

No. 681,733.

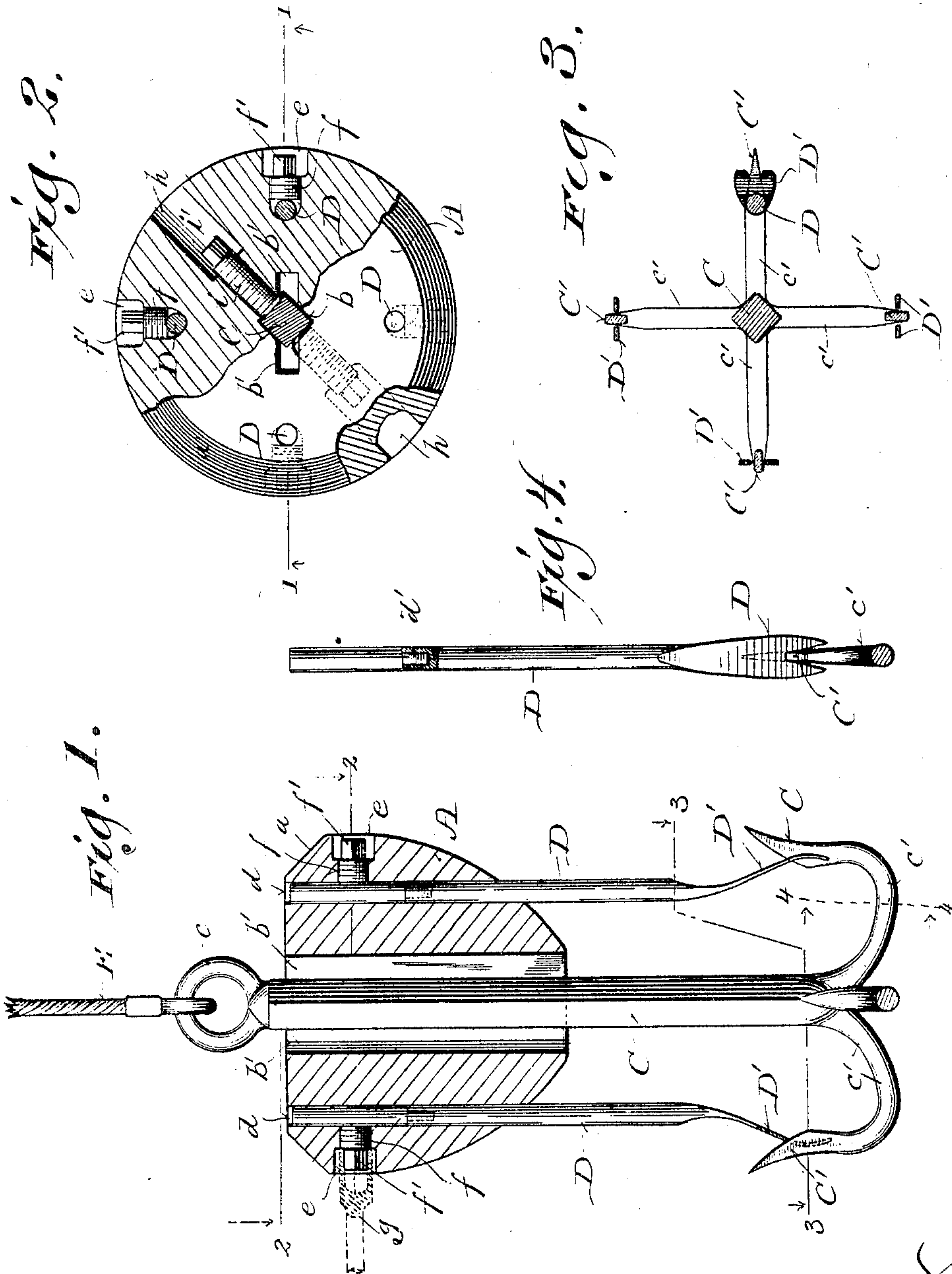
Patented Sept. 3, 1901.

P. RASMUSSEN.  
DRAG OR GRAPPLE.

(Application filed May 5, 1900. Renewed Jan. 31, 1901)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:  
Geo W Young  
B. C. R. Poff.

Inventor  
Peter Rasmussen.

By H. G. Underwood,  
Attorney

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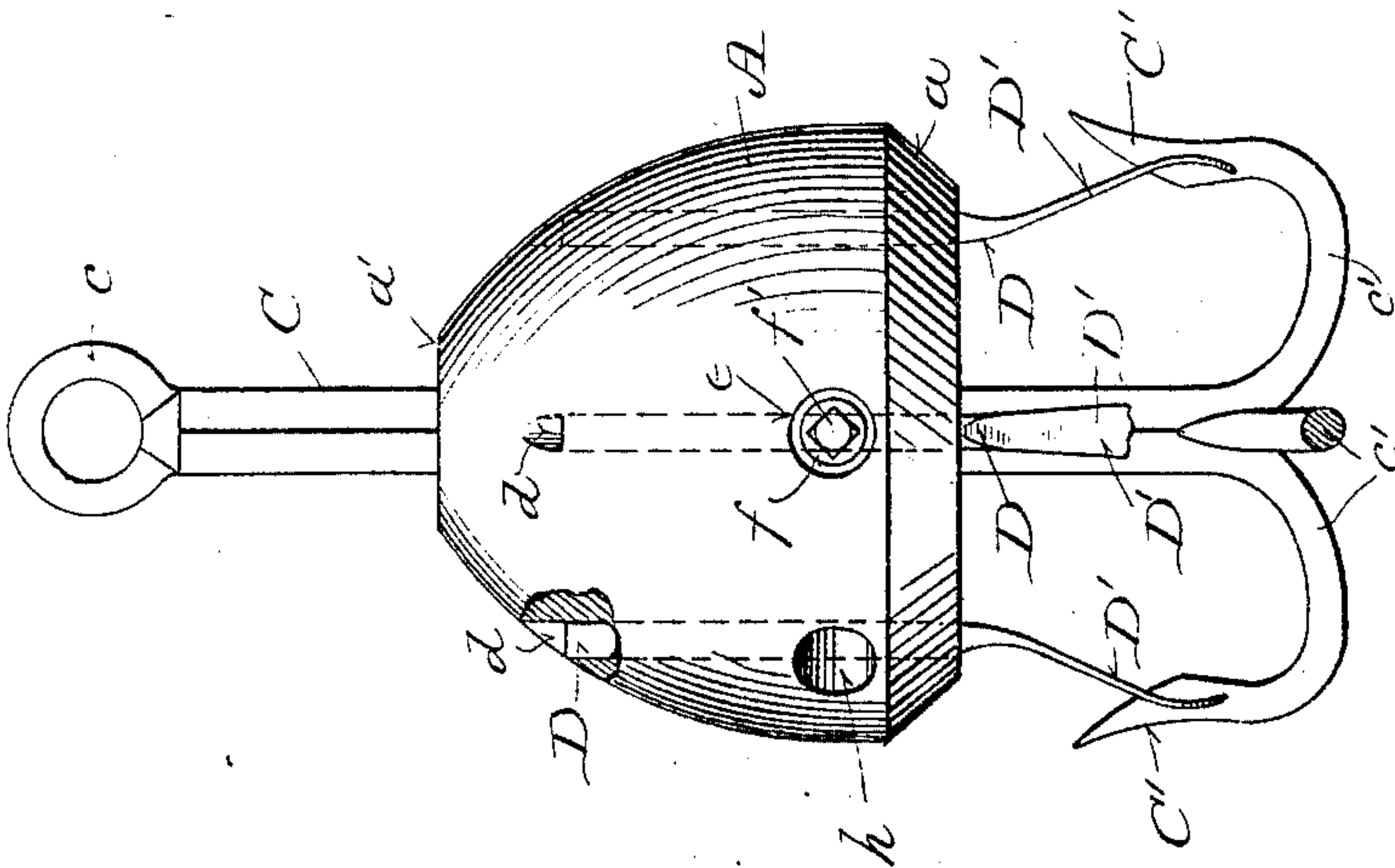
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185.



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Erventor  
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# UNITED STATES PATENT OFFICE.

PETER RASMUSSEN, OF IRON MOUNTAIN, MICHIGAN, ASSIGNOR OF ONE-THIRD TO JOHN RUSSELL, OF SAME PLACE.

## DRAG OR GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 681,733, dated September 3, 1901.

Application filed May 5, 1900. Renewed January 31, 1901. Serial No. 45,452. (No model.)

*To all whom it may concern:*

Be it known that I, PETER RASMUSSEN, a citizen of the United States, and a resident of Iron Mountain, in the county of Dickinson and State of Michigan, have invented certain new and useful Improvements in Drags or Grapples; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has especial reference to drags for the recovery of the bodies of drowned persons; and it consists in certain peculiarities of construction and combination of parts whereby the said drag may be adjusted for the recovery of either a clothed or a naked body, all as will be more fully set forth hereinafter in connection with the accompanying drawings and subsequently claimed.

In the said drawings, Figure 1 is a longitudinal central sectional view of my device adjusted for the recovery of a nude body, the view being taken on the line 1 1 of Fig. 2. Fig. 2 is a plan view of said device, partly broken away and partly in section, on the line 2 2 of Fig. 1. Fig. 3 is a detail transverse sectional view taken on the line 3 3 of Fig. 1. Fig. 4 is a view of one of the guards, partly broken away to show the union of the extension end, the lower end of said guard being shown in engagement with one of the drag-hooks, the latter being in section on the line 4 4 of Fig. 1 and no other part of the drag being shown in this view. Fig. 5 is a view in side elevation of my device adjusted for the recovery of clothed bodies, parts being broken away or in section in this view to better illustrate certain details of construction.

Referring to the drawings, A represents the weighted fender, consisting of a heavy block of steel or other metal of a truncated semi-ovoid shape, the base being obliquely truncated, as shown at *a*, and the top being squarely truncated, as shown at *a'*. The said fender is further formed with a longitudinal central lozenge-shaped bore *b*, having lateral oblong extensions *b' b'*, the said bore *b* being for the reception of the shank C of the drag-hooks and the lateral extensions *b' b'* of the said bore being for the passage therethrough of the ring *c* at the upper end of said hook-shank C, which latter is of lozenge shape in

cross-section and of a size to fit snugly within the described lozenge-shaped bore *b*. The fender A is further provided with a series of longitudinal bores *d d*, preferably four in number, for the reception of the shanks of the hereinafter-described guards D D, the said bores *d d* being around the central bore *b*, but adjacent to the outer edge of the fender and at equal distances apart, these bores *d d* being intercepted by transverse bores *e e*, adjacent to the base, the inner ends of said bores *e e* being reduced in diameter and screw-threaded to receive set-screws *f f*, formed with squared shanks *f' f'*, whereby the said set-screws *f f* may be turned by a common clock-key, as indicated in dotted lines at *g* in Fig. 1, and set hard against the shanks of the said guards D D. There are also two or more other transverse bores *h h*, preferably arranged in transverse line with and interposed between the bores *e e*, the inner ends of the bores *h h* being reduced in diameter and screw-threaded and communicating with the central longitudinal bore *b*, whereby set-screws *i i*, having squared shanks *i' i'*, may be introduced in said bores *h h* and screwed hard against the hook-shank C to keep same firmly in its adjusted position. It is obvious that these various set-screws may, if desired, have transverse slots in their outer ends or heads, so as to be operated by a screw-driver; but ordinarily I prefer the square-shanked construction illustrated. The lower end of the shank C has formed integrally therewith a series of branching arms *c' c'*, (preferably four in number,) terminating in upward and outward projecting sharp flat-sided hooks C' C', and the lower ends of the guards D D are formed into outwardly-curved flat springs D' D', preferably bifurcated and with their extreme ends curved backward or inward, so that the said spring ends may rest against and straddle the hooks C' C'. In this way the pointed ends of the guard-springs D' perform the functions of the barbs of fish-hooks, but with the difference and advantage that in my case these parts are separable, so that the spring-guard yields to allow whatever is caught on the hook to slip past the point of contact between the hook and guard, after which the guard automatically springs back



to contact, thereby preventing the escape of the article or object on the hook. The shanks of the guards D are preferably made in two parts, united by a screw-joint  $d'$ , as best shown in Fig. 4.

The operation of my device will be readily understood from the foregoing description of its construction taken in connection with the accompanying drawings. Referring first to the adjustment of the device shown in Fig. 1, it will be seen that the fender A has been drawn upward as far as possible on the hook-shank C and the full length of the guards D employed and that the fender has its base next to the top ring of the hook-shank and the small end of the fender turned toward the hooks and all parts secured by the set-screws in such positions. This is to afford the greatest possible distance and the most space within the limits of my device between the fender and hooks and, as stated, is the proper adjustment when nude bodies are to be searched for. If the drowned persons were clothed, then the device is adjusted as shown in Fig. 5, where it will be seen that the fender A is reversed, so that the base thereof is slid down on the shank C as near the hooks as possible, and then the parts rigidly secured in these relative positions by the set-screws as before. In this adjustment the upper ends of the guards D are preferably unscrewed and removed, as it is better that they should not project beyond the exterior surface of the fender. My fender is very heavy, and the device requires no extraneous weight, but being properly attached to a cord, as shown at E in Fig. 1, is simply thrown overboard at the point where it is supposed the body may be and the drag operated in the usual way. Owing to the small size and great relative weight of my device it will sink to the place to which it is thrown instantly even if the current is so strong that a diver could not possibly reach or stay in the place, and my device will become operative at once, and hence a body could be raised to the surface therewith in much less time than it takes for a diver to get into his rubber suit. Owing to the peculiarities of shape and construction my device will not interfere with or be caught or held by rocks, stones, logs, timber, or the like, but according to its adjustment will instantly seize hold upon either a nude body or the clothing of a clothed body and raise the same without risk of losing the body.

While the described shape of fender has been found to give most satisfactory results in actual practice, the chief point is that the same shall be tapered, and hence a conical form or a truncated conical form would answer the purpose, and hence I do not strictly limit myself to the exact form shown, and

while the described number of transverse bores and set-screws has been found ample in practice a greater number may be employed for added security or the same differently disposed, if preferred, or the shape of the spring ends of the guards altered, if desired in any instance, or any other merely mechanical changes may be made within the scope of my claims without departing from the spirit of my invention.

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

1. A drag or grapple for raising submerged bodies, comprising a hook, a weighted fender, and a spring-guard extending between the fender and the hook.
2. A drag or grapple comprising a shank having one or more hooks branching off from one end thereof, a fender adjustably secured to said shank, and a spring guard or guards secured to said fender and bearing against said hook or hooks.
3. A drag or grapple comprising a shank having a series of hooks branching off from one end thereof, a weighted fender adjustably secured to said shank, and a series of spring-guards adjustably secured to said fender and bearing against said hooks.
4. A drag or grapple comprising a shank having a series of hooks branching off from one end thereof, a reversible fender adjustably secured to said shank, and a series of spring-guards adjustably secured to said fender and bearing against said hooks.
5. A drag or grapple, comprising a shank having a series of hooks branching off from one end thereof, a tapered reversible fender adjustably secured to said shank, and a series of spring-guards adjustably secured to said fender and bearing against said hooks.
6. A drag or grapple, comprising a shank having a series of hooks branching off from one end thereof, a weighted tapered reversible fender adjustably secured to said shank, and a series of guards adjustably secured to said fender, and having bifurcated curved spring ends adapted to straddle and bear against said hooks.
7. A drag or grapple for recovering submerged bodies, comprising a shank having a series of hooks branching off from one end thereof, and a line-attaching ring or loop at its other end, with a reversible weighted fender adjustably secured to said shank.

In testimony that I claim the foregoing I have hereunto set my hand, at Iron Mountain, in the county of Dickinson and State of Michigan, in the presence of two witnesses.

PETER RASMUSSEN.

Witnesses:

R. T. MILLER,  
T. MACE.