N° 14,871 A.D. 1913

Date of Application, 27th June, 1913
(Patent of Addition to No. 15,670, 29th June, 1910)
Complete Specification Accepted, 27th Nov., 1913

COMPLETE SPECIFICATION.

Improvements in Fishing Winches.

I, CHARLES FITZROY FARLOW, of 10, Charles Street, St. James' Square, London, S.W., Fishing Tackle Manufacturer, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to fishing winches and consists of improvements in the automatic braking device described in the Complete Specification of my Letters Patent No. 15,670 of 1910.

The above referred to braking device acted in such manner that it automatically exerted on the bobbin of a fishing winch a drag proportional to the *vis inertia* of the bobbin. With a view to obtaining the above described result I proposed to employ a fan or fly mounted on an extension of the shaft of the bobbin of the winch or a plurality of fans or flies connected by gearing to said bobbin shaft.

The object of the present improvements, which are primarily intended to be applied to winches used in fishing tournaments, is to so construct and arrange the parts of a braking device of the above described nature that at the commencement of a cast there shall be no braking action, or in other words that the bobbin of a fishing winch shall then run free, and to so construct and arrange said parts that the user of the winch can regulate the time during which the bobbin shall be running free.

The above described object is preferably effected by providing the boss or hub of the fan or fly which is mounted on the extension of the shaft carrying the bobbin of the winch with an internal screw thread and said extension with a corresponding screw thread and with a nut or a nut and lock-nut for determining the initial position of the fan or fly. When several fans or flies mounted on separate spindles connected by gearing to the shaft of the bobbin are employed, as illustrated in Fig. 9 of the Complete Specification of Letters Patent No. 15,670 of 1910, the fans or flies and the spindles on which they are mounted would be similarly provided with interengaging screw threads.

The invention is illustrated by the accompanying drawings.

Of these drawings Fig. 1 is a part elevation and part section of a fishing winch provided with the present improvements. Fig. 2 is a front view of certain mechanism shown in Fig. 1 which may be used with said improvements. Fig. 3 is an end view of a fan or fly. Figs. 4 and 5 are a side view and an end elevation illustrating a detail of construction.

Referring now to these drawings, 1 is the frame of a fishing winch and 2 is the bobbin thereof. 3 is a housing or casing for the reception of a fan or fly, similar to the corresponding housing or casing illustrated in the drawings accompanying the Complete Specification of my said Letters Patent No. 15,670 of 1910 except that it is made of greater depth.

Referring now to the parts of the present invention, as carried out in the

[*Price 8d.*]

embodiment thereof illustrated by the accompanying drawings, the shaft, not shown, to which the bobbin 2 is fixed is provided with an extension 4 which is formed on its exterior with a fine screw thread, say a screw having 64—100 threads to the inch, and the boss or hub 5^1 of the fan or fly 5 is provided with an internal screw thread corresponding to the screw thread on the extension 4 of the bobbin shaft. With a view to enabling the user of the winch to employ fans or flies of different widths, which would be necessary when the winch was to be used in fishing tournaments, and also with a view to facilitating construction, the internal screw thread with which the boss or hub 5^1 of the fan or fly 5 is provided instead of being cut in said boss or hub is formed in a separate sleeve 6 of short length which is adapted to snugly fit the interiors of the bosses or hubs of a set of fans or flies of different width. A driving connection between said sleeve and bosses or hubs is effected in any suitable manner such as by providing the sleeve 6 with a spline or feather 7 and the boss or hub 5^1 of each fan or fly with a corresponding recess 8, see Fig. 3. The sleeve 6 would preferably be formed at its front end with a flange 9 and a shoulder 10 be provided at the front end of the screwed extension 4 of the bobbin shaft. The screwed extension 4 of the bobbin shaft would be fitted with a nut 11 or with a nut and lock-nut so as to enable the initial position of the fan or fly, shown in chain lines in Fig. 1, to be varied according to requirements. A rubber washer 12 or other suitable device is placed on the extension 4 of the bobbin shaft in front of the shoulder 10 so as to prevent the shock which would otherwise occur if the flange 9 was allowed to contact with the shoulder 10.

The fans or flies are preferably constructed in the manner illustrated by Fig. 3, that is to say consist of a solid boss or hub 5^1, of diamond shape on its exterior, and of two strips 5^{11} soldered or otherwise secured to said boss or hub 5^1 and to one another. The strips 5^{11} are preferably stiffened by means of centrally disposed corrugations extending throughout their entire length.

The action of the present improvements will be understood from an examination of Fig. 1 and the following description:—

The user of the improved winch by adjustment of the nut 11 regulates the initial position of the fan or fly 5 according to the number of revolutions of the bobbin during which it is desired that the bobbin shall run free. At the commencement of the cast the fan or fly 5 will be in, say, the position shown by chain lines in Fig. 1 and during the first part of the cast the fan or fly 5 will owing to the resistance of the air in the housing or casing 3 be screwed on to the extension 4 of the bobbin shaft and during this time the fan or fly will not exert a braking action on the bobbin of the winch. As soon however as the flange 9 bears against the rubber washer in front of the shoulder 10 the fan or fly 5 will be locked to the bobbin shaft and braking of the bobbin will take place.

Obviously two fans or flies could be mounted on the screwed extension 4 of the bobbin shaft, and the initial positions of these fans or flies be determined by the adjustment of separate nuts.

As will be readily understood the above described improvements can be applied to a fishing winch provided with a plurality of fans or flies rotating on separates axes, as illustrated in Fig. 9 of the drawings attached to the Complete Specification of my Letters Patent No. 15,670 of 1910.

A fishing winch constructed in accordance with the present invention would be provided with means by which the bobbin shaft can, during a cast, be disconnected from the winding handle. When the arrangement of winding handle 13, toothed wheel 14 and toothed pinion 15 shown in Figs. 1 and 2 is employed the driving wheel 14 could be disengaged from the pinion 15, in opposition to the action of a spring controlling the position of said driving wheel, by means of a crutch 16 slidably mounted on the winch frame 1 and provided on its front face with an inclined surface 17.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. An improvement in the braking device for fishing winches described in the Complete Specification of Letters Patent No. 15,670 of 1910 consisting in constructing and arranging the parts of said braking device so that the bobbin will run free during the first part of the cast, substantially as described herein.

2. A braking device in accordance with the preceding claim in which the fan or fly or fans or flies are provided with screwed bosses or hubs and the shaft or shafts on which the fan, fly or flies are mounted are provided with corresponding screw threads, substantially as described herein.

3. A fan or fly for the purposes of the present invention consisting of an internally screwed sleeve and of a main part comprising fan blades and a hollow boss or hub which snugly fits the exterior of said screwed sleeve and is adapted to be readily placed on and removed therefrom, substantially as described herein.

Dated this 27th day of June, 1913.

C. F. ENNIS,
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For the Applicant.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1913.

A.D. 1913. JUNE 27. No. 14,871.
FARLOW'S COMPLETE SPECIFICATION.

(1 SHEET)

[This Drawing is a reproduction of the Original on a reduced scale.]

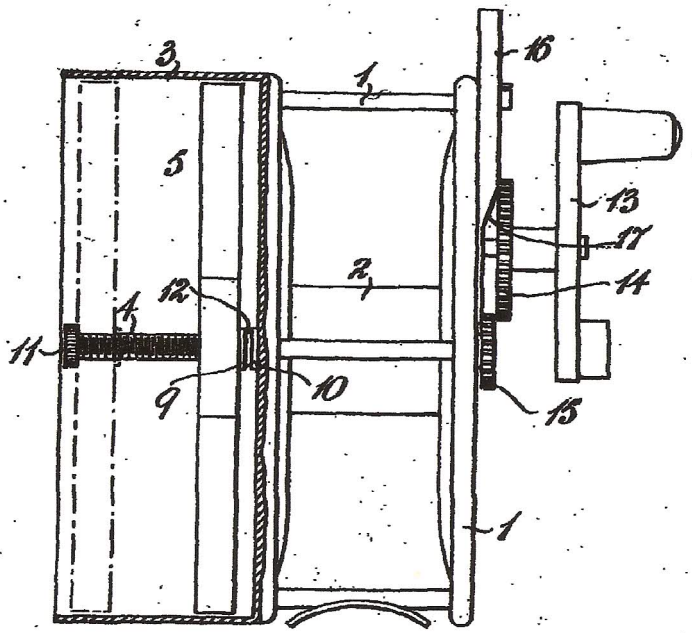

Fig. 1.

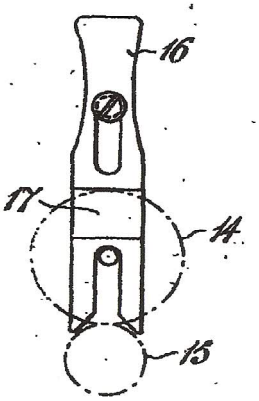

Fig. 2.

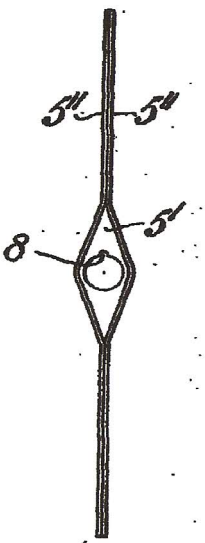

Fig. 3.

Fig. 4.

Fig. 5.

Malby&Sons, Photo-Litho.