

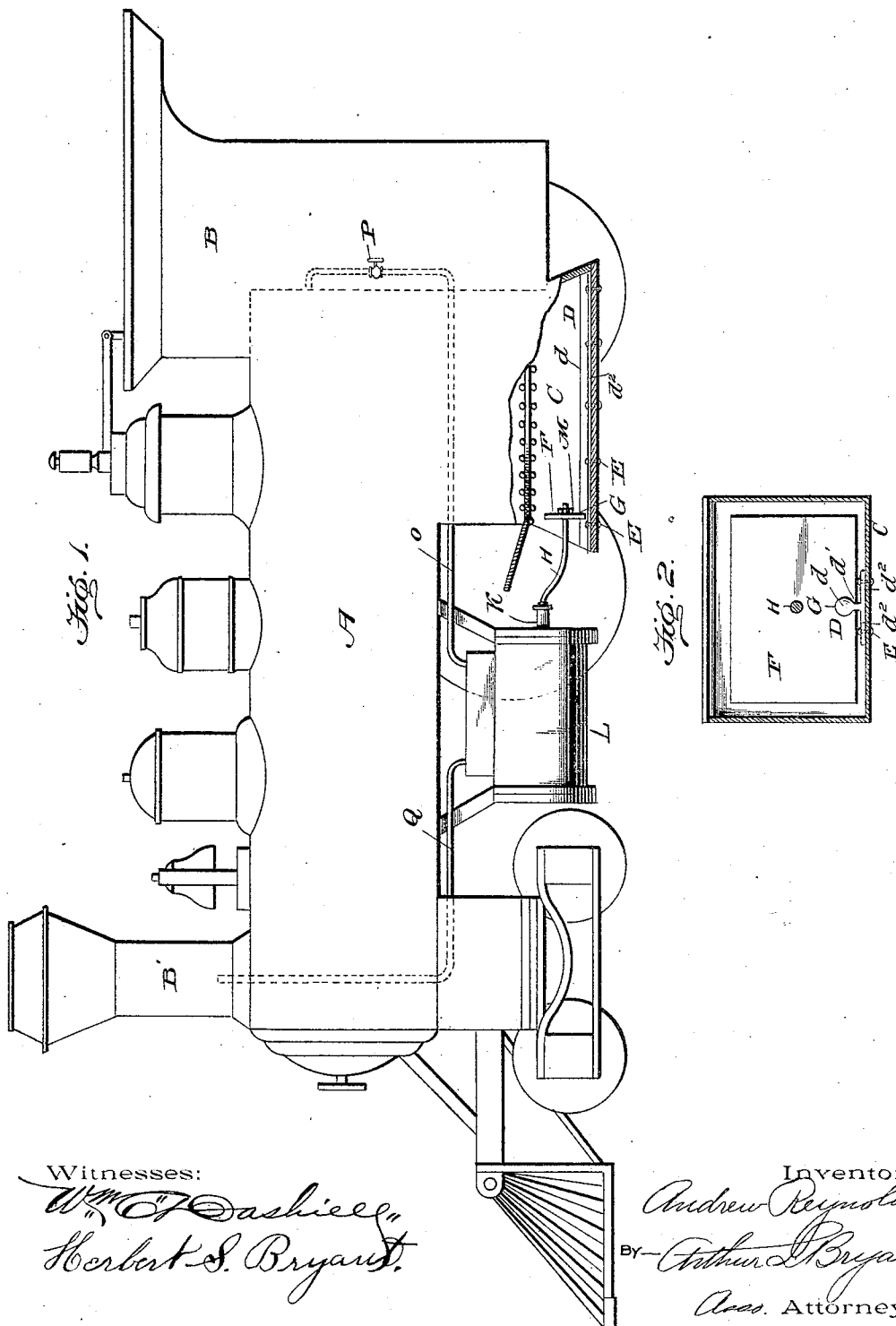
(No Model.)

A. REYNOLDS.

DEVICE FOR REMOVING ASHES FROM LOCOMOTIVE ASH PANS.

No. 529,408.

Patented Nov. 20, 1894.



Witnesses:

Wm. T. Ashiee
Herbert S. Bryant

Inventor.

Andrew Reynolds
By *Arthur Bryant*
Atty. Attorney.

UNITED STATES PATENT OFFICE.

ANDREW REYNOLDS, OF SEATTLE, WASHINGTON.

DEVICE FOR REMOVING ASHES FROM LOCOMOTIVE ASH-PANS.

SPECIFICATION forming part of Letters Patent No. 529,408, dated November 20, 1894.

Application filed July 6, 1894. Serial No. 516,710. (No model.)

To all whom it may concern:

Be it known that I, ANDREW REYNOLDS, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Devices for Removing Ashes from Locomotive Ash-Pans; 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.

My invention relates to improvements in devices for removing ashes from the ash pan of a locomotive; and the object of the invention is to provide means for the purpose stated which will be automatic in their action, and which can be easily set in motion by the engineer independent of the movement of the locomotive.

My invention consists in the peculiar construction and arrangement of parts as will be hereinafter more fully pointed out and claimed.

In the accompanying drawings:—Figure 1 is a side elevation, partly in section, of my attachment for locomotives, the locomotive being shown in outline only. Fig. 2 is a front elevation of the ash pan, with the damper raised.

Like letters of reference denote corresponding parts in both figures of the drawings, referring to which—

A designates the boiler, B, the cab and B' the stack of a locomotive which may be of any style and size.

Within the ash pan, C, which is supported below the fire box of the locomotive in the usual manner, I arrange a longitudinally extending guide rod, D. This guide rod is preferably made in the cross sectional form indicated in Fig. 2 of the drawings in which it consists of a vertical web or body portion, d , an enlarged head or top piece, d' , substantially circular in cross section, and laterally projecting base flanges, d^2 . Said guide rod is rigidly secured to the bottom of the ash pan

by means of bolts or rivets, E, passing through the flanges, d^2 , and said bottom.

The scraper, F, which is preferably made in the form shown, is provided in its lower edge with a notch or recess, G, adapted to receive the upper enlarged edge of the guide rod, D. The scraper is detachably connected to one end of a rod, H, the other end of which is connected in any suitable manner with the piston rod, K, of an engine, L, which is supported, in any suitable manner, below the boiler of the locomotive slightly in advance of the ash pan, C. The rear end of the rod, H, is preferably reduced in size and threaded; and such threaded end extends through an opening in the body of the scraper. The scraper is held in proper position by a nut, M, screwed on the reduced threaded end of the rod, H, and binding said scraper firmly against the shoulder formed on said rod.

Steam is supplied to the engine, L, which is of the ordinary slide valve pattern, from the boiler, A, through a pipe, O, such pipe being provided, within the cab, B, of the locomotive, with a valve, P, by which the engineer can readily control the admission of steam to such engine. The exhaust from the scraper operating engine is conducted to the stack, B', of the locomotive through a pipe, Q.

By reference to Fig. 2 of the drawings it will be seen that the scraper, F, does not extend entirely across the ash pan, C, so that in case it becomes bent or otherwise damaged it can be easily removed from said pan.

When it is desired to rake out the ashes which have accumulated in the ash pan the engineer has only to admit steam to the engine, L, and the reciprocating motion of the piston of such engine being communicated to the scraper the ashes will be quickly removed from the ash pan independent of the movement of the locomotive.

It will be noticed that all of the working parts of my improvements are inclosed so that they are not liable to get out of order or be clogged by dust, &c.

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

1. In a locomotive, the combination of an

ash pan having arranged therein a longitudinal guide rod, a scraper fitted to slide on said rod, and means for reciprocating the scraper, substantially as shown and described.

- 5 2. In a locomotive, the combination of a longitudinal guide rod, provided at its upper end with an enlarged head and at its lower end with laterally extending flanges, adapted to be secured to the bottom of the ash pan of
10 the locomotive, a scraper provided in one edge with a notch adapted to receive the enlarged head on the guide rod in the ash pan,

an engine supported below and adapted to receive steam from the boiler of the locomotive, and connections between the piston of said 15 engine and the scraper, substantially as shown and described, for the purpose specified.

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

ANDREW REYNOLDS.

Witnesses:

GEO. H. KING,
SADIE S. WARD.