J. ADAMS, JR.

KEY BOLT LOCK.

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1,070,385. Patented Aug. 19, 1913.

Fig. 1.

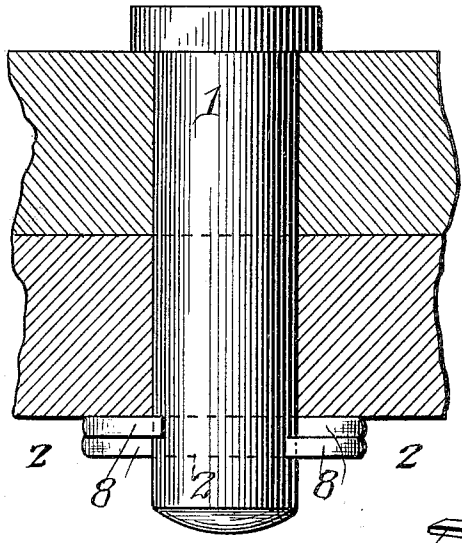


Fig. 2.

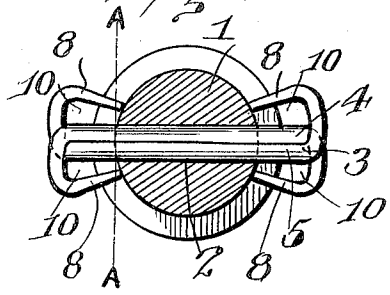


Fig. 4.

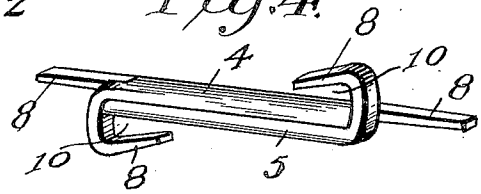


Fig. 3.

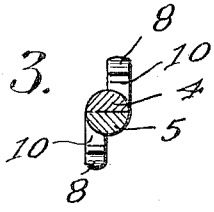


Fig. 5.

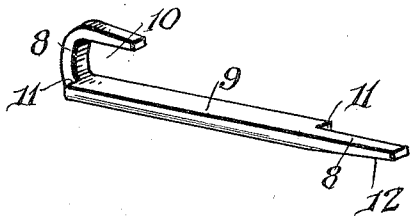
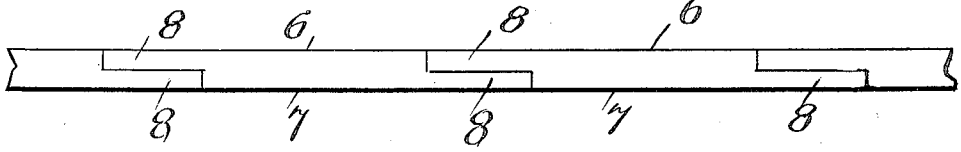


Fig. 6.



WITNESSES

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KEY-BOLT LOCK.

1,070,385. Specification of Letters Patent. Patented Aug. 19, 1913.

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To all whom it may concern:

Be it known that I, JOSEPH ADAMS, Jr., citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Key-Bolt Locks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to safety key-bolt locks, and has for its object the production of an efficient key which may be placed through a bolt for holding two sections of material together.

The principal object of this invention is the production of an efficient key which may be formed from the least amount of material and may be so inserted and bent as to form an efficient lock for preventing the accidental removal of a bolt from the support or material through which the bolt passes.

Another object of the invention is the production of an efficient key which may be easily inserted in a bolt and easily bent to constitute an efficient lock.

With these and other objects in view, this invention consists in certain novel details of construction and combinations of parts as will be hereinafter fully described, illustrated in the accompanying drawings, and specifically claimed.

In the drawings, Figure 1 is a side elevation of a bolt showing the support in section. Fig. 2 is a section taken on line 2—2 of Fig. 1. Fig. 3 is a transverse sectional view through the locking key taken on line A—A of Fig. 2. Fig. 4 is a detailed perspective view of the locking key in its assembled position. Fig. 5 is a detailed perspective of one section of a locking key. Fig. 6 is a plan view of a bar from which the keys are made.

By referring to the drawings by numerals, it will be seen that 1 designates a bolt which is provided near its outer end with a transversely extending aperture 2, which aperture may be so formed in the bolt as to allow a locking pin to pass therethrough for efficiently holding the bolt in its desired position.

A key 3 passes through the aperture 2 formed in the bolt, and comprises a primary section 4 and an auxiliary section 5, which sections are formed similarly so as to allow the sections of the key to be formed from an elongated bar, as indicated at 6 in Fig. 6. The sections of the key comprise an enlarged body portion 7 and the reduced projecting ends 8. These ends are so formed as to extend longitudinally of the opposite sides of the body portion 7, as indicated clearly in Fig. 6, and by so forming the keys or sections of the keys, it will be seen that the sections may be constructed from one elongated bar since the projecting arm of one key will interlock with the projecting arm of the other key while being formed, and in this manner it will be seen that there will be no wasted material in manufacturing the keys. The sections 4 and 5 are preferably formed semi-circular in cross section so as to produce a circular body as illustrated in Fig. 3 to pass through the aperture 2 formed in the bolt 1.

The sections of the key are formed semi-circular in cross section, having one flat face 9, and the flat faces 9 of each of the sections are adapted to abut, as illustrated in Fig. 3, thereby producing a circular key in cross section when the two sections of the key are placed together. It will, therefore, be seen that owing to the formation of the keys, the different sections may be readily inserted in the bolt. Each section of the key is preferably formed so as to have one of the projecting ends 8 bend up to constitute a hook, as indicated at 10 in Fig. 5, and the other section of the key is then placed upon the first section so as to have the hook 10 extend in an opposite direction to the hook of the other section. After the two sections of the key have thus been interlocked within the bolt, the projecting ends 8, as illustrated in Fig. 4, are bent back over the shoulders 11 formed upon the opposite sections of the key to the position as illustrated in Fig. 2. It will, therefore, be seen that the two sections of the key will be firmly interlocked together owing to the overhanaging ends or hooks 10 which are formed by the projecting ends 8 being folded over. The outer ends of the projecting ends 8 are bent back so as to lie flush against the edges of the bolt, as illustrated in Fig. 2, and it will, therefore, be seen that the pin will be held against the rotation owing to the fact that the ends of the projecting ends 8 will extend beyond a line drawn across the edge of the aperture 2, as indicated by A—A in Fig. 2.

As clearly illustrated in Fig. 5, it will be seen that the projecting ends 8 taper toward their outer ends for facilitating the bending of the ends to the desired position, as illustrated at 12 in Fig. 5.

From the foregoing description, it will be seen that a very simple and efficient device has been produced whereby a very material saving in the material out of which the lock is to be constructed has been produced. Furthermore, it will be seen that the key may be easily and quickly locked upon the bolt in view of the fact that the shoulders 11 will constitute a means for guiding the ends 8 while being bent so as to constitute the loops or hooks 10, as illustrated clearly in Fig. 2.

There has thus been provided a simple and efficient device of the kind described, and for the purpose specified.

Having thus described the invention, what is claimed as new, is:—

1. An article of the class described comprising a bolt provided with a transversely extending aperture, a key passing through said aperture and comprising a pair of sections, and hooks formed upon each end of each section and engaging the sides of said bolt for preventing the removal of said key from said bolt.

2. A locking key for a bolt comprising a primary and an auxiliary section similarly constructed, each section provided with a comparatively narrow, elongated, projecting end upon each end thereof, the projecting end upon each section extending parallel to the opposite sides of said sections and being bent backwardly to constitute hooks for engaging a support whereby said key will be held against accidental removal from the bolt.

3. A key of the class described comprising a primary and an auxiliary section, each section comprising a body portion provided with comparatively narrow, projecting ends, the ends of said body portion extending in alinement with the opposite sides of said body portion, and bent back upon said body portion for overhanging the coöperating section for firmly holding said sections together and preventing the accidental removal of said key from a support.

4. A key of the class described formed from a blank strip of material comprising a primary and an auxiliary similarly constructed sections, each section comprising a widened body portion having a reduced end of one-half the width of said body portion, one projecting end of said body portion extending in alinement with the opposite side of said body portion to the other end, a shoulder formed upon each end of said body portion, the shoulder upon one end of said body portion being in alinement with the projecting end upon the other end of said body portion, said primary and auxiliary sections fitting adjacent each other, and the projecting ends of said primary section bent around the shoulders of the other section for firmly holding said sections together and preventing the accidental removal of said key from a support.

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

JOSEPH ADAMS, Jr.

Witnesses:
P. J. Dolan,
Anna Jaquillard.

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