R. T. CHASE.
AXLE BOX FOR LOCOMOTIVES.

No. 400,545. Patented Apr. 2, 1889. WITNESSES:

ATTORNEYS.

## United States Patent Office.

RANSFORD T. CHASE, OF HOUSTON, TEXAS.

## AXLE-BOX FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 400,545, dated April 2, 1889.

Application filed July 7, 1888. Serial No. 279,270. (No model.)

To all whom it may concern:

Be it known that I, RANSFORD T. CHASE, of Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Axle-Boxes for Locomotives, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in axle10 boxes for locomotives, by which the centers of the axles always remain the same distance apart.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

Figure 1 is a side elevation of the improvement, showing the axles in section; and Fig. 2 is a sectional plan view of the same on the line x x of Fig. 1.

25 The pedestals A of the locomotive are each provided with guideways B B, in which is mounted to slide vertically the axle-box C, of any approved construction and mounted at the respective end of the axle D. On the pedestal A is also formed a vertical guideway, E, in which is mounted to slide up and down at one side the axle-box F, of any approved construction, and mounted on the axle G in the usual manner.

On the inner end of the axle-box F is secured a rod, H, pivotally connected at its other end by a bolt, I, to a lug, C', on the axle-box C. The rod H thus connects the axle-box C with the axle-box F in such a

manner that the centers of the axles D and G 40 must always remain the same distance apart, and consequently when the axle-box C slides vertically in its guideways B the rod H causes the axle-box F to travel with its center in the line of an arc of which the center of the axle 45 D is the center. As the axle-box F is guided only at one end, it permits the arc movement above described.

Three axle-boxes on one side of the locomotive may be connected with each other by connecting the left end of the axle-box C with the third axle-box by a rod, H, in the same manner as shown in Fig. 1 for connecting the axle-box C with the axle-box F. Any number of axle-boxes may thus be connected 55 with each other, so that the centers of the axles always remain the same distance apart.

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

1. The combination, with a truck having vertically-sliding axle-boxes and ways therefor, of a vertically-swinging rod rigidly secured at one end to one box and hinged at its opposite end to the other box, substantially as set 65 forth.

2. The combination, with a pedestal, of an axle-box mounted to slide vertically in the said pedestal, a second axle-box mounted with one side in a bearing in the said pedestal, and 70 a connecting-rod secured to the last-named axle-box and pivotally connected with the first-named axle-box, substantially as shown and described.

RANSFORD T. CHASE.

Witnesses:

M. F. Munson, J. B. Cochran.