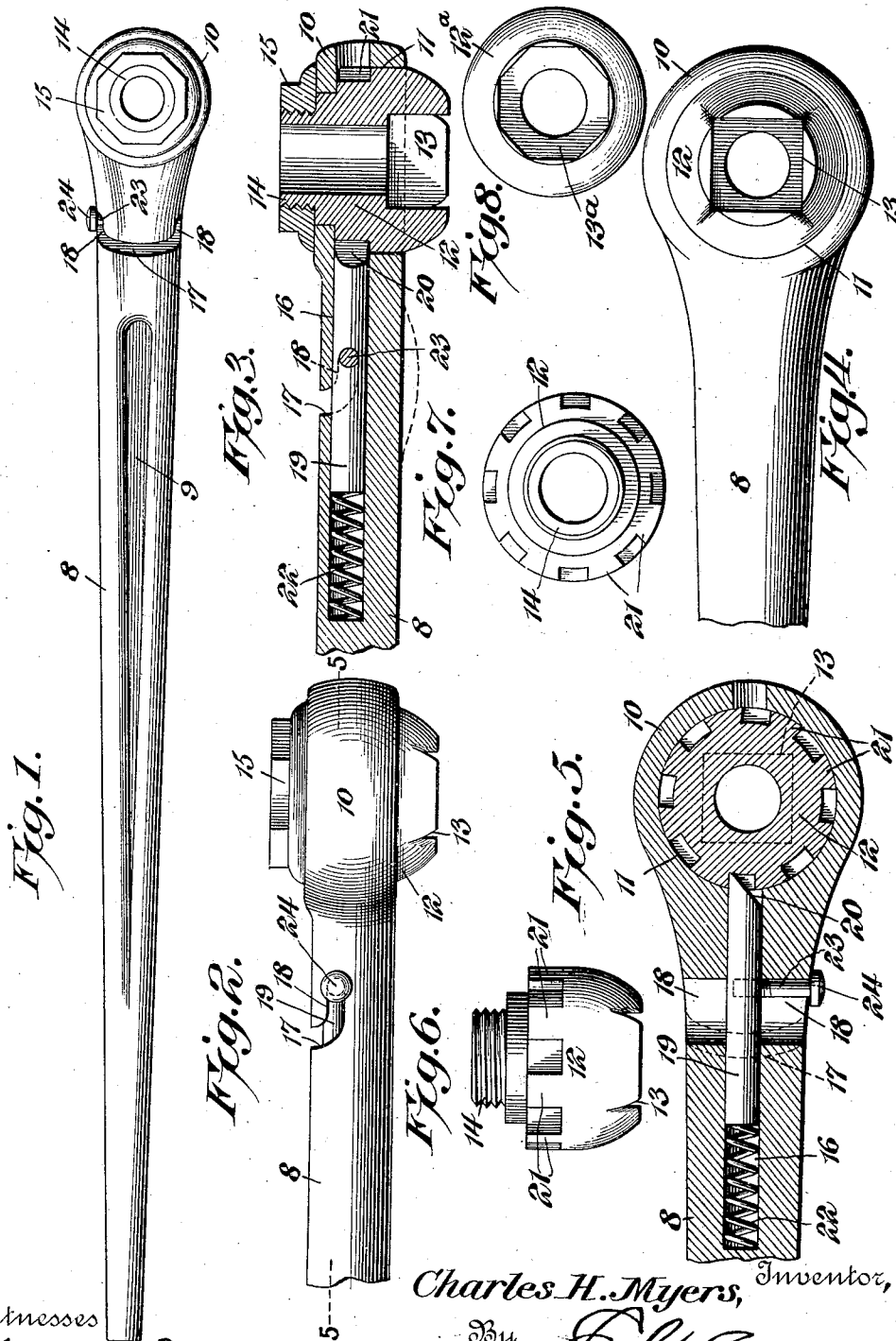


C. H. MYERS.
WRENCH.

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Witnesses
Howard N. Carr
H. Foster

Charles H. Myers, Inventor,
By E. J. Siggers, Attorney

UNITED STATES PATENT OFFICE.

CHARLES HENRY MYERS, OF BUFFALO, NEW YORK.

WRENCH.

No. 869,255.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES H. MYERS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Wrench, of which the following is a specification.

The present invention relates to wrenches, particularly of the type wherein a rotary nut engaging head is employed, that is actuated by an oscillatory handle or stock.

The principal object of the present invention is to provide a simple, powerful and durable wrench, particularly adapted for railway track work, though undoubtedly capable of being advantageously used for many other purposes.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a plan view of the wrench. Fig. 2 is a side elevation of the end portion of the same having the head. Fig. 3 is a longitudinal sectional view through Fig. 2. Fig. 4 is a plan view. Fig. 5 is a sectional view on the line 5—5 of Fig. 2. Fig. 6 is a side view of the head. Fig. 7 is a plan view thereof. Fig. 8 is a plan view of a slightly modified form of head.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, a tapered stock 8 is employed preferably having a tapered recess 9 in its sides, which by eliminating considerable metal, also eliminates the weight without materially weakening the stock. The larger end 10 of the stock is rounded, as shown, and provided with a transverse circular socket 11 opening through one side of the stock and having an opening 11^a through the opposite side and of less diameter than the socket. In this socket is located a head 12 having a portion projecting from the open side and provided with a nut-receiving seat 13 therein, and also having a stem 14 that projects through the opening 11^a in the rear side of the stock. This head in itself constitutes no part of the present invention, inasmuch as it is covered by another application, Serial No. 304,714. The head in the present embodiment is retained in place by a nut 15 threaded upon the projecting stem 14 and bearing against the adjacent side of the stock. Instead of the head disclosed in Figs. 4 and 5, it will be evident that heads with differently shaped sockets may be employed. Thus in Fig. 8, a head 12^a with an octagonal socket 13^a is disclosed. The said stock is furthermore provided with a longitudinally disposed chamber 16, one end of which communicates with the socket 11. A slot is also formed in the stock, and has an intermediate portion 17 disposed transversely of an intermediate portion of the chamber. The end portions 18 of this slot are disposed longitudinally of said chamber and on opposite sides of the

same. The slot communicates throughout its extent with the said chamber. A reciprocatory dog 19 is slidably and rotatably mounted in the chamber. One end 20 of said dog is beveled and coöperates with a peripheral series of teeth 21 formed upon the head 12. A spring 22, located in the rear end of the chamber 16, bears against the dog 19, and serves to yieldingly maintain it in coacting relation with the teeth. A stem 23, threaded into or otherwise engaged with the dog 19, is located in the slot, and has a head 24 projecting therefrom. This stem is operable in either of the longitudinal ends 18 of the slot, and is movable from one end to the other through the transverse portion 17.

When the wrench is applied to a nut, it will be evident that upon the oscillation of the handle, the dog 19 will interlock with the teeth during the movement of such handle in one direction, and will ride over the same during its movement in an opposite direction. Consequently the head will be rotated, and the nut screwed on to or off of the bolt. The direction of rotation of the head and nut is controlled by the position of the dog 19, the stem 23 being movable to opposite positions, thereby maintaining the beveled end of the dog in opposite positions.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

In a wrench, the combination with a stock having a circular socket formed in one end and opening through one side of said stock, said socket also having an opening of less diameter through the opposite side, of a single solid head rotatably mounted in the socket and having one end projecting from the open side and provided with a nut-receiving seat, an integral stem of less diameter than the head, projecting through the opposite side and exteriorly threaded, and a peripheral series of teeth located on the inner end of the head at its juncture with the stem, said teeth being located in the socket and completely surrounded by the stock, a nut screwed upon the projecting end of the stem and constituting means for retaining the head in place, and a reversible spring pressed dog movably mounted in the stock and having one end coöperating with the teeth of the head, said dog and teeth being housed by the stock.

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

CHARLES HENRY MYERS.

Witnesses:

WM. F. WAITE,
PERCY L. MARVIN.