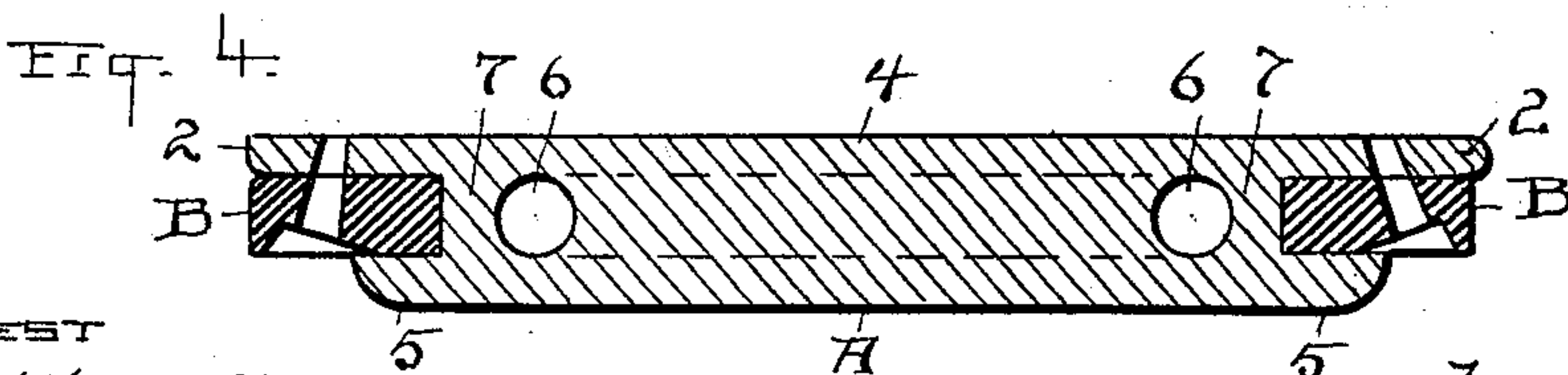
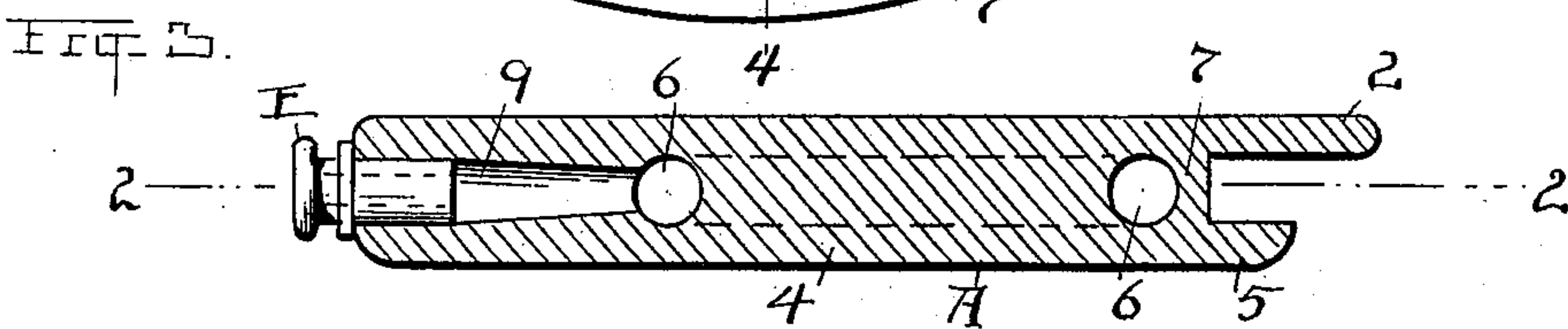
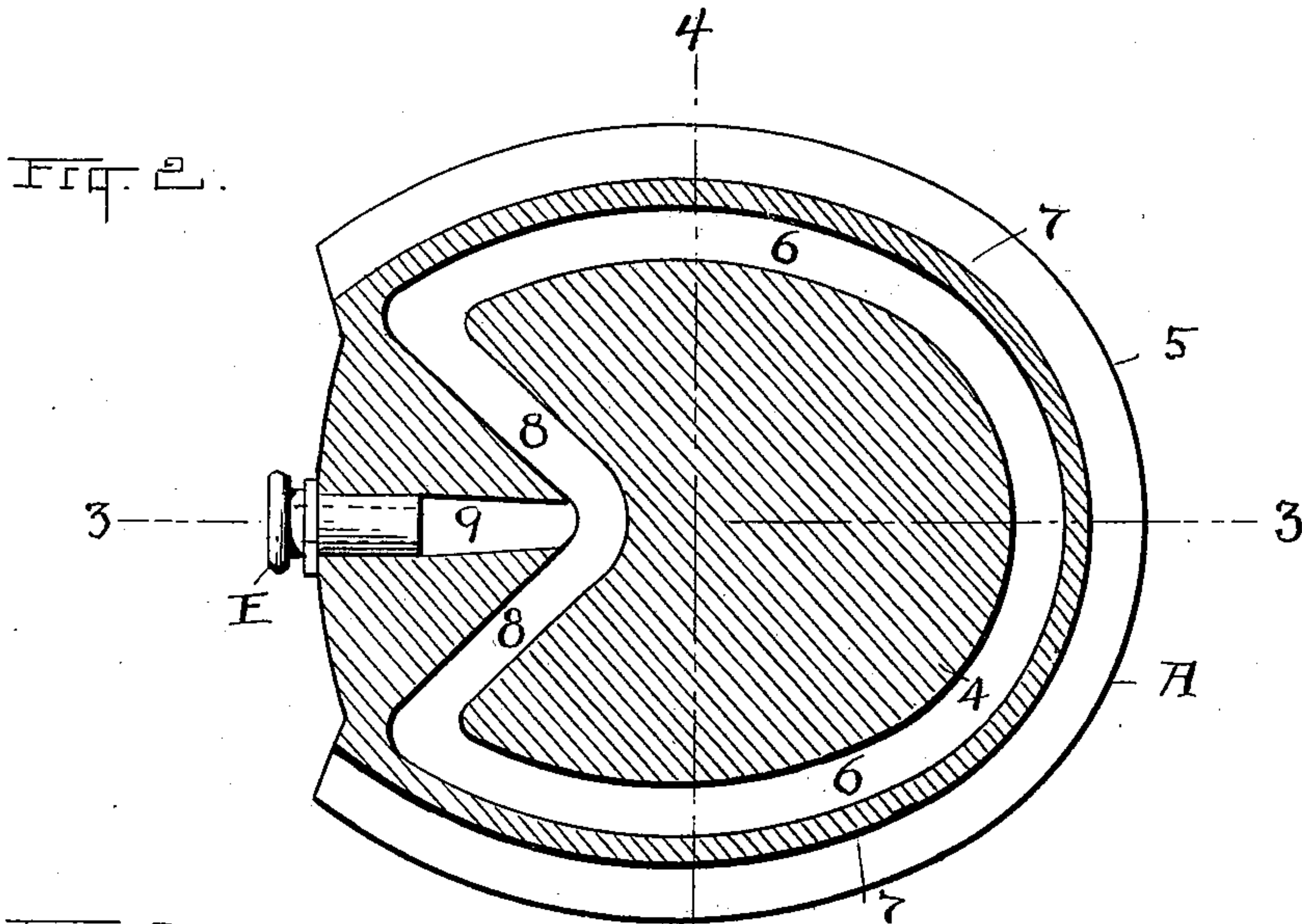
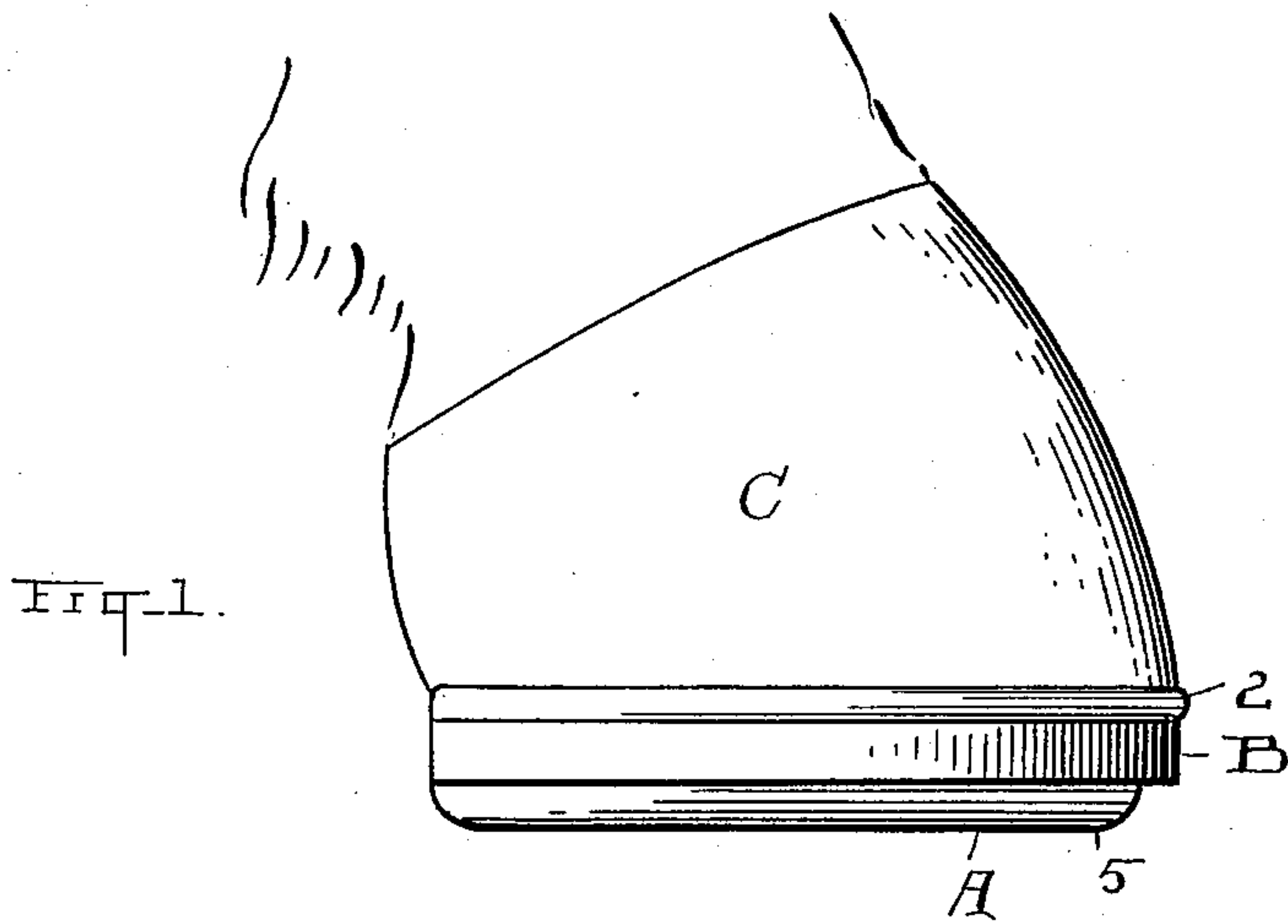


(No Model.)

J. HENNESSY.  
PNEUMATIC RUBBER HOOF PAD.

No. 594,080.

Patented Nov. 23, 1897.



ATTEST  
R. B. Moore  
H. E. Mydra

INVENTOR  
James Hennessy  
By H. J. Fisher ATTORNEY



# UNITED STATES PATENT OFFICE.

JAMES HENNESSY, OF PAINESVILLE, OHIO, ASSIGNOR OF ONE-HALF TO  
JOHN M. WARN, OF SAME PLACE.

## PNEUMATIC RUBBER HOOF-PAD.

SPECIFICATION forming part of Letters Patent No. 594,080, dated November 23, 1897.

Application filed July 19, 1897. Serial No. 645,032. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES HENNESSY, a citizen of the United States, residing at Painesville, in the county of Lake and State of Ohio, have invented certain new and useful Improvements in Pneumatic Rubber Horseshoes or Foot-Pads; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to pneumatic horseshoes or foot-pads; and the object of the invention is to furnish a pad which can be attached to a horse's foot either at the time he is being shod and with the shoe or when the shoe is on the foot, as may be desired. However, the preferred method is to place the pad on the foot with the shoe and in such manner that the flange of the pad will come between the shoe and the foot or hoof of the horse and be supported by the shoe as well as by the expansion of the pad, as hereinafter described. This pad is made of india-rubber and when inflated is so firmly spread about its sides within the horseshoe that it is firmly held by such inflation alone without other means of support, and yet the flange about the pad which engages between the shoe and foot, as shown, is preferred. A pad of this kind which will relieve the severe jar and stiffening effect of hard pavements is a well-known need among horsemen, and the present pad is designed not only to meet this need, but also to equip the horse with foot-gear which will make his movements noiseless on hard pavements.

It is well known in cities that the approach of a horse on brick, stone, or asphalt pavements, and particularly on the latter, can be heard a long distance away, and the noise is often very objectionable to occupants of such streets. My invention therefore has for its object to meet the needs of the horse to protect him from injury and to make his travel easy, and also to protect the community by making his travel noiseless.

Having reference now to the accompanying drawings for an illustration of the invention, Figure 1 is an elevation of a horse's foot with my improved pad and a shoe on the foot. Fig. 2 is a horizontal sectional view of the

lower half of the pad, looking down from a line corresponding to 2 2 of Fig. 3. Fig. 3 is a cross-section on line 3 3, Fig. 2. Fig. 4 is a cross-section corresponding to line 4 4, Fig. 2.

The shoe or foot-pad A thus shown is made of india-rubber, so as to be yielding to the foot and that it may be spread laterally about its side to engage and hold within the horseshoe B. I have already explained that I may rely on this lateral expansion of the pad by and through the pneumatic pressure therein to secure the pad to the horse's foot; but I prefer to construct the pad with the flange 2 about its top to also fasten the pad thereby between the shoe B and the foot C, as clearly seen in Fig. 1. This construction and arrangement of parts not only helps to fix the pad securely on the foot, but it also forms a partial cushion to the foot and thus contributes to one of the purposes or objects of this invention. Now in order that both the cushioning effect or advantage to the horse and the noiselessness of his movements may be obtained by my novel construction of pad I form the pad with the central or body portion 4, which fills the space within the shoe and extends down below the level of the shoe substantially as far as shown in Figs. 1 and 4—that is, the pad may come down more or less depth below the level of the shoe, as may be desired, and is here shown with a bottom flange 5 extending under or beneath the shoe and overlapping the same some distance, so as to take the action of the foot off the shoe and make a noiseless tread of the animal. Then to inflate the pad and get the requisite lateral pressure to make it hold its place in the shoe and foot I provide an air channel or space 6, which extends around the side of the body portion 4 of the pad, and which channel has a comparatively thin outer wall 7, which bears against the inner edge of the shoe. This channel crosses at the rear of the pad with inward deflections 8 from both sides, and at the inner angles of these deflections is tapped by a direct channel or duct 9 from the outside, in which is placed any suitable air-inlet-valve mechanism E, such as is used on a bicycle-tire or the like, and so that air may be pumped into channel 6 with as much pressure as may be needed. The air-channel 6 is removed far enough from the bottom of the pad not to be



exposed to the wear of the pad, and where it is protected from such wear until the pad may be said to be practically worn out.

The peculiar arrangement of the air-channel 6 at the rear of the pad, with its inwardly inclined or deflected lines 8, enables me to exert the necessarily-increased lateral pressure at this point.

This pad is deemed of material advantage for light driving-horses in cities and for horses generally where such relief to the feet as is afforded by this device is desirable. If preferred, the central portion of the pad might be constructed to be fully inflated, in which event the rear, but not the side channels, would be employed to introduce the air.

What I claim as new, and desire to secure by Letters Patent, is—

1. A pneumatic pad for horses' feet, having

flanges 2 and 5, respectively, about its edge and a space between said flanges for the horseshoe, and having a pneumatic channel opposite said space for the horseshoe, substantially as described.

2. A pad substantially as described, having a body portion to fill the space within the shoe, and flanges about its edge to engage over the top and under the bottom of the horseshoe, respectively, and a pneumatic channel extending around the body of the pad in position to bear laterally against the shoe, substantially as described.

Witness my hand to the foregoing specification this 28th day of June, 1897.

JAMES HENNESSY.

Witnesses:

W. R. FLAVIN,  
JOHN M. WARN.