No. 631,113. Patented Aug. 15, 1899.

D. S. GEISER.

COMBINATION TOOL.

(Application filed Dec. 30, 1898.)

(No Model.)

Fig. 1.

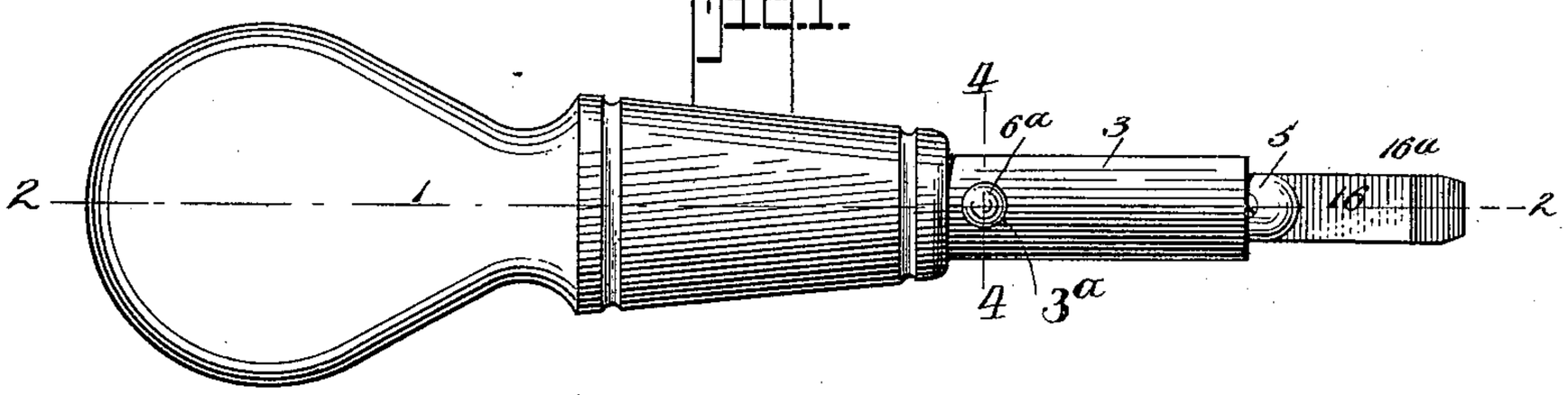


Fig. 2.

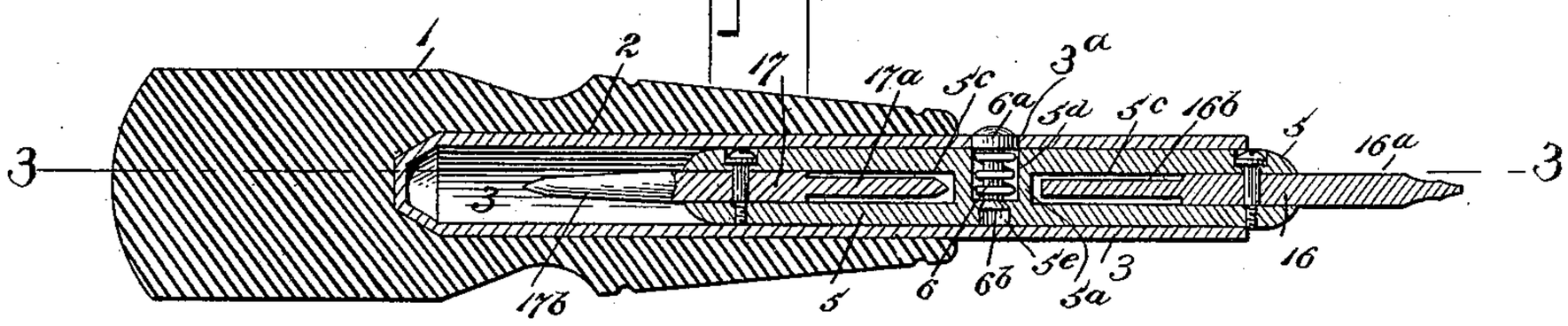


Fig. 3.

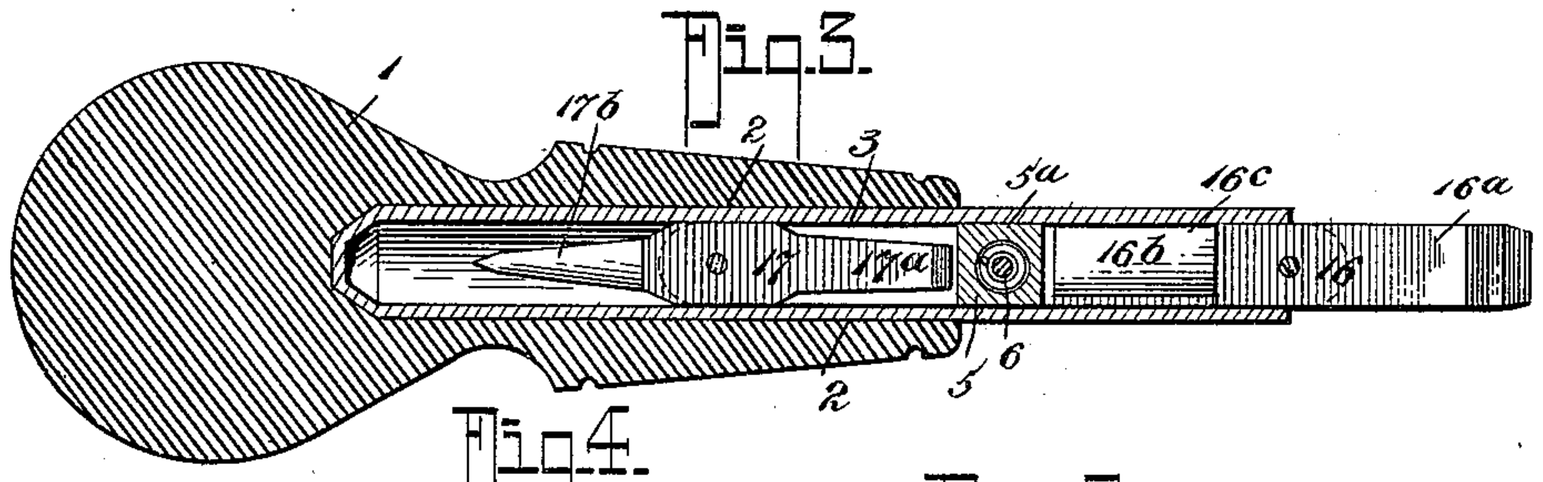


Fig. 4.

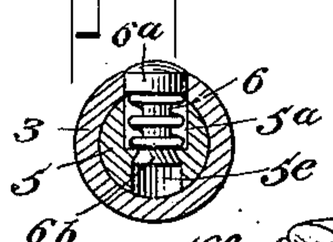
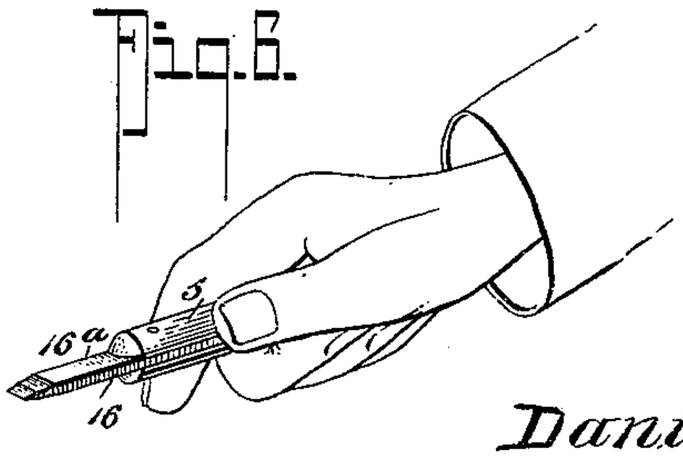


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

DANIEL SINGER GEISER, OF WAYNESBOROUGH, PENNSYLVANIA.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 631,113, dated August 15, 1899.

Application filed December 30, 1898. Serial No. 700,760. (No model.)

To all whom it may concern:

Be it known that I, DANIEL SINGER GEISER, residing at Waynesborough, in the county of Franklin and State of Pennsylvania, have invented a new and Improved Combination-Tool, of which the following is a specification.

This invention is in the nature of a combination-tool comprising a stock or body of compact form capable of being conveniently held either in the hand or within a holder and having a number of tools pivotally mounted therein for convenient use.

My invention in its more essential features comprehends a novel construction of tool of the kind stated, including a carrier having the several tools so mounted therein as to produce, as it were, a double-header tool, in which the several tools are especially held and designed to remain intact and symmetrical when the carrier is detached from the holder, so as to adapt the implement for various uses when not engaged or held within the holder, such construction also including a novel correlation of the pivotal tool members and the stock or carrier within which they are contained, whereby all of the tools can be securely held in their proper relative positions by hand or finger grip when the carrier is detached from the holder and when any one of the set of tools is being used.

Another and important feature of this invention lies in constructing a double or swinging tool-carrier in such manner that a reversible as well as rigid mount for the swinging tools is obtained and in which but a single finger-released detent is necessary to secure the carrier rigid within the holder when the implement is to be used for punching or driving.

In its subordinate features this invention consists in certain novel details of construction and combination of parts, as will be first described and then specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved tool and holder. Fig. 2 is a longitudinal section thereof on the line 2 2 of Fig. 2. Fig. 3 is a similar view on the line 3 3 of Fig. 1. Fig. 4 is a cross-section on the line 4 4 of Fig. 1. Fig. 5 is a perspective view of the tool-carrier detached, and Fig. 6 illustrates the manner of using the tool and carrier when separated from the holder.

While my improvement can be used for various purposes, it is more especially intended for use with a special form of wire-holder, such as disclosed in my copending application, filed April 8, 1898, Serial No. 676,943, whereby a complete tool more particularly adapted for electricians' uses is provided.

Referring to the accompanying drawings, 1 indicates a holder in the nature of a screw-driver handle or stock. In the construction shown the handle has a longitudinal bore 2, in which is fitted a tubular sheath or sleeve 3, fixedly held therein and having its outer end projected somewhat beyond the forward end of the handle 1, such projected end being provided with a single aperture to receive the head 6^a of the lock-bolt presently referred to.

5 indicates the tool proper, which, *per se*, forms an essential feature of this invention for the reason that while especially constructed for use in connection with a holder having a handle it for some purposes is also capable of use independent of the said holder or handle. At this point I deem it proper to state I am aware that carriers having a series of tools pivotally secured thereto to fold up therein and adapted to be slid into a suitable sheath or holder and held in place by lock devices has heretofore been provided; but my form of tool-carrier differentiates from the forms heretofore invented, first, in the novel design of the carrier and the connection of the tools therewith, whereby the said carrier is made a double-header and the tools capable of being held intact and symmetrical within the carrier seats or pockets, and whereby for some uses the tool can be easily held within the hand (see, for example, Fig. 6) and manipulated without the use of the holder; secondly, in the correlation of the swinging tools, the carrier, the incasing sheath of the holder, and a single automatically-locking and finger-released means for holding the carrier within the holder and for conveniently and quickly detaching the same therefrom when it is desired to shift the tools or use the carrier independent of the holder.

The carrier 5 comprises a cylindrical stock portion of a diameter to snugly fit within the sheath 3, said stock at a point midway there-

of having a solid portion 5^a, while from such portion to the opposite ends it has a pair of transverse slotways 5^c in the same plane which bifurcates the opposite ends of the carrier, as shown. The solid portion 5^a of the stock has a transverse bore at right angles to the slotways 5^c, which bore has two diameters, the larger one, 5^d, forming a seat for the head 6^a of a spring-bolt 6, while the smaller bore 5^c is adapted to receive the head 6^b on the reduced end of the bolt 6. To facilitate the ready insertion of the tool-holder into the sheath 3 in setting the said holder to project the different tools at opposite ends, the bolt-head 6^a is rounded, such shape of the bolt-head making it possible for the tool to automatically snap into the aperture 3^a in the sheath when the tool-holder is inserted therein, as will be clearly understood by reference to Figs. 2 and 4. The carrier may be provided with any kind of tool members, the pivot being in the form of a removable screw or rivet; but in all cases the tools must be double ended and each end extended over the longitudinal pivot, so that as one end is projected lengthwise from the carrier the other end will fold longitudinally within its respective bifurcated carrier portion.

In the drawings the double tool at one end has a large screw-driver point 16^a and at the other end a knife-blade 16^b, the back edges of which are sharpened, as at 16^c, and form wire-scrapers, thus for wire cleaning and scraping purposes providing a blade having a rigid keeper preventing absolutely the possibility of its closing upon the fingers or hand, while the tool in the other end of the carrier has one terminating portion in the nature of a small screw-driver 17^a and the other end formed into an awl or punch 17^b.

In order that the two pivotal double-headed tools may be properly held within the barrel or sheath of the holder and also when the carrier is held in the hand for use, the said members 16 and 17 at their pivotal points are made with flattened edges which transversely are of a width equal the diameter of the carrier, whereby the said edges will lie flush with the outer face of the carrier and the tools be thereby held from lateral movement in the sheath, it being obvious that by providing such form of tools the said tools can also be firmly held in their proper longitudinal positions by finger or hand grip (see Fig. 3) and the particular tool being in use thereby held firm, such arrangement of parts providing for positively holding the end of the tools in position for operation and all of the remaining tools within the carrier-seats, and particularly when the carrier is used independent of the holder the several tools not in use are so held as not to injure the hand manipulating the tool.

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

1. In a tool of the character described; the combination with the handle having a receiving-sheath; of a tool stock or carrier comprising a body having a diameter throughout its length to snugly fit the handle-receiving sheath, said carrier having the opposite ends bifurcated; a tool pivoted in each bifurcation, adapted to be extended in a longitudinal plane with the carrier-body, said tools having portions thereof of equal diameter of the said carrier-body and having flattened surfaces, whereby to form bearing portions to engage with the side walls of the handle-sheath when the tool is inserted within the holder and finger-bearing portions, whereby the carrier can be used independent of the holder and the tools held in proper position by hand or finger pressure, all being arranged substantially as shown and described.

2. A tool, comprising a handle having a longitudinal bore; a tool-carrier consisting of a shank closely fitting such bore, bifurcated at its opposite ends; tool members centrally pivoted in the ends of the bifurcations to swing in a longitudinal plane with the carrier, said tools having hubs of the same width as the shank, whereby to form lateral bearings to engage the bore of the handle, and automatically-operated means for locking the carrier within the bore, as set forth.

3. A tool, comprising a handle having a longitudinal barrel projected beyond its outer end; a carrier adapted to closely fit the barrel and having bifurcated ends; double-ended tool members centrally pivoted within the bifurcated ends to swing in the length of the carrier and having portions of a width equal the carrier, and means for securing the carrier to the barrel, as specified.

4. A combination-tool, comprising a handle having a central bore and a barrel or sheath fitting therein and projecting therefrom, said barrel or sheath having a single aperture in its projected portion, in combination with the tool-carrier, comprising a stock of a diameter to snugly fit within the barrel or sheath of the handle, said stock having a spring-actuated catch for automatically engaging the aperture in the sheath when the carrier is slid therein, said carrier having its opposite ends bifurcated in the same plane; a double-ended tool centrally pivoted within each bifurcated end and having flat edges adapted to form bearing portions, whereby to hold the tools in their proper longitudinal positions within the carrier, all being arranged substantially as shown and for the purposes described.

DANIEL SINGER GEISER.

Witnesses:
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