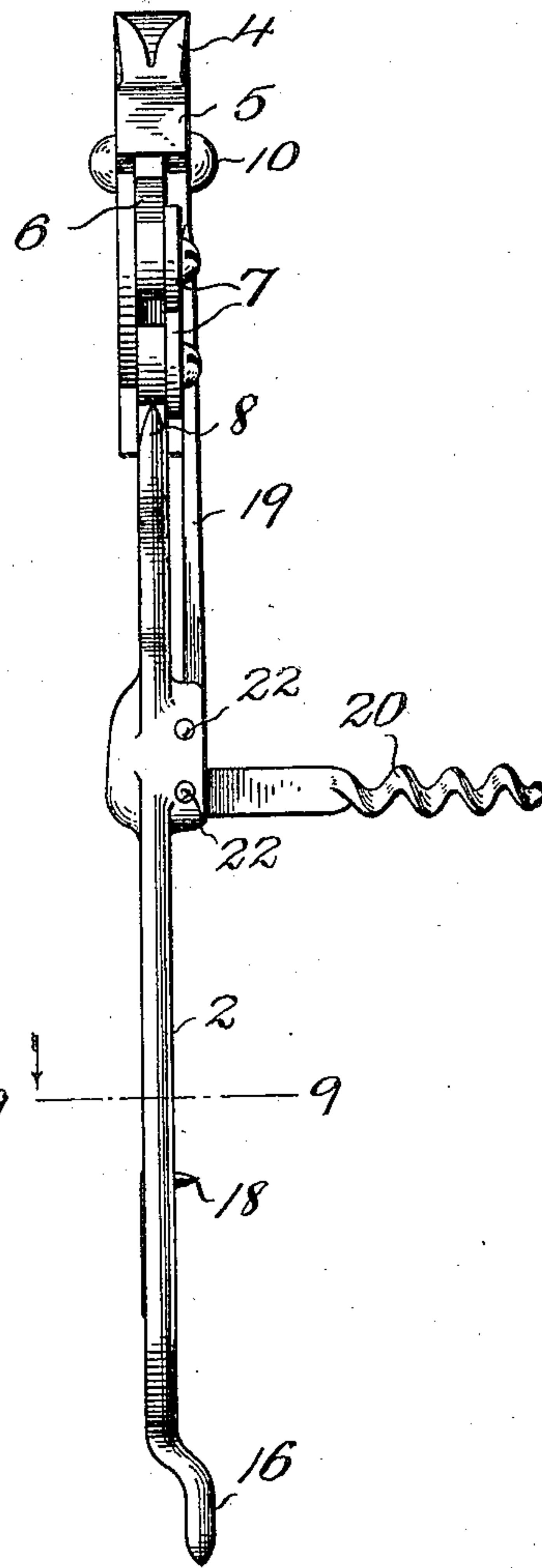


Fig. 8.

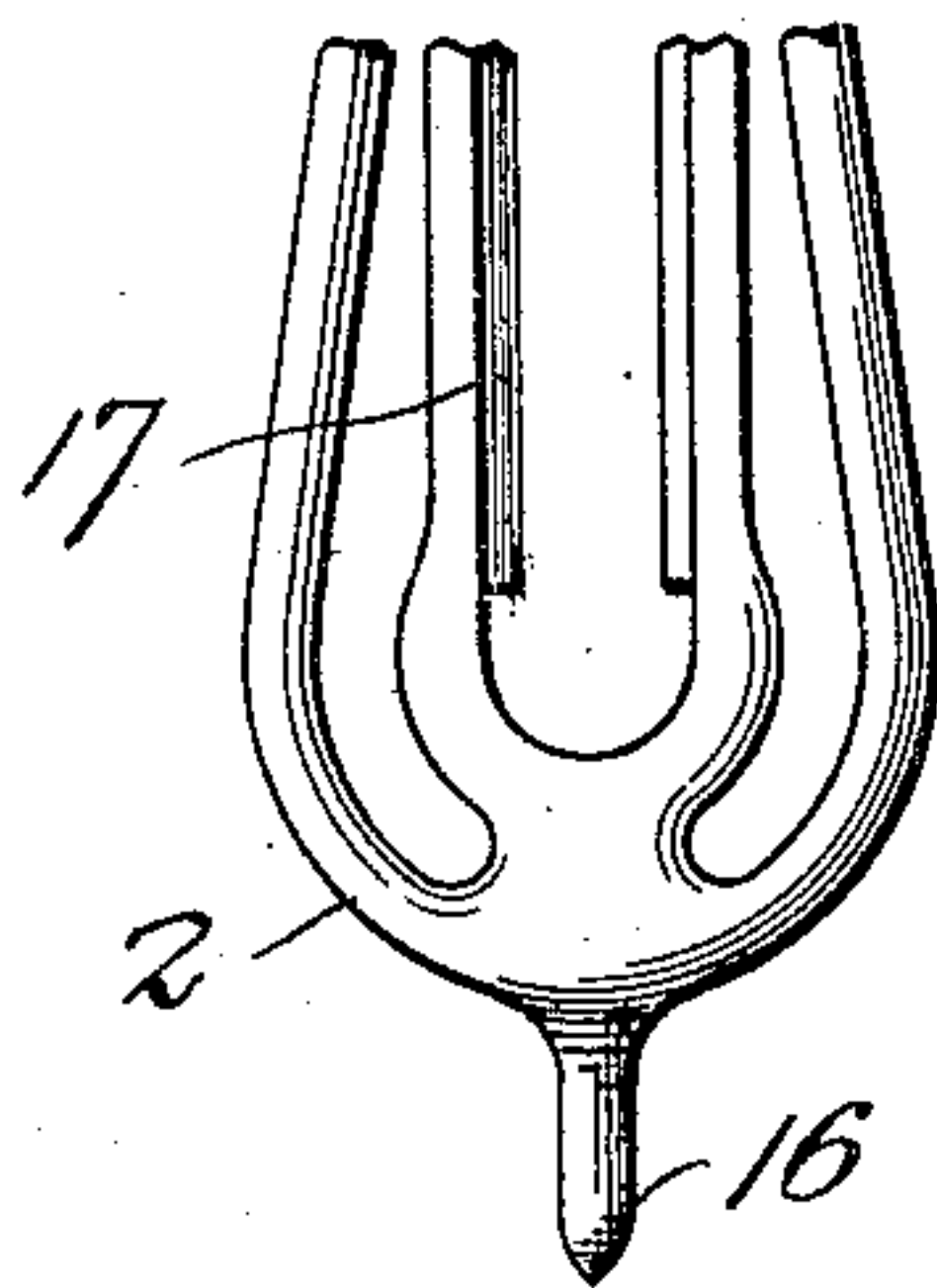
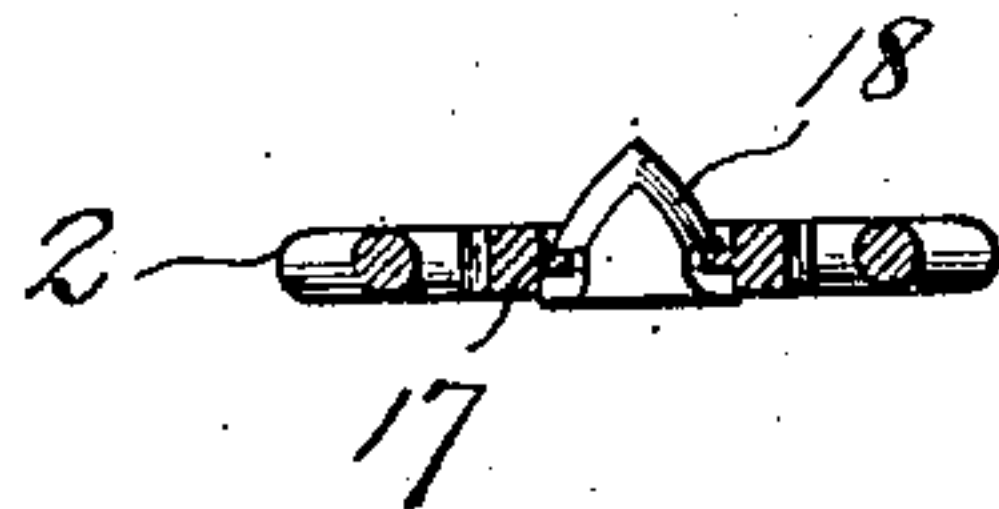


Fig. 9.



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COMBINATION-TOOL.

No. 914,601.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed February 17, 1908. Serial No. 416,258.

To all whom it may concern:

Be it known that I, ERIK H. NYLIN, subject of the King of Sweden, and a resident of borough of Brooklyn, county of Kings, city of New York, and State of New York, have invented certain new and useful Improvements in Combination-Tools, of which the following is a specification.

The present invention relates to combination tools and has for its object a structure in which is combined as many different tools as possible, conveniently and symmetrically arranged.

To this end the invention consists in the several features hereinafter described and pointed out in the claims.

In the accompanying drawings the invention is shown in a concrete and preferred form, but changes of construction may of course be made without departing from the legitimate and intended scope of the invention.

In the said drawings:—Figure 1 is a side elevation of a tool embodying the invention. Fig. 2 is a view similar to Fig. 1 but looking from the opposite side of the tool. Fig. 3 shows a modified form of connecting the pivotal tool members to the device. Fig. 4 is a detail view in section on the line 4—4 of Fig. 2. Fig. 5 is an edge view looking in the direction of the arrow 5 of Fig. 1. Fig. 6 is an edge view looking in the direction of the arrow 6 of Fig. 1. Fig. 7 is a detail view of the sliding cutter blade. Fig. 8 is a detail view of the guide way in the handle. Fig. 9 is a sectional view on the line 9—9 of Fig. 6.

Similar characters of reference indicate corresponding parts in the several views.

The tool is composed of a head portion 1 substantially flat and a handle portion 2. One of the characteristic features of the device is that the tool members are partly arranged as surfaces bounding the head portion and partly as pivotal members adapted to be folded against the device when not in use. The head portion may be said to be divided into two parts by the fixed jaws 3 which constitute a pipe wrench. On one side of the head are formed a plurality of tool surfaces of different character, the tool surfaces of members in this instance being as follows: Beginning at the top there are a pair of fixed jaws which constitute a claw or tack lifter indicated by 4. Directly below is a hammer head 5 adjacent to which is

a slanting surface 6 which is intended to be used for sharpening scissors. Next are a pair of opposed disks or rollers 7 which are adapted to be used for sharpening knives, and below these rollers is formed a sharp hook 8 which can be used as a wire ripper and for other purposes. On the other side of the head are arranged a pair of pivoted jaws or members 9. On the outer end of these members and on one side of the pivot 10 are formed tongs or nippers 11, and on the other side of the said pivot the parts have concave faces 12 forming a nut cracker. These jaws are provided with a tail 13 which as shown in the drawings has a contour substantially like that of the opposed part of the handle so that the said tail will constitute a part of the handle when in its closed position. The interior part of the flat head may be provided with wrench holes 14 of different sizes and shapes which also serve to lighten the structure. The surface 15 on the pivoted jaws 9 may be utilized as a file surface as shown in Fig. 5.

The handle may be conveniently utilized as a can opener by providing the outer end with a sharp point 16 and by providing a guide way 17 in the said handle in which slides the adjustable cutter blade 18. Several tool members may be pivoted on either or both sides of the device such for instance as the screw driver 19 and the cork screw 20. These pivoted members such as the cork screw and screw driver are preferably so mounted as to have their pivot substantially central of the device or at the point of junction between the head portion and the handle, and in the best form should extend in opposite directions when in their closed position. One form of mounting these members is shown in Fig. 3 in which 21 indicates transverse pivots so that when the cork screw or other member is opened it is turned sideways of the tool and stands substantially in the plane of the remainder of the tool. The preferred form, however, is shown in the other figures in which 22 indicates pivots which support the cork screw and screw driver in such a way that they will stand at right angles to the plane of the remainder of the tool when in their open position as shown in Figs. 4, 5 and 6. A spring 23 is utilized to maintain the members in the position to which they have been moved. I choose to term this, a balanced spring since it is, in fact, balanced by having a bearing on the

innermost portions of both the tool members 19 and 20.

The cutter blade 18 necessarily projects above the surface of the handle as indicated in Figs. 6, 7 and 9 and in order to avoid lacerating the hand of the user the cork screw is arranged to fold over the cutter blade, this being possible by reason of the coils which enables the cork screw to be closed entirely without interfering with the projecting blade.

What is claimed is:—

1. In a combination tool, a handle terminating in a pointed end, a cutter blade slidably mounted on said handle, and a pivoted tool adapted to serve as a guard to the cutter.

2. In a combination tool, a member having a guide way, a cutter blade slidably mounted on said guide way and projecting above the surface of the said member, and a cork screw, pivotally connected to said member, the coils of which cover the projecting portion of the cutter blade when in its closed position.

3. In a compound tool, a head having fixed jaws at one end and a rigid handle at the opposite end of the head, a claw and hammer portion at one corner of the head, an inclined sharpening surface directed inward from the hammer surface, sharpening disks adjacent to the inclined sharpening surface, a hook below the sharpening disks, a member pivoted to the opposite side of the head, co-operating jaws on said pivoted member and

the head, the said member adapted to rest against the lower portion of the head and against the handle, thereby forming a portion of the true handle when the tool is in use, the handle having a point on the end thereof and a cutter slidably engaged in the handle, and implements pivoted to the handle, one of said implements adapted to serve as a guard to the cutter.

4. In a combination tool, a handle terminating in a pointed end and having a tool head on its opposite end, a cutter blade slidably mounted in said handle and adapted to coöperate with the pointed end of the handle to form a can opener or like instrument, and a tool pivotally connected with the handle, adapted to act as a guard for the cutter.

5. A combination tool comprising a handle, tools pivotally mounted on said handle with their inner ends adjacent, and a balanced spring bearing on the inner ends of said tools to hold said tools in any set position.

6. A combination tool comprising a handle provided with a tool head, tools pivoted to said handle with their inner ends arranged adjacent each other, and a spring engaging the adjacent inner ends of the tools to hold said tools in any set position.

Signed at New York city this 28 day of December 1907.

ERIK H. NYLIN.

Witnesses:

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GEO. A. MARSHALL.