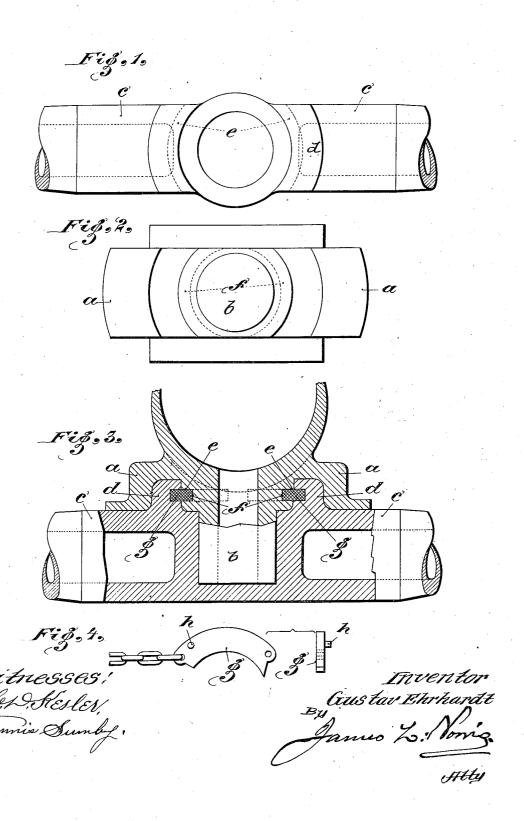
## G. EHRHARDT.

## MEANS FOR SECURING THE PIVOTS OF GUNS TO CARRIAGE AXLES.

(Application filed June 13, 1902.)

(No Model.)



## UNITED STATES PATENT OFFICE.

## GUSTAV EHRHARDT, OF EISENACH, GERMANY.

MEANS FOR SECURING THE PIVOTS OF GUNS TO CARRIAGE-AXLES.

SPECIFICATION forming part of Letters Patent No. 717,364, dated December 30, 1902.

Application filed June 13, 1902. Serial No. 111,526. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV EHRHARDT, engineer, a citizen of the United States of America, residing at Eisenach, in the Grand Duchy of Saxe-Weimar and German Empire, have invented certain new and useful Improvements in Means for Securing the Pivots of Guns to Carriage-Axles, of which the following is a specification.

My invention relates to a construction of the means for securing or locking the pivotgudgeon to the axle in pivoting guns disclosed by Patent No. 700,633, dated May 20,

1902.

5 The arrangement is illustrated by the accompanying drawings, in which—

Figure 1 is a plan of the axle. Fig. 2 is a plan of the under side of the shoulder upon the pivot. Fig. 3 is a section of the parts secured together. Fig. 4 shows in detail the means for securing the parts together.

In the arrangement shown in Figs. 1 to 4 the locking or securing device is not fitted to the pivot-gudgeon itself, but to the boss or shoulder above it. Segments are employed; but they do not form a closed circle, because, as illustrated by Fig. 2, the boss or shoulder of the pivot is flattened on both sides. The shoulder a, with which the pivot b rests on the axle c, overlaps two concentric raised portions d, of rectangular section, integral with the axle. (See Fig. 3.) These raised portions have concentric grooves e turned therein, which correspond with similar grooves f in the shoulder of the pivot, so as to form, respectively, one continuous groove each. Suitably-shaped segments g are inserted into

these grooves. (See Fig. 4.) Two large securing-segments only are applied in each instance. Each segment has at one end a stoppin h (see Fig. 4) to serve as a stop in the operation of inserting the segment, while at the other end each segment has an eye to receive a pin for securing it against falling out. Each segment is fastened to the axle by means of a chain, which also serves as a handle for pulling it out. This arrangement has the advantage of offering a large smooth bearing-surface to take up the strain of the shock.

Having now particularly described and ascertained the nature of mysaid invention and in what manner the same is to be performed, I declare that what I claim is—

In a device for securing the pivot of guns to the carriage-axle, the combination of an 55 axle provided with raised portions, said raised portions having grooves therein, a pivot-gudgeon provided with shoulders fitting over the raised portions of said axle, said pivot-gudgeon having a circular groove therein, the 60 groove in said pivot-gudgeon and the grooves in said raised portions being concentric with each other and registering together, a plurality of segments fitting into said concentric grooves, and means for retaining said seg-65 ments in position.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit-

nesses.

GUSTAV EHRHARDT.

Witnesses:
JOHANNES REUTEB,
WILHELM JUNIUS.