

No. 653,096.

Patented July 3, 1900.

S. KREISHER.
PIPE WRENCH.

(Application filed Apr. 17, 1900.)

(No Model.)

Fig. 1.

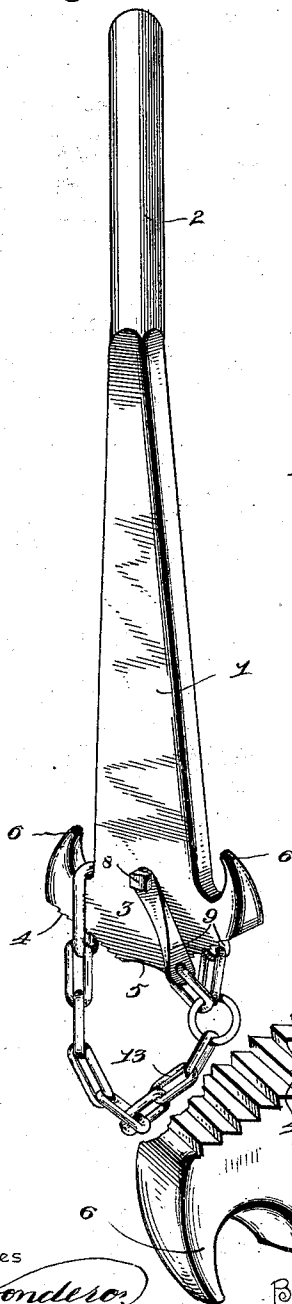


Fig. 4.

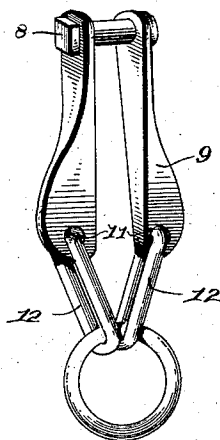


Fig. 2.

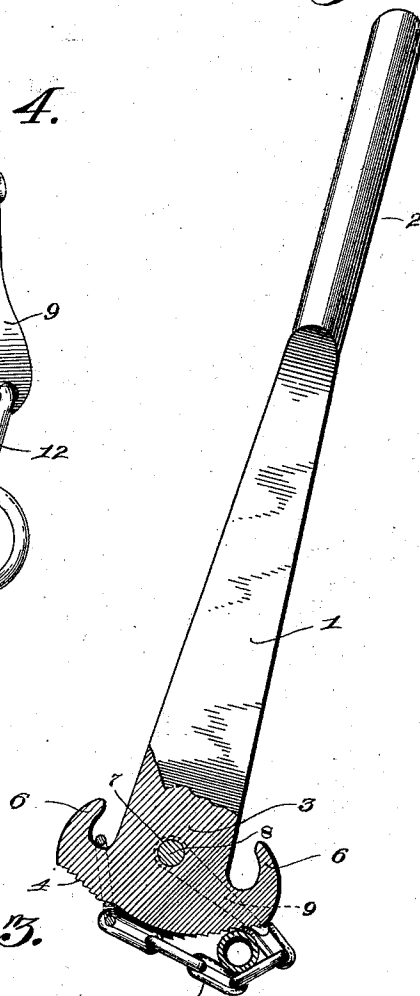
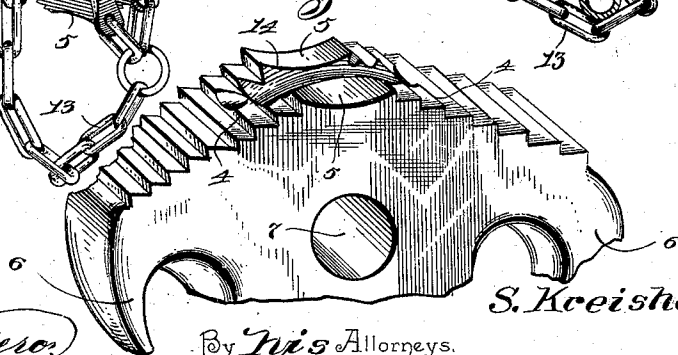


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

SOLOMON KREISHER, OF SHAMOKIN, PENNSYLVANIA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 653,096, dated July 3, 1900.

Application filed April 17, 1900. Serial No. 13,246. (No model.)

To all whom it may concern:

Be it known that I, SOLOMON KREISHER, a citizen of the United States, residing at Shamokin, in the county of Northumberland and State of Pennsylvania, have invented a new and useful Pipe-Wrench, of which the following is a specification.

The invention relates to improvements in pipe-wrenches.

The object of the present invention is to improve the construction of pipe-wrenches, more especially that shown and described in Patent No. 523,356, granted to me April 16, 1894, and to enable the said wrench to be readily operated on small pipes or rods without liability of cutting the chain by reason of the same being drawn across the engaging face of the head of the lever or handle.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a pipe-wrench constructed in accordance with this invention. Fig. 2 is a side elevation of the same, partly in section, illustrating the arrangement of the chain when the wrench operates on a small pipe or rod. Fig. 3 is an enlarged detail perspective view of the serrated or ratchet face head. Fig. 4 is a detail view of one end of the chain and the link-rods.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a handle or lever having a rounded portion or handhold 2 at one end and having an enlarged or flattened head 3 at its other end, said head presenting a general convex bearing-face and provided with ratchet-teeth 4, located at opposite sides of central smooth portions 5, as clearly illustrated in Fig. 3 of the accompanying drawings. The head is provided with lateral extensions, which are curved upward or toward the rounded handhold or grip to form terminal hooks 6. The head is provided with a central opening or perforation 7 for the reception of a pivot-bolt 8, which connects a pair of link-rods 9 with the head, and the said link-rods, which are located at the opposite side faces of the

head, are constructed substantially the same as those shown and described in the patent before referred to. These link-rods are provided at their outer or free ends with eyes 11, in which are engaged the connecting-links 12 for attaching one end of the chain 13 permanently to the link-rods. After passing the chain around a pipe or rod one of its links is engaged in one of the terminal hooks. The teeth 4, which are located at opposite sides of the central smooth faces 5 of the head, are shouldered in opposite directions and are arranged in straight series, which converge toward the central smooth faces or portions 5 and which are adapted to firmly grip a pipe or rod at any point between the smooth central faces 5 and the terminal hooks 6. In order to prevent the chain from being cut by the ratchet-teeth or serrations when it is drawn across the head, as illustrated in Fig. 2 of the accompanying drawings, by reason of the wrench being engaged with a small pipe or rod, the smooth faces and a central longitudinal groove 14 are provided. The central faces 5, which are located at opposite sides of the longitudinal groove, are slightly concave, and the said longitudinal groove 14 is adapted to receive the adjacent side of a link, as clearly shown in Fig. 2, and by this construction the chain may be drawn across the head at the center thereof without liability of cutting it. Also the flat or slightly-concave faces 5 are adapted to conform to the configuration of and form a seat for a large pipe or rod which will be arranged at the center of the head instead of at one side, like the small pipe or tube illustrated in Fig. 2. Furthermore, the longitudinal groove at the center of the head is adapted to permit the chain to lie close to the head, and this will enable a pipe or rod of any size within the capacity of the wrench to be operated on, and a small pipe or rod may be as effectively gripped at the outer portions of the straight tooth or serrated faces as at the center or inner portions thereof.

It will be seen that the wrench is simple and comparatively inexpensive in its construction, that it possesses great strength and durability, and that the enlarged terminal hooks are adapted to engage the links and are capable of preventing the same from accidentally slipping off them while the wrench

is in use. It will also be clear that the smooth central end faces form seats or bearings for a large pipe or rod and that they provide smooth surfaces for the chain when the wrench is operated on a small pipe or rod, whereby the chain may be drawn across the head without being cut by the corrugated or ratchet faces thereof. Furthermore, it will be apparent that the groove which receives one side of a link permits the chain to lie close to the head, so that the entire ratchet or serrated faces may be utilized.

What is claimed is—

1. In a pipe-wrench, the combination of a lever or handle provided at one end with a head extended laterally to form terminal hooks and having opposite serrated engaging faces and provided between the same with a central smooth portion, adapted to receive a large pipe or rod and capable of permitting a chain to be moved across it without being cut, and the chain connected at one end with the handle or lever and adapted to engage either of the hooks, substantially as described.

2. In a pipe-wrench, the combination of a handle or lever provided with a head having opposite terminal hooks and provided with a

central longitudinal groove and with smooth central faces at opposite sides of the groove; said head being provided with serrated faces located between the central faces and the terminal hooks, and a chain connected with the handle or lever and adapted to engage the hooks, substantially as described.

3. In a pipe-wrench, the combination of a handle or lever provided with a head extended laterally to form hook-shaped extremities, and having the smooth central faces and provided with a longitudinal groove located between the smooth faces, said head being also provided at opposite sides of its central portion with serrated engaging faces, link-rods pivotally connected to the head, and a chain permanently connected at one end to the free ends of said link-rods and adapted to engage either of the hooks, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SOLOMON KREISHER.

Witnesses:

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FRANCIS SCHLEIF.