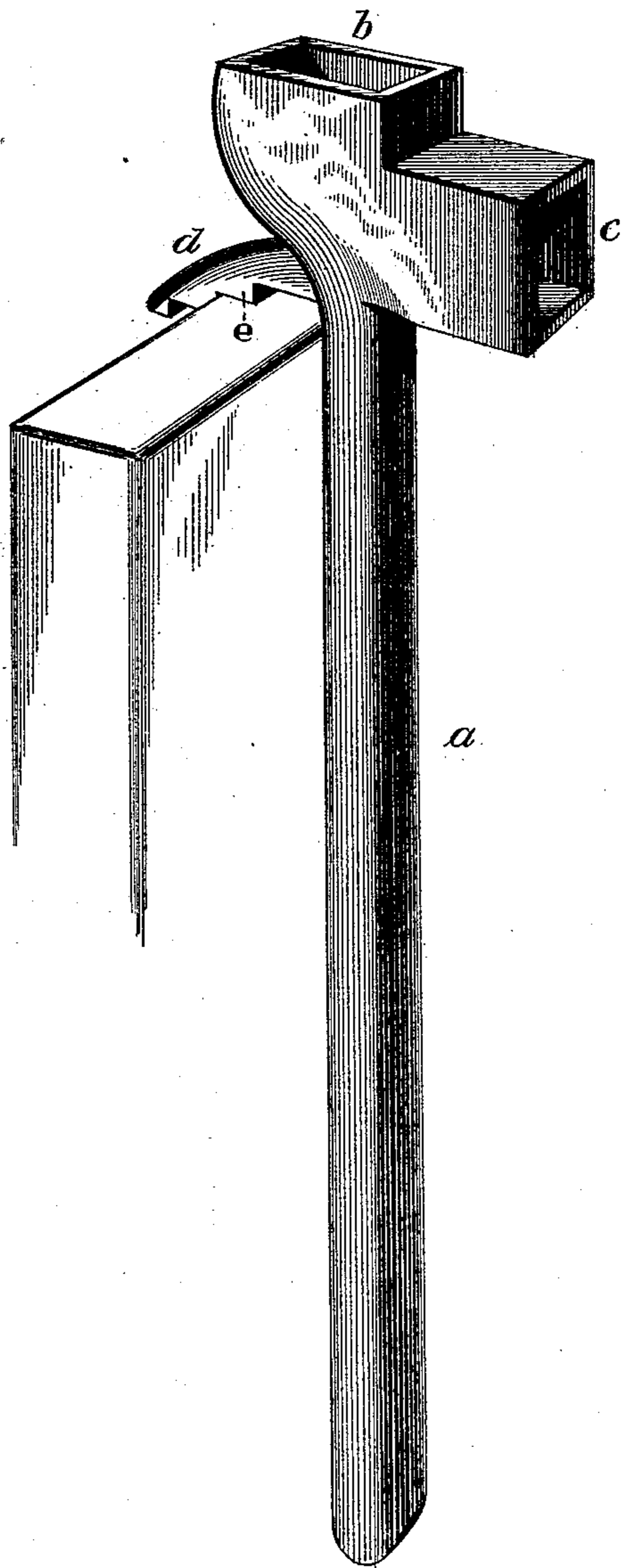


(No Model.)

W. G. SMITH.
WAGON WRENCH.

No. 444,571.

Patented Jan. 13, 1891.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM G. SMITH, OF BINGHAMTON, NEW YORK.

WAGON-WRENCH.

SPECIFICATION forming part of Letters Patent No. 444,571, dated January 13, 1891.

Application filed November 7, 1890. Serial No. 370,691. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. SMITH, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Wagon-Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a carriage-wrench, and the object sought to be accomplished is to provide a more convenient and handy tool than those hitherto in use; and with this purpose in view my invention consists in the peculiar features and combination of parts more fully described hereinafter, and pointed out in the claim.

In the accompanying drawing, the reference-letter *a* represents the handle, which is of the usual or ordinary form.

The end of the wrench is provided with a socket *b*, having its axis parallel with the handle, and it is also provided with a socket *c*, which has its axis at right angles to the handle.

A laterally-extending arm *d* is provided upon one side for the purpose of hanging the wrench upon any convenient object. This arm is curved downward in the form of a hook and has teeth *e* upon its under side to prevent it from slipping off.

In using the wrench the operator first loosens the nut by means of the side socket, and he then removes the wrench and places the end socket over the loosened nut, and as the axis of the nut is now parallel with the handle the latter can be rapidly rotated and the nut quickly removed. Then the wrench can be hung upon any suitable object by means of the arm *d*, and this can be done without any

liability of dropping the nut out of the socket onto the ground. After the axle has been greased the nut can be easily applied and quickly screwed up by rapidly rotating the handle as in unscrewing, and the nut can be securely tightened by the side socket *c*, which permits a strong leverage to be obtained.

Now it will be readily seen that this device can be cheaply manufactured, as it can be cast in one integral piece, and the advantages it possesses as a saver of time are apparent, for it will readily be seen that the nut can be quickly started by the side socket *c* and rapidly removed by the end socket *b*, and as soon as the nut leaves the axle the wrench can be removed in a vertical position, thereby preventing the nut from dropping upon the ground and gathering dirt and grit, as it would be liable to do if removed by the old style of wrench, and when thus removed the wrench can be safely suspended upon the wagon-box, or a wheel, spoke, or, in fact, any suitable object, while the greasing or oiling operation is in progress, after which it can be quickly picked up and the nut applied and tightened, as previously mentioned.

Having thus described my invention, what I now claim as new, and desire to secure by Letters Patent, is—

In a wrench, a handle having an integral socket at one end, said socket having its axis parallel with the handle, in combination with a laterally-extending arm for supporting the wrench in an upright position, in the manner and for the purpose as set forth.

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

WILLIAM G. SMITH.

Witnesses:

R. G. DU BOIS,
REEVE LEWIS.