

(No Model.)

M. ORENSTEIN.  
AXLE BOX.

No. 466,622.

Patented Jan. 5, 1892.

FIG. 1.

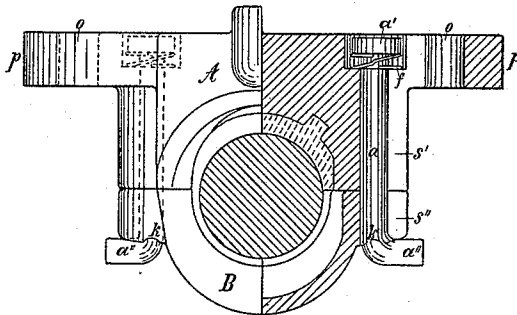


FIG. 2.

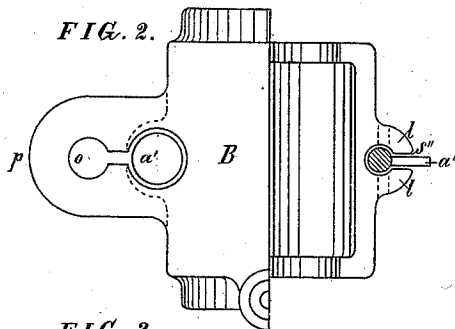


FIG. 3.

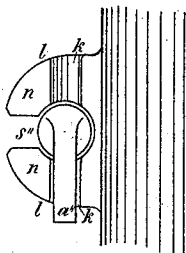
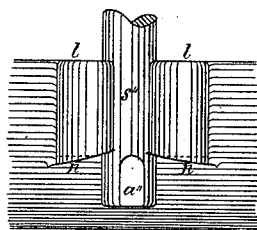


FIG. 4.



Inventor:

Witnesses:

*E. R. Bolton*  
*E. H. Sturtevant.*

*Max Orenstein*

BY

*Richard*

*his Attorneys.*

# UNITED STATES PATENT OFFICE.

MAX ORENSTEIN, OF BERLIN, GERMANY.

## AXLE-BOX.

SPECIFICATION forming part of Letters Patent No. 466,622, dated January 5, 1892.

Application filed April 4, 1891. Serial No. 387,622. (No model.) Patented in Germany April 10, 1890, No. 53,817, and in Austria-Hungary November 5, 1890, No. 24,125 and No. 45,263.

To all whom it may concern:

Be it known that I, MAX ORENSTEIN, engineer, a subject of the King of Prussia, and a resident of the city of Berlin, Germany, have  
5 invented Improvements in Axle-Boxes, (patented in Germany April 10, 1890, No. 53,817, and in Austria-Hungary November 5, 1890, No. 24,125 and No. 45,263,) of which the following is a specification.

10 This invention is designed to connect the lower part of the axle-bearings with the upper part without the use of screws, wedges, or other parts which may be lost on the journey, and to simplify the device for effecting the  
15 connection so that the latter may be made by any unskilled workman.

In the accompanying drawings, Figure 1 is a part side elevation and part vertical section. Fig. 2 is partly a plan and partly a  
20 horizontal section. Figs. 3 and 4 are detailed views.

A is the upper part and B the lower part of the bearing. The former is fixed to the longitudinal beams of the wagon by means of screw-  
25 bolts, which are passed through holes *o o* in the lugs *p p*. The lower part is fixed to the upper by means of two bolts *a*, one end of which has a round head *a'*, the other end being bent over to form a rectangular hook *a''*. The  
30 bolt is surrounded by a spring *f* below the bolt-head *a'*. The parts A B have slots *s'* and *s''*, which in the top part A extend to the lugs *p p*, thus connecting the hole *o* with the hole provided for the bolt-head *a'*, while in the  
35 other part B they run into the hole for the bolt *a*. (See Figs. 1 and 2.) The lower faces *n n* of the cheeks *l l*, which are around the slots *s''*, are oblique, as shown in Fig. 4, which is an enlarged part side elevation of the lower  
40 part of the bearing. The faces *n n* are provided with two notches at right angles to the slots *s''*, as shown in Fig. 3, which is a view of the cheeks *l l*, as seen below. The bolts *a* are introduced into the upper part A of the  
45 bearing, so that the hooks *a''* are at right an-

gles to the wheel-axle. (See Fig. 1.) The upper part A is then screwed to the longitudinal beam of the wagon, which at the same time prevents the extraction of the bolt *a*. The lower part B is then placed against the  
50 upper part A, and the hooks *a''* are turned so that they are parallel to the wheel-axle. During this rotation the hooks *a''* slide on the oblique faces *n n* and pull the bolts *a'* downward against the resistance of the  
55 springs until they fall into the notches *k*, where they are kept by the said springs *f*. Fig. 3 shows the hook *a''* in the latter position. If the bearings are to be examined, the bolts are returned into their former position—  
60 that is, at right angles to the wheel-axle—in order to free the lower part B for removal. The upper faces of the hooks *a''* are well rounded off to facilitate the displacement of the hooks *a''* upon the notches *k*. (See Fig. 4.)  
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Having now described my invention, what I claim is—

1. In an axle-bearing, the combination, with the upper part A and the lower part B, of bolts *a*, having rectangular hooks *a''*, adapted  
70 to hold said upper and lower parts together.

2. In an axle-bearing, the combination, with the upper and lower parts A and B and the bolts *a*, connecting the same, of a spring *f* surrounding said bolts, cheeks *l l*, having their  
75 lower faces *n n* oblique, and notches in said faces, substantially as and for the purpose specified.

3. In an axle-bearing, the combination, with the upper and lower parts A and B, of the  
80 bolts *a*, having rectangular hooks *a''*, the upper faces of said hooks being rounded, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of  
85 two subscribing witnesses.

MAX ORENSTEIN.

Witnesses:

LEOPOLD PUTZRATH,  
EDMUND LEVY.