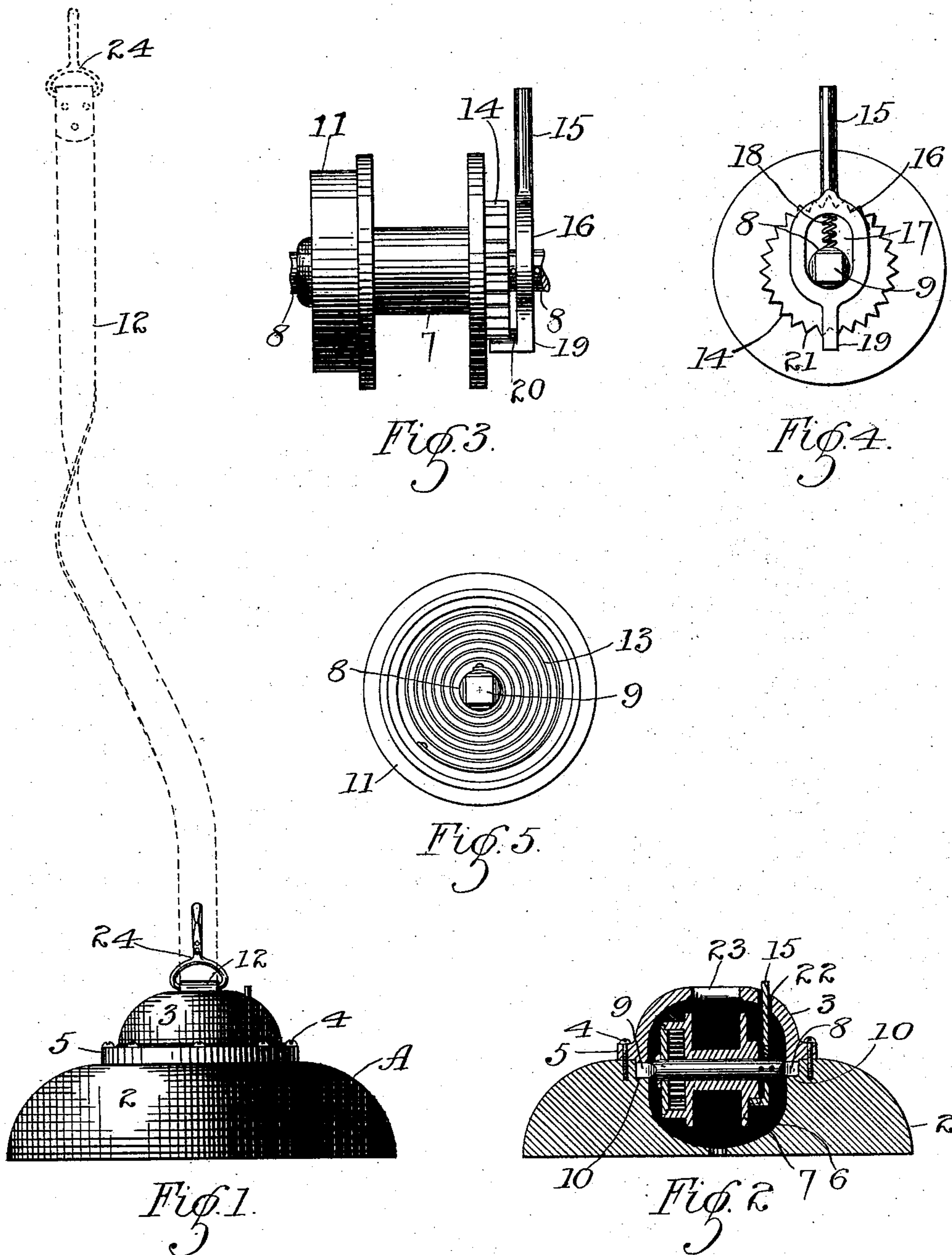


(No Model.)

A. P. WATSON.
HITCHING WEIGHT.

No. 506,649.

Patented Oct. 10, 1893.



Witnesses:-
C. R. Caldwell
A. M. W. N. W. N.

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UNITED STATES PATENT OFFICE.

ABRAM P. WATSON, OF LAKE CITY, MINNESOTA.

HITCHING-WEIGHT.

SPECIFICATION forming part of Letters Patent No. 506,649, dated October 10, 1893.

Application filed September 24, 1891. Serial No. 406,644. (No model.)

To all whom it may concern:

Be it known that I, ABRAM P. WATSON, of Lake City, Wabasha county, Minnesota, have invented certain Improvements in Hitching-Weights, of which the following is a specification.

My invention relates to improvements in horse hitching weights, its object being to provide an improved device by means of which the hitching strap may be adjusted to any desired length, or entirely taken up and inclosed in the weight.

To this end my invention consists in arranging in a space in the body of the weight, a drum for the hitching strap, having a spring which tends to wind the strap upon the drum, and a locking device, by means of which the drum may be set in any desired position, thereby adjusting the length of the free end of the strap, as will be hereinafter particularly described and then claimed.

In the accompanying drawings forming part of this specification Figure 1 is a side elevation of my improved hitching weight showing the end of the strap projecting therefrom as shown by the full lines, the dotted lines showing the strap drawn out at length, and also showing the plunger by the depressing of which the locking device is tripped and the drum is released and allowed to turn. Fig. 2 is a central vertical cross section of the same, showing the arrangement of the drum, its winding spring and locking device therein. Fig. 3 is a detail of the drum and its spring and locking mechanism. Fig. 4 is a detail end elevation of the drum showing the locking device, and Fig. 5 is a detail elevation of the other end of the drum showing the winding spring.

In the drawings, A represents the weight which is preferably made up of the main body or base 2, and the cap 3, which is permanently secured upon the base by means of screws or bolts 4, passing through a flange 5 of the cap and entering the base. The base 2 is provided with the central socket 6, to receive the drum 7 arranged loosely on the shaft 8 which has its squared ends 9 secured in sockets 10 on either side of the socket. The space in the interior of the cap 3 is symmetrical and substantially equal in size with the socket 6, so that when the cap is secured upon

the base it forms an inclosed chamber for the drum. The drum is of sufficient length to permit the strap 12 to be wound thereon. One end 11 of the drum is hollow or cup shaped to receive the coil spring 13 having one end secured rigidly to the shaft 8, the other end being secured to the end of the drum, so that by turning the drum the spring is wound up and tends to reverse the movement of the drum, and to wind upon it the strap which has one end fixed to the drum. Upon the other end of the drum is arranged a toothed wheel 14, and arranged adjacent to this is the plunger 15, which has an enlarged portion 16 provided with the slot 17 in which is inclosed the shaft 8, the spring being compressed between the top of the shaft and the upper end of the slot, and thus tending to hold the plunger in its raised position. The lower end 19 of the plunger is provided with the lateral projection 20, which is so formed as to engage the teeth 21 of the wheel 14, as the plunger is raised by its spring. The upper end of the plunger projects upward through an opening 22 in the cap 3, so that it may be depressed by the foot to release the catch from the toothed wheel to allow the drum to turn. The strap 12 is carried from the drum through the slotted opening 23 in the top of the cap, the opening being preferably of such size that the strap is prevented from being drawn entirely within the cap by means of the snap hook 24 upon the end of the strap striking against the walls of the slot, as shown in Fig. 1.

Operation: The strap being secured upon the drum in such position that when entirely unwound from it the spring 13 is under full tension, the drum being properly secured in place, and the cap fastened upon the base with the strap projecting therethrough, the device is in readiness for use, the catch 20 of the plunger 13 being held by its spring in engagement with the toothed wheel 14, so that the projecting end of the strap serves as a handle for lifting and carrying the weight. When it is desired to draw the strap out, the plunger 15 is depressed by the foot and the requisite length of the strap pulled out of the weight against the tension of the spring 13. The plunger then being released immediately engages the wheel 14, locking the drum, when

the strap can be attached to the bit in the ordinary manner. When detached from the horse to be replaced in the carriage, the plunger is again depressed and the strap allowed
5 to be drawn into the weight, and wound upon the drum, the drum being again locked by releasing the plunger.

I claim—

10 In a hitching weight, the combination with the base or weight formed with a cavity, a shaft extending across the cavity and supporting therein a spring actuated revoluble drum provided with ratchet teeth, a plunger extended through an opening in the base and

formed with an elongated recess to receive 15 the drum supporting shaft and having at its lower end an inwardly extending pawl to engage the ratchet teeth of the drum, and a spring for supporting the plunger and for restoring it to its normal position when moved 20 therefrom, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 31st day of August, 1891.

ABRAM P. WATSON.

In presence of—

T. D. MERWIN,

A. MAE WELCH.