

(No Model.)

J. H. HOADLEY.

CHARGING APPARATUS FOR FLUID PRESSURE MOTORS.

No. 587,037.

Patented July 27, 1897.

Fig. 1.

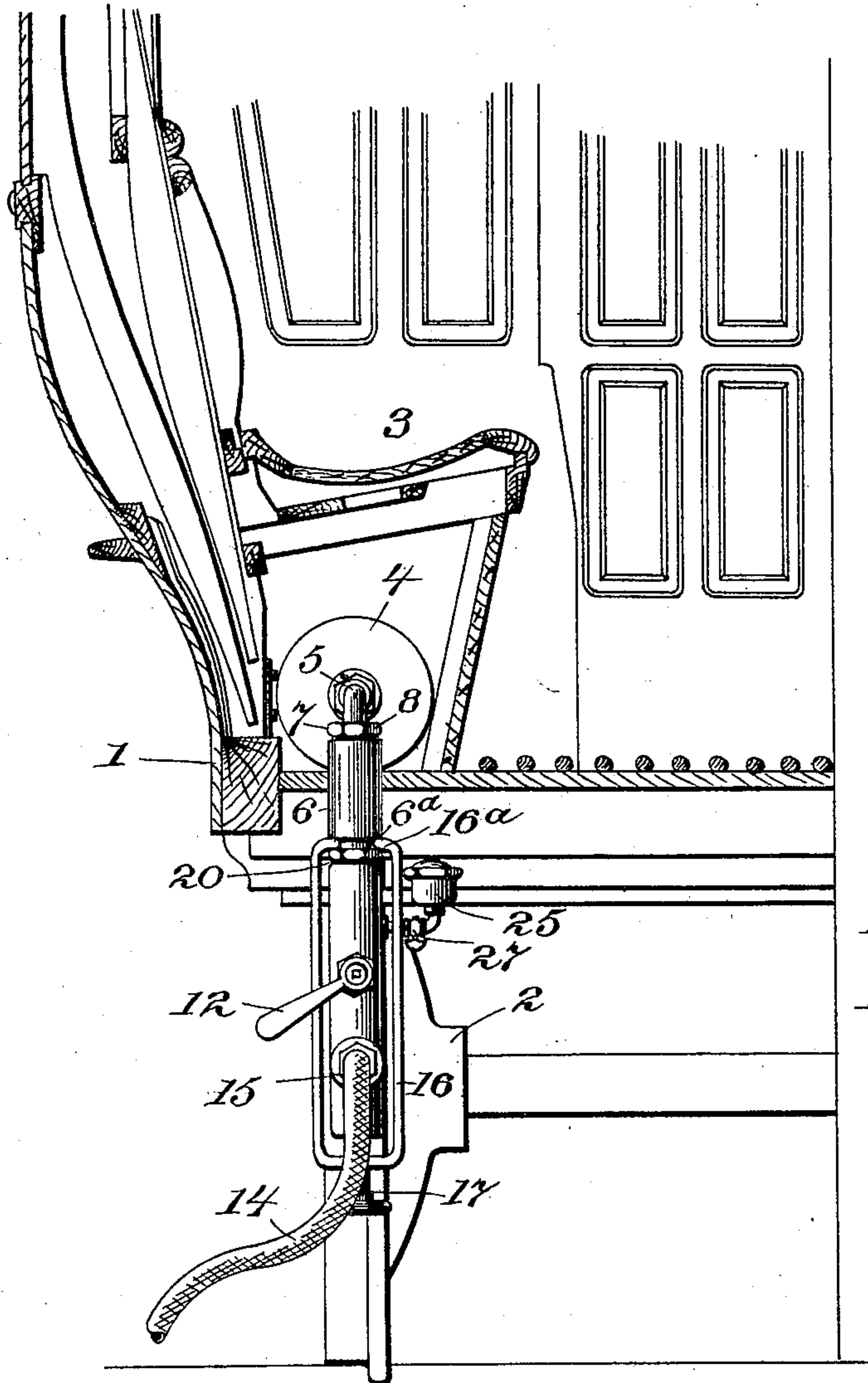
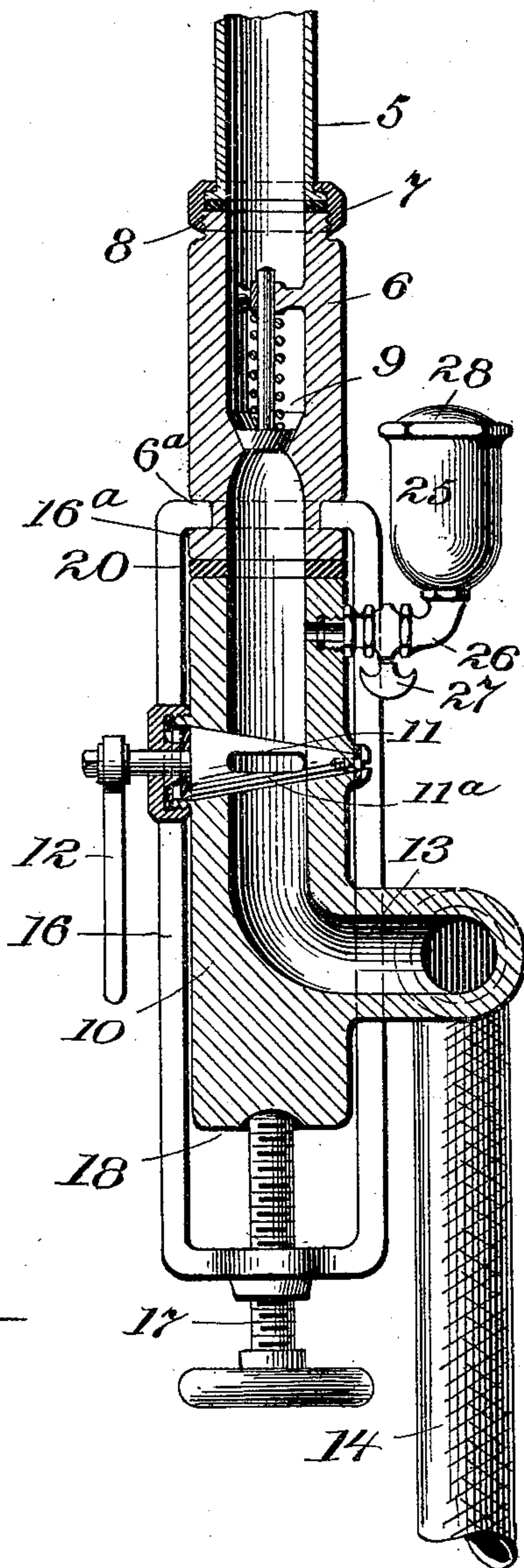


Fig. 2.



WITNESSES:

W. H. Humphrey.
M. V. Bridgwood

INVENTOR

Joseph H. Hoadley
BY
Amos W. Wood
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOSEPH H. HOADLEY, OF NEW YORK, N. Y.

CHARGING APPARATUS FOR FLUID-PRESSURE MOTORS.

SPECIFICATION forming part of Letters Patent No. 587,037, dated July 27, 1897.

Application filed June 20, 1896. Serial No. 596,254. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. HOADLEY, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Charging Apparatus for Fluid-Pressure Motors, of which the following is a specification.

The main object of my invention is to provide means for injecting a charge of lubricant with a charge of compressed air or other fluid which is supplied to the pressure-reservoir of compressed-air or other fluid motors.

The invention is particularly applicable to motor-vehicles run by compressed air, in which application of the invention I prefer to attach the charging device to the vehicle and provide convenient means for placing it in communication with a stationary source of compressed air.

The charging device consists of a suitable tubular head provided with a stop-cock or valve and an oil cup or reservoir communicating with the charging-head above the stop-cock or valve. A yoke is preferably employed for securely coupling the charging-head to the inlet-pipe of the compressed-air reservoir of the motor. A supply tube or pipe, preferably a rubber hose, is coupled to the inlet-port of the charging-head and adapted to be placed in communication with the source of supply.

In order that my invention may be fully understood, I will first describe the same with reference to the accompanying drawings, and afterward point out the novelty with more particularity in the annexed claims.

In said drawings, Figure 1 is a detail transverse sectional view of part of a street-railway car, showing my improved charging device applied thereto. Fig. 2 is an enlarged detail longitudinal sectional view of the charging device.

1 is the car-body, supported upon wheels 2, and 3 is a car-seat extending longitudinally of the body. Beneath the seat 3 is supported a compressed-air or other fluid-pressure reservoir 4, having an inlet-pipe 5, to which is coupled the tubular head 6 by means of the coupling 7, a gland or packing 8 being interposed between the pipe 5 and head 6.

9 is a spring-pressed check-valve seated in the tubular head 6.

10 is the tubular charging-head, provided with stop cock or valve 11 extending transversely through it and adapted to close its tubular passage. A port 11^a extends directly through the valve 11.

12 is a handle by which the cock 11 is operated.

13 is an offset extending from one side of the head 10 and having an inlet-passage communicating with the bore of the head.

14 is a flexible charging-pipe coupled at 15 to the offset 13 and adapted to be placed in communication with any stationary supply of compressed air or other fluid under pressure.

16 is a yoke having a large thumb-screw 17 seated in a screw-threaded socket in its lower end and adapted to engage a depression or seat 18, formed in the lower end of the charging-head 10. The yoke 16 is formed with an inwardly-bent flange 16^a at its upper end, which is cut out or open on one side. The yoke 16 is adapted to embrace the charging-head 10 and enlarge the lower flanged or grooved end 6^a of the tubular head 6 for coupling the charging-head to the inlet-pipe of the storage-reservoir of the car. By tightening the screw 17 it will be observed that the head 10 will be pushed tightly against the gland or packing 20, interposed between the heads 10 and 6.

25 is an oil cup or reservoir having a tubular extension 26, which enters the tubular charging-head 10 above the stop-cock 11.

27 is a small cock in the tube 26 for the purpose of retaining a charge of lubricant in the cup 25.

The operation of the charging device is as follows: I prefer to carry the charging-heads on the car, having it normally coupled to the inlet-pipe of the storage-reservoir, as shown in the drawings. When the car stops at a charging-station, the flexible pipe 14 is coupled to the main charging-reservoir and a charge of lubricant is placed in the cup 25. The small cock 27 is then opened, allowing the charge of lubricant to flow into the charging-head above the valve 11. The valve 11 is then opened, and the charge of compressed

air will pass through the charging-head, past the check-valve 9, into the storage-reservoir of the car, carrying with it the charge of lubricant, which is intermingled with the compressed air in the reservoir. The cup 25 is provided with a screw-cap 28, making it airtight, so that the cock 27 can be opened simultaneously with the cock 11 to allow the lubricant to flow into the charging-head while the charge is passing to the reservoir.

My invention is of importance because it enables and facilitates the proper lubrication of a charge of compressed air when it is supplied to the reservoir, it being very important that the air should be lubricated to obtain the best results in the motor.

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

1. In a compressed-air or other fluid motor, the combination of a pressure-reservoir, a charging-head adapted to be coupled to the inlet of the reservoir and having a stop-cock or valve, a valved lubricant-supply passage entering the charging-head above the valve, a pipe communicating with the source of sup-

ply, and a yoke coupling the charging-head to the inlet of the reservoir, substantially as set forth.

2. In a compressed-air or other fluid motor, the combination of a pressure-reservoir, a charging inlet-pipe, a charging device, a yoke engaging the reservoir inlet-pipe and charging device for coupling them together, a stop-cock or valve in the charging device, and means for connecting the charging apparatus to a stationary supply, as set forth.

3. In a compressed-air or other fluid motor, the combination of a pressure-reservoir, a charging inlet-pipe having a flanged or grooved connecting end, a charging tube or head having a stop-cock or valve, a yoke engaging the flanged or grooved inlet-pipe of the reservoir, a screw engaging the yoke and charging-head for securing the head to the inlet-pipe, and a pipe communicating between a source of supply and the head.

JOSEPH H. HOADLEY.

Witnesses:

A. M. FRANKLIN,
M. V. BIDGOOD.