Dec. 25, 1923. 1,478,931

Q. L. WEBB ET AL

ICE CRUSHER

Filed Sept. 25, 1923

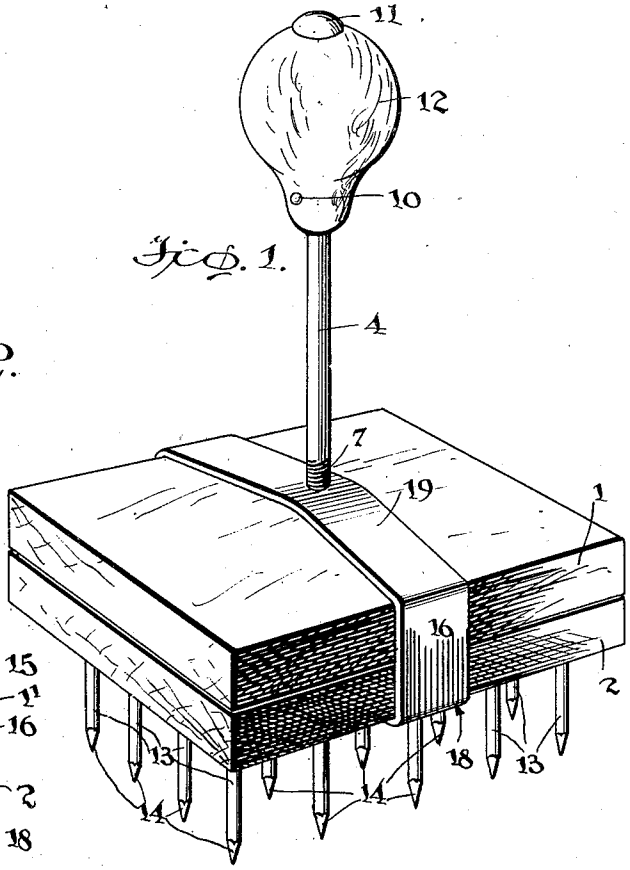


Fig. 1.

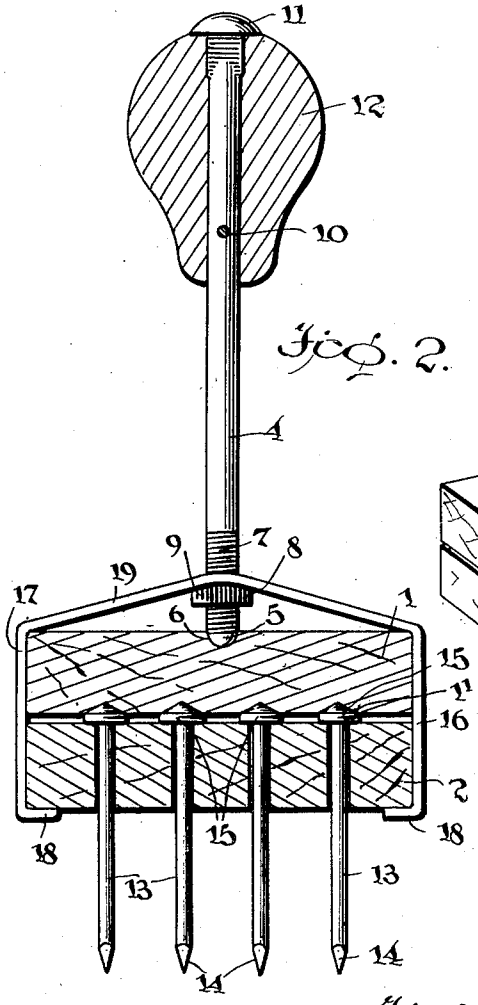


Fig. 2.

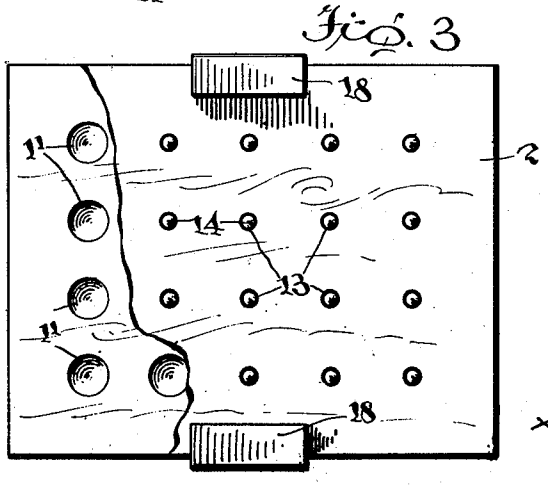


Fig. 3

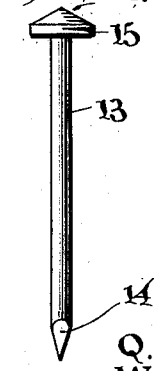


Fig. 4.

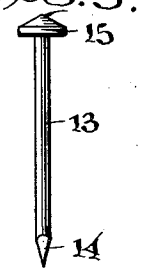


Fig. 5.

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UNITED STATES PATENT OFFICE.

QUINTUS L. WEBB AND WILLIAM R. POLSON, OF BRUNEAU, IDAHO.

ICE CRUSHER.

Application filed September 25, 1923. Serial No. 664,751.

To all whom it may concern:

Be it known that we, QUINTUS L. WEBB and WILLIAM R. POLSON, citizens of the United States, residing at Bruneau, in the county of Owyhee and State of Idaho, have invented certain new and useful Improvements in an Ice Crusher, of which the following is a specification.

This invention relates to an ice crushing tool, and has for its object to provide, in a manner as hereinafter set forth, a manually operated tool of such class having means for expeditiously crushing ice to the state desired, as well as further including a head so constructed as to enable the removably securing therewith of crushing members of varying sizes to enable the utilization of the desired size of crushing member to quickly perform the ice crushing operation, as well as to quickly substitute an unimpaired crushing member when one or more become damaged or dull.

Further objects of the invention are to provide an ice crushing tool which is simple in its construction and arrangement, strong, durable, thoroughly efficient and convenient in its use, readily assembled, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts, as hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to, which fall within the scope of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:—

Figure 1 is a perspective view of an ice crushing tool in accordance with this invention.

Fig. 2 is a sectional elevation thereof.

Fig. 3 is an inverted plan, broken away.

Figs. 4 and 5 are elevations of crushing members of different sizes.

An ice crushing tool in accordance with this invention, comprises a handle element, a clamping element, a sectional head, and a series of crushing members carried by and depending from one of the sections of the head.

The sectional head comprises two sections, as indicated at 1, 2, and each of said sections is rectangular in contour, and one is of the same size as the other. The section 1 has its lower faces formed with conoidal shaped sockets 1′, and the section 2 is provided with a series of perforations, which are vertically disposed and align with the sockets 1′, and as shown, the section 2, is formed with a series of spaced rows of vertically disposed perforations or openings, and the openings of each row are indicated at 3. The rows of perforations extend lengthwise of the section 2, and preferably are equally spaced, and the perforations 3 of each row are also preferably spaced relative to each other equidistant apart.

The handle element comprises a substantially elongated bar 4, which is cylindrical in contour, and is provided with a rounded lower end 5, engageable in a seat 6, formed centrally of the upper face of the section 1 of the head. The lower portion of the bar 4 is peripherally threaded as at 7, and engaging with the threads 7, is a clamping nut 8, having its upper face oppositely beveled, as at 9. Secured to the upper portion of the bar 4, by the hold fast device 10 in connection with the head 11 of the bar 4, is a hand grip 12.

Each of the crushing members, is formed of a shank of substantial length, preferably cylindrical throughout, and provided with a pointed lower end, and further provided with a head at its upper end. The crushing members, shown in Figures 4 and 5, are identical, with the exception that the member shown in Fig. 4, is of greater size than the member shown in Fig. 5, and the crushing members of varying sizes are of like construction, and the shank thereof is indicated at 13, the pointed lower end at 14, and the head 15, the latter is flat and preferably circular. Although the shanks 13 are preferably cylindrical in cross section, yet it is to be understood that the shanks 13 can be of any suitable contour. The heads 15 are cone shape in contour, so that when the crushing members are set up with respect to the sections 1 and 2 of the head, the space between said sections 1 and 2 will not be very wide. When the crushing members are set up, they are extended through the perforations 3, and the heads 15 are seated against the inner face of the section 2, and engage in the sockets 1′ in the section 1, and when the said sections 1 and 2 are clamped together, in a manner as herein-

after referred to, the crushing members will be fixedly retained in position, and will be prevented from lengthwise movement, with respect to the section 2, that is to say, they will be retained stationary within the section 2, through the medium of the sockets 1′, receiving the heads 15, and abutting against the heads 15, of the crushing members, and this arrangement will also prevent shifting of the sections.

The clamping element consists of a strip of metallic material, of substantial length, width and thickness, and which is formed with a pair of side portions 16, 17, inturned lower portions 18, which engage the inner, face or rather lower face, of the section 2, and said clamping element further includes an intermediate portion 19, which extends in opposite directions at an inclination from the center thereof and toward the portions 16 and 17. The intermediate portion 19, centrally thereof, is provided with an opening for the passage of the bar 4, and when the intermediate portion is in operative position, its inner face is engaged by the upper face of the nut 9, and on the adjustment of the nut 9 towards the hand grip 12, the clamping element will be fixedly secured in position, whereby the sections of the head are maintained in operative position, to secure the crushing members in the position as shown in Fig. 2, so that during the operation of the crushing tool, the crushing members will be arrested from lengthwise movement.

The setting up of the section 2, in the manner as stated, enables the removal of any or all of the crushing members when occasion so requires, or furthermore permits of the crushing members being changed from a large to a smaller size or from a smaller size to a larger size. If any of the crushing members become damaged or dull, it can be readily removed and a new one substituted.

Although the preferred embodiment of an ice crushing tool in accordance with this invention, is as illustrated and described, yet it is to be understood that changes in the details of construction can be had which will fall within the light of the invention as claimed.

What we claim is:—

1. An ice crushing tool comprising a head formed of an outer and an inner section opposing each other, headed crushing members detachably carried by and projecting from said lower section and having their heads extended in said upper section, a clamping element overlapping said sections, and means extending through and abutting against said element and engaging in said upper section for maintaining said clamping element in position to secure said sections together.

2. An ice crushing tool comprising a head formed of an outer and an inner section detachably secured together in opposed relation, said outer section having its inner face formed with sockets, and crushing members detachably carried by and projecting from the inner section and each formed with a conoidal shaped head seated in one of said sockets.

3. An ice crushing tool comprising an inner and an outer section opposing each other, a clamping element overlapping said sections and further abutting against the outer face of the inner section, crushing members removably carried by said inner section and abutting against said outer section, and a handle element extending through said clamping element and engaging in said outer section and provided with an adjustable clamping nut bearing against said clamping element for maintaining the latter in clamping position with respect to said sections.

In testimony whereof, we affix our signatures hereto.

QUINTUS L. WEBB.
WILLIAM R. POLSON.