



# UNITED STATES PATENT OFFICE.

WESLEY D. SNELL, OF ROCHESTER, NEW YORK, ASSIGNOR TO DRUSILLA D. SNELL AND PERCY E. SNELL, OF SAME PLACE.

## HITCHING-WEIGHT.

SPECIFICATION forming part of Letters Patent No. 582,702, dated May 18, 1897.

Application filed August 1, 1895. Serial No. 557,862. (No model.)

*To all whom it may concern:*

Be it known that I, WESLEY D. SNELL, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Hitching-Weights, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention relates to improvements in hitching-weights for horses, involving a strap or similar device adapted to be attached to the bit-ring of the bridle, said strap or device occupying a cavity in the weight and adapted to be drawn automatically therein after being pulled out.

The invention consists in a novel formation of the parts of said weight, all of which are hereinafter fully described, and more particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a plan of the device. Fig. 2 is a transverse section of the main part of the weight on the dotted line 2 2 in Fig. 3. Fig. 3 is an axial section of the main part on the dotted line 3 3 in Fig. 1. Fig. 4 is an axial section of the main part of the weight on the dotted line 4 4 in Fig. 3 and viewed as indicated by arrow 4' in said latter figure. Fig. 5 is a view of the bottom of the device, a part being broken away. Fig. 6 is a side elevation of some of the interior parts viewed in a direction opposite to that in which Fig. 4 is seen, parts being broken away.

Referring to the parts shown, A is the main part or body of the weight, which is provided with a bail *a* for convenience of handling. This body, as to its main lower part, is preferably cylindrical in form, surmounted by a hemispherical dome. At its lower edge or base the body is laterally expanded to form a flange *b*, Figs. 1 and 2, the periphery of which varies from a circle shown at *e* for comparison. The flange is preferably formed with laterally-depressed parts *c*, alternated with extended parts *d*, so that when accidentally turned upon its side the body will not roll. The body is hollow, its internal cavity consisting of two rectangular vertical chambers *f* and *g*, Figs. 2, 3, and 5, extending at unequal distances upward from the base and in-

tersecting each other at right angles. These chambers extend upward for a distance perpendicular to the base and open out at the latter, as shown. Within the cavity in the body a core-piece B rests, it being formed with a conical base-flange *h*, occupying a corresponding conical circular cavity *i* in the base of the body A.

The lower surfaces of the body A and the core-piece B are in a plane constituting a flat base for the device as a whole. The parts A and B are held together by fastening-screws *k*, Fig. 5, passing through the flange *h* and threaded into angular parts *l* of the body between the chambers *f* and *g*. The core-piece is formed with opposing standards *m m*, occupying the respective ends of the lower or minor chamber *f* in the body A and holding a horizontal rotatory shaft *n*. This shaft is adapted to turn freely in its bearings in the standards and overhangs at its ends so as to nearly meet the walls of the cavity *f*, on account of which endwise travel of the shaft, save as to a small amount, is prevented. Upon the shaft is wound a strap *o*, having its inner end rigidly secured to the shaft. The free end of the strap extends upward out of the body through a slit or opening *p* through the dome, and is provided without the latter with a means, as a simple snap-hook *r*, for readily attaching it to the bit-ring of the bridle worn by the horse. By pulling upon the snap-hook the strap may be drawn outward from the body through the opening *p* to the extent substantially of its length, the shaft being turned by the strap as the latter is drawn out.

By the side of the strap is placed a flat ribbon-spring *s*, also coiled upon the shaft *n*. The inner end of this spring is bent through a longitudinal slit *t* in the shaft, as shown in Fig. 6, for the purpose of securing it to the shaft. The outer end of the spring is held rigidly to the core-piece B by means of a screw *x*, Figs. 2, 5, and 6, passing through the spring and threaded into the flange *h*. The spring being thus connected with the shaft and the core-piece, it is adapted to be wound tightly upon the shaft when the strap is pulled outward and so turn the shaft to draw the strap inward when the latter is released from an

outward pull. On account of this construction there is never any slack in the strap when hitched to a horse, for the spring constantly exerts a pull upon the strap and consequently  
5 upon the bit of the bridle.

The spring is inclosed in a sheet-metal case *u*, preferably of zinc, which is also held rigidly to place upon the core-piece by the screw *x*. The case is in the form of a cylinder concentric with the shaft, having parts cut away  
10 at *v v* and *w* at its upper side, which leave free peripheral overhanging ends or parts *y y* of the case. These ends serve to prevent the outer turns of the spring from jumping  
15 or flopping outward in any case of a sudden action of the parts or violent handling of the device. The case rests in a seat upon the flange *h* of the core-piece, formed by raised parts *a' a'*, Figs. 3 and 6, which enables the  
20 screw *x* to hold the case firmly and prevent it from rocking. The opening in the case at *v v* is for the purpose of inserting the spring, the free ends *y y* being temporarily bent back to admit the spring, and the opening *w* is for  
25 the insertion of a screw-driver to secure the spring and case to the base. When the spring is in the case, the shaft is inserted in place and the ends *y y* bent forward over the spring to their normal positions, as shown in Fig. 6.  
30 The part of the dome about the opening *p* is purposely made thin by forming an internal cavity *z*, Figs. 3 and 4, so that the strap may more readily and with less friction move through said opening when it is drawn out-  
35 ward or inward, as above described.

The ends of the shaft are preferably reduced, as shown in Fig. 3, for the purpose of reducing the resistance to the turning of the

shaft in case the latter at any time chances to touch at either end a wall of the body *A*. 40

What I claim as my invention is—

In a hitching-weight, the combination, with a hollow body, the top of which is perforated and the bottom of which is open and the interior of which is provided with two cham- 45  
bers, a core-piece secured in the open bottom of the body, the upper face of the core-piece being provided with standards and a seat therebetween, said standards occupying one  
50 of the chambers when in position, a shaft loosely mounted in the upper ends of the standards, the ends of which overhang the standards and lie adjacent to the sides of the  
55 body, a case in the seat, said case being in the form of a cylinder, concentric with the shaft, and having its periphery cut away at the upper portion and the upper portion of one of  
60 its sides or ends adjacent to the cut-away portion of the periphery being also cut away, a spring within the case, one end of which is secured to the shaft, and a screw through the  
65 end of the spring and through the lower periphery of the case diametrically opposite the cut-away portion at the top, and a strap secured to the shaft at one side of the case and  
70 having its opposite end passed through the perforation in the top of the body, substantially as set forth.

In witness whereof I have hereunto set my hand, this 27th day of July, 1895, in the presence of two subscribing witnesses.

WESLEY D. SNELL.

Witnesses:

E. B. WHITMORE,  
M. L. WINSTON.