No. 797,538. PATENTED AUG. 15, 1905.

C. F. SPERY.

WRENCH.

APPLICATION FILED JUNE 8, 1905.

Fig. 1.

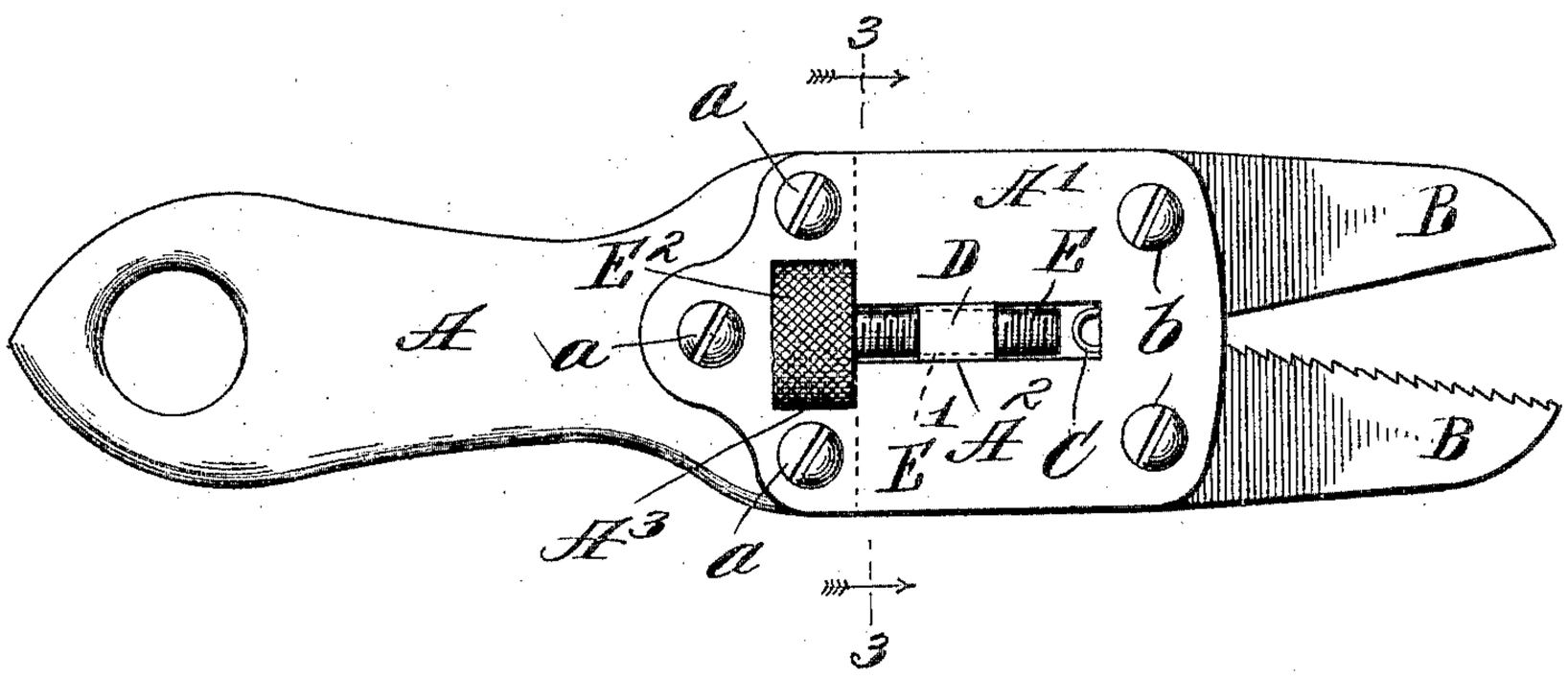


Fig. 2.

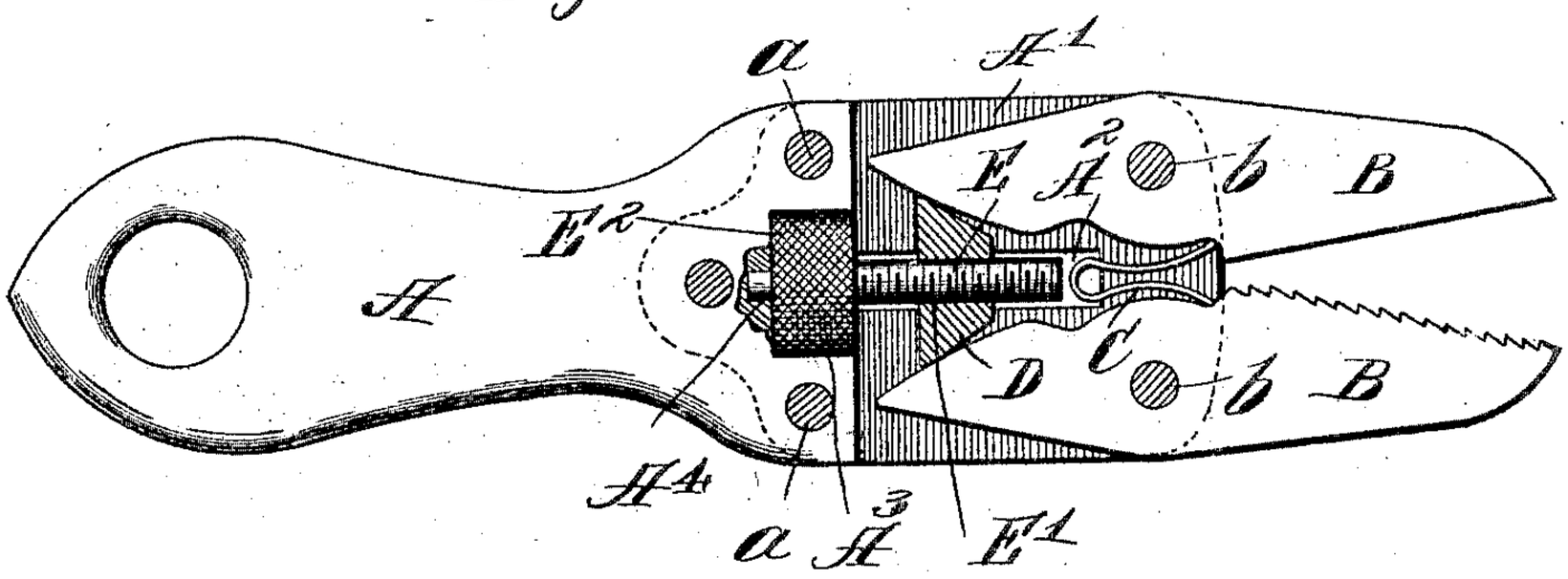
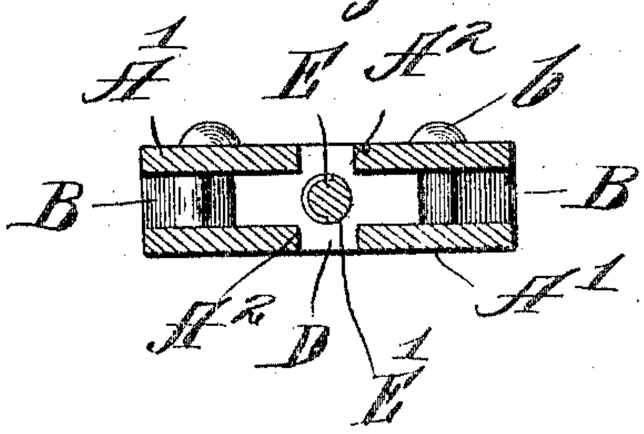


Fig. 3.



Witnesses
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Nellie E. Emmett.

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Charles F. Spery,
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UNITED STATES PATENT OFFICE.

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WRENCH.

No. 797,538. Specification of Letters Patent. Patented Aug. 15, 1905.

Application filed June 8, 1905. Serial No. 264,237.

To all whom it may concern:

Be it known that I, CHARLES F. SPERY, a citizen of the United States of America, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention has for its object to provide an improved wrench that shall be simple, cheap, and durable in construction and that can be readily adapted to a variety of purposes and the adjustment of which to permit the gripping of various objects can be rapidly effected. This object of invention I have accomplished by providing the various features of construction and combinations of parts hereinafter described, and particularly pointed out in the claims.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a plan view of a wrench embodying my invention. Fig. 2 is a like view of the same with one of the jaw-supporting plates thereof removed therefrom. Fig. 3 is a section at the dotted line 3 3 in Fig. 1 of parts there shown.

Like letters of reference indicate corresponding parts throughout the several views.

The wrench-frame is formed, preferably, of a handle A and two parallel plates A′, rigidly secured thereto, as by means of screws *a*, so as to leave sufficient space between them to mount the wrench-jaws therein, and having longitudinal opposite slots A^2 extending transversely therethrough and laterally enlarged at their lower ends A^3 to admit the head of a jaw-actuating part and provided with a socket-bearing A^4 in the bottom thereof.

B represents jaws, either or both serrated, arranged lengthwise of the wrench-frame and pivoted about midway of their lengths between the plates A′ by means of pintles *b*, the proximal edges of the inner end portions of such jaws being tapered backwardly and outwardly for a purpose to be explained hereinafter.

C is a U-shaped spring interposed between and normally acting to hold the jaws B open.

D is a tapering cam slidably mounted in the longitudinal slots A^2 in the wrench-frame between the inner ends of the jaws B.

E is a threaded stem turned through a correspondingly-threaded opening E′ in the cam D to operate the same and rotatably mounted in the socket-bearing A^4 in the wrench-frame.

E^2 is a peripherally-serrated head for rotating the stem E and is mounted in and contacts with the bottom of the laterally-enlarged portions A^3 of the slots A^2 in the wrench-frame.

Any desired adjustment of the jaws B may be obtained by rotating the threaded stem E by means of the head E^2 thereon.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a wrench, in combination, a frame formed preferably of a handle portion and two parallel plates rigidly secured thereto, and having longitudinal opposite slots extending transversely therethrough and provided with a socket-bearing in the bottom thereof, jaws pivoted, about midway of their lengths, between the plates of the frame, the proximal edges of the inner end portions of such jaws being tapered backwardly and outwardly, a spring interposed between and normally acting to hold the jaws open, a tapering cam, slidably mounted in the longitudinal slots in the plates of the frame between the inner ends of the jaws, a threaded stem turned through a correspondingly-threaded opening in the cam and rotatably mounted in the socket-bearing in the frame, substantially as described.

2. In a wrench, in combination, a frame formed preferably of a handle portion and two parallel plates rigidly secured thereto so as to leave sufficient space between them to mount jaws therein, and having longitudinal opposite slots extending transversely therethrough and laterally enlarged at their lower ends and provided with a socket-bearing in the bottom thereof, jaws pivoted, about midway of their lengths, between the plates of the frame, the proximal edges of the inner end portions of such jaws being tapered backwardly and outwardly, a U-shaped spring interposed between and normally acting to hold the jaws open, a tapering cam, slidably mounted in the longitudinal slots in the plates of the frame between the inner ends of the jaws, a threaded cam-actuating stem, rotatably mounted in the socket-bearing in the frame, and provided with a peripherally-serrated operating-head mounted in and contacting the bottom of the laterally-enlarged portions of the slots in the wrench-frame, substantially as described.

3. In a wrench, in combination, a frame formed preferably of a handle portion A and two parallel plates A′ rigidly secured thereto, and having longitudinal opposite slots A^2 extending transversely therethrough, and lat-

erally enlarged at their lower ends A^3 and provided with a socket-bearing A^4 in the bottom thereof, jaws B pivoted at *b* between the plates A′ of the frame, the proximal edges of the inner end portions of the jaws B being tapered backwardly and outwardly, a U-shaped spring C, interposed between and normally acting to hold the jaws B open, a tapering cam D, slidably mounted in the longitudinal slots A^2 in the plates A′ of the frame between the inner ends of the jaws B, a threaded cam-actuating stem E, rotatably mounted in the socket-bearing A^4 in the frame, and provided with an operating-head E^2 mounted in and contacting the bottom of the laterally-enlarged portions A^3 of the slots A^2 in the wrench-frame, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES F. SPERY.

Witnesses:
FRANK A. TICKNOR,
L. L. MORRISON.