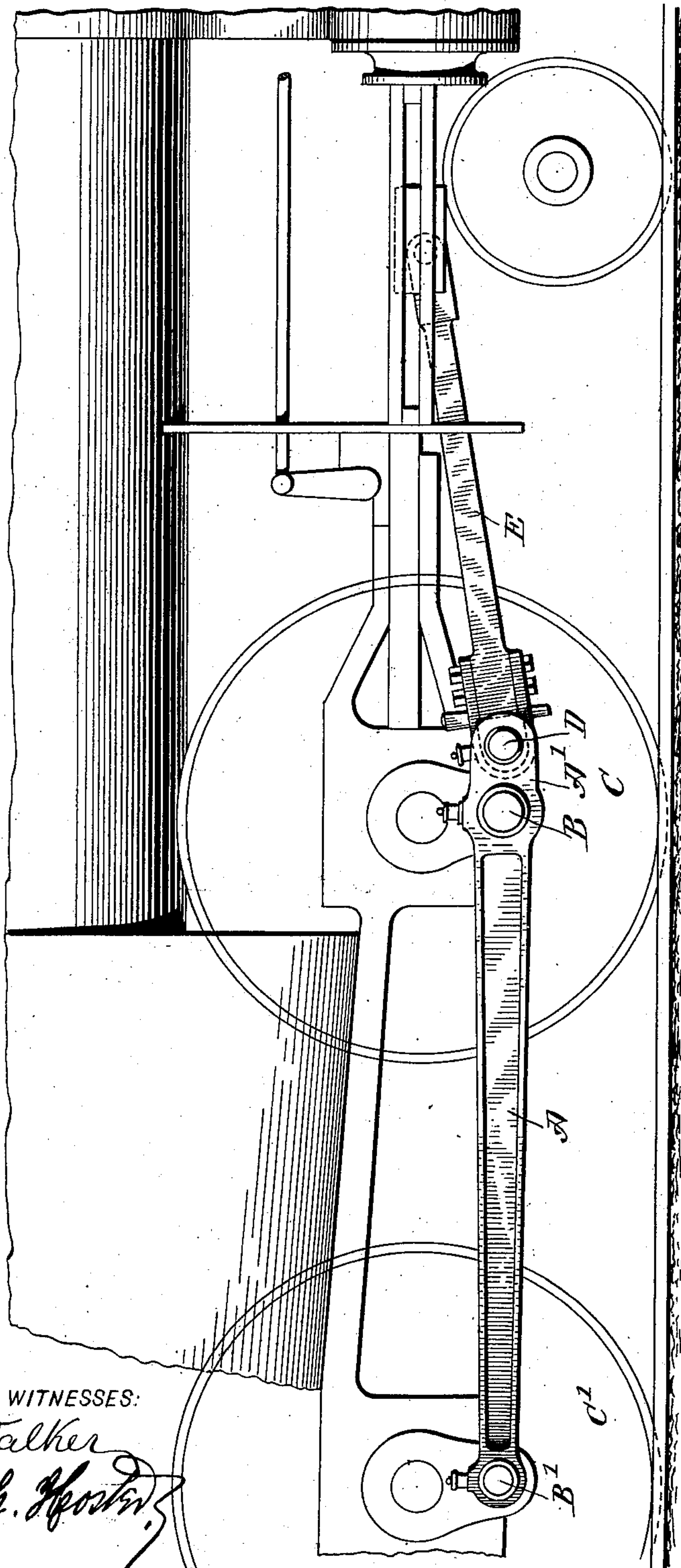


No. 744,551.

PATENTED NOV. 17, 1903.

C. HOUSTON.  
PARALLEL ROD FOR LOCOMOTIVES.  
APPLICATION FILED APR. 1, 1903.

NO MODEL.



WITNESSES:

*H. Walker*  
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INVENTOR

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BY

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## UNITED STATES PATENT OFFICE.

CALEB HOUSTON, OF BENSON, ARIZONA TERRITORY.

## PARALLEL ROD FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 744,551, dated November 17, 1903.

Application filed April 1, 1903. Serial No. 150,549. (No model.)

*To all whom it may concern:*

Be it known that I, CALEB HOUSTON, a citizen of the United States, and a resident of Benson, in the county of Cochise and Territory of Arizona, have invented a new and Improved Parallel Rod for Locomotives, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved parallel rod for locomotives, arranged to insure a direct transmission of the power from the piston to the front and rear driving-wheels and to avoid overheating of the pivotal connection between the main rod and the parallel rod.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which the figure is a side elevation of the improvement as applied.

The parallel or side rod A on each side of a locomotive is connected with the wrist-pins B and B' of front and rear driving-wheels C and C', and the said parallel rod A is provided with a forward extension A', connected by a knuckle-pin D with the rear end of the main rod E of the locomotive-engine, the inner end of the pin D being out of the path of the crank. Now by the arrangement de-

scribed the power transmitted from the piston of the engine by the main rod E to the parallel or side rod A is independent of the wrist-pins B and B', as the said main rod has a connection with the parallel rod forward of the wrist-pin B, and consequently the front and rear driving-wheels C and C' are rotated without danger of overheating of the pivotal connection between the main rod E and the parallel or side rod A. The side rod A is greatly strengthened to safely stand the strain incident to the application of the power applied at the extension A'.

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

A locomotive having a parallel or side rod engaging wrist-pins on the front and rear driving-wheels, the said parallel or side rod being provided with an extension forward of the wrist-pin of the front driving-wheel, and a main rod pivotally connected at its rear end directly to the extension of the parallel or side rod, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CALEB HOUSTON.

Witnesses:

W. H. SCHARDIN,  
W. C. FERRIS.