(12) **United States Patent**
Baldwin

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(54) **STEAM ENGINE, LOCOMOTIVE WHEELS, & BOILER TUBES FOR**

(76) Inventor: **Matthias W. Baldwin**

Matthias W. Baldwin of Philadelphia

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Matthias W Baldwin himself of his improvement in the mode of fitting the boxes for gudgeons into plummer blocks, and also the bearing of the slides for Locomotive and other Steam Engines and for other purposes.

To all whom it may concern, Be it known that I Matthias W. Baldwin machinist of the City of the City of Philadelphia, in the State of Pennsylvania have invented a new and improved mode of fitting the boxes within which gudgeons are to turn into plummer blocks, and also of fitting and adjusting the bearing of slides, or guides for piston Rods. Which inventions are applicable to Locomotive Engines, and also to other purposes, and I do hereby declare that the following is a full and exact description thereof. The boxes in which the gudgeons used about Locomotive and other Steam Engines, and machinery of various kinds are received and turn have heretofore been fitted into the plummer Blocks, or pedestals made to receive them by filing, or other analogous means. The ends being made either square or angular and adapted to corresponding parts in the plummer block or pedestal prepared to receive them,

My improved mode of fitting them consists in turning or boring the opening or seat in the plummer block into which the boxes are to be fitted, so as to make each of the cheeks cylindrical segments. The boxes in which the gudgeon is to turn are then to be attached to each other by screws, or otherwise and turned by means of a slide rest or worked in any other manner so as to make their ends cylindrical, and to cause them to fit exactly to the cylindrical cheeks prepared for their reception in the plummer block. In constructing the slides for the pistons of Locomotive, and other Steam Engines, and

for these purposes. the slide bar has usually been made square, or four sided, and its angles usually right angles, and the brasses or bearings contained the box within which it slides have been adjusted to it by set screws operating upon three sides thereof. In my improved mode of construction the adjustment is made to operate upon the sides or edges only. For this purpose I make my slide bar flat on two sides, and the other two sides or edges round or otherwise form them into two planes meeting each other along the middle thereof by which means the rod will become six sided. this latter form being preferred to the rounding of the edges. The box within which the bar slides is provided with two brasses or bearing pieces with hollows or grooves in them adapted to the edges of the sliding bar, and fitting accurately between the parallel sides of the Box. when therefore the brasses or bearings are adjusted to the edges of the rods by set screws acting against them. the rod is embraced by them so as effectually to check all tendency to a lateral motion as will clearly appear by an inspection of the drawings deposited in the Patent Office

What I claim as my Invention and wish to secure by Letters Patent. is the mode of fitting the boxes of gudgeons into plummer blocks, pedestals, or other receptacles, by boring, turning, or otherwise so as to make the fitting cylindrical. I also claim the fitting of the slides for the pistons of Locomotive Engines and for other purposes into brasses or boxes adjusted and operating, in the manner herein before set forth.

Witnesses
A. Pettit
John Hall

M. W. Baldwin

(Patented Aug. 17th 1835)

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548 words