Nov. 21, 1967 H. A. LAHAUG 3,353,749

DEFENSE RING

Filed Oct. 22, 1965

FIG. 1

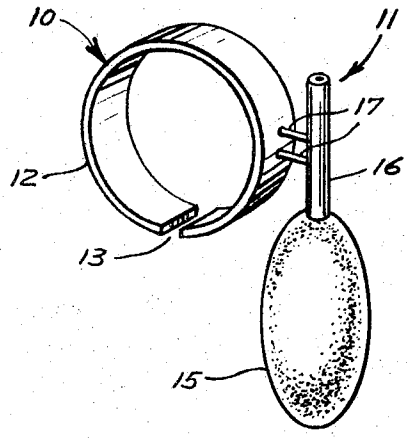


FIG. 2

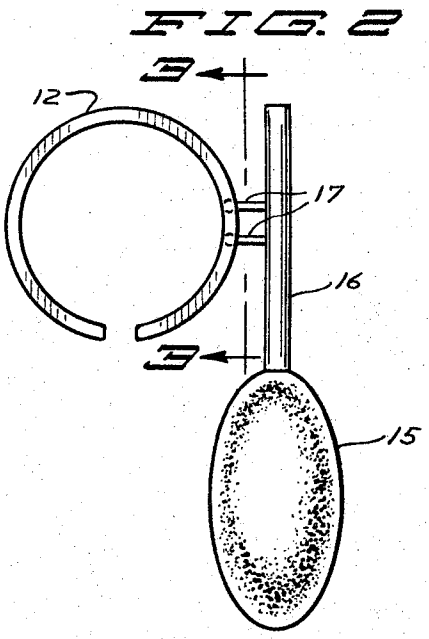
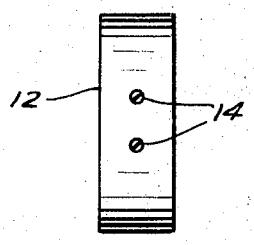


FIG. 3



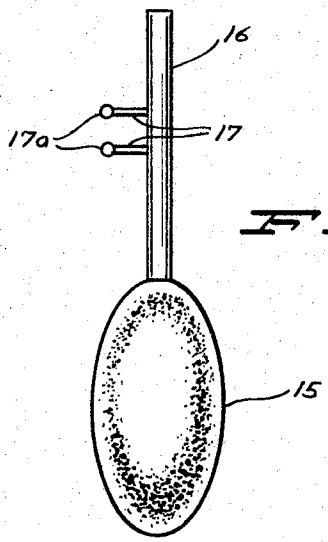


FIG. 4

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DEFENSE RING

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This invention relates generally to self protection devices and more particularly to a ring unit to be worn by an individual provided with a spray unit for spraying either liquid or pulverized materials.

Many women are required, due to their occupation or to the location of their residence to walk alone on the streets at night or to otherwise expose themselves to the danger of attackers. Various personal defense items are presently available which women and others may use in defending themselves against such attacks but many of these items are impractical due to either their size or their complicated operation. Further, many women are ill at ease when carrying any sort of lethal weapon device such as a gun.

Applicant has provided through this invention a defense mechanism which is particularly inconspicuous and which is easily used by any person without requiring any special training or the like and which will effectively, when used properly, ward off any attacker or other intruder.

The device as contemplated by applicant includes a ring mechanism which includes a detachable spraying device to be worn on the finger as a ring and wherein the spray attachment will be concealed in the hand whereby a slight squeeze of the fingers will spray an irritating substance onto the attacker. The sprayed substance could be either a substance which would daze the attacker or which would simply startle the attacker such that the user of the defense mechanism could easily escape.

As further contemplated by applicant the device herein includes a separable ring and spray device such that the ring could be worn at all times but when attached to the spraying mechanism becomes an effective defense device. In this manner the ring and spray unit would be substantially inconspicuous as it is possible to wear the separated ring at all times.

It is therefore an object of applicant's invention to provide a defense mechanism which is easily useable by any person as no particular training is required for its use.

It is a further object of applicant's invention to provide a defense ring or the lie which includes a spray section and a ring section which sections are separable and connectable to provide an easily carried unit which will effectively spray either a liquid or pulverized material on an attacker or intruder.

It is a further object of applicant's invention to provide a defense ring wherein the ring may be worn as an ordinary ring and the defense or spray mechanism may be attached thereto such that the unit will be substantially inconspicuous in use and will not require any unusual or extraordinary elements which would effect the inconspicuousness of the unit.

These and other objects and advantages of my invention will more fully appear from the following description made in connection with the accompanying drawings, wherein like reference characters refer to the same or similar parts throughout the several views, and in which:

FIG. 1 is a perspective view of the ring and attached spray section;

FIG. 2 is a front elevation of the unit embodying the concepts of applicant's invention;

FIG. 3 is a vertical section taken substantially along line 3—3 of FIG. 2; and

FIG. 4 is a view of the detachable spray section.

In accordance with the accompanying drawings the defense ring embodying the concepts of applicant's invention includes a ring section **10** and a sprayer section **11** detachable from the ring section **10**. The ring section **10** is as shown an expandable band **12** having a slot **13** to permit expansion thereof such that the ring may be accommodated on a finger of various people. The ring section **10** as illustrated is not particularly decorative but it should be understood that this ring could be made in many different forms and would be made in such a manner to appear as any ordinary piece of jewelry. As shown in FIG. 3 the band portion **12** of ring **10** includes a pair of positioning and locating holes **14—14** formed therethrough to receive an attachment portion of the spray element **11** and to effectively hold the same thereon.

Spray section **11** in the form shown consists of a bulb **15** with a spray nozzle or the like thereon. The bulb **15** is simply a spray bulb such as an atomizer or the like which may be filled with a quantity of either pulverized or liquid material for spraying therefrom upon compression of the bulb. Nozzle **16** in the form shown consists of a straight tubular section with a passage therethrough to permit the pulverized or liquid material to be sprayed therethrough from the spray bulb **15**.

In order to afford attachment to the ring section **10** a pair of outwardly extending attachment members **17—17** are provided on the extending portion of nozzle **16** and in the form shown these attachment members may be provided with substantially enlarged end portions **17***a*—**17***a* on the ends thereof to be received in and captured within the apertures **14** of the band portion **12** of the ring **10**. The main idea between this attachment is to, of course, provide an easily removable unit and in this manner by providing an enlargement **17***a* on the ends of the attachment element **17** these enlargements may be received within the passages **14** of band **12** and compressed slightly to pass therethrough where they will be held between the band **12** and the wearer's finger. Many other types of connecting elements could be provided and the form shown is one which would accomplish the intended purposes of the unit.

As illustrated the location of the spray nozzle **16** with respect to the ring is slightly to the side thereof and in ordinary usage the spray nozzle **16** would be arranged upwardly between the wearer's fingers. This would of course locate the bulb **15** within the wearer's palm and permit the wearer to easily compress the bulb **15** by slightly flexing his fingers to allow the spray to be emitted while the entire unit would be substantially inconspicuously held in the wearer's hand.

With the rapid detachment of the individual portions of applicant's unit it is possible for the wearer to carry the spray section in a purse and to easily slip this spray unit into the ring section when a possibility of danger threatens. The idea then of ease of attachment of two individual members is particularly important to the concepts of this invention.

In use this defense ring is separable and therefore the ring may be used as an entire separate piece of wearing apparel while the spray section is substantially small enough to be carried in an easily concealed position. The size of the bulb **15** of the spray unit permits a sufficient amount of either pulverized or liquid material to be carried therein such that an attacker may be easily dispelled.

When the possibility of danger threatens the attachment member **17** of the spray section **11** is inserted into the receiving apertures **14** of the ring **10** and the stem **16** of the spray section is placed between the fingers of the hand, thus positioning the bulb **15** within the palm of the hand where it may be easily compressed by a slight flex-

ing of the wearer's fingers. Upon flexing of the fingers and compression of the bulb **15** a sufficient amount of material will be expelled therefrom to effectively retard or shock an intruder.

It should be obvious that applicant has provided a new and unique defense device which is easily worn and easily concealed on one's person providing an effective defense mechanism against an attacker or an intruder which defense mechanism is particularly easy to operate and thus does not require any specific training in the functions or use of the unit.

It will, of course, be understood that various changes may be made in the form, details, arrangements and proportion of parts without departing from the scope of my invention, which generally stated consists in the matter set forth in the appended claims.

What I claim is:

1. A defense ring or the like including:

(a) a ring portion arranged to be worn on a user's finger having:

(1) a pair of receiving apertures arranged in side by side relation and extending outwardly through the band of the ring;

(b) a spray device including:

(1) a compressible bulb portion provided for housing an amount of material to be sprayed therein;

(2) a nozzle member arranged for directing the material from said bulb; and

(3) a pair of outwardly extending capturing members on said nozzle in generally side by side relation receivable into said apertures of said band for attaching the spraying section to said band.

2. The structure set forth in claim **1** wherein said band is split to provide means for enlarging the same in accordance with the size of the wearer's finger.

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