No. 884,133. PATENTED APR. 7, 1908.

A. S. CUNNINGHAM & E. HENLEY.

ADJUSTABLE TOOL HANDLE.

APPLICATION FILED JULY 19, 1907.

2 SHEETS—SHEET 1.

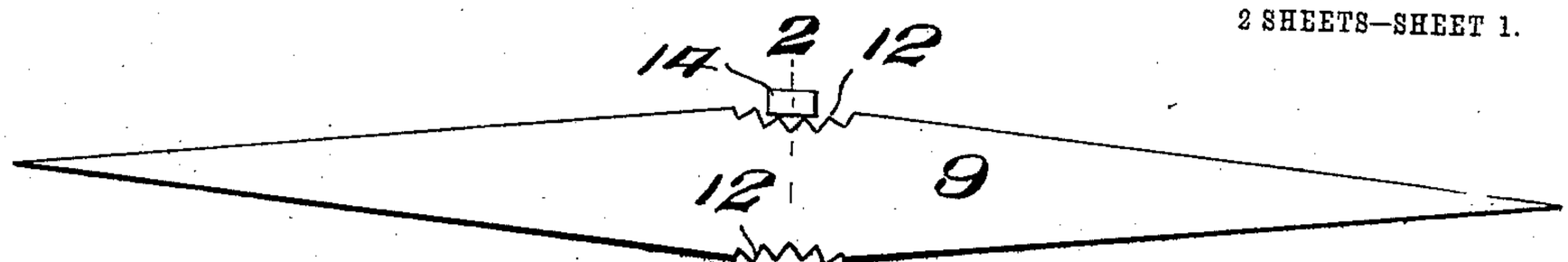

Fig. 1.

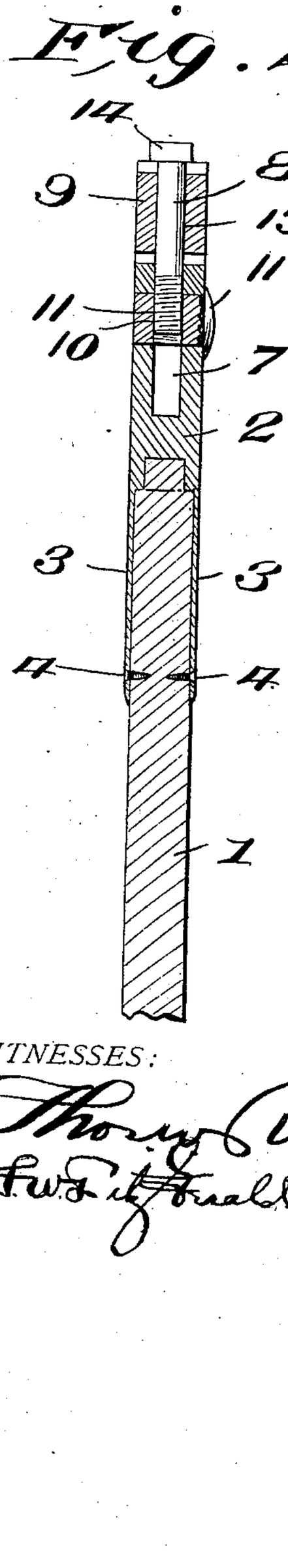

Fig. 2.

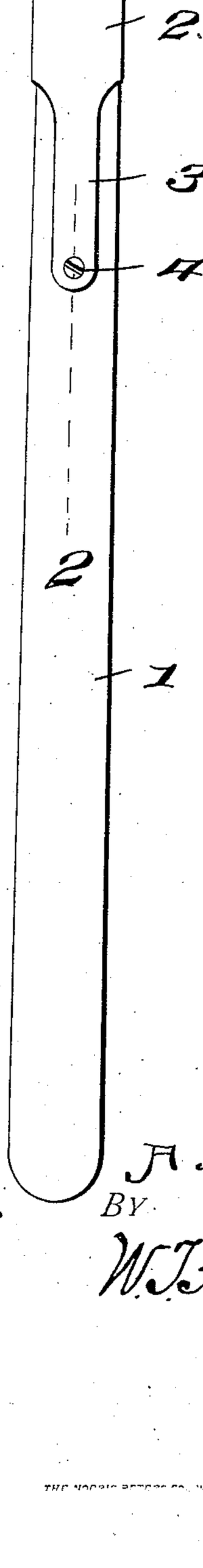

Fig. 3.

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2 SHEETS—SHEET 2.

Fig. 4.

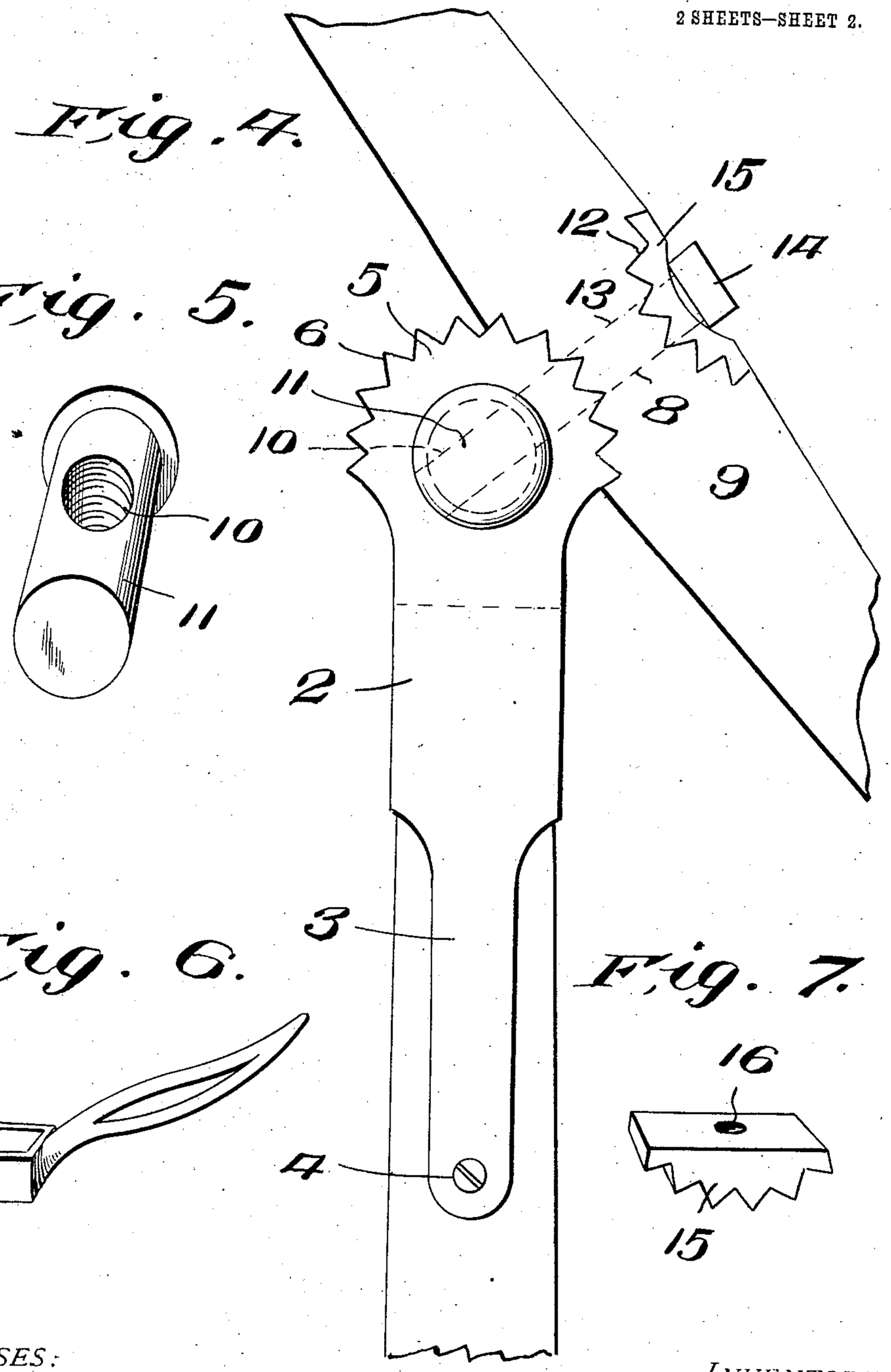

Fig. 5.

Fig. 6.

Fig. 7.

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ADJUSTABLE TOOL-HANDLE.

No. 884,133. Specification of Letters Patent. Patented April 7, 1908.

Application filed July 19, 1907. Serial No. 384,594.

To all whom it may concern:

Be it known that we, ALLAN S. CUNNINGHAM and EDWARD HENLEY, citizens of the United States, residing at Oskaloosa, in the county of Mahaska and State of Iowa, have invented certain new and useful Improvements in Adjustable Tool-Handles; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to tool handles and more particularly to means for adjustably connecting the handle to the body portion of the tool, whereby the tool proper as a pick or the like may have an adjustment relative to the plane of the handle and our object, therefore, is to provide a reliably efficient handle for picks, etc., which may be quickly placed in coöperation with the tool, so as to give the blade of the tool the desired angle relative to the handle and also enable the operator to change from one adjustment to another at the expense of a minimum amount of time and labor.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 shows our invention complete as applied to use upon an ordinary pick. Fig. 2 is a sectional view of Fig. 1, as indicated by dotted line 2—2 on a smaller scale than Fig. 1. Fig. 3 is a detail view of the tool with the handle removed. Fig. 4 is an enlarged view of our handle and the pick disposed in one of many possible adjustments. Fig. 5 is an enlarged detail perspective view of parts of the adjusting means. Fig. 6 is a preferred form of wrench designed to accompany our invention, it, of course, being understood that any suitable form of wrench may be utilized. Fig. 7 is a detail perspective view of a modified form of washer.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the handle section of the usual or any preferred form to the end of which is secured the adjustable socket member 2, having the brace extensions or flanges by which it may be secured to the handle proper 1 in any preferred way, as by the screws or rivets 4. The outer end of the body portion 2 is enlarged or provided with a radially shaped head or flared extension 5, having a plurality of corrugations or teeth 6, a compensating slot being also provided in said head, as indicated by the numeral 7, so as to permit the radial adjustment of the locking bolt 8 designed to pass through an aperture in the body portion of the tool 9, while the inner threaded end of said bolt is entered in a threaded slot 10 in the pin or axis 11. We also provide upon each side of the body section of the pick, or other tool 9, a concave seat 12, having a plurality of corrugations corresponding in character and adapted to receive the corrugations 6 upon the head 5 and it is, therefore, obvious that any desired adjustment of the body portions or tool proper 9 may be secured relative to the plane of the handle section.

It will be understood that a suitable aperture is provided in the head 5 for the reception of the axle pin 11 and also that a suitable aperture 13 is provided in the tool to receive the locking bolt and it follows that when the body portion has been properly adjusted upon the head 5 and the bolt entered in the threaded opening 10, said bolt when turned home will reliably hold the tool upon the handle in the adjustment made.

The bolt 8 is preferably provided with a square head 14 for convenient manipulation and in order to prevent the head from coming directly in contact with the plurality of corrugations in the seat 12, a form of washer 15 is provided designed to fit said seat and compensate therefor, a detail view of which is shown in Fig. 7, it being understood that an aperture 16 is also formed therein for the reception of the locking bolt 8.

The concave seat 12 with its transverse corrugations is formed upon directly opposite sides of the tool body, as shown in Fig. 4 and each of said seats will receive and fit the corrugations upon any part of the radial head 5, the object of said corrugations being to prevent the tool from casually slipping out of adjustment.

Obviously, it will be unnecessary to provide but one of the washers 15, in-as-much as one seat will be occupied by the radial head and, as before stated, since the said washer 15 exactly fits both seats, the tool body may be reversed in its position and either side brought into engagement with the radial head and locked in engagement therewith by turning the bolt 8 home in its seat 10.

In Fig. 1 we have shown the pick proper, or tool, as being disposed at right angles to the plane of the handle section, whereas in Fig. 4 said parts occupy an obtuse angle, so far as their outer ends are concerned.

Believing that the construction and manner of using our improved tool holding appliance or handle have been made clearly apparent, further description is deemed unnecessary, and while we have described the preferred combination and construction of parts, we desire to comprehend such equivalents and substitutes as may fall fairly in the scope of our invention.

What we claim is:

The herein described adjusting means for tools comprising a socket, a head on said socket having a compensating slot therein, corrugations on said head, said head being provided with a transverse aperture, an axial bolt extending through said aperture, said bolt being provided with a threaded seat, a tool body provided with a corrugated seat adapted to coöperate with the corrugated head, said tool body having an aperture extending therethrough and means engaging said body and extending through the aperture and into the threaded seat in the axial bolt whereby the parts may be secured at any desired angle.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ALLAN S. CUNNINGHAM.
EDWARD HENLEY.

Witnesses:
GEO. ANDREWS,
J. L. CURZEN.