## UNITED STATES PATENT OFFICE.

MATTHIAS W. BALDWIN, OF PHILADELPHIA, PENNSYLVANIA.

ART OF MANAGING AND SUPPLYING FIRE FOR GENERATING STEAM IN LOCOMOTIVE-ENGINES.

Specification of Letters Patent No. 54, dated October 15, 1836.

To all whom it may concern:

place.

Be it known that I, MATTHIAS W. BALDwin, of the city of Philadelphia, State of Pennsylvania, machinist, have invented a 5 new and Improved Mode of Procedure in the Art of Managing and Supplying the Fire for the Generating of Steam in Locomotive-Engines; and I do hereby declare that the following is a full and exact de-10 scription thereof.

My improvement in the art or method of managing the fire in the furnaces of locomotive engines consists simply making the fire in the furnace, fire-place, or grate which 15 may be detached from, and appended to the boiler at pleasure. The intention of this new mode of managing the fire is to enable me, at each water station, or in any convenient place to have a clear coal fire waiting the arrival of the engine so that the grate or fire-place which has been in use, may be detached or slid out, and that containing the clear fire, made to occupy its

I do not claim to have invented any new 25 mode of constructing the apparatus employed as methods of effecting this are so obvious that they will at once present themselves to any competent engineer. The fire while burning may be placed under the 30 reservoir from which the tender is to be supplied, thus rendering the heat generated available, giving a supply of hot water from that portion which would otherwise be wasted. The grate containing the fire may 35 be placed on a small car, or on a long lever sunk below the railroad, and so arranged as to transfer it readily.

All that I claim as my invention, is—
The preparing a fire in a grate which may 40
be transferred from the place where it is
made to the proper place under the boiler of
a locomotive steam engine for the generating of steam as hereinbefore set forth.
M. W. BALDWIN.

Witnesses:

S. Badger, Thos. Stokley.