

No. 643,538.

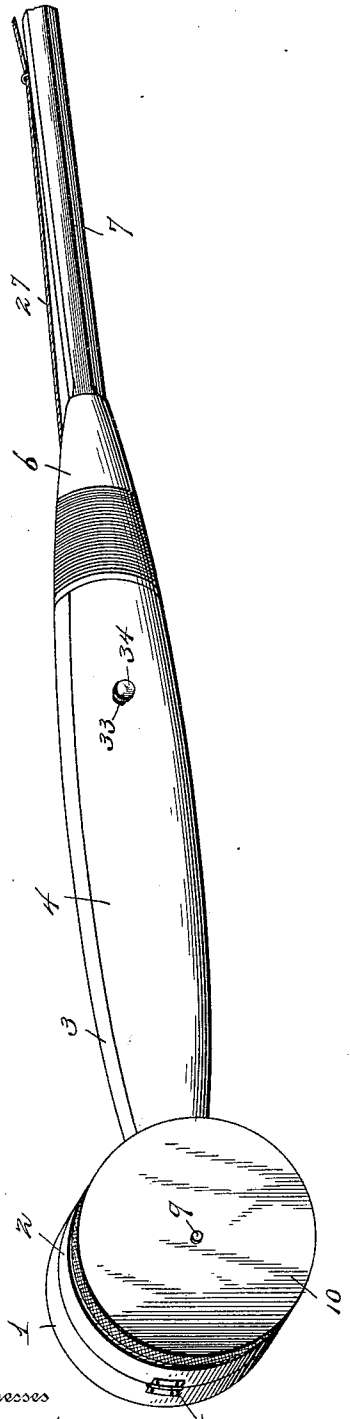
Patented Feb. 13, 1900.

T. ROSS.
FISHING ROD REEL.

(Application filed Sept. 14, 1899.)

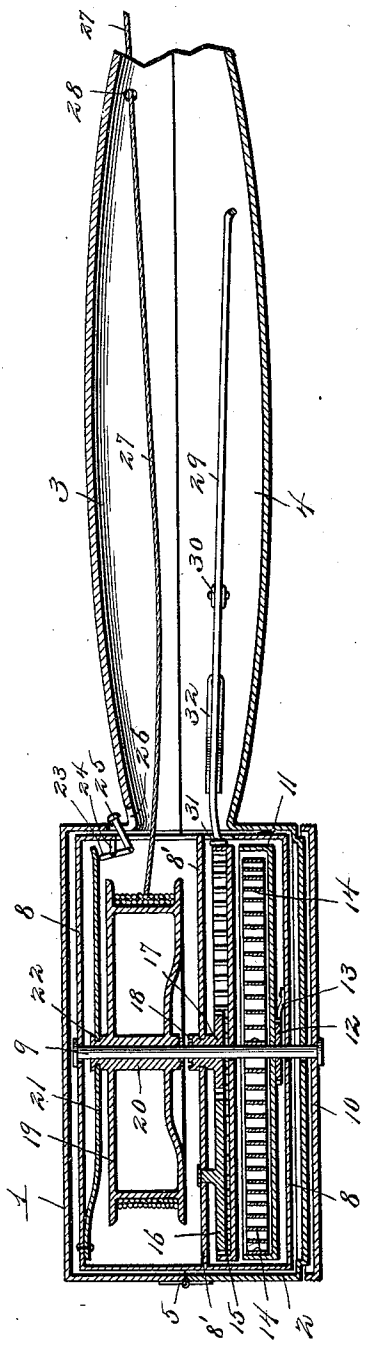
(No Model.)

FIG. 1.



Witnesses
Harry L. Amer.
H. A. Nau.

FIG. 2.



Inventor
Taylor Ross.
By V. D. Stockbridge,
his Attorney

UNITED STATES PATENT OFFICE.

TAYLOR ROSS, OF SODOM, NEW YORK.

FISHING-ROD REEL.

SPECIFICATION forming part of Letters Patent No. 643,538, dated February 13, 1900.

Application filed September 14, 1899. Serial No. 730,485. (No model.)

To all whom it may concern:

Be it known that I, TAYLOR ROSS, a citizen of the United States, residing at Sodom, in the county of Warren and State of New York, have invented a certain new and useful Fishing-Rod Reel, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to a novel construction of reel for use on fishing-rods, and is designed to form a handle extension of the rod or hand-grip readily applicable to and movable from the rod when required and to be automatic in its action for winding in the line.

It consists in a divided hand-grip and casing inclosing the reel mechanism, the casing being formed at the inner end of and preferably integral with the divided handle or hand-grip, to the outer end of which the heel end of the rod or inner first section thereof is adapted to be applied, the sections or parts of the divided hand-grip and casing being hinged at the inner or heel end of the latter opposite the hand-grip.

It further consists of the arrangement within said casing of a spring-actuated reel for winding up the line and of the spring and the gearing connecting said spring with the reel for actuating the latter, in the arrangement of the clutch for throwing the reel into and out of engagement with its actuating mechanism and of the brake-lever for controlling the reel-actuating gear, and in certain details of construction and arrangement of parts of the reel mechanism, as hereinafter described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of the improved divided reel-casing and hand-grip, showing the inner end of a section of a fishing-rod applied thereto; and Fig. 2 represents a longitudinal section through the reel and casing and a portion of the divided hand-grip, taken at right angles to the line of division of the hand-grip and casing.

1 and 2 indicate the two parts of the divided casing, and 3 and 4 the two parts of the hand-grip or handle connected to one side of the periphery of the casing, the parts of which at the opposite side are connected by a hinge, (indicated at 5.) The two parts of the casing when closed are held united by means of a

ferrule 6, applied to the outer end of the hand-grip, said ferrule being adapted to be applied thereto by being screw-threaded thereon or in any other suitable manner. The casing is made preferably in the cylindrical form shown in Fig. 1 and is at the extreme outer end of the hand-grip. The ferrule 6 at its outer end is adapted to receive the inner end of the inner section of a fishing-rod, (indicated at 7.)

Within the casing is located a gear-frame 8, in which is mounted a through-shaft 9, adapted to turn loosely in its bearings in said frame, said shaft extending at one side beyond the casing through an opening therein and having rigidly secured to its projecting end a flanged disk 10. The portion 2 of the divided casing has an annular rabbet on its outer face, within which the flange of the disk 10 fits, as shown in Fig. 2. The outer edge or periphery of this flanged disk is milled or roughened, as indicated, for adapting it to be grasped and rotated by hand for rotating the shaft 9.

Within the casing 8, adjacent to the side upon which the rim 10 is mounted, is mounted loosely a flanged disk 11, having upon its outer or lower face a ratchet-disk 12, with which a pawl 13, secured to the frame at one end, engages for holding the disk 11 against backward movement. Within the flanged disk 11 is mounted a coiled spring 14, at one end secured to the shaft 9 and its opposite end secured to the inner face of the flange of the disk 11. By the arrangement of the parts described it will be seen that when the disk 10 is rotated the shaft 9 will be carried with it and the spring 14 will be wound thereon, the backward rotation of the shaft being prevented by the pawl-and-ratchet connection 12 and 13 referred to.

Adjacent to the flanged disk 11 is an internally-toothed flanged disk or rim 15, rigidly secured to and rotating with the shaft 9. The gear-frame 8 is provided with a central longitudinal bar 8', in which is journaled a gear-wheel 16, which engages the internally-gearred rim 15, receiving motion therefrom.

17 indicates a pinion journaled loosely on the shaft 9 and having a bearing within the transverse frame bar or partition 8' by means of a hub extending through said bar. The inner face of this hub is provided at 18 with a clutch-face made in any suitable form, and

adjacent thereto upon the shaft 9 is loosely mounted the reel 19, having a central hub or sleeve 20, the end of which adjacent to the hub of the pinion 17 is provided with a clutch-face corresponding to that on the end of the hub of said pinion. The sleeve 20 of the reel 19 is adapted to slide endwise on the shaft for adapting it to be thrown into and out of engagement with the pinion in a manner that will be readily understood. To the inner face of the casing is secured one end of a flat spring 21, which extends across the casing and is provided at 22 with a yoke or fork adapted to engage a peripheral groove in the outer end of the hub or sleeve 20 of the reel. The free end of the spring 21 overhangs a lever 23, pivoted intermediate its ends in an inwardly-projecting stud or arm 24. The lower end of this lever 23 has pivoted to it a push-button rod 25, which when the casing is closed projects outwardly through an opening 26 in the side wall of the casing and the adjacent end of the hand-grip, said opening being large enough to permit the button to pass through the opening when the casing is opened. The inner or upper end of the lever 23 is adapted to press against the spring 21, overcoming its tension and throwing the reel out of engagement with the hub of the pinion 17, thereby leaving the reel free to rotate upon its shaft for the paying out of the line, which is indicated at 27 and which passes from the reel out through an opening 28 in the upper portion of the divided hand-grip.

29 indicates a brake-lever pivoted at 30 in a suitable lug on the inner face of the hand-grip, as shown. Said lever is provided at its heel end with a brake-shoe 31, held normally in engagement with the periphery of the geared rim 15 by means of a spring 32. The outer end of this brake-lever passes through an opening 33 in the lower portion of the hand-grip and is provided with a push-button 34, by means of which it can be operated for removing the brake-shoe from the geared rim, leaving the latter free to be actuated by the spring 14 for actuating the reel through the mechanism described for automatically winding up the line. The line, as stated, passes out through the opening 28 and thence through suitable guides on the rod, said guides, and also the rod itself, being of any usual or preferred construction.

By the construction described the reel mechanism is brought into compact form within the divided casing, and the latter being located at the extreme inner end of the hand-grip opposite to that to which the rod is applied serves by its weight to counterpoise the weight of the rod in a manner that will be readily understood. The flanged disk 10, which serves to wind up the spring, is preferred, as it presents no projecting part liable to interfere with the operation of throwing out or drawing in the line, but it will be apparent that any suitable form of lever may be used in lieu of the disk. The casing, together with the gear-frame

and the hand-grip, is preferably made of metal, and the casing and gear-frame may be made of sufficient weight, in connection with the gearing, reel, and springs, to effectually counterbalance the weight of the rod applied to the opposite end of the hand-grip.

Having thus described the invention, what is claimed as new, and sought to be secured by Letters Patent, is—

1. A hand-grip with a reel-casing at its rear end divided lengthwise, the parts being hinged at said end and provided at the forward or outer end with means for securing the casing and hand-grip in a closed position and for engaging the rod.

2. A divided hand-grip for a fishing-rod carrying at one end a divided reel-casing and adapted at the other end to receive a fishing-rod, the casing being arranged to counterbalance the weight of the rod, substantially as described.

3. A fishing-rod reel comprising a divided casing, the parts of which are hinged at one side and provided at the opposite side with a divided hand-grip adapted at its outer end to receive the inner end of a fishing-rod, a gear-frame within said casing, a shaft journaled in said frame, a spring secured to said shaft, a reel journaled on said shaft, gearing connecting said shaft and reel, and means for throwing said reel into and out of engagement with its actuating mechanism.

4. A divided fishing-rod hand-grip and reel-casing, in combination with a gear-frame secured within said casing, a through-shaft journaled in said frame, a spring secured at one end to said shaft and at the opposite end to a disk having a pawl-and-ratchet connection with the shaft, a reel loose on said shaft, an internally-toothed rim or gear-wheel fast on said shaft, a pinion loose on said shaft, geared to said rim and carrying a clutch adapted to engage a corresponding clutch on the sleeve of the reel, substantially as described.

5. In a fishing-rod reel, the divided casing therefor, having its parts hinged and provided with a divided hand-grip arranged on the opposite side of the casing from the hinge, a gear-frame within said casing, a through-shaft journaled in said frame, a coiled spring secured at one end to said shaft, a flanged disk having a pawl-and-ratchet connection with the shaft and to which the outer end of the spring is secured, an internally-toothed rim fast on the shaft, a reel geared to said rim, a brake for engaging said rim for preventing backward movement, means for releasing said brake, and means for releasing the reel from its actuating mechanism.

6. A fishing-rod reel comprising a gear-frame, a divided casing therefor, a through-shaft journaled in said frame, a flanged disk having a pawl-and-ratchet connection with the shaft, a coiled spring secured at its inner end to the shaft and at its outer end to said disk, an internally-toothed rim or gear-wheel

fast on the shaft, means for operating the shaft to wind up the spring, a reel loose on the shaft geared to said rim, and means for throwing said reel out of engagement with its
5 actuating-gearing.

7. The combination with a fishing-rod reel and its spring-actuated mechanism, of a divided casing therefor, a divided, hollow hand-grip to one end of which said casing is at-
10 tached and through which the line passes from the reel to the rod at the opposite end of said hand-grip, a supporting-frame within

said casing, a gear-shaft journaled in said frame and geared to said reel, and means fast on said shaft outside the casing for rotating
15 the shaft for winding up the spring, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

TAYLOR ROSS.

Witnesses:

W. T. BENTLY,
H. PRIOR KING.