

(No Model.)

T. F. VANDEGRIFT.  
WRENCH.

No. 460,694.

Patented Oct. 6, 1891.

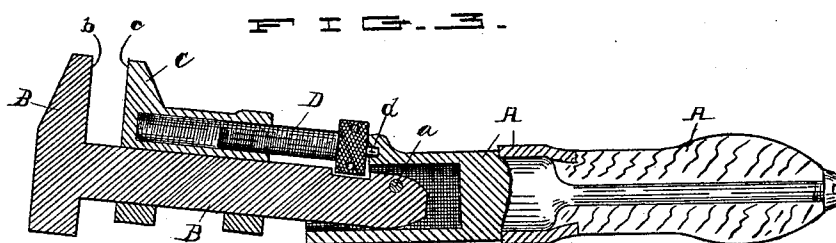
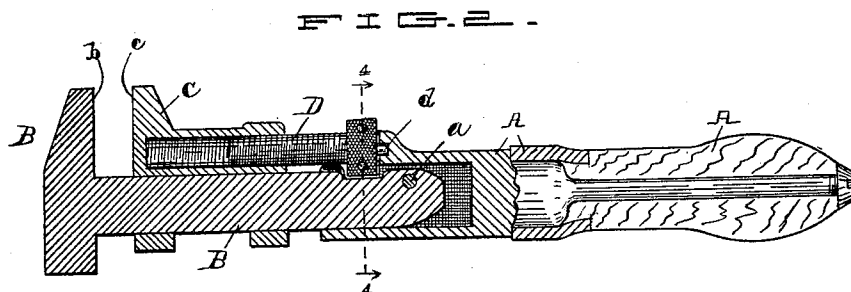
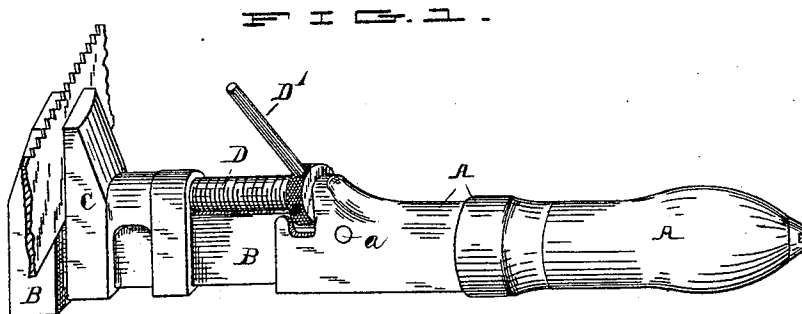
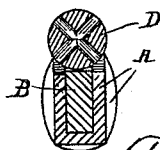


FIG. 4.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

THEODORE F. VANDEGRIFT, OF NOAH, INDIANA, ASSIGNOR TO THE VANDEGRIFT MANUFACTURING COMPANY, OF SAME PLACE.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 460,694, dated October 6, 1891.

Application filed May 4, 1891. Serial No. 391,507. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE F. VANDEGRIFT, a citizen of the United States, residing at Noah, in the county of Shelby and State of Indiana, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to that class of wrenches generally known as "monkey-wrenches;" and it consists in certain features of construction and arrangement of parts, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a wrench embodying my said invention when in condition to serve as a vise, with a fragment of saw-blade held therein; Fig. 2, a longitudinal sectional view illustrating the position of the parts when the wrench is pushed back from that position it occupies when turning a nut and its grasp on said nut thus loosened; Fig. 3, a similar view with the parts in the position they occupy when the nut is being turned by the wrench, and Fig. 4 a transverse sectional view on the dotted line 4 4 in Fig. 2.

In said drawings, the portions marked A represent the handle of the wrench; B, the main jaw thereof; C, the sliding jaw, and D the thumb-bolt by which the sliding jaw is operated. All these parts are or may be, in general outline, substantially similar to the corresponding parts in ordinary wrenches of this type, and their operation, except as to the peculiar features which will now be described, will be readily understood by an examination of the drawings, and therefore need no further description.

The portion of the handle A next the jaws is mortised or recessed, as shown, and the end of the jaw B enters therein and is pivoted thereto by a pivot *a*. The mortise or recess in the handle is wide enough so that there may be some movement of the jaw on this pivot. The thumb-bolt D is stepped (as usual) in the handle A at *d*. The pivot being below the step (when the wrench is in the position shown in the drawings) the change

from the position shown in Fig. 2 to that shown in Fig. 3 will cause the operative faces *b* and *c* of the jaws to approach each other, and consequently grip whatever is placed between them more tightly, and to recede from each other, and consequently release the grip, when the position is changed from that shown in Fig. 3 to that shown in Fig. 2.

In operation the wrench is placed upon the nut or whatever is to be turned and the thumb-bolt is operated until the jaws are caused to grip said nut or other device as tightly as may be when the parts are in the relative positions shown in Fig. 3. The pull in operating the wrench is such that this grip is maintained while the turning is being done; but when the wrench is backed up to take a new hold and the parts are thus brought into the relative position shown in Fig. 2, the jaw C recedes from the jaw B, relaxing the grip and permitting the wrench to be moved easily, while at the same time providing the tight gripping of the nut or other article while the actual work of turning it proceeds.

Another feature of my wrench consists in adapting it to be used as a small vise. This I do by making holes in the thumb-piece of the thumb-bolt D, into which a turning-pin *D'* may be inserted, as shown in Fig. 1. By means of these holes and this turning-pin I am enabled to drive the jaws together with great force, thus clamping any device of suitable size between them with substantially the same strength that would be practicable with an ordinary vise of corresponding capacity.

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

1. The combination, in a wrench, of the handle, the main jaw, the sliding jaw, and the thumb-bolt, said thumb-bolt being located to one side of said main jaw, one end being stepped in a projection on said handle and the other end being screw-threaded and engaging with and operating the sliding jaw, and said handle and said main jaw being connected by a pivot located to one side of the line extending longitudinally through said thumb-bolt, substantially as shown and described.

2. The combination, in a wrench, of the mortised or recessed handle A, the jaw B, which enters said mortise or recess and is pivoted therein, the sliding jaw C, the thumb-bolt D, and the pin D' for operating said thumb-bolt, said several parts being constructed and operating substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Shelbyville, Indiana, this 24th day of April, A. D. 1891.

THEODORE F. VANDEGRIFT. [L. s.]

Witnesses:

ED. K. ADAMS,  
OSCAR HAND.