The present invention relates to improvements in bogies or trucks for railway cars and the like, in which the load is transmitted to the beam supported by the journal boxes by a spring resting in a socket on the upper side of the beam, the invention consisting essentially in forming the spring receiving socket as a vertically disposed hole, preferably of cylindrical outline, passing entirely through the beam from the upper to the lower side for enabling the introduction of the spring from the lower side of the beam.

The various details of carrying out the preferred form of mounting and the incidental formation of the various parts are described in detail in connection with the drawings.

In the drawings accompanying this application one embodiment of the invention is illustrated, in which drawings, Figure 1 is a side elevation of a portion of a railway truck embodying the preferred form of my invention. Figure 2 is a plan partly in section of the journal box and a portion of the beam suspended therefrom. Figure 3 is an enlarged sectional view showing a portion of the invention and Figure 4 is an underside of the lower plate shown in Figure 3, the screw bolt being shown in section.

In the form of embodiment shown which illustrates but one of the journal boxes, journal box, 1, is provided with an outward projection, 2, upon which the beam is suspended by a suitable joint. A coiled spring, 4, is shown resting upon the beam, 3, and supporting the truck frame, 5.

The spring, 4, is shown seated in a socket, 6, which is in the form of a cylindrical hole passing vertically through the beam from its upper to its lower side. The spring is shown resting upon a lower plate, 7, which constitutes, when in place, the bottom of the socket, the bottom of the socket being shown provided with segmental shoulders, 10, and plate, 7, having corresponding recesses, 9, whereby the plate may be introduced from below, the shoulders, 10, passing through recesses, 9, whereupon a quarter turn will cause the plate to rest upon the shoulders, 10, this constituting a form of bayonet-lock. In the illustration the plate, 7, is shown provided with downwardly projecting lugs, 11, for engaging the ends of the shoulders, 10, for preventing rotation and accidental displacement of the plate.

The upper end of the spring, 4, bears against a bracket, 13, suitably secured to the truck frame, 5, and which is provided with a downwardly opening recess or cup, 14.

The spring, 4, may conveniently be compressed before mounting. That is, it is placed between the plate, 8, which is adapted to enter the cup, 14, and the lower plate, 7, and is compressed by means of the bolt, 12, the head of which is below the lower face of the plate, 7, its screw end passing through the screw threaded opening in the plate, 8. By this means the spring may be suitably compressed on the plate 7 in Figure 3, whereupon the assemblage is inserted through the lower opening of the socket, 6, and the assembly given a quarter turn to cause the unrecessed portion of the plate, 7, to rest upon the shoulders, 10, with the lugs, 11, projecting downwardly past the ends of the shoulders, after which the bolt will be unscrewed to permit the desired expansion of the spring. In some cases the bolt may, if desired, be entirely removed after the mounting of the spring.

The removal of the spring can readily be accomplished by a reversal of the operation, it being merely necessary to compress the spring by means of the bolt, 12, raise the lower plate sufficiently to cause the lugs, 11, to clear the shoulders, 10, give the plate, 7, a quarter turn and lower the spring with the plates through the open end of the socket, 6.

It will be obvious that various changes in details of construction may be made within the scope of the claims without departing from the spirit of the invention.

Having described my invention I claim and desire to secure by Letters Patent:
1. An improvement in trucks for railway cars and the like comprising a journal box, a beam supported by the journal box, such beam having an upwardly directed socket for supporting a spring, the socket extending downwardly entirely through the beam, whereby the spring may be inserted from below, and means for supporting the spring after its insertion.
2. An improvement in trucks for railway cars and the like comprising a journal box, a beam supported by the journal box, such
beam having an upwardly directed socket for supporting a spring, the socket extending downwardly entirely through the beam, whereby the spring may be inserted from below, the socket being provided with inwardly directed segmental shoulders, and a closure plate having recesses corresponding with the shoulders, constructed and adapted to pass the shoulders and, upon angular movement, rest thereon.

3. An improvement in trucks for railway cars and the like comprising a journal box, a beam supported by the journal box, such beam having an upwardly directed socket for supporting a spring, the socket extending downwardly entirely through the beam, whereby the spring may be inserted from below, the socket being provided with inwardly directed segmental shoulders, and a closure plate having recesses corresponding with the shoulders, constructed and adapted to pass the shoulders, and, upon angular movement, rest thereon, the plate being formed at its lower face with lugs for engaging the ends of the shoulders when in place.

4. An improvement in trucks for railway cars and the like comprising a truck frame, a journal box, a beam supported by the journal box, the truck frame having a downwardly opening spring socket and the beam having an upwardly opening spring socket, such latter spring socket being formed with inwardly directed segmental shoulders, a closure plate for supporting the spring having recesses corresponding to said shoulders, there being a plate interposed between the top of the spring and the truck socket, and a bolt passing through such plates constructed and adapted to compress the spring for purposes of removal and replacement.

In testimony whereof I have signed my name.

LARS GUSTAF HARRY HELMSTEIN