PATENT SPECIFICATION

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Index at acceptance:—**Class 61(iii),** H4n2.

PROVISIONAL SPECIFICATION.

An Improved Adjustable Spanner or wrench.

I, WILLIAM BENJAMIN PERCIVAL, a British Subject, of 34, Currajong Avenue, Camberwell, in the State of Victoria, Commonwealth of Australia, do hereby declare the nature of this invention to be as follows:—

This invention relates to an improved adjustable spanner or wrench and has for its primary object to provide an improved tool of this kind which can be very quickly moved or adjusted from one position to another.

A further object is to provide an adjustable spanner or wrench having few parts and which does not have adjusting screws or the like enabling it to be manufactured at low cost in comparison with many other types of adjustable spanners or wrenches.

According to the invention, the improved spanner or wrench comprises a main or body member having a fixed jaw at its upper end, a movable jaw member in the form of a triangular block slidable against the main or body member, an inclined surface on the outer side of the main or body member, a coupling member or tubular form enclosing the body member and the movable jaw member and having its internal surfaces engaging said inclined surface on the body member and an inclined surface on the movable jaw member, and a spring acting on the movable jaw member to draw it into the coupling member with a wedging action to lock the parts in adjusted position.

The movable jaw member is preferably in the form of a right-angled triangle, the base sliding against the main or body member and the hypotenuse forming the inclined surface against which the internal surface of the coupling member engages.

According to the preferred embodiment of the invention, the improved spanner or wrench consists of four parts, namely, the main or body member, the movable jaw member, the coupling member and the coiled spring.

The main or body member is preferably made as a forging and comprises a lower handle part and an upper head which forms the fixed jaw of the tool. The handle part may be channelled to reduce weight.

The movable jaw member is constructed in the form of a right-angled triangle, the upper end forming the jaw proper while the base is slidable against an adjusting face formed on the side of the body member.

The coupling member is of tubular form rectangular in cross-section and tapers towards its lower end. It encloses the body member and the movable jaw member and its two internal surfaces co-act respectively with the inclined surface forming the hypotenuse of the triangular jaw member and an inclined surface formed on the outside of the main or body member.

Preferably said co-acting surfaces are knurled or serrated to ensure more effective gripping.

The triangular jaw member functions as a wedge and is drawn into the coupling member with a wedging action by means of the coiled spring. Said spring is housed in recesses formed in the faces of the jaw and body members and is anchored at its opposite ends to said members by means of pins.

The gripping faces of the two jaws are serrated or toothed in the usual manner to secure an effective grip on the workpiece.

In use, the jaws of the tool are adjusted as required by applying thumb pressure on the movable jaw member. This releases the wedging action allowing the jaw member to be slidably moved on the face of the body member towards or away from the fixed jaw as required. On release of the jaw member, the coiled spring automatically draws said jaw member into the coupling member with a wedging action and the knurled or serrated surfaces come into close gripping contact to lock the parts in adjusted position.

The adjusting face of the body member may have an abutment at its lower end to limit the downward movement of the movable jaw member and other additions and refinements may be incorporated within the

ambit of the invention.

The improved spanner or wrench as described is simple in construction and, because of the few parts used and the absence of adjusting screws or like parts, it can, as previously mentioned, be manufactured at low cost in comparison with many other types of adjustable spanners or wrenches. It can also be very quickly moved or adjusted from one position to another, an advantage of considerable importance in tools of this kind.

Dated this 6th day of March, 1947.

For the Applicant,
F. J. CLEVELAND & COMPANY,
Chartered Patent Agents,
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COMPLETE SPECIFICATION

An Improved Adjustable Spanner or Wrench.

I, WILLIAM BENJAMIN PERCIVAL, of 34, Currajong Avenue, Camberwell in the State of Victoria, Commonwealth of Australia, a British Subject, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to an improved adjustable spanner or wrench and has for its primary object to provide an improved tool of this kind.

According to the invention there is provided an adjustable spanner or wrench comprising a main or body member having a fixed jaw at its upper end, a movable jaw member in the form of a triangular block slidable against the main or body member, an inclined surface on the outer side of the main or body member, a coupling member of tubular form enclosing the body member and the movable jaw member and having its internal surfaces engaging said inclined surface on the body member and an inclined surface on the movable jaw member, and a spring acting on the movable jaw member to draw it into the coupling member with a wedging action to lock the parts in adjusted position, characterised by the fact that the inclined surface on the body member and the co-acting internal surface on the coupling member are knurled or serrated.

The invention is illustrated by way of example in the accompanying drawings wherein:—

Fig. 1 is a view in side elevation of the improved spanner;

Fig. 2 is a view partly in section;

Fig. 3 is a cross-section taken substantially on the line 3—3 of Fig. 2;

Fig. 4 shows an alternative form of movable jaw that may be substituted when the tool is to be used as a wrench.

As shown in these views, the spanner or wrench consists of four parts, namely, the main or body member 1, a movable jaw member 2, the coupling member 3 and the coiled spring 4.

The main or body member 1 is preferably made as a forging and comprises a lower handle part 5 and an upper head 6 which forms the fixed jaw of the tool. The handle part may be channelled as at 7 to reduce weight. The movable jaw member 2 is constructed in the form of a right-angled triangle, the upper end 8 forming the jaw proper while the base 9 is slidable against an adjusting face 10 formed on the side of the body member 1. The coupling member 3 is of tubular form rectangular in cross-section and tapers towards its lower end. It encloses the body member 1 and the movable jaw member 2 and its two internal surfaces 11 and 12 co-act respectively with the inclined surface 13 forming the hypotenuse of the triangular jaw member 2 and an inclined surface 14 formed on the outer side of the main or body member 1. The triangular jaw member 2 functions as a wedge and is drawn into the coupling member 3 with a wedging action by means of the coiled spring 4. Said spring is housed in recesses 15 and 16 formed in the faces 9 and 10 of the members 2 and 1 and is connected at its opposite ends to said members by means of pins 17.

According to the invention the co-acting surfaces 12 and 14 are knurled or serrated as shown to ensure more effective gripping.

The adjusting face 10 may have an abutment as 18 at its lower end to limit the downward movement of the movable jaw member 2.

In use, the jaws of the tool, are adjusted as required by applying thumb pressure on the movable jaw member 2. This releases the wedging action allowing the jaw member 2 to be slidably moved on the face 10 towards or away from the fixed jaw 6 as required. On release of the jaw member 2, the coiled spring automatically draws said jaw member into the coupling member 3 with a wedging action and the surfaces 11—13 and 12—14 come into close gripping contact to lock the parts in adjusted position.

In the case of a spanner, the faces of the two jaws 6 and 8 are plain as shown. With a wrench, however, said faces may be serrated or toothed in the usual manner to

secure an effective grip on the workpiece. Alternatively, the triangular jaw member 2 may be made detachable and an additional jaw member as 19, see Fig. 4, having a serrated face as 20 may be provided for substitution. In this construction, the coiled spring 4 has a hooked upper end to readily engage the pin 17 fitted in the jaw member 2.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. An adjustable spanner or wrench comprising a main or body member having a fixed jaw at its upper end, a movable jaw member in the form of a triangular block slidable against the main or body member, an inclined surface on the outer side of the main or body member, a coupling member of tubular form enclosing the body member and the movable jaw member and having its internal surfaces engaging said inclined surface on the body member and an inclined surface on the movable jaw member, and a spring acting on the movable jaw member to draw it into the coupling member with a wedging action to lock the parts in adjusted position, characterised by the fact that the inclined surface on the body member and the co-acting internal surface on the coupling member are knurled or serrated.

2. An adjustable spanner constructed and arranged as described herein and shown in Figs. 1 to 3 of the accompanying drawings.

3. An adjustable wrench constructed and arranged substantially as described herein and shown in Figs. 1 to 4 of the accompanying drawings.

Dated this 13th day of February, 1948.

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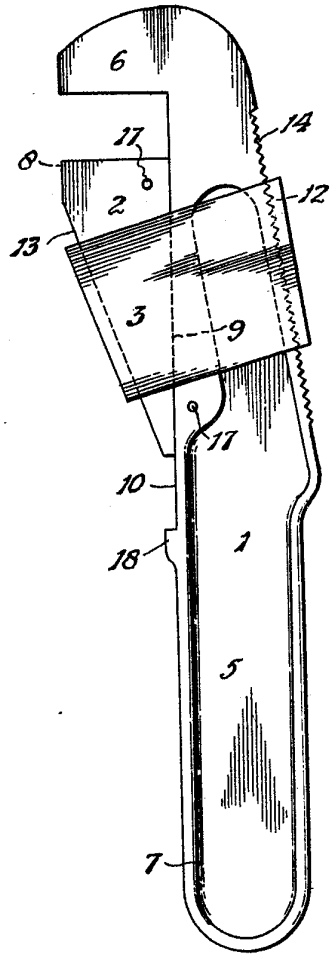

FIG. 1.

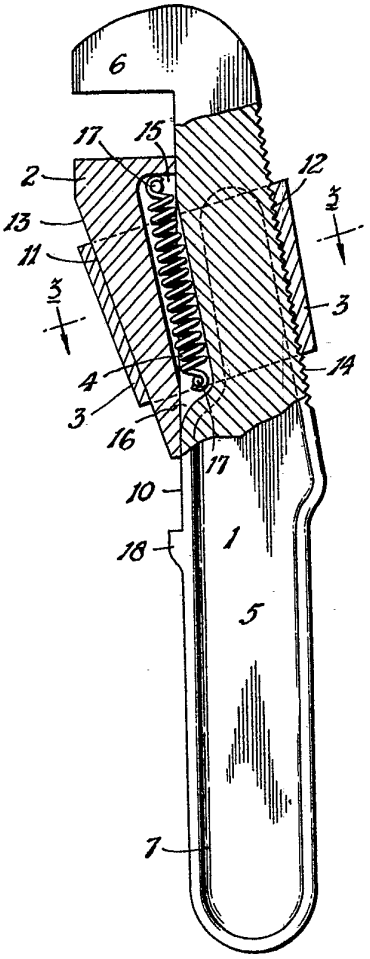

FIG. 2.

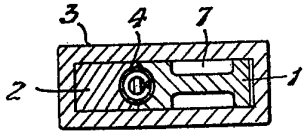

FIG. 3.

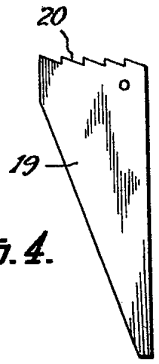

FIG. 4.

H.M.S.O.(Ty. P.)