The present invention has for its object to provide an improved safety receptacle preferably of the envelope type for holding articles to be protected against unauthorized removal, inspection or duplication, such as the keys for safe deposit boxes rented by banks to their depositors.

A further object is to construct the receptacle, and make it impossible to remove the articles or contents therefrom without detection, or to obtain either an impression or an X-ray of the article whereby to prevent duplication thereof or determination of the nature of the articles or contents secured within the receptacle.

A further object is to provide key holders or receptacles which will be furnished to the banks by the manufacturer of the keys and locks for the safe deposit boxes which will so protect the keys as to prevent officers, employees or attendants of the banks from in any way duplicating the keys in advance of the opening of the receptacles by those renting the boxes, whereby the banks as well as the depositors will be assured of protection against duplication of the keys within the receptacles.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

Referring to the drawings:

Fig. 1 is a face view of a holder or receptacle embodying one form of the invention; Fig. 2 is a view of the holder looking at the side opposite that shown in Fig. 1; Fig. 3 is an enlarged transverse section taken on line 3--3 of Fig. 1; Fig. 4 is a view of the key holding plate removed from the receptacle and shown partially in section; Fig. 5 is a view drawn to an enlarged scale showing a portion of one of the protecting strips for the receptacle as it appears before bending and applying it thereto as indicated in Fig. 1; Fig. 6 is a section taken on line 6--6 of Fig. 1 drawn to an enlarged scale to indicate approximately the relative positions assumed by the spine-like portions of the binding strip when folded and pressed into position upon the edge of the receptacle; Fig. 7 illustrates a modified form of the invention in which a metal plate is inserted within a receptacle or envelope and having upstanding spines or teeth which are forced through the wall of the receptacle and bent downwardly as indicated; Fig. 8 is a transverse section drawn to an enlarged scale and taken on line 8--8 of Fig. 7; Fig. 9 is an enlarged fragmentary view of a modified key holding plate showing the arrangement of the spine-like portions before inserting the plate within the envelope; Fig. 10 is an enlarged fragmentary section through a portion of the receptacle with the key holding plate therein, showing the spine-like portions in upstanding position within the receptacle; Fig. 11 is a similar view with the spines projected through and bent downwardly upon one wall of the receptacle; Fig. 12 illustrates a second modification, differing slightly from that shown in Fig. 7, with the spines extending on opposite sides of the key holding plate; Figs. 13 and 14 are enlarged fragmentary sections showing the relative positions of the spines before and after being projected through and bent down to securing position with respect to the opposite walls of the receptacle; and Fig. 15 is a transverse section through another modification of the receptacle.

Similar reference numerals throughout the several views indicate the same parts.

The present invention is designed to afford a receptacle or holder for relatively small articles or valuables of any kind where it is desired, for a given time and under certain conditions, to prevent others from removing and replacing the contents of the receptacle without detection, and which will also prevent determination of the nature of the contents, either by the X-ray method or otherwise, whereby to prevent duplication of the articles as well as to prevent the possibility.
of appraising or estimating the value of the same.

One example of the use of the invention is to prevent duplication of the keys furnished by the manufacturer to banks or other institutions having safe deposit boxes or the like for the protection of valuables of any kind which may be deposited therein. For such protection it is customary to have two keys, both of which are required for opening the safe deposit box, one being retained by the bank and the other by the depositor. These keys are at present furnished to the bank unprotected in any manner, so that a dishonest employee of the bank having access to the keys can readily have duplicates of the same made before they are issued to those desiring to rent the safe deposit boxes. Hence, it is possible for such an employee to secretly have in his possession duplicate keys for one or a number of the safe deposit boxes, from which he can remove such valuables as he may desire from time to time. The result in such cases is a loss, either by the bank or the depositor or both, and the bank is generally expected to stand the loss or else incur the ill will of the depositor. With our present system, both the bank and the depositor are protected, since no official or employee of the bank has access to or any knowledge of the construction of either of the keys of any safe deposit box to be rented in advance of the opening of the key holding receptacle by the depositor himself. He being assigned a box and given the receptacle, proceeds to open the same, keeping two of the keys and handing the other to the attendant in charge of the boxes. If the depositor so chooses, there is no way in which the bank can determine the construction of the key retained by him and he can therefore feel assured that he is fully protected against any dishonest or unscrupulous person or persons in the employ of the bank either before or after renting the safe deposit box. The bank can also be protected by having the depositor sign a card at the time he is given the receptacle to open stating that he received the envelope on a certain date in sealed condition and with no evidence of its having been opened or tampered with.

The receptacle or holder may be constructed in different ways to afford the desired protection. One method of constructing the same is indicated in Figs. 1 to 6 inclusive. In this embodiment, we provide a receptacle 10 preferably in the form of an envelope which may be of any suitable size, material and shape. As shown in Fig. 2, the back of the envelope has relatively narrow end flaps 11, one of which may be sealed in the usual manner and the other left open. The overlapping portion 12 of the envelope is also sealed in the usual manner by suitable adhesive material. Inserted within the envelope through the end left open is a plate 13 along with a printed card 42 for the signature of the depositor, who certifies that he received the envelope on a certain date in sealed condition with no evidence of its having been opened or tampered with.

The key holding plate 13 may be constructed of any suitable material such as cardboard or the like but is preferably made of relatively thin metal. Mounted upon the plate 13 is a pocket forming plate 14 of channel shaped construction, the flanges 15 of which rest upon the plate 13 to which they are secured in any suitable manner as by welding. Inserted within the pocket of the plate 14 are two keys 16 and 17, shown in section in Fig. 3, said keys having the shank portions thereof, to be inserted within the lock of the safe deposit box, differently constructed as is customary in such cases.

In order to prevent duplication of either one of the keys within the holder by X-raying the same and then using the picture as a pattern from which to cut a blank to form a new key, we preferably surround or wrap the keys with material which is impervious to the rays of the X-ray machine, using for example, a thin sheet of lead or tinfoil indicated at 18 in Fig. 3. However, where the plates 13 and 14 are made of a metal impervious to the rays of the X-ray machine the tinfoil wrapper 18 need not be used.

Another way of preventing a clear definition of either key from being obtained by the X-ray method is to so place the keys within the pocket that the cut-out portions of the shanks do not register but overlap so as to cause confusion when photographing parts of each at the same time. Further confusion will, of course, be encountered since the keys are made of metal and therefore no contrast will be afforded in the picture for the reason that the two keys together form solid metal through which the rays of light will not pass. This arrangement of the keys is shown in Fig. 4 wherein the wrapper 18 shown in Fig. 3 has been omitted.

A decided advantage in making the key holding plates 13 and 14 of metal is for the reason that with such material it is practically impossible to obtain an imprint of the shank portion of either key upon the metal or through the latter upon the envelope by pressure exerted upon opposite sides of the envelope.

The enlarged portions 18 of the keys, by reason of their engagement with the end of the channel shaped member 14 prevent shifting of the keys in one direction and since said portions are disposed adjacent one end of the envelope the latter will hold the keys against outward movement.

The means for protecting the envelope whereby to prevent removal of the keys comprises the side and end strips 19 and 20 respectively. These strips are preferably con-
structured from thin metal which is first cut in relatively long strips of the desired width. The strips are subsequently run through suitable punching and pressing dies, preferably of the rotary type to provide two rows of upstanding teeth or spine-like portions 21 and 22 struck up from the opposite edges of the plate section 23 as shown in Fig. 5. The relatively long strips are subsequently cut to the desired lengths, such as for example as are indicated in Figs. 1 and 2. The sections 23 are then bent substantially along the median lines thereof, after which they are inserted upon the edges of the envelope and by the use of suitable pressure producing or clamping means the teeth or spine-like portions 21 and 22 are forced through the material of the envelope in opposite directions, as shown on an enlarged scale in Fig. 6. In thus applying the metal strips, the tapered ends of certain of the spines will be bent down in the manner indicated at 22a in Fig. 6, thereby making it difficult to remove and replace the strips without mutilating or disfiguring the envelope.

By applying and removing binding strips constructed and secured in this manner it has been found that it is impossible to replace the same or to rebend the edges of the envelope with similar strips without visible indication of its having been opened or tampered with. This is due to the fact that by placing the teeth or spines of the strips relatively close to gether and forcing them through the paper in opposite directions, the cuts or perforations produced thereby will be so close togethet as to leave but little material between them, whereby when an attempt is made to pry off either edge of the strip, the teeth will tear or mutilate the paper and thus make it impossible to successfully apply a new strip without evidence of removal of the original strip. By placing the teeth of the two rows either directly opposite each other or in staggered relation and bending the strip along its median line to assume the position shown in Fig. 6, certain teeth of each row will strike the opposing wall of the strip and will be bent down as indicated at 22a in Fig. 6. The remaining teeth will pass through the paper into the openings 21 produced by the die in striking up the teeth. Thus the ends of the teeth which are bent down under the edges of the strip will tend to shred the paper when an attempt is made to remove the strips from the envelope. In this way, the paper will be sufficiently mutilated at points inwardly of the inner edges of the strip as to be readily detected, even though a new strip may be applied to take the place of the one removed.

In the arrangement shown in Figs. 1 and 2 the end strips 20 serve to prevent opening of the flaps 11 and the strips 19 prevent slitting of the envelope at its sides for the purpose of removing the keys at these points. The plate 13 is of a size somewhat less than that of the envelope in order to allow sufficient border space for the attachment of the binding strips.

The receipt card 42 described above is of substantially the same size as the plate 13 and while it is preferable to place it with the envelope it may be omitted therefrom if desired and furnished by the bank separately rather than by the manufacturer of the keys and locks for the safe deposit boxes.

In the modification shown in Figs. 7 to 11 inclusive an envelope or receptacle 24 is provided similar to that shown in Figs. 1 and 2, the envelope having the usual end flaps 25, one of which is left unsealed for the insertion of the key holding plate hereinafter described and also having the overlapping portion 26 sealed in the usual manner.

In Fig. 9 is shown a portion of a plate 27 drawn to an enlarged scale and which is of a size adapted to fit relatively close within the envelope 24 and which carries a channel shaped member 28 with flanged portions 29 suitably secured to the plate 27 in any desired manner. The channel shaped member affords a pocket in which to deposit the two keys 30 and 31 which may be similar to the keys 16 and 17 shown in Figs. 3 and 4. The member 28 may be made either of metal or a suitable nonmetallic material such as relatively heavy cardboard, in which case a wrapper 32 of sheet zinc or tinfoil is placed around the keys to prevent them from being successfully photographed by an X-ray machine as stated above whereby to prevent duplicating of the keys. To further make it impractical to obtain X-ray photographs of the keys they may be arranged in the manner described above in connection with the disclosure shown in Fig. 4. Where the holder 28 is made of metal the keys, regardless of how they are arranged therein, cannot be successfully photographed since metal is more or less impervious to the light rays projected by the X-ray machine.

The plate 27, before being inserted within the envelope is provided adjacent its edges with a series of upstanding teeth or spine-like portions 33, preferably arranged in pairs as shown in Fig. 7. The teeth or spines are preferably formed by means of suitable dies which cut through the metal and operate to strike outwardly portions thereof as shown in Figs. 9 and 10. The plate is then inserted within the envelope and the teeth are forced through one side thereof, as for example, the side having the flaps and are then bent down upon the outside of the envelope preferably as indicated in Figs. 7 and 11. The plate 27 is constructed of a suitable material which may be metal of a more or less brittle nature, whereby after it has once been secured within the envelope the bending up and down of the teeth in at
tempting to remove it therefrom will cause the teeth to break off, thereby indicating that the receptacle has been tampered with.

Further protection is afforded by making it impossible to remove the keys through one end of the receptacle while the plate 27 remains therein. This means comprises a light wire or other flexible member 34 inserted through the openings 35 of the outer ends of the keys or otherwise connected therewith, the opposite portions of the wire being extended longitudinally of the keys, one along the outside of the channel portion of the holder 28 as shown in Fig. 9. The ends of the wire are secured by twisting them together as indicated at 37 in Fig. 7. If the wire is cut, it cannot be replaced without removing the plate 27 from the receptacle. This device may also be applied to the holders shown in Figs. 11, 12 and 15 in the same manner as shown in Figs. 7 and 8.

The modification shown in Figs. 12 to 14 inclusive is the same as that shown in Figs. 7 to 11 except that the teeth or spine-like portions 38 and 39 are projected on opposite sides of the plate 40, which is inserted within an envelope 24 similar to the one shown in Fig. 7. The teeth are subsequently bent down into engagement with the opposite faces of the envelope as indicated by the full and dotted lines in Fig. 12, their relative positions being shown in Figs. 13 and 14 before and after the teeth are projected through the sides of the envelope and bent down to proper position thereon.

The key holder 41 shown by dotted lines in Fig. 12 is preferably the same as that shown in Figs. 7 to 9 inclusive. With this construction it is impossible to remove and replace the keys without removing the plates 27 and 40 from the envelopes 24 or 24A as the case may be.

The printed receipt card 42 may be disposed in each of the envelopes 24 and 24A if desired.

In Fig. 15 the plate 27A is preferably constructed similar to the plate 27 and instead of employing an envelope or receptacle in which to insert the same, said plate constitutes one side of the receptacle, the other side comprising a sheet 43 of suitable material, such as paper, cloth, thin metal or any material suitable for the purpose. In this modification the teeth or spines 33, corresponding to those indicated at 33 in Fig. 9, are placed relatively close together at all edges of the plate 27A and are projected through the sheet 43 and bent down thereon, preferably in the manner indicated in Fig. 7. The key holding plate 28A corresponds to the plate 28 shown in Fig. 8 and is secured to the plate 27A in any suitable manner. In this modification, if so desired, the wire or other flexible tie 34 may be employed to hold the keys in position in the same manner as indicated in Figs. 7 to 9 inclusive.

We claim as our invention:

1. An article holding receptacle of the class described comprising oppositely disposed walls having means binding their edges together in a manner to prevent opening and reclosing of the receptacle without indication thereof, holding means within the receptacle for the article and a wrapper for the article supported by the holding means, said wrapper being constructed of material impervious to the rays of an X-ray machine.

2. A receptacle of the class described comprising an envelope and an article holding plate inserted within the envelope and having spine-like portions on one side thereof projected through one wall of the envelope and bent down thereon.

3. A receptacle of the class described comprising an envelope, a plate inserted within the envelope having spine-like portions on opposite sides thereof projected through the opposing walls of the envelope and bent down on the outer face thereof and an article holder secured upon said plate within the receptacle.

4. The combination with an envelope, of a plate inserted within said envelope, an article holding means adjacent said plate, and means for concomitantly sealing the envelope and securing the plate in position.

5. A receptacle of the class described comprising an envelope and an article holding plate inserted within the envelope, said plate having projecting portions on one side thereof, and integral therewith, projecting through one wall of the envelope and bent down thereon.

6. The combination with an envelope, of a plate inserted within the envelope, article holding means adjacent said plate, and projecting portions on one face of said plate disposed along the sides and ends of said plate, said projecting portions projecting through the walls of said envelope and bent down thereon.

7. The combination with an envelope, of a plate inserted within the envelope, article holding means adjacent said plate, integral projecting portions on one face of said plate, disposed along the sides and ends thereof, said projecting portions projecting through the walls of said envelope and bent down thereon, and means within said envelope for securing said article to said holding means.

8. The combination with an envelope, of a plate inserted within the envelope, article holding means, impervious to X-rays, rigidly attached to said plate, integral projecting portions on one face of said plate, disposed along the sides and ends thereof, said projecting portions extending through the walls of said envelope and bent down thereon, an article disposed within said holding
means, and means for securing said article to said holding means.

9. The combination with an envelope, of a plate inserted within the envelope, article holding means rigidly attached to said plate, integral projecting portions on one face of said plate, disposed along the sides and ends thereof and adjacent to the edge of said plate, an article located in said holding means, means impervious to X-rays surrounding said article, and means securing said article to said holding means, said projecting portions extending through the walls of said envelope and bent down thereon.

10. The combination with an envelope, of a plate member insertible within the envelope, article holding means attached to said plate, integral projecting portions on one face of said plate disposed along the sides and ends thereof, and adjacent to the edges of said plate, keys with shanks thereof disposed within said holding means, the heads of said keys projecting from said holding means, means impervious to X-rays surrounding the shanks of said keys, and means securing said keys to said holding means, said portions projecting through the walls of said envelope and being bent down thereon for securing said plate to said envelope.

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