

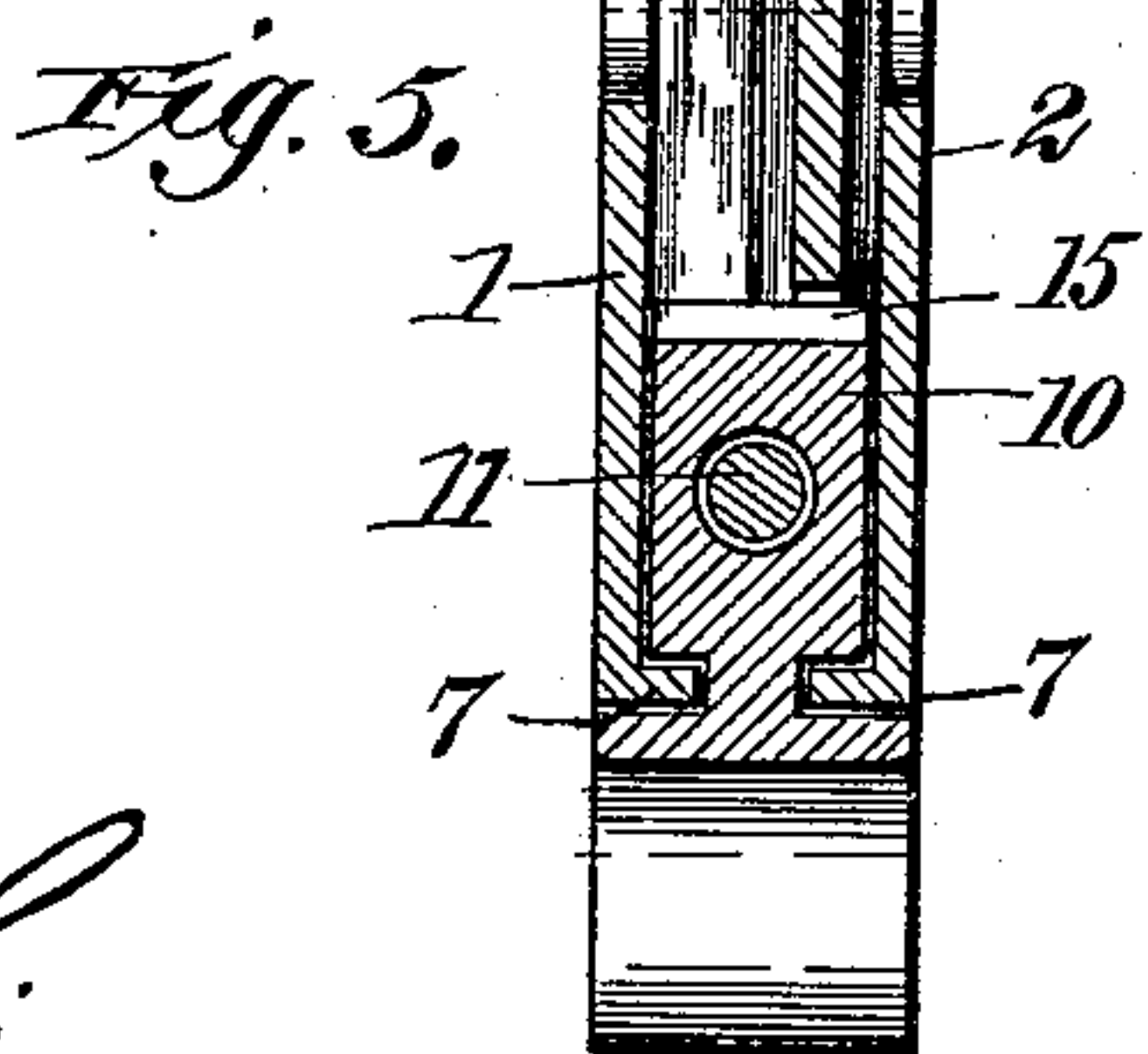
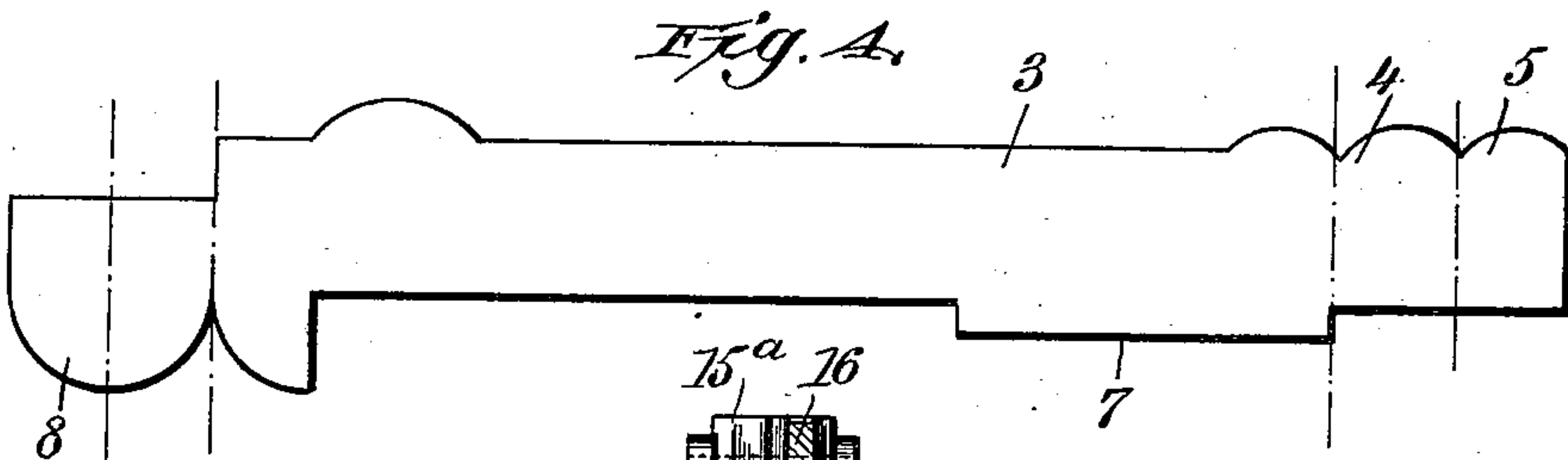
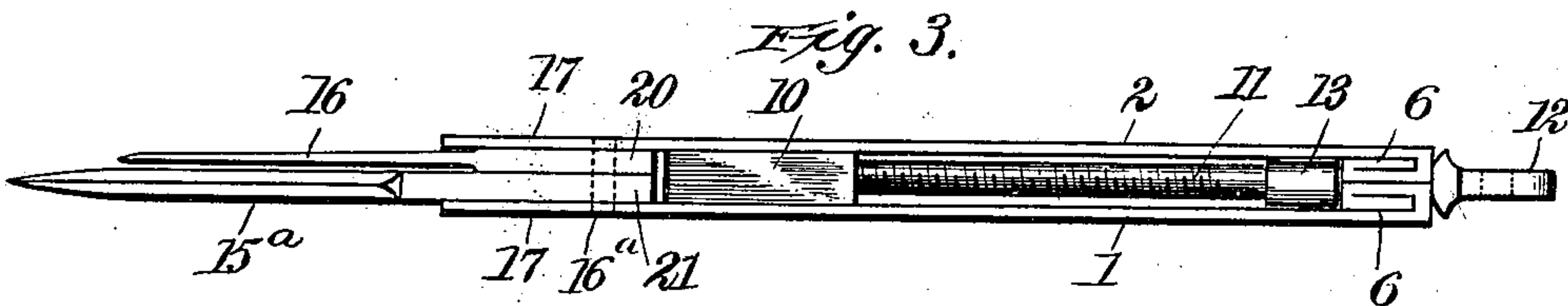
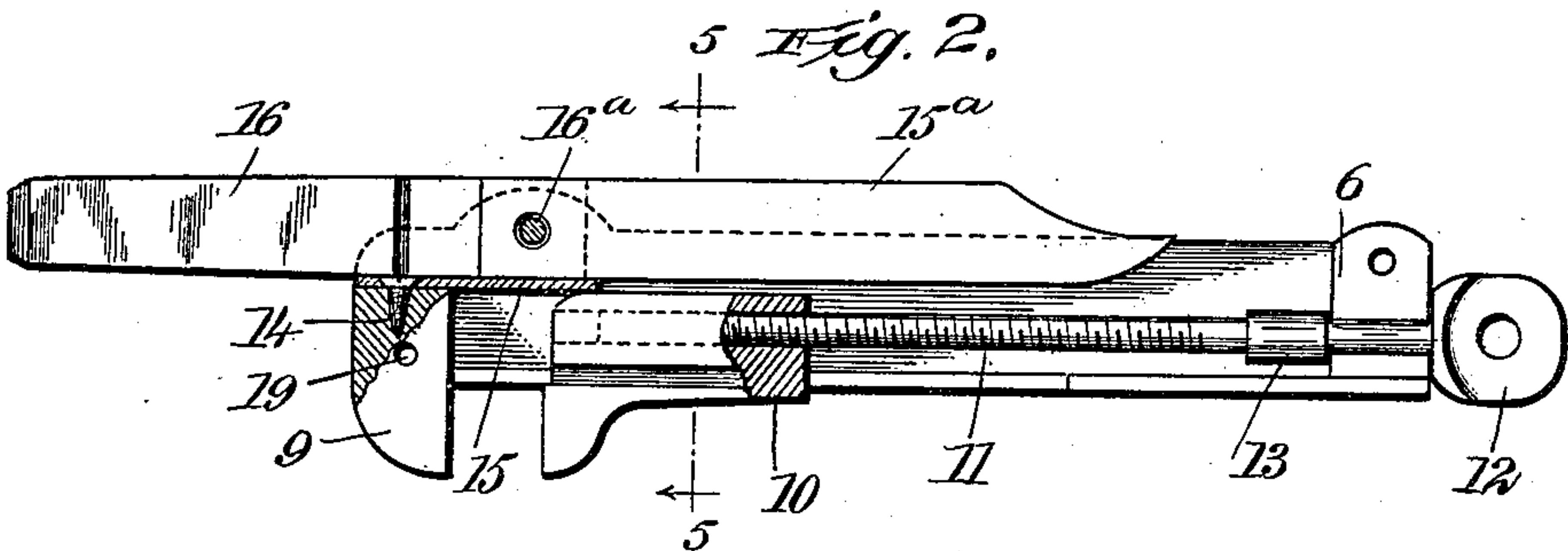
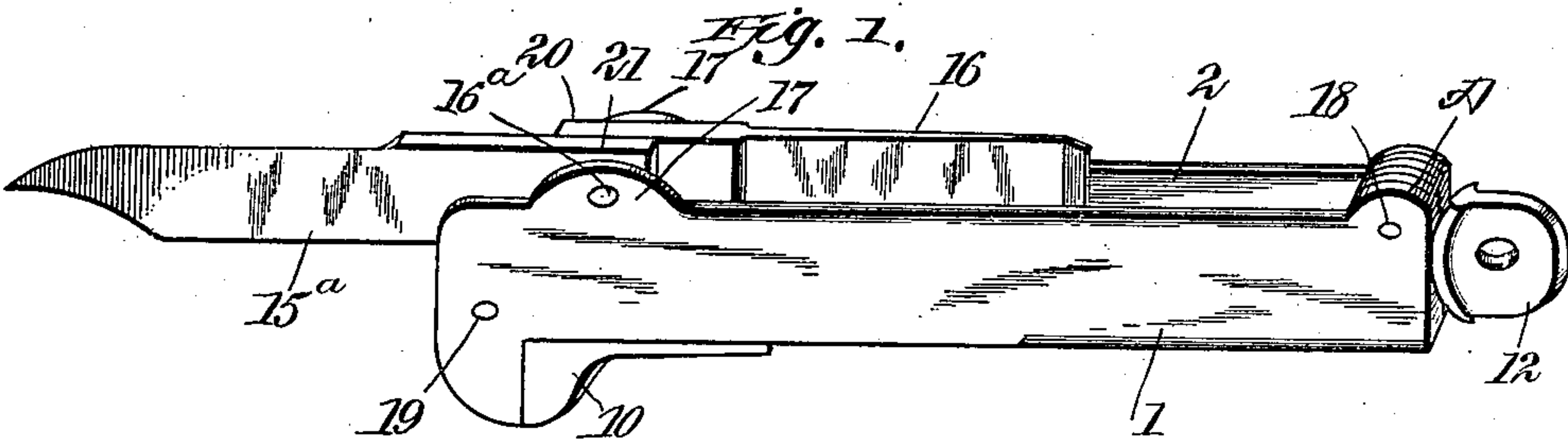
No. 742,764.

PATENTED OCT. 27, 1903.

J. F. WATERMOLEN.  
COMPOUND TOOL.

APPLICATION FILED FEB. 14, 1903.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN F. WATERMOLEN, OF GREENBAY, WISCONSIN.

## COMPOUND TOOL.

SPECIFICATION forming part of Letters Patent No. 742,764, dated October 27, 1903.

Application filed February 14, 1903. Serial No. 143,291. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. WATERMOLEN, a citizen of the United States, and a resident of Greenbay, in the county of Brown and State of Wisconsin, have invented new and useful Improvements in Compound Tools, of which the following is a full, clear, and exact description.

The invention relates to certain novel and useful improvements in the construction and correlation of parts forming a compound tool.

In carrying out my invention I have particularly in view as an object the formation of the main body portion or handle of the tool in such manner that the parts of said body portions may be easily and quickly assembled and to provide a simple, neat, and positively supporting or bearing frame for the tool-blades or tools proper.

A further object is to provide an improved clamping means which will positively lock the tool in certain positions, which means may also be used to adjust a sliding jaw carried by the handle or body portion when it is desired to use the implement as a wrench or vise.

A further object is to construct a tool which may be used for a variety of purposes and one which may be manufactured and sold at a comparatively small cost, while embodying the essential and desired features of durability and convenience.

With these and other objects of a similar nature in contemplation the invention consists in the construction, combination, and arrangement of parts as is described in this specification, delineated in the accompanying drawings, and set forth in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of an implement embodying my improvements. Fig. 2 is a central longitudinal sectional view of the same. Fig. 3 is a top plan view of the tool, as shown in Fig. 1. Fig. 4 is a view illustrating the formation of one of the blanks from which the body portion of the tool is constructed, and Fig. 5 is a transverse sectional view taken on the line 5 5 of Fig. 2.

Referring now to the accompanying drawings, A designates as an entirety the handle or main body portion of the tool, to the novel construction of which I desire particularly to direct attention. As will be seen, this handle A is formed of two longitudinal side portions 1 and 2, which are preferably formed of steel, iron, or, in fact, any suitable material. These sides 1 and 2 are formed of blanks which are similar in shape and size, such a blank being shown in Fig. 4. Upon examination of said figure it will be seen that the relatively long stem or body thereof, which is designated by the numeral 3, is cut into practically the shape of the finished sides 1 and 2, but has formed at its rear end portion an extension formed of integral plates 4 and 5, which are adapted to be folded upon each other, so as to form a suitable shoulder or relatively thickened portion 6 for the tool. The extended portion 7 of the blank is also bent inward at right angles to the blank, so as to form guideways for the sliding jaw hereinafter described. At the front of the blank is formed an extension-plate 8, which is also bent or doubled upon itself in a manner similar to the rear plates 4 and 5 and is then bent inward to form a front jaw or abutting wall 9.

It is to be understood that in carrying out my invention I take two sides formed of blanks in the manner just described and fit the same into contiguous positions of alignment, whereby a complete handle may be formed, it being understood that the edges 7 7 are bent in opposite directions, so as to extend inward toward each other.

Slidably mounted in the main body portion or handle of the tool is a jaw 10, having a threaded bore extending therethrough which is adapted to receive the correspondingly-threaded screw-rod 11, arranged longitudinally of the handle and provided at its end portion which extends through the rear of the handle with a finger-piece 12, said rod being held in position in the handle through the medium of a collar 13, formed upon the same and abutting against the rear walls 6, which walls are formed by the doubled or bent plates 4 and 5. From this construction it will be seen that when the screw-rod 11 is revolved through the turning of the finger-piece 12



the sliding jaw 10 will be moved toward the stationary jaw 9. Upon the laterally-extended shoulder portion of the stationary jaw 9, which shoulder is formed by the top edges of the doubled plate 8, is adapted to be secured, through the medium of an ordinary screw 14, a flat spring 15, which is designed to prevent in a measure the accidental closing of the tools secured in the handle after such tools have been opened or extended for use.

In the present instance I have shown my improved implement provided with a knife-blade 15<sup>a</sup> and a screw-driver 16, these two blades being adapted when opened or extended for use to lie upon the spring 15, and such blades are pivoted in the handle through the medium of a pintle or pin 16<sup>a</sup>, passing through the enlarged or extended portions 17 17 of the sides 1 and 2. The aforesaid sides 1 and 2 are also riveted or held rigidly together through the medium of a number of screws or bolts 18 and 19.

From the above description, taken in connection with the accompanying drawings, the construction and operation of my improved implement will be readily apparent. The sides having been stamped or otherwise formed from the blank, the sliding jaw and the screw-rod may be inserted and the knife-blade and screw-driver arranged in position upon the spring 15 on the shoulder of the stationary abutting jaw 9, as heretofore described. The sides 1 and 2 are then riveted or bolted together and the device is ready for use. It will be seen that as the screw-rod is turned so as to cause the jaw 10 to slide backward upon the rod and in the handle portion said jaw will move toward the rear to a point passing the end of the spring 15—that is to say, far enough to permit the butt-ends 20 and 21 of the tools to clear said sliding jaw as the blades are moved to a closed position. After the jaw has been moved toward the rear a sufficient distance, so that there is no probability of the same interfering with the tool-blades, the spring 15 will retain the blades in an open position, such spring having enough tension to prevent the blades being closed by gravity or their own weight. Should it be desired to use one of the blades of the tool, it is opened and the sliding jaw is moved toward the stationary jaw through the medium of the screw-rod until the back of said sliding jaw passes beneath the spring a sufficient distance, so that should an attempt be made to close the blade the pivoted end thereof will strike against and be prevented from moving by the jaw. If desired, the jaw may be moved until it is in contact with the stationary jaw, and the blades will be held securely in an open position.

Many advantages incident to devices of this character will be readily appreciated. It is extremely useful for cyclists or for shop-work and may be made of suitable size to be carried in a person's pocket. It will be seen that it may be used as a vise or clamp, and it will

be apparent that any suitable number of blades may be employed or tools of any character may be secured in the handle. The points of invention I lay particular stress on are the formation of the sections of the handle and the use of the device as a clamp or wrench, while at the same time the sliding jaw of said clamp acts as a lock for the blades.

While I have shown and herein described one particular embodiment of my invention, I wish it to be understood that I do not limit myself to the precise details of construction shown herein, as there may be modifications and variations in some respects without departing from the principle of the invention or sacrificing any of the advantages thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A compound tool, comprising a body portion formed with a stationary jaw member, a plurality of implements therein, means adapted to normally press against the implements for preventing the accidental closing of the latter upon the body portion, and a jaw adjustable on the body portion and movable into contact with the first-mentioned means for locking the implements against movement, substantially as set forth.

2. A compound tool, comprising a body portion, a plurality of implements pivotally held therein, a stationary abutting jaw formed on the body portion, a spring secured to said stationary jaw, and a movable jaw adjustable relatively to the stationary jaw and adapted to occupy a position beneath the spring, whereby to lock the implements against movement, substantially as set forth.

3. A compound tool, comprising a body portion, implements pivotally mounted therein, a jaw comprising a head portion and a relatively long, longitudinally-bored shank portion, and a rod extending through said body portion and through the bored shank portion of the jaw, the construction being such that when the rod is rotated, the head of the jaw will be moved into a position of abutment against the implements for locking the latter, substantially as set forth.

4. A compound tool, comprising a body portion, having a stationary jaw formed therein, blades pivoted in the body portion at a point adjacent to the stationary jaw, a screw-rod rotatably mounted in the body portion but held against longitudinal movement, and a jaw slidable along said rod by the rotation thereof, adapted to move toward and from the stationary jaw to lock and unlock the blades, said jaws also forming a wrench or vise, substantially as set forth.

5. In a compound tool, a handle portion comprising side pieces formed of blanks, said blanks having extended end portions which are folded or bent to form thickened end shoulders, the shoulders of each side extending in opposite directions, a spring resting in



the bearing formed by the juncture of the shoulders of the two sides, blades pivoted between said sides, and a movable jaw slidable in guideways formed by the juncture of said sides, said jaws being adapted to lock the blades against movement, substantially as set forth.

6. In a compound tool, the combination of a handle formed of two blanks, each of said blanks having end shoulders formed integral therewith, the shoulders of the blanks extending in opposite directions, said blanks having the lower longitudinal edges turned at right angles to the main portions of said sides, a spring mounted in the handle portion, blades pivoted in said handle and adapted to bear upon said spring, a screw-rod extending through the handle and stationary jaw formed integral with the handle, a second jaw mounted on said screw-rod and movable toward the stationary jaw, the construction being such that the two jaws may be used as a vise or wrench, while the movable jaw locks the blades against movement on their pivot, substantially as set forth.

7. In a compound tool, a handle portion formed of blanks, the ends of the blanks at the front of the handle having extensions formed thereon, which extensions are adapted to be folded to the required thickness of the handle, and similar extensions formed at the opposite end of the blank, which latter extensions are also foldable to the required thickness, substantially as set forth.

8. In a compound tool a body portion comprising two side members spaced apart, implements carried by said body portion, a stationary jaw member formed at adjacent end portions of the side members, an inwardly-turned shoulder formed longitudinally of each member, a rotatable screw-rod extending between the sides, and a movable jaw mounted on said rod, said jaw being formed with shoulder portions adapted to rest and slide along the inwardly-turned shoulders of the side members, substantially as set forth.

9. In a compound tool a body portion comprising two side members spaced apart, im-

plements carried by said body portion, a head portion or stationary jaw formed at adjacent ends of said side members, inwardly-turned shoulders formed on adjacent longitudinal edges of said sides, a movable jaw slidable along said shoulders, and a screw-rod lying between the side members and adapted when rotatable to actuate the movable jaw to slide the same toward or from the stationary jaw or head, substantially as set forth.

10. In a compound tool a body portion formed of two side members spaced apart, implements carried by said body portion, a head member or stationary jaw portion formed at the termination of adjacent end portions of the sides, the opposite ends of the sides from the head portion being connected or bridged by a block formed of the material of the sides, said block having an aperture or bore extending therethrough, a screw-rod journaled in the apertured portion of the end and adapted to lie longitudinally between the side members, and a sliding jaw adapted to be moved toward and from the stationary jaw by said rod, substantially as set forth.

11. In a compound tool a body portion, comprising two side members spaced apart, implements carried by said body portion, a solid block connection between said sides at their rear ends, a stationary jaw formed at the front end portions of the sides, longitudinally-extending shoulders or guideways formed on said sides, a screw-rod journaled in the rear end portion of the body, and having an enlarged thumb-piece for turning the same, and a movable jaw mounted on the screw-rod between the sides and adapted when actuated by the rotation of the rod to move toward or from the head portion, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN F. WATERMOLEN.

Witnesses:

JOSEPHINE M. WIGMAN,  
JOHN F. MARTIN.