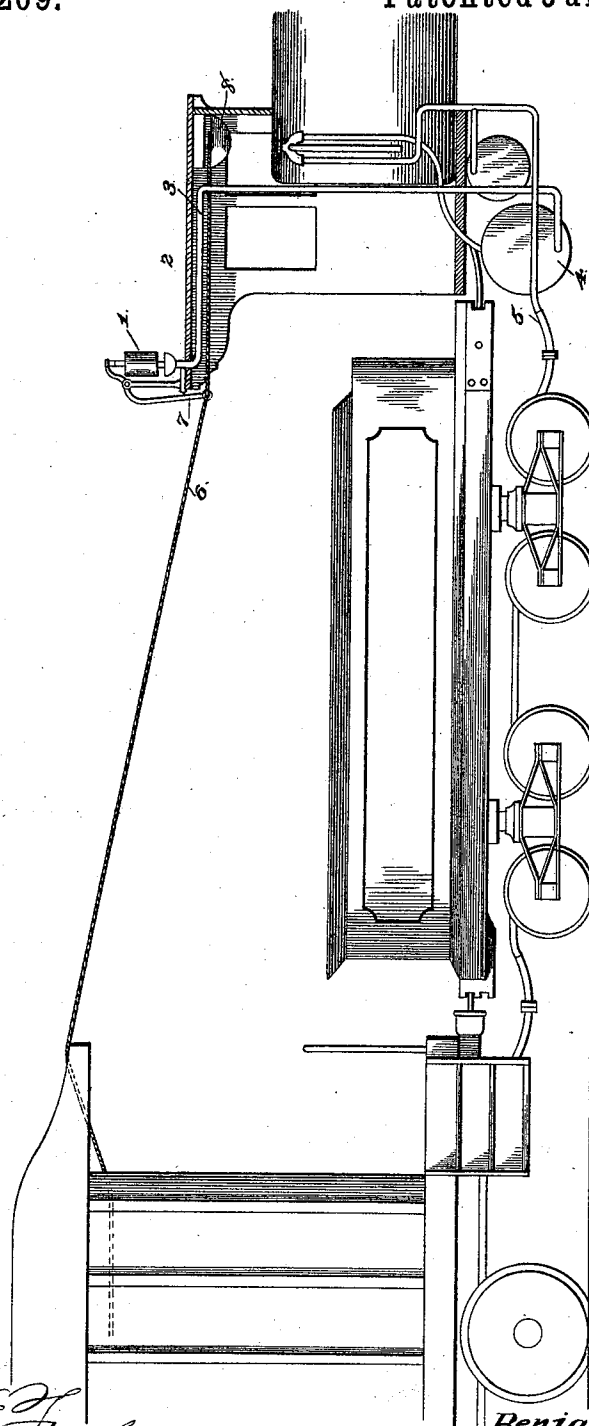


(No Model.)

B. F. CAMPBELL & J. H. McHUGH.
AIR ALARM WHISTLE.

No. 499,209.

Patented June 13, 1893.



Witnesses

M. E. Fowler
H. F. Riley

Inventors

Benjamin F. Campbell
and James H. McHugh

By their Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

BENJAMIN F. CAMPBELL AND JAMES H. McHUGH, OF NEWPORT, ARKANSAS

AIR-ALARM WHISTLE.

SPECIFICATION forming part of Letters Patent No. 499,209, dated June 13, 1893.

Application filed November 27, 1891. Serial No. 413,321. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN F. CAMPBELL and JAMES H. McHUGH, citizens of the United States, residing at Newport, in the county of Jackson and State of Arkansas, have invented a new and useful Air-Alarm Whistle, of which the following is a specification.

The invention relates to improvements in automatic air brakes.

The object of the present invention is to provide means whereby a conductor may operate the brakes of a train from any part of the latter, and to enable him to signal the engineer positively and ascertain whether such signals have been transmitted correctly.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawing and pointed out in the claim hereto appended.

The figure of the drawing is a side elevation of a portion of an engine and a car provided with an air brake embodying the invention.

Referring to the drawing 1 designates a whistle which is mounted on a cab 2 of an engine or other desirable part of the same or on the tender, and which communicates by a pipe 3 with the main reservoir or storage drum 4 of an automatic brake, whereby by a continued blowing of the whistle the pressure in the storage drum 4 and the main or train pipe 5 will be reduced, thereby applying the brakes, the degree in which the brakes are applied varying with the decrease in the pressure of the main or train pipe 5 and the storage drum 4 as will be readily understood. A bell rope 6 of the ordinary construction is connected to the lever 7 of the whistle 1, and to a gong 8, so that a conductor by pulling the bell rope to signal the engineer will sound the whistle, and will know positively whether his signals have been communicated or transmitted correctly to the engineer. The bell

rope also enables the conductor to operate the air brakes from any part of the train, and the brakes may be applied either lightly or fully accordingly as the pressure in the storage drum is decreased to a less or greater extent. In winter it often happens that the bell rope becomes frozen and contracts by kinking and the like which often results in breaking or pulling out the lever of the gong, but, by the present arrangement the bell rope in contracting will sound the whistle and indicate its condition. The whistle 1 blows off all the water which collects in the storage drum, and keeps the latter perfectly dry.

It will be seen that by the improvements herein described, the pipes and the main reservoir or storage drum are kept perfectly dry, and the parts are thereby prevented freezing and becoming inoperative, that the air brake may be operated from any part of the train by the conductor, and that positive and reliable means are provided whereby a conductor may signal an engineer and ascertain if his signals are transmitted correctly.

What we claim is—

The combination with the main storage drum of an automatic air-brake, of a whistle mounted on the cab of an engine and constituting a complete escape for reducing the pressure in the train pipe, a pipe connecting the whistle with the storage drum, and an operating rope extending along the train and connected directly to the whistle, whereby both a signal and an application of the brake may be obtained at any point on a train by pulling the rope, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

BENJAMIN F. CAMPBELL.
JAMES H. McHUGH.

Witnesses:

W. B. FISK,
W. D. CULBERHOUSE.