

(No Model.)

W. K. CONNESS.
AIR BRAKE BRANCH PIPE DRAIN CUP.

No. 540,539.

Patented June 4, 1895.

Fig. 1.

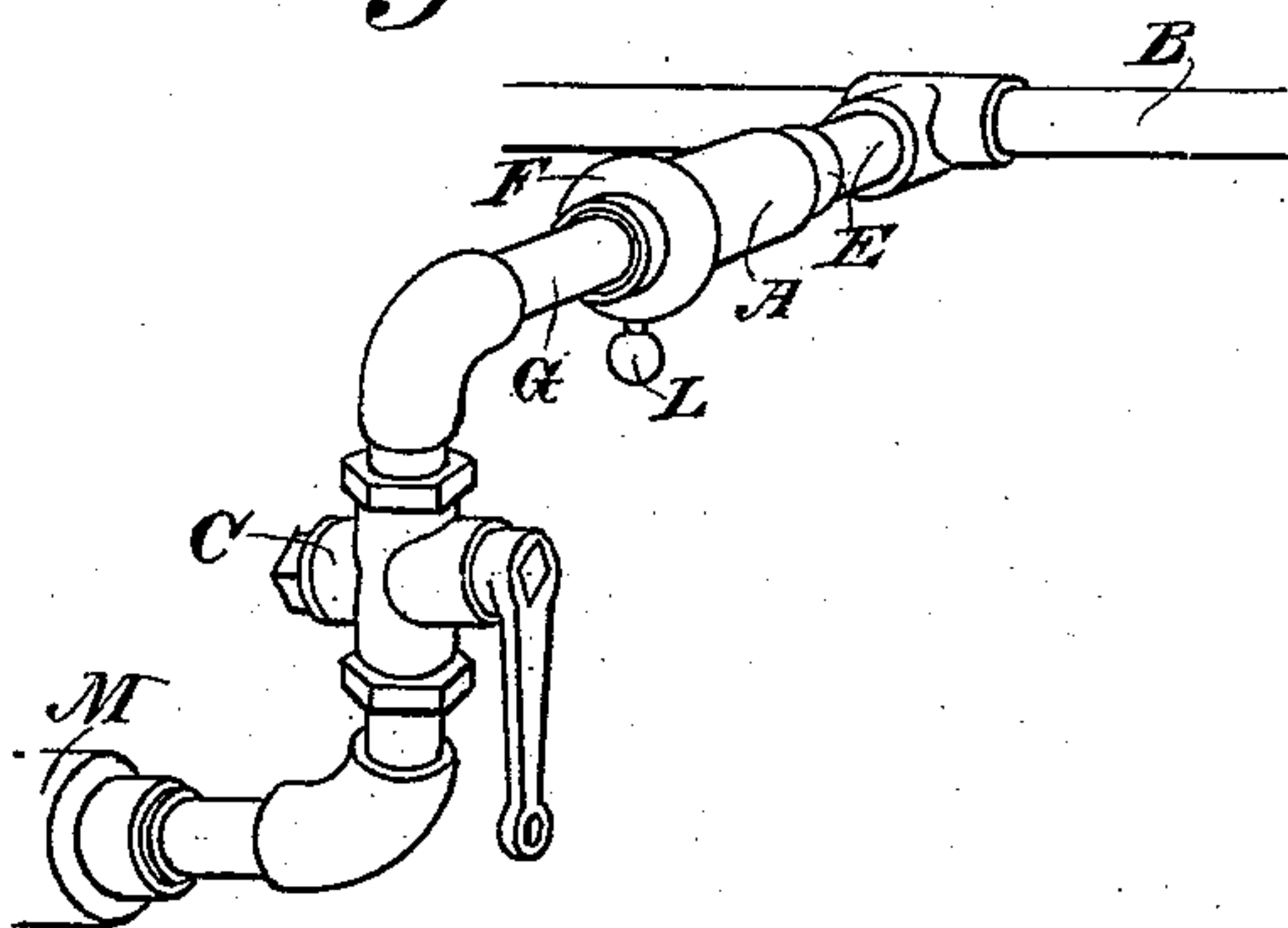
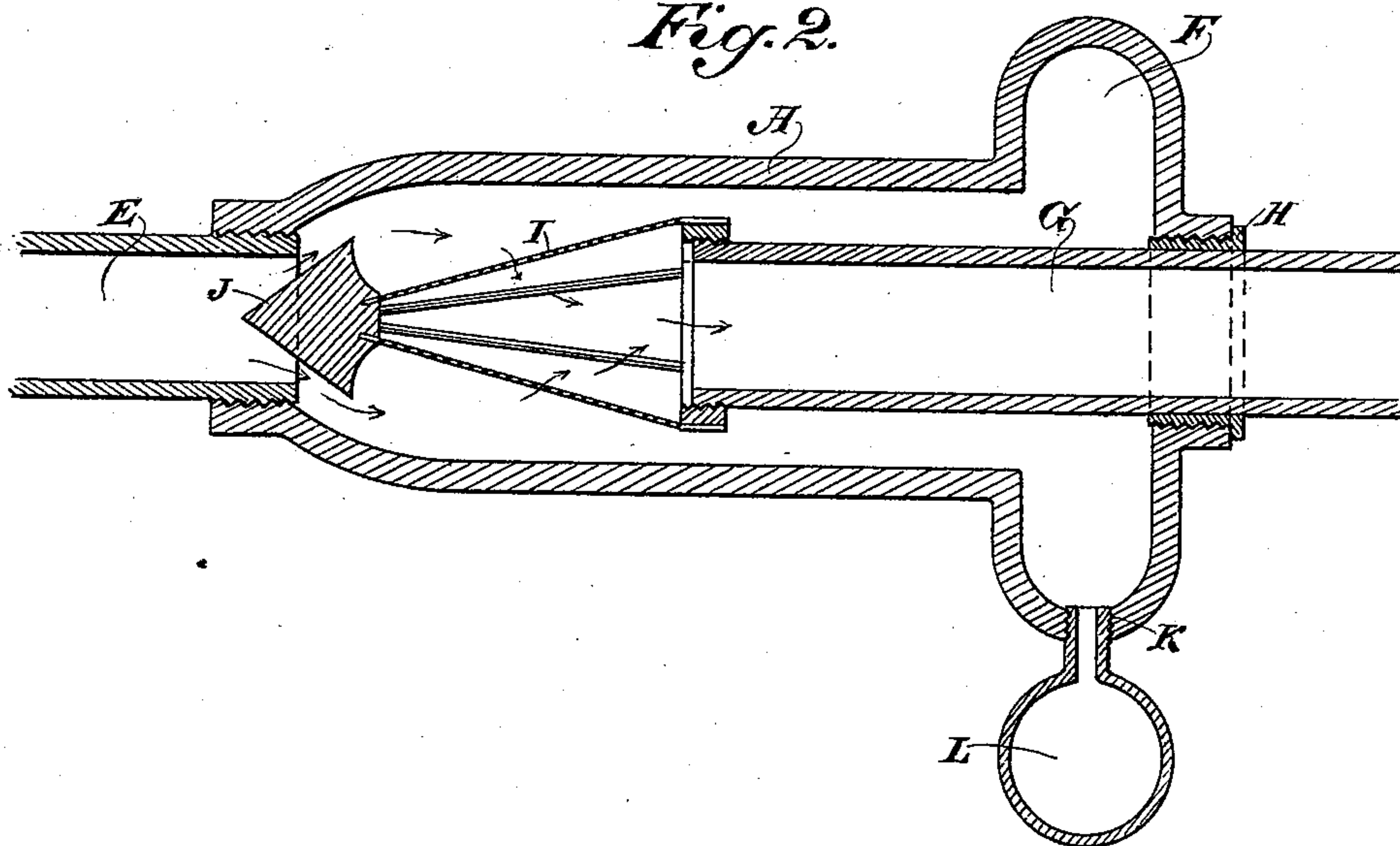


Fig. 2.



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UNITED STATES PATENT OFFICE.

WALTER K. CONNESS, OF SACRAMENTO, CALIFORNIA.

AIR-BRAKE BRANCH-PIPE DRAIN-CUP.

SPECIFICATION forming part of Letters Patent No. 540,539, dated June 4, 1895.

Application filed August 20, 1894. Serial No. 520,830. (No model.)

To all whom it may concern:

Be it known that I, WALTER K. CONNESS, a citizen of the United States, residing at Sacramento, county of Sacramento, State of California, have invented an Improvement in Air-Brake Branch-Pipe Drain-Cups; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in air brake mechanism.

It consists essentially of an improvement in the drain cups, so-called, which are designed to prevent the entrance of dust into the triple valve mechanism of the air brake, and in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view showing the location of my improved drain-cup with reference to the train-pipe and triple valve. Fig. 2 is an enlarged longitudinal section of the same.

The object of my invention is to provide a more thorough and complete protection of the delicate mechanism of the triple valve of an air brake, against the entrance of dust which is liable to collect within the train pipes when the latter are disconnected and cars separated from each other. For this purpose it has been customary to fix screens of various descriptions at the point where the air passes from the train pipe into the branch pipe, but these screens are usually so located that the air strikes them directly and any dust which may be carried by this air will be gradually forced into and through the meshes of the screen, and in time will so clog the screen as to reduce the efficiency of the brake mechanism, by interfering with the passage of air.

In my device A is a bottle shaped casing introduced between the train pipe B and the cock C by which the passage to the triple valve M is opened or closed, and having a larger diameter than the pipe. The smaller end of this casing A is adapted to connect with the T or any suitable form of coupling with the train pipe as shown at E, and from this pipe it is enlarged by a swell or curvature to its full diameter. At the opposite end is an annular enlargement F which is cast upon that end of the casing A with a lip projection, and the pipe G leading to the triple valve mechanism is introduced through this

enlargement having a bushing H brazed onto the pipe, by which a tight and solid joint is made at that point. Upon the end of the pipe G, interior to the casing A, is screwed the cone screen, as shown at I, for the purpose of admitting air into the pipe G and at the same time protecting it from the entrance of dirt. Upon the smaller end of this cone screen is fixed a conically shaped button or point J, with its conical end or point presented toward the train pipe from which air enters to pass to the triple valve. This cone-shaped button, standing in the passage at the point where the enlargement of the casing A commences, serves to direct the air so that it passes into the said casing A upon each side of the cone screen I, and any dirt or dust carried by the air will by its momentum be transmitted along the casing A into the enlargement F, while the air will pass obliquely through the entire length of the screen I. By this construction, while the air is allowed to pass freely from the train pipe through the screen I which is in the branch pipe, and thence into the pipe G connecting with the triple valve mechanism, the cone J serves to divert any dust which may be carried by the air and prevent its striking directly upon the surface of the screen I. This dust having passed into the enlargement F, will settle in the bottom or lower side thereof, and will pass out through an opening made at K into a dirt receptacle L which screws into the bottom of the enlargement F and which may be removed and emptied from time to time as necessary.

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

1. In an air brake mechanism, a casing interposed in a branch between the train pipe and the triple valve mechanism, having one end enlarged to form a dust receptacle through which the end of the pipe enters from the triple valve mechanism, said casing having its opposite end connected with the passage from the train pipe, and a screen cone in said casing in advance of the dust receptacle thereof.

2. In an air brake mechanism, a branch pipe leading from the train pipe to the triple valve chamber, a casing interposed in said branch pipe having one end connected with

the T or passage from the train pipe, the other end forming an enlarged dust receptacle, through which the end of the pipe enters from the triple valve mechanism, a screen cone fixed
5 to the end of said pipe within the casing, and a solid cone fixed to the smaller end whereby the entering air is diverted along the sides of the screen.

3. An air brake branch pipe drain cup, consisting of the enlarged or bottle shaped casing having the smaller end connected with a T or passage to the train pipe, an annular enlarged chamber at the opposite end adapted to receive dust and foreign substances entering the chamber, and having a dust receptacle
15 connecting with the lower side thereof, a pipe leading from the triple valve casing entering through the center of the enlarged chamber and extending into the interior beyond the
20 dust chamber, a screen cone fixed upon the

inner end of said pipe and a solid conical button fixed to the smaller end of said cone at the entrance to the chamber, whereby air and dust are diverted to pass along each side of the screen cone and air pipe as described. 25

4. In an air brake mechanism, a conical dust screen interposed in and extending in line with the passage through which the air passes from the train pipe to the triple valve mechanism, said screen having its apex armed
30 with means for receiving the impact of the air and diverting the course of the same, substantially as herein described.

In witness whereof I have hereunto set my hand.

WALTER K. CONNESS.

Witnesses:

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