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R. V. ZINKY

1,976,977

Z FIRESIDE TONGS

Filed June 29, 1933

Fig. 1.

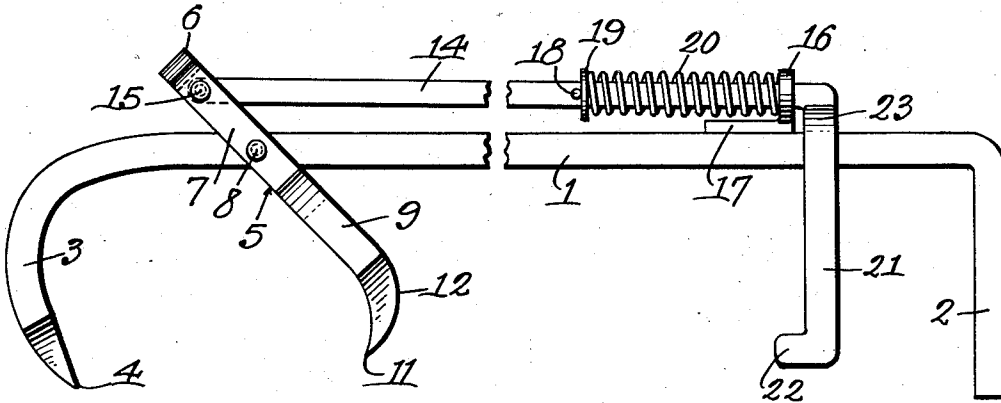


Fig. 2.

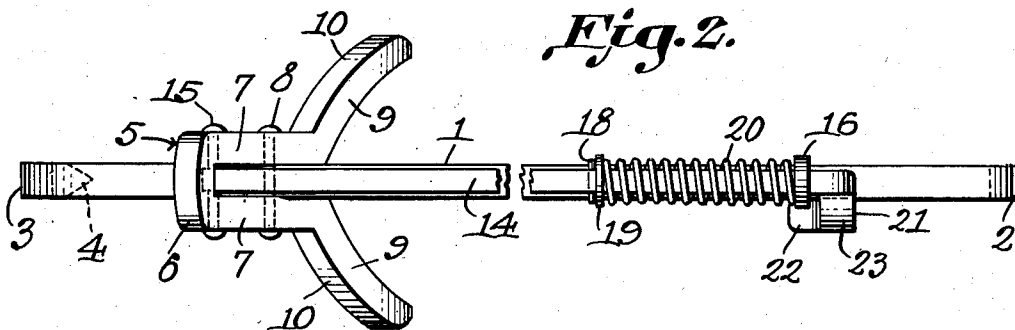


Fig. 4.

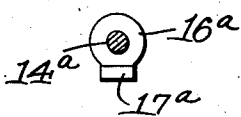
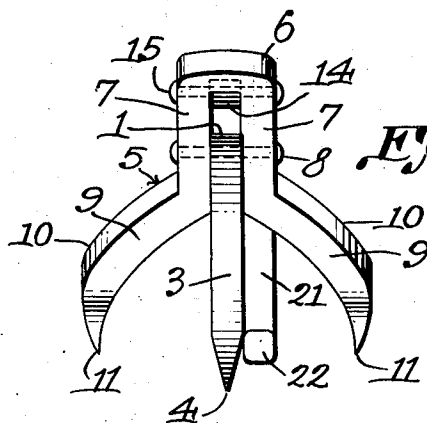


Fig. 3.



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UNITED STATES PATENT OFFICE

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Z FIRESIDE TONGS

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Application June 29, 1933, Serial No. 678,254

1 Claim. (Cl. 294—11)

The device forming the subject matter of this application may be used for a wide variety of purposes. Illustrating one use which the device may have, it may be stated that very often, when a coal scuttle is filled with coal, the uppermost chunks of coal do not flow readily off the coal scuttle into the stove. It is a common practice to pick off the uppermost chunks of coal, and cast them into the stove by hand. This causes the hands of the operator to be soiled, to his obvious discomfort and inconvenience. One of the objects of the present invention is to provide a grappling device or tongs which may be used for the purpose stated, although the device is not confined to that end. Another object of the invention is so to construct the device that the fixed jaw may be used as a pick to loosen the coal in the coal scuttle, the jaw afterwards being useful as a part of the means for holding the chunk of coal or other object. Another aim of the invention is to provide novel means for operating the movable jaw or lever and to improve the construction of said jaw.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing:

Fig. 1 shows in side elevation, a device constructed in accordance with the invention, parts being broken away;

Fig. 2 is a top plan wherein parts are broken away;

Fig. 3 is a front end elevation.

Fig. 4 is a fragmental cross section showing a slight modification.

The device forming the subject matter of this application preferably is made of metal throughout. It comprises a straight main bar or support 1, provided at its rear end with a handle 2 arranged at right angles to the bar 1. At the opposite end of the bar 1 there is a curved pick and fixed jaw 3. The pick and jaw 3 has a point or terminal 4. The pick and jaw 3 extends in the same general direction as the handle 2 and is curved slightly. It is not too abruptly or

sharply curved, however, and the result is that the point 4 is arranged at an acute angle to the handle 2. The advantage in such a construction is that when the operator takes hold of the handle 2, he can use the point 4 as a pick, to loosen the coal in the coal scuttle. This could not be done readily if the point 4 approached too nearly, a position at right angles to the handle 2.

The numeral 5 marks a lever disposed transversely of the main bar 1. The lever 5 has an inverted U-shaped head 6 including parallel arms 7 located on opposite sides of the main bar 1. A fulcrum member 8, such as a pin or rivet, connects the side arms 7 of the lever 5 to the bar 1. The arms 7 of the lever 5 terminate in movable jaws 9. As shown at 10, the jaws 9 diverge, and are located on opposite sides of the bar 1. The jaws 9 terminate in points or terminals 11. The points 11 are inclined, as shown at 12, with respect to the side portions of the jaws 9, toward the point 4 of the fixed jaw 3.

A slide bar 14 is located above the main bar 1, in approximately parallel relation to the same. The forward end of the slide bar 14 extends between the arms 7 of the head 6 of the lever 5 and is connected to the arms 7 by a pivot element 15. The slide bar 14 is mounted to reciprocate in a disk like guide 16. The slide bar 14 preferably is rectangular in cross section, and the hole in the guide 16 is rectangular, also, thereby to prevent the slide bar 14 from turning on its axis. The guide 16 has a rectangular foot 17 secured to the main bar 1.

The slide bar 14 carries an abutment, which may be of any desired form. The abutment may be a pin 18 in the bar 14, and a washer 19 behind the pin. A compression spring 20 surrounds a portion of the slide bar 14. The forward end of the spring 20 abuts against the washer 19. The rear end of the spring 20 abuts against the guide 16.

At its rear end, the slide bar 14 has a handle 21. The handle 21 is disposed at right angles to the bar 14 and to the bar 1, and parallel to the handle 2, in close enough relation to the handle 2 so that when the operator takes hold of the handle 2 he can grip the handle 21. The handle 21 has a rectangular heel 22. The heel 22 is parallel to the bar 1 and at right angles to the handle 2. The purpose of the heel 22 is to prevent the hand of the operator from slipping off the handle 21. The handle 21 is offset, as shown at 23, so that it can extend downwardly around the main bar 1, it therefore being unnecessary

to make a hole in the bar 1 for the passage of the handle 21.

With the parts in the position of Fig. 1, the operator takes hold of the handle 2 and uses the point 4 of the jaw 3 as a pick, to loosen the coal in the coal scuttle, if such an operation is desirable. The operator then grasps the handle 21, along with the handle 2, and pulls the slide bar 14 back, against the action of the spring 20, the points or terminals 11 of the lever 5 being advanced toward the point 4 of the fixed jaw 3, to give a three-point grip on the chunk of coal or other object which is being handled. When the member 21 is released, the parts assume the position of Fig. 1, under the action of the spring 20.

The device is simple and efficient in operation, and inexpensive to manufacture.

Although the slide bar 14 has been described as being rectangular in cross section, it might, of course, be circular in cross section, or of any other shape, the opening in the guide 16 being shaped accordingly. In this connection, note Fig. 4. In Fig. 4, parts hereinbefore described, have been designated by numerals previously used, with the suffix "a".

Having thus described the invention, what is claimed is:

A pair of tongs of the class described, comprising a main bar provided at one end with a de-

pending handle and provided at its opposite end with a downwardly extended and rearwardly inclined fixed jaw shaped into a pick, a lever comprising an inverted U-shaped head having depending and forwardly inclined diverging side arms, which, with the fixed jaw, afford a three-point grip, the main bar extending through the U-shaped head, means engaging the U-shaped head and the main bar for fulcruming the lever intermediate its ends, a guide on the top of the main bar, a slide bar mounted to reciprocate in the guide, the forward end of the slide bar being extended into the U-shaped head of the lever and being pivoted thereto, the slide bar constituting means for advancing and retracting the side arms of the lever with respect to the fixed jaw, the fixed jaw projecting far enough below the side arms of the lever, when the side arms are retracted, and the fixed jaw being spaced far enough from the side arms, when they are retracted, so that an object can first be picked out by the pick and then gripped by the side arms while the piece of coal still is engaged by the pick, and the slide bar being provided with a depending handle, off-set laterally with respect to the main bar, thereby to extend downwardly along the side of the main bar, the handles being located close enough together so that they can be gripped by a single hand of an operator.

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