No. 645,834. Patented Mar. 20, 1900.

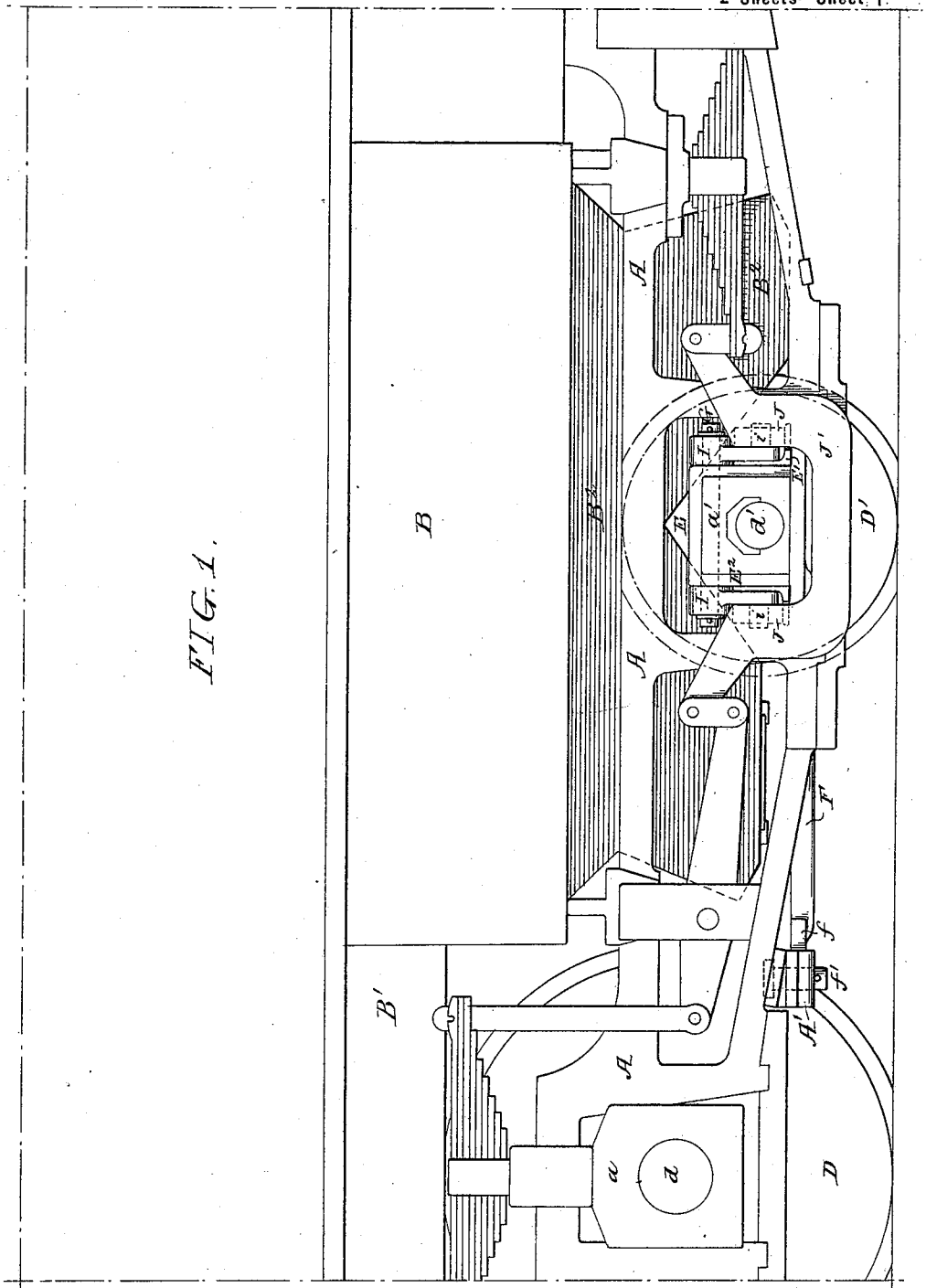
K. RUSHTON.

SWING TRUCK FOR LOCOMOTIVES.

(Application filed Dec. 11, 1897.)

(No Model.) 2 Sheets—Sheet 1.

FIG. 1.



Witnesses:
Charles DeCow.
Will. A. Barr.

Inventor:
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FIG. 2.

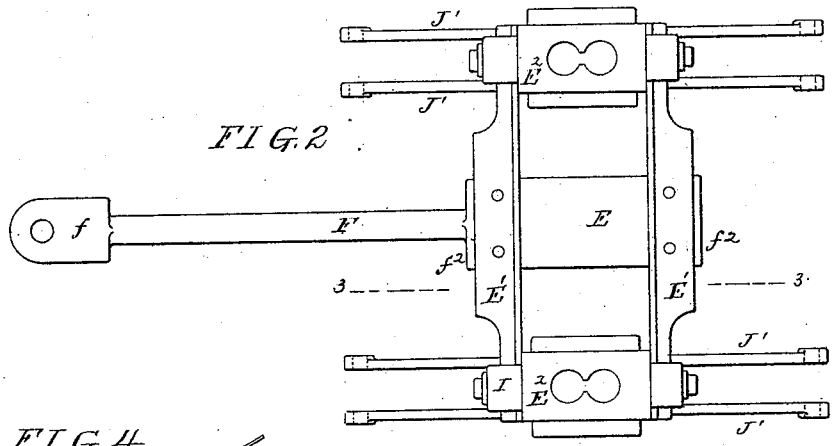


FIG. 4.

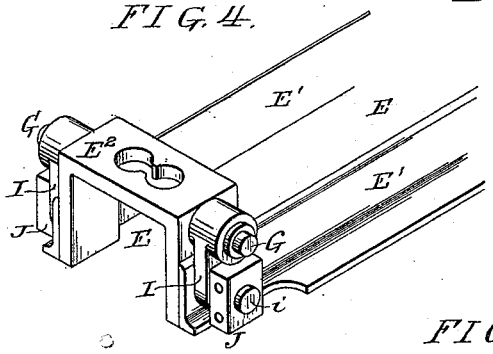
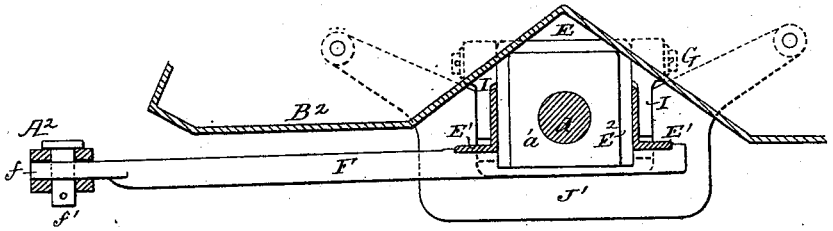


FIG. 3.



Witnesses:
Charles De Cow.
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Inventor:
Kenneth Rushton
by his Attorneys,
Howson & Howson

UNITED STATES PATENT OFFICE.

KENNETH RUSHTON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO BURNHAM, WILLIAMS & CO., OF SAME PLACE.

SWING-TRUCK FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 645,834, dated March 20, 1900.

Application filed December 11, 1897. Serial No. 661,503. (No model.)

To all whom it may concern:

Be it known that I, KENNETH RUSHTON, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Swing-Trucks for Locomotives, of which the following is a specification.

The object of my invention is to provide a locomotive with a swing-truck situated directly under the fire-box and so arranged as to swing on a radius, as fully described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of sufficient of a locomotive to illustrate my invention. Fig. 2 is a plan view of the truck detached. Fig. 3 is a sectional view on the line 3 3, Fig. 2; and Fig. 4 is a perspective view of a portion of the truck.

Swinging frames for the rear trucks of a locomotive have been made prior to my invention, but have been placed at the rear of the fire-box and ash-pit, so as to allow for the free movement of the suspension-links and other parts of the truck; but prior to my invention swinging trucks have not been placed directly under the fire-box, owing to the fact that the room they occupy would displace a valuable portion of the ash-pit.

Referring now to the drawings, A is one of the side frames of a locomotive; B, the fire-box; B′, the boiler, and B^2 the ash pan or pit for the reception of the ashes from the fire-box.

In the present instance, D is one of the driving-wheels, having its axle *d* mounted in a box *a* in the frame A.

D′ is one of the rear-truck wheels, the axle *d′* of this wheel being adapted to a box *a′*, mounted in the swinging truck-frame E. This truck-frame in the present instance is composed of two angle-bars E′ E′, secured to two yoke-frames E^2, shaped to receive the boxes *a′* of the axles *d′*. Attached to each angle-bar at the center of the truck is a pivot-bar F, having a head *f*, which is perforated to receive the pivot-pin *f′*, mounted on the cross-bar A′ of the frame of the locomotive, so that any lateral motion given to the truck will be on a radius from the pivot-pin *f′*. The bar F has lips f^2 at each side, so as to extend above the lower portions of the angle-bars E′, and thus take the strain off the securing-bolts, as it will be understood that the pivot-bar, the two angle-bars, and the two yoke-frames are rigidly secured together.

Projecting through each side of each yoke-frame is a pivot-bar G, from which are hung links I, having pins *i′*, adapted to blocks J, in the present instance secured to the frames J′ of the equalizing mechanism of the locomotive. In the present instance there are two frames J′ at each side of the locomotive, and the boxes J are fixed to these frames, so that the frames of the equalizing mechanism intervene between the frame of the locomotive and the truck, the links being so formed as to allow the truck E to swing on its pivot-pin *f′*.

In some instances instead of the pin G passing entirely through the yoke-frames E^2 studs may be formed on the yoke-frames without departing from my invention, and in some instances the blocks J may be secured directly to the frame A of the locomotive or to other styles of equalizing mechanism.

By the above-described arrangement it will be seen that I can mount a radial swing-truck directly under the ash-pan of a locomotive without interfering with it to any great extent, thus placing the truck in a position where it can properly support the load and without lengthening the wheel-base of the locomotive.

I claim as my invention—

1. The combination in a locomotive, of a frame, a rear truck pivoted thereto and capable of radial movement with relation to said frame, suspension-links on each side of the truck whereby it may be hung to said frame, said rear truck being disposed directly beneath the ash-pan of the locomotive, substantially as described.

2. The combination in a locomotive, of a rear truck made up of cross-bars extending from side to side of the same, yoke-frames at each side of said truck, said yoke-frames being secured to the cross-bars, a pivoted bar also secured to said cross-bars, and suspension-links pivoted to the yoke-frame whereby said truck is secured to the frame of the locomotive, substantially as described.

3. The combination in a locomotive, of the rear truck made up of two angle-bars extend-

ing from side to side of the same, yoke-frames at each side of said truck, said yoke-frames being secured to the angle-bars, a pivoted bar also secured to said angle-bars, and suspension-links pivoted to the yoke-frame whereby said truck may be secured to the frame of the locomotive, substantially as described.

4. The combination in a locomotive, of a fire-box, an ash-pan, a pivoted truck capable of radial movement with respect to the locomotive-frame arranged directly under the ash-pan, equalizing mechanism, and links connecting the truck with the equalizing mechanism, substantially as described.

5. The combination in a locomotive, of a frame, a fire-box, an ash-pan mounted under the fire-box, a truck-axle mounted under the ash-pan, boxes for said axle, a truck adapted to receive the boxes and having a forwardly-extending pivot-bar, said bar being pivoted to the frame of the locomotive so that the truck will be capable of radial movement with respect to said frame, and suspension-links whereby said truck is connected to the frame of the locomotive, substantially as described.

6. The combination in a locomotive, of a frame, a fire-box and ash-pan, a truck-frame under the ash-pan said frame having an extension pivoted to the frame of the locomotive so as to swing on a radius, pins on each end of the truck-frame, links suspended from each pin, blocks pivoted to the links, with equalizing-frames to which the blocks are secured, substantially as described.

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

KENNETH RUSHTON.

Witnesses:
WILL. A. BARR,
JOS. H. KLEIN.