No. 882,017. PATENTED MAR. 17, 1908.

W. Z. PULLIAM.

TRAIN PIPE COUPLING.

APPLICATION FILED NOV. 25, 1907.

FIG. 1

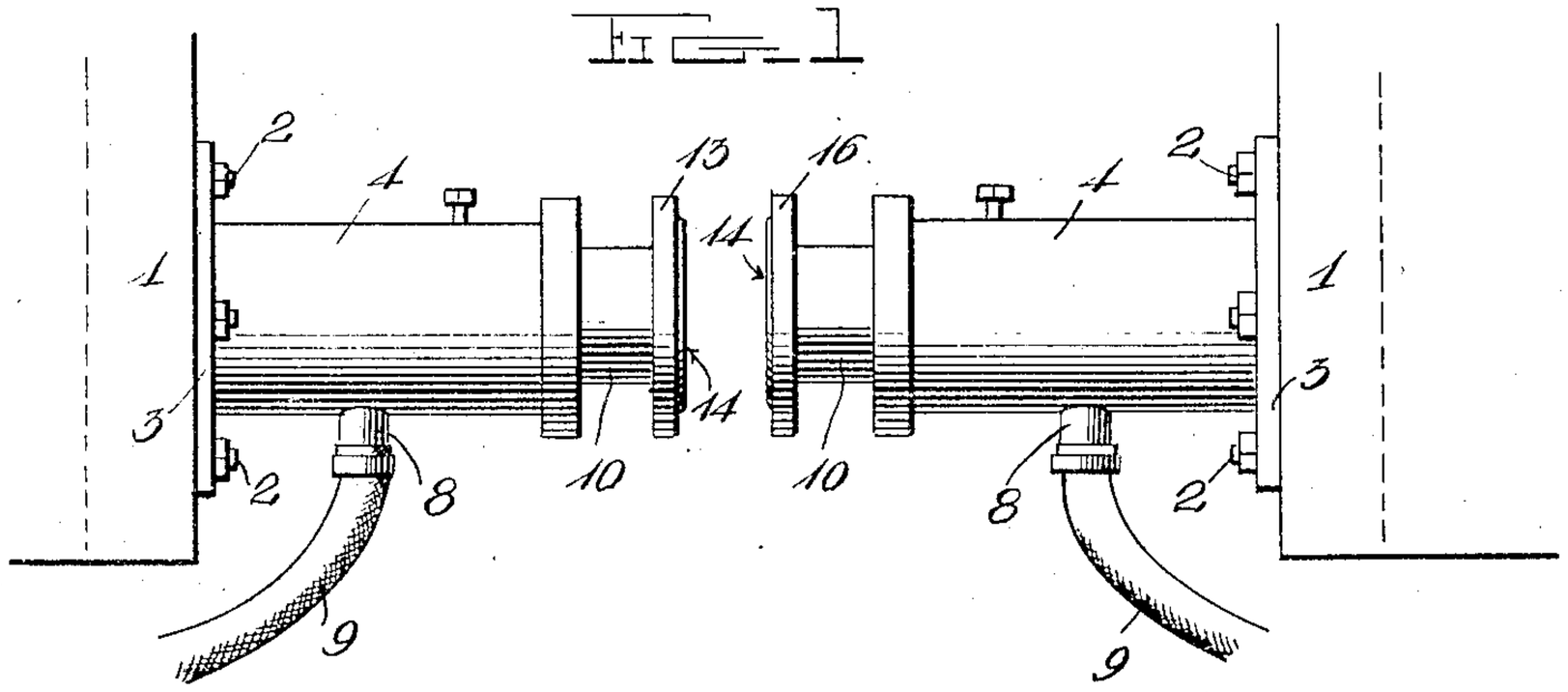


FIG. 2

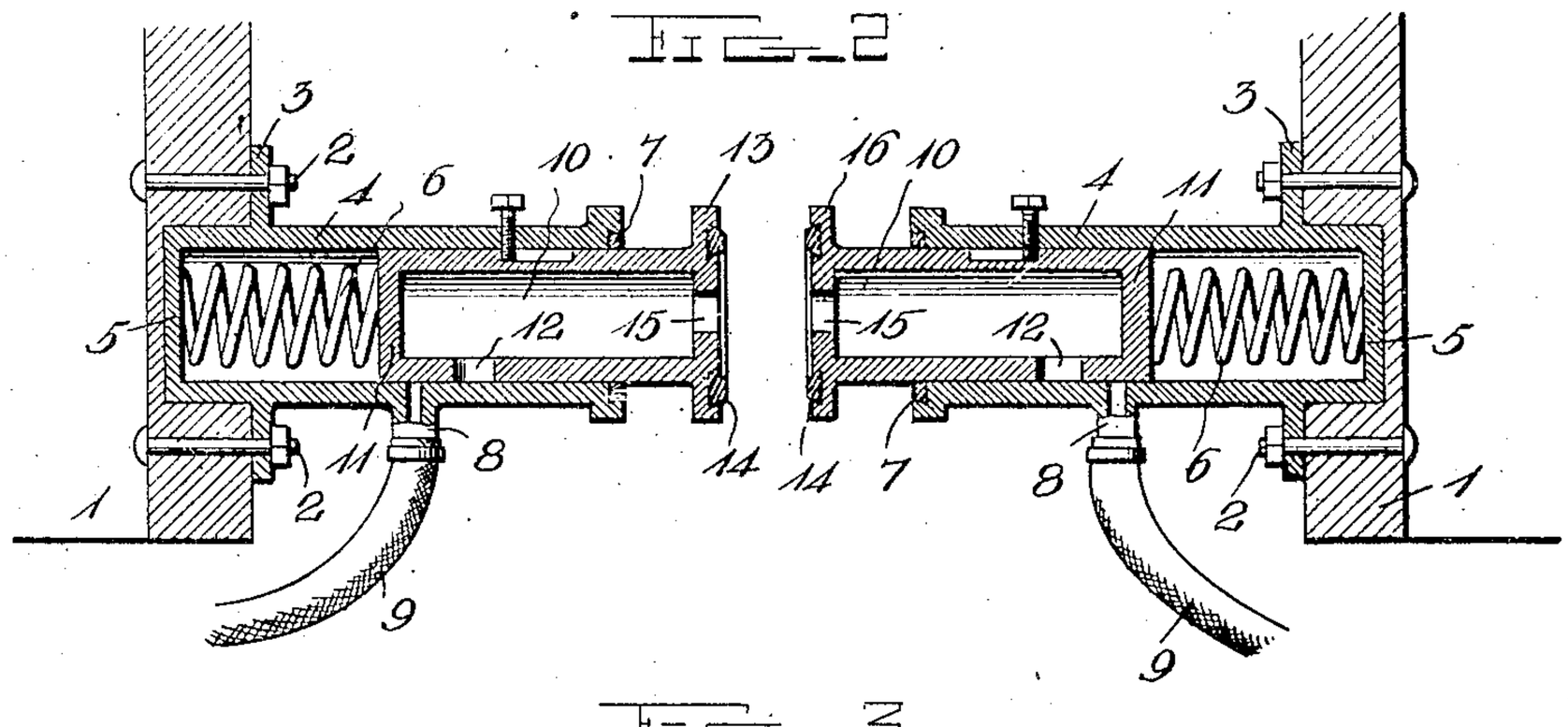
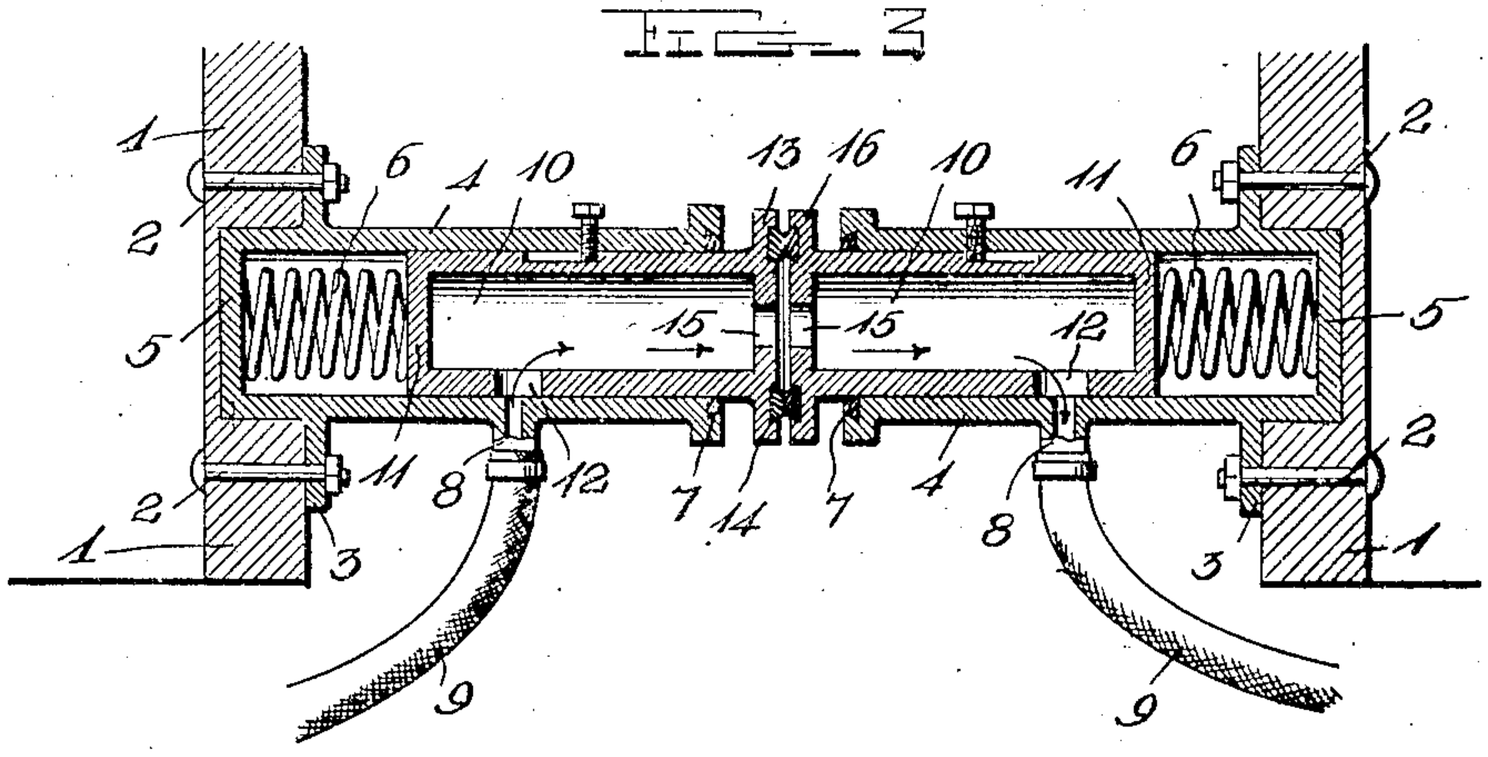


FIG. 3



Witnesses

C. F. Griebauer.

Inventor

W. Z. Pulliam

By A. Bowilson & Co

Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM Z. PULLIAM, OF BENTON, ILLINOIS.

TRAIN-PIPE COUPLING.

No. 882,017. Specification of Letters Patent. Patented March 17, 1908.

Application filed November 25, 1907. Serial No. 403,764.

To all whom it may concern:

Be it known that I, WILLIAM Z. PULLIAM, a citizen of the United States, residing at Benton, in the county of Franklin and State of Illinois, have invented certain new and useful Improvements in Train-Pipe Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to train pipe couplings.

The object of the invention is to provide a device of this character which will be automatic in action upon the coupling of the trains, and which will maintain a constant connection between the cars until they are uncoupled, at which time it will automatically cut off the air and prevent the escape thereof.

A further object of the invention is to provide a device of this character which will be cheap in construction, efficient in operation and have other improved features which will appear as the specification is read in connection with the accompanying drawings which form a part of this specification, and in which

Figure 1 is a plan view of the device shown attached to two cars which are indicated in dotted lines; and Fig. 2 is a horizontal section thereof. Fig. 3 is a similar view showing the parts in operative relation.

Referring more especially to the drawings, 1 represents a car to which the device is attached by bolts, 2, passing through the lateral flanges, 3, of the tubular casting; 4. This casting 4 extends some distance underneath the platform of the car as at 5, and contains a spiral spring, 6, the function of which will be hereinafter described. The casting 4 is provided with a suitable gland and packing, 7, at its outer end so as to prevent any accidental escape of air. Intermediate the length of the casting is a T-joint, 8, to which the flexible train hose, 9, is connected.

Mounted for reciprocation within the casting, 4, is a valve, 10, having a closed rear end, 11, to abut against the spiral spring, 6, and an elongated aperture, 12, to register with the opening in the T connection, 8. The forward end of the valve 10 projects beyond the gland and packing of the casting, 4, and is provided with a disk-like head, 13, upon which there is secured a washer, 14, of any suitable material. This head is apertured at 15 to communicate with the interior of the valve, 10 and is adapted to abut against a similar head, 16, carried by the car adapted to be coupled with it. The valve 10 has its cylindrical portion closely fitting the interior of the casting, 4, and is normally projected by the spring 6 so as to have its opening 12 out of alinement with the opening in the T coupling, 8. A set screw limits the outward movement of the valve.

It will be seen that under normal conditions with the elongated aperture 12 out of alinement with the T coupling 8, there is no air escaping from one car to the other, but when the car to be coupled has its head 16 abutting the head 13, the valve is forced inwardly against the tension of the spiral spring until the opening 12 registers with the T coupling, 8. At this time air flows from the hose 9 through the coupling 8, the opening 12, the hole 15 to the aperture in the head 16 in the opposite car, and through its valve to its connecting hose, and so on.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention, as defined in the appended claims.

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

In a train pipe coupling, a valve casing, an annular supporting flange thereon, a fluid pressure supply port leading into said casing, a source of fluid pressure connected thereto, a hollow valve slidably mounted in said casing and having an opening in one end thereof only, said valve having an elongated inlet port on its side adapted to register with the supply port, and a channel-way opposite the supply port, a set screw-engaging said chan-

nel-way to guide said valve and limit its forward movement, a spring to normally keep the inlet port out of register with the supply port, and another similar valve adapted to force the registration of the inlet and supply ports of both valves so that the fluid supply of one passes through both.

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

WILLIAM Z. PULLIAM.

Witnesses:
SAM R. PETERSON,
FRANK REAUGH.