Aug. 24, 1965 F. E. GRAHAM 3,201,892

CASTING FLOATS

Filed May 25, 1964

FIG. 1.

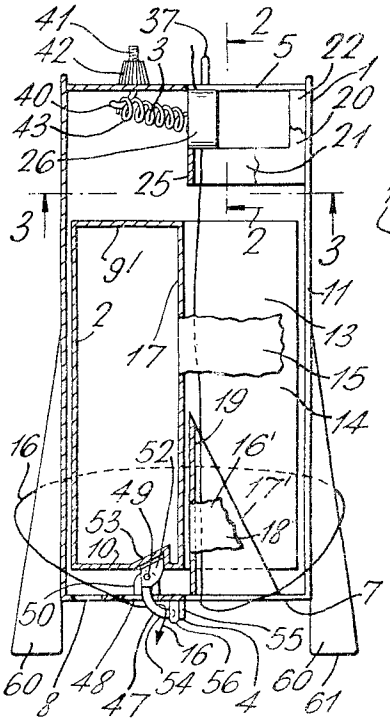


FIG. 2.

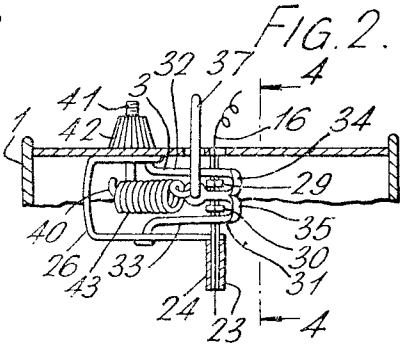
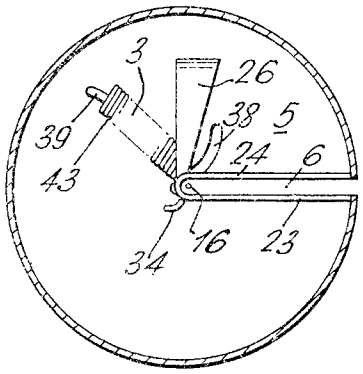


FIG. 3.



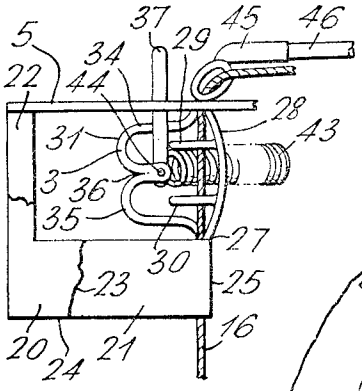
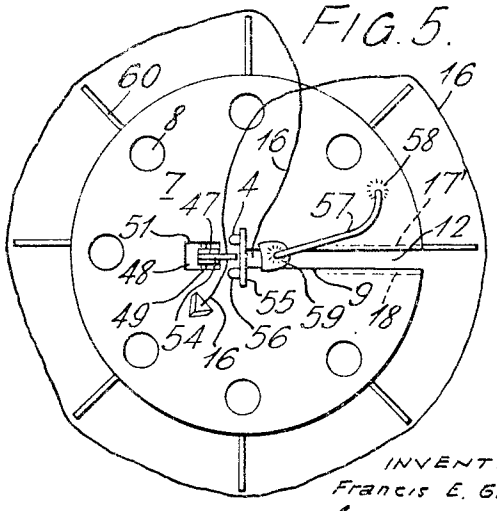


FIG. 4.

FIG. 5.



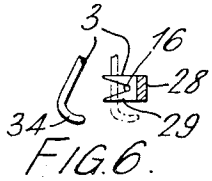


FIG. 6.

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CASTING FLOATS

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2 Claims. (Cl. 43—43.11)

My invention relates to casting floats, an object being to provide an improved float assembly of the character herewithin described, by means of which the leading portion of a fishing line may be held wound around a cylindrical and sinkable, perforated housing as the float is cast through the air, instead of being "strung out" over several feet during this performance, whereby a longer and more sensorially satisfying cast may be made, and whereby the extreme end-tackle comprising sinker, bait, hook and the like, may be caused to separate from proximity to the aforesaid housing and the float as a whole, after all of it, and the float, hits the water.

A further object of the present invention is to provide an improved device of the character herewithin described which includes a novel line-braking means which is extremely simple structurally, and which can be manipulated very easily and without particular dexterity, such as when the hands are cold, wet or slippery, or when the user is wearing gloves, or when his eyesight may be impaired for example.

A further object is to provide line-braking means which are adjustable as to the frictional force with which the line is held thereby.

A further object of the present invention is to provide is a float, line-braking means which can be caused to yield desirably when the float-as-a-whole has been wound in to the point where it is bearing against the end of the rod, so that the end-portion of the line which was previously beyond the float, and containing the aforesaid end-tackle, may be drawn-in so that such end-tackle may be drawn upwardly against the float.

A further object of the present invention is to provide a device of the character herewithin described by the use of which the end of the line beyond the float and wound thereon, cannot become unwound during flight through the air in the act of casting.

A further object of the present invention is to provide a device of the character herewithin described in which the float cannot possibly become separated from the line and accidentally lost.

A further object is to provide a device of the character herewithin described which is simple in construction, and well designed for production either wholly or partially of plastic, or plastic and metal, and which can be produced, as to its component parts, and the same assembled, at a cost enabling the final product to be sold to the ultimate user at a reasonable and attractive price.

With the foregoing objects in view, and such others as may become apparent as this specification proceeds, the present invention consists in the following arrangement and construction of parts, all as hereinafter more particularly described, reference being had to the accompanying figures in which:

FIGURE 1 is a longitudinal and predominantly cross-sectional representation of the present invention.

FIGURE 2 is a section on the line 2—2 of FIGURE 1.

FIGURE 3 is a cross-section on the line 3—3 of FIGURE. 1.

FIGURE 4 is a section on the line 4—4 of FIGURE 2.

FIGURE 5 is an underside plan-view of FIGURE 1 looking upwardly or from beneath.

FIGURE 6 is a detail having particular reference to FIGURE 4.

In the drawings, like characters of reference designate similar parts in the several figures.

The present invention consists essentially of four main parts, that is to say, a sinkable housing of cylindrical configuration and collectively designated 1, a central buoyant float collectively designated 2, and enclosed but free, for limited vertical movement within housing 1, line-braking means collectively designated 3, and line-locking means collectively designated 4.

Housing 1 is provided with an upper enclosing end plate 5 provided with the open radial slot 6, and a base plate 7 provided with a plurality of water admitting apertures 8, together with the radial slot 9 in longitudinal co-axial alignment with slot 6.

The buoyant internal float collectively designated 2 is in the form of a hollow and loosely fitting cylindrical body having an upper enclosing wall 9' and a bottom wall 10. By best reference to the accompanying FIGURE 1 it will be observed, from the absence of cross-hatching at 11 that an open-sided radial slot 12 (see also the accompanying FIGURE 5) from end to end of the casting assembly comprising the present invention. This slot also exists in float 2 there being designated generally by the numeral 13, one wall of the slot being enumerated 14, and the opposite parallel and adjacent wall being fragmentarily shown and designated 15. The upper and lower ends 9' and 10 of the float are also slotted, all to the end that a continuous slot exists whereby line 16 may be inserted into the casting assembly to substantially the longitudinal axis thereof as best shown in the accompanying FIGURE 1. The trough of slot 13 is indicated by the hatched line 17. The slots 11 and 13 are preserved in registration by means of the pair of triangular elements 16' which comprises two parallel and slightly spaced guiding-wall portions 17' and 18, the trough whereof is designated 19. The element 16' is secured at its lower edge as by brazing or the like to the edges of slot 9 in base plate 7, the portions 17' and 18 being shown in fragmentary and phantom form to illustrate the aforesaid location in the accompanying FIGURE 5.

The purpose of element 16' is of course to preserve the slots 12 and 13 in registration. The wall portions or surfaces 17' and 18 lie closely parallel with and against walls 14 and 15 within the slot 13. Freedom is however permitted so that the float 2 is not obstructed thereby.

The line-braking mechanism collectively designated 3, in detail comprises an L-shaped frame portion 20 of which the lower horizontal portion 21 is deeper than the vertical portion 22. Both said portions consist of a pair of parallel but slightly spaced strips of material 23 and 24, the pair of strips of material constituting the vertical portion 22 being secured as by soldering to the edges of slot 6 upon the underside thereof. Reference to FIGURE 3 is made in this particular connection. The portions 23 and 24 are joined at 25 (see the accompanying

FIGURES 1 and 4) so that it will readily be recognised that the space between the portions **23** and **24** constitute a continuation of the completely open, end-to-end radial slot whereby line **16** aforesaid is inserted into the present assembly.

The portions **23** and **24**, are held, where they are joined by **25**, by means of a yoke **26**. Extending between the upper end **27** of the trough portion **25**, and plate **5**, is a slightly bowed thin supporting strip **28**. Brazed where indicated to **28**, are line receptacles **29** and **30** of the form best illustrated in the accompanying FIGURE 6. Extending between the upper and lower horizontal portions of the yoke **26** (the upper portion of which is brazed to the underside of plate **7**) is a rotatable locking element collectively designated **31**. In detail the same comprises upper and lower arms **32** and **33** together with upper and lower loop portions **34** and **35**. These are united by a central inwardly projecting piece **36**, to which is brazed an upstanding actuating rod **37** capable of moving in an arc along the slot **38** formed in plate **5**. Also formed in plate **5** is a slightly arcuate slot **39** through which a hook **40** extends, the upper end of the hook being in the form of a screw threaded shank **41** rotatable upon which is a knurled finger-piece **42**.

Extending between the hook **40**, and the projecting piece **36** is a spring **43**, the same being anchored at one end to said hook, and at the other to the aperture **44** (see the accompanying FIGURE 4). As a result of all the foregoing, it is to be understood that when post **37** is rotated in the slot **38**, a toggle action in effect takes place under the influence of spring **43** in co-action with the braking device **31** whereby the arms **32** and **33**, and the center piece **36** may be snapped against member **28** without intercepting the elements **29** and **30** which pass through the loops **34** and **35**.

The post **37** will snap against either end of the slot **38** according as to whether it is moved clockwise or counter-clockwise. Also, it will be appreciated that the tension of spring **43** may be varied according as hook and shank **41** are moved further outwardly in slot **39**, and the knurled member **42** tightened down on the plate **5**, it being understood of course that the underside portion of shank **41** is bossed-up to provide a seating against the underside of the said plate.

The loop portions **34** and **35** are right angulated or hooked over when viewed in plan as best depicted in the accompanying FIGURE 6. As a result, it will be apparent that although the loops **34** and **35** bearing against line **16** when it is between the prongs of details **29**, will brake and hold the line securely against longitudinal movement, yet, when the casting assembly together with all the end tackle has been reeled in so that the upper end of the assembly comes up against the end **45** of the fishing rod **46**, excessive tension on the line **16** will pull it straight as best depicted in the accompanying FIGURE 4, away from the portion **28**. Thus, although the arms **32** and **33**, and the central portion **36** are still bearing against the line, they must be doing so with less pressure than previously. As a result, it is now possible for the user to reel-in the end tackle up to the bottom end of the casting assembly which is the present invention.

Describing now the line locking arrangements collectively designated **4**, the same comprise a latch **47** of the form best illustrated in the accompanying FIGURE 1, said latch projecting through an aperture **48** in plate **7**, and mounted for swinging movement upon a pin **49** extending between a pair of small upstanding brackets **50** within housing **1**, and secured to the opposite edges **51** of said aperture **48**.

The upper end **52** of latch **47** is loaded or weighted, and hence overbalanced so that it tends to rotate clockwise with respect to the accompanying FIGURE 1, and bears against the vertical wall-portion of the recess **53** formed in the bottom **10** of float **2** to receive the said latch. The

opposite hooked end **54** of the latch, when in the operative and line-hooking position of the accompanying FIGURE 1, bears up against a small vertically disposed plate **55** brazed to plate **7**, and nests between the two small posts **56** which are in turn brazed to both plates **55** and **7**.

To prevent line **16** from accidentally moving out of slot **12**, a spring strip **57** is provided, brazed to plate **7** at the location **58**. This strip is designed normally to intercept slot **12**, and it terminates in a small shoe portion **59** which squarely intercepts slot **12**, and hence obviously prevents the line from escaping.

The housing **1** is preferably provided with a set of longitudinally triangular or tapered fins **60** which project radially therefrom, and beyond the lower end of the casting assembly as at **61**. The purpose of these is to stabilize the invention, prevent it from rotating undesirably in the water, and to assist the same in flight. Importantly also, these fins are provided to facilitate the winding of the leading portion of line **16** around the present casting assembly so as to reduce still further and virtually to the point of impossibility, the likelihood of its becoming unwound before striking the water.

Having thus described the construction of the present invention, its operation, to the extent this has not already been made plain, will be set forth.

The line **16** is obviously first introduced through the main open-ended slot already referred to. The first step after that is to lock the upper end by snapping-over the post **37** in the manner already described. The line is now locked at the upper end, and extends through the lower end, or in other words, through slot **12** as best exemplified in the accompanying FIGURE 5. It is now moved radially across, lifted a little and wound as many times as may be desired, as indicated in the accompanying FIGURES 1 and 5, around housing **1**, and around the fins **60**.

When wound up to almost the point where the end tackle commences, the line is brought back in and under plate **7** and hooked over latch **47** again as clearly illustrated in the accompanying FIGURES 5 and 6. For the purpose of hooking the line through the latch, it is to be understood that the device may be inverted so that float **2** is raised so that latch **47** may be rotated clockwise. Thus the line **16** is placed in position before the latch **47** is moved into the position it occupies in the accompanying FIGURE 1, and the float dropped, by restoring the assembly to the position shown.

From all the foregoing it follows that when the assembly with the end tackle securely locked is cast or flung through the air, it stays in place. Upon hitting the water however the water enters housing **1** through apertures **8** and sinks somewhat. On the other hand, float **2**, being buoyant, tends to rise relative to housing **1**. As a result, latch **47** rotates clockwise under the weight of the line below it. In other words, the portion **53** rises out of engagement with the portion **52**. It follows as a consequence that all that portion of the line which has been wound around the fins **60** can unwind and sink with the end tackle including the sinker, bait and the like while the casting assembly remains buoyant in virtue of the float **2**.

Since various modifications can be made to the novel subject-matter herein, without departing from the inventive concept which the same embodies, it is not intended that protection of this invention by Letters Patent should be interpreted as restricted to the particular modifications thereof particularly described and exemplified.

What I claim as my invention is:

1. A casting assembly comprising in combination a central buoyant float, a surrounding sinkable housing enclosing said float, said float being free for limited vertical movement within and between the upper and lower ends of said housing, said housing including at its apex, line-braking means, and at its base, at least one water admitting aperture and line-locking means, said float and housing each being provided with a coinciding open-sided slot

into which said line may be inserted, said housing also including a lower enclosing plate to which said line locking means is secured, said line locking means including a pivoted latch projecting below said plate, said latch including a catch within said housing, said float having means on its lower end co-operating with said catch for releasing said catch when said float becomes buoyant upon striking water thereby releasing an associated line to the extent it is wound around said housing prior to being locked therein.

2. The device according to claim 1 which includes a pair of line-intercepting posts on either side of said latch.

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