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LOCK NUT

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Fig. 1

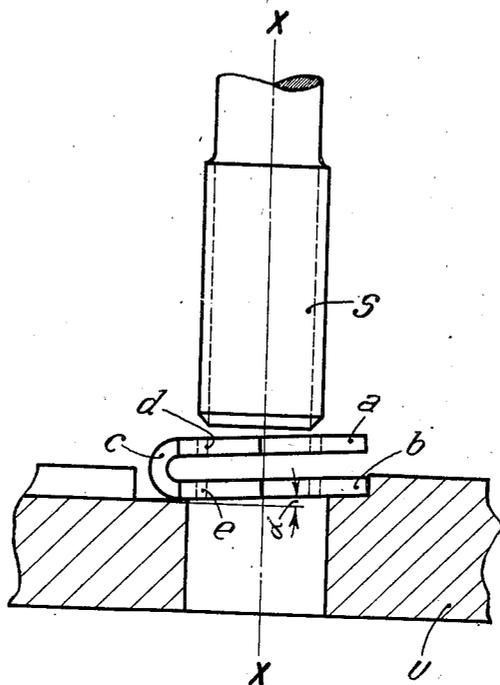
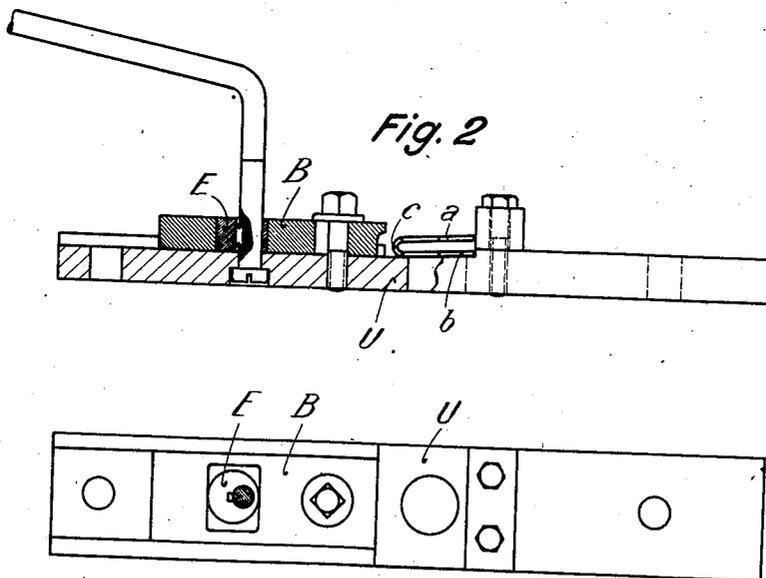


Fig. 2



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## LOCK NUT

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This invention relates to a lock-nut consisting of a U-shaped stirrup in which the threaded holes of two U-limbs are displaced parallel to one another. The lock-nut has given very good results in practice and has been found very resistant to vibration. The lock-nut has been especially effective when the force was applied near to the web connecting the two U-limbs. The point of application of the releasing force, however, depends on chance and cannot be controlled.

The present invention is to improve such a lock-nut in such a manner that the point of application of the force which tends to release it will be directed to a point close to the web. With this object in view, the axis of the thread cut in the holes of both limbs is slightly inclined towards the lower edge of the web. The result is thereby obtained that the lower limb of the lock-nut always first touches the upper side of the supporting nut with its lower edge and at this point bears against it with the greatest pressure. The force tending to loosen it will, therefore, always be applied first at this point. This force then acts in an axial direction on the web without tending to bend the bolt.

A further advantage of this construction of the lock-nut lies in the fact that a more secure adhesion of the thread holes to the bolt, such as would arise on account of the displacement of the holes, is obtained even when the threads of the bolt and the lock-nut have reached or even fallen below, or exceeded, the minimum and maximum values respectively of the permissible tolerances. In this case the lateral play, which would occur between the bolt and the lock-nut, is avoided at least in part by the inclination of the axis to the thread.

In connection with two-limbed lock-nuts, it has already been proposed to bend one limb towards the other so that the hole in the bent limb is inclined to that in the other limb. This direction, however, does not run towards the lower edge of the web connecting the two limbs, and this nut cannot, therefore, give the same results as the nut according to the invention.

A lock-nut according to the invention, to-

gether with a device suitable for making it, is illustrated by way of example in the accompanying drawing.

Fig. 1 shows a part of the device on an enlarged scale,

Fig. 2 is a side elevation and plan of the device.

The lock-nut consists of two parallel U-limbs *a* and *b* which are connected together by a web *c*. The two limbs have holes *d* and *e* in which continuous threads are cut.

According to the invention for cutting the thread, according to the invention, the lock-nut is placed on an oblique surface of a support *U*. The angle of inclination  $\alpha$  of this oblique surface corresponds to the inclination of the axis of the thread. The lock-nut must be placed on the support in such a manner that its web is at the lowest part so that the inclination of the thread runs towards the lower edge of the axis X—X of the thread. For cutting the thread, a tool *S* of suitable construction is used. After the thread has been cut, the nut is removed from the support and its two holes are displaced by twisting the limbs. The displacement is effected in a direction parallel to the web.

The angle of inclination  $\alpha$  is not shown to a scale on the drawing but is exaggerated for the sake of clearness.

In Fig. 2 the device for cutting the thread is shown on a smaller scale. It will be seen that a clamping cheek *B*, which can be displaced by means of an eccentric *E* and which engages the nut, is arranged on the support *U*.

What I claim is:

A lock-nut consisting of a U-shaped stirrup in which the threaded holes of the two U-limbs are displaced parallel to one another, characterized by the feature that the axis of the thread in the holes of the limbs is inclined towards the lower edge of the web joining the two limbs so that when the nut is screwed up it first touches the workpiece or the supporting nut at the side nearer to the web.

In testimony whereof I have signed my name to this specification.

ADOLF DYCKERHOFF.