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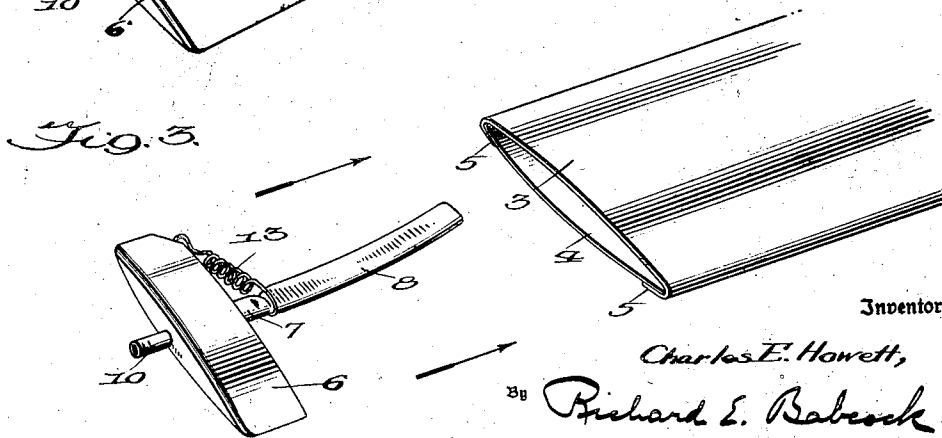
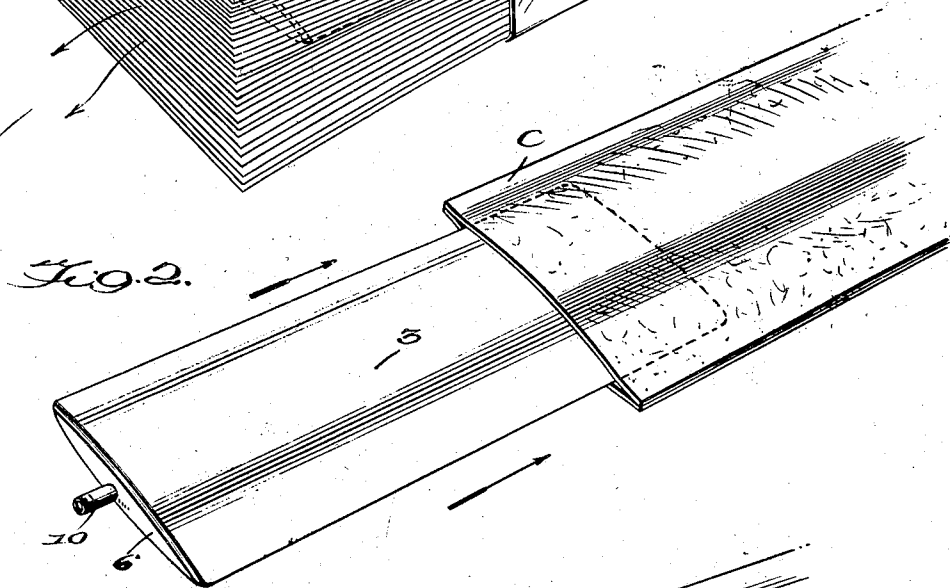
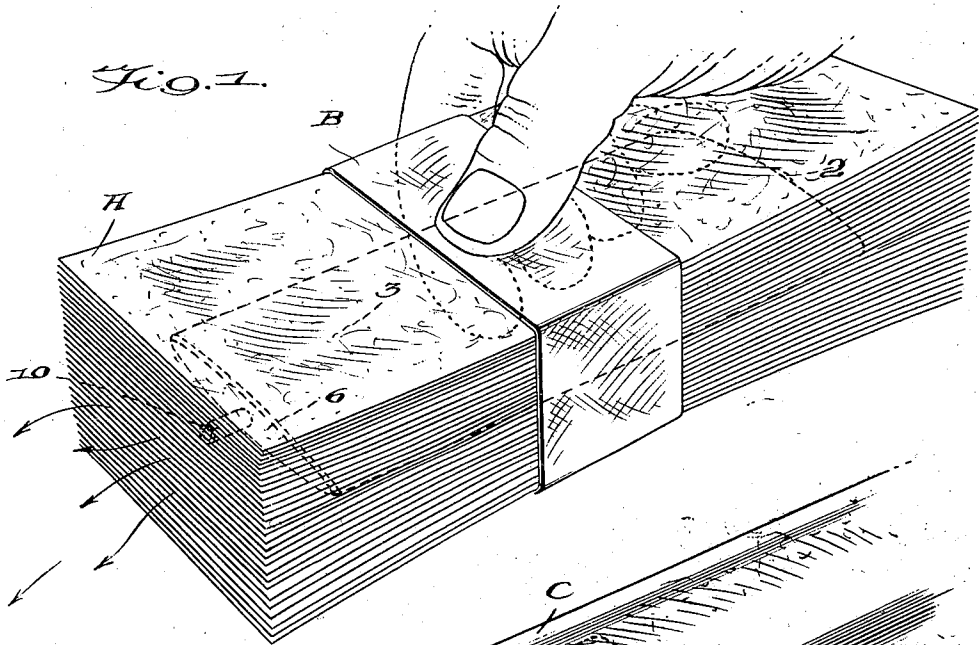
C. E. HOWETT

1,983,461

LIQUID PROJECTING DEVICE

Filed Aug. 9, 1933

2 Sheets-Sheet 1



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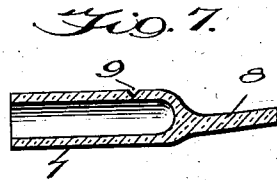
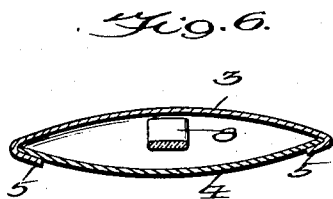
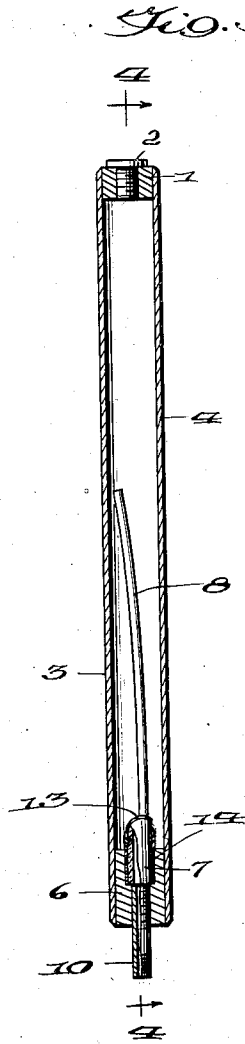
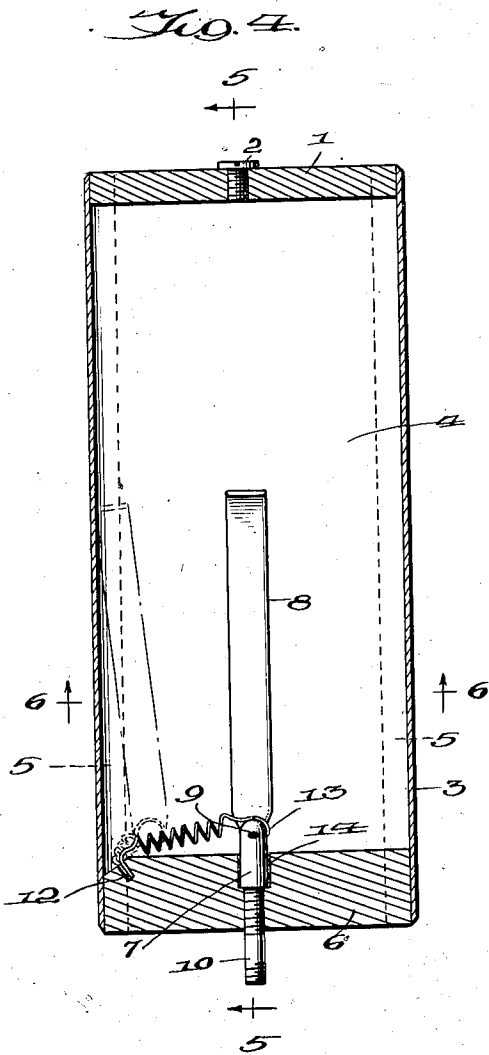
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# UNITED STATES PATENT OFFICE

1,983,461

## LIQUID PROJECTING DEVICE

Charles E. Howett, Lancaster, Pa.

Application August 9, 1933, Serial No. 684,455

4 Claims. (Cl. 299—90)

This invention is an improvement on my invention forming the subject matter of my pending United States patent application Ser. No. 591,441, filed February 6, 1932 for Liquid projecting device, and relates to the same type of device and is intended for the same uses.

This invention has for its primary object to provide a liquid projecting device with a frangible closure means, the device as a whole being of such length and width as to extend nearly from side to side and from end to end of the sheets of paper with which it is to be used and yet being of slightly less length and width than said sheets of paper whereby in use the device in its associated relation to said papers will be concealed at all points by said sheets of paper, and the frangible closure being of such construction and so located and related to said body that pressure at any point on the sides of said body between the end blocks thereof will result in breaking the frangible closure to permit the escape of liquid or gas contained within said body. A further object is to provide means for pulling the fractured part of said frangible closure positively out of alignment with the discharge opening and to hold it away from said opening so as to prevent the obstruction of the latter thereby.

In the accompanying drawings:

Figure 1 represents a perspective view of a conventional packet or bundle of paper currency as gripped by the hand of the teller as usual in handling it through the teller's window, a device embodying my invention being concealed in said packet of bills as indicated in dotted lines.

Figure 2, a perspective view of the device of my invention shown partially inserted between two currency bills having their marginal portions pasted together in accordance with the preferred manner of concealment of the device;

Figure 3, a perspective exploded view of the front or business end portion of the body of the device secured in operative position in the front block 6;

Figure 4, a sectional view on the line 4—4 of Fig. 5, looking in the direction of the arrows;

Figure 5, a sectional view on the line 5—5 of Fig. 4, looking in the direction of the arrows;

Figure 6, a cross sectional view on the line 6—6 of Fig. 4, looking in the direction of the arrows; and

Figure 7, a greatly enlarged fragmentary detail view of the frangible closure.

Referring now in detail to the drawings, A designates the usual or conventional bundle or packet of one hundred currency bills held to-

gether by the usual paper gummed label or band B, and C an envelope or camouflaged casing preferably comprised of two bills of currency and having their marginal end portions pasted together at all points except immediately in front of the end of the discharge guard so as to conceal the device and to properly position it in the package, and to this end the marginal end faces will be pasted together close up to the sides and ends of the device so as to prevent possible twisting or displacement of the latter.

The device itself comprises a rear end plate or block 1, side members 3 and 4, a front end block or plate 6, and closure means associated with the latter.

The rear end plate or block 1 is of relatively thick rigid construction, elliptical in shape transversely of the device as a whole, and is provided with an internally screw-threaded bore normally receiving a plug 2 which may be removed for purposes of filling or charging the device.

The front end block 6 will preferably correspond in shape and size to the rear end block or plate 1 and said blocks 1 and 6 are respectively received between the respective opposed faces of the respective end portions of the sides 3 and 4 and are secured therein by soldering, welding, or other means or methods suitable to insure a liquid-tight and gas-tight joint at all points, and the side edge portions 5 of the side 3 are lapped over and soldered or welded against the opposed faces of the marginal side portions of the side 4.

The block 6 is formed with a centrally disposed cylindrical socket extending from its rear face partially through said block to receive the tubular portion 7 of the frangible closure means which has integral therewith a long curved tail or shank 8, the tubular portion 7 being partially cut through or nicked near its rear end as at 9 from its exterior face.

An internally screw-threaded bore concentric with said cylindrical socket extends from the front face of the block 6 to the said cylindrical socket and an externally screw-threaded discharge or projecting tube 10 screwed into said screw-threaded bore has its interior in communication with the interior of the tubular part 7 of said frangible closure means.

The shank 8 will preferably extend from the lower portion of the sleeve 7 rearwardly toward the rear block 1 for preferably more than half the length of the sides 3 and 4 and has its extreme rear end disposed extremely close to one of said sides, so that as pressure is exerted on said sides, said particular side will engage against the ex-

5 treme rear end of the portion 8 and continued pressure thereon will break off the rear end of the tubular portion 7, so putting the interior of said tubular portion in communication with the interior of the body of the device and permitting discharge of the liquid by pressure through the portion of the tubular member 7 left in its tubular socket and the interior of the discharge or projection tube 10.

10 In the embodiment illustrated, which is the present preferred construction, the cut or nick 9 in the exterior of the tubular portion 7 is disposed at the closest point of said tubular portion 7 to the side wall, in this case 3, which is closest to the extreme rear end portion of the shank 8, whereby the fracture of the tubular portion 7 by pressure will be facilitated. Also in the embodiment illustrated the shank or tail 8 will extend rearwardly on a gentle curve or angle from the side portion of the tubular portion 7 distant from the nick or cut 9 on a gentle curve or angle toward the side wall 3, though it is of no particular importance whether said shank 8 extends on a continuous gentle curve or is of extremely wide obtuse angular form, or extends in a plurality of relating angular sections, or extends slantingly on a straight line.

20 In the embodiment illustrated the part, in particular the side wall approached by the extreme rear end of the shank 8, in the instance illustrated the side 3, is of such shape and construction, and the extreme rear end portion of the shank 8 approaches it so closely, being in practice separated from it only by about the width of a hair line, that any substantial pressure exerted on any portion of the side 3 between the front block 6 and the rear block 1 will exert a pressure on the rear end of the shank or tail 8 sufficient to fracture or snap the tubular portion 7 at the nick or slot 9.

30 The open forward end portion of the tubular portion 7 is of such external diameter as to make a snug fit in the cylindrical socket above referred to in the block 6 and is to be secured therein in any known suitable liquid and gas-tight manner, as for instance by applying to the exterior of said portion 7 or to the wall of said socket any suitable cement 14 that will stand the heat incident to the soldering of the block 6 in the front end of the casing. Most cements get soft and run under the influence of the heat necessary to this soldering operation, but this is immaterial so long as its adhesive properties are not appreciably impaired.

40 In the embodiment illustrated a spring 13 is provided to pull the fractured part of the closure means out of alignment with the part of the tubular portion 7 retained in the cylindrical socket, so as not to obstruct the discharge of the liquid or gaseous contents of the body. This spring 13 should be of such material as not to be impaired by the heat of the soldering operation and normally would be under tension with one end hooked into a recess 12 in an extreme lateral portion of the block 6 and with its other end hooked around the frangible closure means just to the rear of the nick or slot 9 preferably at the point of emergence of the tubular portion 7 with the shank or tail portion 8.

50 If desired, a safety screw cap, not shown, may be applied to the extreme front end of the discharge or liquid projecting tube 10 for purposes of shipment or storing, that is to say when the device is not kept at hand ready for instant use.

75 The device is, as illustrated, of such length and width as to extend nearly from side and

from end to end of the currency bills or other valuable papers with which it is to be used, and yet is of slightly less length and width than said currency bills or papers, whereby in use the device in its associated relation with said bills or papers will be concealed at all points by said currency bills and whereby pressure exerted at practically any point between the sides and ends of said bills will be exerted through said bills against the sides of said body, resulting in the fracturing of the frangible element and, on the continuance of such pressure, in the discharge of liquid or gas contained within the body.

80 In use the device constructed and charged with a liquid as illustrated and described is preferably to be concealed in a packet of bills as illustrated in Fig. 1, or between several bills and to be laid on several bills in the compartment of the cashier's money drawer, with the liquid projecting tube 10 presented away from the teller, that is toward the usual counter or teller's window, so that as the bills or packet of bills in which the device is concealed are picked up and thrust through the window the discharge or projecting tube 10 will be presented directly toward the bandit facing the teller from the outside of the teller's window. Under these conditions the teller in picking up the loaded bundle of currency will inevitably exert a gripping or squeezing pressure on the bundle of currency in his hand and normally this pressure so exerted is about five pounds, and will be sufficient to fracture the frangible closure means and cause the discharge of liquid in a thin or small but powerful stream for a distance of anywhere from ten to twenty feet, this stream of liquid normally being projected directly into the bandit's face, but in case the teller should be nervous or frightened and so move his arm or hand out of its normal path of movement under such circumstances, still the stream of liquid would of necessity be projected closely adjacent to the bandit's face, which would be all that would be necessary. This would be accomplished without any warning movement or telltale click or other noise and there would be absolutely nothing to warn the bandit of his risk, it would just happen before he knew anything about it.

110 Of course any suitable chemicals may be employed, either in liquid, gaseous, or semi-gaseous form, and if desired any suitable identifying chemical or dye may be used in the liquid to mark the would-be bandit for purposes of identification should there be more than one and one of them temporarily make his escape.

120 The sides 3 and 4 are to be of any suitable resilient material, preferably of relatively thin stiffly resilient sheet metal which will resume its original or normal shape or substantially so when relieved of pressure.

130 Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

140 1. A liquid projecting device adapted to be interposed between several of a plurality of currency bills to, together with said currency bills with which it is used, constitute a camouflaged defensive weapon in simulation of the usual "unloaded" bundle of currency, said device comprising a long wide thin body having resilient deformable side walls, the front wall of said body being formed with a discharge passage and said body being adapted to contain a charge, in combination with frangible means normally closing said discharge passage and having a portion ex-

tending to approximately the medial portion of said body and approaching closely the adjacent inner face portion of one of said side walls whereby when said body is deformed by pressure  
 5 said side wall will engage said portion of said frangible means and fracture said means to open said discharge passage, and resilient means connected to said body and said frangible means and normally under tension and on the fracturing  
 10 of said frangible means acting to pull the fractured portion thereof out of alignment with said discharge opening, said device being of such length and width as to extend nearly from side to side and from end to end of the currency bills  
 15 with which it is to be used and yet being of slightly less length and width than said currency bills, whereby in use the device in its associated relation with said bills will be concealed at all points by said currency bills and whereby pressure  
 20 exerted at practically any point between the sides and ends of said bills will be exerted through said bills against the sides of said body.

2. A liquid projecting device adapted to be interposed between several of a plurality of currency bills to, together with said currency bills  
 25 with which it is used, constitute a camouflaged defensive weapon in simulation of the usual "unloaded" bundle of currency, said device comprising a long wide thin body having resilient  
 30 deformable side walls, the front wall of said body being formed with a discharge passage and said body being adapted to contain a charge, in combination with frangible means normally closing said discharge passage and having a portion  
 35 extending to approximately the medial portion of said body and approaching closely the adjacent inner face portion of one of said side walls whereby when said body is deformed by pressure said side wall will engage said portion of  
 40 said frangible means and fracture said means to open said discharge passage, said device being of such length and width as to extend nearly from side to side and from end to end of the currency bills with which it is to be used and yet being  
 45 of slightly less length and width than said currency bills, whereby in use the device in its asso-

ciated relation with said bills will be concealed at all points by said currency bills and whereby pressure exerted at practically any point between the sides and ends of the said bills will be exerted through said bills against the sides  
 80 of said body.

3. A liquid projecting device adapted to be interposed between several of a plurality of currency bills to, together with said currency bills with which it is used, constitute a camouflaged  
 85 defensive weapon in simulation of the usual "unloaded" bundle of currency, said device comprising a long wide thin body having resilient deformable side walls, the front wall of said body being formed with a discharge passage and said  
 90 body being adapted to contain a charge, in combination with frangible means normally closing said discharge passage and adapted to be fractured by the deformation of one of said side walls to open said discharge passage, said device being  
 95 of such length and width as to extend nearly from side to side and from end to end of the currency bills with which it is to be used and yet being of slightly less length and width than said currency bills, whereby in use the device in its  
 100 associated relation with said bills will be concealed at all points by said currency bills and whereby pressure exerted at practically any point between the sides and ends of the said bills will be exerted through said bills against the  
 105 sides of said body.

4. A liquid projecting device adapted to be interposed between several of a plurality of currency bills to, together with said currency bills with which it is used, constitute a camouflaged  
 110 defensive weapon in simulation of the usual "unloaded" bundle of currency, said device comprising a long wide thin body having resilient deformable side walls, the front wall of said body being formed with a discharge passage and said  
 115 body being adapted to contain a charge, in combination with frangible means normally closing said discharge passage and adapted to be fractured by the deformation of one of said side walls to open said discharge passage.

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