No. 754,516. PATENTED MAR. 15, 1904.

F. W. TEMPLE.

TENSION DEVICE.

APPLICATION FILED MAR. 14, 1903.

NO MODEL.

Fig. 1

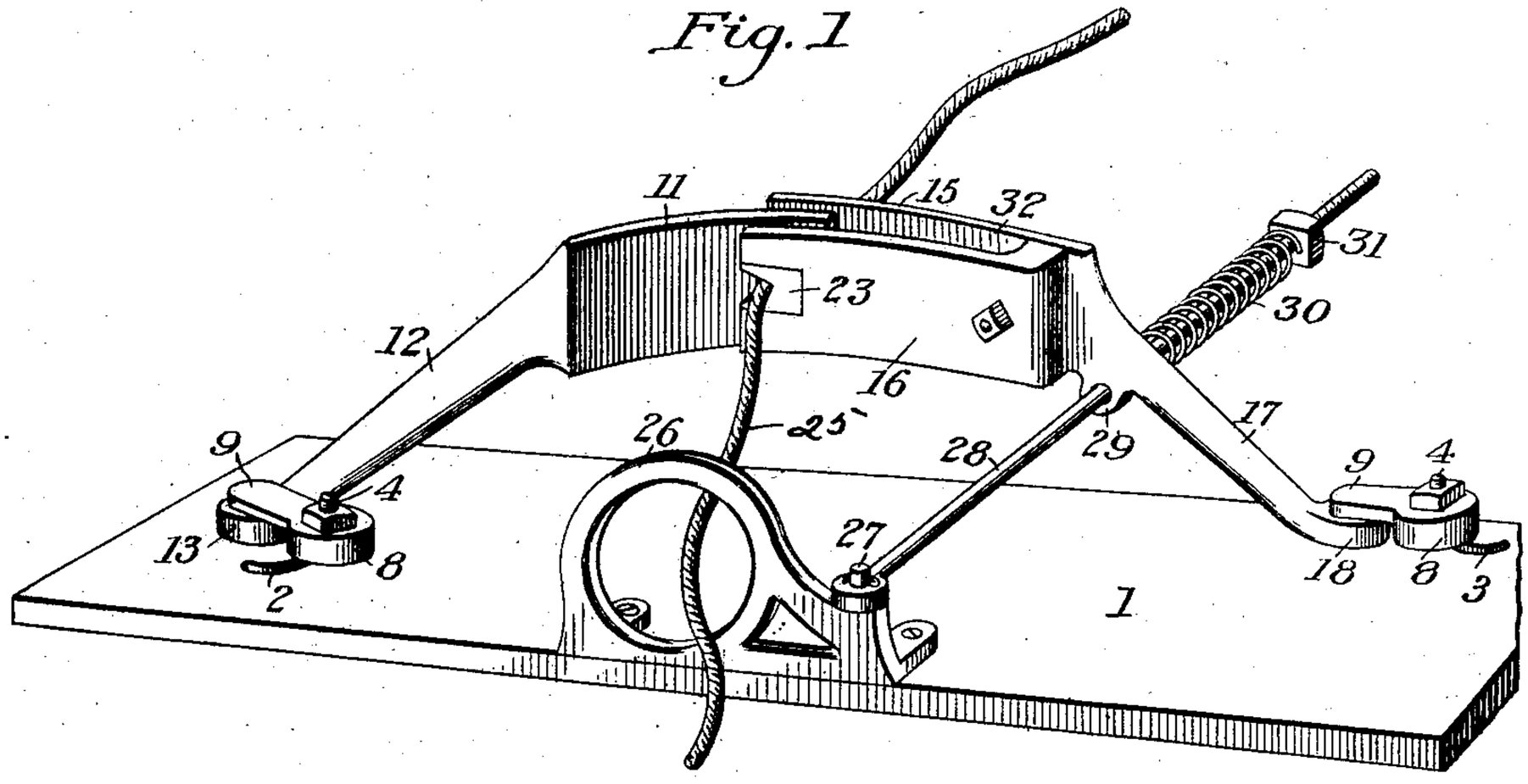


Fig. 2.

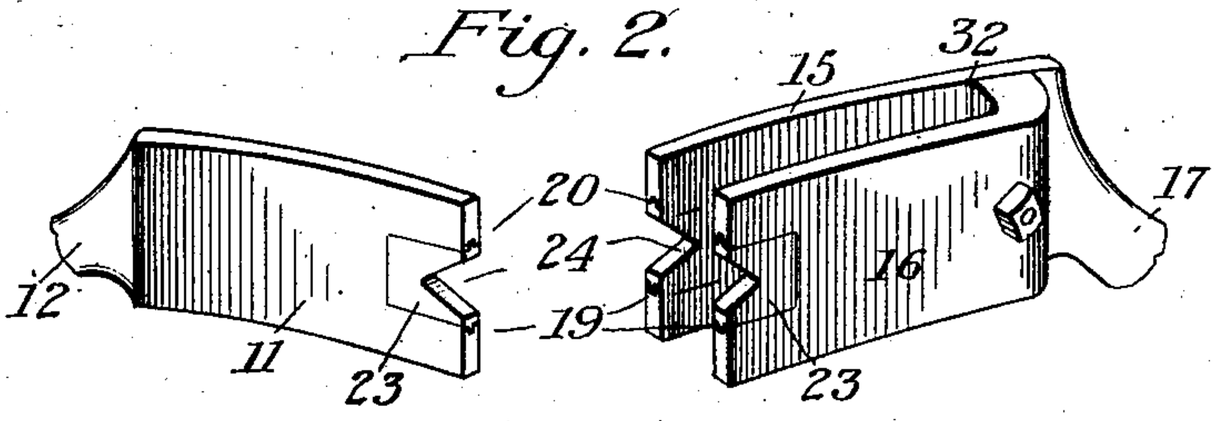


Fig. 3.

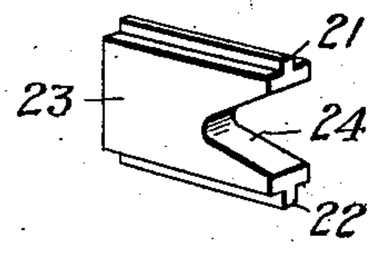
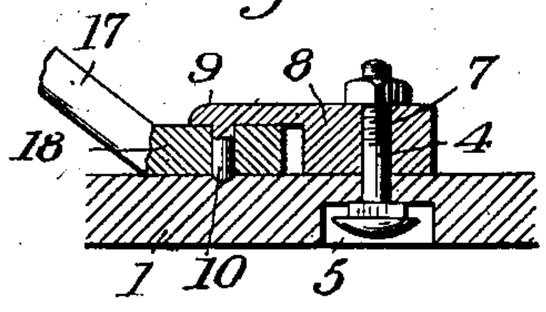


Fig. 4.



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No. 754,516. Patented March 15, 1904.

UNITED STATES PATENT OFFICE.

FRED W. TEMPLE, OF CANOVA, SOUTH DAKOTA.

TENSION DEVICE.

SPECIFICATION forming part of Letters Patent No. 754,516, dated March 15, 1904.

Application filed March 14, 1903. Serial No. 147,866. (No model.)

To all whom it may concern:

Be it known that I, FRED W. TEMPLE, a citizen of the United States, residing at Canova, in the county of Miner and State of South Dakota, have invented new and useful Improvements in Tension Devices, of which the following is a specification.

This invention relates to tension devices, being particularly designed for use in connection with the trolling-line of a ship's log.

The object of the invention is to provide means for taking up the slack in the line when the vessel's speed is retarded or when its propulsion ceases.

Heretofore difficulty has been experienced in obtaining a correct record of the actual distance traversed by a vessel, owing to the fact that when the speed of the vessel was retarded or when it ceased to move considerable slack occurred in the line, and the distance that the vessel was required to traverse upon starting before the slack was overcome did not appear upon the indicator of the log. By the use of this invention, however, the exact distance traversed by the vessel can be recorded. It also frequently happens that the log becomes entangled in the propeller of the vessel or becomes detached from its line and unless some means is utilized for denoting the parting of the line this fact does not become known immediately. By using a device constructed in accordance with my invention, however, the loss of the log will be instantly indicated.

Broadly stated, the invention consists of a pair of pivoted interlocking jaws for gripping the trolling-line and a tension-spring associated with the jaws to move them on their pivots when the resistance of the log to the spring is relieved.

The invention further consists in certain novel details of construction and combination of parts to be specifically described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a tension device constructed in accordance with my invention. Fig. 2 is a fragmentary perspective view of the interlocking ends of the tension-jaws. Fig. 3 is a detail perspective view of one of the removable teeth; and Fig. 4 is a fragmentary vertical sectional view through a portion of the base or support, one of the standards for the jaws, and the clip for securing to the support.

The reference-numeral 1 designates a base which is approximately rectangular, and at the diagonally opposite ends oppositely-curved slots 2 and 3 are formed for the reception of arcuately-movable vertically-arranged bolts 4, one for each slot. The head of the bolt projecting through each slot rests in a recess 5 on the under side of the support, and the shank of the bolt projects through an opening 7, centrally disposed in a block 8, from which projects a horizontally-disposed arm 9, carrying at its free extremity a depending finger or lug 10. The block, arm, and finger constitute a clip whereby its co-operating jaw will be pivotally secured to the support. The jaw 11 is arcuate in form, being superimposed above the support by a standard 12, on the lower extremity of which is formed a disk or foot 13, having a concentric perforation 14, which is engaged by the depending finger 10 of the clip. The finger 10 constitutes a journal on which the standard 12 is permitted to swing. The forward or free extremity of the blade 11 interlocks between two parallel coinciding blades 15 and 16, constituting a second jaw, supported upon a standard 17, oppositely disposed with relation to the standard 12 and formed with a foot 18, corresponding to the foot 13 of the standard 12. This standard is secured to its support 1 in the same manner as the standard 12, the only difference being in the direction of the curve of the slot in the support.

The free interlocking ends of the plates 11, 15, and 16, forming the jaws of the tension device, are provided with slots or cut-out portions which aline with each other and each cut-out portion is formed with vertical edge grooves 19 and 20 for the reception of the vertical ribs or guide flanges 21 and 22, formed on the opposite longitudinal edges of a vertically-disposed approximately rectangular tooth 23, each tooth being removably secured in its slot or cut-out portion. A notch or groove 24 is formed in the outer edge of each tooth, and the edges of the notch or groove 24

converge from the upper and lower portions toward the center to afford a positive gripping-surface for the trolling-line 25. This line is guided into proper relative relation with the respective jaws by an eye or loop 26, formed or secured to one of the longitudinal edges of the support 1. The eye or loop 26 also carries an upwardly-projecting pin or journal 27, on which is secured an elongated rod 28, passing through a perforation in the ear or projection 29, depending from the standard 17. A convolute spring 30 surrounds the rod 28, and one end of said spring bears against the standard 17, while the other end abuts against an adjusting or tension nut 31, threaded on the free end of the rod 28. This nut 31 can be adjusted on the rod 28 to increase or diminish the expansive force of the spring 30, thereby governing the amount of resistance required to retain the jaws in their normal position. The normal positions of the jaws are shown in Fig. 1, in which the interlocking ends of the jaws are shown in such positions that the end of the jaw 11 is at the forward extremity of the slot 32, formed by the parallel plates 15 and 16 of the opposing jaw, This position will be maintained as long as resistance is offered to the spring 30 by the tension of the log as it is drawn through the water. If the resistance to the jaw is removed, however, the spring 30 will expand so as to force the jaw formed by the plates 15 16 inward, so that the jaw 11 will slide within the slot 32, thereby taking up the slack of the trolling-line 25. If the log becomes detached from the line, the jaws will be permitted to assume their extreme interlocked positions, indicating that there is no resistance, so that a new log can be attached to the line.

The relative distance that the jaws are to slide can be governed by adjusting the clips in the curved slots of the base 1, and the teeth 23 can be removed for the purpose of inserting ones with different-size grooves 24 to accommodate the teeth to lines of varying thicknesses. It will be observed that by exerting an abnormal pull upon the line 25 between the tension device and the log the line may be pulled therethrough until a sufficient quantity has been played out. When it is desired to take up any quantity of the line, the jaws can be sprung apart until the desired amount is pulled therebetween, and by releasing the abnormal resistance said jaws will spring back in place to effectually clamp the line.

While this invention is primarily intended for use on vessels, it is obvious that it may be employed in conjunction with other devices where a tension device of this character would be desirable.

In the foregoing description I have shown the preferred form of my invention, but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus described the invention, what is claimed as new is—

1. A device of the character described comprising a pair of spring-controlled jaws, clips for securing the jaws to a support, and fastening devices for the clips.

2. A device of the character described, comprising spring-controlled pivoted jaws, each jaw being curved in an arc and interlocking with the other.

3. In a device of the character described, the combination with a support, blocks carried by the support, arms projecting from the blocks, depending fingers on the arms, and pivoted jaws carried by the fingers.

4. In a device of the character described, the combination with a support, blocks carried by the support, arms projecting from the blocks, depending fingers on the arms, and spring-controlled jaws pivotally mounted on the fingers.

5. In a device of the character described, the combination with a support formed with curved slots, adjustable clips fitting in the slots, and pivoted jaws carried by the clips and adapted to grip a line between them.

6. In a device of the character described, the combination with a base or support formed with slots therein, blocks adjustably movable in the slots, and spring-pressed pivoted interlocking jaws carried by the blocks.

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

FRED W. TEMPLE.

Witnesses:

G. H. RANDALL,

O. C. LINDEKUGEL.