SALEM T. LAMB.

# Improvement in Lock Nuts.

No. 121,175. Patented Nov. 21, 1871.

*Fig. 1.*

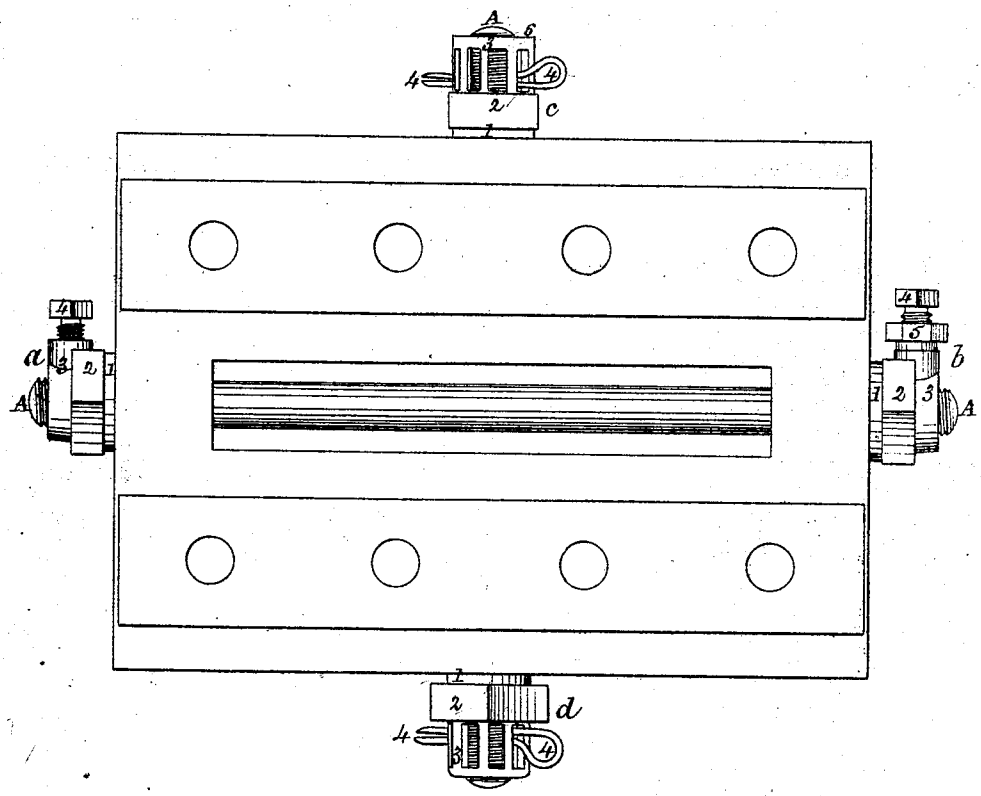
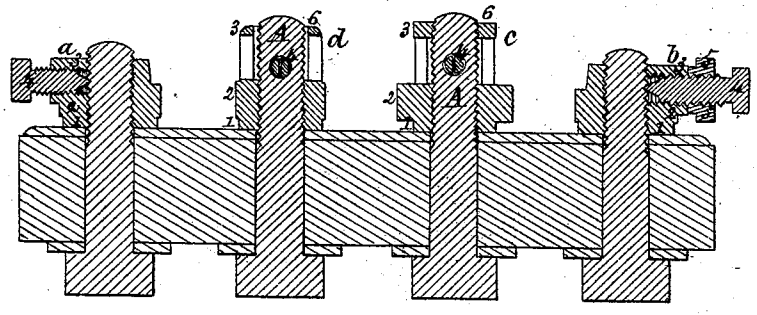



*Fig. 2.*




*Witnesses.*

Edmund Mason

*Inventor.*

Salem T. Lamb.

By atty. A. B. Stoughton.

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

# UNITED STATES PATENT OFFICE

SALEM T. LAMB, OF NEW ALBANY, INDIANA.

## IMPROVEMENT IN LOCK-NUTS.

Specification forming part of Letters Patent No. 121,175, dated November 21, 1871.

*To all whom it may concern:*

Be it known that I, SALEM T. LAMB, of New Albany, in the county of Floyd and State of Indiana, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents a top plan of the several modifications of devices which I have devised for applying my invention, and Fig. 2 represents sections through the same.

In an application for a patent which I have made, and of even date with this application, the introduction of a cap, by or through which the fastening acted to hold the nut from turning, was of the essence of the invention. In this application the cap is not used, but the nut is so formed as to possess within itself the means of holding it to the screw-bolt by the aid of a key or pin applied from the exterior to hold the nut from turning on the bolt.

In the cap system above referred to the nuts can be of the common well-known form, and made of wrought-iron or steel, and readily punched out, which wrought nuts are much stronger and better than cast ones. The caps, however, which do not have to be threaded or take the strain that a nut must sustain, may be, and from their peculiar shape and form would have to be, cast, as they could not economically be wrought into that shape or form.

In this application the nuts must, to make them cheap enough, be cast metal, owing to their shape, and, being afterward annealed, will answer a good purpose in many structures, and be much cheaper though not so efficient as the cap system; and my present invention consists in a cast nut with the metal so disposed in it as to enable it, through the intervention of a key or pin, to be held from turning or becoming loose on the bolt.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawing.

First, premising that I am aware that a set-screw has been heretofore essayed for holding a nut to the bolt, but in such a rude way as to make it comparatively impracticable—and also that what is called a turreted or scalloped nut has been used, which I do not want or claim—in the plans shown at *a* and *b* a nut of peculiar form is represented, to which is applied, to prevent it from turning, a set-screw with a shoulder and conical point, but which does not constitute a part of the invention claimed in this application—not being germain thereto. The nuts in both of these cases are composed of three distributions of metal of particular form or shape, as shown at 1 2 3, and for particular purposes. The portion 1 is in the place of and serves the purpose of a washer; the portion 2 is sided (four or six sided) to receive the wrench by which the nut is turned on the bolt; and the portion 3 is made large and strong enough to contain a boss or nut, into which the screw 4 passes. At or near the point of the screw 4 there is cut or formed a square shoulder, so as to have the efficiency of the screw as far up as possible, and beyond the shoulder the point of the screw is made conical and pointed so as to take in between the threads of the main screw-bolt A without injuring the threads thereof. A jam-nut, as at *b*, marked 5, may be used.

In the plans shown at *c d* are illustrated the nut and fastening, which is the subject-matter of this application, in which the portion 3 is made in cage-form, so as to receive a pin or key, 4, which passes into or through the bars of the portion 3 and through the bolt A. If the bars of the portion 3 simply projected from the portion 2 of the nut without any end support they might, in such construction, be called turreted or scalloped nuts; but would not have the strength (being of cast metal of necessity) to withstand the strain of the pin or key upon them. I unite the upper ends of these bars by a ring or boss, 6, which, as shown at *d*, is simply a support for the bars of the portion 3 of the nut, but which, as shown at *c*, may be furnished with a screw-thread, so as not only to unite and strengthen the bars, but to steady the nut on the screw-bolt A by giving it two screw-thread bearings on it, one below and one above, which prevents any lateral motion of the nut on the screw-bolt.

Though I have shown this invention as ap-

plied only to bolts, it is equally applicable to journals, axles, rods, straps, or such other articles as employ screw-threads and nuts.

Having thus fully described my invention, what I claim is—

In combination with a cast nut, *c d*, a projection or extension, 3, thereon, for the purpose of forming a support for the fastening 4, which passes between the bars thereof, by which said nut is prevented from turning or becoming loose on the bolt, as described and represented.

SALEM T. LAMB.

Witnesses:
A. B. STOUGHTON,
EDMUND MASSON.

(14)