

934,941.

W. SHEPPARD.  
BOLSTER FOR STEAM SHOVELS.  
APPLICATION FILED APR. 2, 1909.

Patented Sept. 21, 1909.

2 SHEETS—SHEET 1.

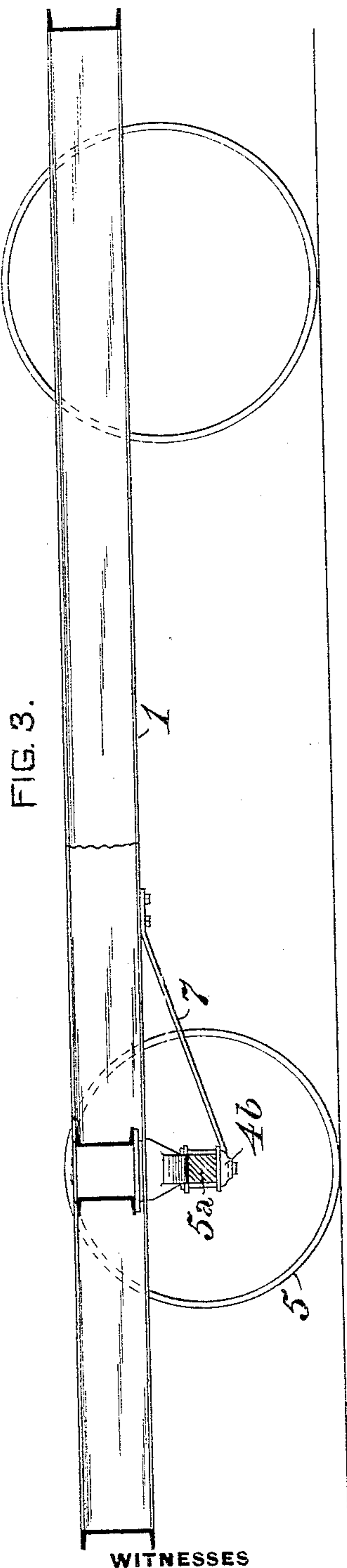


FIG. 3.

WITNESSES

James C. Herron.  
S. R. Bell.

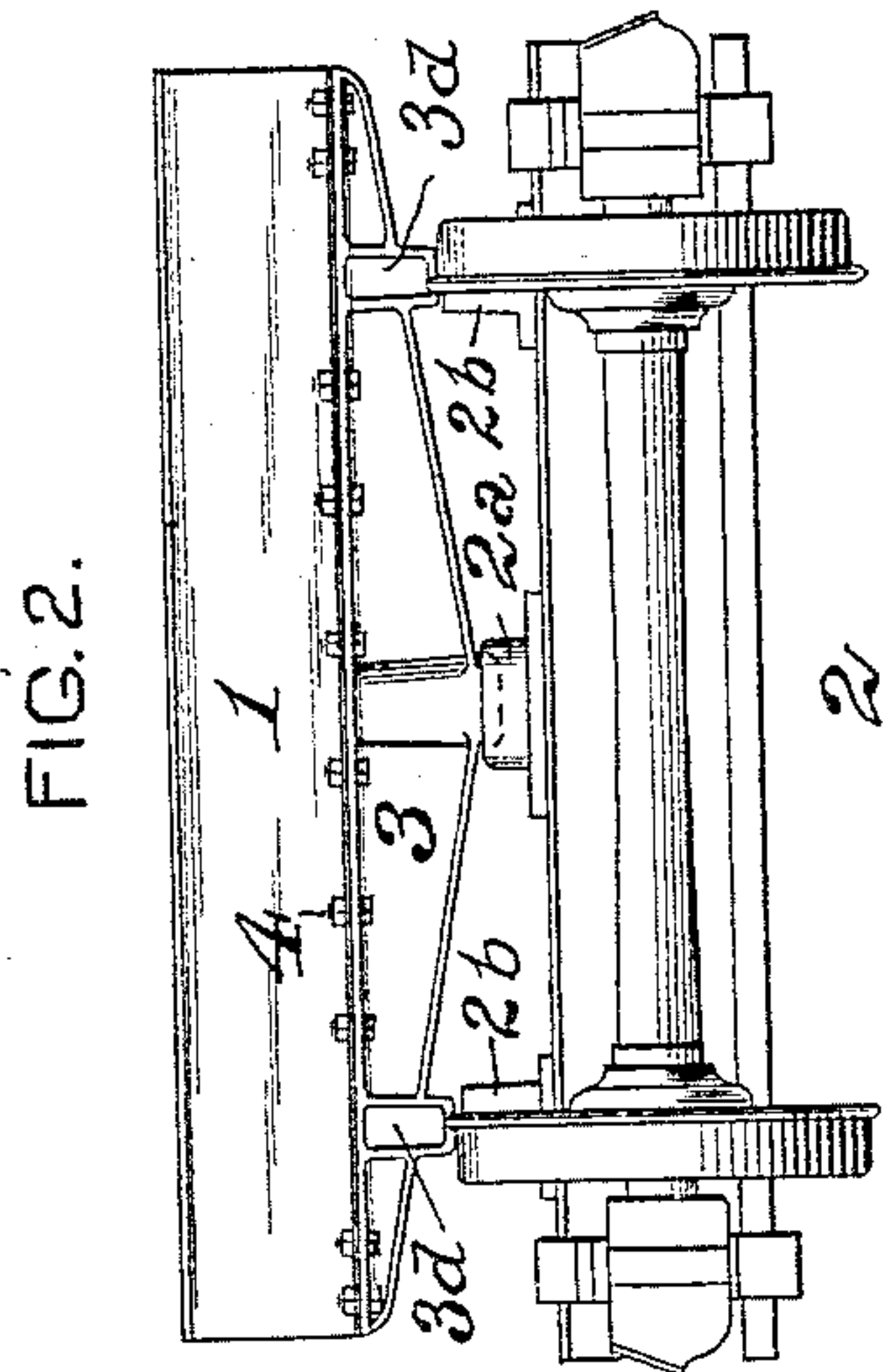


FIG. 2.

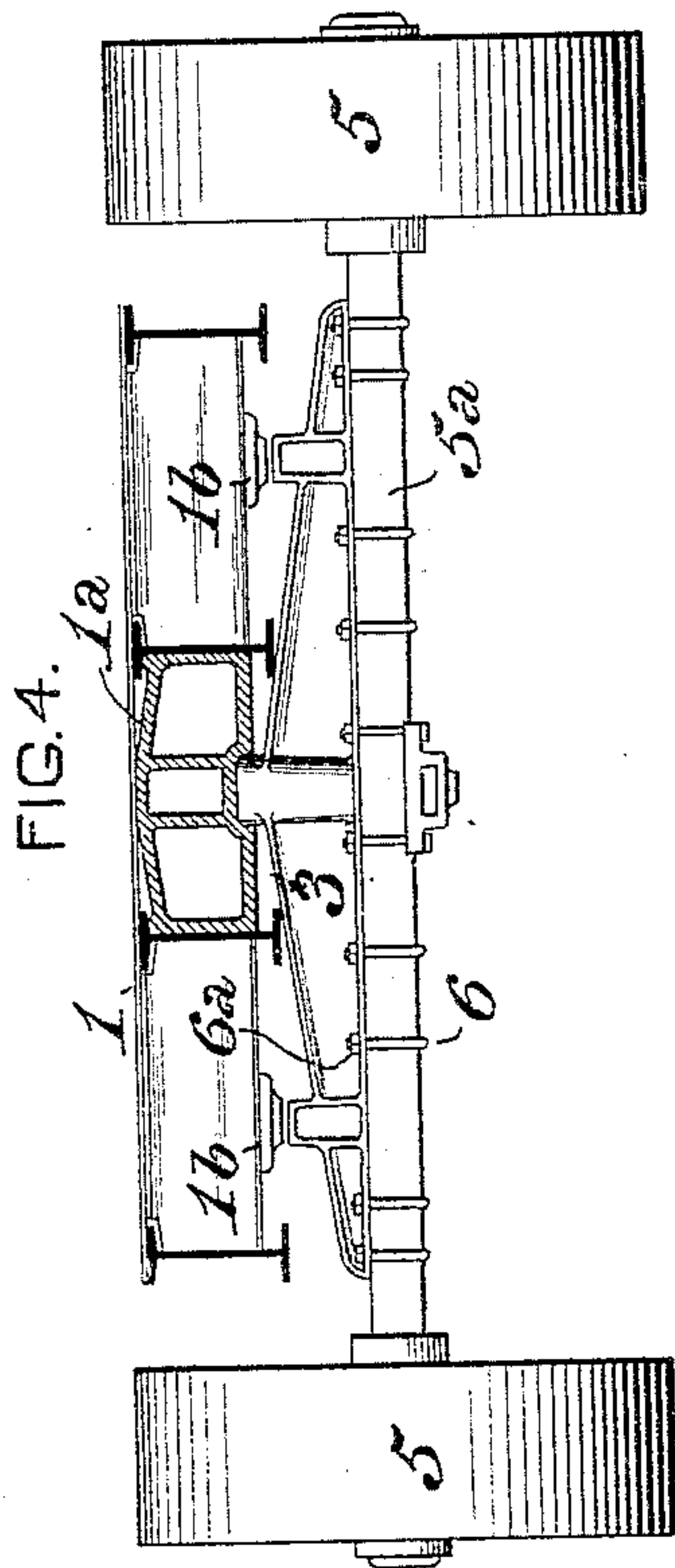
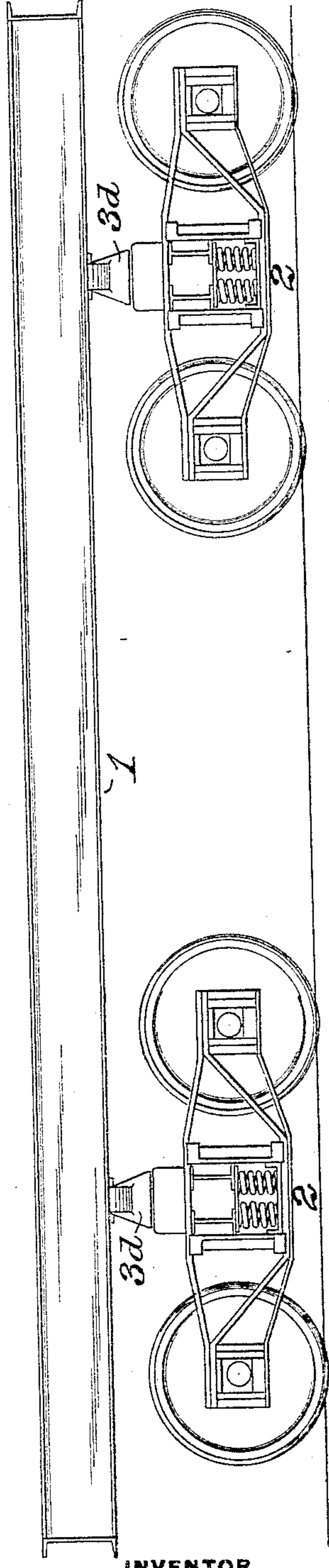


FIG. 4.

FIG. 1.



INVENTOR

William Sheppard,  
by J. H. Brownell, Att'y.

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2 SHEETS—SHEET 2.

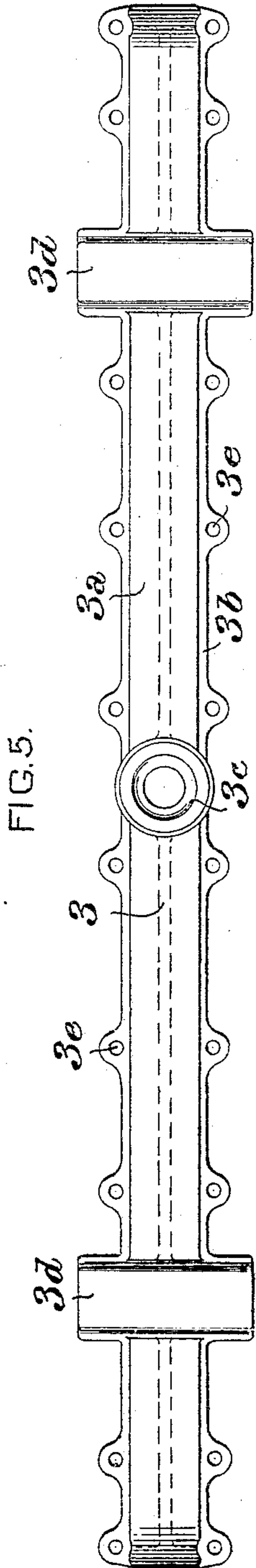


FIG. 5.

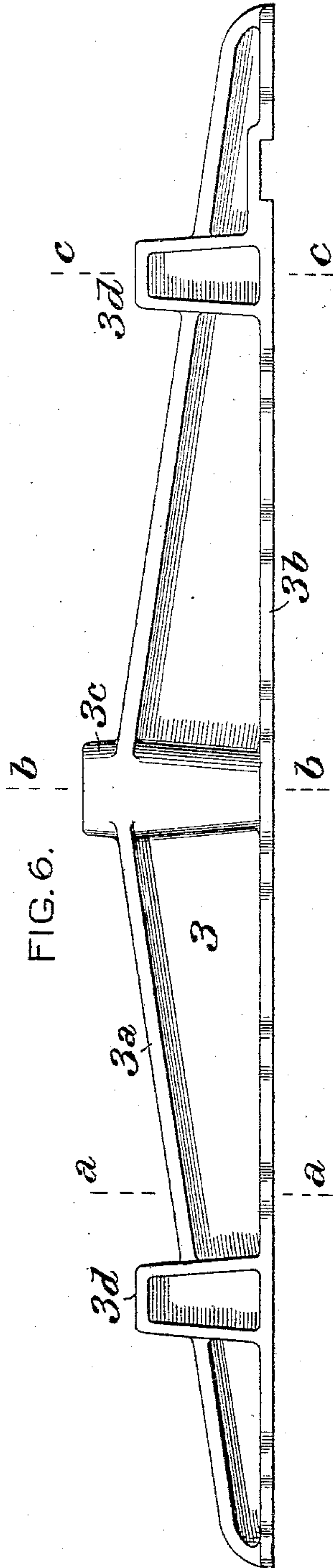


FIG. 6.

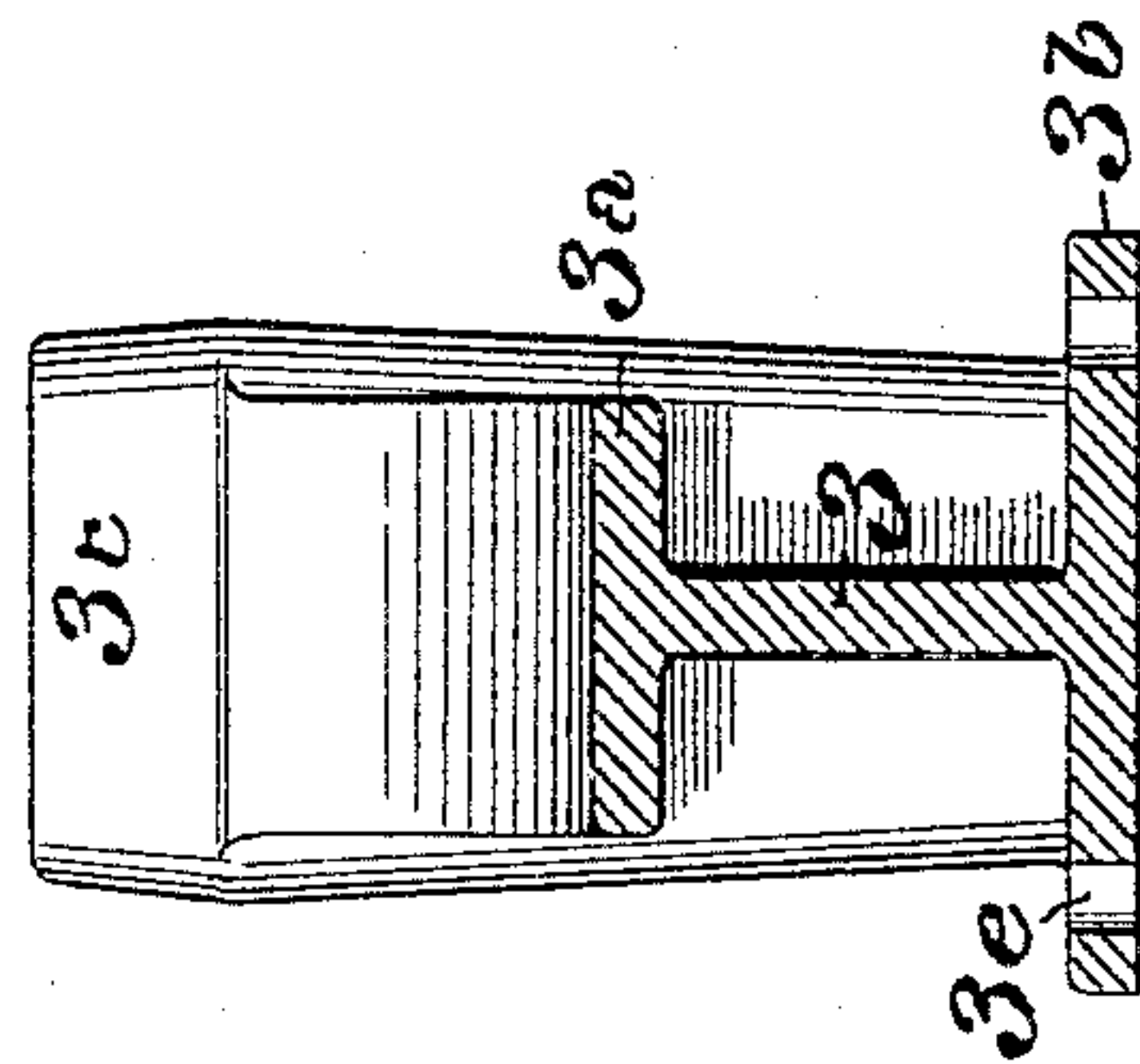


FIG. 7.

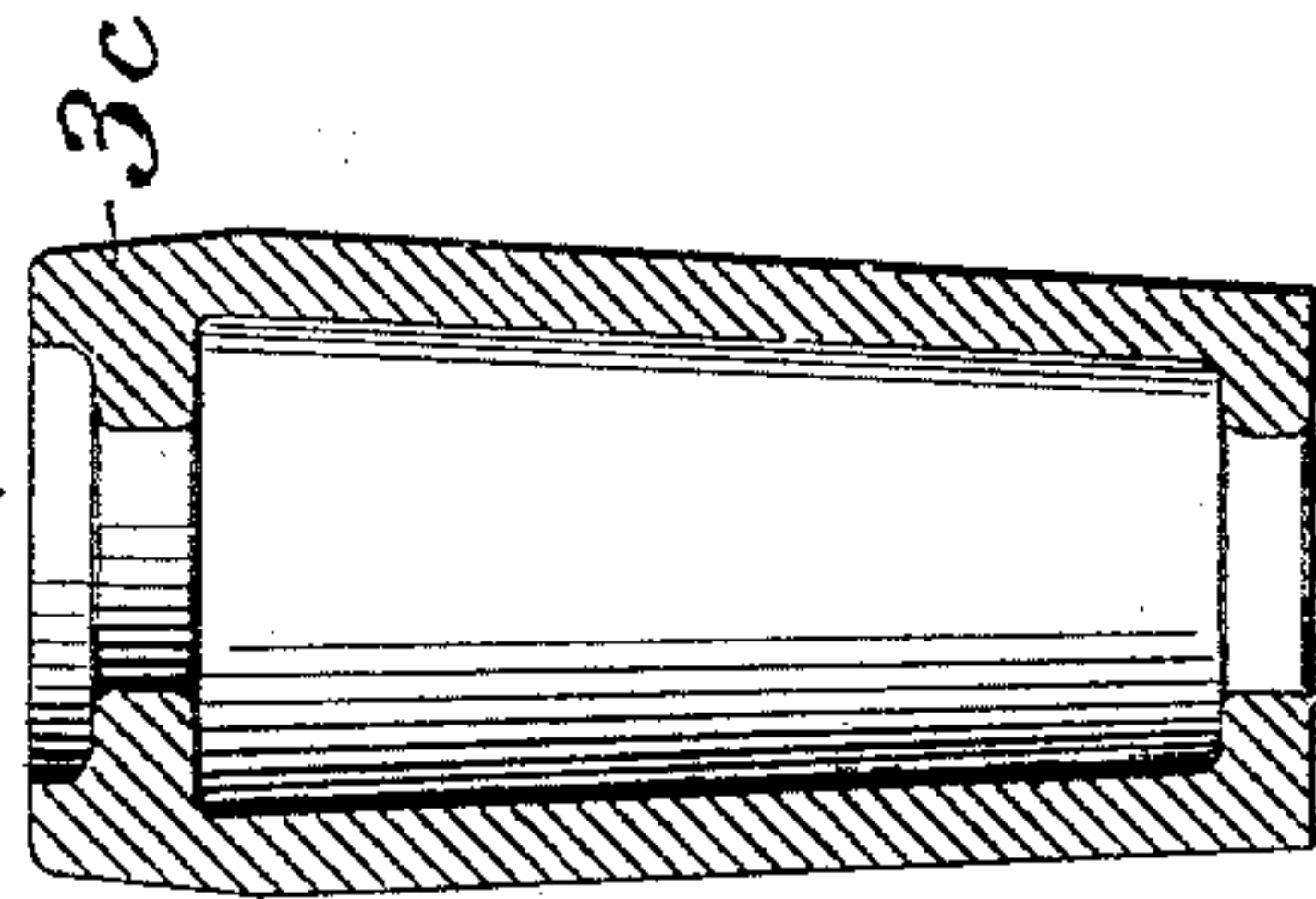


FIG. 8.

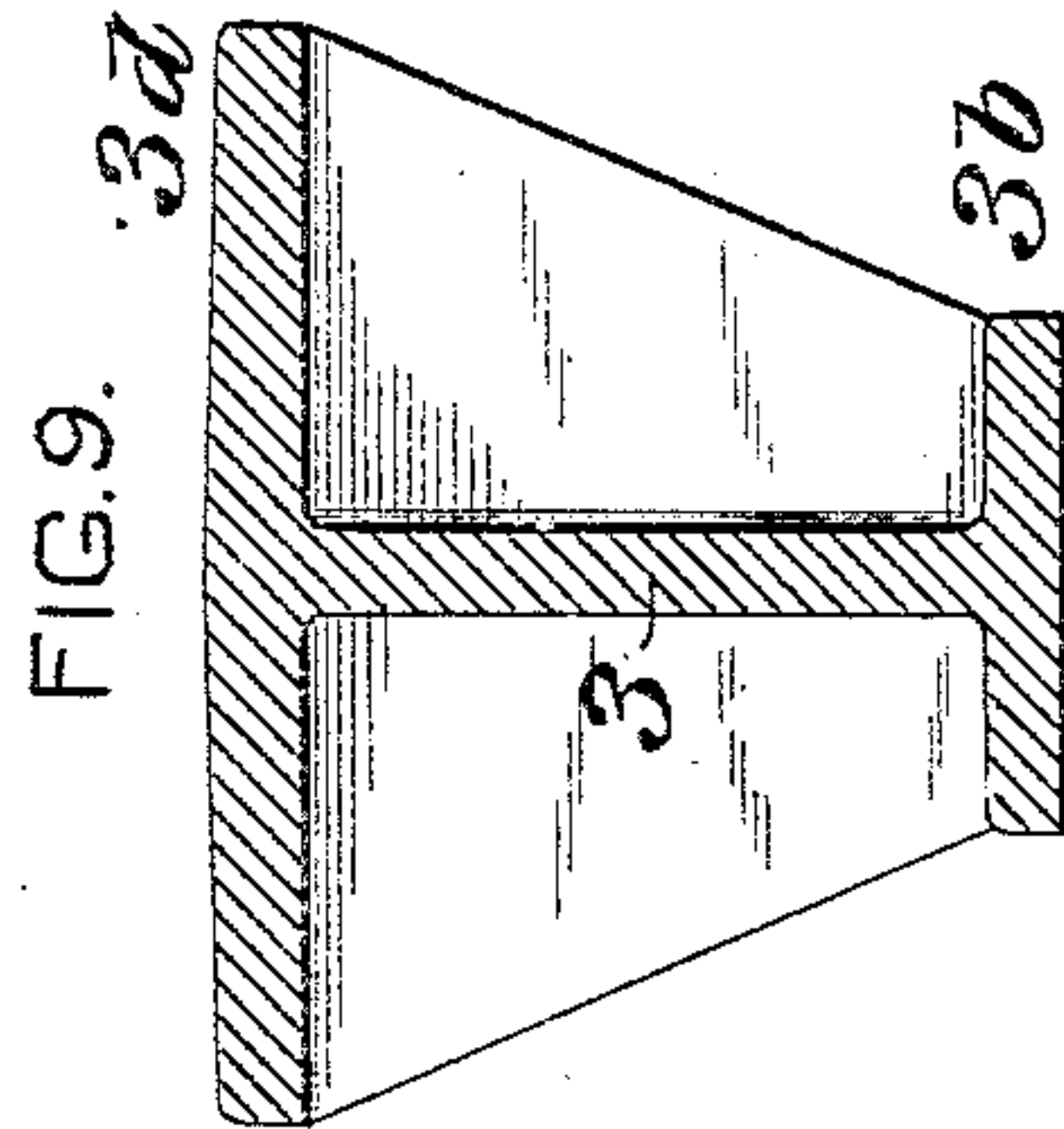


FIG. 9.

WITNESSES

James C. Herrow  
S. R. Bell.

INVENTOR

William Sheppard,  
by J. Herrow Bell,

Att'y.



# UNITED STATES PATENT OFFICE.

WILLIAM SHEPPARD, OF PATERSON, NEW JERSEY, ASSIGNOR TO AMERICAN LOCOMOTIVE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

## BOLSTER FOR STEAM-SHOVELS.

934,941.

Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed April 2, 1909. Serial No. 487,560.

*To all whom it may concern:*

Be it known that I, WILLIAM SHEPPARD, of Paterson, in the county of Passaic and State of New Jersey, have invented a certain new and useful Improvement in Bolsters for Steam-Shovels, of which improvement the following is a specification.

The object of my invention is to provide simple and effective means whereby a steam shovel which is supported on ordinary car trucks for traversing railroad tracks may be readily adapted to be moved over common roads, or one which is supported on road wheels may be fitted with car wheels, as circumstances may, in either case, require, the change being effected with an economy of time and material and facilities afforded for trussing the axles of road wheels.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings: Figure 1 is a side view, in elevation, of the frame of a steam shovel, supported on trucks for running on a railroad; Fig. 2, an end view of the same; Fig. 3, a longitudinal central section of the same, supported on road wheels by the application of my invention; Fig. 4, a vertical transverse section, taken in the plane of a road axle; Fig. 5, a top view, on an enlarged scale, of a bolster embodying my invention, when applied as shown in Fig. 4; Fig. 6, a side view of the same, and, Figs. 7, 8, and 9, vertical transverse sections, on a further enlarged scale, through the bolster, on the lines *aa*, *bb*, and *cc*, respectively, of Fig. 6.

My invention is herein shown as applied in connection with the frame, 1, of a steam shovel, the operative mechanism of which may be of any suitable known type, and which, as it does not form any part of my invention, is not illustrated. As shown in Figs. 1 and 2, the steam shovel frame, including, of course, whatever mechanism may be carried thereon, is adapted to travel on a railroad track, being supported on and carried by two car trucks, 2, 2, which may be of any suitable and preferred type, and are adapted to swivel, in the usual manner, about pivots or center pins near the ends of the frame.

In order to enable the steam shovel to be readily adapted to be moved, on road wheels, over common roads, or if originally supported on road wheels, to be transferred to

car trucks for running over railroad tracks, I provide, for one of the end portions of the frame, a cast metal reversible bolster, which is a beam, of substantially H section, that is to say, having a central web, 3, and top and bottom lateral flanges, 3<sup>a</sup>, 3<sup>b</sup>, projecting from each side thereof. The top of the bolster, being the face next the frame, 1, when the same is supported on trucks, as shown in Fig. 2, is flat, and the bottom of the bolster is tapered or inclined from a cylindrical center bearing, 3<sup>c</sup>, which projects below it, and fits in the center casting, 2<sup>a</sup>, of the truck, to or near each of its ends. Side bearings, 3<sup>d</sup>, are formed on the bolster, at a proper distance apart to stand over the side bearings, 2<sup>b</sup>, of the truck, and the top flanges are perforated with a plurality of bolt holes, 3<sup>e</sup>, disposed in two parallel rows, for the passage of short straight bolts, 4, by which the bolster is secured to the frame when trucks are used.

When it is desired to mount the frame and the steam shovel carried upon it, on road wheels, 5, for transportation on common roads, the bolster is removed and reversed or turned over, as shown in Fig. 4; the center bearing, 3<sup>c</sup>, is fitted in a socket in a separator or bearing casting, 1<sup>a</sup>, fixed to the frame of the steam shovel; and the axle, 5<sup>a</sup>, of the road wheels, is secured to the bolster by U formed bolts, 6, passing through the bolt holes, 3<sup>e</sup>, and made tight by nuts, 6<sup>a</sup>, on their upper ends. When in this position the side bearings, 3<sup>d</sup>, of the bolster stand below corresponding side bearings, 1<sup>b</sup>, fixed to the frame. A brace, 7, is secured, at one end, to a brace casting, 4<sup>b</sup>, fixed to the bottom of the axle, and is secured, at its opposite end, to the bottom of the frame, 1, in order to prevent the axle, which does not rotate, from turning over. It will be seen that the bolster acts as a truss or brace for the axle, 5<sup>a</sup>, thereby enabling it to be made much lighter than would otherwise be practicable. To change the support of the steam shovel from road wheels to a truck, the bolster is located and secured in the position shown in Fig. 2.

The opposite end of the steam shovel frame is indicated in Fig. 3, as supported on road wheels of larger diameter than those at the end at which the improved reversible bolster is applied. For the support of said opposite end of the frame, a device



of different construction is provided, which, as it does not form part of my present invention and constitutes the subject matter of a separate application filed by me May 10, 1909, Ser. No. 495,082 will not be herein set forth.

The improved reversible bolster above described is of substantial and inexpensive construction, and of ready applicability in connection with the steam shovel frames and trucks in ordinary use. Its advantages, in effecting the transfer from one to the other class of supports, and in strengthening the road axle, will be obvious to those skilled in the operation of mechanism of the character to which my invention relates.

I claim as my invention and desire to secure by Letters Patent:

1. The combination of a steam shovel frame, a reversible bolster adapted for connection either to a railroad car truck or to a wheeled road axle, a wheeled support, and bolts for connecting said bolster to the frame or to the wheeled support.

2. The combination of a steam shovel frame, a reversible bolster adapted for connection either to a railroad car truck or to

a wheeled road axle, and having a plurality of bolt holes on one of its faces, and a center bearing on its opposite face, a wheeled support, and bolts for securing the bolster, through its bolt holes, either to the frame or to the wheeled support.

3. The combination of a steam shovel frame, a reversible bolster having a flat face secured detachably to the frame and a center bearing on an opposite face which is upwardly inclined on each side of said bearing, and a railroad car truck having a center bearing fitting that of the bolster.

4. A reversible bolster for the frame of a steam shovel, having one of its longitudinal faces flat, and its opposite face upwardly inclined from points near its ends to its middle, a cylindrical center bearing projecting from the middle of its double inclined face, side bearings projecting from said face on opposite sides of the center bearing, and two rows of parallel bolt holes in its flat face.

WILLIAM SHEPPARD.

Witnesses:

SAMUEL PERCEY,  
CHARLES EVANS.