March 8, 1927. 1,620,211

B. D. JERABEK

WHEEL PULLER

Filed March 3, 1926

Fig. 1.

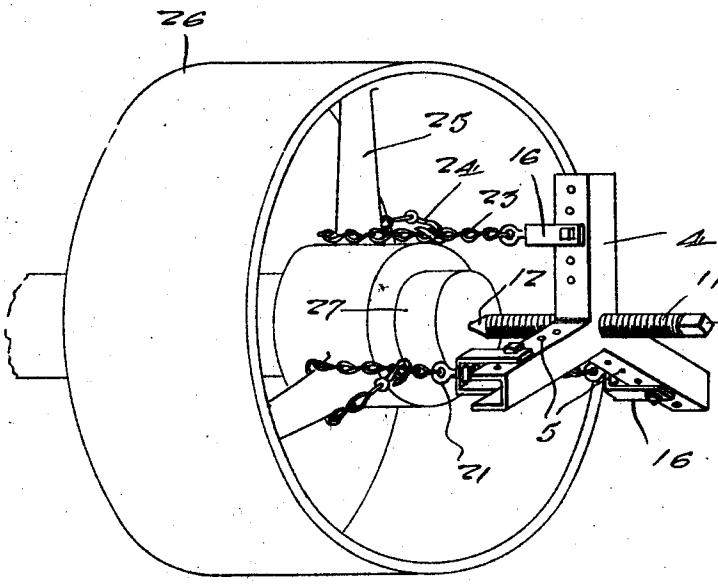


Fig. 3.

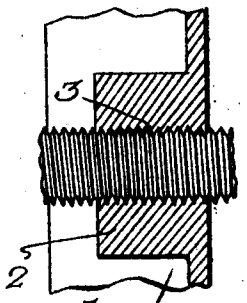


Fig. 4.

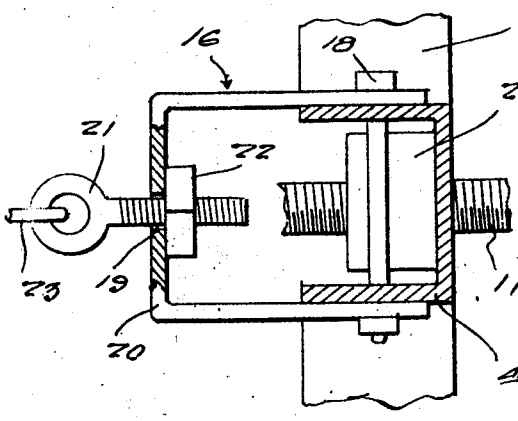


Fig. 5.

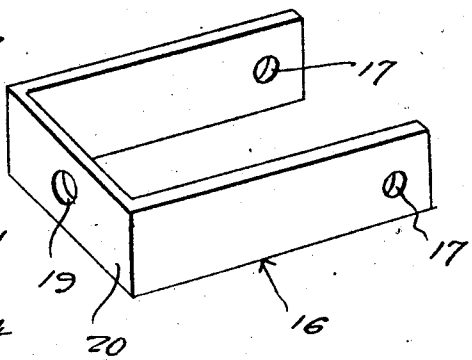
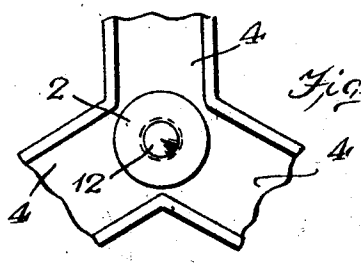


Fig. 2.



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Patented Mar. 8, 1927. 1,620,211

UNITED STATES PATENT OFFICE.

BENARD D. JERABEK, OF HUTCHINSON, MINNESOTA.

WHEEL PULLER.

Application filed March 3, 1926. Serial No. 91,979.

The present invention relates to improvements in wheel pullers, and has for its principal object to provide a highly novel, yet simple device for facilitating the removal of a wheel from the shaft on which the same is keyed without any difficulty.

A further object is to provide a device of the above mentioned character which may be readily and easily set up in position for use and which will prevent any danger of the wheel or gear which is being removed from its shaft becoming broken during the removal operation of said element from its shaft.

A still further object is to provide a wheel puller of the above mentioned character which is simple in construction, inexpensive, strong, and durable and further well adapted to the purposes for which it is designed.

Other objects and advantages of the invention will become apparent during the course of the following description taken in connection with the accompanying drawing.

In the accompanying drawing forming a part of this application and in which like numerals designate like parts throughout the several views:

Figure 1 is a perspective view of the wheel pulley embodying my invention showing the same in the act of removing a relatively large wheel from its shaft.

Figure 2 is an inside end elevation of the boss like member showing the channel shaped arms radiating therefrom, and also the pointed end of the screw.

Figure 3 is a fragmentary detail sectional view of the boss like member showing a portion of the shaft engaging screw threaded therethrough.

Figure 4 is a transverse section through one of the channel arms showing the connection between said arm and the chain, and

Figure 5 is a detail perspective view of the substantially U-shaped connecting member.

In the drawing wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates generally the wheel puller, the same comprising a boss like member 2, which is provided with an internally threaded bore 3 for a purpose to be presently apparent. A plurality of channel shaped arms such as are shown at 4 extend radially from the boss like member 2, and in the present instance, three arms are illustrated. A series of registering openings 5 are arranged in the sides of the respective channel shaped radially extending arms 4, and as is clearly shown in Figure 1 of the drawing, these openings are arranged in spaced relation. The purpose of these openings will also be hereinafter more fully described.

An elongated screw 11 is threaded through the internally threaded bore 2 of the boss like member 3 and the inner end thereof is tapered to provide a shaft engaging point 12. A tool engaging portion 13 is formed on the outer end of the screw 11, and in the present instance, said portion is substantially rectangular in shape as to accommodate a wrench.

A substantially U-shaped member 16 has its arms straddling the sides of each of the channel shaped members 4 and suitable openings 17 are formed in the end portions of the arms of the U-shaped member 16 for registry with one pair of openings formed in the sides of each of the channel shaped arms 4, and the bolts 18 extend through the registering openings of the arms of the U-shaped members 16 and the sides of the respective channel shaped arms 4 in the manner clearly illustrated in Figure 4. The U-shaped members 16 are adapted to be adjustably secured to the respective radially extending arms 4 through the medium of the spaced openings 5.

An opening 19 is provided in the crown portion 20 of each of the U-shaped members 16 and extending therethrough is the threaded shank of an eye bolt 21. A nut 22 is threaded on each of the threaded shanks of the eye bolts and is adapted to engage the inner side of the crown portion 20 of the respective U-shaped members 16 in the manner as also clearly shown in Figure 4.

A chain 23 of any suitable length is secured at one end to each eye bolt and a hook 24 is carried by the outer free end of each of the chains. These chains are adapted to extend around the spokes 25 of the wheel 26 which is keyed on the shaft 27 and the hooks 24 are then brought into engagement with certain links of the respective chains in order that the spokes will be properly gripped.

The use of the wheel puller as above described may be briefly stated as follows. The parts are arranged as shown in Figure 1 of the drawing so that the outer ends of the chains extend around the spokes of the wheel and then the hooks of the chains are

then placed in certain of the links of the respective chains. The pointed end 12 of the screw 11 is then placed in engagement with the outer end of the shaft on which the wheel is keyed. The screw is then rotated in one direction so as to cause boss like member 2 and the radially extending arms 4 associated therewith to move outwardly and simultaneously cause the wheel 26 to also move outwardly whereby the same will be disengaged from the shaft 27.

It will thus be seen from the foregoing description that I have provided a highly novel, yet simple device for facilitating the removal of wheels from their shafts without any difficulty, and will furthermore save considerable time. The provision of a wheel puller of the above mentioned character will also prevent the wheel from becoming broken during its removal from the shaft on which the same is keyed. The simplicity of my device furthermore enables the parts to be readily and easily adjusted to accommodate wheels of various diameters and will at all times be efficient in carrying out the purposes for which the same is designed.

While I have shown the preferred embodiment of my invention it is to be understood that minor changes in the size, shape, and arrangement of parts may be resorted to without departing from the spirit and scope of the appended claim.

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

A wheel remover comprising in combination, an internally threaded boss like member, a screw threaded therethrough, a plurality of channeled shaped arms extending radially from the boss like member, a substantially U-shaped member having its arms straddling the sides of each of the channeled arms and attached thereto, an eye bolt carried by the crown portion of each of the U-shaped members, and wheel engaging elements attached to the respective eye bolts.

In testimony whereof I affix my signature.

BENARD D. JERABEK.