(No Model.)

G. F. SHAW.

PIPE WRENCH.

No. 444,255. Patented Jan. 6, 1891.

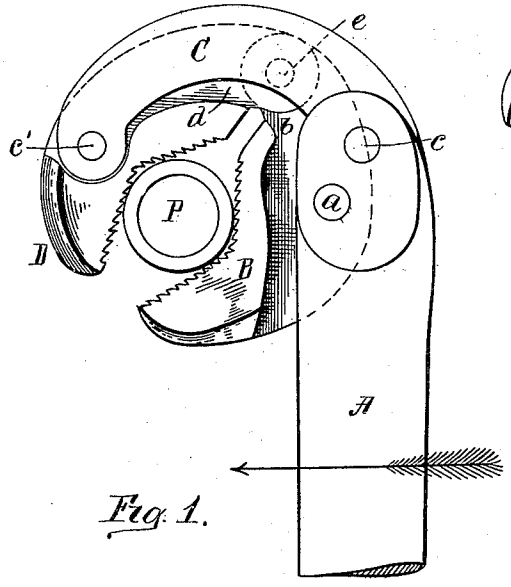


Fig. 1.

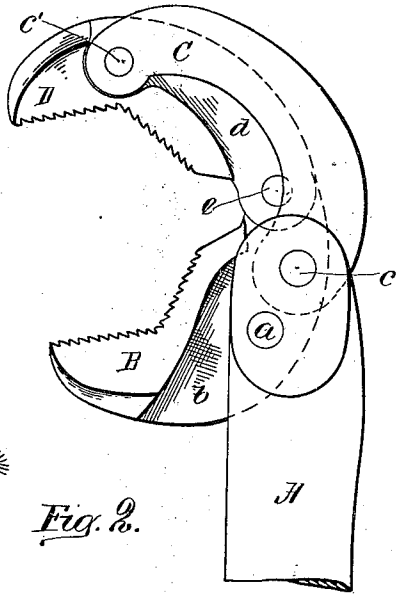


Fig. 2.

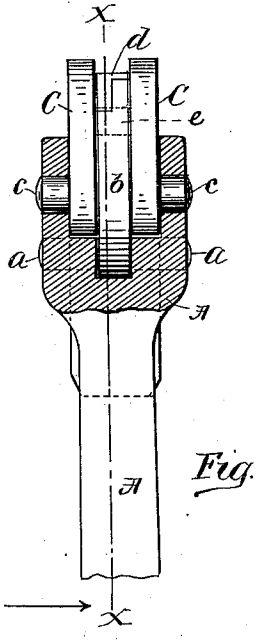


Fig. 3.

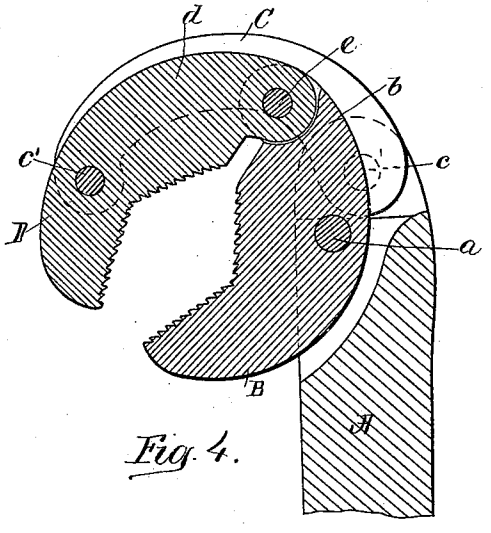


Fig. 4.

Witnesses
Thomas W. Dodas.
Alice A. Perkins

Inventor.
George F. Shaw.
by Albert Sudrein
his atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE F. SHAW, OF DEDHAM, ASSIGNOR OF ONE-HALF TO CHARLES G. SMITH AND BENJAMIN F. SMITH, OF SOMERVILLE, AND GEORGE G. PROCTER, OF BOSTON, MASSACHUSETTS.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 444,255, dated January 6, 1891.

Application filed October 6, 1890. Serial No. 367,229. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. SHAW, a citizen of the United States, and a resident of Dedham, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Pipe-Wrenches, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in pipe-wrenches, and it is carried out as follows, reference being had to the accompanying drawings, where—

Figure 1 represents a side elevation of the improved wrench, showing a pipe grasped and held between its jaws. Fig. 2 represents a similar side elevation showing the jaws expanded. Fig. 3 represents a rear view, a portion of which is shown in section; and Fig. 4 represents a longitudinal section on the line X X, shown in Fig. 3.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The invention consists of a handle A, having pivoted to its upper forked end at *a* the lower serrated jaw B, as shown. Above the pivot *a* is pivoted to the upper end of the handle A at *c c* the preferably curved links C C, which are pivoted in their outer ends at *c'* to the outer or upper jaw D, as shown in the drawings.

b and *d* are central ribs or extensions on the respective jaws B and D, which ribs are pivoted or otherwise linked or connected together at *e* between the fulcra *c* and *c'*, as shown in the drawings. It will thus be noticed that the lower jaw B turns on the handle-fulcrum *a*, and is rocked by its connection to the upper jaw D.

The upper jaw D has two motions imparted to it, namely: First, it is rocked on the fulcrum *c'*, where it is pivoted to the links C C, and it is thus rocked by its connection to the lower jaw B; secondly, the said upper jaw D swings with the links C C on the fulcra *c c*, where said links are pivoted to the handle A, and by this construction and arrangement of parts a most powerful grip is obtained when the jaws are closed on a pipe P or similar object and the handle A swung in the direction as shown by the arrow in Fig. 1.

In using the wrench the jaws are expanded, as shown in Fig. 2, which may simply be done by taking hold of the upper jaw D and swinging it upward, as shown in Fig. 2. The pipe or other object to be turned is then introduced between the jaws and the latter closed by hand against the said pipe or object, after which the handle A is turned in the direction of the arrow shown in Fig. 1, causing the jaws to grasp and hold the pipe with a pressure increasing in a ratio to the power exerted on the handle. The wrench can instantly be disengaged from the pipe by swinging the handle A in a direction opposite to that indicated by the arrow in Fig. 1.

What I wish to secure by Letters Patent, and claim, is—

1. The herein-described wrench, consisting of a handle, a lower jaw pivoted to it, and an upper jaw hung to links pivoted to said handle, said jaws having their inner ends hinged or connected together, substantially as and for the purpose set forth.

2. The herein-described wrench, consisting of a handle, a lower jaw pivoted to it, links pivoted to said handle on fulcra above the lower-jaw fulcrum, and an upper jaw pivoted to said links and connected or pivoted to the lower jaw, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 18th day of September, A. D. 1890.

GEORGE F. SHAW.

Witnesses:
ALBAN ANDRÉN,
ALICE A. PERKINS.