Jan. 17, 1928. 1,656,731

B. D. JERABEK

WHEEL PULLER

Original Filed March 3, 1926

Fig. 1.

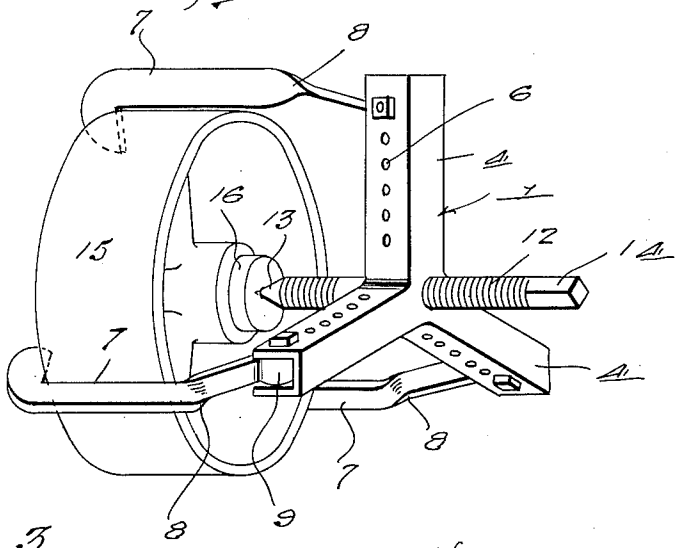


Fig. 3.

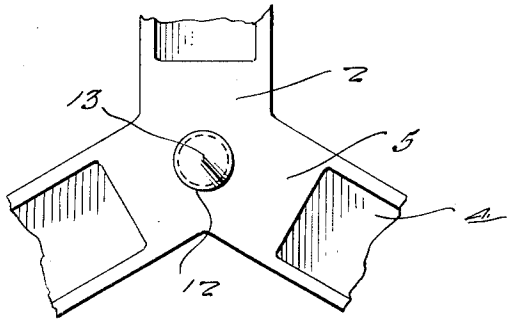
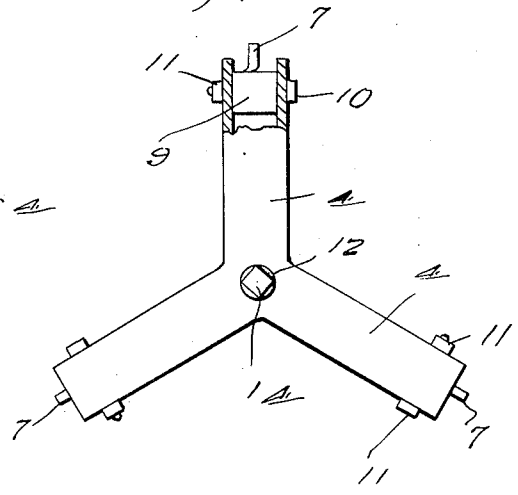


Fig. 2.



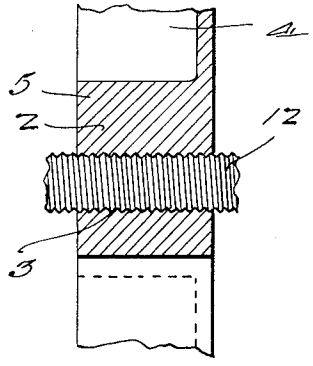


Fig. 4.

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UNITED STATES PATENT OFFICE.

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WHEEL PULLER.

Original application filed March 3, 1926, Serial No. 91,979. Divided and this application filed August 18, 1926. Serial No. 130,073.

This is a divisional application of my copending application bearing Serial No. 91,979, filed March 3, 1926.

The present invention relates to new improvements in wheel pullers and has for its principal object to provide a simple and efficient device for facilitating the removal of a wheel from the shaft on which the same is keyed or mounted.

One of the important objects of the present invention is to provide a wheel puller 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 which is being removed from its shaft becoming broken during the removal operation.

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

Other objects and advantages of this invention will become apparent during the course of the following description.

In the accompanying drawing forming part of this specification and in which like numerals are employed to designate like parts throughout the same:

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

Figure 2 is an end elevation partly in section.

Figure 3 is an enlarged fragmentary inside elevation showing the boss like member and the adjacent portions of the channel-shaped arms which radiate therefrom, and also illustrating the pointed end of the screw, and

Figure 4 is a fragmentary detail sectional view of the boss-like member showing a portion of the shaft-engaging screw threaded therethrough.

In the drawing in which is shown for purposes of illustration 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 made 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 of such arms are illustrated. The boss-like member 2 is provided with radially disposed extensions 5 which are formed solid with the adjacent portions of the respective channel-shaped arms 4, and as clearly shown in Fig. 3 of the drawing. The outer face of the boss 2 as well as the extensions 5 are flush with the free edges of the arms of the channel-shaped members, this is clearly shown in Figure 4. This construction will provide a reinforcing means for the boss and will prevent any possible danger of the arms buckling or otherwise becoming bent due to the strain placed upon the device when in use.

A series of registering openings 6 are arranged in the sides of the respective channel-shaped radially extending arms 4 and as clearly shown in Fig. 1 of the drawings, these openings are arranged in spaced relation. The purpose of these openings will also be hereinafter more fully described.

A hook designated generally by the numeral 7 is associated with each of the radially extending arms 4 and to this end, the shank portion of each hook is twisted as at 8 and an eye member 9 is formed on the inner end of each of these shanks. The eye members of the hooks are adapted to be disposed between the sides of the respective channel-shaped arms 4. A bolt 10 extends through one pair of registering openings 6 formed in the side of each of the channel-shaped arms 4 and also through the respective eye members of the hooks, a nut 11 being threaded on the threaded end of the bolt for maintaining the same in position against accidental displacement.

In this manner, the inner ends of the shank portions of the hooks will be pivotally supported between the ends of the respective channel-shaped arm members so that the hooks may be formed into an outer engagement with the wheel or pulley which is to be removed from its shaft on which the same has become stuck. The provision of the series of spaced openings in each of the radially extending arms enables the inner ends of the hooks to be adjustably secured whereby the hooks may be adjusted to accommodate the various sizes of wheels or pulleys which are to be removed.

An elongated screw 12 is threaded through the internally threaded bore 3 of the boss-like member 2 and the inner end thereof is ta-

pered to provide a shaft-engaging point 13. A tool-engaging portion 14 is formed on the outer end of the screw 12 and in the present instance, said portion is substantially rectangular and shaped to accommodate a wrench.

The use of the wheel puller as above described may be briefly stated as follows:

The parts so arranged as shown in Fig. 1 of the drawings so that the outer ends of the hooks will engage the innermost side of the wheel or pulley 15 which has become stuck on its shaft 16. The pointed end 13 of the screw 12 is placed in engagement with the outer end of the shaft. The screw 12 is then rotated in one direction so as to cause the boss-like member 2 and the radially extending arms 4 associated therewith to move outwardly and simultaneously cause the wheel 15 to also move outwardly whereby the same will be disengaged from the shaft 16.

It will thus be seen from the foregoing description, that I have provided a highly novel and simple device for facilitating the removal of wheels from their shafts without any difficulty, and further without any danger of the wheel becoming broken or otherwise damaged. The provision of a wheel puller of the above mentioned character will save considerable time and labor and due to its simplicity, it can be readily and easily set up in position for use and furthermore can be readily adjusted to accommodate wheels of various diameters.

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

What I claim is:

A wheel remover comprising in combination an internally threaded solid boss-like member, a screw threaded therethrough, a plurality of channeled arms extending radially from the boss like member similar to the spokes of a wheel, the outer face of the bottom of the channel shaped arms lying flush with the outer face of the boss like member, the outer edges of the sides of the channel arms lying in the same plane with the inner face of the boss like member, there being radial extensions formed on the boss like member and being formed solid with the adjacent portions of the respectively channeled arms, the inner faces of the radial extensions lying in the same plane with the edges of the channel arms and the inner face of the boss like member, wheel engaging hooks, an eye member formed on the inner end of the shank of each hook and disposed between the sides of the respective channeled arms, and a pivot member extending through the sides of each of the channel arms and through the respective eye members of the respective hooks.

In testimony whereof I affix my signature.

BENARD D. JERABEK.