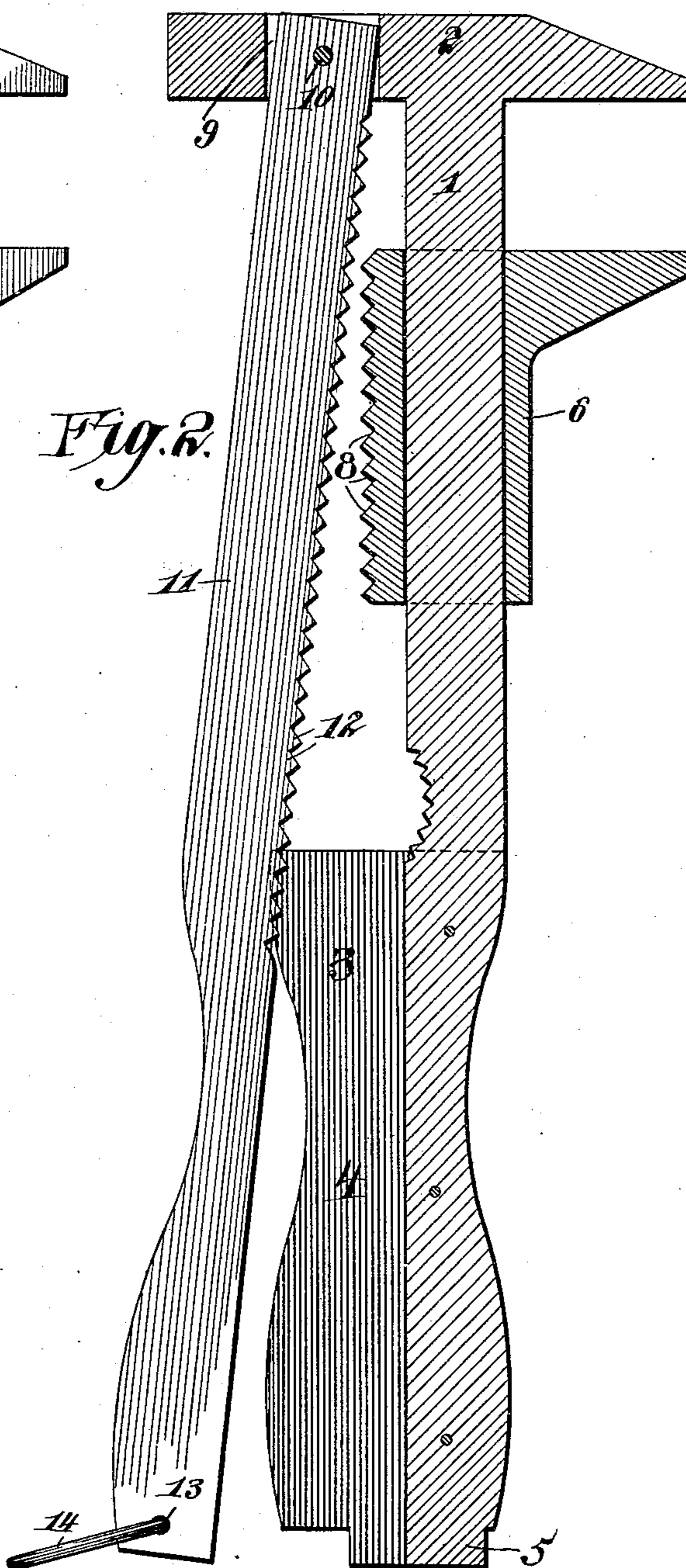
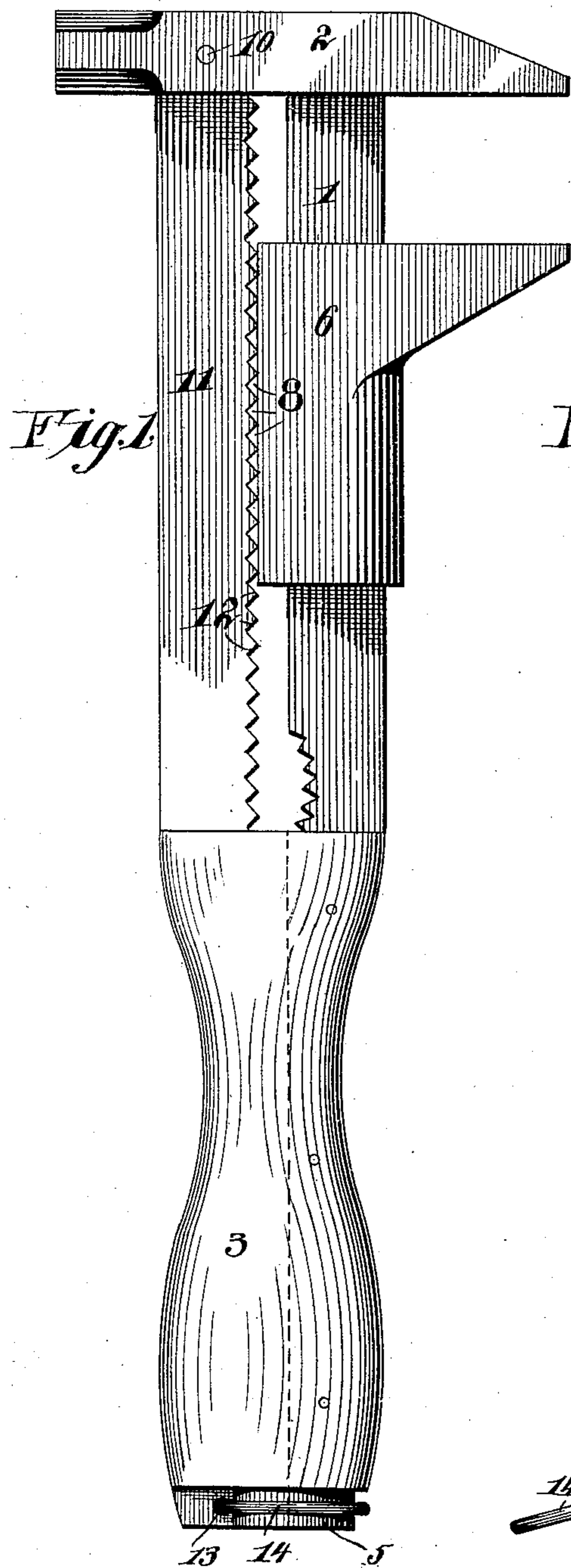


(No Model.)

H. MARSHAL.
WRENCH.

No. 444,450.

Patented Jan. 13, 1891.



Witnesses:

H. G. Dieterich

W. S. Duwall

By *his* Attorneys,

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UNITED STATES PATENT OFFICE.

HENRY MARSHAL, OF LINCOLN, NEBRASKA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 444,450, dated January 13, 1891.

Application filed October 23, 1890. Serial No. 369,061. (No model.)

To all whom it may concern:

Be it known that I, HENRY MARSHAL, a citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented a new and useful Wrench, of which the following is a specification.

This invention has relation to improvements in wrenches.

The objects in view are to provide an extremely cheap, simple, and durable wrench adapted for general work and to withstand great strains, and which may be adjusted to fit various-sized nuts, bolts, rods, and pipes with dispatch and facility.

With the above objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of a wrench constructed in accordance with my invention, the same being in locked position. Fig. 2 is a vertical longitudinal section, the wrench being unlocked and ready for adjustment.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates the wrench stock or shank, rectangular in cross-section and terminating at its upper end in the transverse fixed head or jaw 2, said jaw extending for some distance in rear of the stock and constituting at said end a hammer.

Formed integral with the stock or secured thereto, as may be desired, are opposite handle-sections 3 of such exterior conformation as to afford a convenient grip for the hand. The sections are extended in rear of the stock 1 and combine with the stock to form a recess 4. The lower end of the handle thus formed is reduced annularly, as at 5.

6 designates the usual sliding jaw mounted upon the stock 1, for which purpose said jaw is provided with an opening correspondingly shaped in cross-section to the stock, said jaw being designed for operation in connection with the fixed jaw 2. The jaw 6 is of the ordinary construction, with the exception that its rear face is provided with a series of teeth 8, transversely disposed and extending from the upper to the lower end of the jaw.

In an opening 9, formed in the rear end of the fixed jaw 2, is pivoted, as at 10, at its upper end a locking-lever 11 of the same length as the combined length of the handle and stock and of such proportions in cross-section as to adapt the same to fit within the recess 4 between the handle-sections, and when thus seated to constitute the remainder of the handle of the wrench. Between the jaw 2 and the upper end of the handle-sections the lever 11 has its inner face transversely toothed, as at 12, for the purpose of engaging the teeth 8 of the movable jaw at any point said movable jaw may occupy upon the stock during its various adjustments. The lower end of the lever 11 is provided with an eye 13, and in the same is loosely hung a locking-ring 14, which, when the lever is closed or in its locked position within the socket 4, may be sprung over the reduced end 5 of the handle, where it is retained by friction and from which it may be readily disengaged when desired.

The operation of my invention will be readily understood from the above description and may be briefly stated as follows: To adjust the wrench the ring is disengaged from the lower end of the stock and the lever 11 swung away from the stock until its teeth are out of engagement and the path of the teeth of the sliding jaw. It now simply remains to adjust the sliding jaw to its proper position and swing the locking-lever to its closed or locked position, so that its teeth intermesh or engage with those of the jaw and swing the ring at the lower end of the lever over the reduced end of the stock or handle, whereby, as will be apparent, the lever acts to lock the jaw and prevent any possible movement of the same upon the stock. Just above the handle 3 the inner edge of the stock 1 is provided with a curved toothed recess 15, adapted to coact with the toothed lever 11 for the purpose of gripping pipes, rods, &c.

Having described my invention, what I claim is—

1. In a wrench, the combination, with a rectangular stock terminating at its upper end in a transverse head or jaw and at its lower end in opposite handle-sections, combining to form a socket in rear of the stock, of a sliding jaw mounted on the stock between

the head and handle, having its rear face provided with transverse teeth, and a lever pivoted in the head in rear of the jaw and having its inner face provided with teeth for engaging
5 those of the jaw and its lower end adapted to fit between the handle-sections and constitute the remainder of the handle, substantially as specified.

2. In a wrench, the combination, with the
10 stock terminating at its upper end in a transverse head and at its lower end in opposite handle-sections extended in rear of the stock and combined to form a recess, and a sliding jaw mounted on the stock between the head
15 and handle and having its rear face provided with transverse teeth, of a locking-lever pivoted at its upper end in an opening in the head in rear of the stock and having its inner face provided with teeth for engaging

those of the jaw, said lever being adapted to
20 fit within the socket formed by the handle-sections and to thus complete the handle and carrying a ring at its lower end adapted to swing over the lower reduced end of the handle, substantially as specified. 25

3. The shank 1, having the handle at one end and the jaw at the other and above the handle provided with the curved-tooth recess
15, in combination with the lever 11, pivoted to the head and toothed opposite the recess, 30 substantially as specified.

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

HENRY MARSHAL.

Witnesses:

LOU. L. E. STEWART,
R. L. STEWART.