

(No Model.)

J. V. MITCHELL.
TOE WEIGHT.

No. 463,638.

Patented Nov. 24, 1891.

Fig. 4.

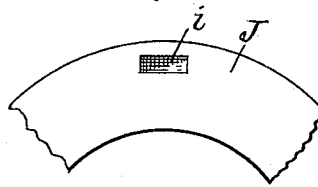


Fig. 3.

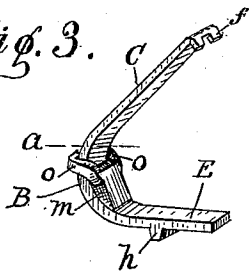


Fig. 5.

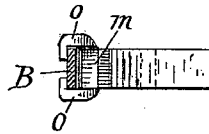


Fig. 1.

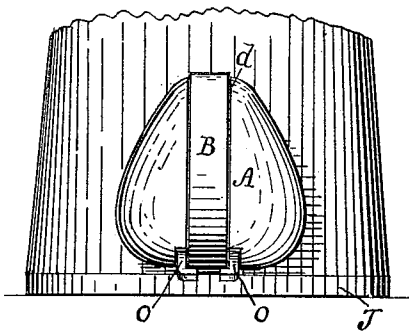
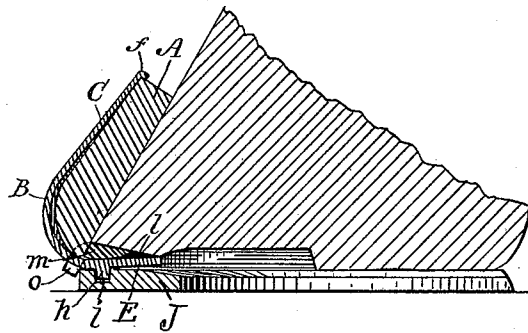


Fig. 2.



WITNESSES:

Marabel Hood.

Julia H. Jeffery.

INVENTOR

James V. Mitchell

BY

W. P. Hood.

ATTORNEY

UNITED STATES PATENT OFFICE.

JAMES V. MITCHELL, OF MARTINSVILLE, INDIANA.

TOE-WEIGHT.

SPECIFICATION forming part of Letters Patent No. 463,638, dated November 24, 1891.

Application filed April 1, 1891. Serial No. 387,247. (No model.)

To all whom it may concern:

Be it known that I, JAMES V. MITCHELL, a citizen of the United States, residing at Martinsville, in the county of Morgan and State of Indiana, have invented a new and useful Improvement in Toe-Weights, of which the following is a specification.

My invention relates to an improvement in a toe-weight for which Letters Patent No. 443,723 were issued to me December 30, 1890. Said toe-weight consists, essentially, of a weight, which is secured to a horse's hoof by means of a spring-spur having a rigid horizontal portion, which enters a notch cut in the toe of the hoof and is provided on its under side with a stud, which enters a recess formed in the upper surface of the shoe, and thus holds the spur and weight to the hoof. In order that the stud may be lifted out of the recess for the purpose of removing the weight, it is necessary that the notch in the hoof be made deeper than the thickness of the spur, and it is found in practice that in rapid trotting it is possible for the spur to be accidentally lifted in this spare space in the notch, thus causing the casting of the weight.

The object of my present improvement is to provide, in connection with the spur, a key which shall lock the spur in the recess, and thus prevent its accidental displacement.

The accompanying drawings illustrate my invention.

Figure 1 is a front elevation showing the weight in position on the hoof. Fig. 2 represents a vertical section of the same. Fig. 3 is a view in perspective of the spur and its key, showing the position of the key when the spur is about to be withdrawn from or inserted in the recess in the shoe. Fig. 4 is a plan of the upper side of the toe of the shoe. Fig. 5 is a section at *a*, Fig. 3.

A is the weight, which is provided with a groove *d* on its front side to receive the vertical portion of a bent-spring spur B. Spur B is made of spring metal bent to form an elastic vertical portion C and a rigid horizontal portion E. The extreme upper end of the spur is bent backward to form a short hook *f*, which engages the upper edge of the weight.

The under side of the horizontal portion of the spur is provided with a short stud *h*, adapted to enter a recess *i*, formed in the upper side of the shoe J. A notch *l* is cut in the toe of the hoof opposite the recess *i* to receive the horizontal portion of the spur, the width of the notch being equal to the width of the spur and its depth at least equal to the thickness of the spur and the length of the stud *h*. This necessary construction of the notch left, in the device shown in my above-mentioned Letters Patent, a space between the spur and the top of the notch. For the purpose of conveniently filling this space, and thus preventing the accidental raising of the spur after it has been placed in position, I provide a wedge-shaped key *m*, adapted to fill the vacant space in the hoof above the spur, and having at its thick end a pair of arms *o o*, which embrace the body of the spur, so as to slide longitudinally thereon. By this construction the key is always at hand and can be readily inserted in and withdrawn from the notch in the hoof.

In mounting the weight on the hoof the key *m* is first drawn upward along the spur to the position shown in Fig. 3. The portion of the spur having the stud *h* is inserted in notch *l* in the hoof, so that the stud rests in the recess *i*. The key *m* is then slid along the spur into the notch, thus filling the space between the horizontal portion of the spur and the top of the notch, thus locking the stud *h* in the recess *i*. In this position the relation of the spur to the hoof is such that the space between the upper end of the spur and the front of the hoof is a little less than the thickness of the weight at the groove, so that when the weight is pushed downward between the hoof and the spur the spur is sprung outward and by its recoil holds the weight in place, the weight at the same time preventing the withdrawal of the key *m*, and thus effectually locking all of the parts together.

I claim as my invention—

1. In a toe-weight of the above-described class, the combination, with the spur adapted to engage the upper surface of a horseshoe and to hold a weight in position, of the key

arranged to embrace the spur and to slide longitudinally thereon, substantially as and for the purpose set forth.

2. The combination of a horseshoe having
5 in its upper surface the indented recess *i*,
the spring-spur having the rigid portion *E*,
provided with stud *h*, and the elastic portion
C, the key *m*, mounted on the spur so as to

slide longitudinally thereon, and the weight
A, all adapted to co-operate with each other 10
and with a hoof in the manner set forth.

JAMES V. MITCHELL.

Witnesses:

H. P. HOOD,
MABEL HOOD.