F. OGLE.

PRESSURE GAGE FOR PNEUMATIC TIRES.

APPLICATION FILED JAN. 26, 1920.

1,399,272. Patented Dec. 6, 1921.

Fig. 1.

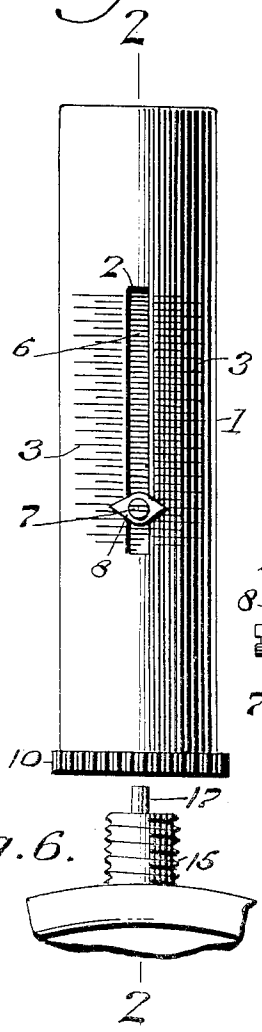


Fig. 6.

Fig. 2.

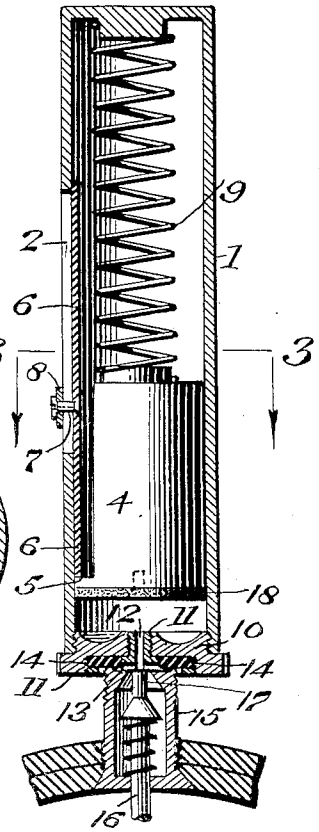


Fig. 3.

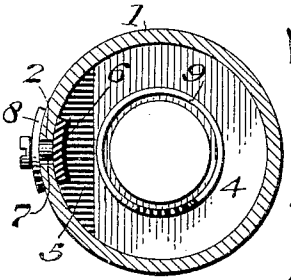


Fig. 4.

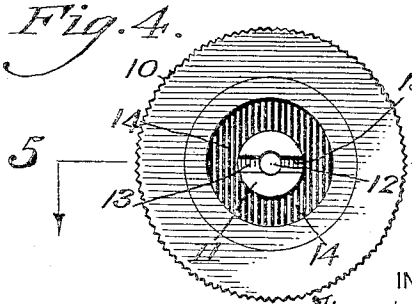
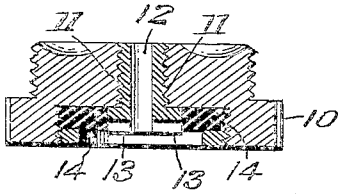


Fig. 5.



INVENTOR:
Frank T. Ogle.
BY Wiedersheim & Fairbanks
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FRANK OGLE, OF PHILADELPHIA, PENNSYLVANIA.

PRESSURE-GAGE FOR PNEUMATIC TIRES.

1,399,272. Specification of Letters Patent. Patented Dec. 6, 1921.

Application filed January 26, 1920. Serial No. 354,069.

To all whom it may concern:

Be it known that I, FRANK OGLE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Pressure-Gage for Pneumatic Tires, of which the following is a specification.

My invention consists of a novel gage for indicating the pressure of air in pneumatic tires when inflated, the construction of the same being hereinafter described, and the novel features pointed out in the claims.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific details shown and described, as long as they are within the spirit or scope of the claims.

Figure 1 represents a side elevation of a gage embodying my invention.

Fig. 2 represents a central longitudinal section thereof including portions of a tire and valve mechanism thereof.

Fig. 3 represents a horizontal section on line 3—3 Fig. 2, on an enlarged scale.

Fig. 4 represents a bottom plan view of the device on an enlarged scale.

Fig. 5 represents a diametrical section on line 5—5 Fig. 4.

Fig. 6 represents a side elevation of said portions of a tire and valve mechanism thereof.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings.

1 designates a barrel or casing in the side of which is the longitudinally extending slot 2, the walls of which are graduated in degrees as at 3.

Within the barrel is the movable plunger or piston 4 whose lower end is provided with the shoulder 5 on which is freely seated the traveler 6 which consists of a movable plate segmental in cross section and occupies the barrel 1 back of the slot 2 and partly above and below the same in cross section and is adapted to close said slot, it frictionally engaging the inner wall of the barrel.

Connected with said traveler by the screw or pin 7 is the index finger 8, said screw freely occupying the slot 2 and said index finger being on the exterior of the barrel and adapted to sweep over the graduations 3.

Within the barrel is the coil or other spring 9 which is seated on the plunger and the top of the barrel, its object being to retain the plunger in normal position and restore it thereto after pressure on the plunger has been removed.

10 designates the base of the barrel, the same consisting of a plug which is adapted to be secured to the latter in any suitable manner, it having centrally therein the tubular screw or plug 11, the bore 12 of which is adapted to communicate with the exterior and interior of the barrel.

In the head of said screw are the radiating passages 13 which are in communication with the bore 12 of the screw. On the under side of the base is seated the gasket or packing 14 which surrounds the head of the screw 11 and is adapted to form an air tight joint with the neck 15 of the spring pressed air valve of a pneumatic tire, said neck containing therein the stem 16 of said valve which stem projects beyond said neck.

The operation is as follows:—

The barrel is presented to the neck 15 and seated thereon whereby the head of the screw 11 contacts with the projecting end or nipple 17 and forces in the same and with it the stem 16, thus opening the valve. The air in the tire then enters said neck and is directed by the passages 13 in the head of the screw 11 into the bore 12 of the latter, and so imparted against the plunger 4 thus moving it to the extent of the pressure of the air. The traveler 6 follows said plunger, and the index finger 8 is carried by the same to the relative graduation on the barrel and points to the same, thus indicating the extent of the air pressure. The device is then removed from the neck 15 when as the plunger is no longer subjected to the pressure in the tire, the spring 9 becomes operative to return the plunger to normal position, which is as shown in Fig. 2, but the traveler remains at rest against the inner wall of the barrel where it was placed by the plunger in its ascent and the index finger rests at the graduation with which it registers, and so the pressure may be read off positively, after which the traveler and index finger may be restored to their normal positions by the application of the hand to the index finger or the head of the screw thereon.

The plunger 4 is of somewhat less diameter in part to form the shoulder 5 and provide a space for the occupation of the traveler 6 therein, above said shoulder. Secured

to the bottom of the plunger is the packing 18 whose diameter is such as to fit closely the inner wall of the casing and form an air tight joint for the plunger with the casing.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. A casing having a longitudinally extending slot in its wall and graduations adjacent said slot, a spring-actuated plunger in the casing, a traveler in the casing disconnected from the plunger but seated thereon and movable therewith and adapted to frictionally engage with the wall of the casing about the slot and at all times covering the latter from the interior of the casing, and an index finger attached to said traveler and adapted to sweep over the graduations on the exterior of the casing.

2. A casing having a longitudinal slot, a spring-actuated plunger in said casing having a laterally extending shoulder, a traveler within said casing independent of said plunger and freely seated on said shoulder, and an index finger carried by said traveler and extended through said slot.

3. A casing having a longitudinal slot, a spring-actuated plunger in said casing having a laterally extending shoulder, a traveler within said casing independent of said plunger and freely seated on said shoulder, and an index finger carried by said traveler and extended through said slot, said traveler being of segmental form and frictionally conforming to the inner wall of the casing.

4. A casing, a plunger therein, a traveler independent of and adapted to be seated on said plunger and of segmental form frictionally engaging the inner wall of the casing, and a packing member on said plunger adapted to form a tight joint for the same with the inner wall of said casing.

FRANK OGLE.

Witnesses:
JOHN A. WIEDERSHEIM,
N. BUSSINGER.