

(No Model.)

2 Sheets—Sheet 1

M. J. WALSH.  
APPARATUS FOR HEATING CARS.

No. 263,263.

Patented Aug. 22, 1882.

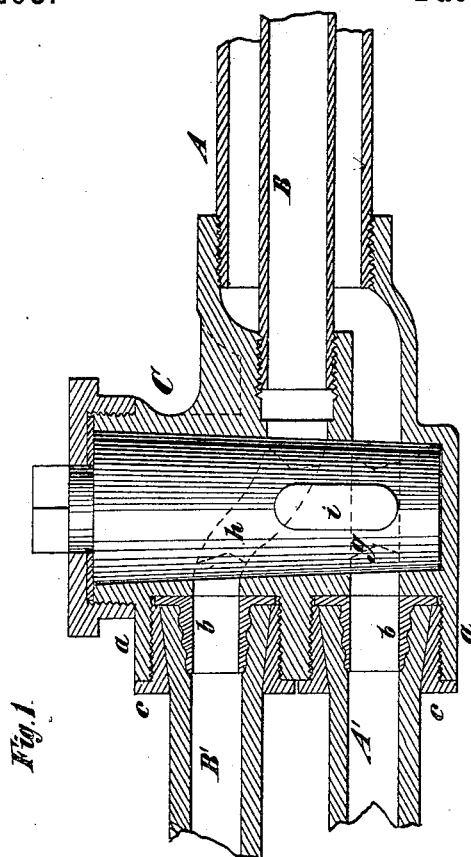
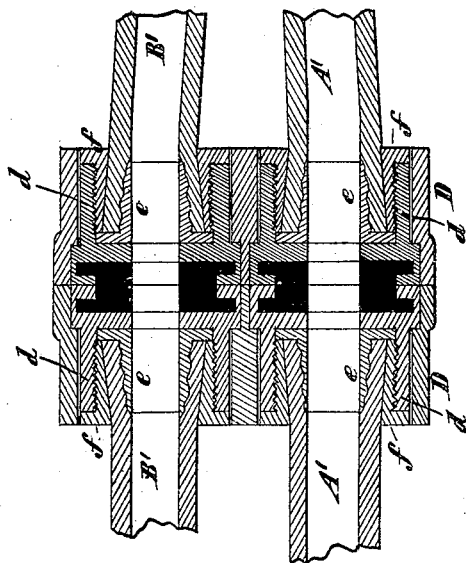


Fig. 1.



Witnesses:  
*James R. Bowen*  
*James R. Bowen*

Inventor:  
*Maurice J. Walsh*  
By his atty  
*Edwin H. Howe*

(No Model.)

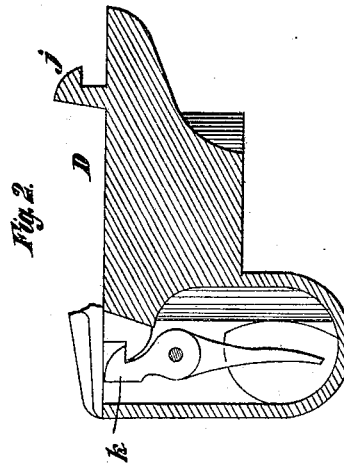
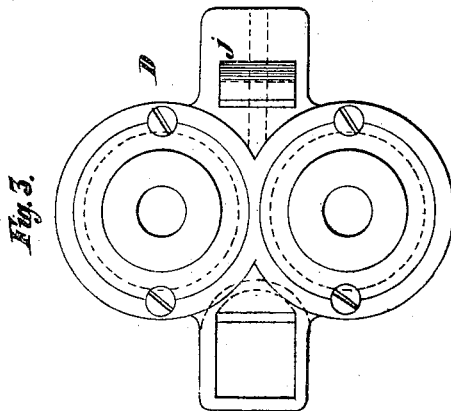
2 Sheets—Sheet 2.

M. J. WALSH.

APPARATUS FOR HEATING CARS.

No. 263,263.

Patented Aug. 22, 1882.



Witnesses:

*J. Keane*  
*James R. Bowen.*

Inventor:

*Maurice J. Walsh*  
*By His Atty*  
*Edwin H. Brown.*

# UNITED STATES PATENT OFFICE.

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

## APPARATUS FOR HEATING CARS.

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

Application filed May 19, 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 Improvement in Apparatus for Heating Cars, of which the following is a specification.

My present improvement relates to apparatus for heating cars, which consists essentially of two pipes, arranged one within the other, passing through the cars to be heated, and flexible pipes extending between such pipes of different cars, all being adapted to convey a heating agent from a locomotive or other source of supply through the train and back again.

My improvement consists in the combination, with pipes, arranged one within another, for conveying a heating agent back and forth through a car, of a cock communicating with the said pipes, and two separate flexible pipes, arranged adjacent to each other, so as to be independently accessible, and communicating with said cock. The flexible pipes so arranged are more accessible than if arranged one within the other, and hence are in this respect more convenient. They are at the free ends provided with coupling-pieces, whereby they may be connected to similar sections belonging to another car.

In the accompanying drawings, Figure 1 is a longitudinal section of two pipes extending, one within the other, through a car, two flexible pipes, a cock, and coupling. Fig. 2 is a section of one of the coupling-pieces, taken in a plane at right angles to that in which it is shown in Fig. 1; and Fig. 3 is a face view of the coupling-piece.

Similar letters of reference designate corresponding parts in all the figures.

A designates a pipe, which may be made of metal, whereby a heating agent is conveyed from a locomotive or other source of supply through a car.

B designates a pipe arranged within the former, and which may also be made of metal, whereby the heating agent is conveyed back again. These pipes are screwed into the barrel or shell of a cock, C.

A' B' designate two flexible pipes, made of any suitable material, which are secured in sockets *a* in the barrel or shell of the cock C by means of glands *b c*, or otherwise. These flexible pipes are to extend beyond the car and to be connected by couplings D to similar

flexible pipes belonging to an adjacent car. The object of these pipes is to afford a yielding connection between the pipes A B of the different cars, adapted to accommodate itself to the motion which cars invariably have relatively to each other. The flexible pipes are secured in sockets *d*, with which the coupling-pieces are provided, by means of glands *e f* or other devices. Both the flexible pipes are exposed, so as to be independently accessible. The plug of the cock C has a port, *g*, which, when the plug is properly turned, will establish communication between the pipe A and the flexible pipe A' and a port, *h*, which at the same time will establish communication between the pipe B and the flexible pipe B'. It also has a port, *i*, consisting of a mere cavity or recess in its exterior, which, when the plug is turned so as to cut off communication between the pipes A A' and B B', will establish communication between the pipes A B. The use of this port is principally to return the heating agent from the end of the pipe A at the rear of a car to the corresponding end of the pipe B. The coupling-pieces have each a rigid hook, *j*, adapted to engage with a pivoted hook, *k*, in the other, the pivoted hooks being provided with handles whereby they may be conveniently manipulated. The flexible pipes are severally much more accessible than if one were arranged within the other, and hence either may be easily and quickly repaired without disturbing the other.

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

1. The combination, with pipes, arranged one within the other, for conveying a heating agent back and forth through a car, of a cock and two separate flexible pipes, arranged so as to be independently accessible and extending beyond the car, substantially as specified.

2. The combination, with pipes, arranged one within the other, for conveying a heating agent back and forth through a car, of a cock and two separate flexible pipes, arranged so as to be independently accessible, extending beyond the car, and provided with coupling-pieces, substantially as specified.

MAURICE J. WALSH.

Witnesses:

T. J. KEANE,  
JAMES R. BOWERS.