July 16, 1929. W. T. ARMSTRONG 1,721,100

COTTER KEY

Filed Sept. 13, 1928

Fig. 1

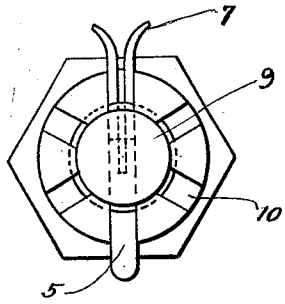
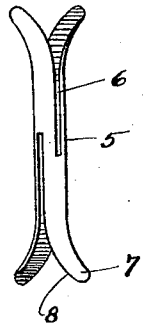


Fig. 2



William T. Armstrong
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UNITED STATES PATENT OFFICE.

WILLIAM T. ARMSTRONG, OF BURBANK, CALIFORNIA.

COTTER KEY.

Application filed September 13, 1928. Serial No. 305,740.

The present invention relates to cotter keys and has for its principal object to provide a double ended key of this character, each end being split longitudinally at sides of the key, preferably at right angles to each other, whereby to enable the split portions of the key at opposite ends to spread in directions, preferably at right angles to each other. A further object of the invention is to provide a retaining key of this character, which when inserted through a bolt and castellated nut, will permit the split portions of the key to engage both the nut and the bolt to prevent any possibility of accidental turning movement between the same. A further object is to provide a device of this character of a simple and practical construction, which is strong and durable, which may be inserted and removed in position without necessitating the use of special tools, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended. Other objects and advantages reside in the special construction, combination and arrangement of the various elements forming the invention, as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming part hereof, wherein like numerals refer to like parts throughout the specifications, and in which

Figure 1 is an end elevational view of a bolt and nut showing the cotter key in retaining position with respect thereto, and

Figure 2 is a perspective view of the key.

Referring now to the drawing in detail, the invention comprises a cotter key composed of a shank portion 5 of substantially cylindrical formation and split longitudinally at each end as shown at 6 and extending inwardly from each end toward the center of the shank, said slitted portions at the opposite ends being disposed preferably at right angles with respect to each other as clearly illustrated in Figure 2 of the drawing. The key is stamped or cut from a piece of spring steel wire and tempered to permit the springing of the material without breaking the ends of each of the split portions indicated at 7 which are spread oppositely from each other, the material being of suitable quality to normally retain the ends in such position. The extremity of each split end may be slightly tapered as shown at 8. The strength of the split ends is suitable to permit the closing together of the ends by pressure of the finger so as to enable the insertion of the key by either end through the opening usually provided in a bolt 9 and through the castellations of the nut 10 threaded on the bolt. As will be observed from an inspection of Figure 1 of the drawing, the split portions of the key at its opposite ends spread preferably at right angles to each other so that the split portions at one end will spread outwardly at opposite sides of the castellation of the nut and the split portions of the key at the opposite ends will spread in a direction toward the inner and outer faces of the nut and serve to further prevent the possibility of turning movement of the nut on the bolt. It will be observed that the key may be withdrawn from or inserted in the bolt from either side and the key is thus particularly well adapted for use in restricted spaces. It is obvious that the invention is susceptible of various changes and modifications without departing from the spirit of the same or the scope of the appended claims, and I accordingly claim as my own all such forms of the invention to which I am entitled.

I claim:

1. A cotter key having its opposite ends split longitudinally and with the portions of each split end bent oppositely.

2. A cotter key comprising a shank portion having its opposite ends split longitudinally, preferably at right angles to each other.

3. A cotter key having its opposite ends split longitudinally and with the portions of each split end bent oppositely, said key being formed of springlike material with the split portions at each end bent oppositely and normally retained in oppositely extended position.

WILLIAM T. ARMSTRONG.