

A. SMITH,
 PLATE TONGS.
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1,312,142.

Patented Aug. 5, 1919.

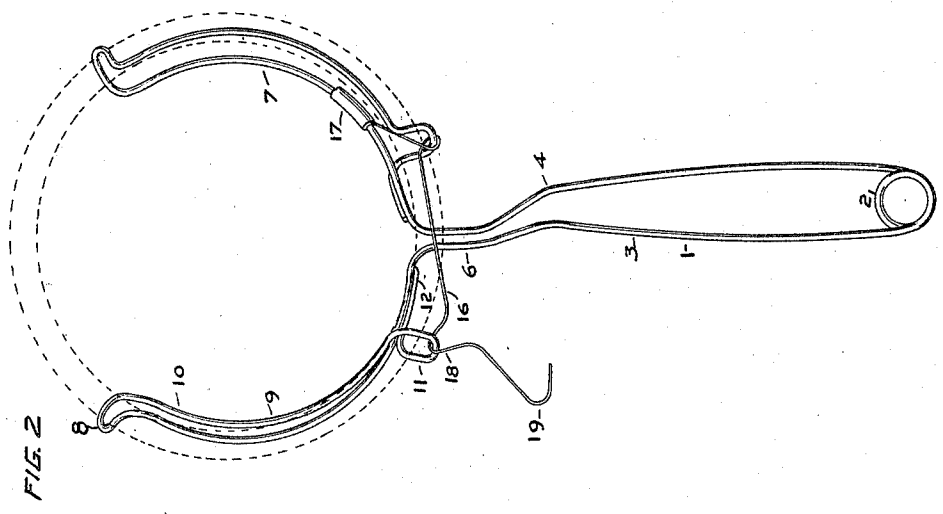


FIG. 2

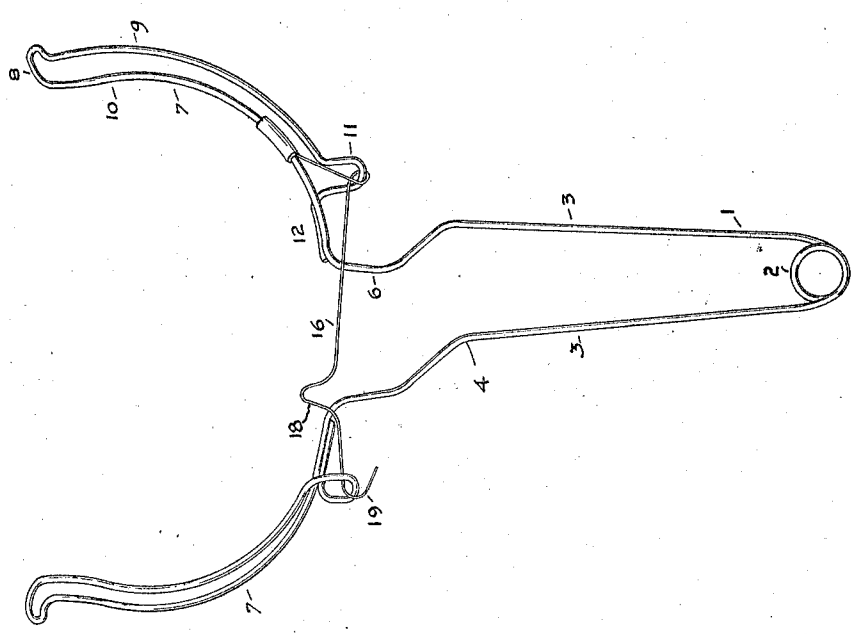


FIG. 1

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PLATE-TONGS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANDREW SMITH, a citizen of the United States, residing at Pescadero, in the county of San Mateo and State of California, have invented new and useful Improvements in Plate-Tongs, of which the following is a specification.

The object of the present invention is to provide a simple and inexpensive device for lifting plates. It is especially useful for lifting hot plates such as pie plates, but may be used for other purposes.

In the accompanying drawing, Figure 1 is a perspective view of my improved plate tongs, in its expanded or inoperative position; Fig. 2 is a similar figure showing it in use for lifting a pie plate, the latter being shown in dotted lines.

Referring to the drawing, 1 indicates a spring wire which is bent in the middle into a complete loop 2, and is also bent back on itself to form two members 3, extending nearly parallel with each other from said loop 2, and in substantially the same plane. Both members are then bent obliquely, as shown at 4, out of said plane and then forwardly, as shown at 6, nearly parallel with each other, in a plane parallel to the plane of the members 3. Each member then extends outwardly, or substantially at right angles, in an arc 7 of a circle somewhat longer than a quadrantal arc, in the same plane as the portions 6. Each is then bent in a plane substantially at right angles with the plane of the portions 7 in a short semi-circular arc 8, and is then bent in a quadrantal arc 9, registering with, and at a substantially uniform distance from, an arc 7. It is then bent in a plane substantially perpendicular to the plane of the arcs 7 and 9 through a short, semi-circular arc 11, and then terminates in a portion 12, extending closely adjacent to the inner end of an arc 7, and said portions 12 and 7 are soldered together. Said parts 7 and 9 on each side thus form a quadrantal finger 10.

The members 3 are intended to be grasped by the hand to press the portions 7 and 9 on one side toward the portions 7 and 9 on the other side, so that, if the device, when in its extended position, is moved so that the parts 7 and 9 are respectively below and above opposite portions of the edge of a plate, then if said members 3 be pressed inward toward each other, against the tension of the spring wire, said opposite portions of the

edges of the plate will be received between said semi-circular arcs 7 and 9 closely adjacent to the quadrantal portion 7. On one side is one end of a spring wire 16, and a band 17 of sheet metal is secured around said end of the wire 16 and said quadrantal portion 7 thus securing them together. A part of said wire 16 is coiled around the semi-circular part 11 on the same side, a further part of said wire 16 is bent to form a hook 18, to engage the semi-circular portion 11 on the other side, and the free end of said wire 16 is bent to form a hook 19 to engage said semi-circular part 11 on the other side when the device is in its extended position.

Thus when the two members 3 are pressed toward each other by the hand and the edge of the plate is received between the fingers 10, they are retained in this position by reason of the tension of the wire 16, causing the hook 18 therein to engage the semi-circular part 11 of the finger. Said semi-circular part can be released from said hook by pressing inwardly the free end of the wire 16, whereupon the fingers spring apart until the hook 19 engages said semi-circular part 11. In this position the device is again ready for use.

A great advantage of my invention is that it can be operated entirely with one hand. This is of great importance when it is necessary to insert articles into, or remove them from, a hot oven, as it enables the operator to do this while still remaining at a considerable distance from the oven, whereas, if she had to use two hands, it would be necessary to bring her face quite close to the oven. The reason why only one hand may be used is that the wire 16 is comparatively light and bends easily, so that, while holding the sides 3 of the main wire in one hand, the wire 16 can be operated, to release the plate while in the position shown in Fig. 2, by merely pressing the end of the thumb of the same hand against the end of the wire 16, causing said wire to bend between the free end and the part secured at the right hand bend 11, and thereby releasing the other bend 11, so that the parts move to the position shown in Fig. 1. On the other hand, if it be desired to grasp a plate in a hot oven, all that is necessary is to place the parts 7 on each side of the plate, and press the parts 3 together with the hand, and, when they are sufficiently pressed together,

by reason of the downward pressure of the wire 16, the hook 18 of said wire 16 will engage the left hand bend of the plate 11, and hold it in its closed position, as shown in Fig. 2. Thus, either for grasping or for releasing a plate, only one hand need be used.

I claim:

Plate tongs comprising a piece of spring wire bent in the middle and extending from said bend in approximately parallel directions, the sides of the wire then extending upward and back on themselves to form

curved fingers between which opposite portions of a plate can be received, the upper portions of said bent fingers having therein bent portions, a spring wire catch secured to the bent portion of one of said fingers, its free end having a hook engaging the bent portion of the other finger to limit the outward movement of the finger, said wire catch having a hook-shaped intermediate portion adapted to engage said latter bend, and hold the fingers in the closed position.

ANDREW SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."