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3,494,505

FRAGRANCE SAMPLING MEANS AND METHOD

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FIG. 1

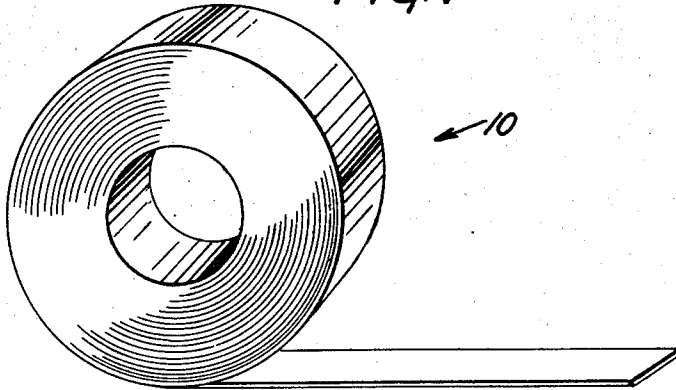


FIG. 2

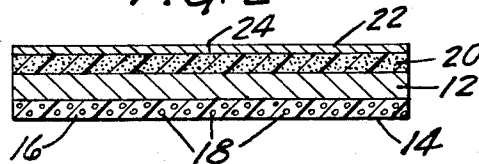
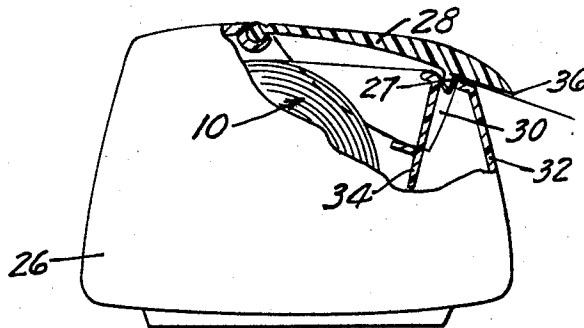


FIG. 3



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FRAGRANCE SAMPLING MEANS AND METHOD
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3 Claims

ABSTRACT OF THE DISCLOSURE

A method is provided for sampling fragrances which comprises incorporating the fragrance into pressure-rupturable microscopically-sized capsules coated on a tape backing and then rupturing the capsules as the tape is dispensed to release the fragrance. Means is also provided for carrying out the method.

This invention comprises a method and means for sampling fragrances, and particularly for sampling perfume fragrances.

Perfumes have traditionally been packaged in glass or ceramic containers. Perfume manufacturers generally have a variety of fragrances from which the customer may choose the one that suits. These fragrances are usually marketed over the counter through drugstores, boutiques, department stores and under similar environmental conditions where a large variety of perfume fragrances from many manufacturers are displayed.

Heretofore, as a practical matter, a prospective customer for a perfume fragrance could choose among fragrances only by sniffing an opened container of the fragrance. Because of the delicate nature of perfume fragrances, once a container is opened and used for sampling purposes, the perfume may lose its distinctive scent in a very short period of time due to exposure to air. Consequently, not only must a considerable stock of non-salable perfume be carried to permit sampling, but with time and several exposures to air of the same container for the sampling of a fragrance therein, the true fragrance is probably not even being sampled. Because perfumes are rather delicate and expensive to begin with, this requirement in the past has been an onerous one for the perfume manufacturer and a time consuming nuisance to the sales clerk even though it has been necessary to sell the perfume product. Another problem is the always present and substantial risk of contamination with other perfumes upon sampling from a multiplicity of containers whereby the customer may never really be aware of the true scent of the perfume fragrance being sampled.

It is the object of this invention to provide a means and method for dispensing perfume fragrances which eliminates the expense and hazards of the previously used methods for sampling fragrances and which in addition greatly simplifies the sampling procedure avoiding any danger of loss or deterioration of scent or contamination prior to sampling and eliminating any requirement to disturb or open the containers in which the perfume is normally sold.

In accordance with this invention the perfume fragrance is encapsulated into tiny microcapsules which are coated onto a backing to form a tape which is then dispensed from rolls in strip form so that as the tape is dispensed, and only as it is dispensed, the microcapsules are ruptured to release the scent of the perfume for sampling by the prospective customer.

This method of perfume pre-selection provides a convenient method of perfume sampling heretofore not possible

while at the same time decreasing the over-all expense of such sampling to the manufacturer of the perfume fragrance and decreasing the amount of time necessary for a sales clerk to assist a prospective perfume customer. Further, it provides a way to overcome the natural reluctance of a sales person to open further perfume bottles for sampling by those persons the sales person may doubt to be really prospective customers.

The method and means of this invention will be further described with relation to the accompanying drawing wherein:

FIGURE 1 is a perspective view of a roll of fragrance tape;

FIGURE 2 is a cross-sectional view on a greatly enlarged scale taken substantially along the plane of section line 2—2 of FIGURE 1;

FIGURE 3 is a side elevational view with parts being broken away of a dispenser with the tape in place therein showing how the fragrance is released as the tape is dispensed for sampling of the fragrance.

Referring now to the accompanying drawing in detail, there is illustrated in its entirety by the numeral 10 in FIGURE 1 a roll of tape carrying a perfume fragrance for use in accordance with this invention.

As illustrated in FIGURE 2, the tape 10 of FIGURE 1 comprises a backing 12 having coated on one surface thereof a coating 14 composed of a suitable binder 16 within which small microscopic capsules 18 containing a perfume fragrance are more or less uniformly distributed. In the tape shown, the backing 12 has on the opposite surface from the perfume fragrance coated surface thereof an adhesive layer 20 and a liner 22 to protect the underlying coating 14 of the next layer of tape in the roll from any contamination by the adhesive. As shown the liner 22 is scored along the centerline as at 24 thereof so that it may be readily stripped from the tape as the tape is dispensed whereupon the one sampling the tape can simply apply it to the hem of a garment for example, or even to the back of the hand while savoring the scent of the fragrance released from the tape as it is dispensed.

In FIGURE 3 a dispenser is illustrated consisting of a hollow dispenser body 26 within which the roll of tape 10 is disposed. The dispenser is provided with a slot through which the tape is dispensed. The slot is formed by the juncture of a dull blade 27 on a hinged cover 28 of the dispenser body which seats within a more or less inverted V-shaped depression 30 formed between the surface of the front wall 32 of the body of the dispenser adjacent the hinged cover and an inside wall 34. Externally of the dispenser body 26 the hinged cover 28 is provided with a sharpened edge 36 on projection of the hinged cover terminating in cutting edge 36. To sample a fragrance, a strip of the tape is pulled through the dispenser slot while the cover is maintained firmly in place whereby the capsules on the tape are ruptured as the tape is forced against blade 27 as it is pulled through the slot.

The cutting edge 36 projects outwardly considerably beyond the end wall 32 of the dispenser 26 so that after a piece of tape has been severed for sampling a portion projects outwardly from the dispenser for pulling the next section of tape through the slot.

Preferably the tape backing 12 is a non-absorbent odorless substrate. It may be of paper or other non-woven web of natural or synthetic fibers or it may be a synthetic polymer film such as one of polyethylene, polyester, polyvinyl chloride, etc. A preferred backing is one of paper saturated or impregnated or coated with polyethylene.

The surface of the backing remaining uncoated with

capsules may or may not be coated with adhesive as is desired by the perfume marketer. In the embodiment illustrated one surface of the tape is provided with an adhesive and with a liner over the adhesive so that the tape can be adhesively applied after dispensing if desired. The adhesive may be any one of the conventionally used pressure-sensitive adhesives known to the market place such as the butadieneacrylonitrile adhesives or the acrylate adhesives or similar performing adhesives. Acrylate adhesives such as those of Patent Re. 24,906 issued Dec. 13, 1960 (original Patent No. 2,884,126 issued Apr. 28, 1959) to Ulrich are preferred as they have low skin sensitivity.

The perfume fragrance is usually provided by an essential oil or other liquid preparation which gives off an agreeable odor which is encapsulated as an oily fill liquid in microscopically sized capsular shells of possibly 5 to 150 microns in size wherein the shell walls are of a material substantially inert to the organic substance forming the perfume fragrance, which is usually proteinaceous in nature. By far the preferred capsule shells are those of urea-formaldehyde polymer which are able apparently to encapsulate therewithin even the most delicate of fragrance giving organic materials without loss of fragrance or fragrance potency when stored in such capsules for long periods of time. For very gross fragrances such as wintergreen or menthol or the like, other capsules such as those of gelatin made in the manner described in Patent No. 2,800,457, issued July 23, 1957 to Green and Schleicher. An example for making the preferred urea-formaldehyde polymer shelled capsules is given hereinafter.

EXAMPLE

Into 7700 parts by weight of water was introduced 4900 parts of a water soluble precondensate of urea and formaldehyde in about 1:2 molar ratio composed predominately of di-methylol urea formaldehyde, 1340 parts of a 10% solution of NaCl was then added to reduce the solubility of the fill liquid. Next 3300 parts of organic fill liquid immiscible in the aqueous solution and consisting of 2650 parts perfume and 650 parts of diethyl phthalate as a diluent therefor were added and the resultant mixture agitated with turbine blades revolving at 2200 r.p.m. to maintain the perfume fill liquid as small discrete droplets in the aqueous solution. Then 30 parts 3 N hydrochloric acid was added in three increments, the second over a three minute period begun 3 minutes after the first increment, and the third over a 30 minute period begun 30 minutes after the completion of the addition of the second increment. All of the foregoing steps were carried out at approximately 70° F. After the last acid addition, the temperature was raised to 105° F. and the urea-formaldehyde polymerization reaction was allowed to proceed at that temperature for approximately 8 hours. Then the bath was neutralized. The resulting urea-formaldehyde capsules were insoluble in water, averages about 20 microns in size and consisted of approximately 40% by weight perfume liquid fill.

The capsule slurry so made was then converted into

a slurry suitable for coating by combining two parts capsules with one part water soluble polyvinyl alcohol (approximately 75% hydrolyzed, 3,000 molecular weight, measured by weight average) on a dry weight basis. The coating is applied at a dry weight of between 4 and about 7 pounds per 140 square yards of surface area and dried with hot forced air at 180° F. maximum for about 30 seconds. The coating was applied on a backing of paper thinly coated with a polymeric moisture barrier (polyethylene in this case) to reduce distortion of the sheet after coating and drying.

When an adhesive is applied to the opposite face of the tape as in the illustrated embodiment an ordinary clay coated paper may be used in place of the preferred paper noted hereinbefore, the adhesive preferably being one of those described and claimed in Ulrich Patent No. Re. 24,906.

The tape was then put into a dispenser of the kind illustrated in FIGURE 3 and used to sample the fragrance in the manner previously described herein.

That which is claimed is:

1. A method for sampling perfume fragrances which comprises incorporating the fragrance in the form of oily liquid droplets in microcapsular shells provided as a surface coating on a tape wound in roll form and then dispensing the tape from a dispenser which crushes the capsules to release the fragrance therefrom as the tape is dispensed.

2. Means for sampling perfume fragrances which comprises a tape wound in roll form adapted to be carried within a dispenser for dispensing therefrom, said tape comprising a paper backing having a polymeric moisture barrier on the surface thereof, and a coating thereon of microcapsules having urea-formaldehyde polymer shells and containing therewithin an evaporable liquid incorporating a perfume therein over said moisture barrier.

3. The means of claim 2 further including a dispenser within which said tape is housed, said dispenser having a slot therein for the passage of the tape therethrough and including means for crushing the capsules on the tape coating as the tape is dispensed from the dispenser.

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