

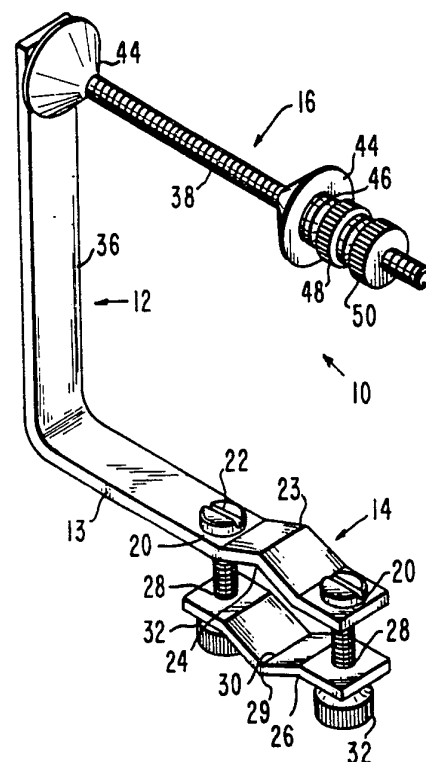


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<p>(21) International Application Number: PCT/US91/08611 (22) International Filing Date: 19 November 1991 (19.11.91) (60) Parent Application or Grant (63) Related by Continuation US PCT/US90/06024 (CIP) Filed on 19 October 1990 (19.10.90) (71)(72) Applicants and Inventors: KARR, Craig, Calhoun [US/US]; 1312 San Vicente Boulevard, Santa Monica, CA 90405 (US). SAUNDERS, Arthur, Winburn [US/US]; 1126 Pine Street, Santa Monica, CA 90405 (US). (74) Agents: CISLO, Donald, M. et al.; Cislo & Thomas, 233 Wilshire Boulevard, Suite 900, Santa Monica, CA 90401 (US).</p>		<p>(81) Designated States: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE). Published <i>With international search report.</i></p>

(54) Title: FISHING LINE LOADER**(57) Abstract**

A fishing line loader (10) comprises a generally "C"-shaped frame (12) with a clamp arrangement (14) at one end and a fishing line spool holder (16) at a second end. In a first preferred embodiment, line loader (10) comprises a right-angle metal bracket with a threaded spindle screw (38) screwed through a tapped hole (40) near one end. The other end of the bracket has a short clamp bar (26) attached by two screws (22) and a pair of knurled nuts (32). Opposed shallow "V"-shaped bends (24) in the clamp bar (26) and the end of the bracket allow fastening the line loader (10) to a fishing rod. Two rubber pads (34) with adhesive backings are provided to stick into the depressions formed by the opposed "V"-shaped bends (24) to prevent damage to the rod. A fishing line spool is centered and tensioned between first and second rubber cones (44) mounted on spindle screw (38) to either side of the spool, with first and second nylon washers (46) adjacent the larger ends of the centering/tensioning cones (44). A plastic tension nut (48) is screwed onto the free end of spindle screw (38) to set the frictional resistance to rotation of the line spool. A locknut (50) locks the arrangement into position. In a second preferred embodiment, the clamp arrangement (14) comprises first and second clampbars (18' and 26) attached to frame (12) with a hook-eye bolt (68) and a locknut (70) so as to be adjustable in orientation to accommodate loading line onto either a casting reel or a spinning reel. The invention further encompasses fishing line loader kits comprising the component parts of the fishing line loader embodiments (10 and 10') packaged with instructions for assembly.



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FISHING LINE LOADER

CROSS-REFERENCE TO RELATED APPLICATION

The present application is a continuation-in-part of International Application Number PCT/US90/06024 by the present applicant filed on October 19, 1990.

BACKGROUND OF THE INVENTION

The present invention relates to fishing tackle accessories, and in particular to a device for loading a fishing line onto a fishing reel.

There are many devices in the prior art for loading or
5 unloading fishing lines onto fishing reels. Some representative examples are described briefly below.

U.S. Patent 4,360,172 to Cope is directed to a line winding device for fishing reels which comprises a base plate adapted to be secured to a suitable rigid support
10 such as a wall or a post by screws, a cylindrical stud which projects outwardly and horizontally from the base plate, a right angle spool mounting bar having one leg insertable into a bore of the stud and a second leg disposed at a right angle to the first leg, a pair of
15 collars adjustably fixed on the second leg by set screws, a pair of plastic friction bearing sleeves that are rotatable on the second leg, and a helical compression spring that encircles the second leg between one of the collars and one of the sleeves. A spool of fishing line
20 may be mounted rotatably and axially on the second leg between the collars. Friction bearing sleeves are fitted into the respective opposite ends of a hub of the spool. Because the frictional bearing sleeves resist the rotation of the spool, the line is drawn from the spool only under
25 some degree of tension, which can be adjusted by moving the collars along the bar of the second leg.

U.S. Patent 4,776,527 to Prowant is directed to a

portable fishing line spool holder apparatus for feeding fishing reels. The spool holder comprises a C-shaped yoke and a bracket. The C-shaped yoke includes an arm hingedly connected to the yoke by a hinge, a second arm, a pair of 5 opposed stud shafts, a pair of anchors attached to the arms and the yoke, respectively, a spring that attaches between the arms and the yoke, and a cap opposite the shafts. The bracket includes two opposed rectangularly shaped members having semicylindrical channels which complement one 10 another to form a cylindrical channel through which a fishing pole passes. The yoke attaches to the bracket by a bolt secured by a wing nut. The pivoting arm provides a mechanism to produce a drag on the spool so that the fishing line may be wound at a proper tension.

15 U.S. Patent 3,973,741 to Dean is directed to a fishing line changer. The fishing line changer comprises an L-shaped member with a short horizontal top and a longer vertical flange having a circular hole, a V-shaped horizontal member attached to the vertical flange, a 20 cylindrical axle having one end that extends through the circular hole, a crank attached to one end of the axle by a wing nut, and a cylindrical spool that mounts on the axle and is secured thereon by a wing nut. The V-shaped horizontal member holds a fishing rod. When a fishing line 25 is to be reeled onto the spool, the crank is attached to the axle. When a line is to be reeled off the spool, the crank is removed and replaced by a circular disk.

U.S. Patent 3,950,881 to Hays is directed to a fishing line spool holder for transferring fishing lines to a reel. 30 The spool holder comprises a C-shaped one-piece member having a pair of spool-holding arms extending outwardly from a base portion, a pair of rod-gripping arms extending downwardly from the base portion, a pair of shoulders extending from the free ends of the spool holding arms, and 35 a pair of cone-shaped spool support members extending from the shoulders toward each other. The tapered ends of the spool support members insert into the axial bore of a spool

for supporting a spool during rotation.

The following patents may be relevant to the present invention:

	<u>PATENT NUMBER</u>	<u>INVENTOR</u>	<u>ISSUE DATE</u>
5	2,848,778	F.C. Plummer, Sr. et al.	Aug. 26, 1958
	3,506,213	D. Young	Apr. 14, 1970
	3,776,485	Foley et al	Dec. 4, 1973
	3,977,224	P. H. Smith	May 18, 1976
	4,034,930	C. A. Stevenson	July 12, 1977
10	4,922,644	D. C. Sherbondy	May 8, 1990

None of the patents described or listed above provides a fishing line loader with the structural simplicity, adjustability, and ease of operation of the present invention.

15

SUMMARY OF THE INVENTION

In accordance with the present invention, a fishing line loader is disclosed which comprises a generally "C"-shaped open frame with a simple clamp arrangement at one end thereof and a spool-holding spindle at a second end thereof. The "C"-shaped frame defines a plane which is at right angles to a fishing rod when the fishing line loader is clamped thereto at a point between the handle of the rod and the first line guide.

One or two spools of line are mounted on the spool-holding portion of the fishing line loader so that the axis of rotation of the spool is at right angles to the longitudinal axis of the fishing rod when the fishing line loader is mounted on the rod. The end of the line is attached to the spool of a fishing reel mounted on the rod handle. The line is loaded onto the reel by turning the reel handle to rotate the line spool mounted on the line loader. The position of the line spool and its frictional resistance to rotation are adjustable.

In the preferred embodiment, the fishing line loader comprises an "L"-shaped metal bracket with a threaded cross

35

arm turning the "L" into a "C" by being screwed through a tapped hole near one end of the bracket. The other end of the bracket has a short clamp bar attached to it by two short screws and a pair of knurled nuts. Opposed shallow "V"-shaped bends in the clamp bar and the end of the bracket allow fastening the fishing line loader to a cylindrical fishing rod. Two rubber pads with adhesive backings are provided to stick into the opposed "V"-shaped depressions to prevent damage to the rod in fastening the bracket thereto.

The threaded arm serves as a spindle for mounting one or more spools of fishing line thereon. The fishing line spool is centered and tensioned between first and second rubber cones mounted on the threaded arm to either side of the spool. First and second nylon washers are mounted on the threaded arm adjacent the larger ends of the centering/tensioning cones.

In an alternative preferred embodiment, the arm of the "C"-shaped frame which includes the clamp arrangement comprises first and second portions held together by an open-eye or hook-eye bolt which is held in position by a clamp nut and one of the knurled nuts of the clamp arrangement. The clamp arrangement, now consisting of the clamp bar and the second portion of the lower arm of the "C"-frame can be oriented at right angles or parallel to the first portion of the "C"-frame and tightened in position by the clamp locknut.

The parallel configuration is suitable for transferring line from a line spool onto a casting reel. The right-angles configuration is suitable for transferring line from a line spool through the eye of the eye-hook bolt onto a spinning reel.

A plastic tension nut is screwed onto the free end of the threaded arm to set the frictional resistance to rotation of the line spool. After the tension is set with the tension nut, a locknut is screwed tight against the tension nut to lock the arrangement into position.

The fishing line loader of the present invention allows one person to load fishing line onto a casting or spinning reel without requiring the aid of a second person. The present device is mechanically simple, has a small
5 number of parts, and is inexpensive to manufacture. The present device is also compact, lightweight, and easy to use.

The invention further encompasses a fishing line loader kit comprising the component parts of the fishing
10 line loader packaged together with instruction for assembly by the user. The saving of labor by use of the kit concept allows the device to be sold at a price less than that for the assembled version.

Accordingly, it is an object of the present invention
15 to provide a fishing line loader that is mechanically simple and easy to manufacture.

Another object of the present invention is to provide a fishing line loader that is suitable for single-person operation and is convenient to use.

20 Yet another object of the present invention is to provide a generally "C"-shaped fishing line loader with a clamping arrangement at the free end of one of the parallel sides and a spool-holding arrangement on the other parallel side.

25 A further object of the present invention is to provide a means of centering and tensioning one or two spools of fishing line as part of the spool-holding arrangement.

An additional object of the present invention is to
30 provide a generally "C"-shaped fishing line loader with one parallel arm that can be clamped to a fishing rod with one or two spools of fishing line mounted on the other parallel arm and free to rotate against an opposing frictional force that can be adjusted, so that the free end of the fishing
35 line can be attached to a spool of a fishing reel mounted to the rod and the line can be loaded onto the reel by turning the handle of the reel.

Yet another object of the present invention in an alternative embodiment is to provide a generally "C"-shaped fishing line loader with a clamp-bar arrangement that can be oriented either parallel to the frame or at right angles to the frame for transferring line to a casting reel or spinning reel, respectively.

Finally, it is an object of the present invention to provide a fishing line loader kit comprising a plurality of component parts packaged together with instructions for assembly.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of the fishing line loader of the present invention;

FIG. 2 is a partially exploded left side elevational view of the fishing line loader of FIG. 1;

FIG. 3 is a perspective view of the fishing line loader of the present invention clamped to a fishing rod and with a spool of fishing line mounted on the loader, ready for loading onto a fishing reel;

FIG. 4 is a perspective view of an alternative preferred embodiment of the present invention;

FIG. 5 is a fragmented side elevational view of the lower part of the fishing line loader shown in FIG. 4;

FIG. 6 is a perspective view of the fishing line loader of FIGS. 4 and 5 in the parallel configuration being used to transfer line onto a casting reel; and

FIG. 7 is a perspective view of the fishing line loader of FIGS. 4-6 in a right-angle configuration being used to transfer line onto a spinning reel.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIG. 1, a fishing line loader 10 is provided that comprises a generally "C"-shaped frame 12. frame 12 has a first parallel arm 13 with a clamp 14 at the free end thereof and a line spool holder 16 forming a second parallel arm.

Clamp 14 comprises a clamp bracket 18 having a first pair of clamp screw holes 20 through which first and second clamp screws 22 are inserted. Clamp bracket 18 has a curved portion 23 with a concave rod-holding groove 24.

5 A clamp bar 26 having a pair of tapped clamp screw holes 28 has an oppositely curved portion 29 with a second rod-holding groove 30. Clamp screws 22 are engaged by the tapped clamp screw holes 28 to attach clamp bar 26 to clamp bracket 18.

10 First and second clamp nuts 32 are screwed onto the end of clamp screws 22 and can be used to adjust the size of the opening defined by first rod-holding groove 24 and second rod-holding groove 30 to accommodate various fishing rod diameters. First and second cushioning pads 34 (shown
15 in FIG. 2) are secured with adhesive to the inner sides of clamp bracket 18 and clamp bar 26 to protect a fishing rod from possible damage when clamp 14 is applied to the rod.

A standoff arm 36 integrally formed with first parallel arm 13 makes an approximate right angle with arm
20 13. Line spool holder 16 comprises a spindle screw 38 screwed through a tapped spindle hole 40 in end 42 of standoff arm 36.

The central portion of spindle screw 38, on which one or two spools of fishing line are intended to be mounted,
25 is bracketed by first and second centering/tensioning cones 44 mounted on spindle screw 38. Nylon thrust washers 46 are positioned outside cones 44 on spindle screw 38. A tension nut 48 is screwed onto the free end of spindle screw 38, followed by a locknut 50.

30 The frictional resistance to rotation of a spool of fishing line mounted on the central portion of spindle screw 38 can be varied by adjusting the pressure exerted on either side of the spool by first and second centering/tensioning cones 44. The pressure is adjusted by
35 screwing tension nut 48 toward or away from the spool. When a desired degree of frictional resistance to rotation of the spool is reached, it can be maintained by screwing

locknut 50 tightly against tension nut 48.

The present invention further encompasses a fishing line loader kit composed of all the component parts of the fishing line loader 10 previously described, a container in which to hold the component parts, and printed directions
5 for assembling the component parts provided in the container along with the component parts. The directions for assembling the fishing line loader 10 can take the form of written instructions or printed illustrations.

10 FIG. 2 or an equivalent picture could be provided to illustrate the proper assembly of the component parts of fishing line loader 10. Also, the proper method of using fishing line loader 10 to load fishing line onto a fishing reel is illustrated by FIG. 3, the equivalent of which
15 could be provided with the fishing line loader kit inside the packaging therefor.

As shown in FIG. 3, fishing line loader 10 is mounted on a fishing rod 52 between a rod handle 54 and a first line guide 56. The mounting is effected by clamping the
20 cylindrical part of rod 52 between first and second rod-holding grooves 24 and 30 by tightening clamp nuts 32 on first and second clamp screws 22 against clamp bar 26.

The part of rod 52 held between clamp bar 26 and clamp bracket 18 is protected by cushioning pads 34 made of
25 rubber or some similar material such as neoprene. Cushioning pads 34 are affixed to first and second rod-holding grooves 24 and 30 by adhesive backings on the pads, preferably.

A fishing reel 58 is mounted on rod 52 in a normal
30 position on rod handle 54. A spool of fishing line 60 is mounted on the central portion of spindle screw 38 between first and second centering/tensioning cones 44 as described above.

The frictional resistance to rotation of spool 60 is
35 adjusted by paying fishing line 62 off spool 60 while adjusting tension nut 48. After attaching the free end of line 62 to fishing reel 58, one person can load the fishing

line 62 from spool 60 onto reel 58 by simply turning the handle 64 of fishing reel 58. After the spool of reel 58 is filled with line 62, fishing line loader 10 is easily removed from rod 52 by unscrewing clamp nuts 32 off the ends of clamp screws 22 and removing clamp bar 26.

Among the advantages of fishing line loader 10 are (1) mechanical simplicity, (2) ease of assembly, (3) ease of attachment or removal from a fishing rod, (4) adjustability of line-loading tension, (5) one-person operability, and (6) rugged construction. In addition, the use of proper component materials, such as aluminum, brass, or stainless steel provides a rustproof fishing line loader 10.

Referring to FIG. 4, an alternative preferred embodiment of the fishing line loader 10' of the present invention additionally comprises the feature that clamp 14 is adjustable in orientation with respect to frame 12. This is accomplished by making first parallel arm 13 shorter in length and making clamp bracket 18 a separate unit 18'. A hole 64 near end 66 of first parallel arm 13 allows attachment of clamp 14 by means of hook-eye bolt 68 and locknut 70.

As shown in FIG. 5, hook-eye bolt 68 is inserted through a hole in first parallel arm 13 and screwed into tapped hole 28 in clamp bar 26 to connect first parallel arm 13 with a second clamp bar 18'. Once the proper relative orientation between first parallel arm 13 and second clamp bar 18' is achieved, locknut 70 is tightened.

Fishing line loader 10' is mounted on a fishing rod by inserting a portion of the rod between second clamp bar 18' and clamp bar 26 and tightening first and second clamp nuts 32 onto the threaded end 72 of hook-eye bolt 68 and onto the end of clamp screw 22. Rubber cushioning sleeves 74 and 76 on the curved portions 23 and 29 of second clamp bar 18' and clamp bar 26 ensure that the clamped surface of the fishing rod is not marred.

Referring to FIG. 6, the alternative preferred embodiment 10' of the invention is shown mounted on a

fishing rod 52 between a casting reel 78 and a first line guide 56 with clamp 14 oriented parallel to first parallel arm 13. In this first orientation of clamp 14 with respect to arm 13, the axis of rotation of spool 60 mounted on line spool holder 16 is parallel to the axis of rotation of the spool of casting reel 78. Turning handle 64 of casting reel 78 winds line 62 from spool 60 onto reel 78.

A second possible configuration of the alternative preferred embodiment 10' of the invention is shown in FIG. 7. Fishing line loader 10' is shown mounted on a spinning rod 52 between a spinning reel 80 and a first line guide 56. Clamp 14 is mounted at right angles to first parallel arm 13, so that the axis of rotation of spool 60 mounted on line spool holder 16 is parallel to the axis of rotation of the spool of spinning reel 80 when handle 64 is turned. Line 62 goes through the eye of hook-eye bolt 68 after leaving spool 60 and before being wound onto the spool of spinning reel 80.

As demonstrated in FIGS. 6 and 7, alternate embodiment 10' of the invention is quickly and easily adapted for loading line onto either a casting reel or a spinning reel.

The invention further encompasses alternative embodiment 10' in kit form similar to the description given above, but including hook-eye bolt 68 in place of first clamp screw 22, and with second clamp bracket 18' as an additional separate part.

While specific embodiments of the invention have been described and illustrated, it should be understood that these embodiments are provided by way of example only, and that the invention is not to be construed as limited thereto, but only by the proper scope of the following claims. For example, alternative equivalent means of clamping fishing line loader 10 to a fishing rod and of holding a spool of fishing line which are well-known in the art can be utilized without departing from the scope and spirit of the present invention.

CLAIMSWE CLAIM:

1. A fishing line loader comprising:
an open frame having first and second free ends;
5 clamping means at said first end of said frame, for
clamping said loader to a fishing rod;
spool-holding means on said second end of said frame,
for holding at least one spool of fishing line so that said
spool will rotate against an opposing frictional force when
10 said line is pulled; and
tension-adjusting means on said spool-holding means
for adjusting the magnitude of said frictional force.

2. The fishing line loader of Claim 1 further
comprising rod surface protection means for protecting the
15 surface of said rod from possible damage by said clamping.

3. The fishing line loader of Claim 1 wherein said
frame is generally "C"-shaped, with a right-angle bracket
having first and second arms of approximately equal length,
said first arm having a free end, with a longer threaded
20 third arm attached to said second arm and oriented parallel
to said first arm.

4. The fishing line loader of Claim 3 wherein said
clamping means comprises a first rod-holding groove near
said free end of said first arm, first and second
25 through-holes to either side of said groove, a clamp bar
having a central, second rod-holding groove opposite in
curvature to said first groove and further having third and
fourth through-holes to either side of said second groove
positioned to match said first and second through-holes,
30 first and second clamp screws inserted through said first
and third through-holes and said second and fourth
through-holes, respectively, and first and second clamp
nuts screwed onto free ends of said first and second clamp
screws, respectively.

5. The fishing line loader of Claim 4 wherein said clamping means further comprises first and second cushioning pads attached to said first and second rod-holding grooves, respectively.
- 5 6. The fishing line loader of Claim 5 wherein said cushioning pads comprise a neoprene material and are adhesively attached to said grooves.
7. The fishing line loader of Claim 3 wherein said spool-holding means further comprises first and second
10 cones having holes through their axes of cylindrical symmetry, said cones being disposed on said threaded third arm with their apices directed toward each other, first and second washers disposed on said threaded arm adjacent first
15 and second flat bases of said cones, a tension nut screwed onto said threaded arm between said second washer and a free end of said threaded arm, and a locknut screwed onto said threaded arm adjacent said tension nut nearest said free end of said threaded arm.
8. The fishing line loader of Claim 7 wherein said
20 cones comprise a neoprene material and said washers comprise a nylon material.
9. The fishing line loader of Claim 3 wherein said threaded arm is a bolt screwed through a tapped hole through said second arm near an end thereof furthest from
25 said first arm.
10. A fishing line loader comprising:
a first arm having a free first end and a second end;
a second arm attached to said second end of said first arm, having a first end connected to and forming
30 substantially a right angle with said first arm and having a second end;
a third arm attached to said second arm at said second

end thereof, having a first end connected to and making a substantially right angle with said second arm and having a free second end;

clamping means adjacent said first end of said first arm, for clamping said loader to a fishing rod; and

line spool holding means on said third arm for holding at least one spool of fishing line with said third arm inserted through a central hole through said spool.

11. The fishing line loader of Claim 10 further comprising tension adjusting means for adjusting a frictional force between said line spool holding means and said spool when line is pulled off said spool.

12. The fishing line loader of Claim 10 wherein said clamping means comprises a first rod-holding groove near said free end of said first arm, first and second through-holes to either side of said groove, a clamp bar having a central, second rod-holding groove opposite in curvature to said first groove and further having third and fourth through-holes to either side of said second groove positioned to match said first and second through-holes, first and second clamp screws inserted through said first and third through-holes and said second and fourth through-holes, respectively, and first and second clamp nuts screwed onto free ends of said first and second clamp screws, respectively.

13. The fishing line loader of Claim 10 further comprising rod protection means for protecting said fishing rod when said clamping means is clamped to said fishing rod.

14. The fishing line loader of Claim 13 wherein said rod protection means comprises first and second cushioning pads of a resilient material attached to said clamping means on opposed faces thereof between which said fishing

rod is to be clamped.

15 15. The fishing line loader of Claim 10 wherein said
line spool holding means comprises first and second cones
having holes through their axes of cylindrical symmetry,
5 said cones being disposed on said third arm with their
apices directed toward each other, first and second washers
disposed on said third arm adjacent first and second flat
bases of said cones, tension nut screwed onto said threaded
10 arm between said second washer and a free end of said third
arm, and a locknut screwed onto said third arm adjacent
said tension nut nearest said free end of said third arm.

16. The fishing line loader of Claim 15 wherein said
cones comprise a neoprene material and said washers
comprise a nylon material.

15 17. The fishing line loader of Claim 10 wherein said
third arm is a bolt screwed through a tapped hole through
said second arm near an end thereof furthest from said
first arm.

18. A fishing line loader kit comprising:
20 a container;
 a right-angle bracket inside said container
having first and second arms, with a tapped hole through
said first arm near a free end thereof, an axis of said
hole being parallel to said second arm, said second arm
25 having a V-shaped bend near a free end thereof with first
and second tapped through-holes to either side of said
bend;

 a threaded bolt inside said container having a
length greater than either said arm;

30 a clamp bar inside said container having a V-
shaped bend therein, with first and second through-holes to
either side of said bend, a distance between said through-
holes being the same as a distance between said through

holes in said second arm of said bracket;

first and second substantially identical cones inside said container, each having a through-hole along an axis of cylindrical symmetry of said cone large enough in diameter to accommodate a threaded part of said bolt;

first and second substantially identical washers inside said container, each having a hole there through large enough in diameter to accommodate said threaded part of said bolt;

first and second substantially identical screws inside said container with threads to match said threaded through-holes in said bracket and having small enough diameters to pass through said through-holes in said clamp bar;

first and second clamp nuts inside said container having threads to match threads on said first and second screws;

first and second substantially identical locknuts inside said container having threads to match said threaded portion of said bolt;

first and second adhesive-backed pads inside said container, each having a size to fit said V-shaped bends in said second arm of said bracket and said clamp bar; and printed directions for assembling said fishing line loader using said bracket, said bolt, said clamp bar, said first and second screws, said first and second clamp nuts, said first and second cones, said first and second washers, and said first and second locknuts.

19. The fishing line loader kit of Claim 18, wherein said bracket comprises an anodized aluminum material, said cones and said pads comprise a neoprene material, said washers comprise a nylon material, and said clamp nuts and said locknuts comprise a plastic material.

20. The fishing line loader kit of Claim 18 wherein said container comprises a plastic pouch.

21. The fishing line loader of Claim 1 wherein said clamping means is adjustable in orientation with respect to said frame and wherein said loader further includes a line directing means mounted on said frame, for changing the direction of fishing line leaving a spool held by said spool-holding means and being loaded onto a fishing reel.

22. The fishing line loader of Claim 21 wherein said line-directing means comprises a hook-eye bolt inserted through a first aperture in said frame near said first end thereof and screwed into a second, threaded aperture in said clamping means at a first end thereof, said loader further comprising a locknut on a threaded portion of said hook-eye bolt between an eye of said bolt and said frame.

23. The fishing line loader of Claim 22 wherein said clamping means comprises a first clamp bar having a curved middle portion, a second clamp bar having a middle portion oppositely curved to said middle portion of said first clamp bar, said first clamp bar having threaded apertures near first and second ends thereof, said second clamp bar having through-holes near first and second ends thereof, a clamp bolt through said second threaded aperture of said first clamp bar and said second through-hole of said second clamp bar, a first nut threaded onto a distal end of said clamp bolt, and a second nut threaded onto a distal end of said hook-eye bolt.

24. The fishing line loader of Claim 23 further comprising first and second cushioning sleeves on said middle portions of said first and second clamp bars, wherein a fishing rod clamped between said clamp bars is protected from damage.

25. The fishing line loader of Claim 10 wherein said clamping means is adjustable in orientation with respect to said frame and wherein said loader further includes a line

directing means mounted on said frame, for changing the direction of fishing line leaving a spool held by said spool-holding means and being loaded onto a fishing reel.

26. The fishing line loader of Claim 25 wherein said
5 line-directing means comprises a hook-eye bolt inserted through a first aperture in said frame near said first end thereof and screwed into a second, threaded aperture in said clamping means at a first end thereof, said loader further comprising a locknut on a threaded portion of said
10 hook-eye bolt between an eye of said bolt and said frame.

27. The fishing line loader of Claim 26 wherein said clamping means comprises a first clamp bar having a curved middle portion, a second clamp bar having a middle portion oppositely curved to said middle portion of said first
15 clamp bar, said first clamp bar having threaded apertures near first and second ends thereof, said second clamp bar having through-holes near first and second ends thereof, a clamp bolt through said second threaded aperture of said first clamp bar and said second through-hole of said second
20 clamp bar, a first nut threaded onto a distal end of said clamp bolt, and a second nut threaded onto a distal end of said hook-eye bolt.

28. The fishing line loader of Claim 27 further comprising first and second cushioning sleeves on said
25 middle portions of said first and second clamp bars, wherein a fishing rod clamped between said clamp bars is protected from damage.

29. A fishing line loader kit comprising:
a container;
30 a right-angle bracket inside said container having first and second arms, with a tapped hole through said first arm near a free end thereof, an axis of said hole being parallel to said second arm, said second arm

having a through-hole near a free end thereof;

a threaded spindle bolt inside said container having a length greater than either said arm;

5 a first clamp bar inside said container having a V-shaped bend therein, with first and second tapped holes therethrough to either side of said bend;

a second clamp bar inside said container having a V-shaped bend therein, with first and second through-holes to either side of said bend, a distance between said through-holes being the same as a distance between said through holes in said first clamp bar;

a hook-eye bolt having threads to fit said tapped holes in said first clamp bar;

15 a locknut tapped to fit said threads on said hook-eye bolt;

first and second substantially identical cones inside said container, each having a through-hole along an axis of cylindrical symmetry of said cone large enough in diameter to accommodate a threaded part of said spindle bolt;

20 first and second substantially identical locknuts inside said container having threads to match said threaded portion of said spindle bolt;

25 first and second substantially identical washers inside said container, each having a hole therethrough large enough in diameter to accommodate said threaded part of said spindle bolt;

30 a screw inside said container with threads to match said threaded through-holes in said first clamp bar and having a small enough diameter to pass through said through-holes in said second clamp bar;

first and second clamp nuts inside said container having threads to match threads on said first and second screws;

35 first and second adhesive-backed pads inside said container, each having a size to fit said V-shaped bends in said second arm of said bracket and said clamp bar; and

printed directions for assembling said fishing line loader using said bracket, said spindle bolt, said clamp bars, said hook-eye bolt, said screw, said first and second clamp nuts, said first and second cones, said first and second washers, and said locknuts.

30. The fishing line loader kit of Claim 29, wherein said bracket comprises an anodized aluminum material, said cones and said pads comprise a neoprene material, said washers comprise a nylon material, and said clamp nuts and said locknuts comprise a plastic material.

31. The fishing line loader kit of Claim 29 wherein said container comprises a plastic pouch.

1/2

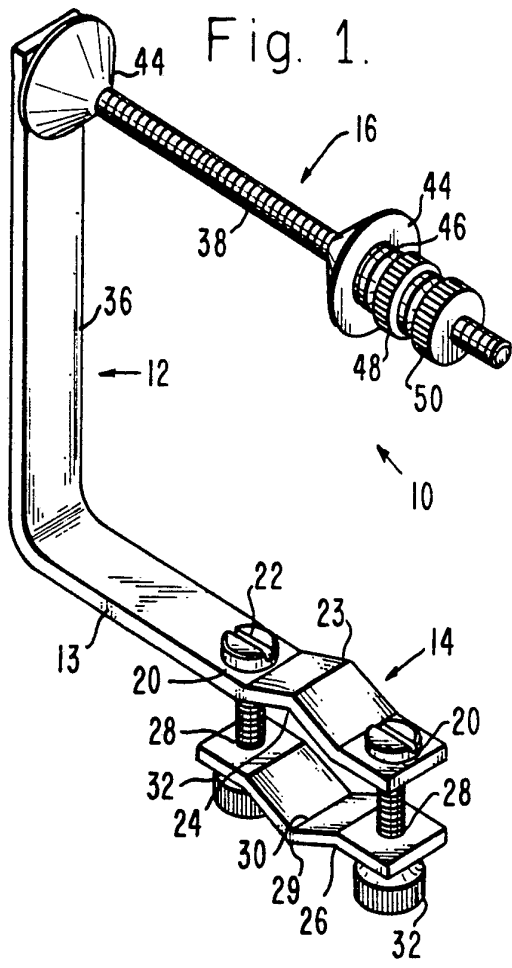


Fig. 1.

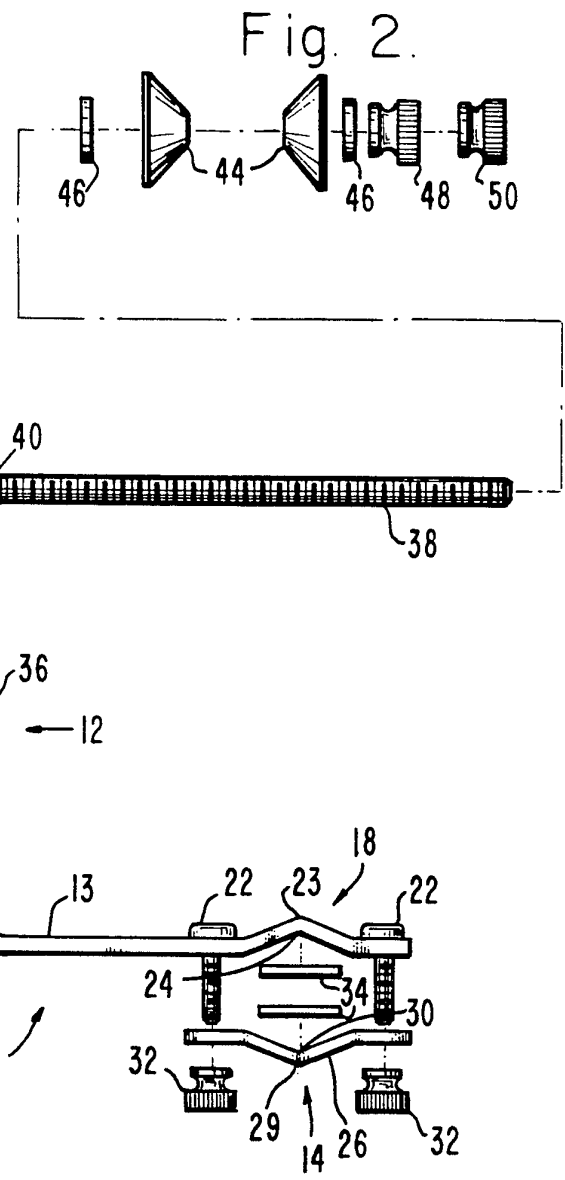


Fig. 2.

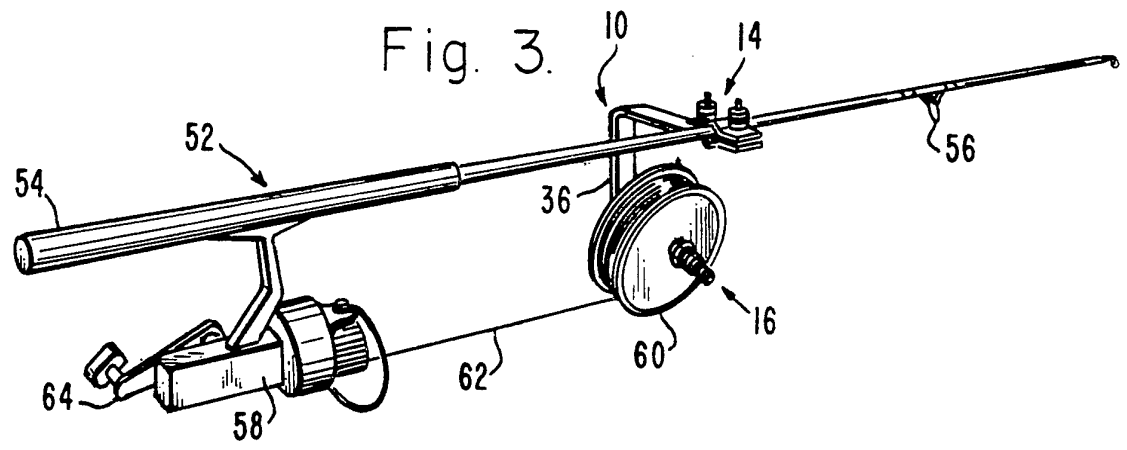


Fig. 3.

2/2

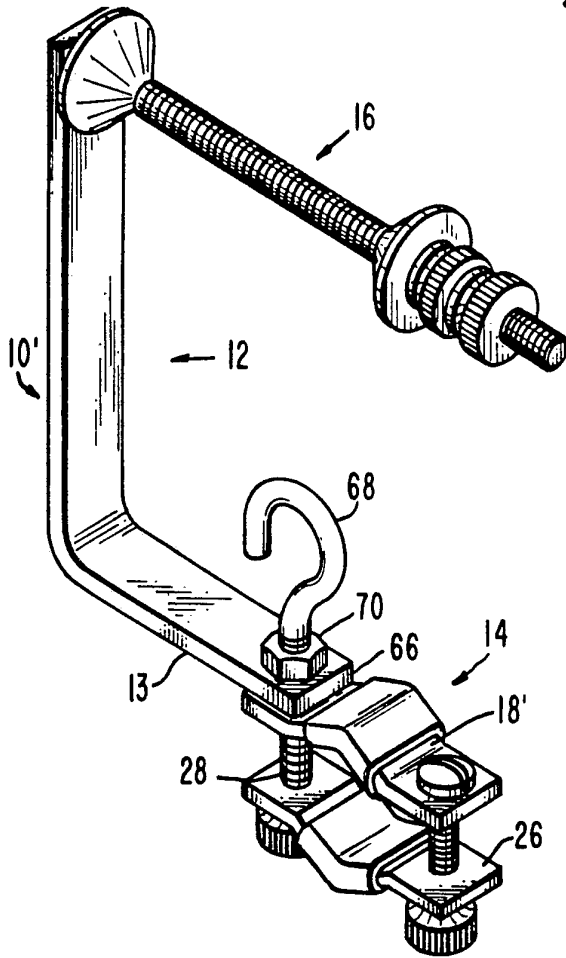


Fig. 4.

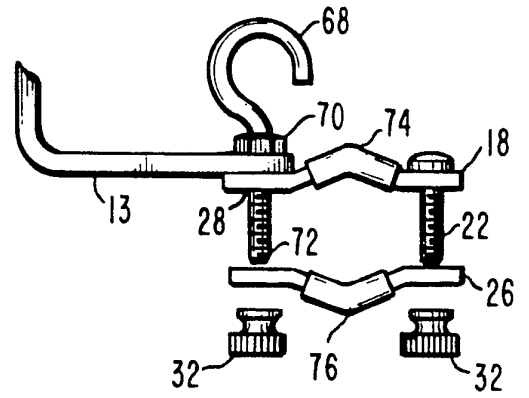


Fig. 5.

Fig. 6.

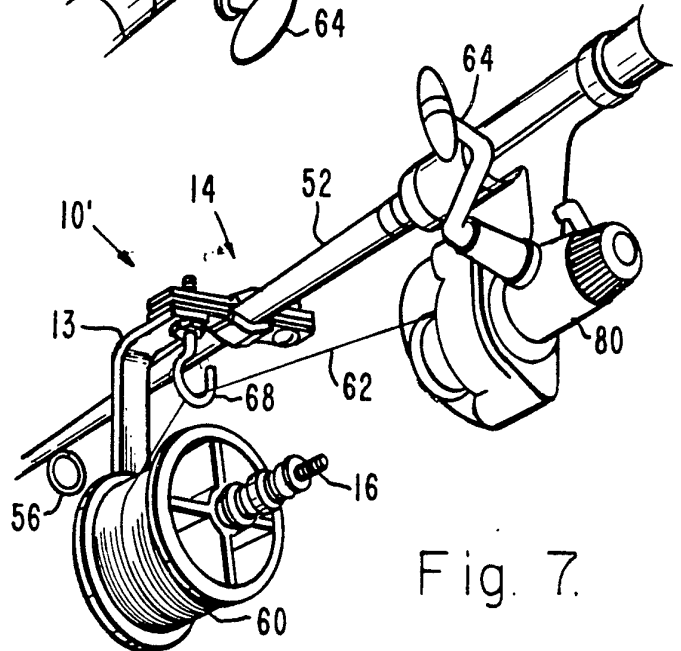
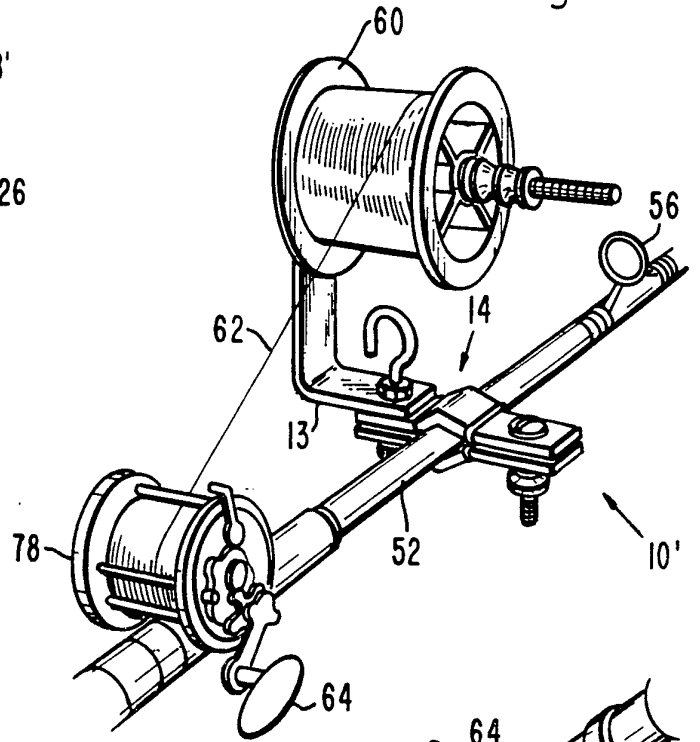


Fig. 7.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US91/08611

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC		
IPC(5): A01K 97/00, A01K 89/00, A01K 47/06		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
U. S.	43/25 242/106, 129.51, 129.6	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹		
Category [*]	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X Y	US, A, 3,026,059 (DENNLER) 20 MARCH 1962 (See entire document).	1, 3, 10, 11 2, 5, 6, 12, 13, 14, 21, 25
X	US, A, 3,951,354 (BAGBY) 20 APRIL 1976 See entire document.	1, 10, 11
Y	US, A, 3,629,966 (SANCHEZ) 28 DECEMBER 1971 See entire document.	4, 12
A	US, A, 3,685,761 (ZELINSKI) 22 AUGUST 1972 See entire document.	
A	US, A, 2,007,705 (BRUGGER) 09 JULY 1935 See entire document.	
<p>[*] Special categories of cited documents: ¹⁰</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&" document member of the same patent family</p>		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search		Date of Mailing of this International Search Report
25 FEBRUARY 1992		13 MAR 1992
International Searching Authority		Signature of Authorized Officer
ISA/US		KURT ROWAN