P. L. LEISSE.

SHEET METAL WHEEL.

APPLICATION FILED FEB. 25, 1920.

1,403,608. Patented Jan. 17, 1922.

Fig. 1

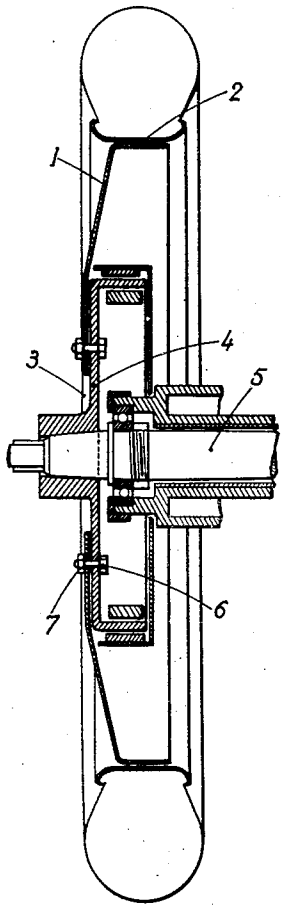


Fig. 2

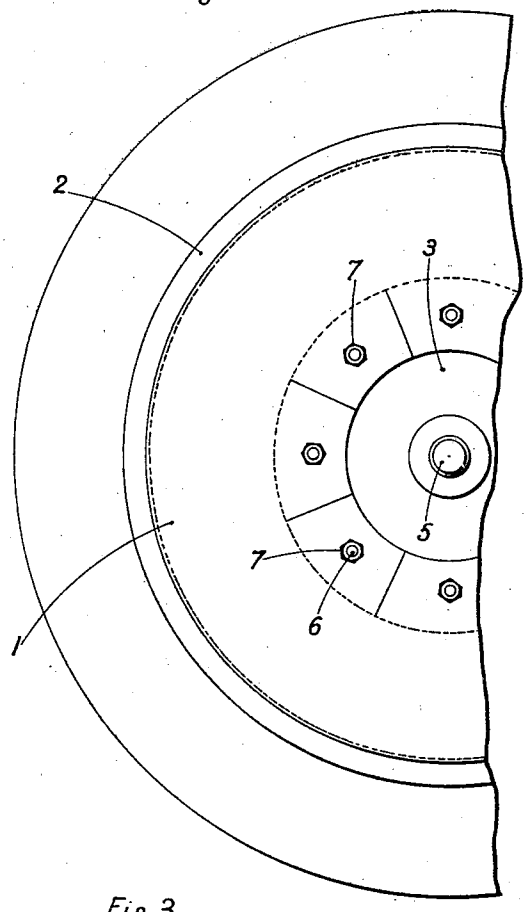


Fig. 3



Inventor.

Pierre L. Leisse

By Chas. J. O'Neill

Atty

UNITED STATES PATENT OFFICE.

PIERRE L. LEISSE, OF BOULOGNE, FRANCE, ASSIGNOR TO LOUIS RENAULT, OF BILLANCOURT, FRANCE.

SHEET-METAL WHEEL.

1,403,608. Specification of Letters Patent. Patented Jan. 17, 1922.

Application filed February 25, 1920. Serial No. 361,190.

To all whom it may concern:

Be it known that I, PIERRE L. LEISSE, citizen of the French Republic, residing at Boulogne, Department of the Seine, in France, and having P. O. address 12 Rue Alfred-Laurant, in the said city, have invented certain new and useful Improvements in or relating to Sheet-Metal Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention has for its object a stamped sheet metal wheel for vehicles. This wheel is formed in a known manner by a stamped sheet metal annulus of conical form. The annulus is provided with a central opening to facilitate mounting and demounting of the wheel. The wheel is secured by bolts and nuts on a disc of a diameter corresponding to the central opening in the annulus and carried by the hub or the axletree arm or stub shaft.

When these wheels are employed as rear wheels, the disc carried by the hub is then replaced by the brake drum. Wheels of this type having a large central opening, are lighter than the stamped sheet metal wheels generally employed, which facilitates mounting and demounting of these wheels; further, the vibratory movement of these wheels is less than ordinary sheet metal wheels, because they are actually formed of two members, the disc and the annulus connected by means of bolts.

The invention further relates to arrangements of details which prevents the loosening of the securing nuts of the annulus to the disc as hereinafter explained.

In order that the invention may be clearly understood reference is made to the accompanying drawing, wherein:—

Figure 1 is a vertical section of a metallic wheel in accordance with the present invention, mounted on the rear axle of a vehicle;

Figure 2 is a side view of part of the wheel in side elevation.

Figure 3 shows a developed section of the annulus and disc adjacent the securing bolts.

The wheel is formed in the ordinary manner by a stamped sheet metal disc 1 so as to form a light conical structure. To the periphery of the disc 1 is riveted or otherwise suitably secured a felloe to receive the pneumatic or other tire. The annulus 1 is provided with a central opening 3 and is secured, in the construction where the wheel is mounted on the rear axle of an automobile, on a brake drum 4 carried by the end of the transmission shaft 5. The annulus 1 is secured on the brake drum 4 by bolts and nuts 6, 7; the bolts are non-rotatably mounted in the drum 4. The inner periphery of the annulus 1 is slightly corrugated, the corrugations being preferably radial (see Figure 3). The sheet metal of which the annulus is made thus acquires a certain amount of elasticity, which on account of this elasticity prevents accidental loosening of the nuts 7.

In the case of front wheels for an automobile, the brake drum 4 may be replaced by a disc of suitable diameter, secured to the axletree arm or stub shaft and on which is bolted the metal annulus of the wheel.

A metallic wheel of this kind, having a large central opening is of great rigidity and is lighter than metallic disc wheels generally employed. The vibratory movement of a wheel formed of two interconnected pieces or members is inferior to that of a disc wheel formed in one piece. Further in the case of rear wheels the utilization of the brake drum permits of employing a more simple construction of hub, as well as an appreciable economy in construction.

Claim—

A stamped sheet metal wheel of the disc type, comprising an auxiliary, axle-supported disc-like member, a central opening formed in the web of said wheel, radial corrugations provided adjacent said opening, adapted to engage the auxiliary disc-like member, and fastenings for resiliently securing together, at the junction thereof, the web of said wheel and its axle-supported disc-like member.

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

PIERRE L. LEISSE.

Witnesses:

LOUIS LOWE,

EMILE KLOK.