

ORIGINAL COPY.

PATENT SPECIFICATION

196,516

Application Date: June 22, 1922. No. 17,257/22.

" " Aug. 29, 1922. No. 23,443/22.

One Complete Left: Feb. 6, 1923.

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PROVISIONAL SPECIFICATION.

No. 17,257, A.D. 1922.

Improvements relating to Adjustable Spanners.

We, HARRY LUCAS and FRANK WILLIAM NORMANSELL, both British subjects, of Great King Street, in the City of Birmingham, do hereby declare the nature of this invention to be as follows:—

This invention relates to adjustable spanners of the type in which a wedge shaped piece is adapted to be detachably arranged in conjunction with one of the jaws of the spanner to enable it to be used also as a pipe wrench.

The object of the present invention is to arrange the additional element in more convenient combination with the spanner than heretofore, and for this purpose the invention comprises the attachment of the additional, or gripping piece to the spanner by means of a hinged link or links as hereinafter described.

In one convenient manner of applying the invention to an adjustable spanner the gripping piece which, as before, is of wedge shaped form having a serrated operative edge, is adapted to be located

when in use along the working edge of the jaw on the head of the spanner. The connection between the parts is effected by a pair of links which lie on opposite sides of the spanner head. At one end the links are pivoted to the spanner head, and at the other end to one end of the gripping piece. When not in use the links and the gripping piece lie in an unobstructive position along the back of the spanner adjacent to the head. To bring the gripping piece into service, the links are swung over the head of the spanner, and the gripping piece is caused to lie along the edge of the adjacent jaw.

By this invention the combination of a gripping piece with a spanner is effected in a very convenient manner. Whilst a pair of links situated on opposite sides of the spanner head are preferred a single link on one side of the head may be used.

Dated this 19th day of June, 1922.

MARKS & CLERK.

PROVISIONAL SPECIFICATION.

No. 23,443, A.D. 1922.

Improvements relating to Adjustable Spanners.

We, HARRY LUCAS and FRANK WILLIAM NORMANSELL, British subjects, both of Great King Street, in the City of Birmingham, do hereby declare the nature of this invention to be as follows:—

In a concurrent Patent Application No. 17,257 of 1922, we have described a mode of attaching a gripping piece to one of the jaws of an adjustable spanner for enabling the spanner to be used also as a pipe wrench. The invention described in our former specification com-

prises the attachment of the gripping piece to the spanner by means of a hinged link or links. In the particular construction described in that specification, the gripping piece is attached to the jaw on the outer end of the spanner, and the link or links are such that the gripping piece can be swung over the head to the back of the spanner when not in use.

It is found to be more convenient for some purposes to arrange the gripping

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piece in conjunction with the other jaw, and, by similar means to those previously described by us, to attach the gripping piece to that jaw so that when not in use the link or links and gripping piece can lie along the front edge of the spanner.

We desire it to be understood that our invention includes the arrangement of the gripping piece in conjunction with either jaw of a spanner.

Dated this 28th day of August, 1922.
MARKS & CLERK.

COMPLETE SPECIFICATION.

Improvements relating to Adjustable Spanners.

We, HARRY LUCAS and FRANK WILLIAM NORMANSELL, both British subjects, of Great King Street, in the City of Birmingham, 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 adjustable spanners of the type in which a wedge shaped piece is adapted to be detachably arranged in conjunction with one of the jaws of the spanner to enable it to be used also as a pipe wrench.

The object of the present invention is to arrange the additional element in more convenient combination with the spanner than heretofore, and for this purpose the invention comprises the attachment of the additional gripping piece to the spanner by means of a hinged link or links which is or are pivotally attached at one end to the gripping piece and at the other end to the spanner as hereinafter described.

Referring to the accompanying sheet of explanatory drawings:—

Figures 1, 2 and 3 are respectively side elevation, front elevation and plan showing one manner of applying our invention to an adjustable spanner.

Figures 4 and 5 illustrate by side and front elevation an alternative arrangement.

In the application of the invention to an adjustable spanner as shown in Figures 1—3 the gripping piece *a* which, as before, is of wedge shaped form having a serrated operative edge, is adapted to be located when in use along the working edge of the jaw *b* on the head of the spanner. The connection between the parts is effected by a pair of links *c* which lie on opposite sides of the spanner head. At one end the links are pivoted to the spanner head, and at the other end to one end of the gripping piece. When not in use the links and the gripping piece lie in an unobstructive position along the back of the spanner adjacent to the head as shown by dotted lines in Figure 1. To bring the gripping piece into service, the links are swung over the

head of the spanner, and the gripping piece is caused to lie along the edge of the adjacent jaw.

For some purposes it is more convenient to arrange the gripping piece in conjunction with the other jaw, as shown in Figures 4 and 5. The connection is effected by links *c* attached to the adjacent portion of the spanner. When not in use the links and gripping piece can lie along the front edge of the spanner, as shown by dotted lines in Figure 4.

To prevent displacement of the gripping piece relatively to the jaw and to avoid the imposition of undue stress on the links when the gripping piece is in use, a projection *d* is provided to engage a circular or other recess in the jaw as shown in Figures 1 and 4. If desired a tongue piece *d*¹ may be provided on the part *a* to engage a slot *e* in the spanner as shown in Figure 1 instead of the projection *d*; or both the projection *d* and the tongue piece *d*¹ may be employed.

The parts *d*, *d*¹ and *e* do not, however, form any part of this invention. By this invention the combination of a gripping piece with a spanner is effected in a very convenient manner. Whilst a pair of links situated on opposite sides of the spanner head are preferred a single link on one side of the head may be used.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that we are aware that it has been proposed to attach a gripping piece to a spanner by a link hinged at one end to the gripping piece and adapted to embrace and slide relatively to the spanner at the other end, but what we claim is:—

In adjustable spanners of the type specified, the attachment of the additional gripping piece to either part of the spanner by means of a hinged link or links, which is or are pivotally attached to the gripping piece at one end and to the spanner at the other end, substantially as described and illustrated.

Dated this 18th day of January, 1923.
MARKS & CLERK.

[This Drawing is a reproduction of the Original on a reduced scale.]

