

No Model.)

J. SWAN.
LOCK NUT FOR AXLES.

No. 435,079.

Patented Aug. 26, 1890.

Fig. 2.

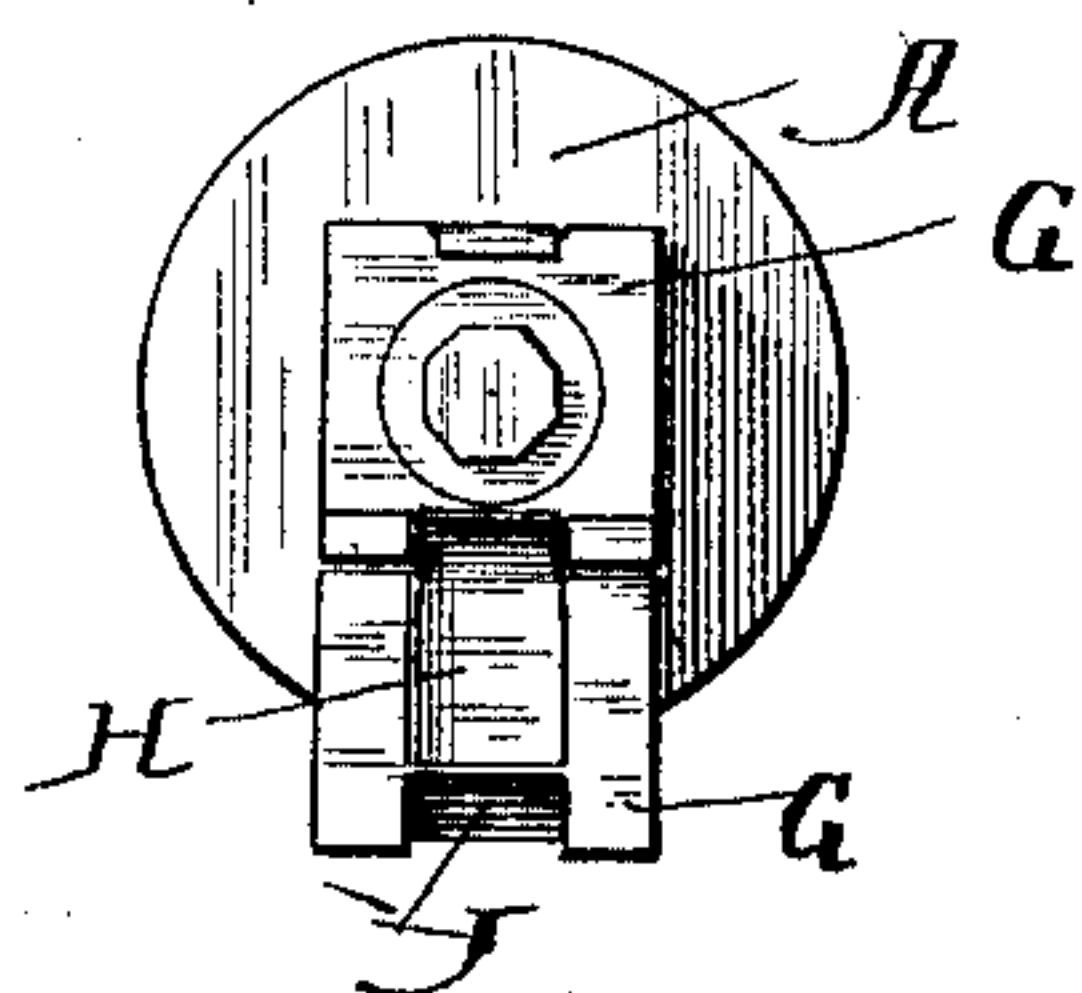


Fig. 1.

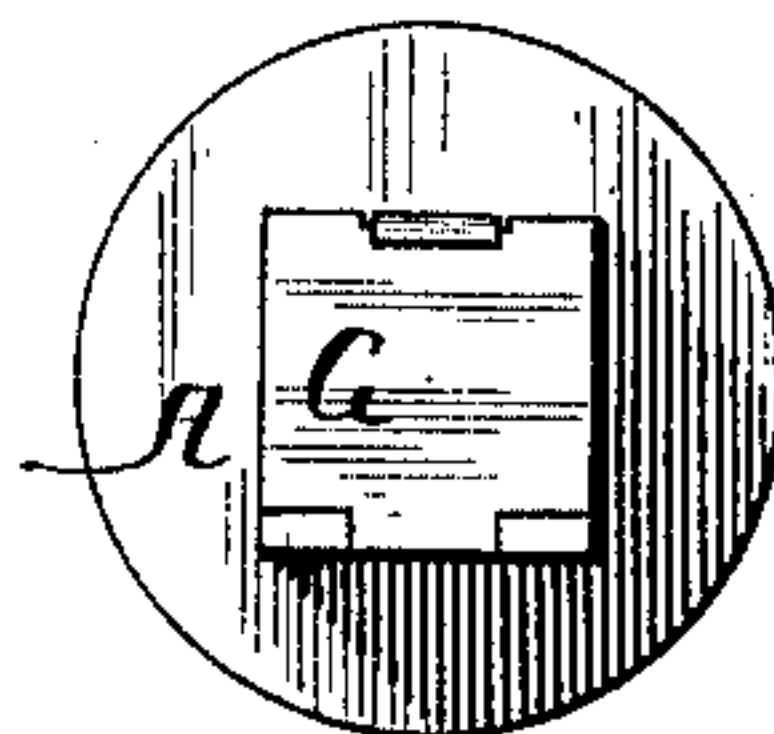
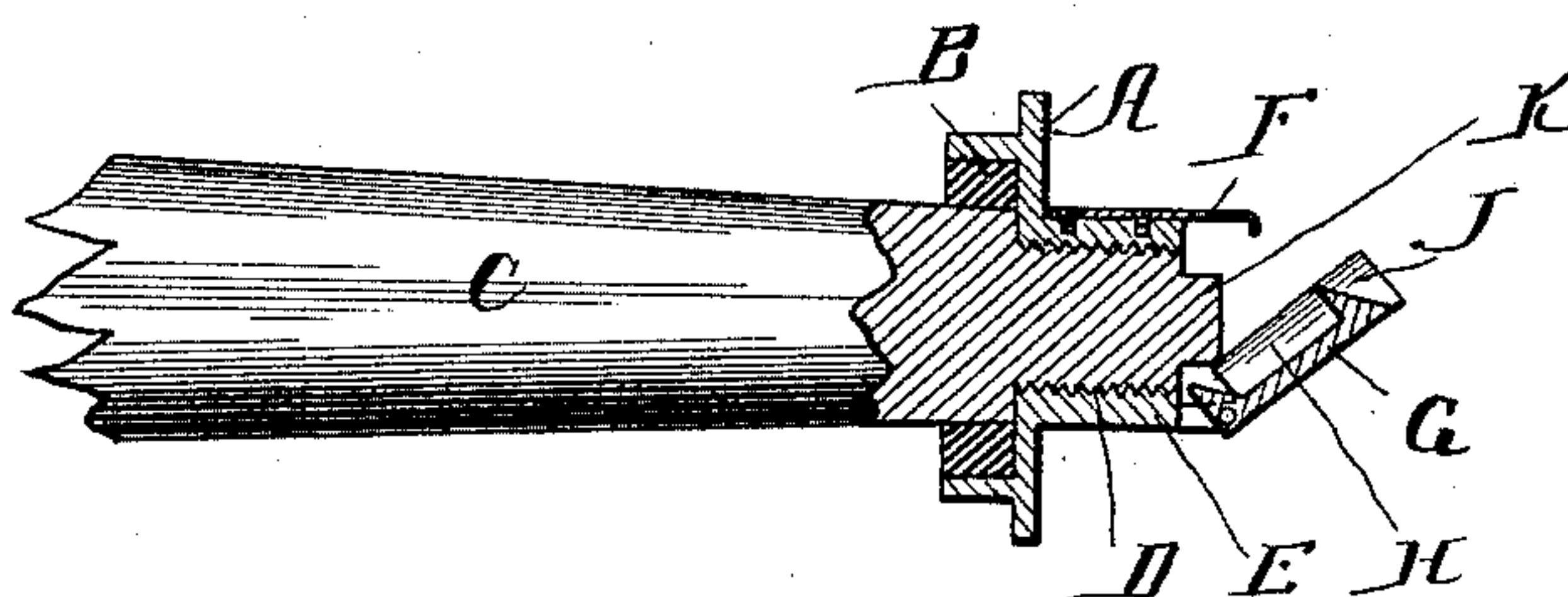


Fig. 3



Witnesses:

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LOCK-NUT FOR AXLES.

SPECIFICATION forming part of Letters Patent No. 435,079, dated August 26, 1890.

Application filed June 2, 1890. Serial No. 353,972. (No model.)

To all whom it may concern:

Be it known that I, JAMES SWAN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Lock-Nuts for Vehicles, of which the following is a clear, full, and exact specification.

My invention relates to lock-nuts, especially such as are used for vehicles, and particularly axle-nuts for retaining the wheels of vehicles in place, and has for its object to provide a nut which shall be easily locked in position, so as to prevent its removal by the motion of the wheel.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is an end view of the nut. Fig. 2 is a similar view with the locking-lid open. Fig. 3 is a cross-section through the nut and end of the axle.

Like parts are indicated by the same letter in all the figures.

A is the flange of the nut, having the inner portion B, against which the wheel on the axle C bears. The axle C is screw-threaded at D to receive the internally-screw-threaded elevated portion E on the nut. This portion E is provided at one side with the snap-spring F and has hinged at its outer extremities the lid G, which is provided with the internal cavity H and the cam-surface J. The end of the axle is prolonged and terminates in the portion K, which is preferably hexagonal at its sides, or at least bounded by plane surfaces. The diameter of this projection K should be such as that its axis, measured between any two parallel plane surfaces, should be but a trifle less than the diameter of the slot H. The spring F is adapted to be retracted by the cam-surface J until the lid G is in position, when the end of the spring F will engage the upper surface of such lid and secure the same in position. It will of course be evident that great changes could be made in this device and in its construction without departing from the spirit of my invention.

The use and operation of my invention are as follows: The wheel may be placed upon the axle and the nut screwed in position in the usual manner. The lid G is now brought down into position so that its cavity H incloses the projection K upon the end of the axle C. In this position the lid is held securely by the spring F. It will therefore be impossible for the nut to move in either position, as it is securely locked, the end K being incapable of rotation in the cavity H. If, when the lid G is brought into position, it is found that the position of the nut is such that the part K will not be received into the cavity H, a slight turning of the nut in either direction will bring the sides of the cavity H parallel with two of the sides of the part K, whereupon the lid can be brought into position, as indicated in Fig. 1.

I have spoken of my device as applied to an axle; but it is evident that it is applicable to any bolt or other similar use. It is also immaterial whether or not the nut-cap is solid or whether it is perforated. I have shown it with a smooth exterior, because it is visible from the side of the vehicle.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is as follows:

The combination of a screw-threaded axle having a smaller extended portion not screw-threaded with a nut screw-threaded upon the axle and provided with a hinged portion having a recess, said extended portion adapted to be received into such recess and thus to lock the nut from rotation, and the spring on the fixed portion of the nut adapted to engage and secure the hinged portion in its closed position, substantially as and for the purposes described.

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Witnesses:

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