Sept. 14, 1926. 1,600,038

J. A. CRUMLEY

BULL WHEEL

Filed Oct. 23 1925

Fig. 1.

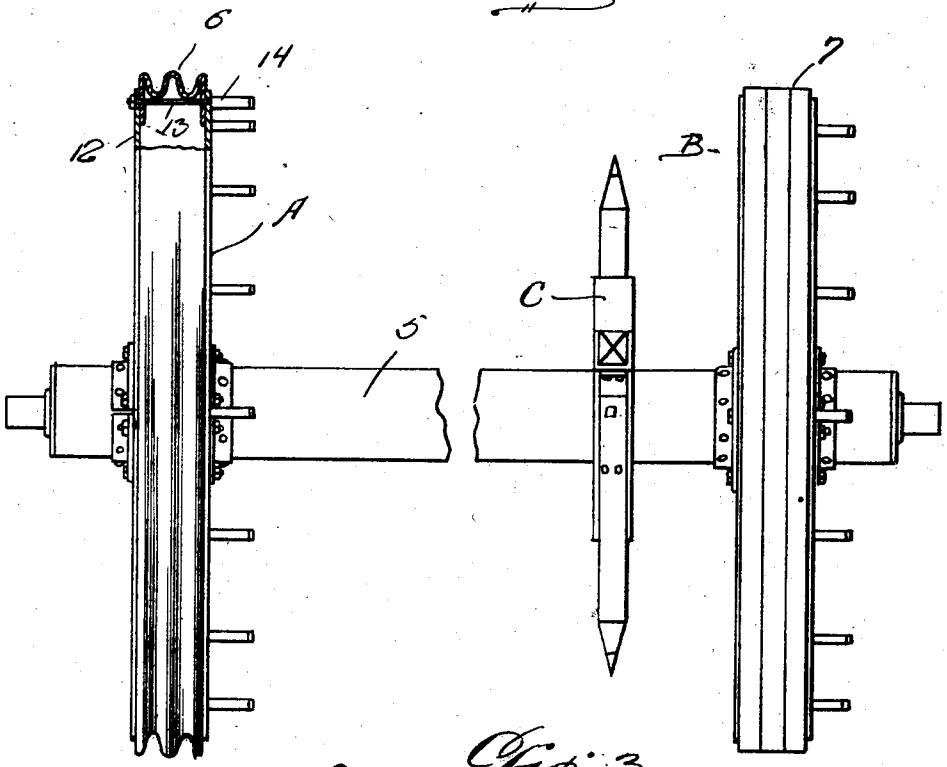


Fig. 2.

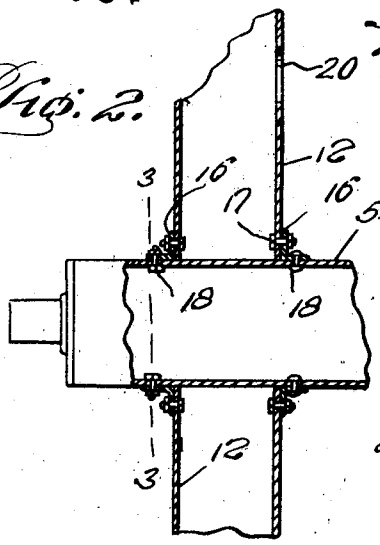
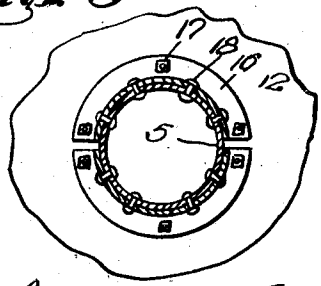


Fig. 3



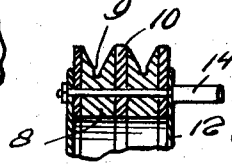


Fig. 4.

Inventor

J. A. Crumley.

By Clarence A. O'Brien

Attorney

Patented Sept. 14, 1926. 1,600,098

UNITED STATES PATENT OFFICE.

JAMES A. CRUMLEY, OF CHARLESTON, WEST VIRGINIA, ASSIGNOR OF ONE-HALF TO ELVYN L. KELLER, OF CHARLESTON, WEST VIRGINIA.

BULL WHEEL.

Application filed October 23, 1925. Serial No. 64,386.

The present invention relates to improvements in bull wheels, and more particularly to improvements upon the structure shown in the Crumley Patent No. 1,502,715 issued on July 29th, 1924.

The general object of the invention is to simplify the construction of bull wheels so as to afford a knock down structure whereby the bull wheels may be shipped more conveniently and to provide such a structure which is capable of easy and ready assembly.

Another important object of the invention is to provide a bull wheel of this nature which is exceedingly strong and durable, one which is thoroughly efficient and reliable in use, not likely to easily become out of order, and otherwise well adapted to the purpose for which it is designed.

A further very important object of the invention is the provision of a bull wheel of this nature having a superior compactness and convenience from the standpoint of construction, assembly and manufacture.

With the above and numerous other objects in view as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:

Figure 1 is an elevation of an assemblage of my bull wheels,

Figure 2 is a detail section through the hub portion of one bull wheel,

Figure 3 is a transverse section taken substantially on the line 3—3 of Figure 2, and

Figure 4 is a detail section through another embodiment of the rim of one of the bull wheels.

Referring to the drawing in detail it will be seen that 5 designates a tubular axle or shaft having a bull wheel A or B mounted at the ends thereof, and a flyer C mounted adjacent one or each of said wheels.

The wheels A and B differ only in the rims provided. The rim 6 of the wheel A is of a corrugated nature, while the rim 7 of the wheel B is formed in a plurality of sections. In Figure 4 a still further modification has been shown of the rim wherein the same is constructed of sections 8 channeled at their outer edges as at 9 and separated by annular spacer 10. The rim 6, 7, or 8 is assembled in relation to the discs 12 by bolts 13 passing therethrough and extending beyond one disc for receiving pipe sections 14. This assemblage is the same as is disclosed in my previous patent, above identified. The discs 12, of course, are provided with central openings through which the shaft 5 extends. In order to attach the discs to the shaft 5 I provide arcuate flanges 16 of angle iron fastened to the discs 12 by bolts 17 and to the shaft 5 by rivets or bolts 18. It is preferable to rivet the flanges 16 on the innerside of the wheel to the shaft 5 while the outer flanges are bolted thereto. In order that access may be had to the bolts 17 one or both of the discs 12 may be provided with hand holes 20. The flange 16 on the inside of each wheel is preferably of the split variety, so that it may be drawn tightly about the shaft while the outer flange is formed preferably in two sections. If desired, however, the flanges may be cast, welded, or otherwise integrally formed with the discs or may be otherwise detachably engaged therewith.

From the above detailed description it will be apparent that I have provided a bull wheel which is capable of being easily assembled or disassembled, thereby providing a knock down structure which may be shipped in its knock down condition, and which may be put together by a comparatively unskilled person in a relatively short length of time. The construction is capable of cheap manufacture owing to the minimum number of parts and the simplicity thereof. The present embodiment of the invention has been disclosed merely by way of example since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description. It will be apparent that numerous changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described the invention, what I claim as new is:—

1. In a bull wheel structure, a drum shaft, a pair of spaced discs having openings for receiving the drum shaft, a rim between the

peripheral edges of the discs, means for detachably securing the rim between the discs, and flanges for engaging the discs on the drum shaft, said flanges being of angle iron structure and arcuate in formation.

2. In a bull wheel structure, a drum shaft, a pair of discs having central openings for receiving the drum shaft, a rim between the peripheral edges of the discs, means for detachably securing the rim between the discs, a plurality of arcuate flanges formed of angle iron, bolts for attaching said flanges to the discs and to the drum, said discs being provided with hand holes to afford access to the bolts engaging the flanges with the discs.

In testimony whereof I affix my signature.

JAMES A. CRUMLEY.