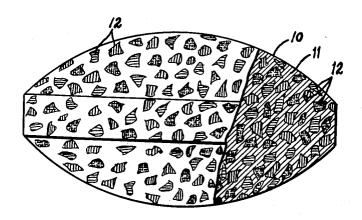
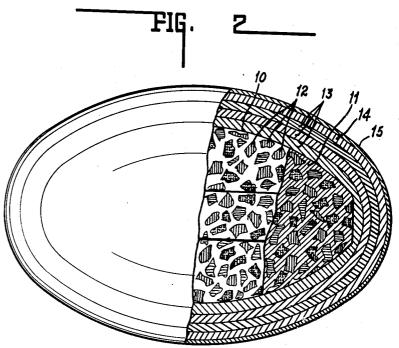
MEDICINAL TABLET CONTAINING IDENTIFICATION FRAGMENTS
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FIG. 1





INVENTOR.
PHILO L. BURRIN.
BY SEORGE Q. Orduray.
Q. M. Van Brendon L.
ATTORNEYS.

## UNITED STATES PATENT **OFFICE**

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## MEDICINAL TABLET CONTAINING IDENTIFICATION FRAGMENTS

Philo L. Burrin, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

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3 Claims. (Cl. 167—82)

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This invention relates to a protective identification of ethical drugs such as tablets, capsules and the like and to a method of producing such medications having such protective identification.

In the practice of medicine it is customary, 5 in many instances and for various reasons, to conceal from the patient the name, nature and/or character of the medicament prescribed for the illness being treated. For this reason, the manufacturer of ethical drugs, cooperating with the 10 medical profession, for the most part refrains from placing any mark or indicia on the medicine per se, i. e., upon the tablet, capsule, pill, or the like, the identification of the medicament and or other container in which such drug items are customarily packaged. This has several disadvantages amongst which is the extreme disadvantage flowing from an unscrupulous substitution or unwanted or unprescribed tablet, pill or capsule for the particular ethical drug called for by the prescription.

It is an object of the present invention to provide an ethical drug product such as a pill, tablet, 25 capsule or the like which is secretively marked so as to be easily identifiable by the ethical drug manufacturer, his agent or representative, the druggist or physician, and yet which is not readily observable and remains relatively secret from 30 the patient.

A further object of this invention is to provide an ethical drug identification means of the above character, which is simple, effective, easily accomplished conformably to present day mass pro- 35 duction methods and with but little additional expense.

Other objects of the invention will become apparent from the following description, appended claims, and accompanying drawings wherein:

Fig. 1 is an enlarged side elevation, partly in section, of an uncoated medicinal base tablet of the character in which the invention may be embodied, and

Fig. 2 is a view similar to Fig. 1 but showing 45 the base tablet with the usual coating applied thereover.

The tablet 10 shown in Fig. 1 is of the usual ellipsoidal shape and of the customary form used generally by the pharmaceutical industry. It will be understood that the representation of a tablet for the embodiment of the invention is for illustrative purposes only and that the invention can

2 capsules, pills and other like items used in preparing medicaments for administration.

Generally speaking, the granulations (indicated by cross section lines at 11 in Figs. 1 and 2) composing medicinal tablets are of a size ranging from 2000 to 3000 microns. The invention comprises the thorough mixing of innocuous, inert, colored, fragments 12 of gelatin, methyl cellulose, ethyl cellulose, sucrose or the like and of a size of the order of 250 to 840 microns into the granulation II constituting the tablet compound in such a manner as to uniformly but randomly disperse the fragments completely and thoroughly throughout the compound. While methyl brand name being affixed as by label to a bottle 15 and/or ethyl cellulose fragments may be used, gelatin or sucrose fragments are preferred because the latter are assimilable or metabolizible in the human system. The fragments 12 are added in relatively small proportions to the or "palming off" of a possibly inferior substitute 20 total composition, i. e., the quantity of fragments added is from one to ten percent of the total composition. Following this the compound, with the colored fragments thoroughly mixed therein, is compressed in the usual manner into the tablet form illustrated in Figs. 1 and 2 wherein it is observed that the colored fragments are clearly visible over all surfaces of the base tablet 10 as well as the sectioned portion thereof. Fragments 12 are shown in the illustration as being the primary colors, red, blue and yellow. It will be understood of course that any single color or combination of colors may be used and that the above selection is arbitrary and set forth merely for illustrative purposes.

Following the compression of the medicinal compound into tablet form as above described the base tablet 10 has one or more coatings such as 13 applied completely thereover in the usual manner. Generally, it is customary to apply to tablets of this character a complete, final, single colored coating such as 14 over which there may or may not be applied a continuous enveloping coating of transparent wax 15. From this it is observed that all of the surfaces of the base tablet 10 are completely coated and therefore all of the colored fragments 12 are completely hidden from observation. Therefore, the tablet to all outward appearance remains the same as that of pharmaceutical tablets as they have been hitherto dispensed.

Consequently, there is nothing to suggest to the patient that the medicament is of any other character than that which the patient may have as well find use in the secretive identification of 55 been taking heretofore. However, by the pro-

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vision of the colored gelatin fragments the pharmaceutical manufacturer or his field representative may readily ascertain whether a substitution or "palming off" of a possibly inferior or un-

wanted or unprescribed product for the particular 5 manufacturer's product has been or is being attempted to be effected as by simply removing a sufficient portion of the coating materials 15, 14, and 13 to expose at least a moderate sized surface portion of the base tablet 10 or by simply 10 sectioning or breaking the tablet open to expose its interior. This will expose the colored fragments to view and their particular size and color combination will readily identify the manufacturer's product, whereas upon applying the same 15 test to a substitute product such fragments will be either entirely absent or not within the proper color combination to identify the product as being supplied by the particular manufacturer.

Hence it will be seen that I have provided by my invention a simple, inexpensive and secretive means of positively giving identification to ethical drugs in tablet or like form and a method of making such tablets or the like which is simply, efficiently and economically adaptable to the customary manufacturing methods and techniques employed by the pharmaceutical industry in the manufacture of such items. At the same time, my invention retains the product completely free of any suggestion to the ultimate consumer of the nature and/or character of the medicament prescribed for any specific illness which is being treated thereby meeting the demands of the

medical practitioner.

## I claim:

1. As an article of manufacture, a medicinal base tablet having a coating exteriorly thereover and interiorly of said coating having its medicinal granulations uniformly flecked throughout with 40 a dispersion of multi-colored, inert, harmless, metabolizible, gelatin fragments, said colored fragments having been previously admixed with said granulations and being completely hidden by said coating but becoming readily visible upon 45 removal of a portion of said coating sufficient to

expose a relatively small area of the surface of said base tablet or upon breaking said tablet open.

2. As an article of manufacture, a medicinal base tablet compressed of medicinal granules of a size of the order of from 2000 to 3000 microns, said tablet having a 1 to 10 percent proportion of its total composition of colored, inert, innocuous, contrasting colored, metabolizible, gelatin fragments of a size of the order of 250 to 840 microns thoroughly admixed with and uniformly dispersed at random throughout said medicinal granules before their compression into tablet form, said fragments being visible on all exterior surfaces of the base tablet and on any surface thereof exposed by reason of sectionalizing said tablet, and a coating completely covering said base tablet and said contrasting colored fragments.

3. A medicinal tablet comprising an inner base having a coating applied completely thereover, said base having its medicinal granules thoroughly admixed with a portion of multi-colored, inert, metabolizible, gelatin particles in sufficient proportion with respect to said granule mass that following thorough admixing with said mass and upon being compressed therewith into said inner base, said particles are thoroughly and uniformly distributed surfacewise of and interiorly throughout said base, said dispersed, colored particles being completely covered by said coating and becoming readily visible upon breaking said tablet open or upon removal of a portion of said coating sufficient to expose a relatively small area of the surface of the said base tablet.

## References Cited in the file of this patent UNITED STATES PATENTS

| Number<br>1,134,156<br>1,148,621 | Name Platen Planten Taylor | _ Aug. 3, 1915        |
|----------------------------------|----------------------------|-----------------------|
| 2,410,110                        | FOREIGN PATENTS            | }                     |
| Number<br>621,651                | Country<br>Great Britain   | Date<br>Apr. 13, 1949 |