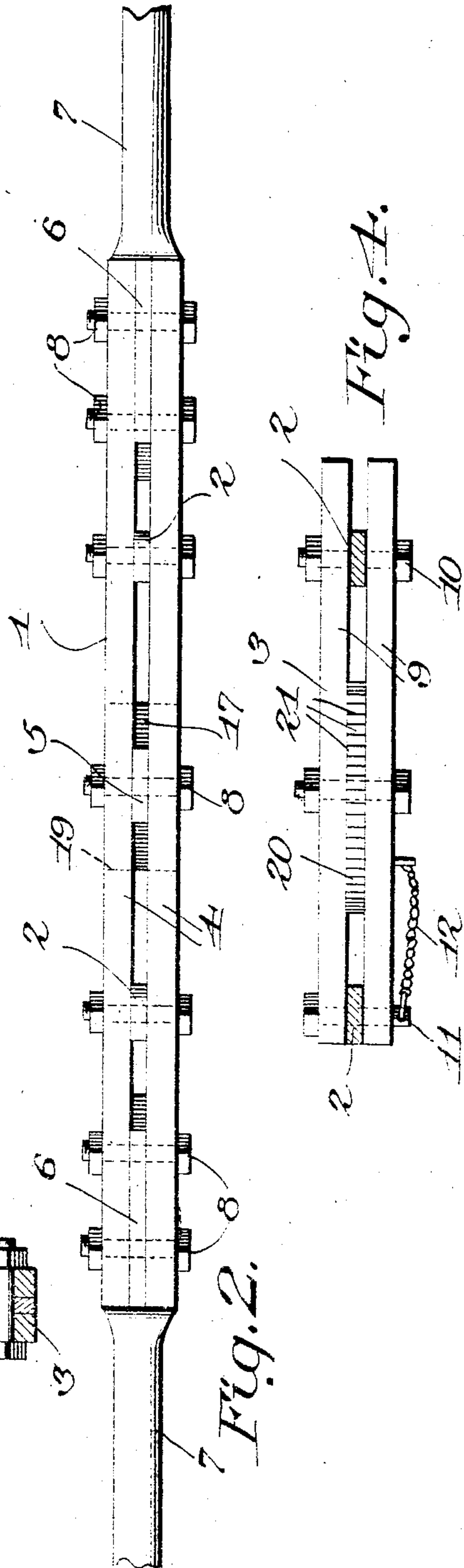
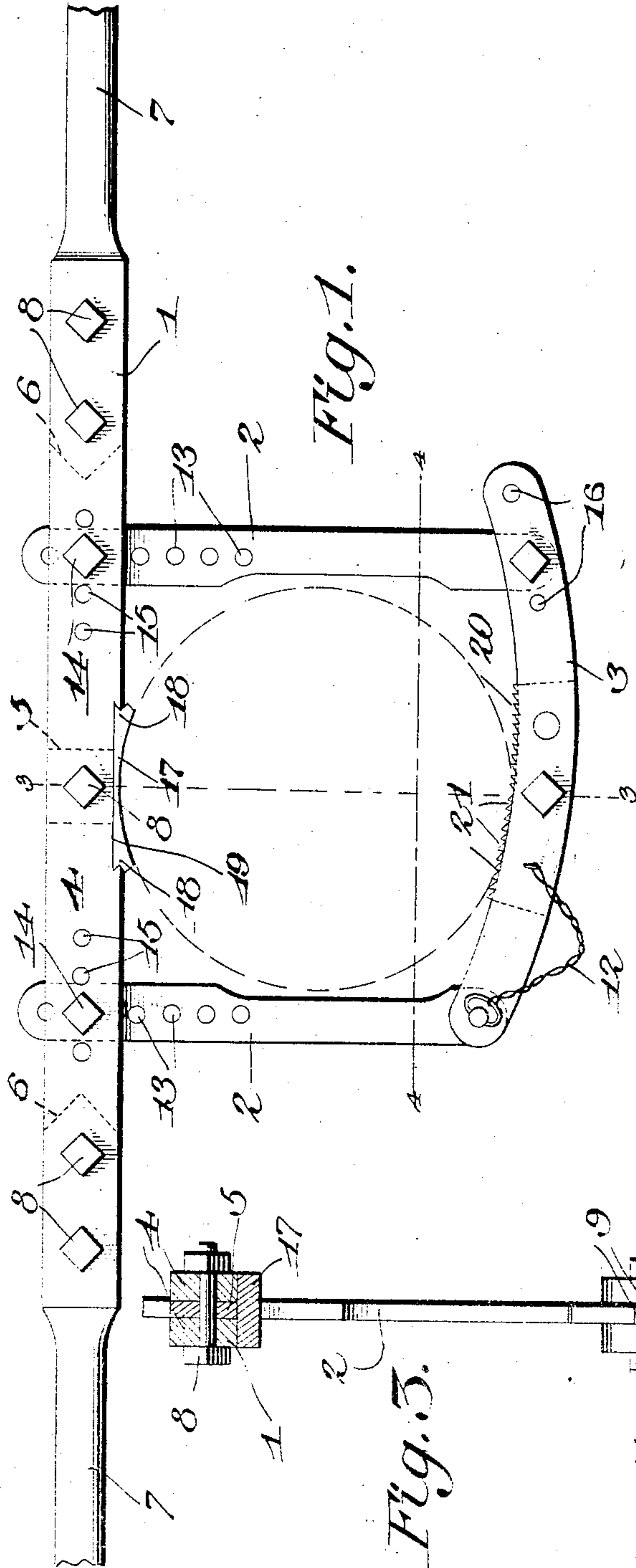


No. 785,850.

PATENTED MAR. 28, 1905.

N. W. ATHEY  
WRENCH.

APPLICATION FILED JUNE 13, 1904.



Witnesses  
B. J. Stewart  
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# UNITED STATES PATENT OFFICE.

NOAH W. ATHEY, OF WILLIAMSTOWN, WEST VIRGINIA.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 785,850, dated March 28, 1905.

Application filed June 13, 1904. Serial No. 212,367.

*To all whom it may concern:*

Be it known that I, NOAH W. ATHEY, a citizen of the United States, residing at Williamstown, in the county of Wood and State of West Virginia, have invented a new and useful Wrench, of which the following is a specification.

My invention relates to wrenches adapted especially for handling pipes, heavy bolts, and the like, and has for its objects to produce a comparatively simple inexpensive device of this character which may be readily adjusted initially to the approximate size of the part to be operated upon and will thereafter in action move freely into secure engagement with said part.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a wrench embodying the invention. Fig. 2 is a top plan view of the same. Fig. 3 is a horizontal sectional plan taken on the line 3 3 of Fig. 1. Fig. 4 is a vertical transverse section on the line 4 4 of Fig. 1.

Referring to the drawings, 1 designates the primary gripping member or jaw, having pivotally connected therewith, by means of links or elements 2, a secondary gripping member or jaw 3, the jaw 1 being preferably composed of a pair of coincident parallel bars or sections 4, appropriately spaced apart to produce longitudinal slots or seats for the reception of the connecting-links 2 and maintained in spaced relation by means of a spacing-block 5, disposed at the longitudinal centers of the bars, and tenons 6, formed upon operating-handles 7 and entering between the bars or sections, respectively, at opposite ends thereof, the tenons and spacing-block being secured in place by bolts or other fastening devices 8, extended transversely through the bars. The secondary member or jaw 3 is likewise composed of a pair of bars or sections 9, which receive between them and are maintained in spaced relation by the lower ends of the links 2, one of which is connected to the jaw by means of a bolt 10 and the other preferably by means of a coupling-

pin 11, attached to one of the bars 9 by a chain or other flexible element 12, the links being provided in the direction of their length each with a series of spaced perforations 13, any one of which may receive a bolt 14 for attaching the link with the member 1, which is likewise provided at the points of intersection of the links with a series of spaced openings 15 for the reception of the attaching-bolts 14, whereby the links may be adjusted in the direction of their length relative to the member and upon the latter toward and from each other, as will be clearly understood. The jaw or member 3 is provided in the direction of its length with a plurality of spaced openings 16, any one of which may receive the bolt 10 for adjusting the lower ends of the links toward and from each other.

The primary jaw or member 1 carries at its longitudinal center a bearing member or die 17, dovetailed, as at 18, into a transverse socket 19, provided in the adjacent edges of the sections 4, while between the sections 9 of the secondary jaw 3 there is secured by bolts or otherwise a secondary bearing member or die 20, preferably formed in two sections arranged end to end and meeting at the longitudinal center of the jaw 3. The bearing members 17 20, which are adapted to engage the adjacent faces of a pipe or other body held between the wrench-jaws, may be provided with suitable engaging teeth or serrations 21, which in the instance of the member 20 will be pitched in reverse directions, respectively, upon the component sections of the member.

In practice the jaws and links may by shifting the bolts 10 and 14 be adjusted toward or from each other for obtaining an initial adjustment of the parts relative to and approximating the size of the body to be acted upon, and after such adjustment the links will in operation swing upon their pivots for permitting the jaws 1 and 3 to approach each other sufficiently to securely clamp the body between them, whereupon the manipulation of the body may be effected by actuating the wrench through the medium of the handles 7, as will be readily understood.

From the foregoing it is apparent that I



produce a comparatively simple inexpensive device admirably adapted for the attainment of the ends in view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention. For example, while I have herein shown and described the jaw 1 as being composed of a pair of spaced sections having the detachable handles connected thereto it is apparent that the parts may be formed from a single piece or bar having suitable openings or seats formed therein for the reception of the ends of the links 2 and that such a change would come within the broad scope of the invention.

Having thus described the invention, what is claimed is—

1. In a device of the class described, the combination with a primary jaw provided with longitudinal recesses, of a pair of spaced connecting-links having their ends seated and pivotally secured respectively within the recesses, and a secondary jaw pivotally connected with the links, said jaws being provided with active or gripping portions disposed between the links.

2. In a device of the class described, the combination with a primary jaw, of a secondary jaw, and a pair of spaced elements connecting the jaws, said elements being adjustable toward and from each other and in the direction of their length relative to one of the jaws, and the latter having active or gripping portions disposed between the elements.

3. In a device of the class described, the

combination with a primary jaw having longitudinal recesses and a series of transverse openings spaced in the direction of length of the jaw, of a secondary jaw, a pair of spaced links pivotally connected therewith and each having a series of openings spaced in the direction of its length, and attaching-bolts designed for engagement with one of the openings in the links and primary jaw for pivotally and adjustably connecting said parts, said jaws being provided with active or gripping portions disposed between the links.

4. In a wrench, a handle-section, a jaw-section substantially parallel therewith, said sections being provided with gripping portions, and a pair of substantially parallel spaced links connecting the sections and disposed respectively on opposite sides of the gripping portions.

5. In a wrench, a handle-section, a jaw-section substantially parallel therewith, said sections being provided with gripping portions, and a pair of substantially parallel spaced links connecting the sections, said links being adjustable in the direction of their length and disposed respectively on opposite sides of the gripping portions.

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

NOAH W. ATHEY.

Witnesses:

ROBT. M. NOLL,  
A. B. TISHER.