

No. 855,627.

PATENTED JUNE 4, 1907.

T. H. B. GAYNER.

AIR TUBE FOR PNEUMATIC TIRES FOR WHEELS.

APPLICATION FILED FEB. 1, 1906.

Fig. 1.

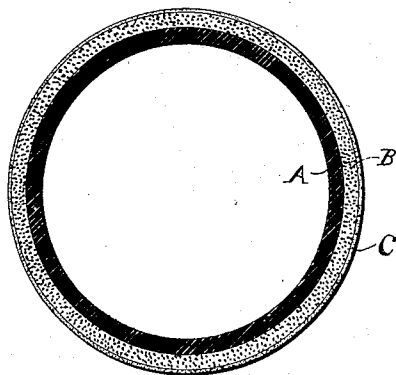
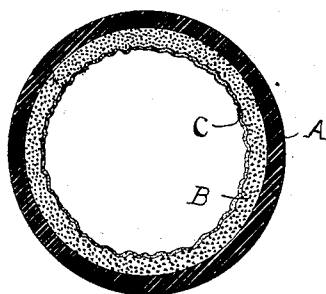


Fig. 2.



Attest:
Edw. L. Tolson.
Edward N. Burton

By

Inventor,
Thomas H. B. Gayner.
Richard & Leo
Attys.

UNITED STATES PATENT OFFICE.

THOMAS HENRY BECKS GAYNER, OF SOUTH MELBOURNE, VICTORIA,
AUSTRALIA.

AIR-TUBE FOR PNEUMATIC TIRES FOR WHEELS.

No. 855,627.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed February 1, 1906. Serial No. 299,049.

To all whom it may concern:

Be it known that I, THOMAS HENRY BECKS GAYNER, a subject of the King of Great Britain and Ireland, residing at 113 Neville street, South Melbourne, in the State of Victoria, in the Commonwealth of Australia, cycle mechanic, have invented an Improved Air-Tube for Pneumatic Tires for Wheels, of which the following is a specification.

My invention relates to an air tube for tires the inside of which is furnished with a coating of a commercial preparation known as Turkish birdlime which has the property of at once closing small permeable places produced in the tube in consequence of its being penetrated by sharp objects so that the inflated tube is prevented from becoming slack or deflated.

The coating of Turkish birdlime is applied as follows:—The air tube is turned inside out before the two ends of the same are joined together. The tube is then expanded and the exposed surface well cleaned with naphtha or benzene. The inside of the air tube thus placed on the outside is coated with Turkish birdlime which has been dissolved in boiling water and the coating of birdlime thus applied is allowed to dry until it becomes viscid. A second and third coating of the same kind is applied in the same manner and finally a last layer of thick undiluted Turkish birdlime is laid over the previous coatings. The last layer should be from one eighth to one quarter of an inch in thickness. French chalk is then spread over the complete layer. This substance or material is intended to prevent the inner surface of the air tube from adhering together after the air tube has been turned back again into its normal position. After an opening has been made in the side of the tube in the place into which the air valve opens the tube which has been thus treated is returned to its original position and the ends are joined together by vulcanizing or in some other suitable manner; the valve is then arranged and the tube is ready for inflation.

The coating not only closes any hole that may exist when the tube is treated but also any that may be produced subsequently by sharp objects which penetrate the tube when inflated the closing action taking place at once.

The preparation of Turkish birdlime used for the purposes aforesaid is made from the

ripe berries of a tree called "mikssass" (*Cordia Myxa*). This preparation, I desire it to be known, is not made by me but is a commercial preparation which can be purchased by those desirous of using the same. It is prepared in Syria and possibly in other places.

In the drawings Figure 1 is a transverse section of an air tube after being turned inside out and Fig. 2 is a like view with the tube in normal position.

In Fig. 1 a section is taken transversely through an air tube after being turned inside out and expanded and furnished with a coating of Turkish birdlime and a coating of French chalk. A indicates the air tube. B is the coating of Turkish birdlime and C the coating of chalk.

In Fig. 2 a section is taken transversely through an air tube in its normal or unstretched state and returned to its original position after having been furnished on the inside as previously described with the coating of Turkish birdlime and the coating of chalk. A indicates the air tube, B the coating of birdlime and C the coating of chalk.

I claim:

1. An air tube for tires having the inside of the tube provided with a layer of Turkish birdlime and a layer of chalk to cover the

2. The herein described method, consisting in turning the air tube inside out before the two ends of the same are joined together, then expanding the tube and cleaning the exposed surface with naphtha or benzene, then coating said surface with Turkish birdlime which has been dissolved in boiling water and allowing the coating of Turkish birdlime thus applied to dry until it becomes viscid, then applying a second and third coating of the same kind in the same manner and finally laying a last layer of thick undiluted Turkish birdlime over the previous coatings, then spreading chalk over the complete layer of birdlime, then returning the tube to its original position and finally joining the ends of the tube.

In witness whereof I have hereunto set my hand in presence of two witnesses.

THOMAS HENRY BECKS GAYNER.

Witnesses:

FRANKLIN ETHELBERT FAY,
RICHARD BENJAMIN BALMER.