

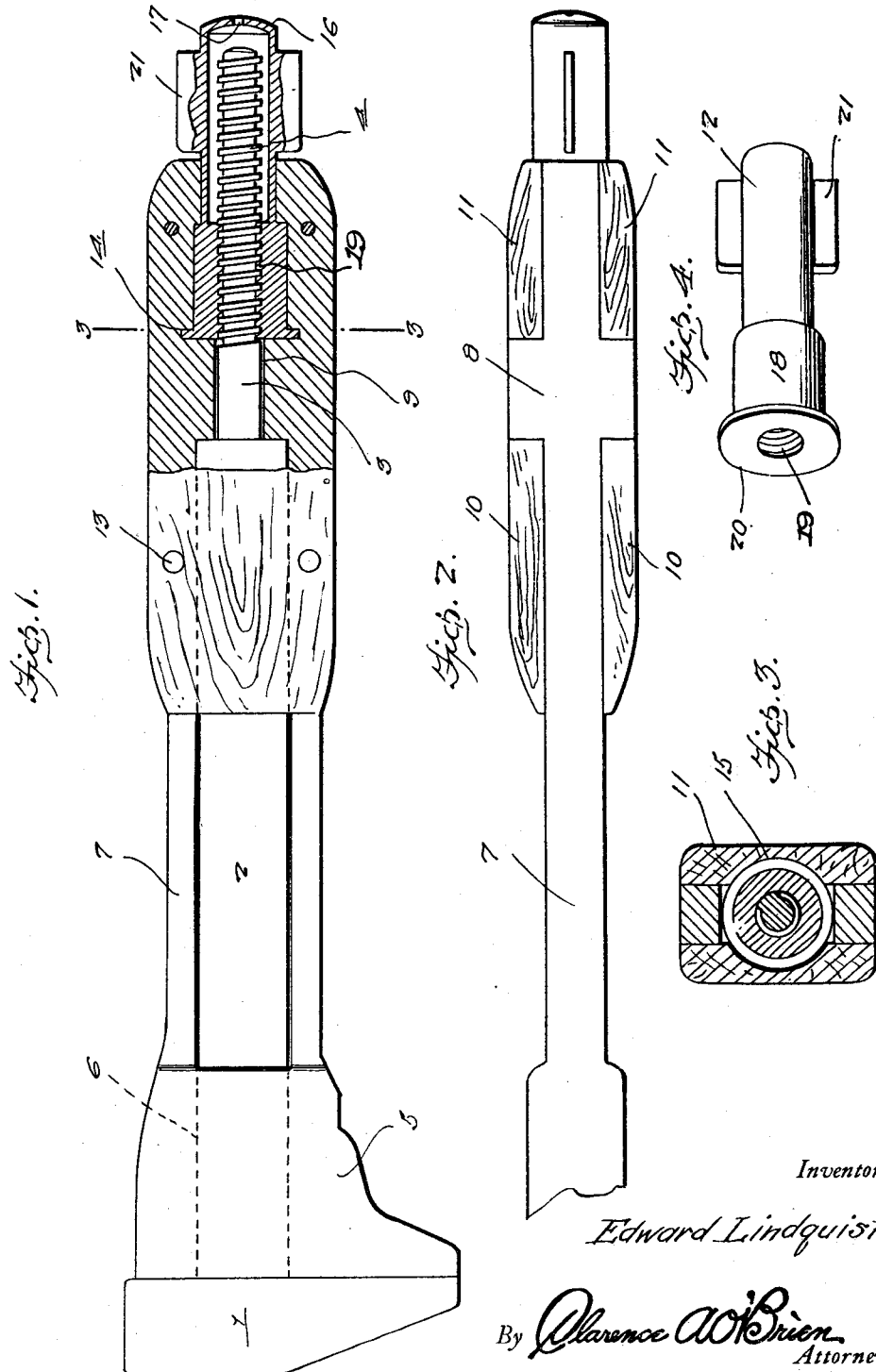
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SLIDING JAW WRENCH

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## UNITED STATES PATENT OFFICE.

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## SLIDING-JAW WRENCH.

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My present invention pertains to wrenches of the sliding jaw types; and it has for its object the provision of a sliding jaw wrench which while simple and inexpensive in construction and strong and durable, it is adapted to be adjusted and handled with great facility.

To the attainment of the foregoing, the invention consists in the improvement as hereinafter described and definitely claimed.

In the accompanying drawing forming part of this specification:—

Figure 1 is a view partly in side elevation and partly in section illustrative of the preferred embodiment of my invention.

Figure 2 is a broken view in elevation taken at right angles to Figure 1.

Figure 3 is a transverse section taken on the plane indicated by the line 3—3 of Figure 1.

Figure 4 is a detail perspective of the adjusting member of the wrench.

Similar numerals of reference designate corresponding parts in all the views of the drawing.

Among other elements, my novel wrench comprises a sliding jaw 1 which within the purview of my invention may be of the shape illustrated or any desired shape. The said jaw 1 is integral with a shank 2, of rectangular cross section, and the said shank 2 at its heel end is integral with and is merged into a reduced rear portion 3 of circular cross section, by preference. The portion 3 being equipped with a thread 4 as appears in Figures 1 and 3. The jaw 1 and the parts defined as integral therewith may without affecting my invention be made of steel or of any other material suitable for wrench purposes.

In addition to the jaw 1, and the parts integral therewith, the wrench includes a body of steel, iron or other appropriate metal or metallic alloy. The said body is formed in one piece and comprises a jaw 5 with a bore or passage 6 therethrough in which the shank 2 is sheathed, and also comprises spaced parallel longitudinal portions 7, and an intermediate portion 8 in which is a bore 9 for the reception of the portion 3 of the shank 2; said portion 8 being extended laterally in opposite directions from the plane in which the portions 7 are disposed, as appears in Figure 2.

The embodiment illustrated further com-

prises wooden sections 10, wooden sections 11, and an adjusting member 12, the latter shown in detail in Figures 1 and 4. By particular reference to Figures 1 and 2, it will be noted that the rear portion of the longitudinal bars 7 of the wrench body are increased in width, and that the wood sections 10 and 11 are arranged at opposite sides of said comparatively wide portions of the bars 7 and are fixedly connected to said bar portions through the medium of transverse rivets 13; also, that the wood sections abut at their inner ends against and are reinforced by the intermediate enlargement 8 of the body, and that the sides of the said enlargement 8 and the sides of the wood sections 10 and 11 are flush as appears in Figure 2. It will further be noted by comparison of Figures 1 and 3 that the body of the wrench is recessed at 14, and the wood sections 11 are recessed at 15 for the reception and circular movement of the adjusting element 12.

The adjusting member 12 is formed in one piece of steel or of any appropriate metal, and is of general tubular form, the outer end of the tube being closed as designated by 16 and being provided with a central minute aperture 17 through which oil may be introduced for the thorough lubrication of the threaded portion of the shank 2 of the member 12. By comparison of Figures 1 and 3 and 4, it will be understood that the member 12 is provided at its inner end with a nut portion 18 which is exteriorly of circular cross section and is interiorly threaded as designated by 19, and is provided at its inner end with a circular flange 20, the latter being disposed in the recess 14 of the body so that the member 12 is by the body strongly held against longitudinal movement in either direction. The nut 18 is turnable about its axis in the metallic body and the wooden sections 11 of the wrench as is the tubular portion of the member 12, and at a point in the rear of and by preference slightly spaced from the metallic body and the wood section 11, the adjusting member 12 is provided with exterior wings 21 through the medium of which the member 12 may be powerfully turned about its axis. In this connection it will be appreciated that the handle formed by the portion 8 and the wood sections 10 and 11 may be held by an operator in one hand, while with his other hand the operator turns the member 12 about its axis for the

adjustment of the jaw 1 relative to the body jaw 5.

By virtue of the spaced longitudinal bars 7, comprised in the wrench body, and the wood sections 10 and 11 carried by the said body, it will be appreciated that the wrench is provided with a convenient handle or hand grasp and that the shank 2 is adequately housed as is also the adjusting member 12, and this without making the wrench heavy and without detracting from the strength and durability of the wrench.

It will also be appreciated from the foregoing that by virtue of their character, the several parts of the wrench may be easily produced, and that the said parts may be readily assembled and secured in relative working position, with the result that the wrench as a whole may be produced at small cost.

While I refer to the sections 10 and 11 as being of wood, and I prefer to employ wooden sections 10 and 11, I would have it understood that within the purview of my invention the sections 10 and 11 may be made of fiber or of any other appropriate material which is lighter than metal, and is at the same time capable of withstanding the rough usage to which wrenches are ordinarily subjected.

I have entered into a detailed description of the construction and relative arrangement of parts embraced in the present and preferred embodiment of my invention in order to impart a full, clear, and exact understanding of the said embodiment. I do not desire, however, to be understood as limiting myself to the precise construction disclosed, my in-

vention being defined by my appended claim within the scope of which modifications may be made without departure from my invention.

Having thus described the invention, what I claim is:—

A wrench consisting essentially of a sliding jaw having an integral shank provided at its rear end with a reduced and threaded portion, a body including a jaw with a longitudinal passage therein through which said shank extends, longitudinal spaced bars extending rearwardly from last named jaw and provided with rear internally recessed portions, and an intermediate portion joining the bars immediately in front of said recesses and extending laterally in opposite directions from the plane of the bars and having a longitudinal passage through it, sections of material different from that of the body, arranged in front and rear of the laterally extending parts of the intermediate portion of the body and abutting against and arranged flush with said lateral parts and connected to opposite sides of the longitudinal bars, and an adjusting member journaled in the longitudinal bars of the body and in the rear sections of material different from that of the body and extending rearwardly beyond the longitudinal bars and said sections, and having a flange at its inner end disposed in the said recesses of the body bars and also having a threaded portion receiving and engaging the thread on the shank.

In testimony whereof I affix my signature.

EDWARD LINDQUIST.