A. M. ROUSE.

Nut-Fastenings.

No. 134,489. Patented Dec. 31, 1872.

Fig. 1.

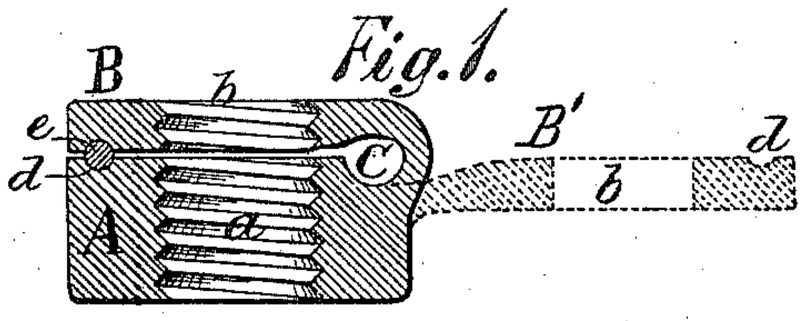


Fig. 2.

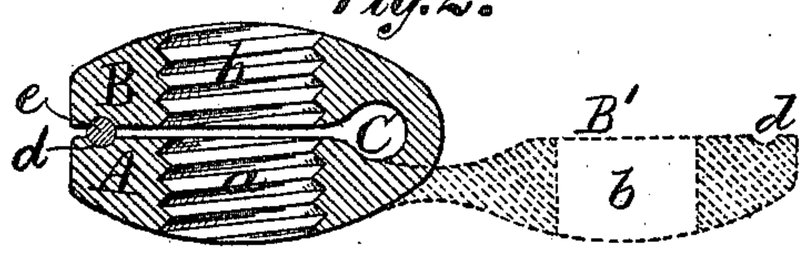
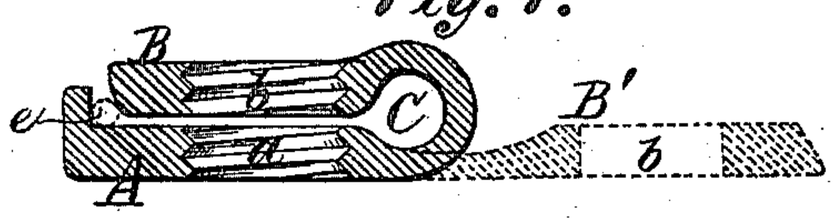


Fig. 3.

Fig. 4.



Scale. 1 2 in.

WITNESSES:

Walter Allen
W. H. Pearce

INVENTOR:

Albion M. Rouse
By Knight Bros. Attys.

UNITED STATES PATENT OFFICE.

ALBION M. ROUSE, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF HIS RIGHT TO PETER E. BLAND AND ANDREW J. BAKER, OF SAME PLACE.

IMPROVEMENT IN NUT-FASTENINGS.

Specification forming part of Letters Patent No. **134,489**, dated December 31, 1372.

To all whom it may concern:

Be it known that I, ALBION M. ROUSE, of city and county of St. Louis and State of Missouri, have invented a certain Improvement in Locking-Nuts, of which the following is a specification:

This improvement consists in a nut which is made of a plate of metal doubled upon itself, and which is made to lock by causing the two parts to take a position in relation to each other different to that in which the thread was formed in the nut.

In the figures, which are axial sections at right angles to the folded side, the form of the blanks is shown in dotted lines, and of the finished nut in whole lines.

The drawing illustrates different forms of nuts.

Figures 1 and 2 show nuts more especially intended for use singly. Figs. 3 and 4 show nuts intended more particularly for use to lock other nuts in position, and are made of thinner plates than in Figs. 1 and 2.

The preferred manner of constructing these nuts is, first, to roll out the iron in bars, whose cross-section is shown in the drawing by the dotted lines B′, and the lower section A in full lines, the upper section or plate B showing the dotted part after being folded over into position. After rolling, the bar is punched upon both sides, as shown at *a* and *b*, and cut into blanks, each of which forms one nut. To fold the part B over that A, the blank is heated, and the part A is placed upon a fixed pin, whose upper end is made conical so as to enter the hole *b* and guide the part B into exact position as it is folded over, as shown in full lines in the figures. The space between the plates A B is preferably made an eighth of an inch wide, more or less, for two reasons: First, in tapping the nut a small burr is formed, and when the said space is made sufficiently wide the burrs do not interfere with the described locking action of the nuts, Figs. 1 and 2; second, the space gives an opportunity to set the plates together, if they have been at any time strained too far apart so as to get a permanent set in such position. In rolling the bars, small longitudinal grooves *d* are formed in the same to receive keys or pins, for purpose hereafter explained. Before tapping or forming the screw-thread in the nuts, shown in Figs. 1 and 2, a small pin, *e*, is driven into the key seat or hole formed by the two grooves *d* so as to strain the plates A B apart, and the pin *e* is left in the nut until it is screwed on the bolt.

After screwing the nut into position the key *e* is driven out of the nut, and the elasticity of the connecting part C draws the plates A B toward each other, and locks the nut firmly in position. When tapping the nuts shown in Figs. 3 and 4 the plates A B may be in contact, and after they are screwed on the bolts a tapering pin, *e*, is driven into the pin-holes *d* to spread the plates A B apart and lock the nut. In Fig. 4 the key *e* causes the plates A B to have lateral movement on each other to lock them on the bolt.

The nuts may be locked in other ways than the ways described—for instance, the plates in Figs. 3 and 4 may be spread apart with a cold-chisel, or a sledge may be held to the side opposite to C, and the latter may receive the blow of a hammer, which would cause the plates to spread apart until they became locked upon the bolt; or a pin might be driven inside the bend C to spread the plates apart. I prefer the forms shown in Figs. 1 and 2 for situations where a single nut is used; but the thin nuts shown in Figs. 3 and 4 will be sufficient lock for another nut when put behind the same, and are intended for application to nuts already in position on fish-plates, car-bolts, &c., and are intended to act not so much as nuts as locks, being made too light for the former use. A wedge may be used instead of the pin or key *e*.

I claim—

1. The lock-nut, consisting of a plate, A B, doubled upon itself, substantially as set forth.

2. In combination with the two-part plate A B, the grooves *d*, as set forth.

3. In combination with the nut A B C *d*, the pin or key *e*.

ALBION M. ROUSE.

Witnesses:

SAML. KNIGHT,

ROBERT BURNS.