No. 723,322. PATENTED MAR. 24, 1903.

E. N. SLOCUM.

SPRING SADDLE AND DRIVING BOX.

APPLICATION FILED JULY 26, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

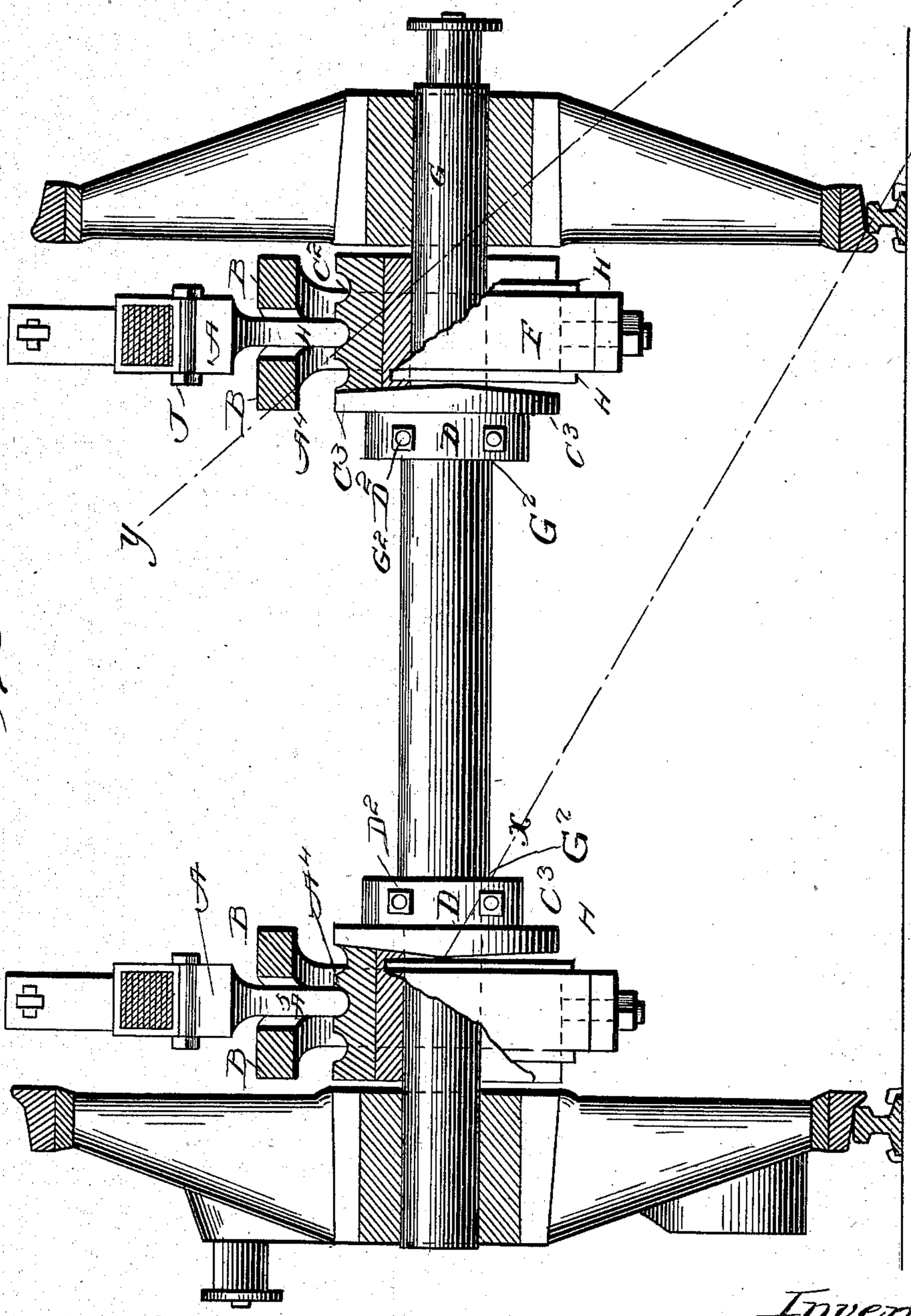

Fig. 1.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.

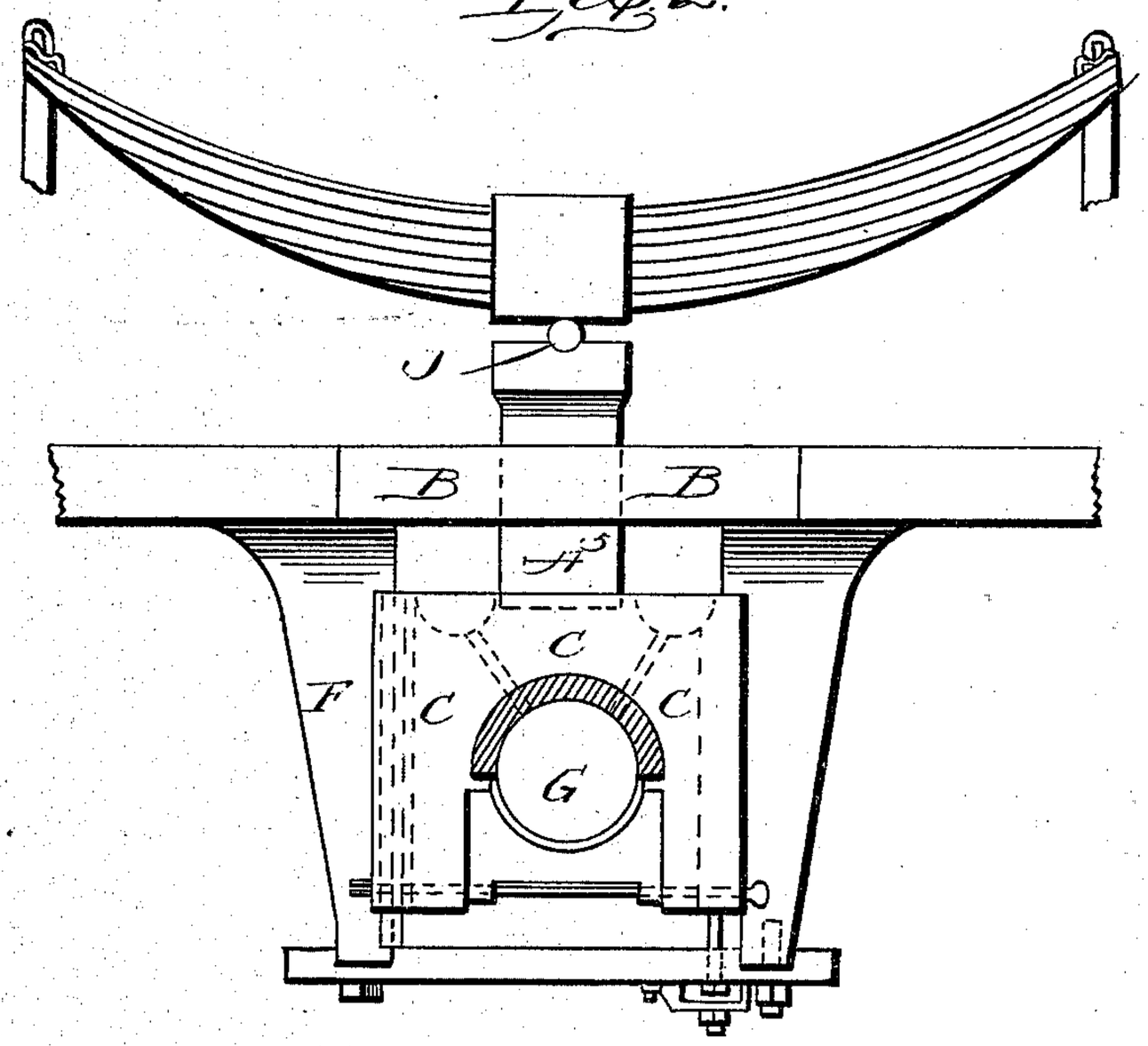


Fig. 3.

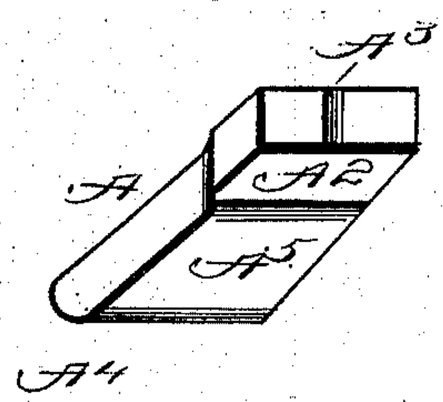
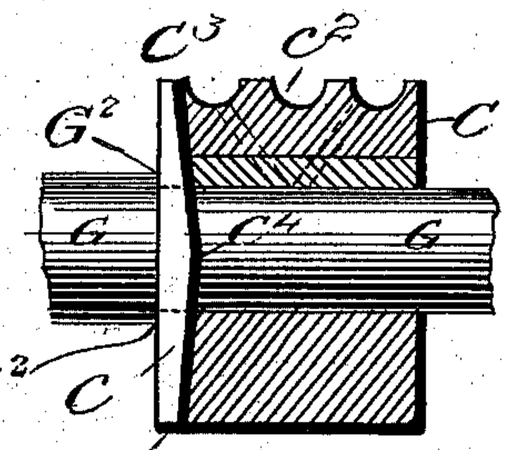


Fig. 4.



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UNITED STATES PATENT OFFICE.

EBENEZER N. SLOCUM, OF SPRINGFIELD, MISSOURI.

SPRING-SADDLE AND DRIVING-BOX.

SPECIFICATION forming part of Letters Patent No. 723,322, dated March 24, 1903.

Application filed July 26, 1902. Serial No. 117,208. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER N. SLOCUM, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented and produced a new and original Spring-Saddle and Driving-Box; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in locomotive spring-saddles for the driving-box, the object of which is to provide a pressure upon the center of the box, so as to distribute the pressure uniformly throughout the box upon the axle to prevent heating by keeping parallel the face of the box and the axle, and also a collar on the inner face of the boxing secured to the axle to catch the lateral weight of the locomotive on the inner side of the curve in turning to prevent the engine from easily being thrown over, and by preventing a large portion of the strain or pressure on the outer track in curves, also a box constructed for being easily replaced with a new one. These objects I attain by means of the device illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a cross-sectional view of the entire device. Fig. 2 is a longitudinal view showing the end of the axle. Fig. 3 is a view in elevation of the fulcrum-saddle detached. Fig. 4 is a detailed view showing the boxing.

Similar letters of reference indicate corresponding parts in the several figures.

A is a fulcrum-saddle which can be made any desired size, having a groove A^3 in the upper surface for receiving the roller J of the spring, which roller is now in use on locomotives. Said fulcrum-saddle is rounded on the lower end A^4 to fit the upper surface of the middle of the boxing, acting as a pivot to support the weight in the center of the boxing in different positions. The lower part A^5 of said fulcrum-saddle is made smaller than the head A^2 for fitting between the iron frames B B of the engine, which acts as a guide and support to the fulcrum-saddle. The frame B B of the engine is bifurcated for the purpose of supporting the fulcrum-saddle in position.

The boxing C is provided with a suitable groove C^2 to receive the lower end A^4 of the fulcrum-saddle A and to permit the saddle A to rock or slightly turn. Said boxing C has an inside flange C^3, but has no outer flange between the boxing and the hub of the wheel, thus permitting the boxing to be removed by raising the fulcrum-saddle and removing the collar D. The inner end of the boxing rests against the collar D, forming a bearing to support the lateral or side strain in turning curves or on uneven track. The boxing C is supported in position by and between the pedestals F F of the frame. The inner flange C^3 is beveled from its periphery or outer margin to the center C^4 to enable the face of the boxing and journal to remain parallel while traveling over uneven track, which changes the angularity of the axle G. Flange C^3 of the boxing rests against a shoe H, which is a friction plate or bearing having two flanges on the pedestal F and prevents the wearing of the said pedestal F. Collar D is formed of two parts connected with bolts D^2 and is supported against a shoulder G^2 of the axle, which prevents lateral motion or the slipping of the collar D on the shaft when the boxing presses against it. As thus constructed, in turning curves the side weight or lateral pressure of the boxing on the inside of the curve is thrown against the collar D instead of the hub of the outer wheel, as is the case with the engine now in use, and thus the center of gravity of an engine turning a curve or on uneven track is thrown much nearer the center of the track, where it should be, and thus preventing the engine from tipping over so easily on curves as those now in use. By this construction also, as described above, I am enabled to replace the boxing, when it is worn, much quicker and easier than those now in use, and by means of the fulcrum-saddle resting pivotally on the center of the boxing I get an even pressure on all parts of the boxing in all possible positions of the engine, and thus prevent hot boxes or uneven wear in the boxing.

By the construction above described by throwing the weight near the center of the track, as shown, in the line $x\,x$, instead of the old line $y\,y$, I prevent the spreading of the track and prevent the engine from jumping the track, as well as prevent it from turning over.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A saddle for engine-boxing forming a pivot in the center of the boxing for producing an even wear or pressure in the boxing, substantially as shown and described.

2. A boxing in railway-engines having a flange on its inner side and beveled from its upper and lower surface toward the center, substantially as and for the purpose specified.

3. A boxing C, having a groove in the center of its upper surface to form a fulcrum for the weight, substantially as and for the purpose specified.

4. The combination with a boxing C, of collar D, secured to the axle of the engine for receiving the lateral pressure and friction of the boxing, substantially as and for the purpose specified.

5. The combination of a saddle A having a rounding surface at its lower end for oscillation, with boxing C having a middle curve to receive said saddle, substantially as and for the purpose specified.

6. In combination with a saddle A, the boxing C, and collar D, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

EBENEZER N. SLOCUM.

Witnesses:

S. A. HASELTINE,

W. H. COX.