

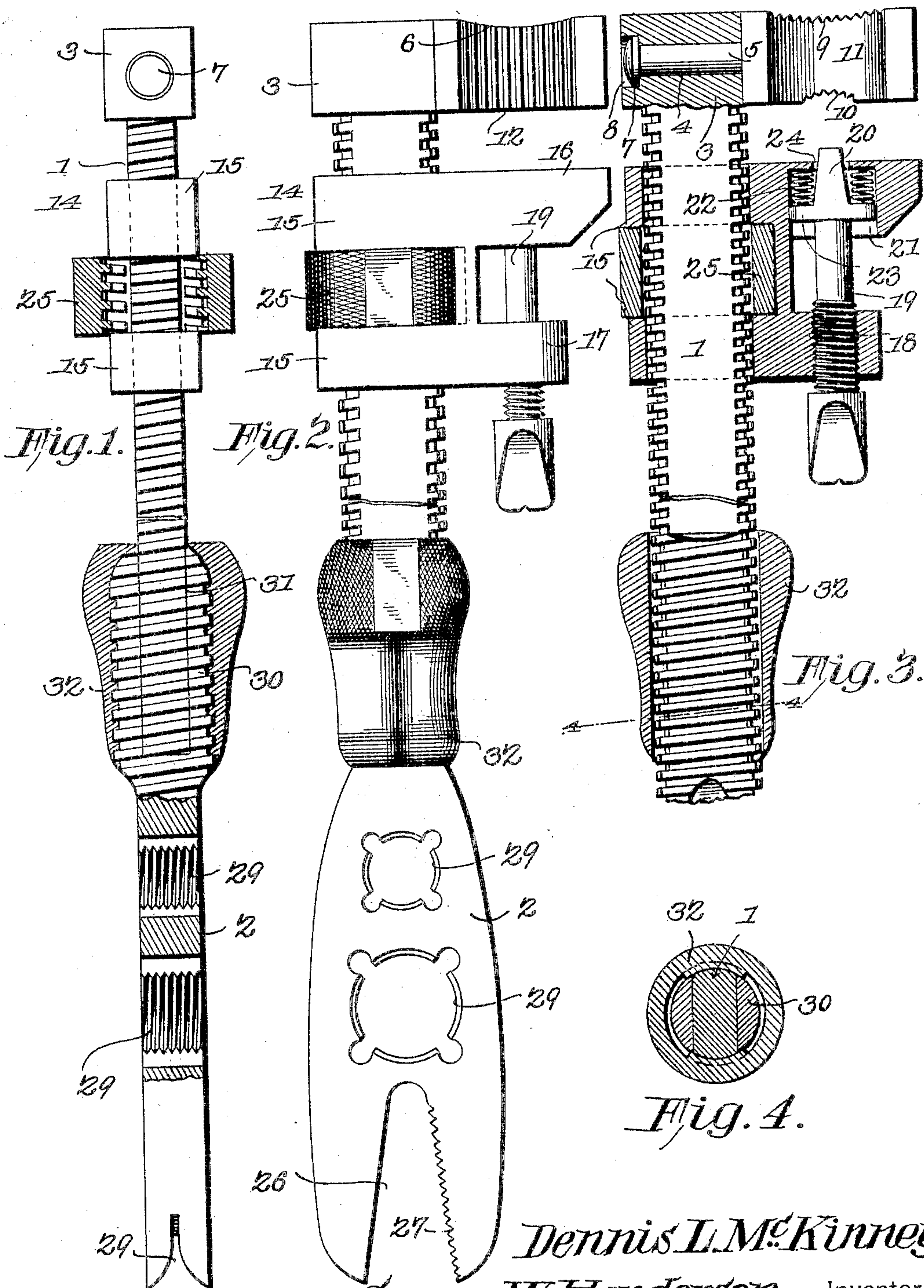
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COMBINATION TOOL.

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UNITED STATES PATENT OFFICE.

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COMBINATION-TOOL.

No. 797,211.

Specification of Letters Patent.

Patented Aug. 15, 1905.

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To all whom it may concern:

Be it known that we, DENNIS L. MCKINNEY and GEORGE W. HENDERSON, citizens of the United States, residing at Fairmont, in the county of Marion and State of West Virginia, have invented a new and useful Combination-Tool, of which the following is a specification.

This invention relates to improvements in combination-tools.

The object of the invention is to provide a tool which shall in a ready, simple, and thoroughly practical manner combine a monkey and pipe wrench, pipe-cutter, die-stock, and alligator-wrench, the parts being so constructed and combined as to facilitate the use of the various implements without necessitating any material change in their assemblage.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and arrangements of parts of the combination-tool, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of the specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in elevation taken from the rear of the tool, the lower portion being in section. Fig. 2 is a view in side elevation of the implement. Fig. 3 is a view in sectional elevation through the upper portion of the tool. Fig. 4 is a view in transverse section taken on the line 4 4 of Fig. 3.

The wrench embodies a threaded stem or shank 1, with one terminal of which is connected a handle 2, constituting a combined wrench, die-stock, and nail-claw, and with the other terminal of which is combined a head 3, provided with an orifice 4, extending at right angles to the length of the shank and being adapted to receive a stem or pintle 5, carried by a rotary wrench-jaw 6, the outer end of the stem or pintle being provided with a stop 7, which is seated in an orifice 8 in the head and lies preferably flush with the outer face thereof, the connection between the jaw 6 and the head 3 being such that the former will be positively braced against yielding to strains when the implement is in use either as an ordinary monkey-wrench or as a pipe-wrench, while at the same time it is freely rotatable relatively to the head. As stated, the jaw 6 is rotary and is quadrangular in cross-section, and each of its faces is adapted

for performing a different function, two of the faces 9 and 10 being concaved and provided with serrations to form one member of a pipe-wrench, the third face 11 being concave and smooth in order to adapt the wrench for use in connection with round bodies, and the fourth face 12 being flat and forming a monkey-wrench jaw pure and simple, the outer end 13 of the jaw being adapted for use as a hammer. The jaw can be readily rotated within the head to bring either of its faces to operative position and when thus adjusted will be held firmly in position by the article against which it is operating.

The shank 1, as usual, is approximately rectangular in cross-section, and mounted upon it is a sliding jaw, (designated generally 14,) the same being provided with two orificed threaded extensions 15 to engage the shank of the wrench, with a jaw 16 constituting the other member of the wrench, and an extension 17 disposed parallel with the jaw 16 and having a longitudinal threaded orifice 18 to be engaged by the threads of a thumb-screw 19, seated in a socket 21 in the under side of the jaw 16, a pair of coiled springs 22, arranged in the socket and bearing upon a shoulder 23, forming the base of the cutter, operating to hold the same normally in contact with the end of the thumb-screw. The cutter has a reduced end which is adapted to project through an orifice 24, formed in the upper face of the jaw 16. It will be seen by reference to Fig. 1 that by turning the thumb-screw 19 in the appropriate direction the cutter will be projected beyond the face of the jaw 16 and will be held solidly in place while performing its function.

The wrench-faces 9 and 10 of the jaw 6 are concaved on arcs of different circles, thus to adapt the implement for use on large or small pipes or on other round objects to be operated upon.

A jaw 14 is adjusted longitudinally of the shank by a collar 25, which is disposed between the extensions 15 and has mutilated threads—that is to say, the threads are cut away on opposite walls of the collar for a width equal to the edge thickness of the shank—and by this arrangement it will be seen that it will only be necessary to give a quarter-turn to the collar to free its threads from engagement with those of the shank, whereupon the jaw 14 may be moved longitudinally of the shank

to any position desired, and upon giving a further quarter-turn to the collar its threads will interlock with those of the shank and hold the jaw in its adjusted position.

The handle 2 is made of metal and is provided at its free end with a V-shaped slot 26, one wall of which is serrated, as at 27, to form an alligator-wrench, and one of the wrench members thus formed is bifurcated, as at 28, to form a nail-claw. The intermediate portion of the handle is provided with a plurality of threading-dies 29, two in this instance being shown, although, as will be apparent, this number may be increased as found necessary or desirable. The terminal 30 of the handle is circumferentially enlarged and is bifurcated, as shown at 31, to receive the lower end of the shank, the enlarged portion of the handle being threaded to correspond with the threaded shank, and this enlarged portion is engaged by a collar 32, having mutilated threads for the same purpose as the collar 25. By this arrangement the shank and handle are held positively combined when the implement is in use; but when it is desired to separate the parts for the purpose of facilitating carrying the implement the collar is given a quarter-turn to bring its unthreaded portions opposite the threaded portion of the shank, whereupon the shank and handle may be separated.

Having thus described the invention, what is claimed is—

1. A combination-tool embodying in its construction a shank carrying a sliding jaw, a jaw freely rotatable at right angles to the length of the shank and having its faces serrated to form a pipe-wrench, a cutter carried by the sliding jaw, and means for projecting the cutter beyond the face of the jaw.

2. In a combination-tool, a shank carrying a sliding jaw having a socket, a spring-pressed cutter mounted in the socket, means carried by the jaw for projecting the cutter beyond the operative face thereof, and a second jaw combined with the shank for rotary movement in a plane at right angles thereto.

3. In a combination-tool, a shank carrying a sliding jaw having a socket, a spring-pressed cutter mounted in the socket, means carried by the jaw for projecting the cutter beyond the operative face thereof, and a second jaw combined with the shank for free rotary movement in a plane at right angles thereto, the latter jaw having a plurality of its faces serrated.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

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GEORGE W. HENDERSON.

Witnesses:

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