Sept. 18, 1956 M. L. TAMPKE 2,763,027

IMPRESSION TYPE LOCK DECODER

Filed July 29, 1955

Fig. 1.

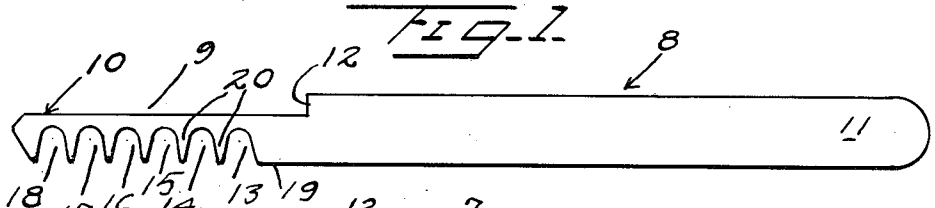



Fig. 2.

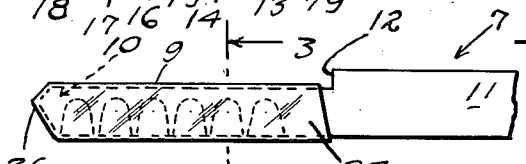



Fig. 3.

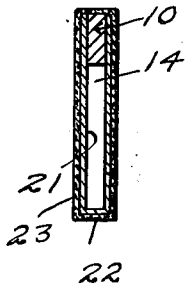



Fig. 5.

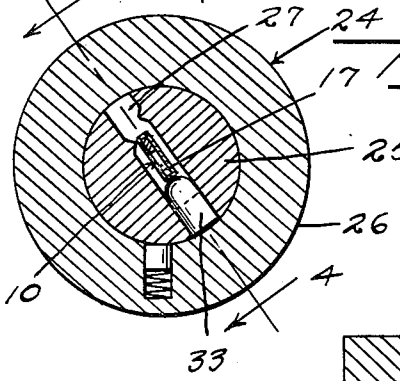



Fig. 4.

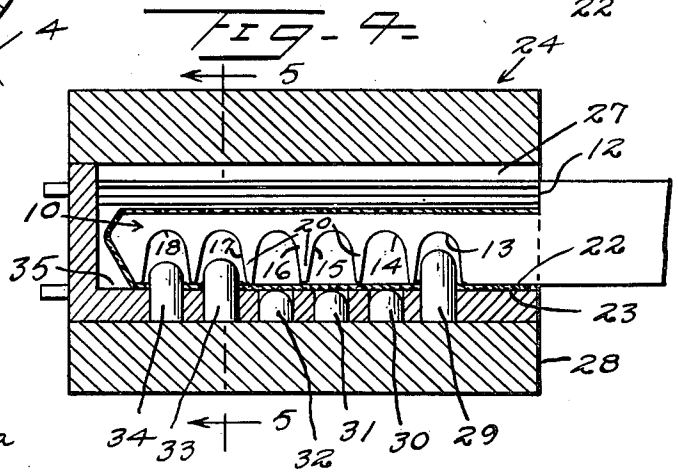
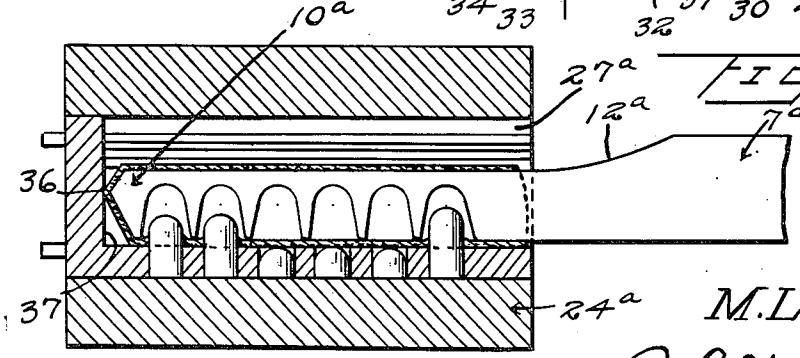



Fig. 6.




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# IMPRESSION TYPE LOCK DECODER

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7 Claims. (Cl. 18—1)

This invention relates to a lock decoder of extremely simple construction which may be readily employed for obtaining an impression of the tumblers of a pin or disc type tumbler lock from which a key to fit the lock can be readily made by a locksmith.

More particularly, it is an aim of the present invention to provide a lock decoder which will provide an almost perfect duplicate in depth cuts of a key that will fit the lock to which the decoder has been applied, so that a locksmith may readily distinguish the different depth cuts without the use of a gauge so that a key to fit the lock may be readily produced.

A further object of the invention is to provide a lock decoder of extremely simple construction which may be very economically manufactured and sold and which may be reused repeatedly by a simple re-preparation of the decoder for another decoding operation, after each use thereof.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating presently preferred embodiments thereof, and wherein:

Figure 1 is a side elevational view of the decoding tool;

Figure 2 is a fragmentary side elevational view thereof showing the blade portion of the tool prepared for decoding;

Figure 3 is an enlarged cross sectional view through the blade, taken substantially along a plane as indicated by the line 3—3 of Figure 2;

Figure 4 is a longitudinal sectional view through a tumbler type lock, taken substantially along a plane as indicated by the line 4—4 of Figure 5, and showing the blade portion of the decoding tool applied to the lock;

Figure 5 is a cross sectional view through the lock, taken substantially along a plane as indicated by the line 5—5 of Figure 4, and

Figure 6 is a view similar to Figure 4 and illustrating a slightly modified form of the decoding tool.

Referring more specifically to the drawing and first with reference to Figures 1 to 5, the decoding tool, designated generally 7, includes an elongated strip designated generally 8, preferably formed of spring steel which may be of approximately .018 inch in thickness, approximately one-half inch in width and five or six inches in length. One end of the strip 8 is cutaway along one longitudinal edge thereof as seen at 9 to provide a blade 10. The remainder of the strip 8 forms a handle 11 of the tool 7. The cutout 9 provides a shoulder 12 at the forward end of the handle 11 and at the back edge of the blade 10. The other front edge of the blade 10, which forms a straight continuation of one longitudinal edge of the handle 11, is provided with a plurality of longitudinally spaced transversely extending notches 13, 14, 15, 16, 17 and 18, which open through said front edge 19 of the blade 10. The notches provide teeth 20 which extend between the separate said notches, the tips of which are disposed in alignment with the front edge 19.

The decoding tool 7 also includes a thin strip of material such as tissue paper 21 which is folded lengthwise to engage both sides of the blade 10 and with the fold 22 thereof disposed along the front edge 19, so that the paper 21 covers both sides of the blade 10 and thus encloses the notches and teeth thereof. The paper 21 may be secured by any suitable adhesive to the blade 10 and may be trimmed off around the outer end and back edge of said blade. The paper 21 provides a support for a coating 23, preferably of paraffin, which may be applied by dipping the blade 10 containing the paper covering 21 in hot paraffin or by coating the covered blade with the hot paraffin by means of a brush or in any other suitable manner. With the paper covering and paraffin coating applied to the blade 10, the decoding tool 7 is ready for use, when the coating 23 has set.

The lock to be decoded is first picked, or the tumblers are all lined up so that the plug can be twisted sufficiently to lock the tumblers against the cylinder of the lock. Figures 4 and 5 show a lock 24 which has been picked so that the plug 25 has been turned in the cylinder 26 from a locked position of the plug. The tool 7, grasped by the handle 11 and with the blade 10 prepared, as previously described, with the paper covering and paraffin coating, is applied to the lock 24 by inserting the blade 10 into the key receiving slot 27 of the plug 25. The blade is inserted with the notched front edge 19 thereof disposed nearest the tumblers of the lock and with the back edge of the blade 10 positioned in the part of the slot 27 which is disposed remote from the tumblers, so that the front edge 19 will clear the tumblers. The blade 10 is inserted until the shoulder 12 abuts against the face 28 of the lock 24. The notches 13, 14, 15, 16, 17 and 18 will then be disposed in transverse alignment with the tumblers 29, 30, 31, 32, 33 and 34. The blade 10 is then displaced laterally relative to the lock 24 toward the tumblers. As seen in Figure 5, the tumblers are of a width or diameter substantially greater than the thickness of the blade including its covering and coating. Thus, the tumblers which project from the edge 35 of the slot 27 will collapse and penetrate the coating 23 and covering 21. The tips of the teeth 20 will fit loosely between the tumblers and will contact, with the covering and coating thereof, the slot edge 35. When this is accomplished, as illustrated in Figures 4 and 5, the slots 13, 14, 15, 16, 17 and 18 will contain the impression of the tumblers 29, 30, 31, 32, 33 and 34. The blade 10 is then displaced laterally away from the tumblers and thereafter slidably removed from the slot 27.

A locksmith may readily distinguish the numbering of the impressions made in the covering 21 and coating 23 so that a key having the proper cuts for opening the lock may be readily produced. For example as seen in Figure 4, the reading of the tumblers 29 through 34 would be 411132, the tumblers 30, 31 and 32 producing little or no impression in the covering and coating.

After the decoder 7 has been utilized as heretofore described to furnish the needed information from which a key can be made to fit a lock, the covering 21 and coating 23 are removed from the blade 10 and another covering and coating are applied, as heretofore described, so that the tool 7 will be ready for re-use when needed.

Figure 6 illustrates a slightly modified form of the tool designated generally 7*a* and which differs from the tool 7 only in that the shoulder 12 is omitted and in lieu thereof the black edge of the blade 10*a*, beyond the inner end of said blade merges with a concavely arced edge portion 12*a*. The forward end 36 of the blade 10*a* is adapted to abut the wall 37 at the inner end of the slot 27*a* of the lock 24*a* for properly positioning the notches of the blade 10*a* and the teeth thereof relative to the tumblers of the lock, as illustrated in Figure 6.

The lock decoding tools may be made in various sizes

and with varying numbers of notches and teeth to fit different size tumbler type locks having different numbers of tumblers. Only about four or five of the decoding tools are required to fit substantially all known tumbler type locks.

Various other modifications and changes are contemplated and may obviously be resorted to, without departing from the spirit or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. A lock decoding tool comprising a handle, an elongated blade projecting from the handle and provided with a series of longitudinally spaced transversely extending notches opening outwardly of one longitudinal edge of said blade and defining relatively narrow teeth interposed between said notches, said blade being of a width substantially less than the depth of the slot of a tumbler type lock as measured between the longitudinal edges of the slot and being adapted to be inserted into the slot of the lock when picked between the tumblers thereof and the longitudinal edge of the slot disposed remote from the tumblers, and impression receiving means secured to said blade and covering the notches thereof for receiving the impressions of the tumblers when the blade is displaced directly toward the tumblers.

2. A lock decoding tool as in claim 1, said teeth being of a width to fit loosely between the tumblers.



3. A lock decoding tool as in claim 2, said tool including abutment means adapted to abut against a part of the lock for locating the notches of the blade in alignment with the lock tumblers.

4. A lock decoding tool as in claim 1, said handle and blade comprising an elongated strip of relatively thin spring steel.

5. A lock decoding tool as in claim 4, the blade of said tool being of a width and length less than the width and length, respectively, of the handle.

6. A lock decoding tool as in claim 1, said blade being of a thickness substantially less than the width of the lock slot and the width of said tumblers as measured transversely of the lock.

7. A lock decoding tool as in claim 1, said impression receiving means being removable and replaceable and comprising a folded strip of tissue paper secured against both sides of the blade and covering said notches and having a folded edge extending along the notched edge of the blade, and a coating of paraffin covering said tissue paper.

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