April 18, 1939. A. A. BRILL 2,155,298

KEY

Filed Jan. 22, 1938

Fig. 2.

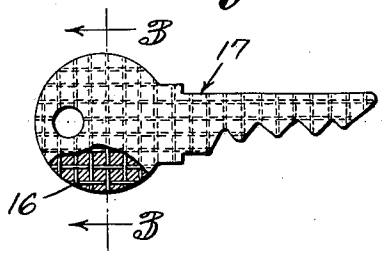


Fig. 3.

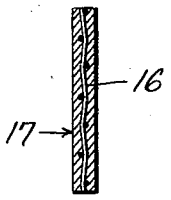


Fig. 1.

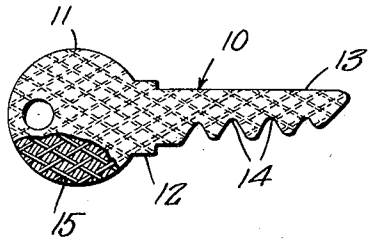
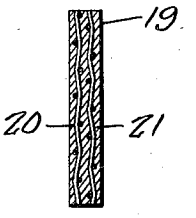


Fig. 4.



Arvel A. Brill,
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

P. S. Hickey
WITNESS

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2,155,298

KEY

Arvel A. Brill, Ferndale, Mich.

Application January 22, 1938, Serial No. 186,449

3 Claims. (Cl. 70—405)

This invention relates to new and useful improvements in keys and more particularly to the structures thereof and is an improvement over my invention set forth in a pending application filed September 20, 1937, bearing Serial No. 164,777.

It frequently happens that when a key breaks off in a lock a portion remains therein, due to the fact that its weakest part is at the point in the structure which is inserted within the lock. Therefore, when a key is broken in a lock, part of the blade or shank remains therein and can only be withdrawn with great difficulty, oftentimes necessitating the services of a lock-smith to accomplish it.

One of the principal objects of my invention is to provide a key equipped with means for readily withdrawing the broken portion remaining in the lock.

Another object of my invention is to provide a key having means for securing the broken portions together upon breakage.

A further object of my invention is to provide a key having means incorporated therewith to strengthen the structure and prevent the same from breaking.

A still further object of my invention is to provide a key equipped with a core structure capable of being utilized as an electrical conducting medium for actuating an electrical lock mechanism.

Other objects and advantages will be apparent from the following description, appended claims and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Fig. 1 is a side elevation, partly in section, illustrating a preferred embodiment of my invention.

Fig. 2 is a similar view to Figure 1 illustrating a modified form of my invention.

Fig. 3 is a sectional view taken on the line 3—3 of Figure 2.

Fig. 4 is a transverse sectional view of another modified form of key structure.

In practicing my invention, in the preferred embodiment illustrated in Figure 1, I provide a key comprising a body 10 fashioned with a bow or finger-piece 11 formed with an extended shank 12. The shank is provided with a reduced section 13 having wards 14 for actuating a lock mechanism (not shown). Within the key and extending longitudinally therethrough is a latticed or meshed structure or member 15, preferably constructed of strands of wire, of a greater tensility than the key. Said member 15 serves to maintain the broken portions or parts of the key together in connected relation when the key is broken whereby the same may be readily withdrawn from a lock as a unit.

With reference to Figure 1, the strands making up the latticed or meshed member 15 extend longitudinally and transversely of the key thereby effecting, with one or more of the longitudinally extending strands, a tie means extending from the outer end of the bow 11 to the outer end of the shank 12 whereby any part or parts broken from the body will be maintained in connected condition thereto.

In the modified form illustrated in Figures 2 and 3, the strands of the member 16 are arranged within the key 17 in a manner whereby they extend at an angle relative to the longitudinal and transverse axes of the key. In this construction the strands form a large number of short tie elements which cover the entire length of the key.

In the modified form illustrated in Figure 4 the key 19 is made up of a pair of the meshed members as indicated at 20 and 21 and these may be so constructed and arranged therein to form electrical connections whereby to conduct electrical current therethrough for contact with suitable parts of an electrical actuated lock whereby to actuate the same.

From the foregoing it will be apparent that upon the breaking of a key within a lock the meshed or latticed members embedded or otherwise formed therein will serve to maintain the parts in connected and aligned relation whereby the same may be withdrawn from the lock in a unitary condition.

While I have shown and illustrated my invention in connection with the so called "flat blade" type of key, it is to be understood that keys of various other designs, such as those employing cylindrical shanks, may be constructed in accordance with my invention without departing from the spirit thereof or scope of the appended claims.

What I claim is:

1. A key having a latticed member embedded therein and of a sufficient strength for maintaining broken parts of said key in connected condition for withdrawal from a lock upon breakage.

2. A key comprising a body integrally fashioned with end sections and a permanently incorporated meshed member extending within said sections and of a greater tensility than said body whereby to effect a tie between said sections to maintain the latter in connected condition upon separation of said sections by breakage.

3. A key having a plurality of longitudinally extending spaced latticed members, said members being of a different tensility relative to said key and coacting in a manner for tying portions of said key together upon breakage for withdrawal from a lock.

ARVEL A. BRILL.