May 9, 1933. C. H. OLSON 1,908,045

TRACTOR SHOE

Filed Nov. 3, 1930

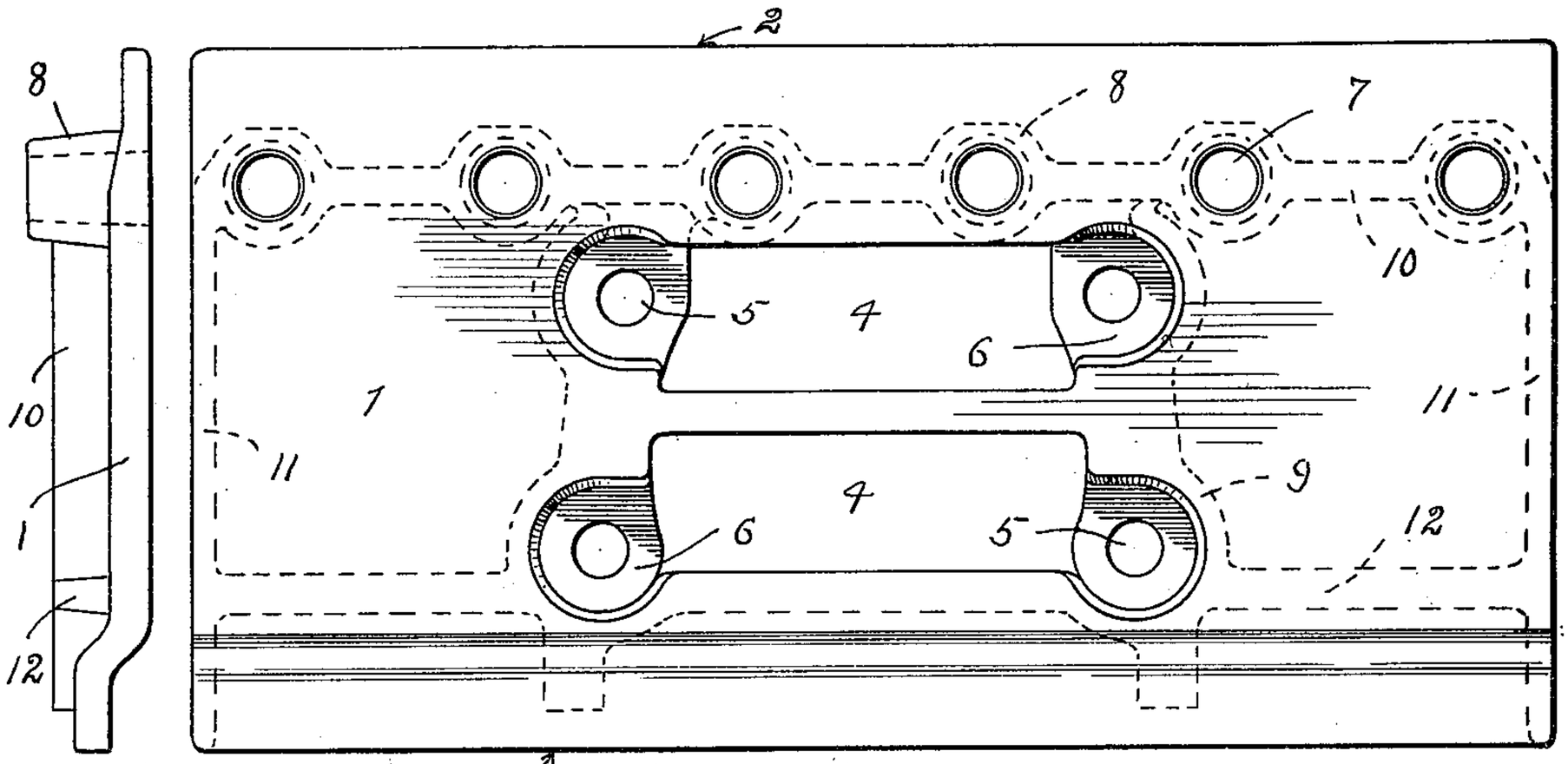

Fig. 2. Fig. 1.

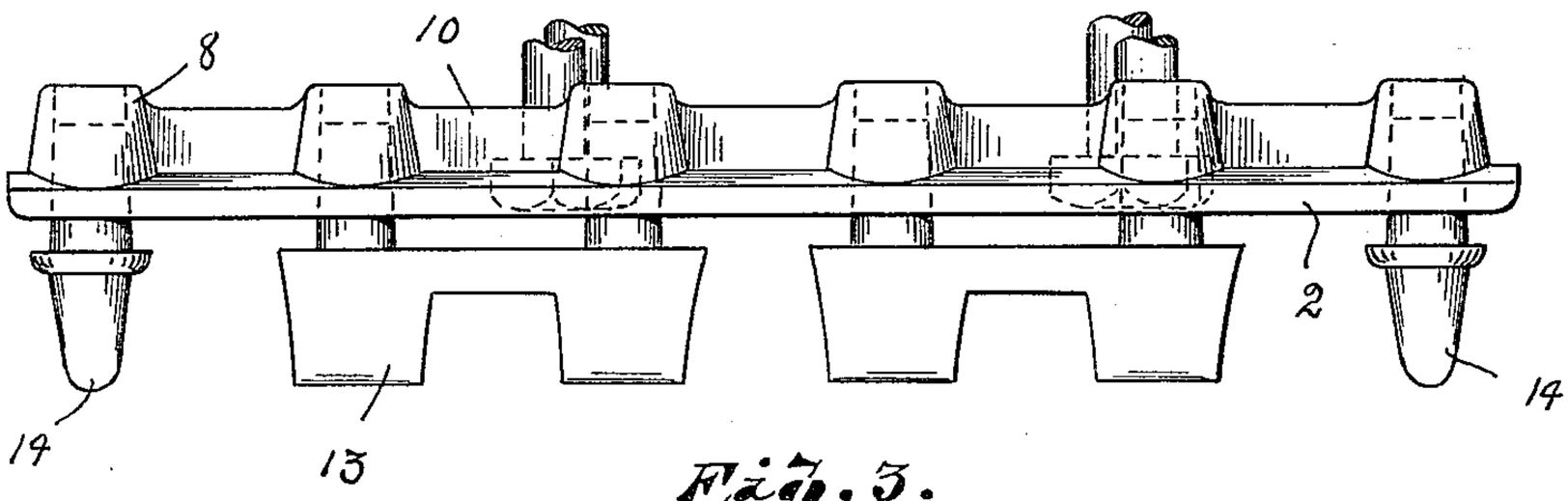

Fig. 3.

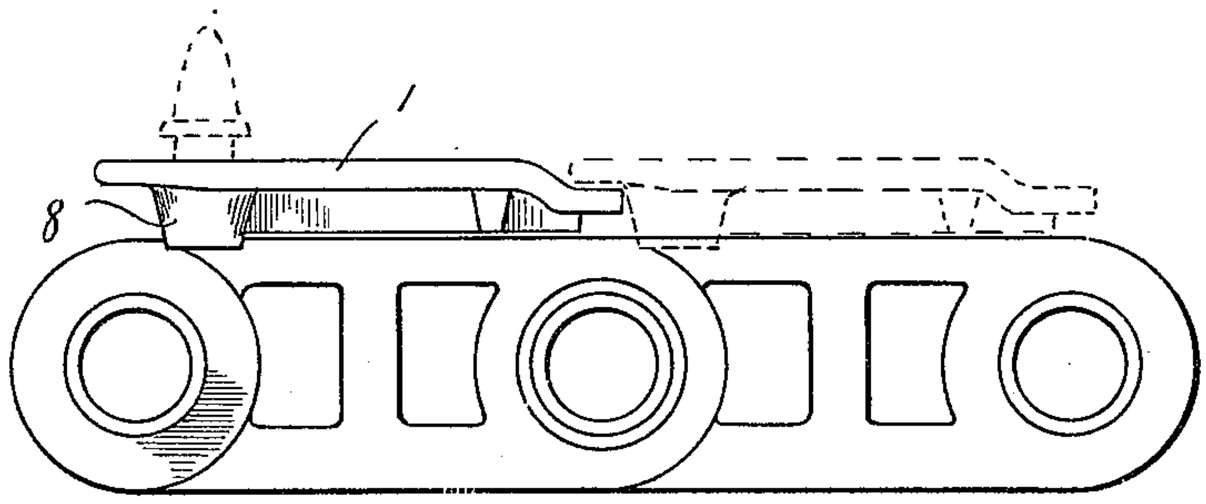

Fig. 4.

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UNITED STATES PATENT OFFICE

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TRACTOR SHOE

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This invention relates to traction shoes for tractors, and has special reference to one particularly adapted for use on what are known as track laying tractors.

The principal object is to provide more practical, durable and readily adjusted shoes for such tractors, than heretofore known.

Another object is to provide a shoe which when not provided with calks will operate smoothly and afford the most efficient contact with the road without damage to either oiled, macadamized, or other surfaced roadbeds, and presenting the least tendency to damaging vibration.

Other objects and advantages of the invention will appear in the following description thereof.

Referring now to the accompanying drawing, forming part of this application, and wherein like reference characters indicate like parts:

Figure 1 is an under face view of one of the improved shoes;

Figure 2 is an end elevation;

Figure 3 is a front edge elevation of one of the shoes with the auxiliary calks applied thereto; and

Figure 4 is a side elevation of two links of a tractor chain with one of the shoes applied thereto.

1 represents the body portion of one of the improved shoes, the edge 2 of which will be referred to as the leading or front edge, while 3 will be termed the back or following edge. The shoe preferably is of cast metal and provided with two centrally spaced openings 4 for lightness in construction and accessibility to holding bolts when necessary.

At either outer corner of the openings 4 are formed holes 5 for the reception of the holding bolts and these holes are recessed or stepped inwardly from the face of the shoe forming circular wells as indicated at 6 for reception of the bolt heads or nuts as the case may be of the holding bolts which are employed in attaching the shoe to the tractor tread chain.

A series of spaced holes 7 are formed adjacent the front edge 2 of the shoe and are tapered for the reception of the tapered shanks of common horseshoe calks, or at least of calks of a similar type. These holes as well as those for the holding bolts are surrounded by reinforcing walls as indicated at 8 and 9 respectively, the walls 8 being connected by web like portions of similar reinforcements indicated at 10 so that such reinforcement is continuous the full length of the backside of the shoe and is continued at both ends transverse the shoe as at 11 for strengthening the same. A somewhat similar reinforcing web 12 extends longitudinally of the shoe, just inwardly of the edge 3 and is cooperatively united at its ends with the webs 11, it being understood that both front and back edges of the shoe are stepped, the rearmost edge slightly more than the former for overlapping engagement with similar cooperative shoes, as clearly seen in Figure 4 of the drawing. It will also be noted that the reinforcement about the holes for the shanks of the calks are somewhat deeper than the reinforcing webs, as the webs alone form the abutment surface for engagement with the chains.

In this manner ample strength is provided for the back of the shoe and engagement of the calks and that by adding the least weight possible to the shoe.

I have illustrated a pair of twin calks as at 13 and a pair of cone calks as at 14 as being applied to the shoe, which provide an admirable assembly for preventing slipping of the shoes, though it is obvious any other arrangement and type of calk may be used with equally good advantage.

With this device the process of providing a tractor with anti-slipping means and improved traction is exceedingly simple, and any type of calk desired may be readily applied or removed without the necessity of the use of grousers in any form.

It will be further noted that the openings 4 in the center of the shoe functions admirably to obviate the annoyance of snow collecting and packing intermediate of the shoe and the end sprockets of the traction chain when passing over the same.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

A rectangular shoe for attachment to the tractor track of tractors of the track-laying type, having a smooth ground-engaging face to prevent the scarification of improved roads when moving thereover, reenforcing ribs on the opposite face, one of which has a plurality of alined perforations extending through the ground-engaging face adapted to detachably receive ground engaging calks, and means for securing said shoe to the tractor track.

In testimony whereof I affix my signature.

CYRUS H. OLSON.