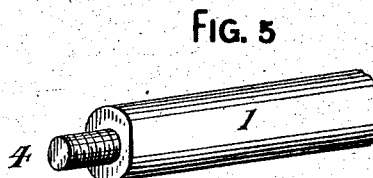
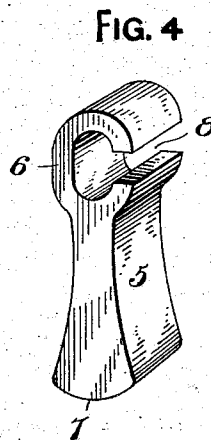
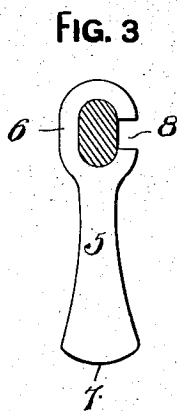
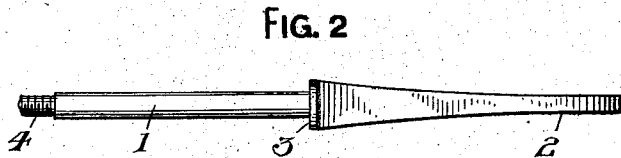
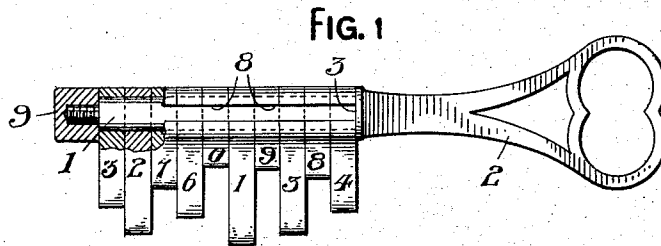


E. VON VARGYAS.
KEY.
APPLICATION FILED AUG. 18, 1911.

1,022,900.

Patented Apr. 9, 1912.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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TO JAMES S. DOUTHITT AND ONE-THIRD TO HARRY E. PLATT, BOTH OF CORAOPOLIS,
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KEY.

1,022,900.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed August 18, 1911. Serial No. 644,772.

To all whom it may concern:

Be it known that I, EUGENE VON VARGYAS, a subject of the King of Hungary, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Keys, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to keys for use for permutation locks and has for its object to provide a key for such purpose in the manner as hereinafter set forth, including a plurality of interchangeable wards, whereby the wards can be adjusted to various combinations, so that the key can be employed for permutation locks having different combinations.

A further object of the invention is to provide a permutation key in a manner as hereinafter set forth, whereby the wards can be adjusted to various combinations to operate permutation locks having different combinations, under such conditions overcoming the necessity of providing a separate key having integral wards for each of the locks.

A further object of the invention is to provide a permutation key having a plurality of wards, which are interchangeable, to provide a series of combinations, which allows of the key to be readily set up to conform to the combination of the permutation lock and which overcomes the necessity of milling a key blank in a manner to provide a key of necessary construction to enable it to operate the lock.

By the construction hereinafter set forth the milling of the key blank is overcome, in view of the fact that after the combination of the lock is ascertained, all that is necessary to do is to adjust the separable wards upon the shank to provide the combinative relation of the wards with respect to the lock combination and then secure the wards in position.

Further objects of the invention are to provide a permutation key which is simple in its construction and arrangement, strong, durable, efficient in its use, conveniently adjusted to provide any number of combinations and inexpensive to manufacture.

In the drawings, wherein like numerals designate corresponding parts throughout the several views, Figure 1 is a side elevation, partly in longitudinal section, of a

permutation key in accordance with this invention. Fig. 2 is a plan of the key with the wards or tumblers removed. Fig. 3 is a cross sectional view of the key, illustrating one of the wards or tumblers in side elevation. Fig. 4 is a perspective view of one of the wards or tumblers. Fig. 5 is a perspective view of a portion of the key shank.

Referring to the drawing in detail, 1 denotes the shank of the key which is oval shape in cross section and is formed integral at one end with a finger or thumb piece 2, the latter at its juncture with the shank, in cross section, being of greater width and greater length, thereby providing a shoulder 3. The other end of the shank 1, is reduced to form a centrally disposed cylindrical extension 4, which is peripherally threaded.

Mounted upon the shank 1, is a plurality of interchangeable wards or tumblers, each being of the same contour but of different lengths. As shown by way of example, the number of wards or tumblers mounted upon the shank is ten, but this number can be increased or diminished, if desired. When the number of wards is decreased, the length of the enlarged portion of the shank is reduced, or if a greater number of wards is employed, the length of the enlarged portion of the shank is also increased or in other words the length of the enlarged portion of the shank conforms in length to the distance from the inner ward of the series to the outer ward of the series. Each tumbler includes a body portion 5, and a head 6, the latter being integral with the inner terminus of the former. The body 5, preferably increases in width from its inner terminus to its outer end and preferably the sides of the ward are curved and outer or free end thereof rounded as at 7. The head 6, is hollow and oval shape in contour, so as to snugly fit the shank 1. One side of the head is split, as at 8. The wards are designated in a manner as indicated, but any other suitable indication may be employed.

The heads of the wards are mounted upon the shank 1, with the head of the inner ward abutting against the shoulder 3. The wards are fixedly mounted upon the shank through the medium of a cap nut 9, which abuts against the head of the outer ward of the series. The heads 6 of the wards are of the

same size so that one will be flush with the other when they are mounted upon the shank 1, and adjusted to the desired combination.

5 What I claim is:

A key for permutation locks embodying an integral shank and finger piece, the shank being oval in cross-section, a plurality of interchangeable wards mounted on the shank
10 each having a relatively long head having an opening longitudinally therethrough oval-shaped in cross-section and having a

slot through one side extending throughout the length of the head exposing the shank on one side when the wards are mounted on the shank, and means on the outer end of the shank for securing the wards in position thereon. 15

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

EUGENE VON VARGYAS.

Witnesses:

MAX H. SROLOVITZ,
N. LOUIS BOYAN.

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