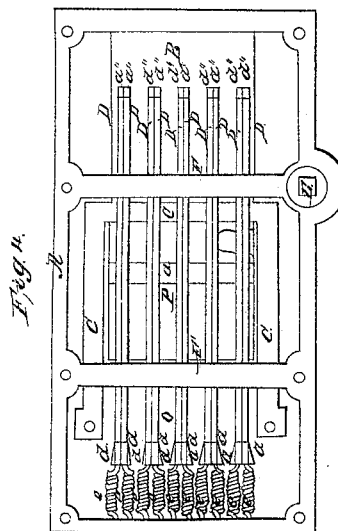
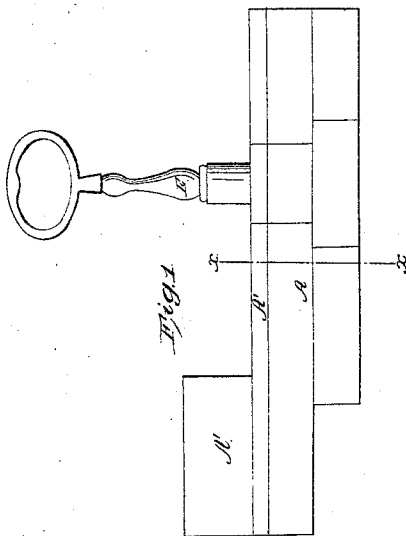
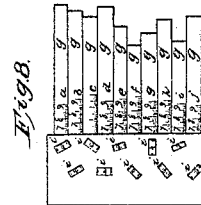
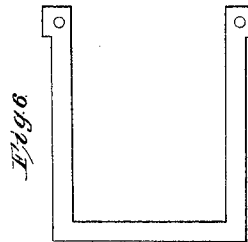
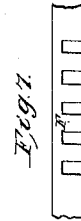
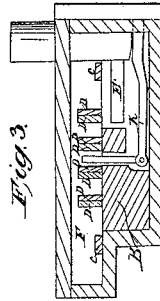
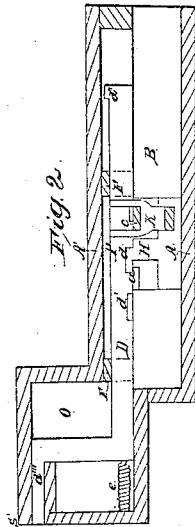


L. Kellogg, Bank Lock.

No 5,706.

Patented Aug. 15, 1848.



UNITED STATES PATENT OFFICE.

LANSING KELLOGG, OF CHARLESTOWN, OHIO.

GUARD OR TUMBLER FOR LOCKS.

Specification of Letters Patent No. 5,706, dated August 15, 1848.

To all whom it may concern:

Be it known that I, LANSING KELLOGG, of Charlestown, in the county of Portage and State of Ohio, have invented a new and useful Improvement in Door-Locks, called "Kellogg's Thief and Powder Proof Bank-Lock," of which the following is a full, clear, and exact description, reference being had to the annexed drawings of the same, making
10 part of this specification, in which—

Figure 1 is a side elevation, the lock being placed in a horizontal position with the steel cap and the key hole uppermost. Fig. 2 is a vertical longitudinal section through Fig. 1.
15 Fig. 3 is a vertical transverse section through the line *xx* of Fig. 1. Fig. 4 is a top view the cap being removed to expose the several parts of the interior of the lock. Fig. 5 is a plan of one pair of the springs detached from the lock, and also showing the form into which they are bent. Fig. 6 is a view of the staple spring or holdfast detached from the lock. Fig. 7 is a view of one of the combs or notched guides in which the sliding guard bars move. Fig. 8 is a plan of the gage key.

The same letters indicate the same parts in all the figures.

In the accompanying drawings the lower
30 part of the box or case A of the lock is made of brass, cast iron, or other suitable material, but the cap A' is made of steel tempered so hard as to be impenetrable by drills or other boring apparatus in common use by pick
35 locks. The cap is secured in its place by screws also made of steel, reaching from within the case, and having the ends, which protrude through the cap hardened, so that like it they may be impenetrable to a com-
40 mon drill.

The bolt B is placed in a recess suitably formed to receive it, and is shot forth or drawn in, as in ordinary locks, and when either out, or in, is held there by means of a
45 hinged or spring staple formed holdfast or catch C, which drops into grooves *a* formed transversely on the upper side of the bolt, out of which grooves the catch must be raised before the bolt can be moved either
50 way. The catch is held in the grooves across the bolt by the sliding bars D which have notches *d* in the edge which slides on the bolt at unequal distances apart, which notches when brought into a line immediately over
55 the catch form a groove into which it can be raised by pressing upon the lever *k*, thus

leaving the bolt free to move either backward or forward.

The only difficulty that will be experienced in surreptitiously opening my lock consists 60 in placing all the bars D, so as to bring the notches *d* into the proper relative position to admit of the catch being raised, and even with a full knowledge of the structure of the lock this difficulty will be found to be in- 65 superable without the aid of the gage key properly set by some one privy to the secret of its adjustment. Since each of the guard bars must be moved separately and independently of the others to place it in the right 70 position for raising the catch, it follows that anything which obstructs such independent movement, and causes the bars to adhere without absolutely fastening them together, will increase the difficulty of opening the 75 lock. To cause the bars thus to adhere I have curved them sidewise and placed them together in pairs, with their concave sides adjacent, so that a pair of them viewed on the edge look somewhat like an elliptic car- 80 riage spring and being made of steel and tempered they retain this form. The springs thus made and arranged are compressed together and placed over the bolt in guide grooves just large enough to receive them 85 made in the cross bars F F' and when thus compressed they have a constant tendency to expand, pressing against the sides of the groove and against each other with consid- 90 erable force, so that one of the bars cannot be moved independently of the other without a force to hold the one back as great as is used to push the other forward. This curvature also admits of bars of flat steel in a roughly finished state being used without 95 any great degree of nicety being observed in reducing them accurately to a uniform thickness, as would be indispensably necessary, but for this curvature or some other equivalent device, because the grooves in which 100 they move being rigid they would, if of unequal thickness, be in some places too loose, and in others would bind so tight, that they would not slide. To magnetize these bars, and arrange them with their opposite poles 105 adjacent, will operate as an additional safeguard by causing the springs composing each pair to adhere more firmly at all times, and in case their elasticity should become impaired they would adhere together by mag- 110 netic attraction. To prevent the notches of the guard bars being brought into the proper

position for opening the lock by their sliding more easily which passing over the hold fast, when the same is pressed against them with considerable force, I make a series of
 5 false notches d' d' d' which would give the same indications as the true ones, and being too shallow to allow the catch to rise sufficiently to disengage it from the bolt, would tend very materially to puzzle the pick-lock
 10 attempting to adjust them.

The notched guard bars are seen in place in Figs. 2 and 4 and detached from the lock in Fig. 5. The projection d'' is for the purpose of preventing the bars being drawn
 15 by force or accident through the guide grooves in the cross bars F F'. The gage piece d''' , Fig. 2, at the rear end of the bars is hardened, so that it may not be readily drilled or filed. The guard bars are all
 20 drawn back by springs e , so as to keep them at all times when the gage key G is not in place in such position as will prevent the rising of the catch. These springs also hold the rear ends of the bars against the
 25 fingers g of the gage key G when the same is inserted to arrange them preparatory to protruding or withdrawing the bolt.

The gage key G, Fig. 8, is composed of a stock and as many adjustable graduated
 30 fingers or prongs secured therein by set screws as there are guard bars in the lock. These graduated fingers are set in such a position, that when thrust against the outer ends d''' of the bars until the stops s s
 35 are arrested by the cap A at the point s' the notches d of the bars will coincide with the catch and allow it to raise out of the groove in the bolt, which it will do if pressure be now applied to the key E, Fig. 1,
 40 which will raise the forked end k of the lever K, Figs. 2 and 3, lifting the catch with it, and if the pressure be continued and the key E be turned, the arm E', Fig. 3, will act against the bolt by pressing against the
 45 side of the notch H and force it out or

drew it in, as the key is turned one way or the other. The ablong mortise I and the notch L in the bolt B are to prevent its sliding in or out from being obstructed by the lever K. The gage key must be set while
 50 the cap of the lock is off, and is done as follows:—The guard bars D are all placed with their respective notches d on the catch C. The gage is then placed with its stops s s against the end s' of the cap A' and the
 55 fingers g are severally pushed out until they come in contact with the ends d''' of the bars, in which position they are firmly fastened by tightening the thumb screw i . The bars may be transposed and their arrange-
 60 ment varied in any way the proprietor of the lock thinks proper without producing any difficulty in its operation, provided he takes the precaution to make a corresponding
 adjustment of the gage key. 65

Having thus described the construction and operation of my improved lock, what I claim therein as new and desire to secure by Letters Patent is—

1. Curving horizontally the notched
 70 guard bars D when the same are arranged in pairs in grooves in which the curvature causes them to bind so tightly, as to render it extremely difficult to slide them back and forth with the necessary degree of precision to enable a pick lock to adjust them
 75 in the position they must respectively occupy before the catch can be raised as herein described.

2. I claim the use of permanent magnets
 80 with their poles suitably arranged as guard bars for locks, the same being made and arranged as herein set forth.

In testimony whereof I have hereunto signed my name this ninth day of February, 85
 1848.

LANSING KELLOGG.

Witnesses:

RICH. F. STEVENS,
 P. H. WATSON.