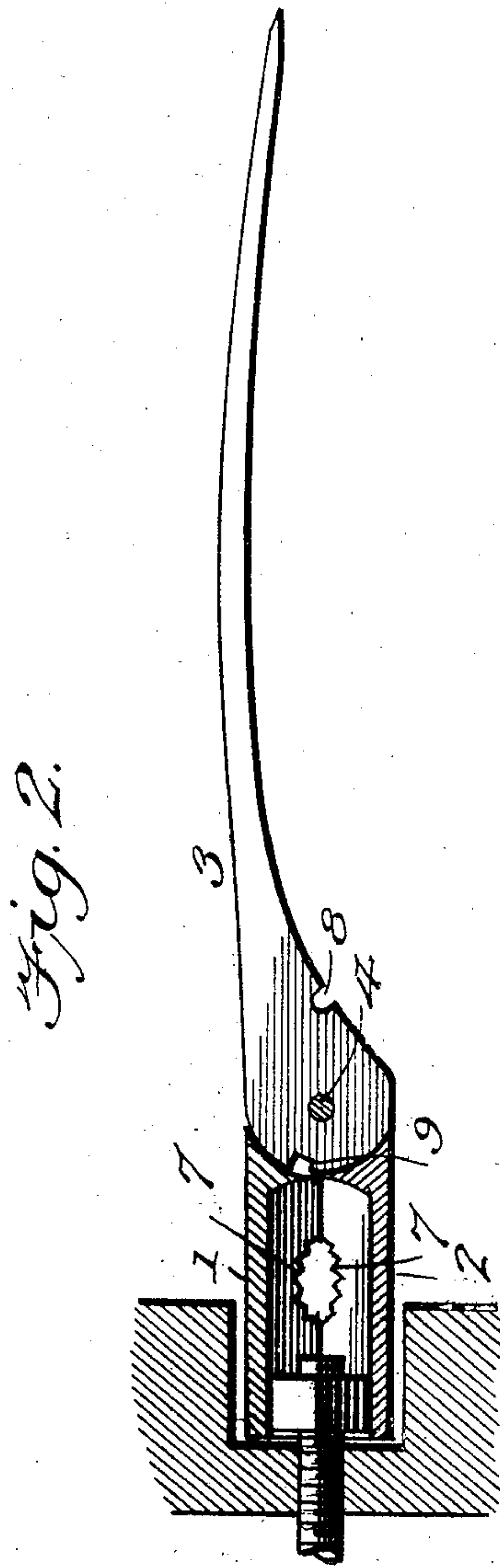
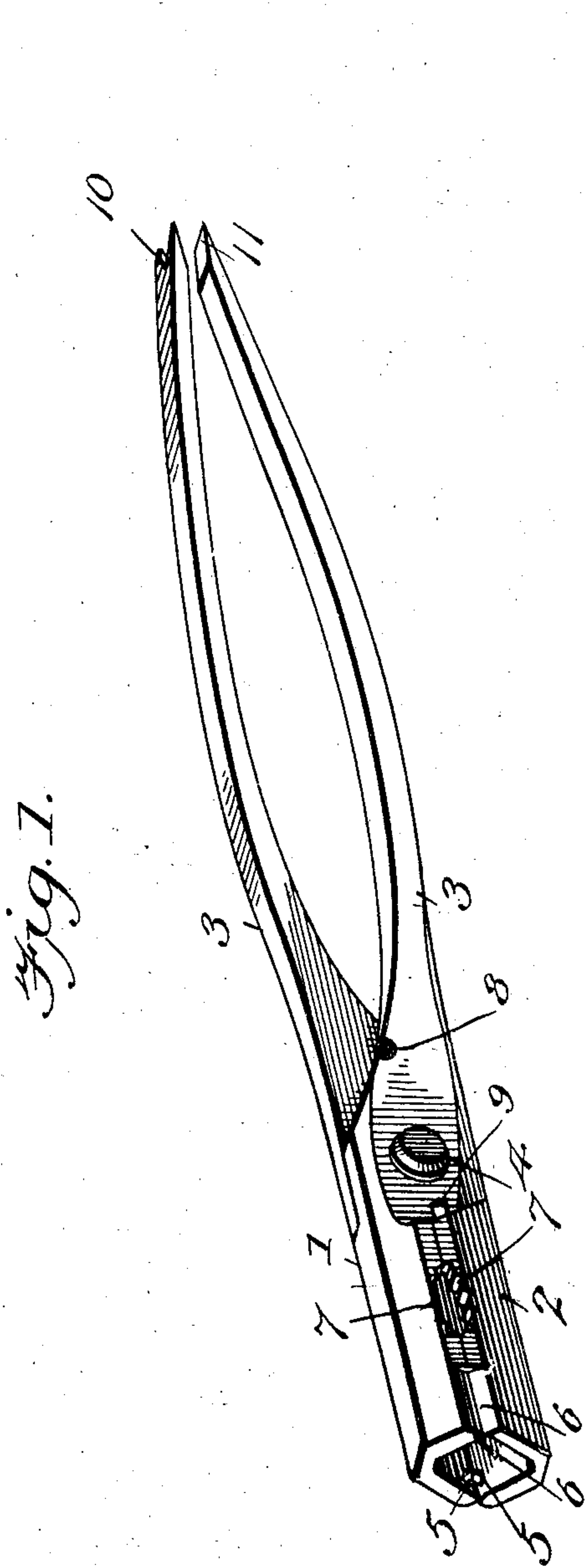


No. 768,161.

PATENTED AUG. 23, 1904.

E. L. THOMPSON.
COMBINED WRENCH AND PLIERS.
APPLICATION FILED SEPT. 30, 1903.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

ERICK L. THOMPSON, OF ELMORE, MINNESOTA, ASSIGNOR OF ONE-HALF
TO NELS I. NELSON, OF ELMORE, MINNESOTA.

COMBINED WRENCH AND PLIERS.

SPECIFICATION forming part of Letters Patent No. 768,161, dated August 23, 1904.

Application filed September 30, 1903. Serial No. 175,206. (No model.)

To all whom it may concern:

Be it known that I, ERICK L. THOMPSON, a citizen of the United States, residing at Elmore, in the county of Faribault and State of Minnesota, have invented new and useful Improvements in a Combined Wrench and Pliers, of which the following is a specification.

This invention relates to a combined wrench and pliers for general use, and wherein is also included means for cutting wire or analogous material and a construction for coöperating with pipes and the like for turning the latter; and the primary object of the invention is to produce a convenient implement having means included therein to render it applicable for different purposes.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of an implement embodying the features of the invention. Fig. 2 is a longitudinal vertical section of the same, shown applied to remove or secure a nut in a depressed position.

Similar numerals of reference are employed to indicate corresponding parts in the views.

The numerals 1 and 2 designate substantially angular jaws, having handles 3 projecting therefrom and fulcrumed, as at 4, by means of a suitable pin or pivot device. The jaws 1 and 2 are hollow and when conjointly arranged or in coöperative position are designed to engage the angular contour of a nut and are particularly intended for insertion into a depression or recess, as clearly shown by Fig. 2, to engage and apply or remove what may be termed a "recessed" or "embedded" nut. Each jaw is practically of the same contour and has near its free end a semicircular or analogous recess 5, which is adapted to coincide with a similar recess to provide a circular opening to clamp or hold a wire strand for winding purposes. These recesses are also adapted for use as key-pullers and are intended to receive a key of any dimension.

At diametrically opposite points each jaw near its free end is formed with a beveled edge 6, the two edges being adapted to closely engage and are employed as a means for spreading a key. The beveled edges 6 are located

at the front terminals of the jaws, and the metal rearwardly from the beveled edges is preserved in its normal thickness, and in rear of the inner terminals of said beveled edges and in line with the latter the normal thickened portions of the opposite sides of the jaws are formed with serrated recesses 7 to adapt the device as a pipe-tong or equip the same with means for reliably engaging a pipe, and in rear and in advance of the pivotal point of the two jaws wire-cutting apertures 8 and 9 are located.

The rear end of one handle 3 is formed with a tack-claw 10, and the other is reduced, as at 11, to form a screw-driver.

The advantages of an implement of this kind are varied, and by embodying therein a series of structural features adapting the same for general usage an economy results by reason of the fact that one implement is made to serve the purpose of a number of independent devices without in the least detracting from any of the separate functions of such devices.

It is obvious that changes in the proportions, dimensions, and minor details may be resorted to without departing from the spirit of the invention.

Having thus fully described the invention, what is claimed as new is—

In an implement of the class set forth, the combination of two pivoted jaws which are elongated in advance of their pivotal point and provided with opposing angular grooves, the said grooves, when the jaws are assembled in close relation, forming a square face, the front extremities of the jaws at opposite sides having their abutting edges inwardly beveled and at one side near the free end provided with semicircular recesses which unitedly form a wire-receiving opening, the metal of the jaws from the rear terminals of the inwardly-beveled edges being preserved in normal thickness relative to the remaining portions of said jaws and constructed with serrated recesses.

In testimony whereof I affix my signature in presence of two witnesses.

ERICK L. THOMPSON.

Witnesses:

A. M. SCHANCKE,
LEILA B. TAYLOR.