No. 656,190. Patented Aug. 21, 1900.

W. S. HOLCOMBE.

GRAPPLE.

(Application filed Mar. 31, 1900.)

(No Model.)

Fig. 1.

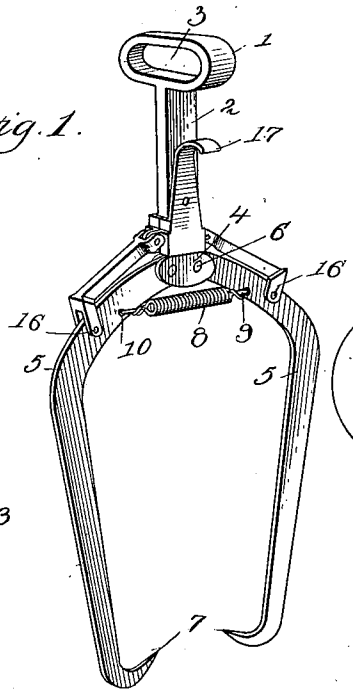
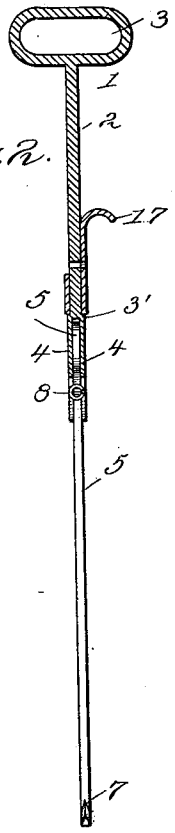


Fig. 2.



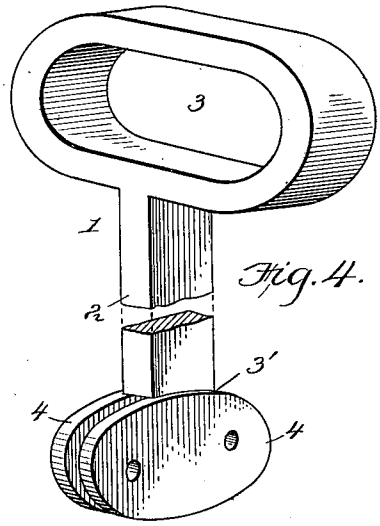
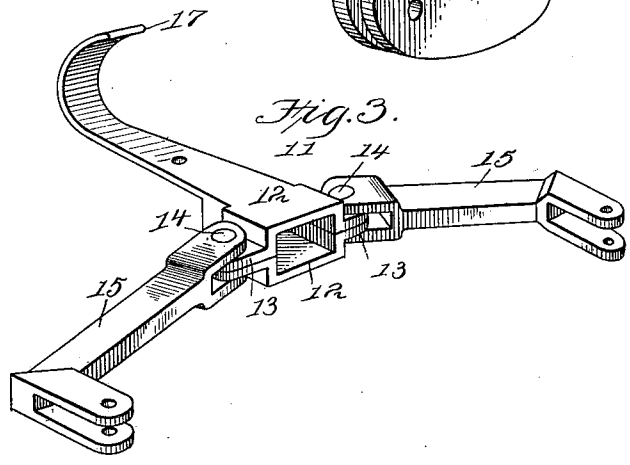


Fig. 4.

Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 656,190, dated August 21, 1900.

Application filed March 31, 1900. Serial No. 10,993. (No model.)

To all whom it may concern:

Be it known that I, WALTER S. HOLCOMBE, a citizen of the United States, residing at Lambertville, in the county of Hunterdon and State of New Jersey, have invented a new and useful Grapple, of which the following is a specification.

This invention relates to improvements in grapples, and more particularly relates to devices of this character designed for use as ice-tongs.

The object of the present invention is to provide a grapple which is extremely simple in construction and light in weight, whereby the same may be readily manipulated; and, furthermore, the invention aims to provide in the construction of a grapple simple and efficient means by which the same may be operated with only one hand in lieu of two, as is usually the case, and also to provide means for automatically closing the legs of the grapple when pressure for opening the same is removed therefrom.

With these and other objects in view, which will appear as the nature of the improvements is better understood, the invention consists, substantially, in the novel construction, combination, and arrangement of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a grapple constructed in accordance with the present invention. Fig. 2 is a transverse sectional view thereof. Fig. 3 is a detail perspective view of the means for opening the legs on an enlarged scale. Fig. 4 is a detail perspective view of the handle.

Referring to the drawings, the numeral 1 designates a handle, which handle comprises a shank 2, and said shank is provided at its upper end with a loop 3, which is designed to be grasped by one hand by the user. The lower end of the shank 2 terminates in a head 3′, which head comprises a pair of parallel spaced attaching-plates 4. Pivotally secured between the plates 4, at each end thereof, is a curved leg 5, a pivot-pin 6 passing through the upper end of each of said legs and the plates 4, and said legs terminate at their lower ends in inwardly-extending engaging points 7. A coil-spring 8 lies between the upper end of the legs 5 in order to normally retain the same in closed position, and the ends of said spring are connected to said legs 5 by means of loops 9 passing through perforations 10 in the legs 5.

In order that the legs 5 of the grapple may be easily opened without the necessity of employing both hands, a sectional operating-collar 11 is slidably mounted upon the shank 2, said collar being substantially rectangular in horizontal cross-section in order to conform to the shape of said shank and comprising a pair of complementary members 12. Each of the members 12 is provided at each of its ends with an outwardly-extending lug 13, and the lugs of each member lie upon the lugs of the other member, as clearly shown in Fig. 3. The lugs 13 are perforated, and fitting in the perforations thereof are pivot-pins 14, by means of which each pair of lugs 13 is pivotally connected with a substantially L-shaped link 15. The upper ends of the link 15 are bifurcated, and thereby adapted to embrace the lugs 13, and the lower end of each of said links is also bifurcated and straddles one of the legs 5, said end being pivotally connected with said leg through the medium of a pin 16. It will thus be seen that as the collar 12 is moved upwardly upon the shank 2 the links 15 will follow the movement thereof, and by reason of said links being pivotally connected with said collar and also with the legs 5 the latter will be opened, and for accomplishing the upward movement of the collar 12 one of the members thereof is provided with an upwardly-extending outwardly-curved finger-piece 17. The finger-piece 17 lies and works upon one side of the shank 2 and is directly beneath and in vertical alinement with one end of the loop 3, and by reason of said arrangement it is obvious that when the loop has been grasped by one hand the finger-pieee 17 is conveniently located for the application of the fingers of said hand thereto.

The manner of operating the herein-described grapple is as follows: When the grapple is in its closed position or that shown in Fig. 1 and it is desired to open the same, the loop 3 is grasped by one hand of the user and one or more fingers applied to the finger-piece

17. Upon upward pressure being exerted upon said finger-piece the collar 12 will slide upwardly on the shank 2, thereby causing the upper ends of the links 15 to also move upwardly, and with this movement of said links a corresponding movement of the legs 5 takes place. The lower ends of the legs 5 are thereby caused to move from each other, thus increasing the space between the engaging points 7, and during this movement of the legs the spring 9 is expanded. The grapple is now in position to be engaged with a block of ice or other article which it is desired to grasp, and as soon as such article is placed between the engaging points pressure is removed from the finger-piece 17. When such pressure has been removed, the spring 9 draws the legs 5 toward each other, and thus the engaging points 7 are brought into contact with the ice or other article and the latter is thereby firmly held. To disengage the legs 5 from the ice or other article, it is simply necessary to apply upward pressure to the finger-piece 17, when the engaging points at once respond to such upward pressure and move from each other to effect the desired disengagement.

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

1. A grapple, comprising a handle having a loop and a shank portion, legs pivoted at their inner ends to the shank portion, a collar movable upon said shank, links pivotally connected at their inner ends to said collar, and at their outer ends pivoted to said legs intermediate the ends of the latter, and a coiled spring connected at its respective ends to said legs, substantially as described.

2. A grapple, comprising a handle having a loop and a shank portion, legs pivoted at their inner ends to said shank portion, a collar movable upon said shank portion and provided with diametrically-opposite lugs, links having their inner ends bifurcated to receive said lugs to which they are pivoted, and having their outer ends formed angular and bifurcated to receive the legs to which they are pivoted, and a coiled spring connected at its respective ends to said legs, substantially as described.

3. A grapple, comprising a handle having a shank portion and a loop, legs pivoted at their inner ends to said shank portion, a collar movable upon said shank portion and provided with an upwardly-extending curved finger-piece positioned directly beneath and in vertical alinement with one end of the loop and moving upon one side of the shank portion, and links pivotally connected at their respective ends to said collar and legs, substantially as described.

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Witnesses:
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