

(No Model.)

A. D. BARNETT.
WRENCH.

No. 547,534.

Patented Oct. 8, 1895.

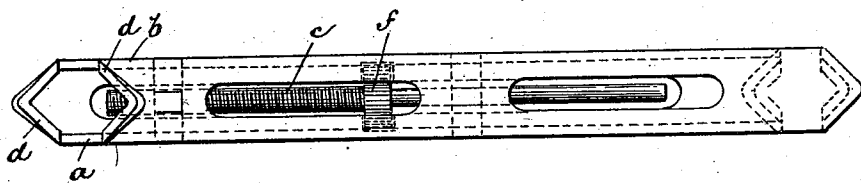


Fig. 1.

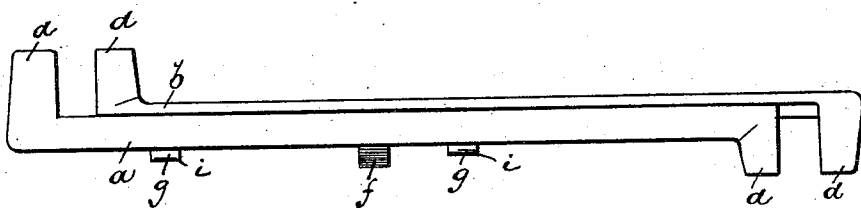


Fig. 2.

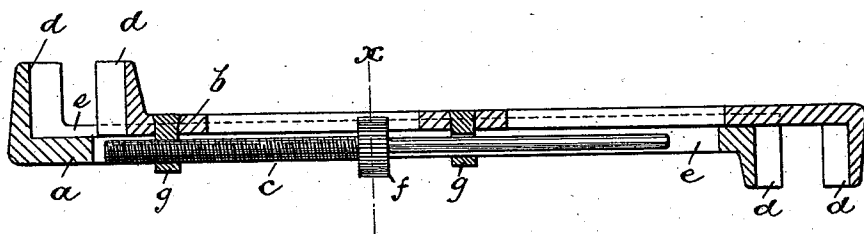


Fig. 3.

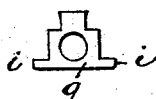


Fig. 5.

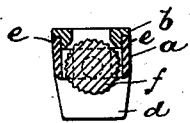


Fig. 4.

Witnesses _____ Inventor +

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Robert Loeberger,

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UNITED STATES PATENT OFFICE.

ALBERT DODD BARNETT, OF NEWARK, NEW JERSEY.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 547,534, dated October 8, 1895.

Application filed February 11, 1895. Serial No. 537,894. (No model.)

To all whom it may concern:

Be it known that I, ALBERT DODD BARNETT, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Wrenches; and I 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a wrench of greater strength, to reduce the cost of construction, to secure increased convenience in its use, and to take either hexagon or square nuts and obtain other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts. It is particularly useful in connection with carriage-nut work and provides means for unscrewing nuts of largely varied sizes and shapes.

The invention consists in the improved wrench and in the arrangements and combinations of parts, all substantially as will be hereinafter set forth, and finally embodied in the clauses of the claims.

Referring to the accompanying drawings, in which like letters indicate corresponding parts in each of the figures, Figure 1 is a plan of the wrench. Fig. 2 is a side elevation of the same. Fig. 3 is a central longitudinal section, and Fig. 4 is a transverse section, of the device, the latter being taken on line *x*. Fig. 5 is a detail of a rivet, providing bearings for a certain shaft and stay projections for holding certain body-sections together.

In said drawings, *a b* are the body-sections of the wrench, which are adapted to slide longitudinally one on the other under the power of the adjusting-screw *c*. At their opposite extremities the said body-sections are each provided with wrenching-jaws *d*, which are angular in shape, as shown in Fig. 1. The jaws are arranged in pairs, the pair at one end facing in a direction opposite that of the pair at the other end, as indicated in

Fig. 2. One of the sections *a* is provided at its opposite edges with longitudinal ribs *e e*, between which the second section *b* is arranged, the said ribs being of considerable strength, sufficient to withstand the strain in the wrenching operation. One of the sections is longitudinally open to receive the screw-shaft *c*, which has its bearings in riveted stays *g g*, one of which latter is provided with female threads to receive those of the screw-shaft. Said stays are fastened to one of the sections and extend through the longitudinal slot of the other, being provided with lateral stay projections *i* at the projecting extremities, which serve to hold the two sections together.

The angular wrenching-jaws *d d* are larger at one end of the wrench than at the other and thus the wrench is adapted for a greater variety of work than it would be were the jaws all of uniform size.

The screw-shaft *c* is provided with a finger-piece *f*, by means of which it is turned with ease. Said finger-piece has bearings in notches formed in the section *a*, so that the screw-shaft is held from moving longitudinally with respect to said section *a*; but because of the relation of the threaded stay-rivet *g* to said screw-shaft and section *b* the last is forced to slide on the section *a*, so that the wrenching-jaws are increased or diminished in distance one from the other when the screw-shaft is turned, as will be apparent.

Having thus described the invention, what I claim as new is—

1. The improved wrench herein described, in which is combined the longitudinally movable sections, *a, b*, each provided at their opposite ends with wrenching jaws *d, d*, and one provided with longitudinal ribs *e, e*, between which the other slides, stay rivets, *g, g*, for holding said sections together and an adjusting screw shaft, having bearings in said rivets and having a finger piece engaging one of the sections to cause it to slide longitudinally between said ribs, all said parts being arranged and combined substantially as and for the purposes set forth.

2. The improved wrench herein described

in which is combined the longitudinally movable sections having wrenching jaws, stay rivets one of which is threaded, a screw-shaft having bearings in said rivets and having a
5 finger piece arranged in notches of one of the sections substantially as set forth.

In testimony that I claim the foregoing I

have hereunto set my hand this 5th day of February, 1895.

ALBERT DODD BARNETT.

Witnesses:

OLIVER DRAKE,
BEATRICE CHARLES.