

(Model.)

P. BROADBOOKS.
Toe Weight for Horses.

No. 241,289.

Patented May 10, 1881.

fig: 1.

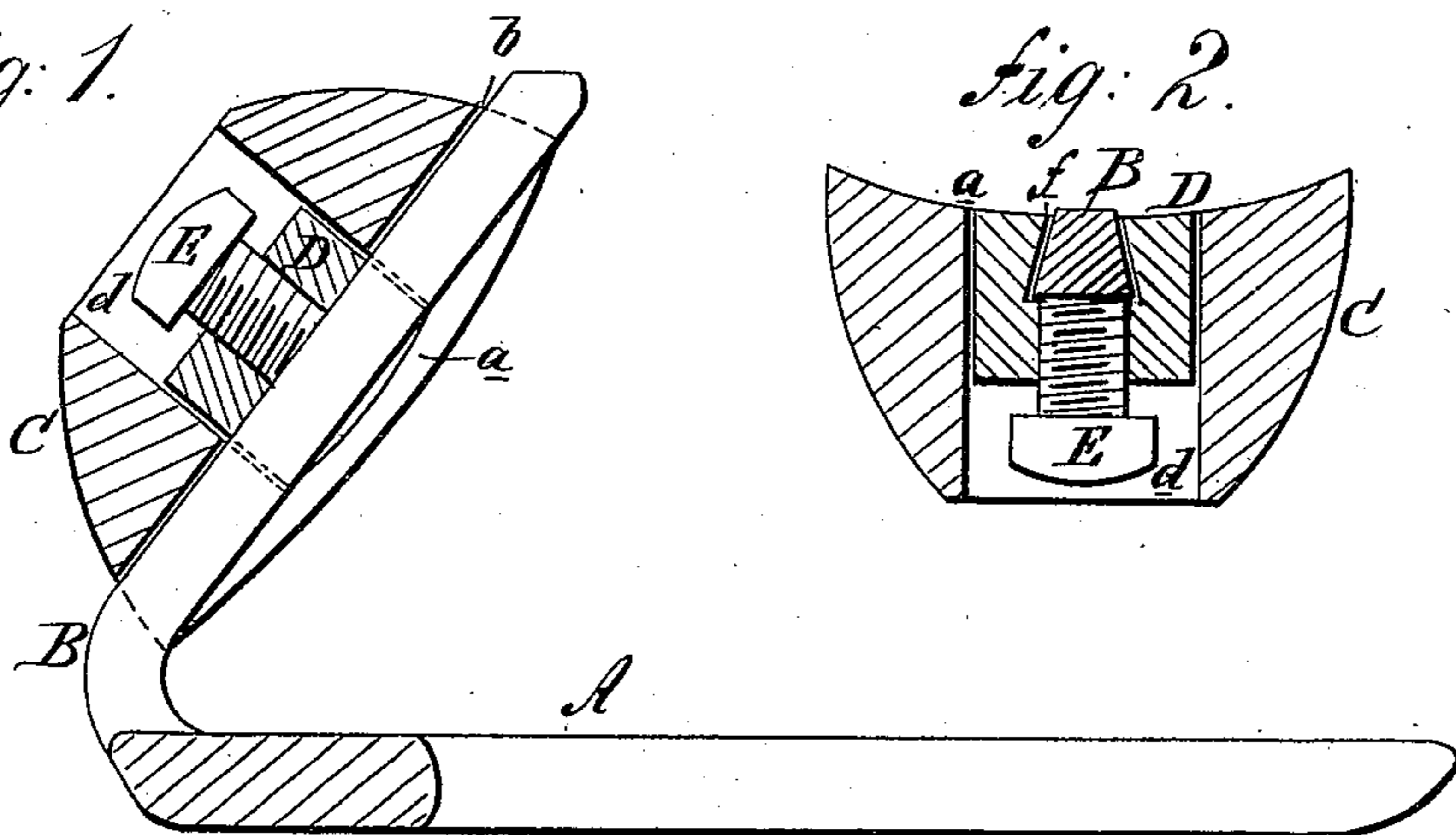


fig: 2.

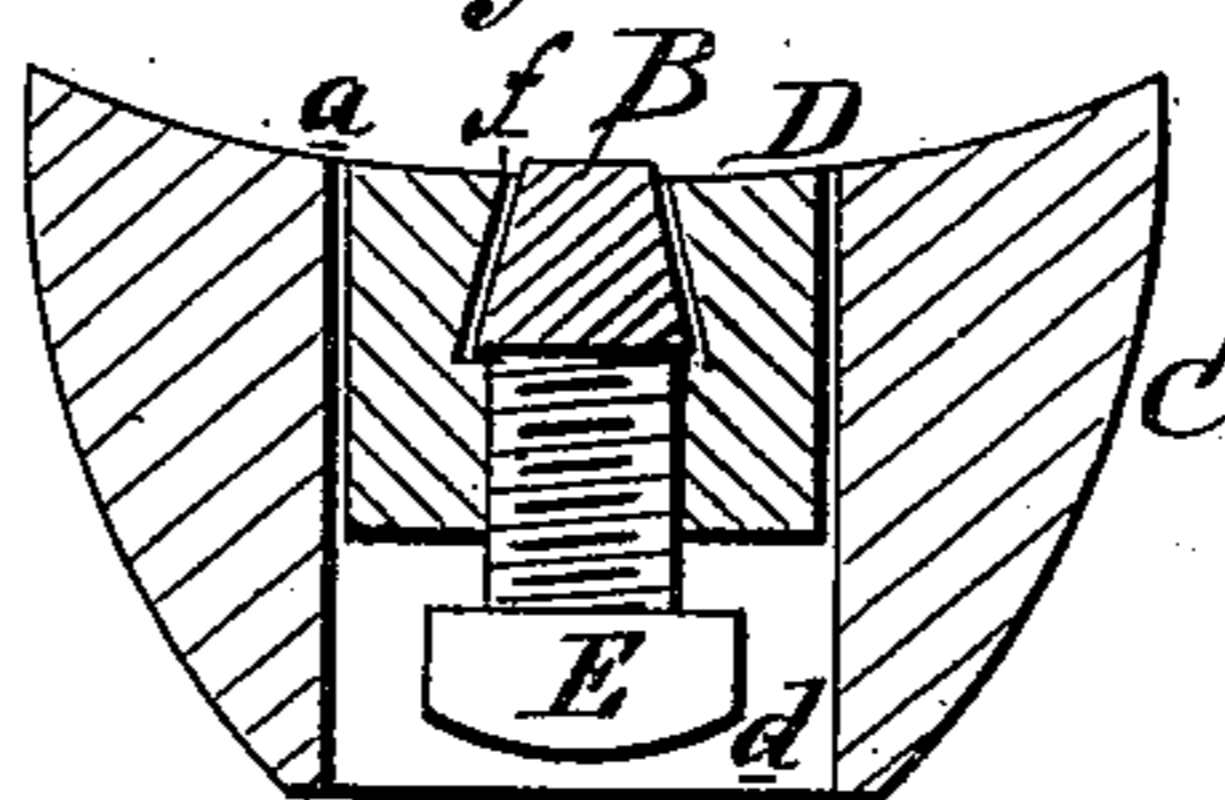


fig: 3.

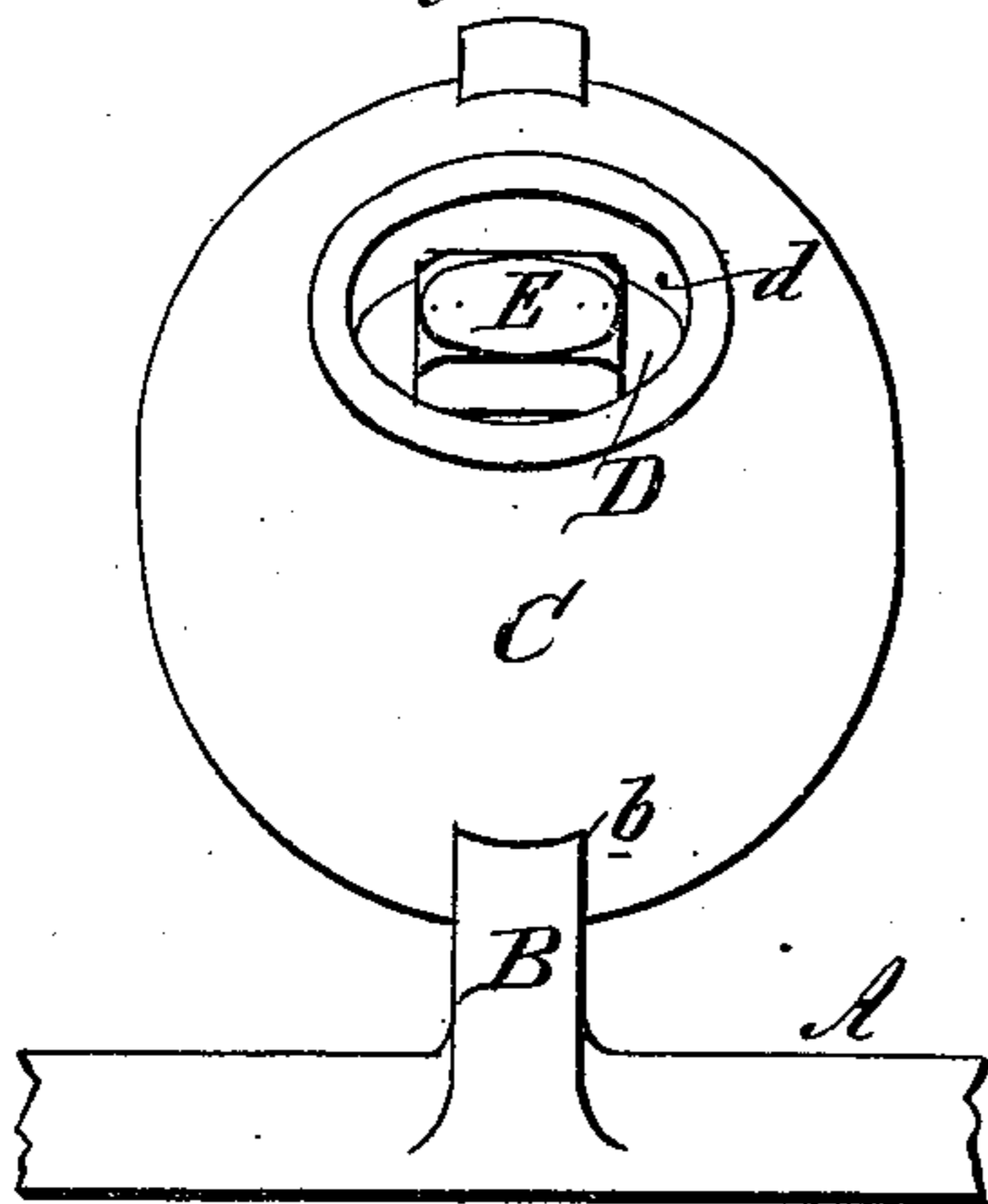


fig: 4.

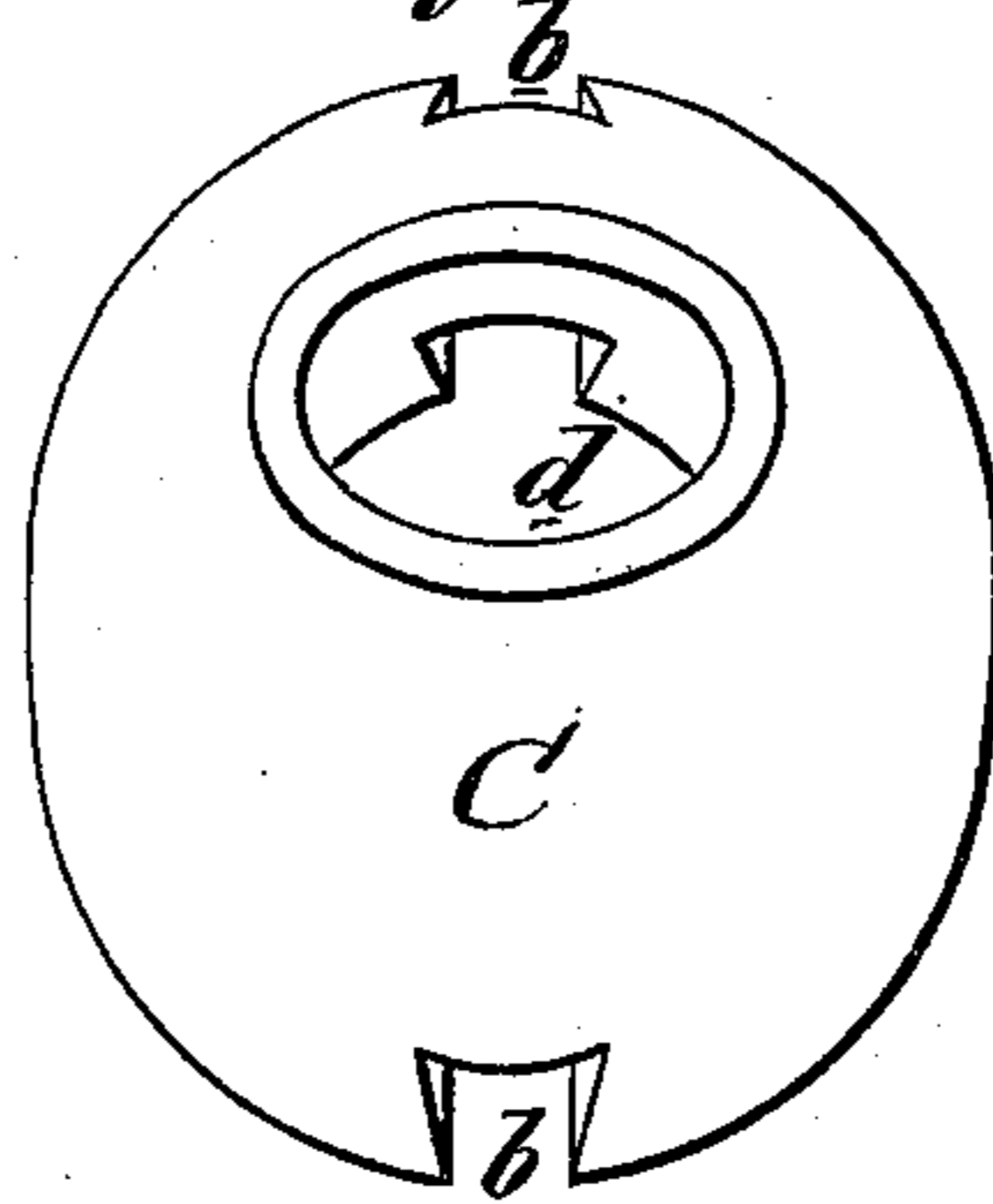


fig: 5.

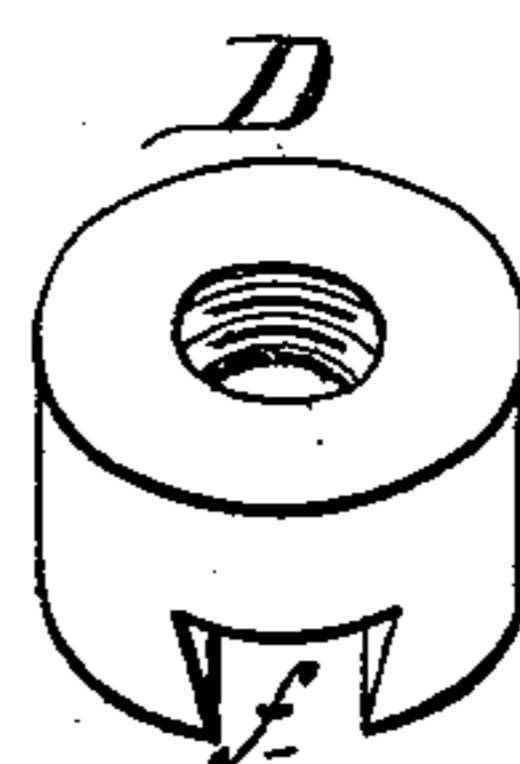


fig: 6.

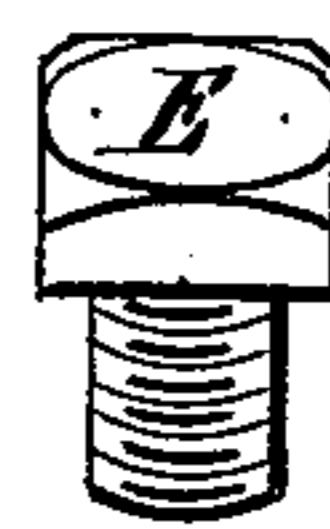


fig: 10.

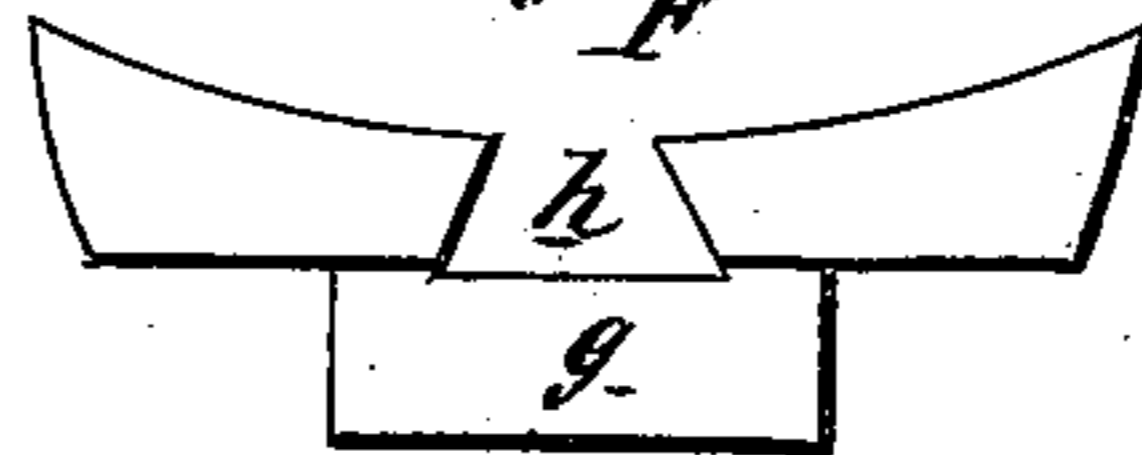


fig: 7.

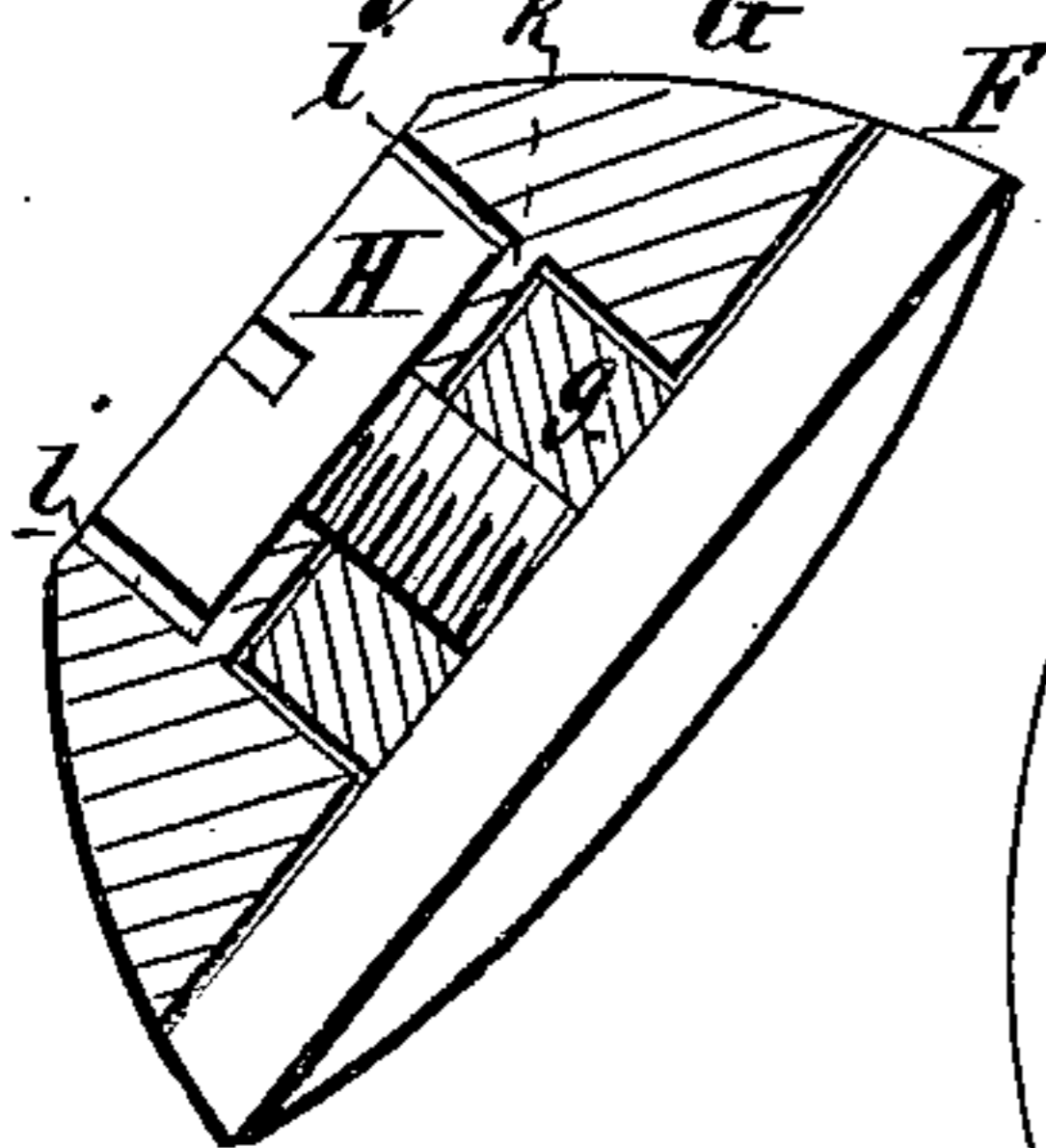


fig: 8.

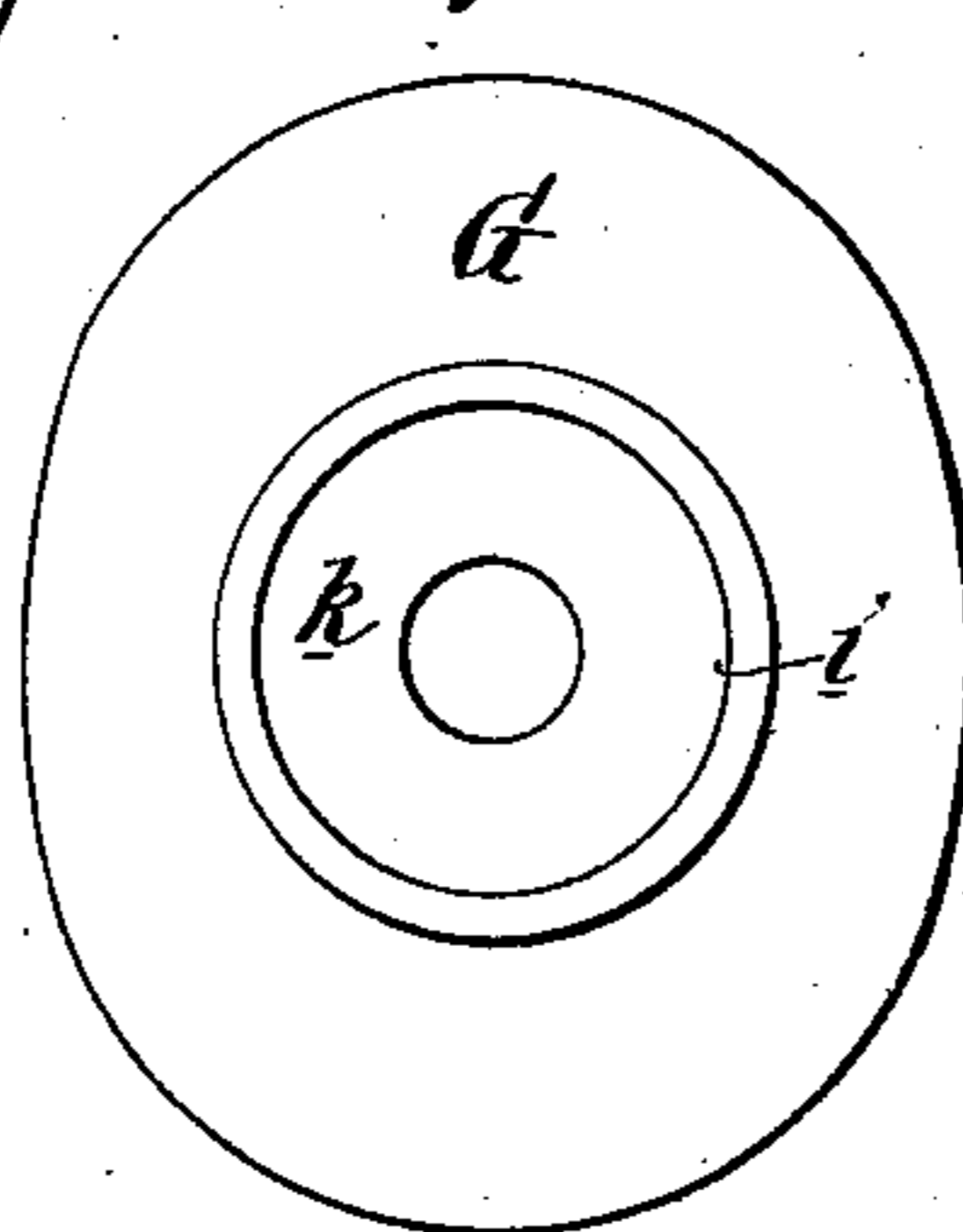


fig: 9.

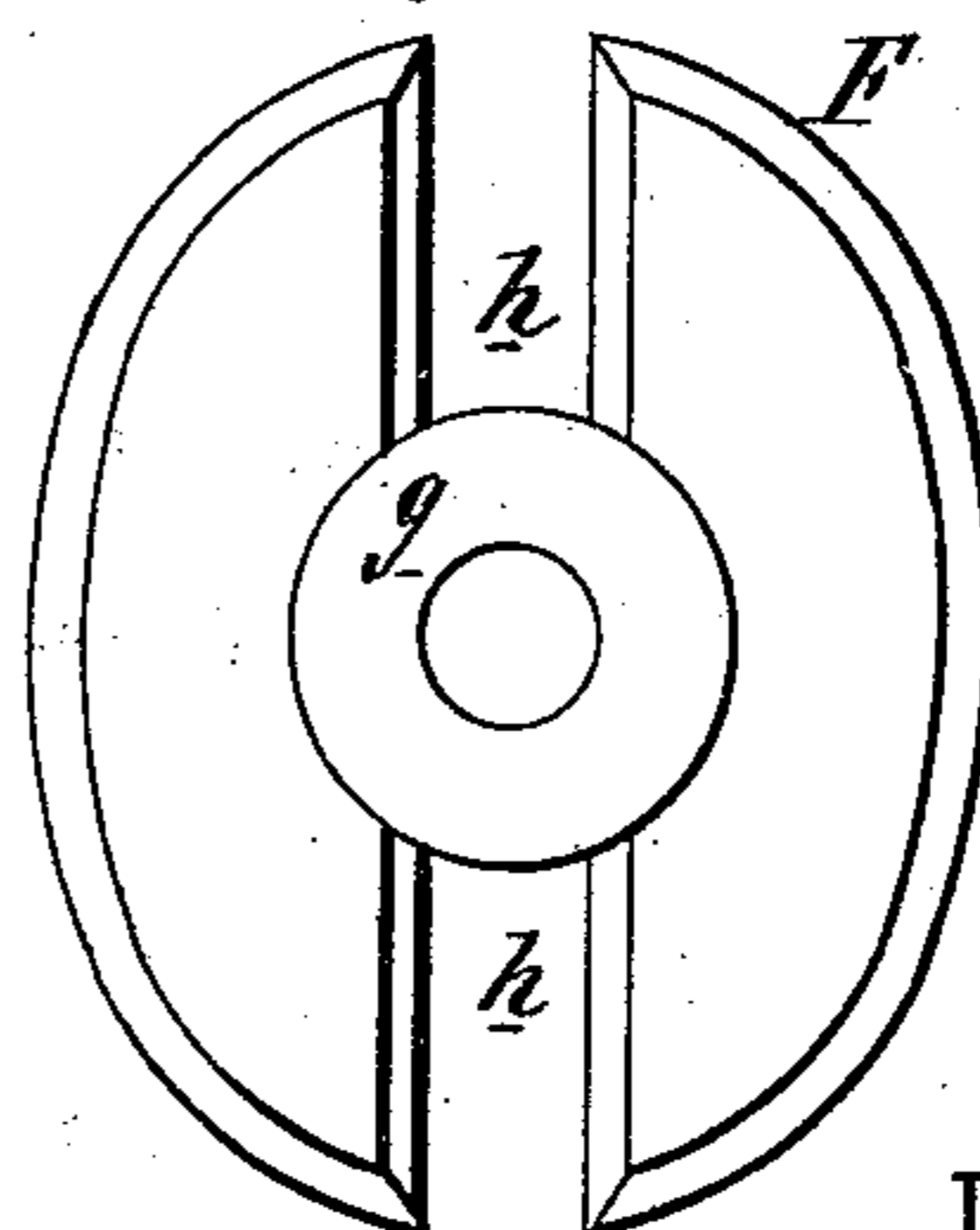
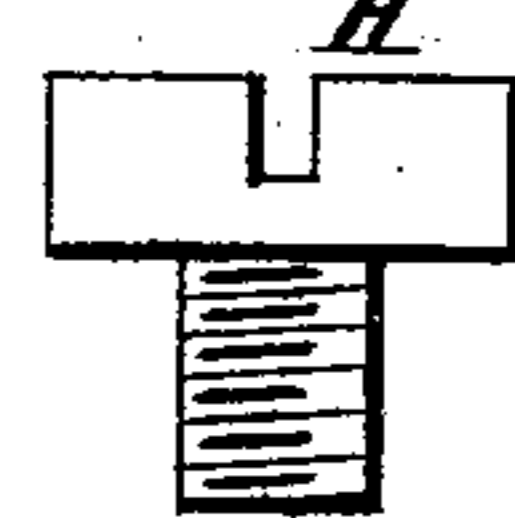


fig: 11.



WITNESSES:

A: Schehl.
C. Seagwick

INVENTOR:

P. Broadbooks
BY *Wm. F. C.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

PETER BROADBOOKS, OF BATAVIA, NEW YORK, ASSIGNOR TO HIMSELF
AND JAMES SMITH, OF SAME PLACE.

TOE-WEIGHT FOR HORSES.

SPECIFICATION forming part of Letters Patent No. 241,289, dated May 10, 1881.

Application filed March 3, 1881. (Model.)

To all whom it may concern:

Be it known that I, PETER BROADBOOKS, of Batavia, in the county of Genesee and State of New York, have invented a new and Improved Toe-Weight for Horses, of which the following is a full, clear, and exact description.

In training horses for trotting, toe-weights are attached to their shoes to cause the horses to throw out the fore feet and make longer strides, but after a little service the weights in common use become loose and are with difficulty tightened on the shoe spur or clip.

The object of this invention is to provide an adjustable toe-weight that can be securely held in place.

Figure 1 represents a sectional side elevation of a horseshoe and the improved toe-weight in position. Fig. 2 is a cross-section of the toe-weight and shoe clip or spur. Fig. 3 is a front elevation, showing the weight in position on a shoe. Fig. 4 is a perspective view of the toe-weight without its nut and set-screw. Fig. 5 is a perspective view of the nut. Fig. 6 is a perspective view of the set-screw. Fig. 7 is a sectional side elevation of a modification of the toe-weight. Fig. 8 is a front elevation of the same. Fig. 9 is a front elevation of a portion of the modified weight. Fig. 10 is an end elevation of the same. Fig. 11 is an elevation of the set-screw of the modification.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a horseshoe provided with a clip or spur, B, projecting upward and inward from the front of the shoe, as shown in Figs. 1 and 3. Said clip or spur B is of dovetailed cross-section, as shown.

C represents the body of the toe-weight, nearly hemispherical in shape, having its inner face concave, as shown at *a*, and having a deep dovetailed groove, *b*, formed in the longer axis of the face *a*, to fit upon the clip or spur B. Said toe-weight body C is provided, also, with a socket, *d*, extending from its apex through its face *a*, and in this socket *d* is fitted a nut, D, which is also provided with a dovetailed groove, *f*, on its inner and concave face, the face of this nut D being flush with the inner face of the body C when the parts are in position.

The body C and nut D being fitted together

are together slipped on the spur B, from the top thereof, and are held in place by a set-screw, E, that passes through said nut D and presses upon the front of said spur B.

It will be seen that by the contact of the wedge-shaped or inclined sides of the grooves *b f* against the corresponding wedge-shaped sides of the spur B, in combination with the set-screw E, a much more extended bearing of the weight upon the stud is obtained than in the usual way, and at the same time this construction makes it easy to secure the weight C D more securely in place, so that it shall not get loose and rattle, and make said weight C D easy of adjustment, and as the strain is not all borne by the set-screw, as in ordinary toe-weights, the said screw E is not so liable to become broken.

With this construction the nut D and set-screw E only need be made of iron or steel, while the body C may be made of heavier and softer metal, such as brass, lead, &c.

In Figs. 7, 8, 9, 10, 11 is shown a modification of this toe-weight, wherein F represents the flattened concave-faced ovoid body provided with a central upwardly-projecting perforated interiorly-screw-threaded stud, *g*, and with a dovetailed groove, *h*, extending through its longer axis; and G represents the nut or cap, of nearly hemispherical shape, axially perforated, as shown at *i*, and having fixed within said perforation *i* a collar or shoulder, *k*, that rests upon the top of the stud *g* when the parts F G are put together, as shown in Fig. 7.

When the parts F G are thus put together and placed on the spur B they are held in place thereon by means of a set-screw, H, the head of said screw H bearing upon the shoulder *k*, and the shank thereof extending only through the stud *g*, not coming in contact with the spur B, but holding the parts F G firmly together and securely upon the spur B.

I am aware that weights have been used with a thread in the body thereof, and the screw bearing against the shank, or with the thread for the screw cut into the shank and the head of the screw bearing upon the weight; but this construction prevents a replacement of the separate parts in case of breakage, and necessitates a loss of the whole device as soon as the threads are out of order. By cutting no thread

in the weight or the shank, and using my nut in socket and the dovetailed groove, these objections are completely obviated.

What I claim as new is—

5 The combination, with the spur B and weight C, connecting by a dovetail joint, of a nut and screw, D E, arranged in a socket, *d*, of the

weight, and the nut provided with a dovetailed groove, *f*, that fits on the shank, to operate as described.

PETER BROADBOOKS.

Witnesses:

SAFFORD E. NORTH,
WM. E. HOWARD.