No. 654,418. Patented July 24, 1900.

E. SIMON.

SAFETY ENVELOP.

(Application filed Mar. 4, 1898. Renewed Jan. 2, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig-1

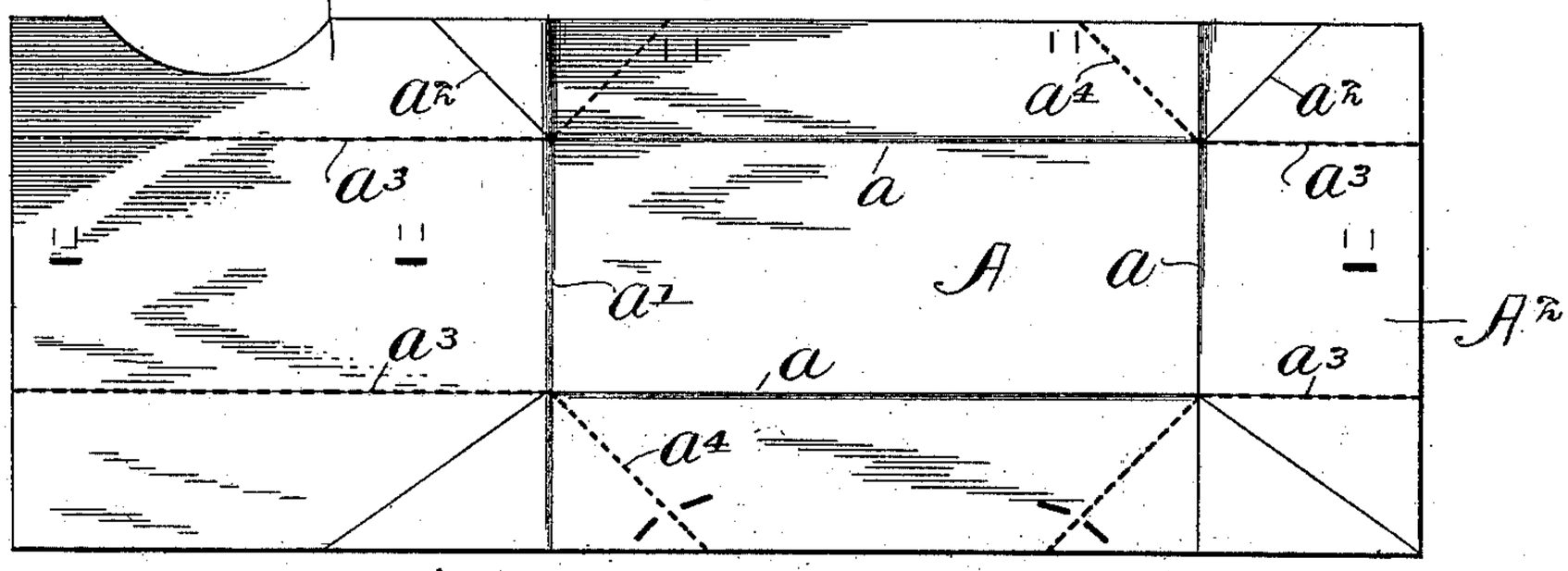


Fig-2

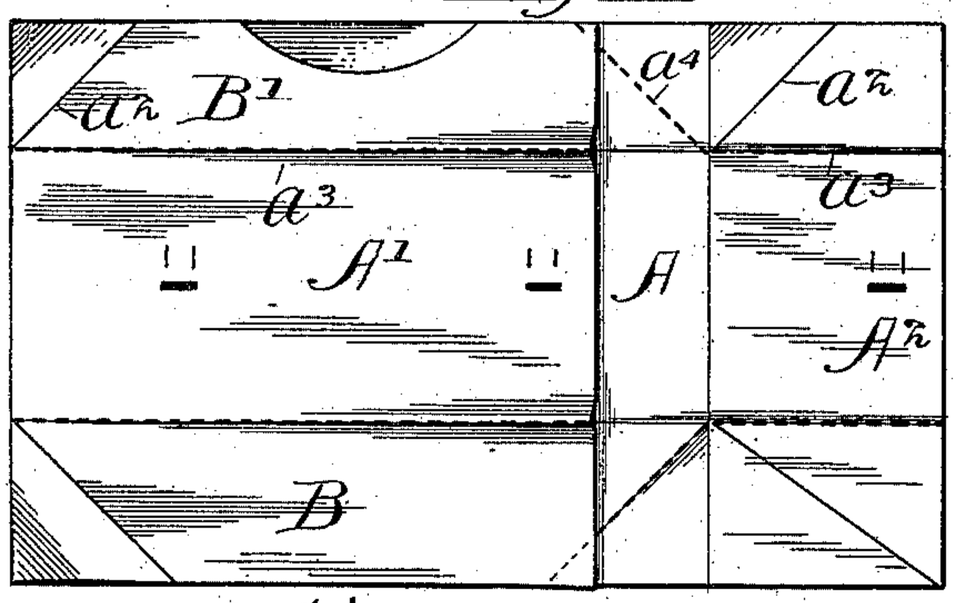


Fig-3

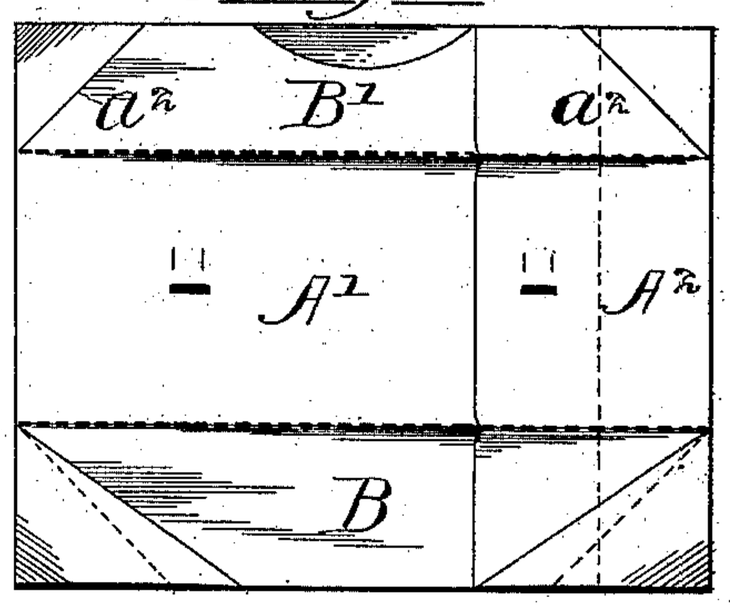


Fig-4

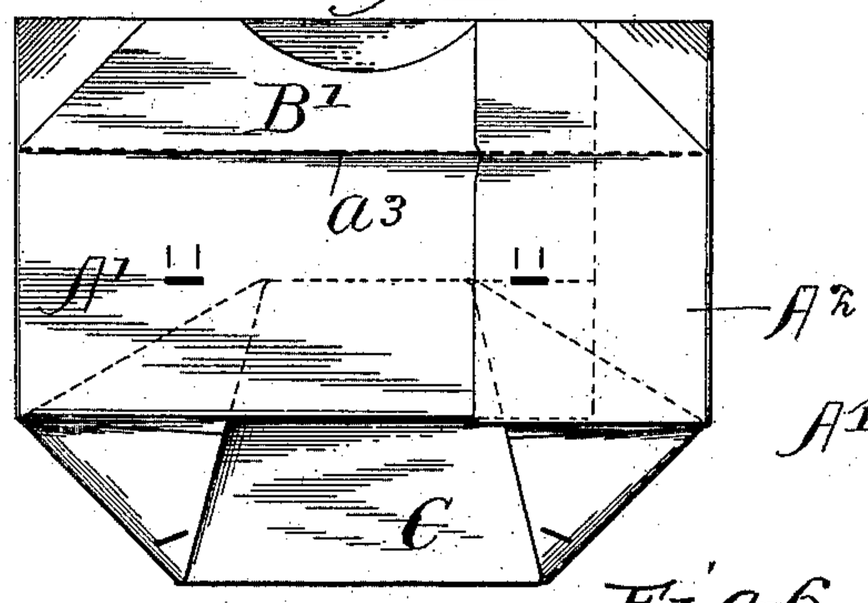


Fig-5

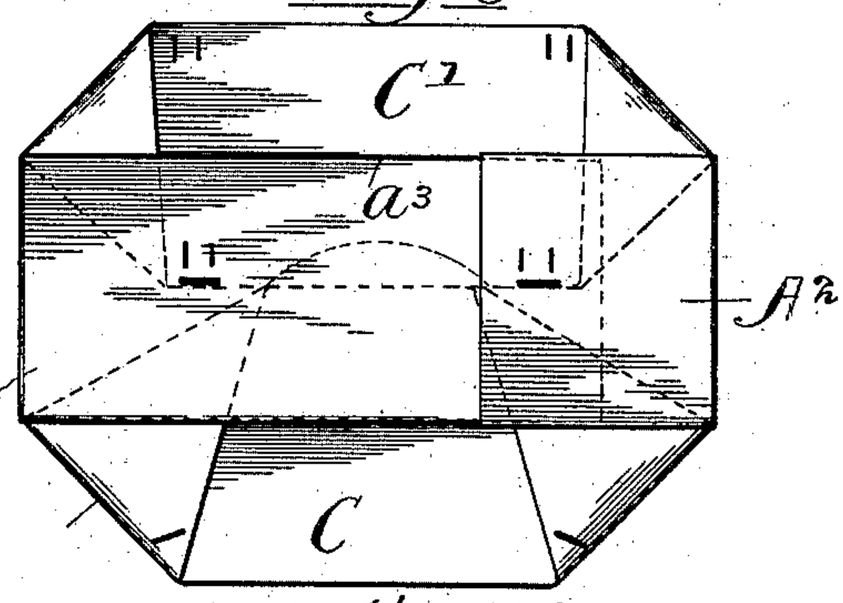


Fig-6

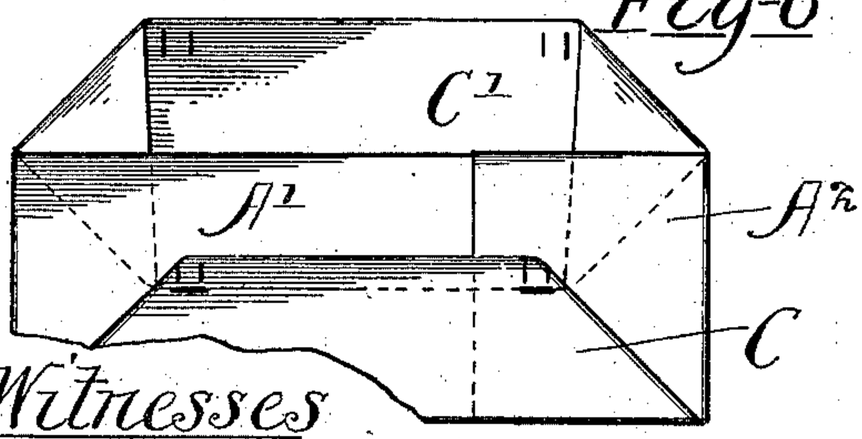
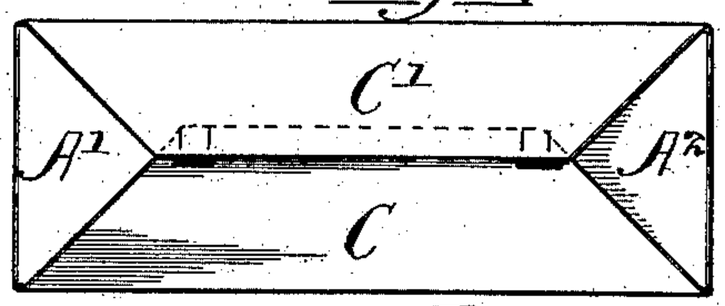


Fig-7



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No. 654,418. Patented July 24, 1900.

E. SIMON.

SAFETY ENVELOP.

(Application filed Mar. 4, 1898. Renewed Jan. 9, 1900.)

(No Model.) 2 Sheets—Sheet 2.

Fig-9

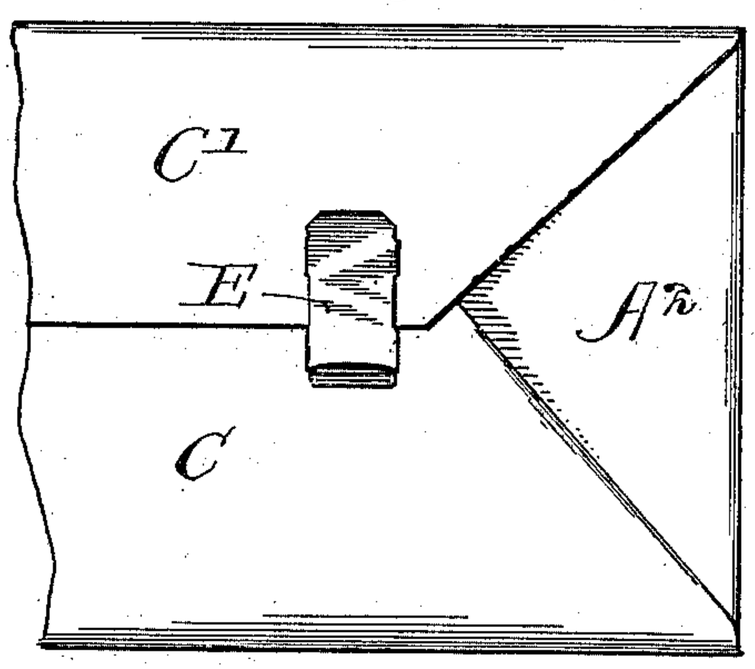


Fig-8

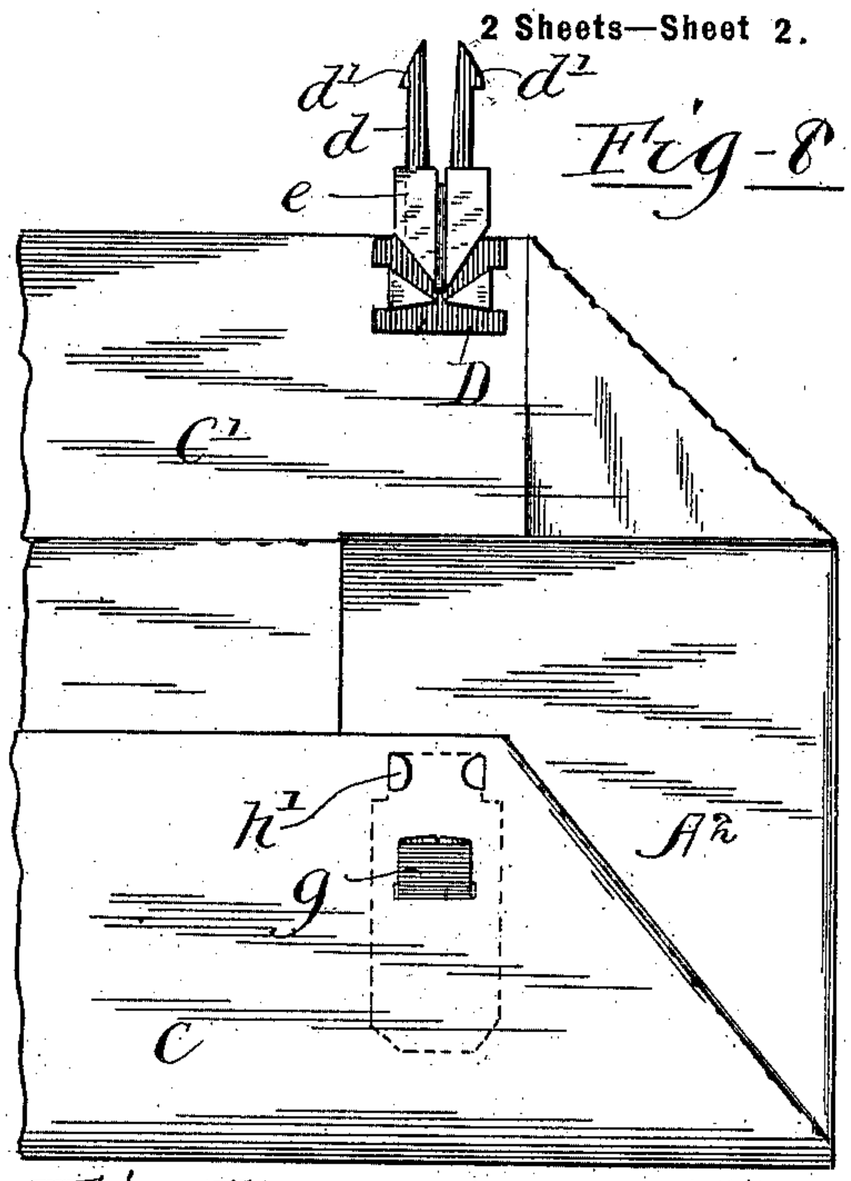


Fig-10

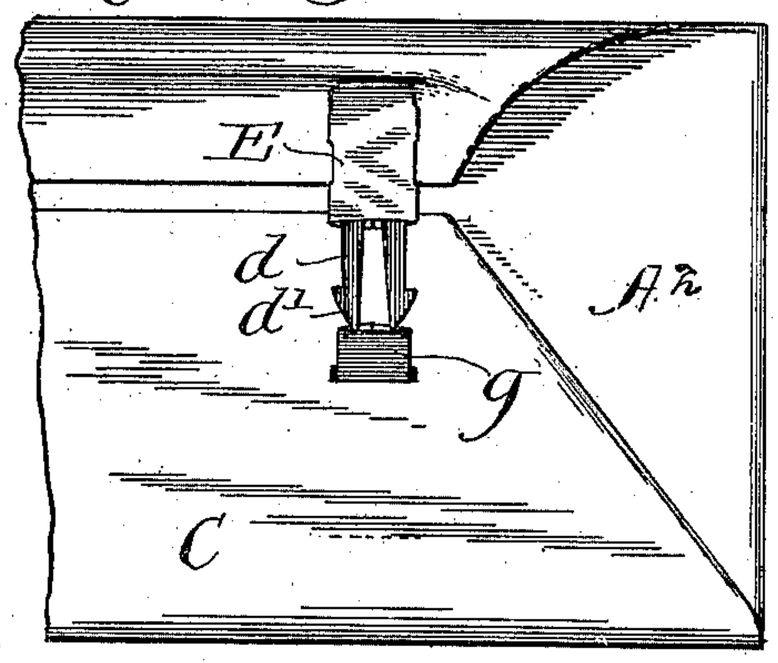


Fig-11

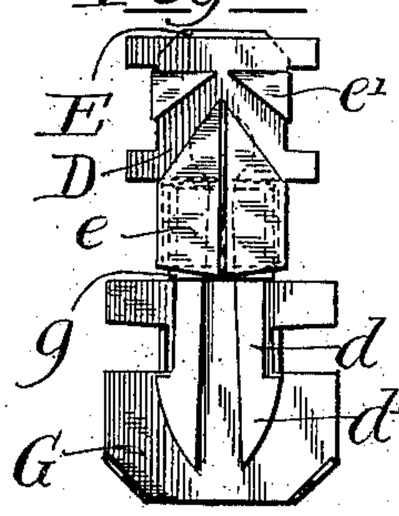


Fig-12

Fig-13

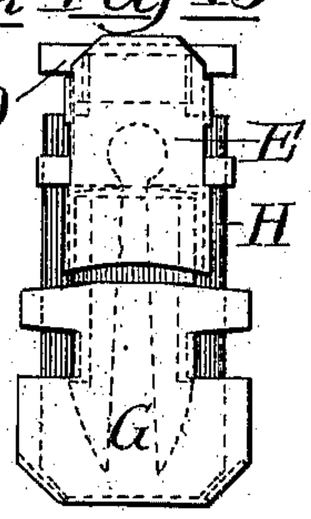


Fig-14

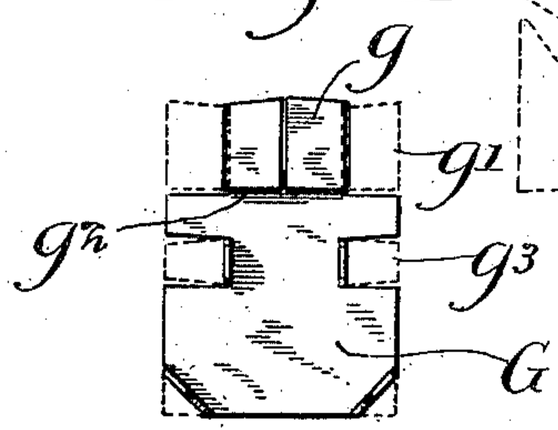


Fig-15

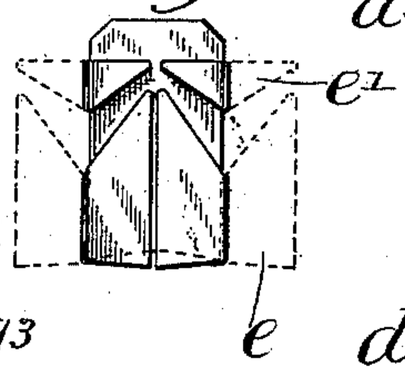


Fig-16

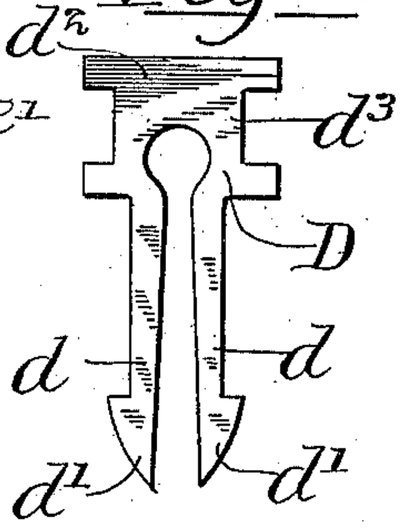
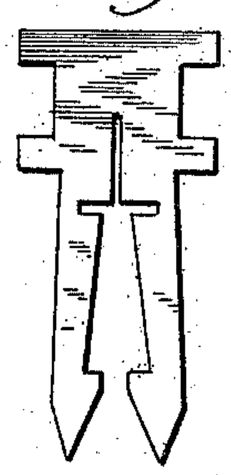


Fig-17



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UNITED STATES PATENT OFFICE.

ERNST SIMON, OF CHICAGO, ILLINOIS.

SAFETY-ENVELOP.

SPECIFICATION forming part of Letters Patent No. 654,418, dated July 24, 1900.

Application filed March 4, 1898. Renewed January 2, 1900. Serial No. 162. (No model.)

To all whom it may concern:

Be it known that I, ERNST SIMON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Safety-Envelops, of which the following is a specification.

One object of my invention is to provide a simple, economical, and efficient safety-envelop, one in which the article inside cannot be extracted without destroying the envelop.

A further object of my invention is to provide an envelop with a mechanical seal, which will prevent the opening of the envelop unless the seal or envelop be destroyed.

Further objects will appear from an inspection of the drawings and the following description and claims.

The invention consists, finally, in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a blank cut and creased in such a manner as to be folded to provide a safety-envelop; Fig. 2, a plan view of the blank after it has been folded once; Fig. 3, a plan view of the blank after it has been folded twice; Fig. 4, a plan view of the blank after it has been folded three times; Fig. 5, a plan view of the blank after it has been folded four times; Fig. 6, a plan view after it has been folded five times; Fig. 7, a plan view of the completed envelop. Fig. 8 shows a portion of a full-sized envelop in an open condition in combination with one of my mechanical sealing devices; Fig. 9, a similar view showing the envelop in a sealed condition; Fig. 10, a portion of an envelop, showing the sealing device in position to be brought together; and Figs. 11, 12, 13, 14, 15, 16, and 17 are detail views of the sealing devices separated from the envelop, as will be more fully hereinafter described.

In the art to which this invention relates it is a well-know fact that an expert can oftentimes abstract the contents from an ordinary envelop by simply inserting a piece of wire and rolling the article therein in such manner that it can be withdrawn. It is further well known that the ordinary adhesive and wax seals may be broken in such manner that an envelop may be opened, the contents extracted, and then resealed without danger of detection. Various styles of envelops and seals have been devised for the purpose of removing these objections and providing an envelop of the kind to open without detection, all of which, however, have more or less inherent defects which it is the object of my invention to obviate.

In constructing an envelop in accordance with my improvements I prefer to take a rectangular blank of paper A and crease it longitudinally at a, transversely at a', and diagonally at a^2, as shown particularly in Fig. 1. Instead of creasing at some parts I prefer to perforate the paper, as at a^3 and a^4, so as to weaken it in order that it may fold easier and not stick out as much as it would if it were merely creased. These creases are so arranged with regard to the size of the envelop that they provide in connection with the ordinary flaps an intermediate flap in the shape of an accordion fold, which is connected with the lateral edges of the back and extends inwardly between back and front, so that the material may be placed inside of this fold, and be thus prevented from being taken out by means of a wire or similar instrument from the outside, all of which will more fully appear in the description of the folding.

In order to fold the envelop into the required size and shape, I first turn the end flap A′ over into the position shown in Fig. 2. I then turn over the opposite end of flap A^2 into the position shown in Fig. 3, so that it partially overlaps the first-named flap, to which it may be adhesively secured between the transverse solid and dotted lines. When the parts are folded into the position shown in Fig. 3, there are two sets of parallel extending flaps, only one of which it is necessary to use as the ordinary flap. In order, therefore, to provide the safety intermediate flap between the back and front sheets, I fold the back-extending flap B inwardly between the back and front sheets into the position shown in Fig. 4, so that it resembles the fold of an accordion. I next bend or fold the back-extending flap B′ inwardly between the front and back sheets into the position shown in Fig. 5 in an accordion fold. There are now

two inwardly-extending intermediate safety-flaps on the inside of the envelop between the front and back. I next fold the ordinary front flap C up and stick it to the back of the envelop, as shown in Fig. 6, leaving the main flap C′ free for the insertion of the article to be sent forward.

In use the article is placed in the envelop between the intermediate safety-flaps and the back portion of the envelop, which prevents abstraction without destroying the seal or breaking the envelop. The main flap C′ is then brought over and secured to the body of the envelop by means of a mechanical seal or adhesive substance of any kind, if so desired.

While I have described one method of folding the envelop so as to form the intermediate safety-flaps, it will be understood that other methods of folding may be employed in order to facilitate the manufacture of the envelop by hand or machinery.

As one means of sealing the envelop in a manner to prevent the abstraction of the contents I prefer to use a mechanical seal, as hereinafter fully set forth. In order to provide this mechanical seal, I make a bifurcated spring-latch portion D, having projecting latches d, with hooks d' on their free ends. In order to secure this latch to the flap C′, so as to prevent unauthorized persons from springing the latch together without mutilating the seal, I lay the body portion d^2 of the latch inside the flap of the envelop and take a guard portion E, which has extending wings e and e'. The wings e' are passed through the front portion of the envelop-flap, so as to embrace the reduced body portion d^3 of the latch. The flaps or wings e are passed around the spring portion of the latch, as shown in Figs. 8 and 9, in such manner as to form a pocket and prevent the squeezing together of the bifurcated portion and consequent removal of the latch. There is therefore, as will be noticed, a spring-latch and a guard for the same.

Describing now the lock portion, into which the latch may be inserted, it consists of a locking portion G, which has a flat body, a portion of which is adapted to project out from the envelop, as at g, forming, as it were, a pocket by means of folding over the wings g'. Into this pocket the free projecting ends of the latch may be inserted, so that when it falls below the lower edge g^2 of the same they will spring out and lock. In order, however, to permit of their being pushed down, so that the locking-pocket g may enter the latch, as shown in Figs. 9 and 13, I provide a second set of locking-lugs g^3, which may be folded over and through a guard hereinafter described, so that the hooks on the latch will engage the lower lateral edges of the lugs and be locked together, all of which is shown particularly in Figs. 11 and 13.

An inspection of Figs. 8 and 10 will show that the upper portion of the lock projects through the lower portion of the envelop and that the smooth solid portion of the lock is presented at the back of the envelop. If some means were not provided, a needle, pin, or similar instrument might be inserted through the front of the envelop and used to squeeze the bifurcated latch together and permit its withdrawal from the lock. In order to prevent this, a locking-guard H is provided, which is preferably provided with perforations h, through which the wings g^3 of the lock are inserted, so as to hold the lock and guard together. The upper portion of the guard is also provided with wings or projections h', adapted to be inserted through the body and hold the lock and guard in engagement with the envelop. It will be noticed from an inspection of the drawings, particularly Fig. 13, that the guard is toward the front of the envelop and the locking mechanism toward the back of the envelop, and the locking-pocket is inserted within the latch-guard, so that it is practically impossible to insert any kind of an instrument for the purpose of unlocking the seal and that such seal, once it is locked, cannot be unlocked by any one without destroying it. In order to effectuate this, the material of which I prefer to make the seals is tempered sheet-steel, so that after they have been bent into position the bending back or attempting to bend back will break the parts.

The principal advantages incident to an envelop constructed in accordance with my improvements are, first, when the envelop is sealed an article placed within the inside safety-flap and the body of the envelop cannot be withdrawn from the outside without opening or destroying the envelop, and, second, the mechanical seal locks or seals the envelop in such a manner that it cannot be opened again without mutilating or breaking the seal or envelop, thus enabling the express companies or government to detect the section or department in which such irregularities occur.

I claim—

1. A safety-envelop provided with flaps on the rear portion extending inwardly between the front and rear portions, and flaps extending from the front portion over to and adapted to be sealed to the back portion to prevent the abstraction of articles from the inside, substantially as described.

2. A safety-envelop provided with end flaps arranged to be sealed together at the back and flaps extending from the lateral edge of the back portion inwardly between it and the front portion to form safety-flaps, and flaps extending from the lateral edges of the front portion adapted to be folded over and engage with the back portion, substantially as described.

3. As a means for sealing an envelop, the combination of a bifurcated spring-latch portion, a guard for a portion of the same adapted to be secured to one portion of an envelop

and a locking-pocket portion adapted to receive the spring-latch and lock the same, substantially as described.

4. As a means for sealing an envelop, the combination of a bifurcated spring-latch portion, a guard for a portion of the same adapted to be secured to one portion of an envelop and a locking-pocket portion adapted to receive the spring-latch and lock the same, and a guard for the locking portion arranged to protect the spring-latch between it and the locking-pocket, substantially as described.

5. As a means for sealing an envelop, the combination of a bifurcated spring-latch portion, a guard surrounding a portion of the same by which the latch is secured to one portion of the envelop, a locking-pocket adapted to be secured to the other part of the envelop, receive the latch and be inserted partially within the guard of the latch, substantially as described.

6. An envelop-seal in which there is combined a bifurcated spring-latch, a guard surrounding a portion of the same adapted to secure the latch to the flap of an envelop, a locking-pocket adapted to be secured to the body portion of the envelop and having its free end adapted to be inserted within the latch-guard, a guard for the locking-pocket and latch adapted to be secured to the lock and prevent access to the spring, substantially as described.

7. An envelop in which there is combined a bifurcated spring-latch, a guard surrounding the same adapted to be secured to the flap of an envelop, a locking-pocket adapted to be secured to the body of the envelop and enter the latch-guard, and a guard for the locking-pocket adapted to be attached to the locking-pocket and secure the same to the body of the envelop, substantially as described.

8. An envelop-seal in which there is combined a bifurcated latch provided with outwardly-extending hook portions, a guard for the same provided with two sets of wings or projections, one set to form a pocket and guard for a portion of the spring-latch and the other set to be passed through the flap of an envelop and secure the latch to the envelop, a locking-pocket provided with two sets of projecting wings or lugs, one set of which is adapted to form the pocket and engage with the spring-latch to prevent the unlocking of the envelop and enter partially into the latch-guard and the other set to form the permanent locking-lugs, a locking-guard provided with perforations through which the locking-lugs are passed for the purpose of securing the guard to the lug and having a set of wings or projections adapted to be passed through the body of the envelop for the purpose of securing the lock to the envelop, substantially as described.

ERNST SIMON.

Witnesses:
THOMAS E. SHERIDAN,
EPHRAIM BANNING.