

H. MESNAGE.

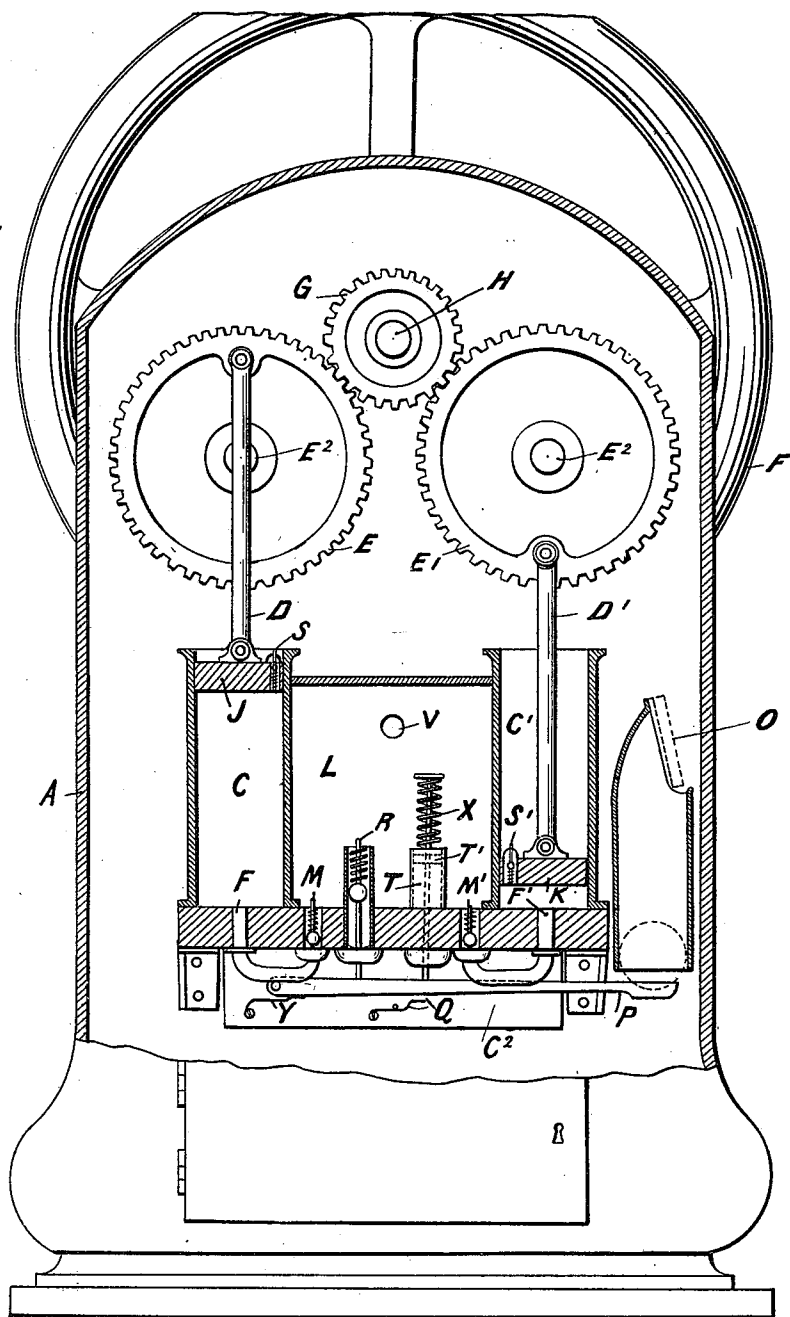
COIN OPERATED APPARATUS FOR INFLATING TIRES.

(Application filed July 16, 1900.)

(No Model.)

2 Sheets—Sheet 1

Fig. 1.



Witnesses:

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(Application filed July 16, 1900.)

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2 Sheets—Sheet 2.

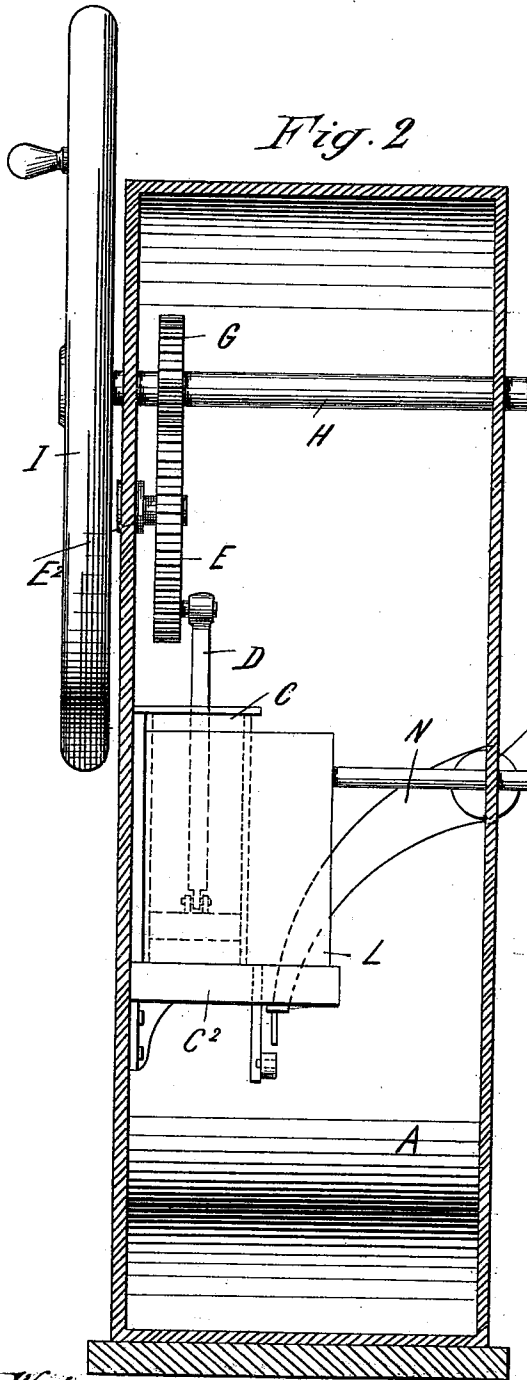


Fig. 3.

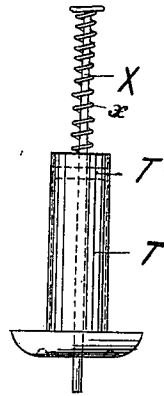


Fig. 4.

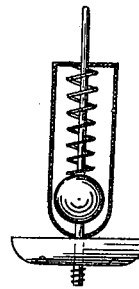
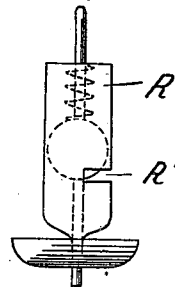


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRI MESNAGE, OF COURBEVOIE, FRANCE.

COIN-OPERATED APPARATUS FOR INFLATING TIRES.

SPECIFICATION forming part of Letters Patent No. 668,535, dated February 19, 1901.

Application filed July 16, 1900. Serial No. 23,814. (No model.)

To all whom it may concern:

Be it known that I, HENRI MESNAGE, a citizen of the Republic of France, and a resident of Courbevoie, France, have invented certain new and useful Improvements in Coin-Operated Apparatus for Inflating Tires, of which the following is a specification.

My present invention relates to improvements in coin-operated apparatus for inflating tires of cycles, velocipedes, and other vehicles; and it consists of the construction, novel combination, and arrangement of parts fully described and claimed hereinafter.

In the accompanying drawings, forming a portion of this specification, Figure 1 is a vertical section of the improved apparatus. Fig. 2 is a side elevation of same with the casing shown in section. Figs. 3, 4, and 5 show detail views of valves hereinafter referred to.

Like letters refer to like parts throughout all the views.

Referring by letters to the drawings, C C' represent two vertically-arranged cylinders mounted on a suitable bracket C², secured to the rear wall of a casing A, made of any preferred form.

J K are two pistons adapted to reciprocate in cylinders C C', respectively, and connected with piston-rods D D', pivotally connected to the sides of two gear-wheels E E', respectively rotating on studs E², secured to the rear wall of the casing A. Said gear-wheels E E' mesh with a toothed pinion G, keyed on a shaft H, suitably journaled in the front and rear walls of the casing A and adapted to be actuated by means of any preferred power. In the drawings I have shown a fly-wheel F, provided with a handle and mounted on the shaft H for rotating the latter and the wheels E E'. However, it will be understood that any other device may be employed for the same purpose and that said shaft H may be connected in any suitable way to any preferred motor.

The operation of the apparatus is as follows: The shaft H being actuated air will be sucked under the reciprocating pistons J K through the valves S S' of said pistons, when the latter are moved upwardly. The air sucked into the cylinders C C' is forced through the pipes F F', leading from the bottom of said cylinders into a receiver L and

provided with valves M M', respectively, Fig. 4, adapted to prevent air from flowing back through said pipes F F' into the cylinders C C' when the pistons J K are moved upwardly. The compressed air may be obtained from said receiver L by proceeding as follows: Said receiver is provided with a flexible tube V, terminating in a special nozzle V', adapted to be screwed on the usual inflating-valve of the tire to be inflated. Said nozzle being secured to the inflating-valve of the tire, a coin of a given value is inserted into the slot O, provided on the front wall of the casing A and communicating with a chute N, the lower end of which discharges upon a pivoted lever P, the weight of the coin inserted into the apparatus acting to lower the end of said lever P, which movement is limited by the spring Q, secured to the bracket C². When the lever P is lowered, the stem of the valve R, provided in the bottom of the receiver L and normally open to prevent air from being compressed in said receiver by actuating the shaft H until a coin is inserted into the apparatus, will be disengaged, whereby said valve will close the outlet R' and permit the compression of air in the receiver L by the actuation of the shaft H. Then a higher pressure will be produced within the receiver, whereby the piston T' of another valve T, provided in the bottom of the receiver L, will be forced downward. The stem of said piston T' engages the lever P and lowers the latter against the action of the spring Q, whereby the coin falls down upon the bottom of the casing A. The tire may then be inflated, as desired. When the inflation is completed, the nozzle V' on the end of the flexible tube V is unscrewed, whereby the pressure is immediately lowered within the receiver L. Thus the spring X on the stem of the piston T' acts to raise said piston, whereby the lever P is brought back to its normal position by the action of the spring Y. In this movement the lever P forces the stem of the valve R upwardly, whereby the outlet R' is again opened to prevent air from being compressed in the receiver L prior to the insertion of a coin into the apparatus.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an apparatus of the kind set forth, the combination with a plurality of cylinders, movable pistons or plungers in said cylinders and means for reciprocating said plungers, 5 of a suitable air-reservoir, communicating connections between the latter and the cylinders, suitable valves on said connections for preventing air from flowing back into the cylinders during the reciprocation of the pistons, a pivoted lever, the end of which is 10 adapted to be depressed by a coin inserted into the apparatus and a suitable escape-valve in said air-reservoir and adapted to remain open until said lever is engaged and depressed 15 by a coin, substantially as set forth.

2. In an apparatus of the kind set forth, the combination with a plurality of cylinders, movable pistons or plungers in said cylinders, and means for reciprocating said plungers, 20 of a suitable air-reservoir, communicating

connections between the latter and the cylinders, suitable valves on said connections for preventing air from flowing back into the cylinders during the reciprocation of the pistons, a pivoted lever the end of which is 25 adapted to be depressed by a coin inserted into the apparatus and a suitable escape-valve in said air-reservoir adapted to remain open until said lever is engaged and depressed by a coin, means for further depressing said 30 pivoted lever after said escape-valve is closed, and means for raising the pivoted lever after the operation, substantially as set forth.

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

HENRI MESNAGE.

Witnesses:

ARMAND GUÉRIN,
EDWARD P. MACLEAN.