

No. 786,222.

PATENTED MAR. 28, 1905.

S. KLAMBOROWSKI.

TROLLEY WHEEL.

APPLICATION FILED FEB. 16, 1905.

Fig. 2.

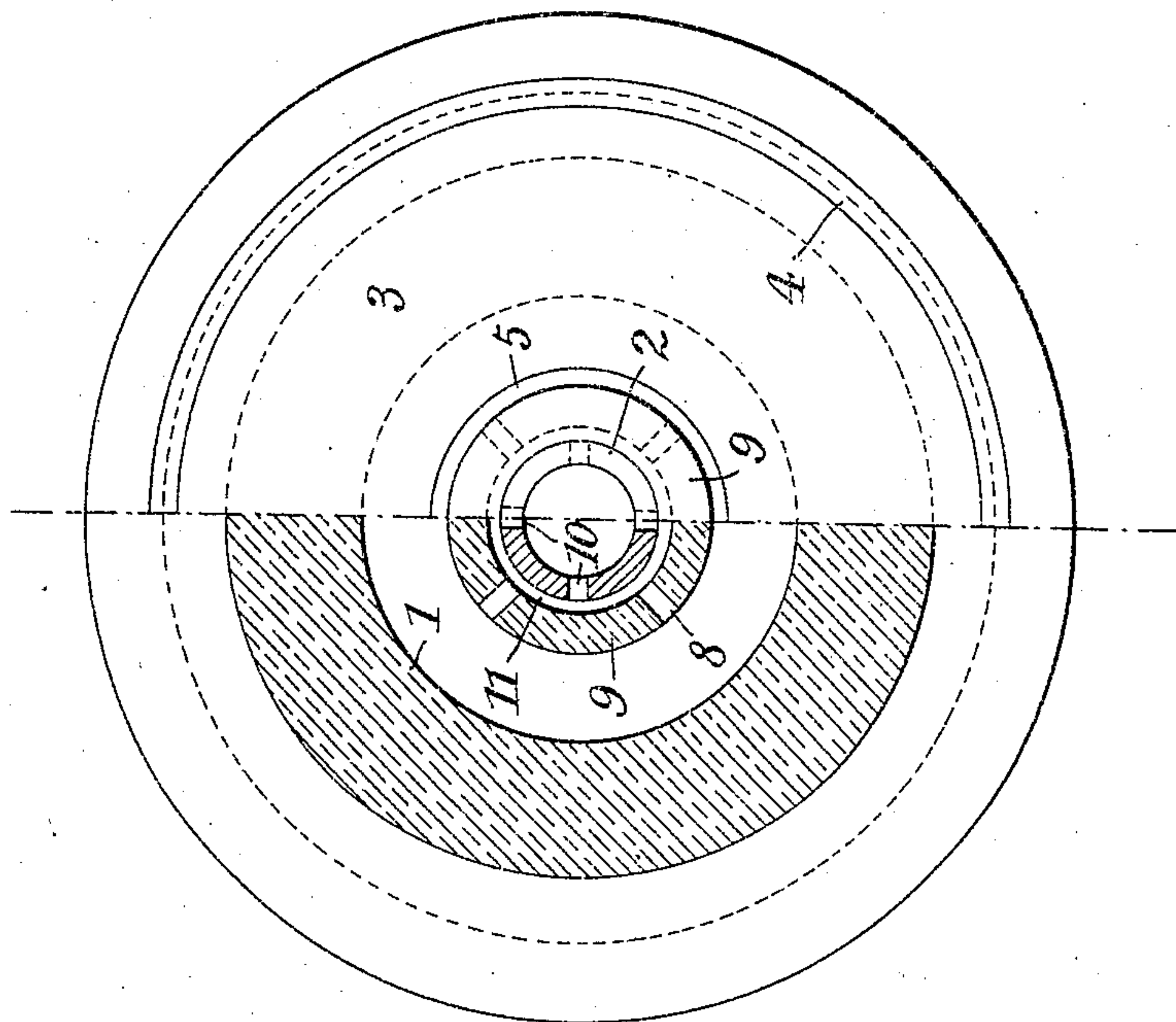
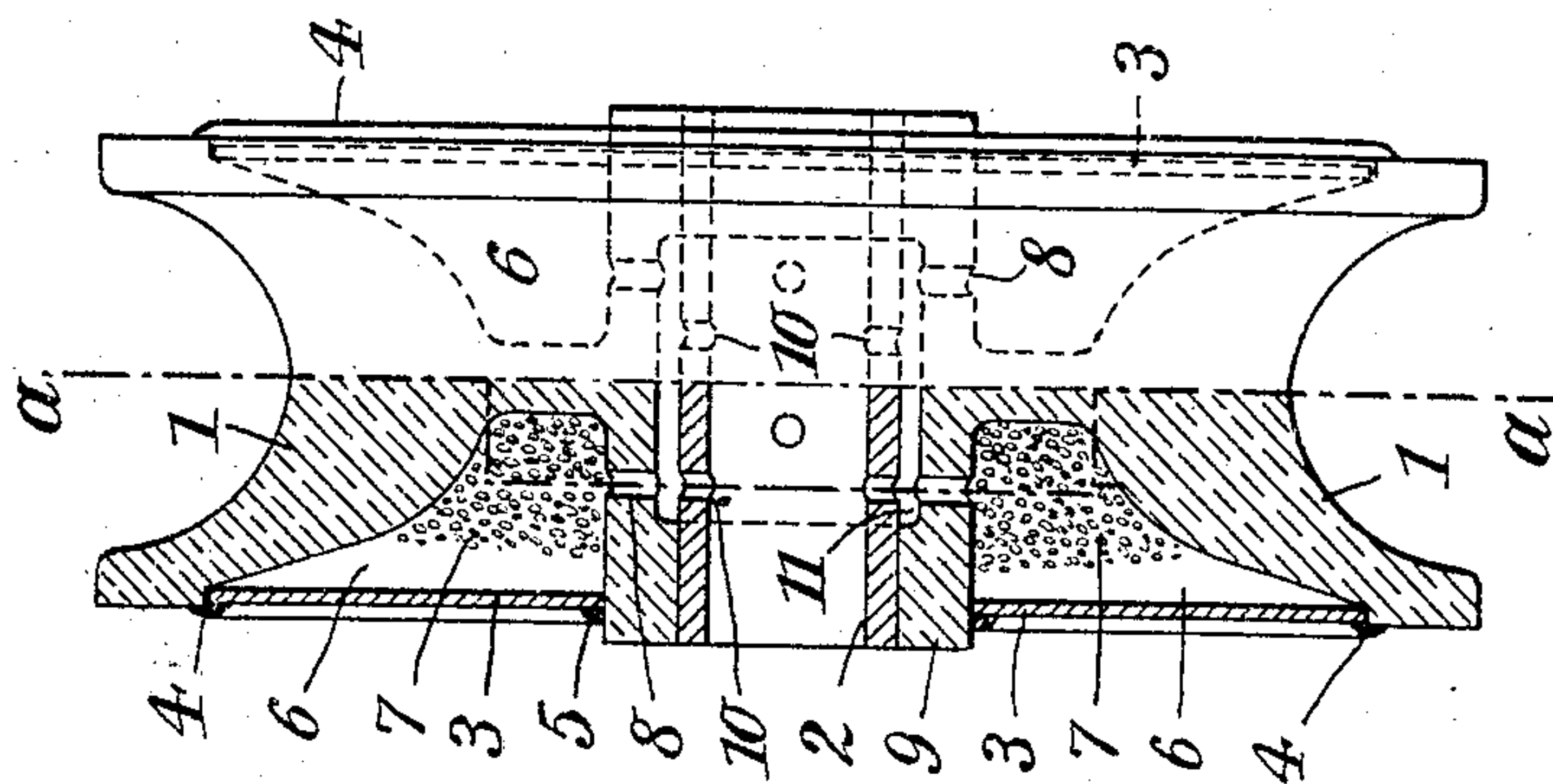


Fig. 1.



WITNESSES:

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INVENTOR

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SIGMUND KLAMBOROWSKI, OF LODZ, RUSSIA.

TROLLEY-WHEEL.

SPECIFICATION forming part of Letters Patent No. 786,222, dated March 28, 1905.

Application filed February 16, 1905. Serial No. 245,886.

To all whom it may concern:

Be it known that I, SIGMUND KLAMBOROWSKI, a subject of the Emperor of Russia, residing at Lodz, Russian Poland, Empire of Russia, have invented a new and useful Trolley-Wheel, of which the following is a specification.

The ordinary trolley-wheels, which are pressed by their poles against the trolley-wires, are obliged to make an exceedingly high number of revolutions per minute even for a moderate speed of the electric-railway car, and for this reason they are subjected to a very rapid wear in their bearings. Attempts have been made to remedy this defect by lubrication; but the ordinary self-lubricating bearings present great disadvantages, such as excessive waste of oil and leakages, so that they are unfit for trolley-wheels.

My invention relates to improvements in trolley-wheels whereby the said defects are avoided and a perfectly uniform and economical lubrication of the wheel-pin is insured; and the objects of my improvement are, first, to form air-tight oil-chambers on both sides of the wheel by soldering on two disks of sheet metal; second, to provide the nave with a plurality of cross-holes communicating with the said oil-chambers, and, third, to fill said oil-chambers with wicks. I attain these objects by the trolley-wheel illustrated in the accompanying drawings, in which—

Figure 1 is on the left a vertical central cross-section through the wheel and on the right a side view of the same, and Fig. 2 is on the left a vertical longitudinal section through the same on the line *a a* in Fig. 1 and on the right an elevation of the same.

Similar characters of reference refer to similar parts in both views.

The trolley-wheel 1, which may be of any known construction and shape, is so cast in a single piece, as to receive on both sides deep concentric recesses 6 6. It is preferably provided with a bearing-boss 2. According to my invention both lateral recesses 6 6 of the wheel 1 are closed by two disks 3 3, of sheet metal, which are soldered at their internal circumferences on the nave 9 and at their ex-

ternal peripheries on the rim of the wheel 1. The solder-rings covering the joints between the wheel and the disks 3 3 are denoted by 4 and 5, respectively. Thereby two oil-chambers 6 6 are formed, which are placed in communication with the bore of the boss 2 through a plurality of cross-holes 8 8 in the nave 9, an annular space 11, and a plurality of cross-holes 10 10 in the boss 2. The two oil-chambers 6 6 are filled with lubricating wicks and oil. The introduction of the oil into the two chambers 6 6 is preferably effected in the following manner: First the pin, on which the wheel 1 is mounted to turn, is withdrawn from the latter. Then the bore is closed at the one end by means of a suitable plug or otherwise, and afterward oil is poured in from the other end, and it may be preferably pressed into the oil-chambers 6 6 by means of a piston-like bolt fitting nicely in the bore. When the pin has been reintroduced into the boss 2 and the trolley is ready, then during the running of the railway-car the wheel 1 in contact with the trolley-wire will be put into rotation, whereby a certain sucking effect on the oil is produced, so that the oil contained in the chambers 6 6 will be distributed over the pin in a very economical and before all perfectly uniform manner. Thus with the highest economy in the consumption of oil a sufficient lubrication of the pin and nave bore is obtained. The soldering of the two disks 3 3 on the wheel 1 for the formation of the oil-chambers 6 6 can be done very quickly, cheaply, and safely by any ordinary tin-worker in the service of the electric railway or tram company. Should the wheel have worn out, the two disks 3 3 may be re-covered and used on a fresh wheel.

It is essential to cast the trolley-wheel in a single piece and to provide it according to my invention with air-tight oil-chambers.

What I claim as my invention, and desire to secure by Letters Patent, is—

A trolley-wheel comprising a hub and a rim connected by an integral web, side plates connecting said hub near the outer ends thereof with said rim and forming oil-chambers on opposite sides of said web, and a bushing extending through said hub; said hub having

a recess in its central portion forming with
said bushing an annular oil-chamber and be-
ing provided with ducts leading from said an-
nular oil-chamber to said side oil-chambers
5 and said bushing having ducts leading from
said annular oil-chamber to the inner face of
the bushing.

In testimony whereof I have signed my name
to this specification in the presence of two
subscribing witnesses.

SIGMUND KLAMBOROWSKI.

Witnesses:

CYRYL TREDWICKS,
JOSEF WILLGRE.