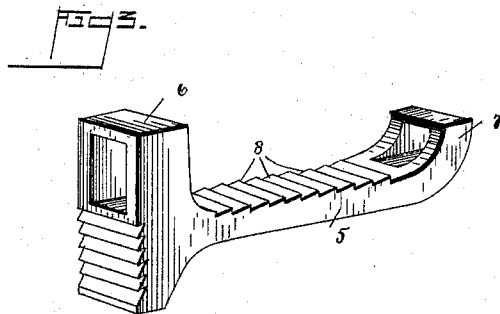
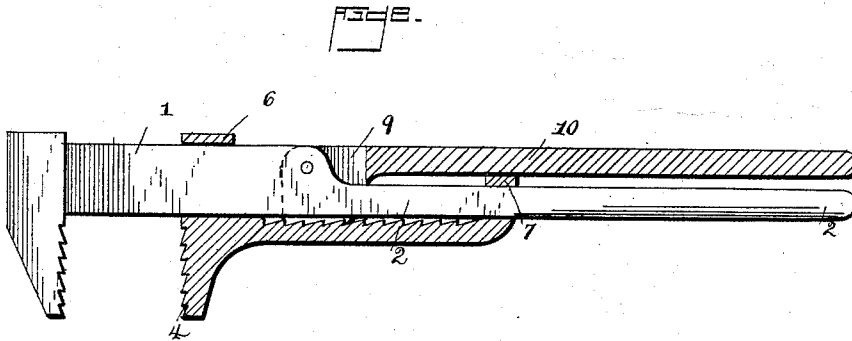
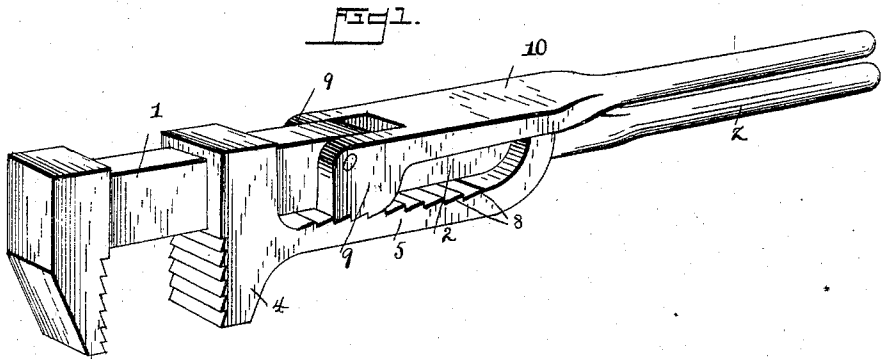


(No Model.)

A. B. CARLL.
WRENCH.

No. 474,810.

Patented May 17, 1892.



Witnesses

Chas. H. Ford.
J. A. Paul.

Inventor

Addison B. Carll.

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

ADDISON B. CARLL, OF JERSEY CITY, NEW JERSEY.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 474,810, dated May 17, 1892.

Application filed June 19, 1891. Serial No. 396,815. (No model.)

To all whom it may concern:

Be it known that I, ADDISON B. CARLL, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Wrench, of which the following is a specification.

The invention relates to improvements in sliding-jaw wrenches.

The object of the present invention is to simplify and improve the construction of sliding-jaw wrenches and to increase their strength, durability, and efficiency.

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 claim hereto appended.

In the drawings, Figure 1 is a perspective view of a wrench constructed in accordance with this invention. Fig. 2 is a transverse sectional view. Fig. 3 is a detail perspective view of the sliding jaw.

Referring to the accompanying drawings, 1 designates a shank having a reduced portion 2, forming a handle and provided at one end with an integral stationary jaw which acts in conjunction with a sliding jaw 4. The sliding jaw 4 is provided with an extension 5 and has loops 6 and 7, which encircle the shank, and the loop 6 is arranged back of the jaw 4 and receives the larger portion of the shank, and the loop 7 is arranged on the reduced portion 2. The extension 5 is arranged parallel with the shank and is provided on its inner face with a series of teeth 8, and there is sufficient space between the extension 5 and the shank to permit the teeth 8 to slide clear of the latter. The teeth 8 are engaged by toothed ears 9 of a lever 10, which is pivoted to the shank and operates the ears 9, and

it has the inner terminus of the larger portion of the shank pivoted within its bifurcation. The opposed faces of the sliding and stationary jaws are provided with oppositely-shouldered teeth to enable them to obtain a firm hold upon a pipe. The teeth in the edges of the ears 9 engage those of the extension 5, and when the lever 10 and the reduced portion of the shank are brought together the sliding jaw is moved toward the stationary jaw. When the lever 10 and the reduced portion of the shank are separated, the toothed ears 9 are turned out of engagement with the extension 5 and the sliding jaw moves freely on the shank.

It will be seen that the wrench is simple and inexpensive in construction, strong and durable, and efficient in operation.

What I claim is—

In a wrench, the combination, with the shank having a reduced handle portion 2 and the stationary jaw, of the sliding jaw arranged on the shank and provided at each end with loops to receive the shank, the intermediate portion between the loop being arranged parallel with the shank and provided on its inner face with teeth, and the lever having its inner end bifurcated so as to embrace the shank to which it is pivoted and forming rigid integral lugs which are arranged on opposite faces of the shank and are provided at their edges with teeth adapted to engage the teeth of the sliding jaw, substantially as described.

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

ADDISON B. CARLL.

Witnesses:

J. L. WATSON,
M. CARLL.