

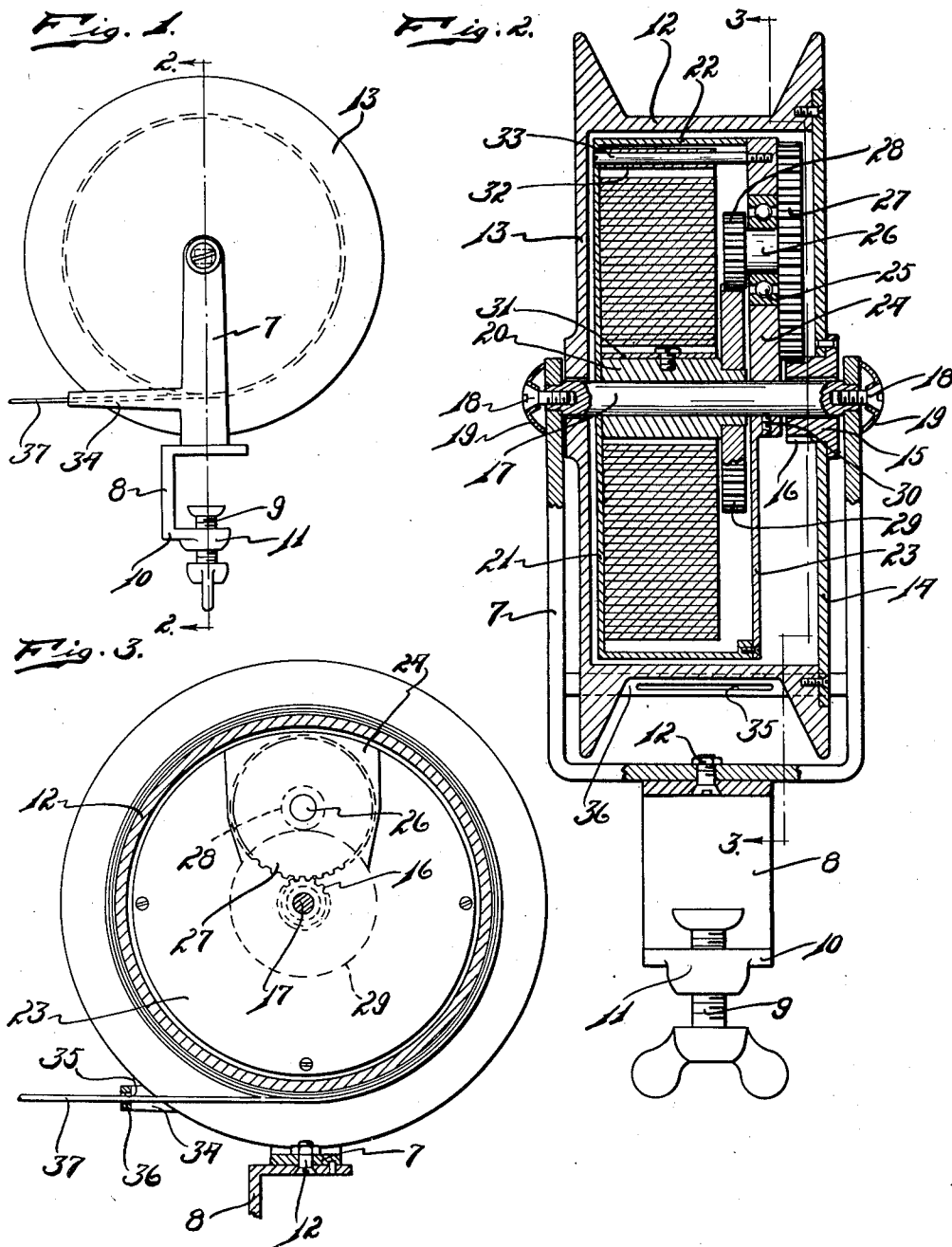
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1,944,264

REEL

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REEL

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1 Claim. (Cl. 242—108)

Our invention relates to a new and useful improvement in a reel adapted primarily as a reel for winding fish lines thereon and particularly adapted for use as a fish line reel in trolling or chugging.

It is an object of the present invention to provide a reel which will be self winding when the cord is unwound therefrom and which will permit the winding on the reel of a maximum amount of cord.

Another object of the invention is the provision of a mechanism whereby the spring used for rotating the reel for winding purposes will vary slowly in its tension as the unwinding or winding is carried on.

Another object of the invention is the provision of a reel of this class which will be simple in structure, economical of manufacture, and highly efficient in use.

Other objects will appear hereinafter.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by a reference to the accompanying drawing which forms a part of this specification, and in which,

Fig. 1 is a side elevational view of the invention.

Fig. 2 is a central vertical sectional view of the invention.

Fig. 3 is a view taken on line 3—3 of Fig. 2.

In the invention we provide a U shaped supporting frame 7 attached to which is a clamping bracket comprising the U shaped portion 8 having the clamping screw 9 threaded into the leg 10 which is provided with the boss 11 to afford the necessary body for threading. This bracket 8 may be rotated relatively to the U shaped support 7 and secured by the nut 12 in various positions of angularity relatively thereto so that when the clamping bracket is secured to a suitable support on a body or the like, the line may project therefrom at the proper angle and the reel maintained in proper alignment to the direction of projection of the line. A winding drum is provided which is formed cup shaped with the peripheral winding surface 12 and the side wall 13. A plate 14 serves to co-operate with the hub 15 as a closure for the open end of the drum. This hub 15 is provided with the toothed neck 16 which serves as a gear, and this hub is rotatably mounted on the shaft 17 which projects through and is journaled in the legs of the U shaped support 7. Screws 18 are projected through the

contact members 19 to secure the shaft 17 in position and to resist rotation thereof.

Mounted loosely on the shaft 17 within the drum is a hub 20 which projects through a cup shaped spring housing having the side wall 21, the cylindrical wall 22 and the removable wall 23. As shown, the shaft 17 is projected through the enlarged portion 24 of the wall 23 and keyed thereto by the set screw 30. Journaled in a suitable bearing 25 in this enlarged portion is a shaft 26 on which is fixedly mounted the gear 27 which is much larger than, and which meshes with, the gear 16. Rotating with the shaft 26 is a small gear 28 which meshes with a larger gear 29 which is fixedly mounted on the hub 20. Coiled about the hub is a leaf spring having one end 31 secured to the hub 20 and the other end 32 secured to the pin 33 which projects through the walls 21 and the enlarged portion 24.

The operation is such that when the drum on which the cord is wound is rotated, the gear 16 will be rotated to cause a rotation of the gears 27, 22 and 29, thus rotating the hub 20 and effecting a winding or unwinding of the spring. It is obvious that the rotation of the hub 20 is considerably slower than the rotation of the winding drum so that but a slight variation of the spring is effected in comparison to the rotation of the winding drum.

Projecting outwardly from the U shaped support 7 is a U shaped guide bracket 34 having a slot 35 formed in its bight 36 for guiding the cord 37 which is wound on the drum.

With a reel constructed in this manner, a compact, durable device is provided and one which will permit a maximum amount of cord to be wound thereon and unwound therefrom.

While we have illustrated and described the preferred form of construction of our invention, we do not wish to limit ourselves to the precise details of structure shown, but desire to avail ourselves of such variations and modifications as may come within the scope of the appended claim.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

A reel of the class described comprising: a supporting structure; a stationary shaft mounted on said supporting structure; a winding drum mounted concentrically rotatable on said shaft; a gear rotatably mounted on said shaft and connected to said drum; a stationary housing positioned within said drum, said housing having oppositely disposed side walls and said shaft pro-

jecting concentrically through said side walls, one
of said side walls having the major portion there-
of of increased thickness, said shaft projecting
through the lower end of the thickened portion
5 of said side wall; a hub positioned within said
housing and rotatable on said shaft; a spring
positioned in concentric relation about said hub
and connected at one end thereto, the opposite
end of said spring being connected to the side

walls of said housing adjacent the outer edges
thereof; a gear fixedly mounted on said hub; a
shaft journaled in the thickened portion of said
side wall; a gear on the inner end of said shaft
meshing with the gear on said hub; and a gear
on the outer end of said last mentioned shaft
meshing with the first mentioned gear.

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