

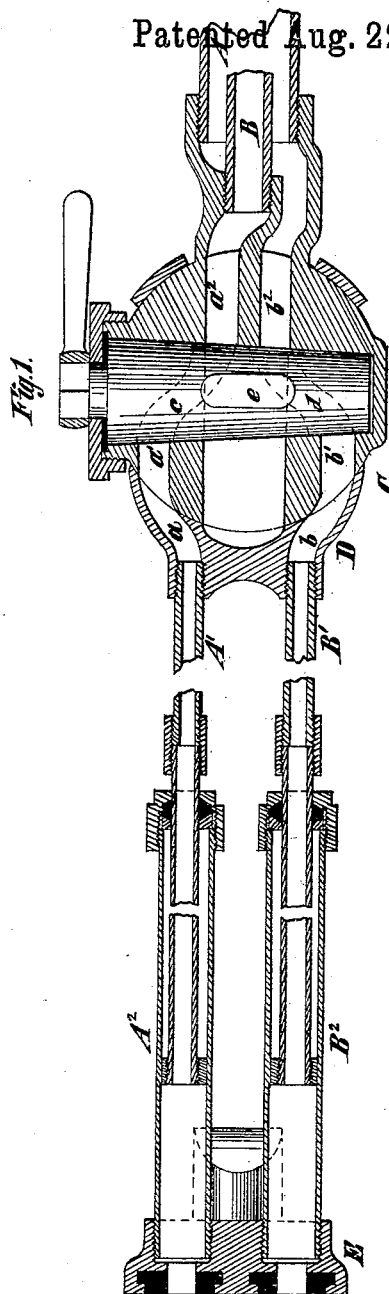
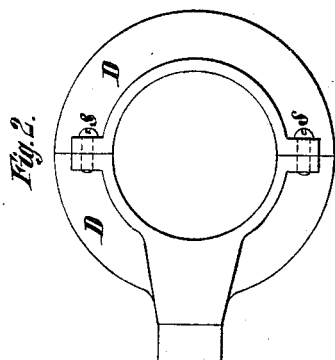
(No Model.)

M. J. WALSH.

MEANS FOR CONVEYING HEATING OR MOTIVE AGENTS THROUGH A TRAIN
OF CARS.

No. 263,264.

Patented Aug. 22, 1882.



Witnesses:
James R. Bowen
T. J. Leane

Inventor:
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By his atty
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UNITED STATES PATENT OFFICE.

MAURICE J. WALSH, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO MARY C. WALSH, OF SAME PLACE.

MEANS FOR CONVEYING HEATING OR MOTIVE AGENTS THROUGH A TRAIN OF CARS.

SPECIFICATION forming part of Letters Patent No. 263,264, dated August 22, 1882.

Application filed May 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, MAURICE J. WALSH, of New York, in the county and State of New York, have invented a certain new and useful
5 Improvement in Apparatus for Conveying a Heating or a Motive Agent along a Train of Cars or from a Locomotive to a Car, of which the following is a specification.

The object of my improvement is to afford
10 provision for connecting pipes employed to convey a heating or a motive agent from a locomotive or other source of supply to a car or cars in such manner as to allow of a yielding motion of the portions of pipes which extend
15 between the locomotive and car or between cars.

While I intend this improvement especially for application to pipes for conveying a heating agent through a train of cars, it is applicable to a pipe for conveying a motive agent
20 along a train of cars for operating a brake.

The improvement consists in the combination, with a pipe for conveying a heating or motive agent along a car, of a section of rigid
25 pipe for extending beyond the car, and connected to the pipe which extends along the car, so as to be adapted to move vertically and laterally relatively thereto, and another section of pipe telescopically fitted to the section
30 first named, and having secured to its outer end a coupling-piece. If two pipes are extended through a car to convey a heating agent back and forth through the same, duplicate telescopic sections of the kind mentioned will
35 preferably be provided beyond the car, so as to be independently accessible. A cock may with advantage be employed to control communication between the fixed pipe and the telescopic sections, where they are employed for a heating
40 apparatus, so as to return the heating agent from the outer to the inner pipe at the rear end of the last car of a train.

In the accompanying drawings, Figure 1 is a longitudinal section of a combination of
45 pipes embodying my invention for a heating apparatus, and Fig. 2 is a plan of certain parts of the same.

Similar letters of reference designate corresponding parts in both figures.

50 A designates a pipe designed to be affixed

to the floor of a car for conveying steam or other heating agent through the same, and B designates a pipe arranged within the pipe A for conveying the heating agent back again. These pipes have secured to their ends the
55 barrel of a cock, C, which preferably, for reasons which will be evident hereinafter, will be externally of spherical form. The plug of the cock may be of the usual conical form.

Applied to the exterior of the barrel of the
60 cock is a shell, D, which is formed in two parts, which are secured together by screws *s* or other suitable means, and is adapted to form, with the barrel of the cock, a ball-and-socket
65 joint.

To the shell D are secured sections of rigid
pipe A' B', communicating with separate passages *a b*, leading to chambers *a' b'* in the barrel of the cock.

Fitted to the exterior of the sections of pipe
70 A' B' are sections of rigid pipe A² B². The sections A' A² and B' B² are packed at the ends to form a tight joint. At the outer ends the sections of pipe A² B² are connected to a coupling-piece, E, of any suitable kind, whereby
75 they may be united to a corresponding coupling-piece secured to similar sections of rigid pipe.

It will be obvious that the sections of pipe
A² B² may move relatively to the sections of
80 pipe A' B', and that all these sections of pipe may move together upward or laterally to accommodate themselves to the motion of the car to which they are attached relatively to an
85 adjacent car.

The plug of the cock has ports *c d*, the former of which, when the plug is properly turned, will establish communication between the chambers *a' b'* in the barrel of the cock and chambers
90 *a² b²* in said barrel, which communicate with the pipes A B, and that thus the pipes A B and the sections of the pipe A' B' will be put in communication. The plug of the cock has also a port, *e*, consisting of a cavity or recess
95 in its exterior, which, when the plug is turned into a different position, will establish communication between the chambers *a² b²* to put the pipes A B into communication to cause the heating agent to pass from one to the other.

If the improvement be used for convey- 100

ng a motive agent to operate a brake, the pipe B, the rigid sections B' B², the chambers b' b², and the ports d and e may be omitted.

The barrel of the cock may be made cylindrical, and the up-and-down motion may be provided for by another joint on a transversely-extending pipe, if desirable.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a pipe for conveying a heating or motive agent along a car, of a section of rigid pipe for extending beyond the car, and connected to the pipe which extends along the car, so as to be adapted to move

vertically and laterally relatively thereto, and 15 another section of pipe telescopically fitted to the section first named, and having secured to its outer end a coupling-piece, substantially as specified.

2. The combination of the pipes A B, the 20 telescopic sections A' A² B' B², the cock C, having an externally spherical barrel, and the shell D, substantially as specified.

MAURICE J. WALSH.

Witnesses:

T. J. KEANE,
JAMES R. BOWEN.