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1,580,697

T. J. SPICER  
AUTOMOBILE TIRE  
Filed Oct. 9, 1924

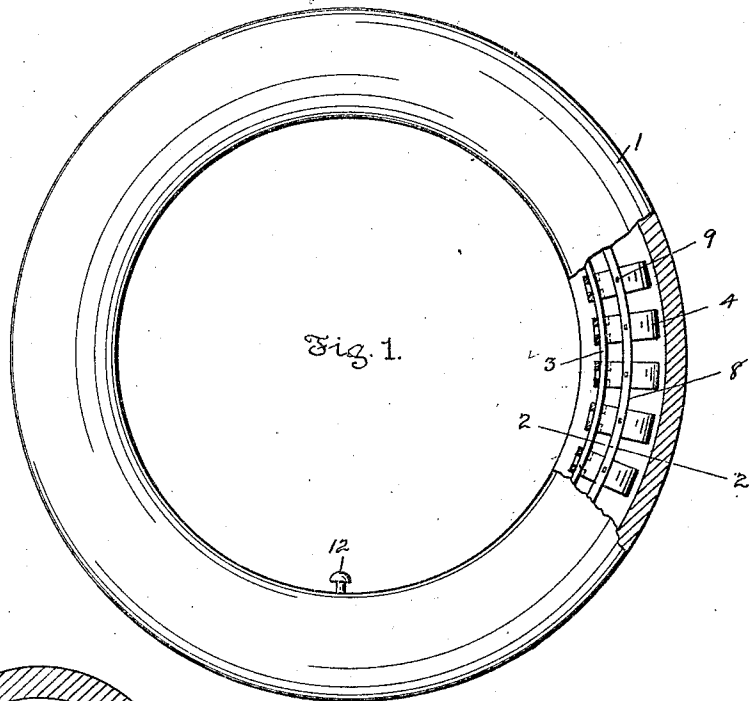


Fig. 1.

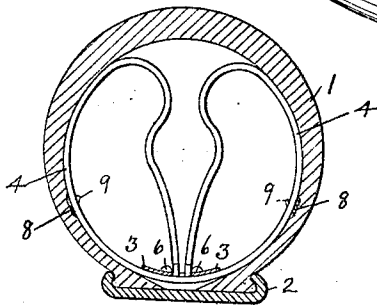


Fig. 2.

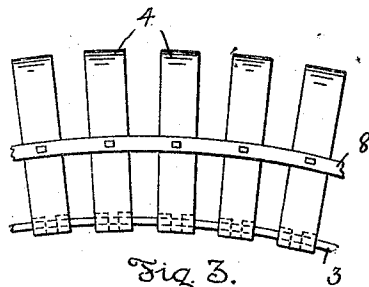


Fig. 3.

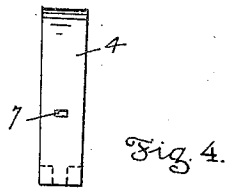


Fig. 4.

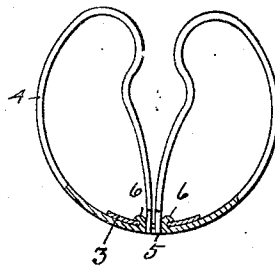


Fig. 5.

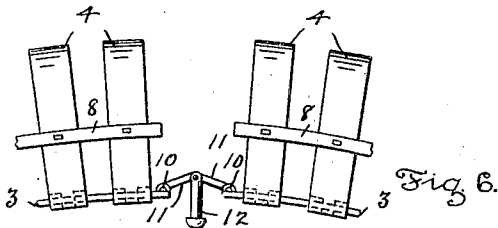


Fig. 6.

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# UNITED STATES PATENT OFFICE.

THOMAS J. SPICER, OF BALTIMORE, MARYLAND.

## AUTOMOBILE TIRE.

Application filed October 9, 1924. Serial No. 742,564.

*To all whom it may concern:*

Be it known that I, THOMAS J. SPICER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Automobile Tires, of which the following is a specification.

This invention relates to improvements in tires for automobiles, and has for its object to provide means to take the place of and produce the same effect as the inner tube now in general use in pneumatic tires.

The invention consists of the novel construction and arrangement of the parts and combination of parts hereinafter more fully set forth in the following specification and pointed out in detail in the appended claims.

In the accompanying drawings:—

Figure 1 is a side elevation of a tire partly in section, and showing my invention applied thereto.

Figure 2 is an enlarged section on the line 2—2 of Figure 1.

Figure 3 is an enlarged detail view of a portion of the inner spring-ring and springs secured thereto.

Figure 4 is a detail side view of one of the springs.

Figure 5 is an edge view partly in section of one of the springs showing how it is secured to the spring-ring.

Figure 6 is a detail view showing the open position of the spring-ring.

Referring to the accompanying drawings forming part of this specification and in which like reference numerals designate like parts throughout the several views thereof, 1 designates the outer casing which is secured to the metal rim 2 in the usual manner. Within the casing 1 is a split spring-ring 3 extending entirely around the inside of said outer casing and to which is secured a number of springs 4. The said spring-ring 3 is provided with a number of apertures 5 corresponding with the number of springs 4 and the said springs are provided with a number of tangs 6 extending outwardly therefrom which project through the apertures 5 and are bent over the split ring 3 as shown in Figure 5 to hold the said spring in position on said ring. The

said springs 4 are made to conform to the inner surface of the outer casing 1 and have their ends bent back within the springs and their extremities projecting into the apertures 5 in the split ring 3. The extremities of said springs 4 are cut away so that they can project into the apertures of the said ring as shown in Figures 2 and 5. The said springs 4 are each provided on opposite sides thereof with apertures 7. The bands 8 are provided with a number of tangs 9 stamped therefrom and which fit into the apertures of the springs 4. These bands 8 are split as shown in Figure 6 and are provided on each side of springs 4 to hold the latter in their proper relative position. The spring ring 3 is split and is provided with an eye 10 on each end thereof to which is pivoted one of the links 11, the latter being also pivoted to the pin 12. The said pin 12 is adapted to be pulled toward the center of the wheel which forces the ends of the ring 3 apart thereby releasing the tire so that the tire can be removed from the rim 2. The pin 12 projects through an opening in the rim 2 through which it is first inserted when the tire is being placed in the said rim 2.

It will thus be seen that the springs 4 permit the tire to yield and produce the same effect as the inner tube now in general use in pneumatic tires.

Having thus described my invention, what I claim is:

1. A tire comprising an outer casing, a split spring-ring extending around inside said casing and having a number of apertures therein, a number of springs secured to said spring ring and having their ends projecting into said apertures in said ring.

2. A tire comprising an outer casing, a split spring ring within said casing and having a number of apertures therein, a number of springs secured to said ring and having their sides impinging against the inner surface of said outer casing, and their extremities extending into the apertures in said ring.

In testimony whereof I affix my signature.

THOMAS J. SPICER.