

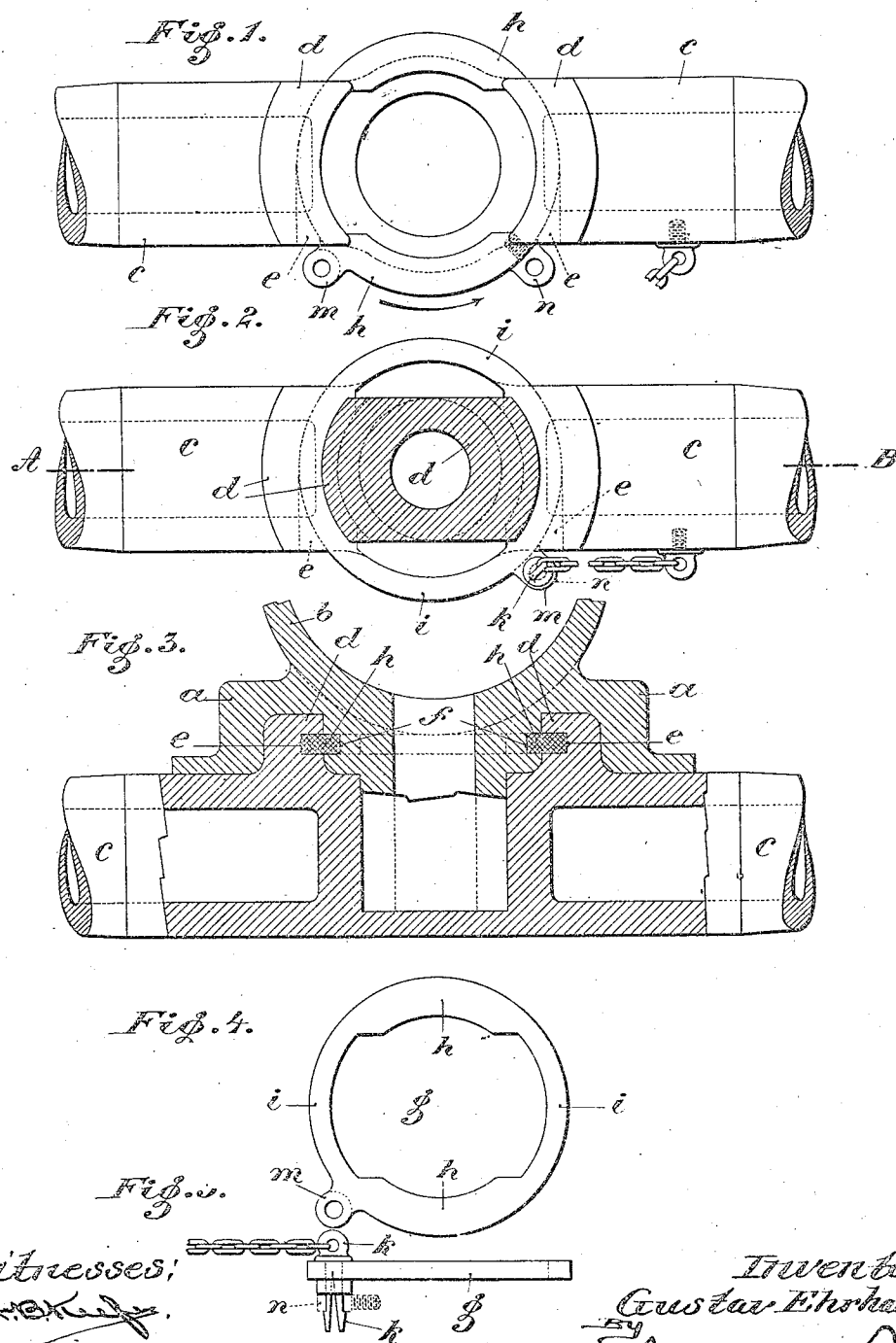
No. 731,874.

PATENTED JUNE 23, 1903.

G. EHRHARDT.
LOCKING DEVICE FOR GUN PIVOTS.

APPLICATION FILED FEB. 20, 1903.

NO MODEL.



Witnesses:
[Signature]
Dennis C. Sully.

Inventor
Gustav Ehrhardt
By *[Signature]*
James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

GUSTAV EHRHARDT, OF EISENACH, GERMANY.

LOCKING DEVICE FOR GUN-PIVOTS.

SPECIFICATION forming part of Letters Patent No. 731,874, dated June 23, 1903.

Application filed February 20, 1903. Serial No. 144,284. (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, German Empire, have invented certain new and useful Improvements in or Relating to Locking Devices for Gun-Pivots, of which the following is a specification.

My invention relates to a device for locking the pivots to the axles or supports of guns. The device is designed so that the locking or the unlocking can be effected very quickly. The ring utilized for locking can be removed only after the pivot has been taken out of its bearing, so that it could not fall out during driving.

A locking device according to this invention is illustrated by way of example in the accompanying drawings, in which—

Figure 1 is a plan view with the ring in unlocked position. Fig. 2 is a plan view on a horizontal cross-section through the pivot with the ring in locked position. Fig. 3 is a vertical section on the line A-B of Fig. 2; and Figs. 4 and 5 show the locking-ring, respectively, in plan and side elevation.

The stepped projecting flange *a* of the pivot *b*, by means of which it rests on the axle *c*, fits over two concentric ring-sections *d* of corresponding cross-section on the axle. The ring-sections *d* are provided with concentric grooves *e* on their inner sides, corresponding to similar grooves *f* in the pivot, the grooves in the ring-sections and in the pivot coinciding and forming together two complete grooves. On one side the grooves *e* in the ring-sections *d* are rectilinear from the center outward for the purpose of enabling the locking-ring *g* to be introduced from that side, Figs. 1 and 2. The locking-ring *g* has four equal parts of two different widths, the two wide parts *h* arranged opposite each other serving for locking and being adapted to fill the grooves *e f*, the narrower parts *i* also arranged opposite each other only fitting the groove *e*, and thus enabling the pivot to be unlocked when the ring is turned so that the part *i* enters the groove *e*. The locking-ring *g* is laterally provided with a projecting lug *m*, slightly reinforced underneath and coinciding when in the position of locking with a lug *n* on the axle *c*,

so that a pin *k* can be passed through both lugs *m* and *n*, and thus secure the ring in position.

When it is desired to lock the pivot, the ring *g* is first introduced and turned so as to bring its wide portions *h* at right angles to the central plane of the axle. After the pivot has been introduced the ring is turned through an angle of ninety degrees in the direction of the arrow, Fig. 1, into the position shown in Fig. 2 and secured by means of the pin *k*. The locking is thus effected, Figs. 2 and 3. The unlocking is done by removing the pin and turning the ring backward.

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

1. In a locking device for gun-pivots, the combination with a support provided with a groove and cut-away portions to divide the groove into two parts, and a partly-circular pivot extending in said support and having its circular portion provided with grooves corresponding to the groove of the support, of a movable ring arranged in the groove of said support and provided with portions of different widths and of substantially the same extent, said ring adapted to connect the pivot to the support when the portions of greater width of the ring extend in the groove of the support and in the grooves of the pivot, and to permit of the removal of the pivot when the portions of less width of the ring are moved to extend in the groove of the support and free of the grooves of the pivot.

2. The combination of a support formed of two concentric sections, each of which is provided with a groove, one of said sections further provided with a lug, a partly-circular pivot extending between said sections and having grooves in its circular portions corresponding to the grooves of said sections, a movable locking-ring provided with a lug and adapted to be moved to engage in the grooves of said sections and free of the grooves of the pivot, and said ring further adapted to be moved so as to engage in the grooves of the sections and the grooves of the pivot for connecting the pivot to the support, and means adapted to extend through the said lugs for securing said ring to the support when the

said ring is moved to connect the pivot to the support.

3. The combination of a support formed of two concentric sections, each of which is provided with a groove, a partly-circular pivot
5 extending between said sections and having grooves in its circular portion corresponding to the grooves of said sections, and a movable locking-ring adapted to be moved to engage
10 in the grooves of said sections and in the grooves of the pivot for connecting the pivot

to the support and further adapted to be moved to engage in the grooves of said sections and free of the grooves of the pivot to permit of the removal of the pivot.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GUSTAV EHRLHARDT.

Witnesses:

ERNST KARL ROHN,
MAXIMILIAN BLUHM.