No. 869,921. PATENTED NOV. 5, 1907.

S. E. MERCER.

WHEEL.

APPLICATION FILED FEB. 14, 1907.

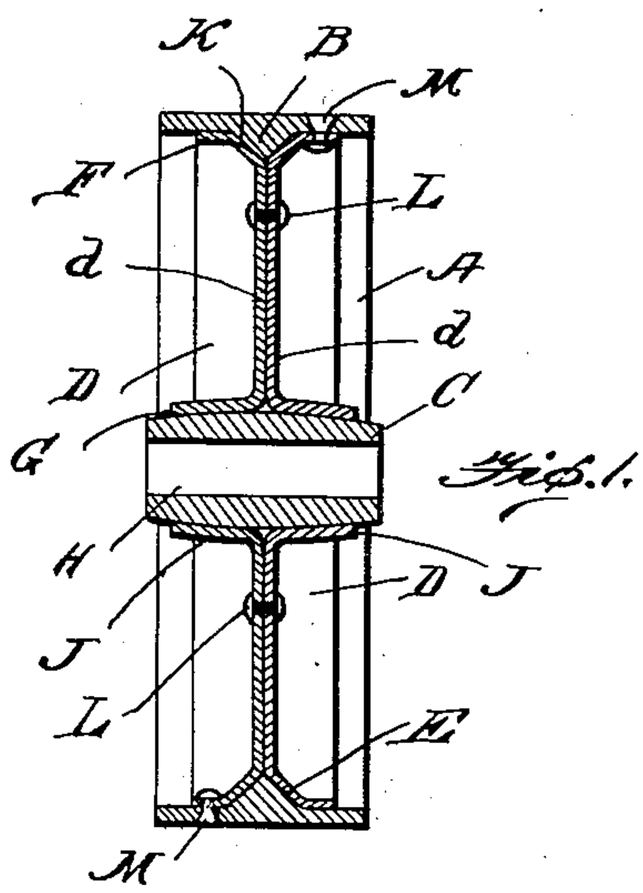

Fig. 1.

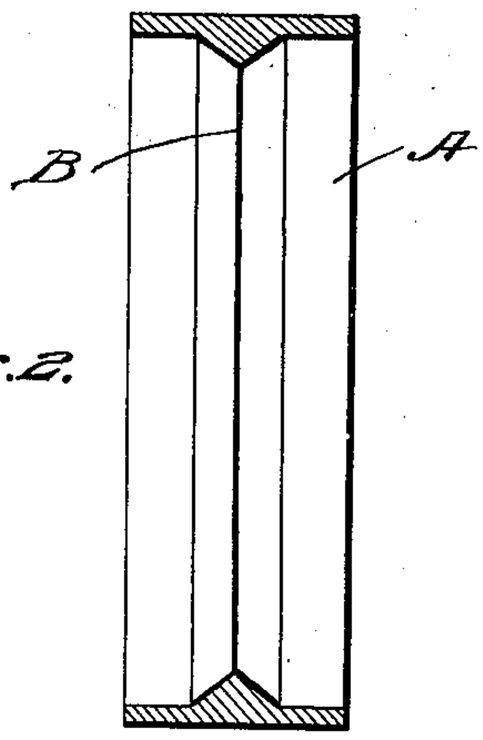

Fig. 2.

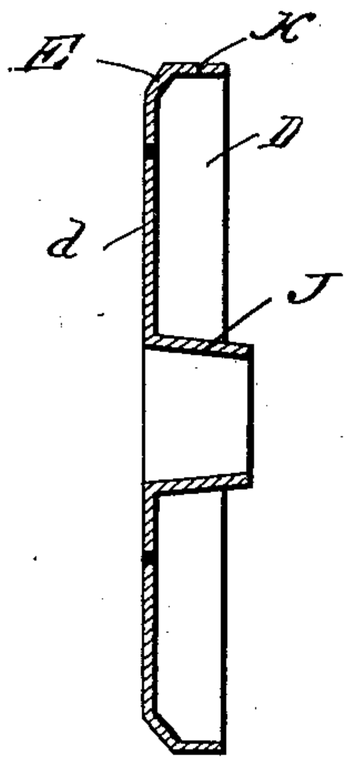

Fig. 3

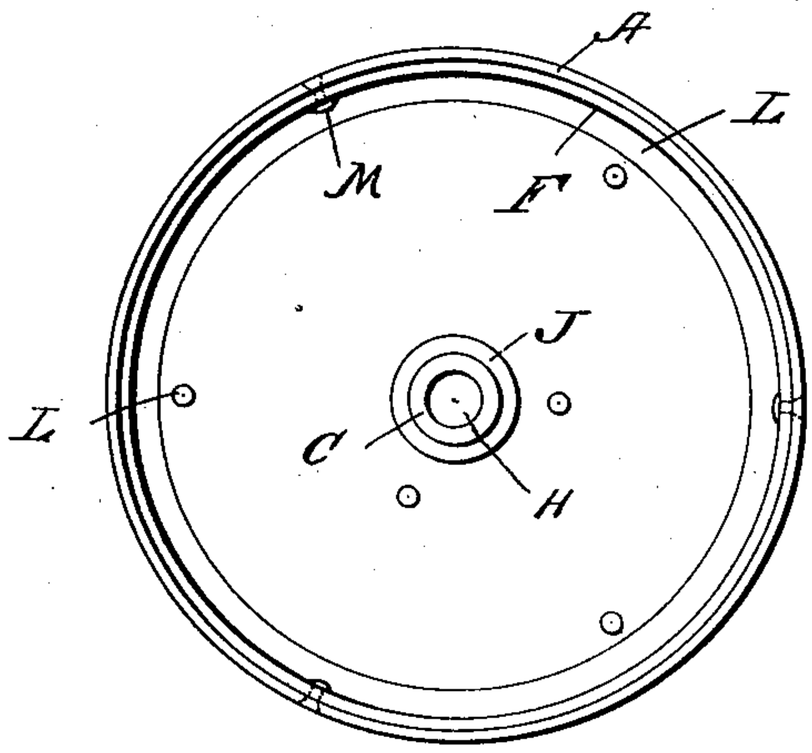

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL E. MERCER, OF SHELBYVILLE, ILLINOIS.

WHEEL.

No. 869,921. Specification of Letters Patent. Patented Nov. 5, 1907.

Application filed February 14, 1907. Serial No. 357,258.

To all whom it may concern:

Be it known that I, SAMUEL E. MERCER, a citizen of the United States, residing at Shelbyville, in the county of Shelby and State of Illinois, have invented certain new and useful Improvements in Wheels, of which the following is a specification, reference being had therein to the accompanying drawing.

This present invention relates to improvements in wheels, and the main object of the invention is the production of a pressed steel wheel especially designed to be used in connection with trucks, but I would have it understood that the same may be used as a loose or a fast pulley, or for wheels for various classes of vehicles. This particular wheel I use in connection with my improved construction of truck, as set forth in an application filed even date herewith, Serial #357,259.

This wheel consists more particularly of a surrounding band, rim or periphery provided with an internal centrally arranged rib, for the reception of a circumferential groove or slot provided by a flanged disk made in two sections of sheet metal, the said flanged disks being provided with central co-acting members for receiving and retaining the wheel's hub.

To more clearly illustrate the invention, attention is invited to the accompanying drawings, in which:—

Figure 1 is a transverse section of a complete wheel. Fig. 2 is a transverse section of the rim of the wheel. Fig. 3 is a transverse section of one of the flanged plates. Fig. 4 is a side elevation of a complete wheel.

Referring to the drawings:—A designates the outer rim or periphery, which is made preferably in the shape of a band, and is provided with an internally centrally arranged V-shaped in cross section rib or shoulder B.

In order to lend stability to the rim of the wheel and at the same time to support the hub C, I provide the two small disks D and D′, each one of which consists of the central web *d*, the periphery or rim of each disk being provided with the inclined surfaces E, terminating in the peripheral flange F. At the center of each disk I provide the tapered openings G, adapted to fit around the oppositely tapered exterior wall of the hub H, the same being held in position by the close contact of the surrounding tapered walls J of the disks. In order to hold the disks together and securely clamp the walls J upon the hub and also to form the V-shaped centrally arranged peripheral channel or groove K for the reception of the rib B, I provide the rivets L as clearly shown in Figs. 1 and 4. In order to secure the flanges F and consequently the disks D and D′ to the rim, I provide the rivets M.

The outer ends of the walls J terminate within the ends of the hub H, so that the hub H, which is of heavier material than the walls J, will receive the knocks and jars occasioned by the rough usage given trucks, and thus form a protection for the thinner ends of the walls J. This feature is therefore of great importance in the construction of truck wheels.

From the foregoing description in connection with the drawings, it is evident that I provide a simple, durable and inexpensive wheel, which is made from stamped or pressed steel, the parts after being formed being very easily assembled, the straining disks or webs forming a support for the hub and the connecting means between the hub and the rim; and being further provided with means whereby the relative positions of the disks and rim are held stationary.

The disks D and D′ may be made solid or they may be provided with openings to lighten the construction without departing from the principles of my invention.

What I claim as new and desire to secure by Letters Patent, is:—

1. A wheel, consisting of a rim provided with an internal rib V-shaped in cross section, a hub, a pair of co-acting disks adapted when their body portions are together and contacting throughout from the hub to the rim, to form a groove to incase the rib of the rim, and having oppositely extending peripheral flanges, means for securing the flanges to the rim, and means whereby the hub is supported by the disks.

2. A wheel, consisting of a rim provided with a tapered internal rib, a hub, a pair of co-acting disks adapted when assembled to have their body portions contact and be in the same parallel plane and to engage and support the hub and provide a receptacle for the rib of the rim, the said disks being provided with oppositely extending flanges to contact the rim upon opposite sides of the rib, and means for securing said flanges to the rim.

3. A wheel, consisting of a rim provided with a tapered internal rib, a hub having oppositely outwardly tapered external surfaces, a pair of co-acting disks having a central opening with outwardly tapered walls, said tapered walls being adapted to surround the hub and terminate at a point within the ends of the hub to form a support therefor and be protected by the projecting ends of the hub, and means for clamping the body of the disks together to cause the same to bind the hub and the rib of the rim.

4. A wheel, consisting of a rim provided with a centrally arranged tapered internal rib, a hub having oppositely outwardly tapered external surfaces, a pair of co-acting disks, each one consisting of a single sheet of metal having a right angle flange with an inclined surface connecting the same to the body of the disk and with a centrally arranged opening having outwardly tapered walls, said walls being adapted to surround the hub and terminate at a point within the ends of the hub so that the projecting ends of the hub protect the same, means engaging the body of the disks and clamping the same together so that the bodies between the hub and rim lie parallel and contact, so as to clamp the tapered walls upon the hub and cause the inclined walls of the periphery of the disks to engage the rib, and means securing the flanges of the disks to the body of the rim.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL E. MERCER.

Witnesses:
RICHARD T. EDDY,
WILLIAM W. HARTSELL.