E. WEBER.

STOVE LID PLIERS.

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1,212,858. Patented Jan. 16, 1917.

Fig. 1.

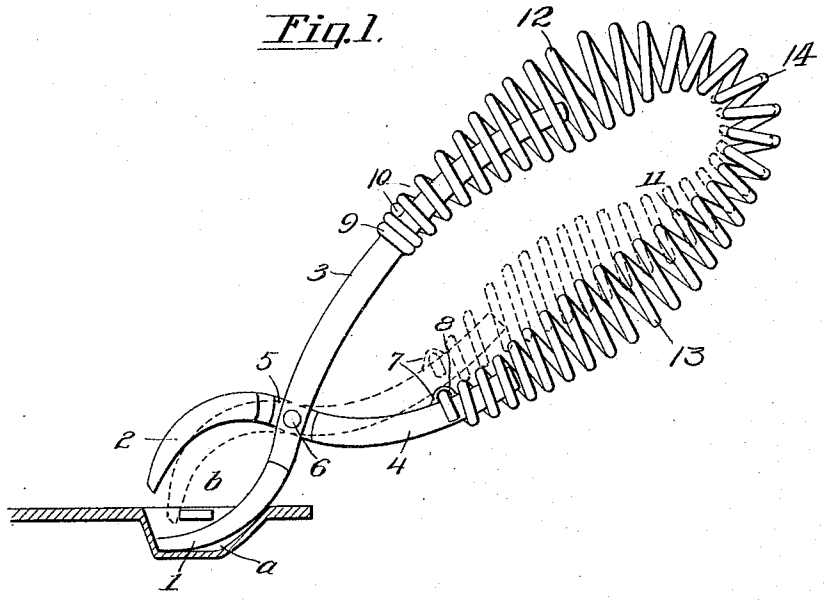
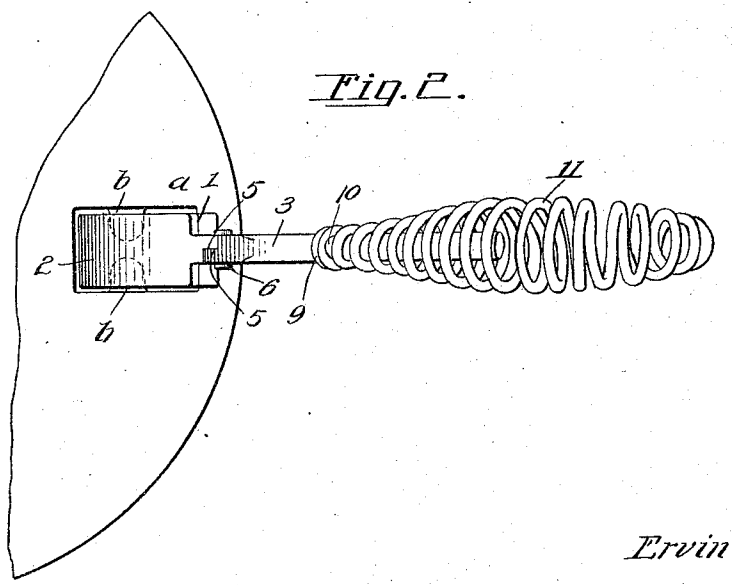


Fig. 2.



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Witnesses

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STOVE-LID PLIERS.

1,212,858. Specification of Letters Patent. Patented Jan. 16, 1917.

Application filed January 21, 1914. Serial No. 813,525.

To all whom it may concern:

Be it known that I, ERVIN WEBER, a citizen of the United States, residing at Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in Stove-Lid Pliers, of which the following is a specification.

This invention is an improved stove lid plier for use in lifting and handling stove lids, the object of the invention being to provide an improved device of this character which when engaged with a stove lid, will be locked thereto against danger of detachment while lifting and handling the lid, thus obviating all danger of dropping a lid while handling the same.

Another object of the invention is to provide an improved device of this character in which the cold handle also serves as a spring for handling the lid and holding the jaws of the plier normally in disengaged position.

The invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawing: Figure 1 is a side elevation of a stove lid plier constructed in accordance with my invention showing the same in the act of being engaged with a stove lid, the latter being indicated in section and the jaws of the plier being shown in disengaged position in full lines and in engaged position in dotted lines. Fig. 2 is a plan of the same.

In accordance with my invention I provide a pair of jaws 1—2 which are provided with crossed lever arms 3—4, respectively, the said lever arms being provided on their opposing sides with rabbets 5 and being pivotally connected together as by means of a pin 6 which passes through the rabbeted portions of the said lever arms. The lower jaw 1, which is adapted to be placed in the bottom of the usual recess *a* of a stove lid, below the usual transversely arranged lug or bar *b* is substantially of oblong rectangular form, and is longitudinally curved, with its concave side uppermost. The jaw 2 is slightly shorter than the lower jaw 1 and is reversely curved with reference thereto and is adapted when closed, to bear on the lower jaw at a point in advance of the lug or cross bar *b* so as to coact with the lower jaw in holding the plier in engaged position with the stove lid and prevent the plier from becoming casually detached therefrom. The arm 4 is somewhat shorter than the arm 3. Said arm 4 is provided at a suitable distance from its end with an annular rib 7 and also with a transverse opening 8. The upper arm 3 also has an annular rib 9 at a suitable distance from its end and is provided with a lug 10 at a suitable distance from said rib.

In connection with the jaws and their lever arms I provide a coiled spring 11 which forms a cold handle and which is bent upwardly in U-form to form a loop which connects the lever arms of the jaws, one end of the spring loosely inclosing the lever arm 3 and the other end of the spring handle being arranged on the lever arm 4. The upper end of the spring handle bears against the rib 9 and its front convolution is engaged by the lug 10 so that said end of the spring handle is so connected to the lever arm 3 as to be prevented from slipping forwardly or rearwardly thereon. The lower end of the spring handle bears against the rib 7 of the lever arm 4 and its end convolution is engaged in the opening 8 so that the said end of the spring handle is prevented from slipping on the said lever arm.

It will be observed that the coiled spring 11 has its convolutions gradually increasing from its bight portion as clearly shown in Fig. 1, the convolutions decreasing toward the arm engaging ends of said spring. In other words, the spring is made wider between its ends. Owing to the fact that the arm 4 is shorter than the arm 3, the result is to make one leg of the spring 11 engage a shorter base than the other leg, hence giving the first leg a greater leverage to readily flex as shown in dotted lines in Fig. 1. The fact that the spring 11 has the greater length of one leg free from contact with the arm 4, the fact that this portion is wider than the bight portion of the spring, and the fact that the opposite leg engaged has its greatest length engaging around the arm assures the spring being properly fixed on one side when held in the user's hand to permit the slightest pressure applied on the other side of the spring to force the side inwardly carrying the smaller weight of arm 4 along so as to close the jaws of the tongs. The bight portion of the spring being weaker than the leg portion will yield more readily when the leg portions are drawn together. The enlargement of the convolutions embracing the outer end of the longer

arm 3 assures that the user's hand will be placed out of contact with the arm 3 which may be heated, especially when the opposite leg of the spring is bent inwardly, this last-named leg where it is grasped by the hand not contacting either arm 3 or 4.

The tension of the spring handle is exerted on the lever arms to normally open the jaws 1—2. When however the spring handle is grasped in the act of raising a stove lid after the lower part has been engaged therewith the pressure of the fingers on the end portions of the spring handle serves to close the jaws, by moving the lever arms toward each other, and this pressure is continued while the lid is being held. As soon however as the lid has been placed and pressure is relaxed on the end portions of the spring handle, the spring then automatically by its tension moves the arms 3—4 from each other thereby opening the jaws and enabling the plier to be readily disengaged from the stove lid.

Having thus described my invention, I claim:—

A device of the kind described consisting of a pair of pivoted arms, each arm being curved in one direction and having a jaw curved in an opposite direction, one of said arms being of a less length than the other arm, a coiled spring bent into U-formation to provide a pair of legs, the convolutions of the legs of said spring gradually increasing in diameter as they recede from the bight portion of the spring and decreasing at the outer ends of the legs, and means for securing the outer ends of said spring legs in embracing relation upon the arms, the spring leg engaging the longer arm for a greater distance than the leg embracing the shorter arm, the wider convolutions of the last-named leg being out of contact with either arm, and the spring leg on the shorter arm being longer than the spring leg on the longer arm.

In testimony whereof I affix my signature in presence of two witnesses.

ERVIN WEBER.

Witnesses:
JAMES A. STOVER,
C. L. WITT.

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