No. 725,344. PATENTED APR. 14, 1903.

G. W. KING, H. J. BARNHART & C. B. KING.

TRUCK.

APPLICATION FILED FEB. 7, 1903.

NO MODEL.

Fig. 1.

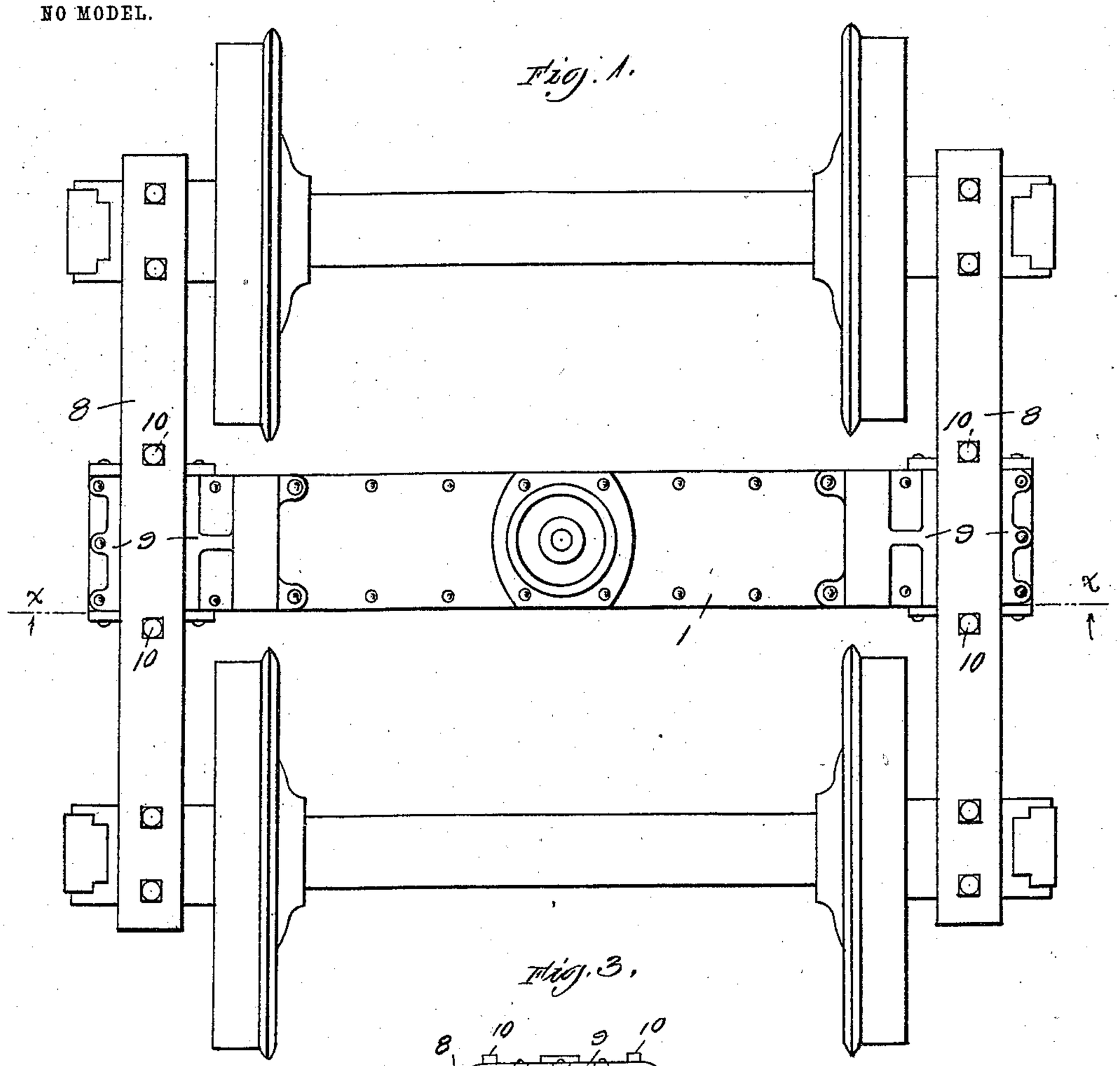


Fig. 3.

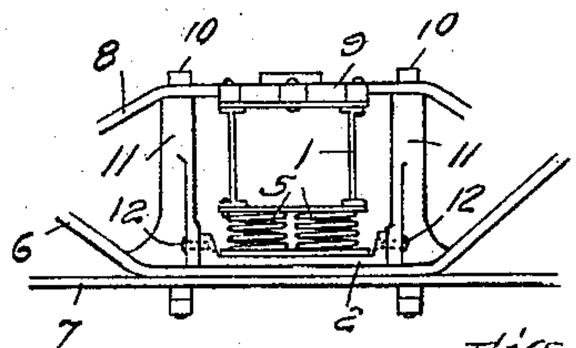
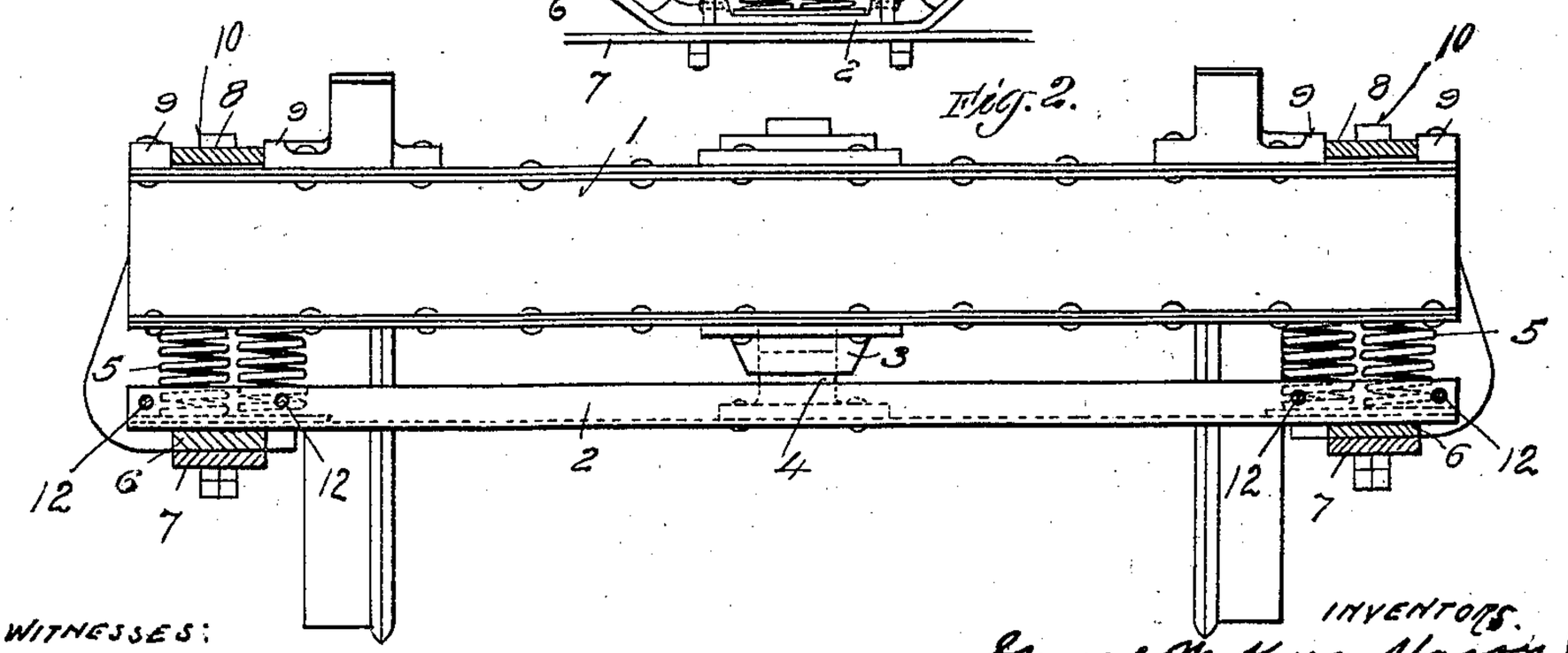


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. KING, HARRY J. BARNHART, AND CHARLES B. KING, OF MARION, OHIO, ASSIGNORS TO THE MARION STEAM SHOVEL COMPANY, OF MARION, OHIO, A CORPORATION OF OHIO.

TRUCK.

SPECIFICATION forming part of Letters Patent No. 725,344, dated April 14, 1903.

Application filed February 7, 1903. Serial No. 142,299. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. KING, HARRY J. BARNHART, and CHARLES B. KING, citizens of the United States, residing at Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Trucks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to trucks for steam-shovels, and has for its object to provide a construction for trucks used in supporting the car-bodies of steam-shovels adapted to travel on railways, which will enable the truck to withstand the lateral strains to which it is subjected by reason of the swinging of the boom laterally with respect to the car-body and truck.

To this end our invention consists in certain novel features, which we will now proceed to describe and will then particularly point out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a truck embodying our invention. Fig. 2 is a sectional view taken on the line *x x* of Fig. 1 and looking in the direction of the arrows, and Fig. 3 is a detail side elevation of the central portion of one side of the truck.

In steam-shovels adapted for use upon railways and supported upon swiveling trucks the boom is adapted to swing from a position in line with the longitudinal axis of the car-body, which is supported by the trucks, to a position at right angles to said axis. In this latter position severe lateral strains are brought upon the trucks, and to strengthen the trucks against such strains we have devised the following construction.

The truck-bolster (indicated at 1) may be of any suitable construction and is mounted above a spring-board 2, which is formed by a channel-bar. The bolster and channel-bar are connected by a boss or projection on one of said members and a corresponding socket on the other member, and we prefer to secure a socket-casting 3 to the under side of the bolster, at the middle thereof, which socket-casting receives a boss or projection 4, fitted in and secured to the channel-bar 2. The usual springs 5 are interposed between the channel-bar and bolster, at each end thereof. The end frames of the truck are so constructed that the lower arch-bars 6 and the tie-bars 7 pass underneath and are secured to the ends of the channel-bar 2, while the upper arch-bars 8 pass over the top of the bolster 1, which latter is provided with projections 9, preferably in the form of castings secured to the top thereof, said projections lying on each side of the upper arch-bars, so as to prevent lateral motion of the bolster relatively thereto. The parts are connected by the usual vertical bolts 10, passing downward through the pillars 11 and also through the arch and tie bars, the channel 2 being fastened to the pillars 11 by rivets 12 or in any other suitable manner.

It will be seen that by reason of the construction just described the side thrust due to the lateral swing of the boom is taken by both the top and bottom arch-bars and equally distributed to them, so that the twisting of said bars is prevented, while the truck as a whole is better adapted to resist the lateral strains to which it is subjected in use.

While the truck above described is particularly adapted for use in connection with railway steam-shovels, it is also obviously capable of use in other connections. Moreover, we do not wish to be understood as limiting ourselves to the precise details of construction hereinbefore described, and shown in the accompanying drawings, as it is obvious that these details may be modified without departing from the principle of our invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A truck for railway steam-shovels or the like, comprising a bolster provided with retaining projections on its upper side at each end, and a tie member located below the bolster, said bolster and tie member being provided centrally with an engaging socket and projection, and with interposed springs at their ends, in combination with lower arch-bars passing under and fixedly connected

with the tie member, and upper arch-bars passing over the bolster between the projections thereon, substantially as described.

2. A truck for railway steam-shovels or the like, comprising a bolster provided with retaining projections on its upper side at each end, and a tie channel-bar below the bolster, said bolster and channel-bar being provided centrally with an engaging projection and socket and having springs interposed between their ends, in combination with lower arch-bars passing under and fixedly connected with the tie channel-bar, and upper arch-bars passing over the bolster between the projections thereon, substantially as described.

3. A truck for railway steam-shovels or the like, comprising a bolster having a central socket-piece on its under side, and retaining projections on its upper side near each end, in combination with a tie channel-bar having a central projection to fit the socket-piece, springs interposed between the tie-channel and bolster at each end, lower arch-bars and tie-bars passing under and connected with the tie channel-bar, and upper arch-bars passing over the bolster between the projections thereon, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE W. KING.
HARRY J. BARNHART.
CHARLES B. KING.

Witnesses:
ROBERT G. LUCAS,
WILLIAM R. SHESLER.