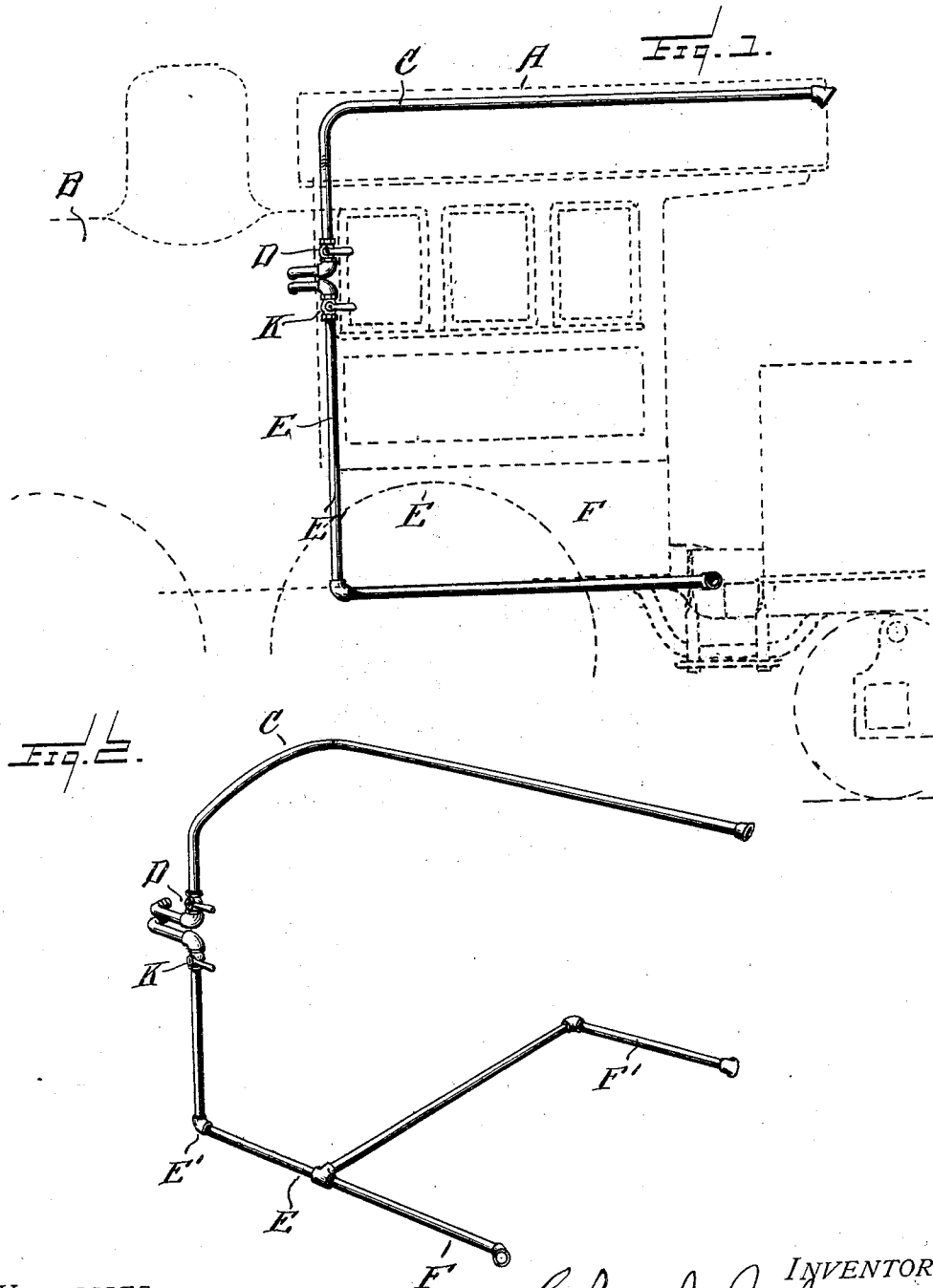


C. J. JOHNSON.
 DEVICE FOR PREVENTING HOLD-UPS ON LOCOMOTIVES.
 APPLICATION FILED APR. 24, 1909.

933,565.

Patented Sept. 7, 1909.



WITNESSES:

Wm. F. Hoyle
Willie C. Reid

INVENTOR
Chas. J. Johnson
 BY *Franklin N. Hough*
 Attorney

UNITED STATES PATENT OFFICE.

CHARLES J. JOHNSON, OF DENVER, COLORADO.

DEVICE FOR PREVENTING HOLD-UPS ON LOCOMOTIVES.

933,565.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed April 24, 1909. Serial No. 492,055.

To all whom it may concern:

Be it known that I, CHARLES J. JOHNSON, a subject of the King of Sweden, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Devices for Preventing Hold-Ups on Locomotives; and I do hereby 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in devices for protecting engineers and firemen upon locomotives from hold-ups and consists in the provision of means whereby jets of steam may be directed upon persons approaching the cab from different directions, the steam being allowed to escape through concealed pipes.

The invention comprises various details of construction, combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claim.

My invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a view of the cab of an engine showing the arrangement of steam ejecting pipes mounted therein, and Fig. 2 is an enlarged detail view showing the arrangement of the pipes.

Reference now being had to the details of the drawings by letters, A designates the cab of an engine, B the boiler and C a pipe leading from the boiler and positioned with its exit end adjacent to the rear end and directly underneath the roof of the cab. Said pipe C is bent upwardly as shown and provided with a suitable stop cock D within convenient reach of the engineer or fireman

and the end of the pipe may be downwardly bent or flaring, as shown, and adapted to direct steam in the passageway between the tender and the locomotive. A second pipe, designated by letter E, leads from the boiler, is bent downwardly at E' and extends underneath the floor of the cab and has branches F and F' which lead outwardly and have their exit ends adjacent to and directly underneath the platform intermediate the engine and tender. A suitable stop cock K is positioned in the pipe E, so as to be within convenient reach of the operator that he may quickly have access thereto in order to allow steam to escape forcibly.

In operation, in the event of there being an attempt to hold-up the engineer or fireman, either one or the other may turn on the steam in the two pipes by turning the stop cocks, thus allowing the live steam to make exit from the boiler on both sides of the cab and also from underneath the roof, thus affording an efficient means by scalding the intruders and thus protecting the engineer and fireman.

What I claim to be new is:—

An apparatus for preventing hold-ups on locomotives comprising, in combination with the boiler of an engine and a cab, pipes communicating with the boiler and leading into the cab, said pipes being bent in opposite directions, one extending downward and thence horizontally and having a flaring end positioned adjacent to the entrance of the cab, the other pipe extending underneath the roof of the cab and having a flaring end which is downwardly inclined, and suitable valves in said pipes.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CHARLES J. JOHNSON.

Witnesses:

CLARA PAULINE MOHR,
MATTIE C. HUNT.