

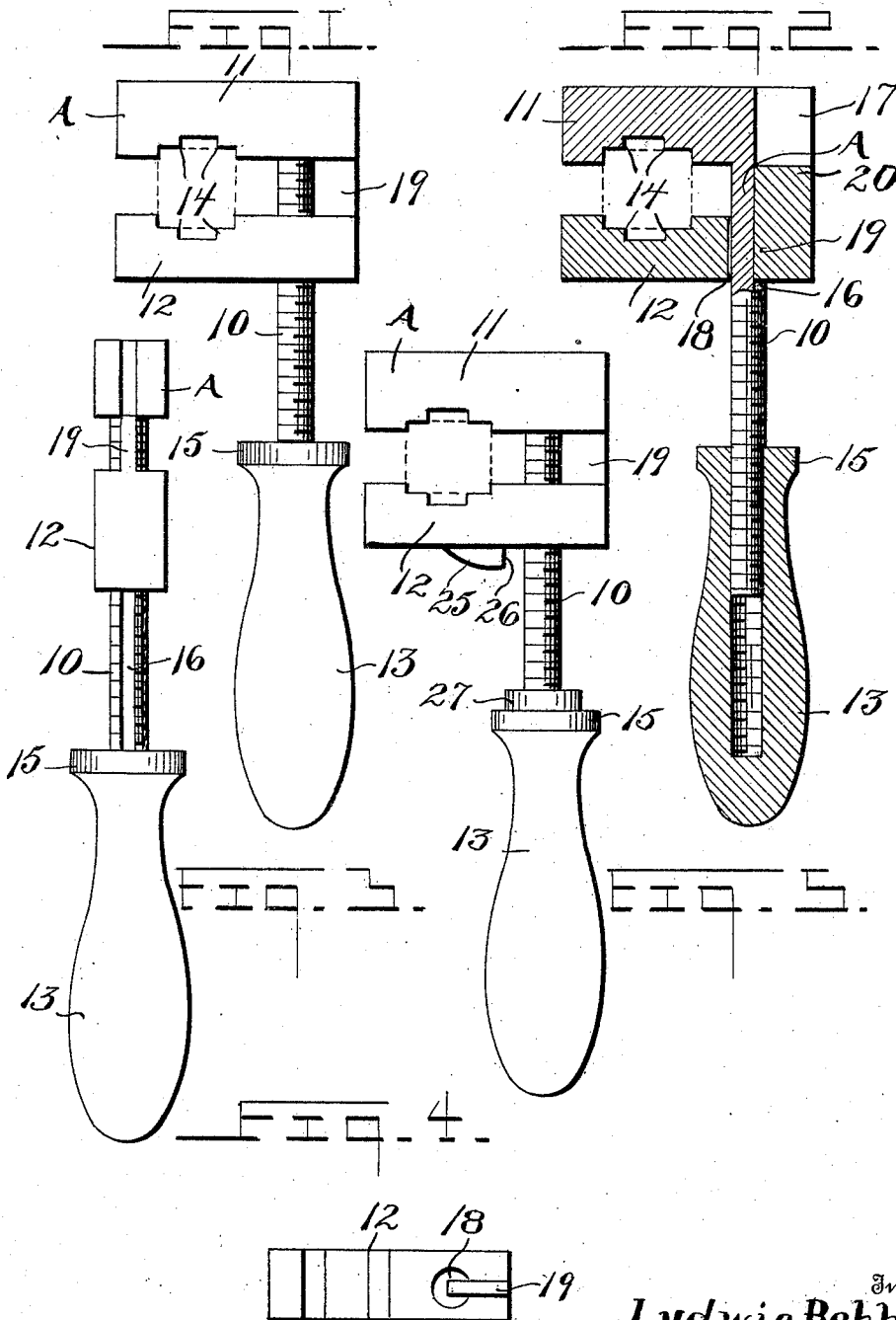
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WRENCH.

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985,129.

Patented Feb. 28, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

LUDWIG BEKKER, OF ABERDEEN, SOUTH DAKOTA.

WRENCH.

985,129.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LUDWIG BEKKER, a citizen of the United States, residing at Aberdeen, in the county of Brown and State of South Dakota, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, and has for its object to provide a simple and compact sliding jaw wrench which may be manufactured at an extremely low cost.

In consonance with the above object it is the purpose to eliminate certain elements ordinarily found in this type of wrench which require the use of a large amount of material, and occupy considerable space, and adapt the device to equally efficient operation by other modifications of structure.

An important improvement accomplished is the provision of such a device adapted to operate upon nuts of a maximum size, while the wrench itself occupies a minimum amount of space.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side view of the device, Fig. 2 is a longitudinal sectional view, Fig. 3 is a rear view, Fig. 4 is a plan view of the sliding jaw. Fig. 5 is a side view of a modification.

Referring to the drawings, there is shown a stationary member A comprising a threaded shank portion 10 and the laterally projecting jaw 11, upon which there is slidably engaged the movable jaw 12 adapted to be engaged by the rotating handle 13 threaded upon the lower end of the shank. It will be noted that the opposed faces of the jaws are provided with recesses reduced at successive stages of their depth, each of the portions of like depth being of a common width, and forming shoulders 14, as shown, adjacent the inner and outer ends of the jaws. The handle portion 13 is provided with an enlarged bearing portion 15 at its inner end serving to engage firmly against the outer side of the movable jaw 12.

It will be noted that the stationary member A is provided with a longitudinally ex-

tending channel 16 formed in the shank 10 on the side opposite the jaw 11, the channel extending upwardly and through the rearwardly projecting head portion 17 of the stationary member. The movable jaw 12 is provided with a suitable vertical passage 18 therethrough, through which the shank 10 is slidably engaged. A rib 19 is formed within the opening, extending longitudinally thereof and being disposed at the rear side for engagement in the channel 17 to hold the jaws 11 and 12 securely in registering relation. The movable jaw 12 extends backwardly beyond the opening 18 and is provided with an upward extension 20, upon which the rib 19 is continued to a spaced distance above the plane of the inner face of the jaw. This upwardly extended portion 20 serves a peculiar function as will now be made apparent.

In use, the handle is unscrewed from the shank a sufficient distance to allow separation of the jaws to the extent necessary for the engagement of the nut therebetween, after which the handle is again rotated and screwed snugly against the under jaw forcing it into firm engagement with the object to be operated on.

It will be understood that ordinarily without the provision of the extension 20, the inner end of the jaw would tend to be forced toward the upper end of the shank after its forward portion had become engaged with the work, tending to bind the jaw upon the shank and producing strain which might result in the bending or fracturing of the lower jaw and at any rate disposing the two jaws at an angle with respect to each other which would materially detract from their efficiency. The rib portion upon the extension 20 serves to overcome this tendency, acting as a guide and bearing against the rear side of the shank when the lower jaw tends to converge rearwardly toward the upper jaw. The rear side of the opening 18 through the jaw is set outwardly sufficiently to prevent its engagement with the threaded portion of the shank, so that the rib portion 19 engages freely against the base of the channel 16, thus avoiding danger of burring the thread.

In Fig. 5 there is shown a modification of the device in which the lower jaw is provided with a projection 25 upon its lower side forming a shoulder 26 spaced a short distance from the shank, and the handle

member is provided with an annular upwardly extending seat flange 27. By the use of this form of the device, the tendency of the lower side of the movable jaw to be forced inwardly against the threads is overcome by reason of the engagement of the shoulder 26 against the flange 27, and the extension 20 coacts therewith to hold the lower jaw firmly in parallel relation with the stationary jaw.

What is claimed is:

1. A device of the class described comprising a stationary member including a threaded shank and a jaw head, said shank having a longitudinally extending channel formed upon the side opposite the jaw and extending upwardly through the jaw head, a movable jaw having a passage therethrough engaged slidably upon the shank and having a rib formed in the passage and engaged in the channel to retain the movable jaw in registry with the first named jaw, said movable jaw carrying an extension upon its rear inner side forming a continuation of the rib member and adapted to project through the channel in the jaw head at times, and an interiorly threaded handle member adapted to be screwed against the outer side of the movable jaw, as and for the purpose described.

2. In a device of the class described, the combination with a stationary member including a threaded shank and jaw head, said shank having a longitudinally extending channel formed in its rear side and extending through the jaw head, a movable jaw having a passage therethrough receiving the shank slidably, said movable jaw having an extension upon its rear inner side extending longitudinally of the shank and carrying a rib portion extending into said pas-

sage through the movable jaw and bearing against the base of said channel for the purpose described, said extension being adapted to project through the channel in the head portion at times to allow the jaws to lie in close contact, and an interiorly threaded handle portion engaged upon the shank and adapted to be rotated to bear against the outer side of the movable jaw, as described.

3. In a device of the class described, the combination with a stationary member including a threaded shank and jaw head, said shank having a longitudinally extending channel formed in its rear side and extending through the jaw head, a movable jaw having a passage therethrough receiving the shank slidably, said movable jaw having an extension upon its rear inner side extending longitudinally of the shank and carrying a rib portion extending into said passage through the movable jaw and bearing against the base of said channel for the purpose described, said extension being adapted to project through the channel in the head portion at times to allow the jaws to lie in close contact, said movable jaw having a projection formed on its outer side to provide a shoulder spaced from the shank, and an interiorly threaded handle member engaged upon the shank and adapted for rotation to bear against the outer side of said movable jaw, said handle having a longitudinally projecting support flange arranged to engage inwardly of said shoulder for support of the jaw as described.

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

LUDWIG BEKKER.

Witnesses:

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