

UNITED STATES PATENT OFFICE.

BRIGHAM LEIGHTON, OF SAN MARTIN, CALIFORNIA.

BOLT AND NUT LOCK.

1,058,990.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BRIGHAM LEIGHTON, a citizen of the United States, residing at San Martin, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Bolt and Nut Locks, of which the following is a specification.

This invention relates to a nut and bolt lock and particularly to such a device comprising simple means for locking the nut against rotation and adapted to be removed to allow of the nut being unscrewed.

An important object of this invention is to provide a device of the above mentioned character, which is simple in construction, positive in operation, and cheap to manufacture.

Other objects and advantages of this invention will be apparent during the course of the following description.

In the accompanying drawing forming a part of this specification and in which like numerals are employed to designate like parts throughout the same, Figure 1 is a side view of the device, Fig. 2 is a sectional view taken on line 2—2 of Fig. 1, and, Fig. 3 is a perspective view of the removable locking plate or element.

In the drawings wherein is illustrated a preferred embodiment of my invention, the numeral 1 designates a plank or the like, upon which is disposed a strip 2 attached to the plank through the medium of a bolt 3, passing through suitable openings formed therein. Upon the outer face of the strip 2 is disposed a fixed base plate 4, having an opening formed therethrough to receive the bolt 3. At one end the base plate 4 is provided with an opening 5, near the end of which are formed spaced knuckles 6, as shown. These knuckles are preferably formed by bending portions of the base plate 4 outwardly. The knuckles 6 receive a cotter-pin 7 or the like having its free end spread, as shown at 8. The base plate 4 is prevented from turning upon the bolt 3 by means of screws 9, passing through openings formed in the base plate and engaging the strip 2. It is to be understood that any suitable number of the screws 9 may be employed. The strip 2 is shown as formed of wood and therefore adapted to receive the screws 9. When the plate 4 is used in connection with iron or the like, openings are drilled in the

iron and plugs instead of screws, are placed in these drilled openings and pass through the screw openings of the base plate 4, to prevent the base plate from turning upon the bolt.

Adapted to cooperate with the base plate 4 is a removable locking plate or element 10, having a triangular opening or recess 11 formed in one edge to receive a corner of a nut 12, engaging the screw-threaded end of the bolt 3. This locking plate or element 10 is provided upon its edge opposite opening 11 with a holding tongue 13, adapted to be removably inserted within the opening 5. The holding tongue 13 is bent, as shown at 14 so that the outer portion of the holding tongue is disposed in a different portion from the locking plate 10.

In the use of the device, the elements that are to be secured together, for example, the plank 1 and strip 2, are placed together and a suitable opening formed therethrough to receive the bolt 3. The base plate 4 is then placed upon the outer face of the strip 2, and the bolt 3 passed through the opening in the plate 4. The screws 9 are now employed to attach the plate 4 to the strip 2, for preventing the base plate 4 from turning on the bolt. The nut 12 is now placed upon the screw-threaded end of the bolt and is rotated until it clamps against the base plate 4. The removable locking plate or element 10 is positioned in engagement with the base plate 4, as shown, the recess 11 receiving one corner of the nut 12 and the tongue 14 fitting in the opening 5 between the knuckles 6. The cotter-pin is now passed through the knuckles and its lower end is spread.

From the description of the above referred to parts, it is obvious that the nut 12 cannot turn upon the bolt. When it is desired to unscrew the nut, the cotter-pin 7 is removed and the locking plate 10 disengaged from the nut.

Attention is called to the fact that the screws 9 are covered by the locking plate or element 10.

I wish it understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that certain changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:—

The combination with two members to be secured together and provided with openings 5 which are in registration, of a bolt passing through the openings, a nut carried by the bolt, the main plate disposed between the nut and one member and provided near its center with a bolt receiving opening and 10 near one end with a suitable number of screw receiving openings, screws passing through the screw receiving openings and engaging said member to prevent the main plate from turning, outwardly extending 15 knuckles formed upon that end of the main plate having the screw receiving openings, a pin passing through the knuckles, a locking plate provided upon one end with a notch to receive a corner of the nut and upon 20 its opposite end with a shank to be passed

between the knuckles and through an opening in the main plate disposed adjacent the knuckles, the shank being disposed in a plane inwardly of the plane of the locking plate and parallel with said locking plate, said 25 shank having its base inclined to engage said pin to yieldingly retard the longitudinal movement of the locking plate away from the nut whereby said locking plate is held in proper clamping engagement with 30 the nut, said locking plate serving the double purpose of preventing the rotation of the nut and covering the screws.

In testimony whereof I affix my signature in presence of two witnesses.

BRIGHAM LEIGHTON.

Witnesses:

WM. T. AGGELER,

J. F. MARTIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."