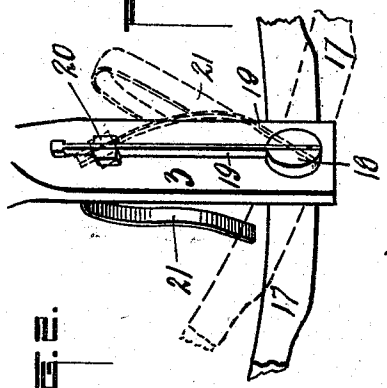
J. PARRETT.

LIFTING TONGS.

APPLICATION FILED DEC. 12, 1907.

937,028. Patented Oct. 12, 1909.

FIG. 3.



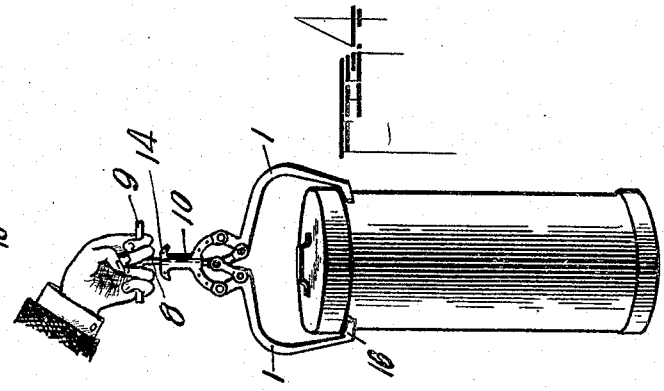


FIG. 2.

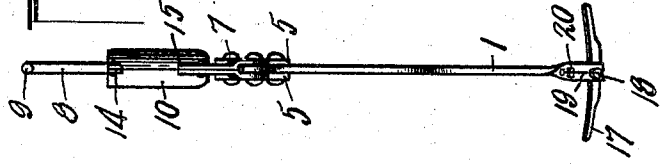


FIG. 1.

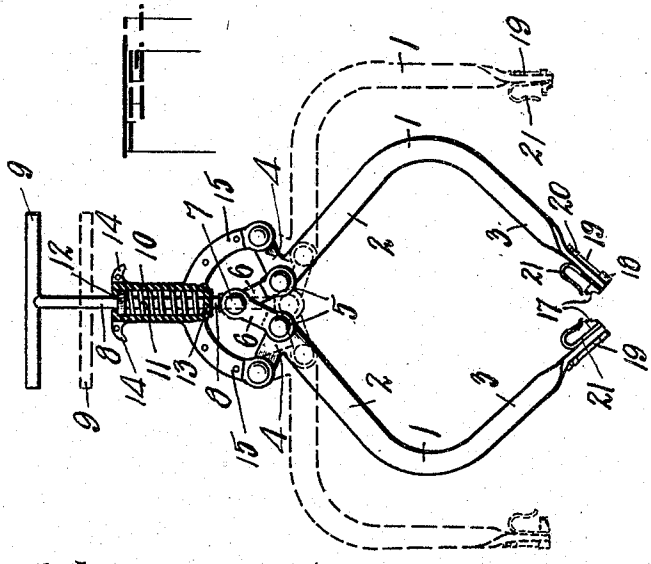
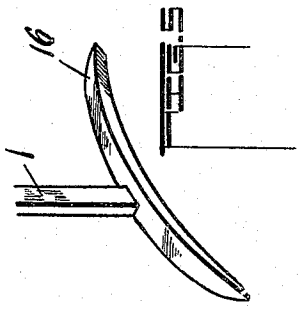


FIG. 5.



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UNITED STATES PATENT OFFICE.

JAMES PARRETT, OF WENONA, ILLINOIS, ASSIGNOR TO VES-TONG MFG. CO., OF WENONA, ILLINOIS.

LIFTING-TONGS.

937,028. Specification of Letters Patent. **Patented Oct. 12, 1909.**

Application filed December 12, 1907. Serial No. 406,197.

To all whom it may concern:

Be it known that I, JAMES PARRETT, a citizen of the United States, residing at Wenona, in the county of Marshall and State of Illinois, have invented certain new and useful Improvements in Lifting-Tongs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to certain new and useful improvements in lifting tongs, capable of being put to various uses, such for instance as ice-tongs; for lifting cooking-utensils and similar articles and also for lifting certain heavy and unwieldy receptacles, such as ice-cream cans which have to be lifted in and out of tubs and other receptacles at soda fountains and other places.

That my invention may be more fully understood, reference is had to the accompanying drawings, in which:—

Figure 1 is an elevation of my improved tongs with a portion thereof in section; full lines showing the same closed and in dotted lines open, the latter position, being that position, the parts will assume when an article is lifted; Fig. 2 is an edge view of Fig. 1; Fig. 3 is an enlarged detail in perspective showing in both full and dotted lines spring jaws and their attachment to the gripping arms; Fig. 4 is a perspective on a greatly reduced scale illustrating the manner of lifting an ice-cream can with my improved tongs, and Fig. 5 is a detail perspective of the lower end of one of the gripping arms and a jaw attached thereto; being a jaw such as shown in Fig. 4 omitting the spring connection shown in Fig. 3.

Like numerals of reference indicate corresponding parts throughout the figures.

The gripping arms of the tongs are indicated as 1, 1, and may be of suitable shape although I prefer those having portions 2 and the right angle portions 3, which together with the simple toggle arrangement to be described for operating said arms 1, enables me to open the arms at considerable distance, as shown in dotted lines in Fig. 1, without moving the toggle connections at any great distance. The inner ends of the portions 2 of the arms 1 are provided with approximately right angle arm portions 4.

To the elbow of the arms 1, formed by the portions 4, are pivotally connected the bifurcated ends 5 of toggle-arms 6 which in turn have a common pivotal connection at 7 with the lower end of a reciprocally supported stem 8 having the handle or finger hold 9. The stem 8 is reciprocally mounted in a tubular member 10 and is held in a normally raised position, as shown in full lines in Fig. 1 by means of a spring 11 coiled about the stem 8, and acting at one end against a collar 12 on the stem 8 and its opposite end acting against a shoulder 13 on the member 10. The member 10 is preferably made in two half sections, as shown in Fig. 2, with their matching faces provided with concave depressions, which, when the two sections are united, form a tubular member through which the stem 8 may operate. The upper ends of each of said sections of the member 10 have the laterally projected fingers or ears 14, with concave lower edges, as shown, and said ears or fingers other than providing means which may be riveted or otherwise suitably secured for uniting the upper end of the sections of the member 10, afford a convenient hold which the fingers of the hand may be caused to grip when pressure is applied to depress the stem 8 for separating the arms 1, into the dotted position shown in Fig. 1, in which position the gripping arms 1 may be caused to engage a receptacle, as the same is shown in Fig. 4, when the fingers of the hand will be released from the ears or fingers 14 and caused to grip the handle 9, in the manner shown in said Fig. 4, which action together with the action of the spring 11 will cause the arms 1 or their jaws, to be described, to firmly engage with the receptacle and the same may be readily and easily lifted and moved from place to place. The lower end of the half sections of the member 10 are each provided with downwardly curved extensions 15, which are intended to be riveted or otherwise suitably connected, for securing the lower ends of the sections of the member 10, and to the lower ends of said extensions 15 are pivotally connected the ends of the portions 4 of the arms 1. Through the connections thus formed, when the stem 8 is depressed, the toggle-arms 6 are swung outwardly with the upper ends of the arms 1, which oscillate on the extensions 15 of the member 10.

One form of gripping jaw for the lower

ends of the arms 1, is seen in Fig. 5, comprising an elongated curved plate 16, connected centrally to the end of arms 1, and are well adapted for engaging with cans, such as shown in Fig. 4, or other receptacles where there is no need of tilting the same. When it is desired to employ tongs for lifting a vessel, which it is intended to tilt for allowing the liquid therein to be poured off, or tilted for any other reason, it is preferable to provide a gripping jaw, comprising an elongated flat spring 17, which may be curved or not, and this spring is connected centrally to the end of the arms 1, by attaching said spring to a pin or bolt 18 so that said spring may turn with said pin or bolt, and to the opposite end of said pin or bolt 18 is connected one end of a spring 19 which at its opposite end is attached to a stud or block 20 having an oscillatory connection with the body of the arms 1. The jaw and connections just described, will allow the vessel being lifted to be tilted without the tongs releasing its hold, as the spring jaws 17 will accommodate themselves to the swing of the vessel. If it is desirable to retain the lid on the vessel, whether said vessel is intended to be tilted or not, spring fingers 21 connected preferably, to oscillate with the pin or bolt 18 and adapted to engage with the lid of the vessel, will accomplish this result, in a very simple and convenient manner.

Having thus fully described my invention what I claim and desire to secure by Letters Patent of the United States, is:—

1. An instrument of the character described, comprising a pair of gripping arms, each having an approximately right angle extension forming an elbow, a reciprocally supported lifting stem retained in its normal position by a coil spring, toggle-arms pivotally connected to the elbows of the gripping arms and having a common pivotal connection with the lower end of said stem, a tubular member in which the stem is mounted, said member provided with downwardly curved arms with which the extensions of the gripping arms are pivotally connected, and laterally extended finger holds projecting from the extreme upper end of the tubular member and formed integral therewith, substantially for the purposes specified.

2. An instrument of the character described, comprising a pair of gripping arms, each having an approximately right angle extension forming an elbow, gripping jaws, comprising elongated curved plates connected centrally to the lower ends of said arms, a reciprocally supported lifting stem retained in its normal position by a coil spring, toggle-arms pivotally connected to the elbows of the gripping arms and having a common pivotal connection with the lower end of said stem, a tubular member in which the stem is mounted, said member provided with downwardly curved arms with which the extensions of the gripping arms are pivotally connected, and laterally extended finger holds projecting from the extreme upper end of the tubular member and formed integral therewith, substantially for the purposes specified.

3. An instrument of the character described, comprising a pair of gripping arms, each having an approximately right angle extension forming an elbow, gripping jaws, comprising elongated curved plates having connection centrally thereof to the lower ends of said arms, a reciprocally supported lifting stem retained in its normal position by a coil spring, toggle-arms pivotally connected to the elbows of the gripping arms and having a common pivotal connection with the lower end of said stem, a tubular member in which the stem is mounted, said member provided with downwardly curved arms with which the extensions of the arms are pivotally connected, and laterally extended finger holds projecting from the extreme upper end of the tubular member, substantially for the purposes specified.

4. An instrument of the character described, comprising a pair of gripping arms, each having an approximately right angle extension forming an elbow, gripping jaws, comprising spring plates having an oscillatory connection with the lower ends of the arms, spring connection between the said plates and arms, a reciprocally supported lifting stem retained in its normal position by a coil spring, toggle-arms pivotally connected to the elbows of the gripping arms and having a common pivotal connection with the lower end of said stem, a tubular member in which the stem is mounted, said member provided with downwardly curved arms with which the extensions of the arms are pivotally connected, and laterally extended finger holds projecting from the extreme upper end of the tubular member, substantially for the purposes specified.

5. An instrument of the character described, comprising a tubular member formed of two half sections, each provided with depending extensions adapted to be connected for uniting the lower ends of said sections, and with lateral extensions from their upper ends adapted to be connected for uniting the upper ends of said sections and serving as finger holds, a spring actuated stem operating in said member and having a handle, a pair of gripping arms, toggle connections between the lower ends of said stem and said gripping arms, said arms also pivotally connected with the depending extensions of said member.

6. An instrument of the character described, comprising a tubular member

formed of two half sections, each provided with depending extensions adapted to be connected for uniting the lower ends of said sections, and with lateral extensions from their upper ends adapted to be connected for uniting the upper ends of said sections and serving as finger holds, a spring actuated stem operating in said member and having a handle, a pair of gripping arms, elongated gripping jaws connected to said arms and projecting from opposite sides thereof, toggle connections between the lower end of said stem and said gripping arms, said arms also pivotally connected with the depending extensions of said member.

7. An instrument of the character described, comprising a tubular member formed of two half sections, each provided with depending extensions adapted to be connected for uniting the lower ends of said sections, and with lateral extensions from their upper ends adapted to be connected for uniting the upper ends of said sections and serving as finger holds, a spring actuated stem operating in said member and having a handle, a pair of gripping arms, gripping jaws having a yielding connection with the lower ends of said arms, toggle connections between the lower end of said stem and said gripping arms, said arms also pivotally connected with the depending extensions of said member.

8. An instrument of the character described, comprising a tubular member formed of two half sections, each provided with depending extensions adapted to be connected for uniting the lower ends of said sections, and with lateral extensions from their upper ends adapted to be connected for uniting the upper ends of said sections and serving as finger holds, a spring actuated stem operating in said member and having a handle, a pair of gripping arms, gripping jaws for the lower ends of said arms, consisting of spring plates having a swingable relation with said arms, a spring connection between said jaws and arms, toggle connections between the lower end of said stem and said gripping arms, said arms also pivotally connected with the depending extensions of said member.

9. An instrument of the character described, comprising a tubular member formed of two half sections, each provided with depending extensions adapted to be connected for uniting the lower ends of said sections, and with lateral extensions from their upper ends adapted to be connected for uniting the upper ends of said sections and serving as finger holds, a spring actuated stem operating in said member and having a handle, a pair of gripping arms, gripping jaws connected with the lower ends of said arms, spring fingers projecting inwardly from said arms, toggle connections between the lower end of said stem and said gripping arms, said arms also pivotally connected with the depending extensions of said member.

10. An instrument of the character described, comprising a tubular member formed of two half sections, each provided with depending extensions adapted to be connected for uniting the lower ends of said sections, and with lateral extensions from their upper ends adapted to be connected for uniting the upper ends of said sections and serving as finger holds, a spring actuated stem operating in said member and having a handle, a pair of gripping arms, gripping jaws yieldingly connected with the lower ends of said arms, spring fingers connected with said jaws and projecting inwardly from said arms, toggle connections between the lower end of said stem and said gripping arms, said arms also pivotally connected with the depending extensions of said member.

11. An instrument of the character described, comprising a pair of gripping arms, each having an approximately right angle extension forming an elbow, gripping jaws, comprising elongated curved plates connected centrally to the lower ends of said arms, spring fingers projecting inwardly from the lower ends of said arms, a reciprocally supported lifting stem retained in its normal position by a coil spring, toggle-arms pivotally connected to the elbows of the gripping arms and having a common pivotal connection with the lower end of said stem, a tubular member in which the stem is mounted, said member provided with downwardly curved arms with which the extensions of the arms are pivotally connected, and laterally extended finger holds projecting from the extreme upper end of the tubular member, substantially for the purposes specified.

12. An instrument of the character described, comprising a stem, a pair of gripping arms, a member containing said stem, toggle connections between said arms and said stem, connections between said arms and said member, gripping jaws for the lower ends of said arms, a pin connecting said jaws to said arms, whereby said jaws may oscillate, and a spring connection between said pins and said arms.

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

JAMES PARRETT.

Witnesses:
DENT PARRETT,
W. H. TALLYN.