

No. 751,342.

PATENTED FEB. 2, 1904.

H. A. RUGGLES.
WRENCH.

APPLICATION FILED JAN. 19, 1903.

NO MODEL.

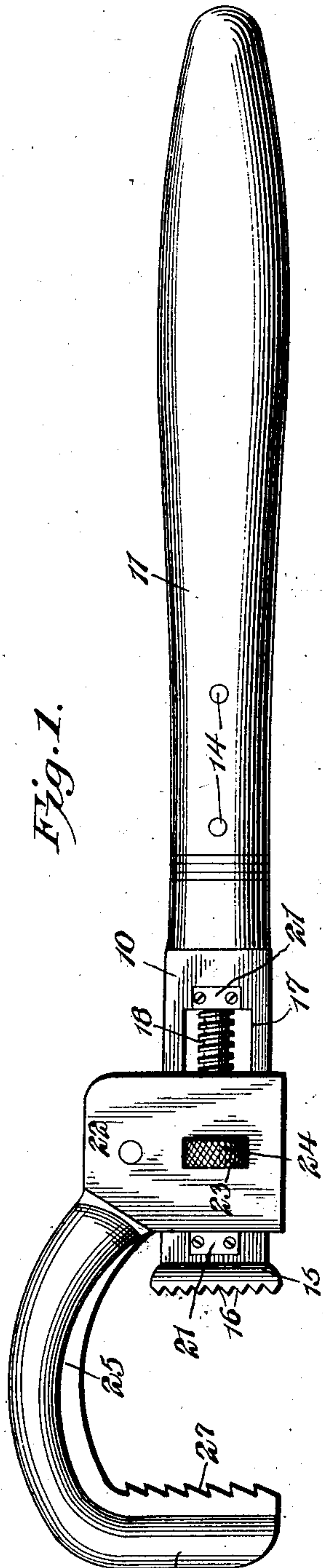


Fig. 1.

Fig. 3.

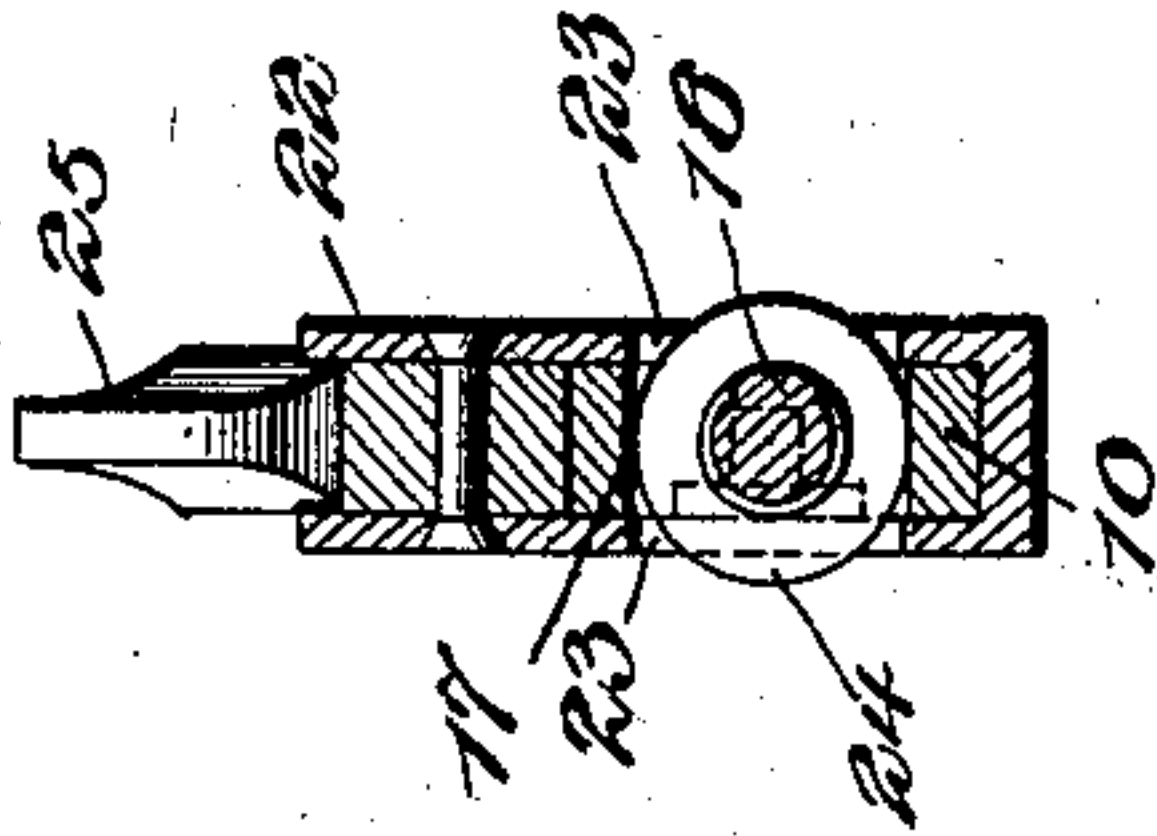


Fig. 2.

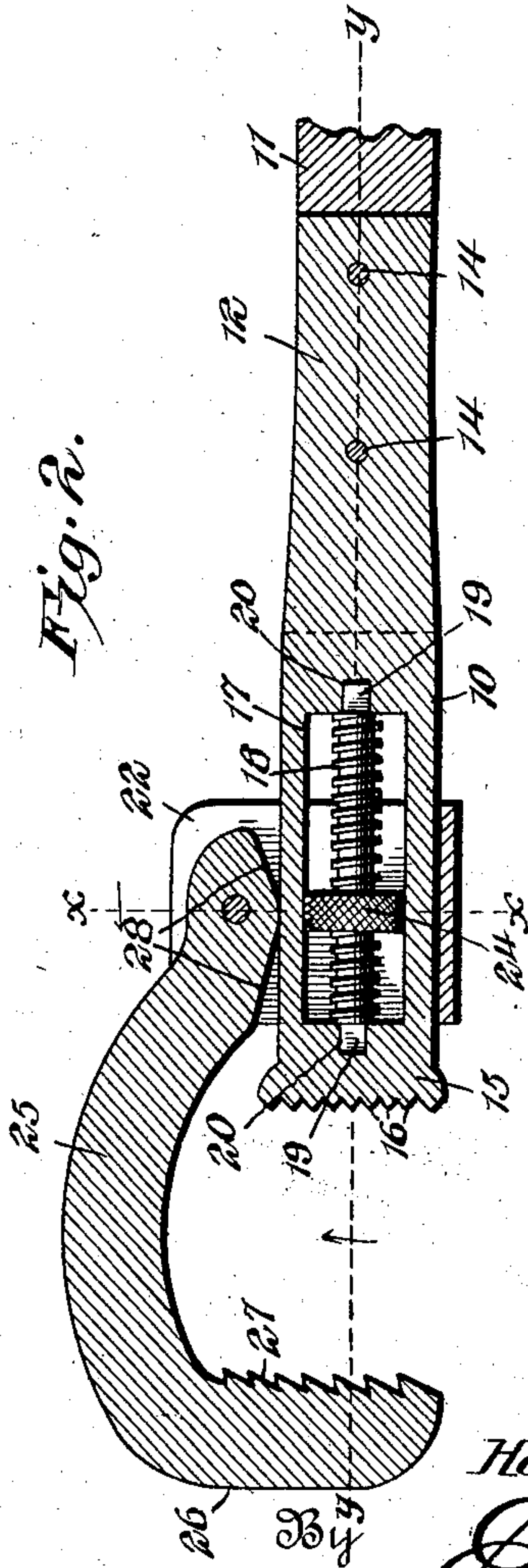
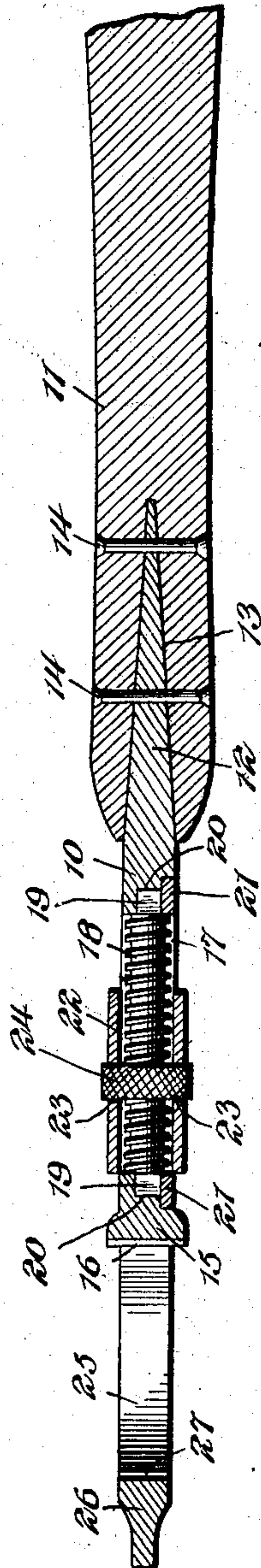


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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WRENCH.

SPECIFICATION forming part of Letters Patent No. 751,342, dated February 2, 1904.

Application filed January 19, 1903. Serial No. 139,676. (No model.)

To all whom it may concern:

Be it known that I, HARRY ALVAH RUGGLES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to that class of wrenches wherein one of the jaws is movable toward and from the other; and one object is to provide a very simple structure having a few parts that are easily constructed and readily assembled.

Another object is to provide a wrench of the swinging-jaw type in which the strain upon the swinging jaw will not be transmitted entirely to the adjusting means, but to the main stock or handle, thus lessening the liability of derangement or other injury.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the improved wrench. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is a cross-sectional view taken on the line *xx* of Fig. 2. Fig. 4 is a longitudinal sectional view taken on the line *yy* of Fig. 2.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

In the embodiment shown a stock is employed, preferably comprising a metallic section 10 and a wooden section 11, the latter constituting a handle. These sections are connected in the manner clearly shown in Fig. 4, one end of the metallic section being tapered, as shown at 12, the handle-section having a similarly-shaped socket 13, in which it fits, the two sections being secured together by rivets 14. The metallic section 10 is provided at its free end with a jaw 15, preferably serrated to provide a series of teeth, as 16, upon the end thereof. This section also has a longitudinally-disposed slot 17, preferably rectangular in form, and in its slot is located a longitudinally-disposed threaded shank 18, having pin-
tles 19 at its ends which engage in suitable open-sided sockets 20, formed in the end walls

of the slot 17. The open sides of said sockets 20 are closed by plates 21, secured to the stock-section 10 in the manner shown, these plates thus holding the screw-threaded shank 18 in place.

Slidably mounted upon the metallic section 10 is a stirrup 22, that embraces the stock and has its end projecting beyond one side of the same. This stirrup is provided in its opposite faces with openings 23, that aline with the slot 17, and an adjusting-nut 24, threaded upon the shank 18, engages in the openings 23, said nut being movable from end to end of the slot by turning the same, as will be readily understood, and thus carrying the stirrup with it. Pivoted to and between the ends of the stirrup is a swinging jaw 25, having a bill 26 at its free end which extends over the stationary jaw 15 and is provided on its inner face with teeth 27, coacting with the teeth 16 of said jaw. It will be observed by reference to Fig. 2 that the faces 28 of the swinging jaw 25, which are contiguous to the stock and are located on opposite sides of the pivot of said jaw, are disposed in angular relation and are adapted to engage the adjacent face of the stock to limit the swinging movements of the jaw 25.

The manner of using this instrument will be perfectly apparent. The jaws can be readily adjusted to the size of the pipe or other article to be operated upon by moving the adjusting-nut upon the shank. When a suitable grip has been obtained, one of the faces 28 of the swinging jaw will be brought into engagement with the adjacent face of the stock and acting as a fulcrum will draw the stirrup into binding engagement with the opposite wall of said stock. As a result the adjusting means is relieved of the great strain necessarily obtained in this class of wrenches. There is, therefore, little danger of injuring the threads or mutilating the adjusting mechanism. It will be apparent that the several elements are very simple and can be readily assembled to form the wrench.

From the foregoing it is thought that the construction, operation, and many advantages

of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a wrench, the combination with a stock having a longitudinally-disposed slot provided at its ends with open-sided sockets, of a threaded shank located in the slot and having its ends fitted in the sockets, plates covering the open sides of the sockets and extending across the ends of the shank to hold said shank in place, a stirrup slidingly embracing the stock,

an adjusting-nut threaded on the shank and engaging the stirrup, and coacting jaws carried respectively by the stock and stirrup.

2. In a wrench, the combination with a stock having a longitudinally-disposed slot, of a stirrup embracing the stock and slidable thereon, said stirrup having openings in its opposite faces that align with the socket, a threaded shank arranged in the slot, an adjusting-nut threaded on the shank and engaging in the openings of the stirrup, and a jaw pivoted to and between the ends of said stirrup.

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

HARRY ALVAH RUGGLES.

Witnesses:

FRED W. LOOMIS,
FERD. G. DIEZ.