(No Model.)

P. COSETTE.

NUT WRENCH.

No. 416,154. Patented Dec. 3, 1889.

Fig 1

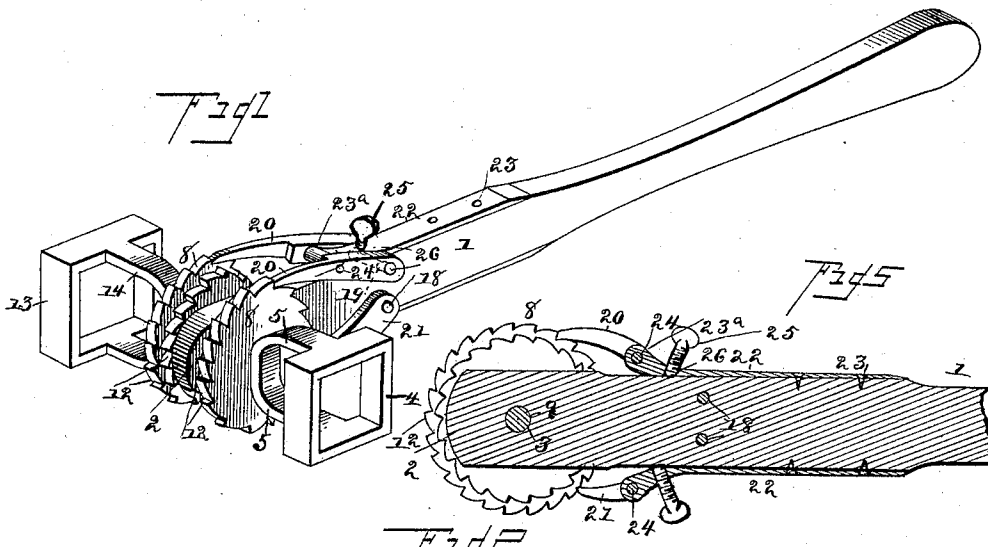


Fig 5

Fig 2

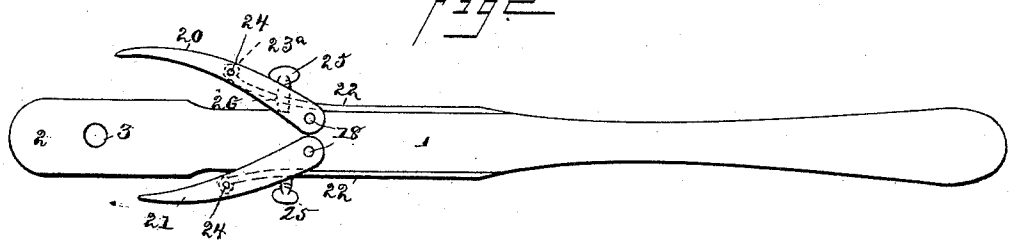


Fig 4

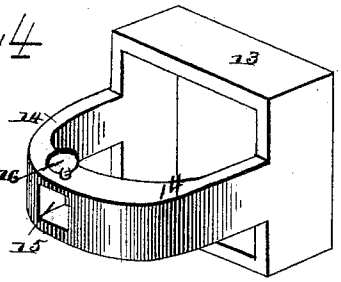
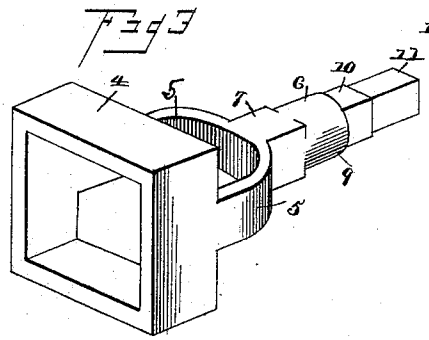


Fig 3



Witnesses:

John Imrie

W. Ewell

Inventor

Peter Cosette

By his Attorneys,

C. A. Snow & Co.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

PETER COSETTE, OF CRYSTAL FALLS, MICHIGAN.

NUT-WRENCH.

SPECIFICATION forming part of Letters Patent No. 416,154, dated December 3, 1889.

Application filed June 18, 1889. Serial No. 314,692. (No model.)

To all whom it may concern:

Be it known that I, PETER COSETTE, a citizen of the United States, residing at Crystal Falls, in the county of Iron and State of Michigan, have invented a new and useful Nut-Wrench, of which the following is a specification.

This invention has relation to nut-wrenches of that class known as "ratchet-wheels;" and the invention consists in various features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a wrench constructed in accordance with my invention; Fig. 2, a side elevation, the sockets and ratchet-wheel removed; Fig. 3, a detail of the shank-socket; Fig. 4, a similar view of its companion socket. Fig. 5 is a longitudinal section of Fig. 1.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the shank or handle of the wrench, and the same terminates in an upper head 2, having a perforation 3 extending transversely therethrough.

4 represents a nut-socket, which is provided at one side with converging bails 5, from which there projects a shank 6, which, adjacent to the bails, is provided with an angular portion 7, on which is mounted a double oppositely-disposed ratchet 8, and next is a cylindrical portion 9, which is journaled in the bearing 3, formed in the handle, and then in a reduced angular portion 10, to receive a similar companion ratchet 8, and finally terminating in the still further reduced angular portion 11. Upon the angular portion 7 is mounted the ratchet-wheel 8, and the same has its periphery divided longitudinally and formed with oppositely-disposed ratchet-teeth 12. Upon the square portion 10, at the opposite side of the handle 1, is mounted the opposite and similarly-formed ratchet-wheel 8, and, finally, upon the extreme reduced angular portion 11 there is mounted the larger nut-receiving socket 13, the bail 14 of which is provided with a square opening 15 and a set-screw 16, adapted to bear upon the shank and secure the socket in position.

Upon opposite pins 18, inserted through bearings 19, formed near the opposite edges and near the upper end of the handle 1, is journaled double pawls 20 and 21, the pawls 20 being arranged farther apart than the pawls 21, and the first-mentioned adapted to operate upon the outer ratchet-wheel and the last-mentioned pawls being adapted to operate upon the inner wheels. Flat springs 22 are secured, as at 23, to the opposite edges of the handle 1, and extend intermediate the pawls and terminate in eyes 23^a, through which there pass pins 24, connecting each pair of pawls with their respective springs, the tendency of said springs being to maintain the pawls in working contact with their respective ratchet-teeth. Screws 25 are inserted through openings 26, formed in each of the springs below its point of connection with the pawl, said screws terminating against the adjacent edges of the handle 1 and adapted to be operated to throw its respective set of pawls into or out of mesh with their respective ratchets.

The operation of my invention will at once be apparent from the foregoing description, in that if it be desired to operate one of the sockets the pawls that are intended to operate the ratchets that will rotate the sockets in the desired direction are left in mesh with their ratchets, while the opposite pawls are thrown out by means of its screw, as will be readily understood.

Having described my invention, what I claim is—

1. The combination, with the handle 1, having the opening 3 at its upper end, of the socket 4, having the shank 6 projecting therefrom and bearing in the handle, and provided at its opposite end with the removable socket 13, having a set-screw for securing it to the shank, and provided intermediate its sockets with angular shoulders, and the opposite double-toothed ratchets 8, mounted on the shoulders, one at each side of the handle, and the double pawls 20 and 21, mounted on pins 18, journaled in openings in the handle, and the springs 22, terminating in eyes 23^a and connected with the pawls and provided with set-screws 25, substantially as specified.

2. The handle 1, having the perforated head 3, in combination with the socket 4, having the bail 5 terminating in the shank 6, provided with the square portion 7, having the ratchet 8, the periphery of which is provided with oppositely-disposed teeth, and the cylindrical portion 9, operating in the bearing 3, and also the squared portion 10, for the reception of a companion double-toothed ratchet 8, and terminating in a reduced angular portion 11, the socket 13, having the bail 14 removably mounted on said portion 11, and having the set-screw 16, the opposite springs 22, secured, as at 23, to the handle, and terminating in eyes 23ª, the pins 18, journaled in openings 19 near each edge of the handle, and the double pawls 20 and 21, mounted on the pins and provided with a transverse pin 24, for receiving the eye 23ª, and the set-screws 25, inserted in openings 26 formed in the springs, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

PETER COSETTE.

Witnesses:
PATRICK E. DUNN,
SUMNER HOPKINS.