

J. CASPERS.

CALK TONGS.

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1,061,047.

Patented May 6, 1913.

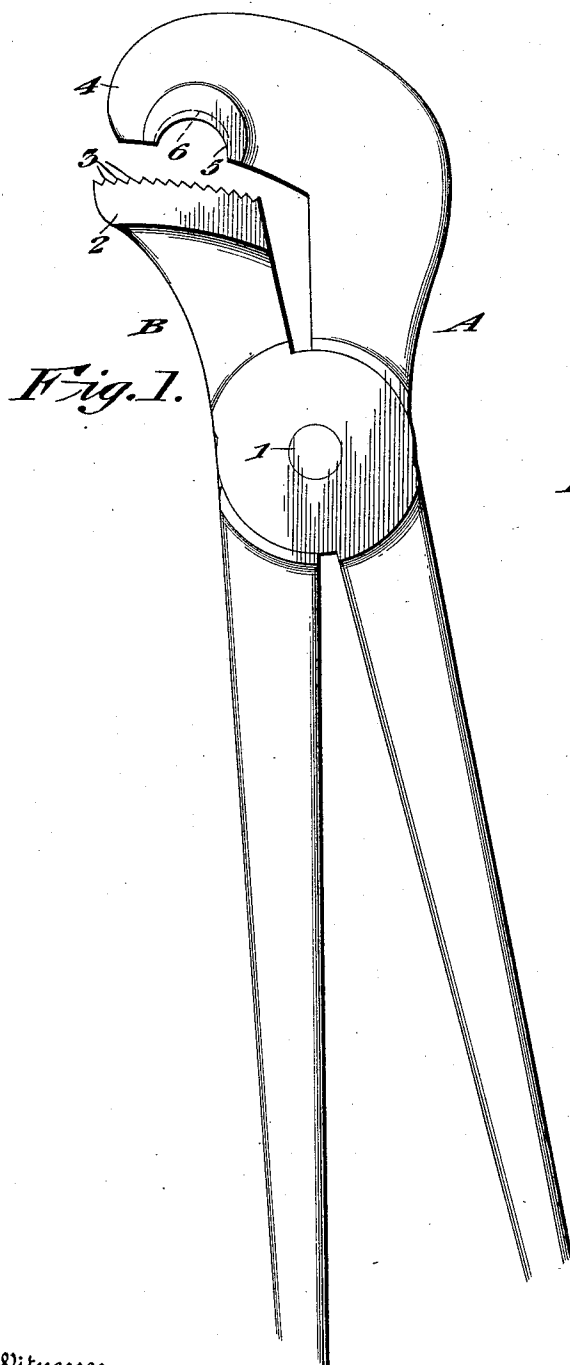
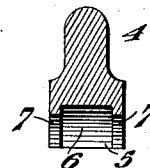


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH CASPERS, OF LANCASTER, WISCONSIN.

CALK-TONGS.

1,061,047.

Specification of Letters Patent.

Patented May 6, 1913.

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To all whom it may concern:

Be it known that I, JOSEPH CASPERS, a citizen of the United States, residing at Lancaster, in the county of Grant and State of Wisconsin, have invented certain new and useful Improvements in Calk-Tongs, of which the following is a specification.

My invention relates to an improvement in calk tongs, and the object is to provide two jaws, each of which is mounted upon a handle, which handles are pivotally connected together, the jaws extending outwardly from the handles and eccentrically disposed to the pivotal point. One of the jaws is provided with a cavity and the other jaw is provided with a serrated face whereby the calk will be partially received within the cavity of one of the jaws, and the projection portion of the calk will be gripped upon the inward movement of the other or serrated-faced jaw. As the serrated-faced jaw moves inward it will grip the surface of the calk, and as the outer surface of the calk is generally soft, the gripping or serrated jaw is inclined to slip, therefore as the gripping jaw is being drawn inward, other teeth will be presented to engage the surface of the calk upon the slipping or disengagement of the other teeth with the calk. In this way, the jaws are brought closer together, thereby obtaining a greater grip upon the calk. The receptacle or cavity in one of the jaws being smooth allows the calk to slip or turn therein, so that when a portion of the gripping jaw slips or becomes disengaged with the calk, by compressing the soft outer coating, the following teeth of the gripping jaw will be presented to engage the calk, and to compress it more tightly between the jaws, and as the two jaws are continued to be drawn together, the calk will be so tightly compressed between the two that it will be firmly held and allow the calk to be removed from the shoe. The ordinary or generally known tongs, such as pipe tongs, which are provided with two serrated or toothed jaws, are impractical for purposes of this kind, for the reason that when an object is placed between the two jaws, they have a tendency to work directly against each other, and in so doing, the object often slips from engagement and prevents the turning of the object engaged by the jaws, for the reason that a grip of sufficient firmness cannot be

obtained. Especially is this true with objects presenting a soft outer surface.

With my invention I am enabled to obtain a gradual grip and compression of the calk between the two jaws as the gripping jaw is moved inward upon the calk, and in case of any slipping due to the soft outer surface of the calk, new teeth will be presented to engage the surface of the calk, and in bringing the new teeth inward, the jaws are coming closer together, whereby a compression is bound to take place, and the calk is thereby compressed and firmly held between the jaws.

The invention consists in certain novel features of construction and combinations of parts which will be hereinafter fully described and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view in elevation of the invention; and Fig. 2 is a cross-sectional view through the upper jaw.

A and B represent the handles of the tongs, which are pivotally connected together by a bolt 1, the two handles crossing each other, and recessed so that a rigid and firm connection is formed at the pivotal point. The handle B is provided at one end with an offset jaw 2, which is provided with a curved face. The face of the jaw 2 is provided with teeth 3. The handle A is provided with an offset jaw 4, which works over the jaw 2 of the handle B. The working face of the jaw 4 is provided with a cavity 5 which is adjacent to the gripping or toothed face of the jaw 2. The cavity is made transversely of the jaw 4, and is preferably cupped or grooved out through the center, as at 6, thereby forming flanges 7 along each edge of the cavity. One of the flanges will engage the surface of the calk next to the shoe, while the crushed portion of the calk will enter the cupped or grooved formation in the cavity. The cavity 5 will not entirely surround the calk, but a portion of the calk is exposed beyond the face of the jaw so that the exposed portion of the calk can be engaged by the working face of the other jaw 2. The working face of the jaw 2 being provided with teeth, the teeth will engage the calk, and as the tool is moved after the jaws have been brought together for removing the calk from the shoe, the gripping jaw will be drawn inward until the calk is firmly held between

the two jaws. As the jaw is moving inward to engage the calk in the cavity of the other jaw, the calk may slip from engagement with the teeth, but it will be confined against any lateral movement—that is, it will be held in the cavity of the outer jaw, therefore the gripping jaw can be drawn inward until the calk is sufficiently compressed between the two jaws, whereby a firm grip is obtained upon the calk, which will permit of the calk being removed from the shoe, or fastening the calk tightly onto the shoe. When the tool is moved to exert a turning action to the calk, the calk rolls in the cavity and the toothed jaw is brought to a tighter gripping action as the calk in its rolling movement wedges or jams between the teeth and the rounded wall of the cavity.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

A tool for removing calks from horse shoes consisting of two members each, com-

posed of a handle and a jaw, said handles crossing each other and pivoted together, and said jaws having their working faces disposed in an oblique line from the line of pivot, the general working face of one of said jaws made curved, and provided with a rounded cavity, in which the calk is received, the working face of the second jaw made to conform to the curve of the general working face of said first jaw, and teeth formed on the working face of said second jaw, all of said parts so arranged that as the jaws are brought to bear against the calk and a turning pressure is exerted, the calk rolls in the cavity, the teeth of the opposing jaw grip the calk, and the calk in its rolling course jams between the jaws. In testimony whereof I affix my signature, in the presence of two witnesses.

JOSEPH CASPERS.

Witnesses:

E. M. LOWRY,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."