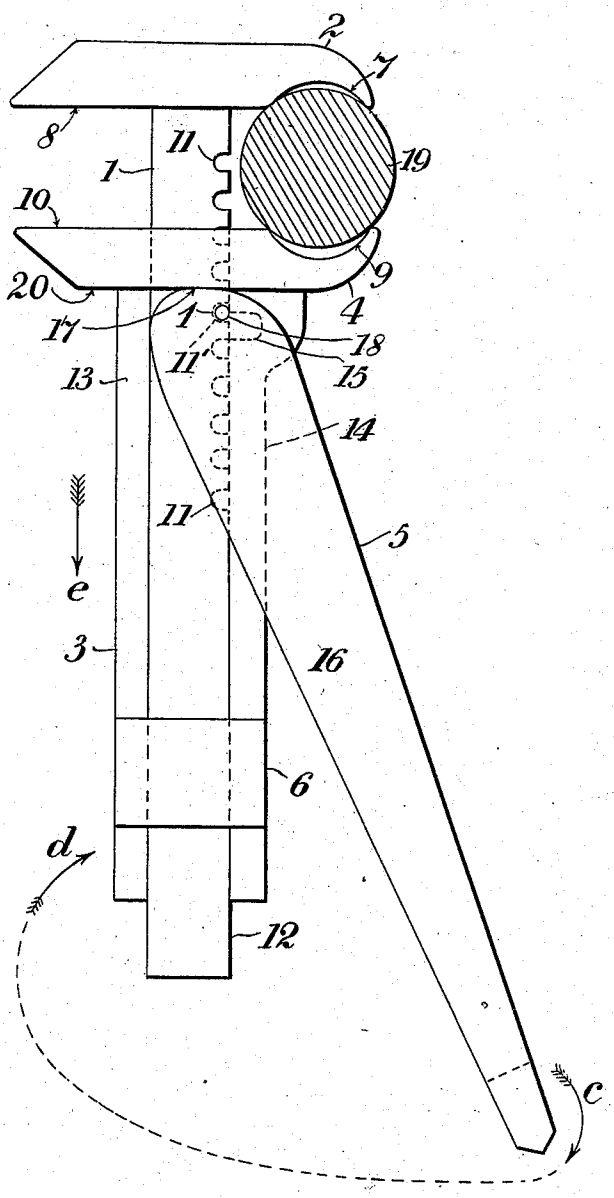
H. L. MINTER.

SPANNER OR WRENCH.

APPLICATION FILED JULY 17, 1907.

899,833.

Patented Sept. 29, 1908.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY LAVENDER MINTER, OF LONDON, ENGLAND.

SPANNER OR WRENCH.

No. 899,833. Specification of Letters Patent. Patented Sept. 29, 1908.

Application filed July 17, 1907. Serial No. 384,213.

To all whom it may concern:

Be it known that I, HENRY LAVENDER MINTER, a subject of His Majesty the King of Great Britain and Ireland, residing at 36 Baronsmere road, East Finchley, London, N., in the county of Middlesex, England, have invented certain new and useful Improvements in Spanners or Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in spanners or wrenches and provides a simple and convenient tool having a considerable range of action, and a great nicety of gripping adjustment.

With my improved spanner or wrench, when the size of the object to be gripped has been approximated the gripping pressure can be applied and be removed at will.

My improved spanner or wrench possesses greater durability than the common forms of such tools as it contains nothing in the nature of a screw thread to become worn or jammed and its several parts are capable of being contructed solidly and substantially.

An improved spanner or wrench in accordance with my invention consists essentially in a slide-bar notched through part of its length and carrying at one end, one of the gripping heads or jaws of the tool, adapted to slide within a guide-frame carrying at one end the second gripping head or jaw of the tool; pressure adapted to approach said gripping heads or jaws, being contrived to be exerted by a lever arm fulcrumed upon a pivot capable of being inserted in turn in any one of said notches by means provided.

In order to define with precision the nature and scope of my said invention reference is made hereinafter to the accompanying drawing in which is shown in side elevation an example of a spanner or wrench according to my invention.

The slide bar 1 carries the head 2 which may preferably have a curved jaw 7 and a straight jaw 8. It has notches 11 of which there are preferably a considerable number, and a reduced end 12. Said slide bar 1 is adapted to slide within the guide frame 3, consisting of the guide bars 13, 14 surmounted by the head 4 with curved jaw 9 and straight jaw 10; counterparts respectively as far as their gripping surfaces are concerned of the jaws 7 and 8. The guide frame 3 has bracing plates 6, or equivalents. The guide bar 14 has a notch or slot 15 near the head 4. The lever arm 5 has preferably two parallel members 16, embracing the body of the tool and each curved off in like manner at 17. The fulcrum pivot, a stout pin 18 crosses the interspace, and is adapted to be inserted in any of the notches 11, the action in such case being seen from the drawing wherein it will be observed that when the pivot pin 18 has been inserted in the notch, 11′ for instance, approximately adapted to contain the periphery of the object 19 within the jaws 7 and 9, the grip of the hand in the position and direction indicated by the dotted line and arrows *c*, *d*, causes the reaction between the lower face 20 of the head 4 and the nose 17 of the lever arm to depress the position of the pin 18 in the direction of the arrow *e*, and this, inasmuch as it is rigidly held within the notch 11′, compels the notch in turn to change position in the same direction, thereby bringing the head 2 attached to the guide bar 1, towards the head 4. A strong grip is thus secured with respect to the object 19. Means may be provided for fixing the lever arm 5 in a gripping position whereby the grip may be maintained indefinitely. To adjust this form of the tool, the slide bar 1 is slid in the guide frame 3 until the notch, 11′ in the instance given, in which the pin 18 happens to be is brought opposite the slot or notch 15 in the guide bar 14. When this point is reached the pin 18 is disengaged from the notch (11′) and placed in the slot or notch 15. While the pin 18 is disengaged from the slide bar 1 and rests in the slot or notch 15 the jaws of the heads 2 and 4 may be made to embrace the desired object so that the leverage is exerted as before described to grip the same when the pin 18 is inserted at the nearest available notch.

A mark, pointer or the like may be applied to the slide bar 1 to abut against a scale or marks upon the guide frame, conveniently for instance upon the guide bar 13, or other such equivalent device may be employed to assist the operator of the tool in slipping in the pin 18 into the various notches 11 with precision and despatch.

A cross section of slide bar 1 or guide frame 3 of circular shape may be employed and the other members modified in conformity with this alternation. The curved jaws are

adapted to grip circular objects of various diameters, while the straight ones will take hexagonal nuts and square and other objects.

What I claim is:—

1. A wrench comprising a slidable jaw member notched on one side, an embracing yoke member having a cutaway portion contiguous with said notched side, and a lever having its pivotal point normally resting in said cutaway portion, said pivotal point adapted to automatically shift to the notched member upon application of pressure to the handle.

2. A wrench comprising a slidable jaw member notched along one of its sides, a stationary jaw member embracing said slidable member having a cutaway portion on its side contiguous with the notched side of the slidable member, and a cam lever having its fulcrum normally resting in said cutaway portion but bearing when in operative position against the notched side of said slidable member.

In testimony whereof I affix my signature in the presence of two witnesses.

HENRY LAVENDER MINTER.

Witnesses:
G. L. BROWNE,
H. D. JAMESON.