PRESCRIPTION CLINIC.*

BY ADLEY B. NICHOLS AND J. L. NEBINGER.

The prescription clinic chapter selected for this year is one of a slightly different character than has been previously used. While we are still dealing with incompatibilities, we are using a mechanical rather than a chemical type.

In all prescription work the pharmacist is given the opportunity and is expected to make as fine an appearing preparation as possible of every article he turns out. His four years of apprenticeship and his college course are all necessary steps in preparing and training him for his future work and for prescription emergencies.

There are many pharmacists in every community who do not realize what *secundum artem* means. They fill all prescriptions in a mechanical way, adding the various ingredients to each other as they are listed on the prescription blank, and if the finished product is an unsightly one they will place a "shake label" on the bottle and let it go at that, explaining that the doctor should know better than to prescribe such a combination. In many instances, if the pharmacist will analyze the combination and then prepare it *secundum artem* he will be able to make a fine uniform product rather than one which would be a disgrace to his profession.

The prescription for pills, emulsion or ointment, usually calls forth the skill of the dispenser and it is left entirely in his hands as to whether the pills shall be small, solid, and round; the emulsion uniform and free from oil globules; the ointment perfectly smooth and free from grittiness, or whether these preparations shall be put together without much thought as to their final appearance and usefulness. Most pharmacists are ready for prescriptions such as these, but when the same difficulty arises in another place, where it is possibly obscured by other materials, they so frequently fail to realize that it is their duty to alter that prescription, not in its medicinal form, but in a mechanical way, as their experience should have taught them. The addition of a small amount of some inert material or substance will often change the entire appearance of a product, transforming the most unsightly preparation into one of elegance and uniformity.

The following prescriptions have all been taken from current files[1] and are given to show this one phase of incompatibility, one wherein the art of the pharmacist is called into play, that a proper product may be dispensed.

PRESCRIPTION 1.

Potassium Citrate	℥ vii
Spirit of Nitrous Ether	f℥ i
Simple Syrup	f℥ i
Water to make	f℥ iv

This is a familiar combination, and most of us recognize it as one in which a separation of the Spirit of Nitre occurs, a salting out process in fact. This product is very frequently dispensed with the "shake well" label, while we find that the difficulty can easily be remedied by the addition of a small amount of water; in

* Section on Practical Pharmacy and Dispensing, A. Ph. A., Asheville meeting, 1923.

[1] EDITOR'S NOTE.—The prescriptions were written in the usual form of prescription Latin but for sake of uniformity liberty was taken in converting them into English terms, excepting weights and measures.

this case less than one drachm is required to give a clear uniform preparation in which the spirit of nitrous ether is entirely miscible, thus eliminating any possibility of un-uniformness of dosage.

PRESCRIPTION 2.

Potassium Chlorate	gr. xxx
Ammoniated Tr. of Guaiac	
Compound Tr. of Cinchona of each	ƒ℥ ii
Honey	ƒ℥ i
Water to make	ƒ℥ iv

With these tinctures we at once visualize our trouble, the separation of gummy material on the sides of the bottle and a sediment finally settling to the bottom. It is not necessary to add any other substance to correct the difficulty here, but we find that proper manipulation of the given ingredients settles the question. If we place the honey in the bottle first and rotate until the honey comes in contact and coats every side and corner we find our trouble solved. The tincture and water can then be added and an entirely different product will result, there being no separation at all, either on the sides or the bottom of the container, and the preparation is nearly clear and of a reddish color, instead of a muddy brown.

PRESCRIPTION 3.

Cocaine Hydrochloride	gr. x
Sol. Adrenalin Chloride	ƒ℥ i
Antipyrine	
Tannic Acid of each	gr. xc
White Petrolatum to make	℥ ii

Incompatibilities similar to this are quite common, where the attempt is made to mix aqueous and oily substances. In filling this prescription as it stands, the difficulty is with the solid gummy mass which separates out as the preparation is worked. This trouble can be overcome by replacing the Solution of Adrenalin Chloride with Adrenalin Inhalant, an oily preparation of the same strength, and this will make a uniform smooth ointment possible.

PRESCRIPTION 4.

Calamine	gr. lx
Phenol	gr. xx
Menthol	gr. v
Lime water	ƒ℥ xii
Olive Oil	ƒ℥ iv
Water to make	ƒ℥ iv
M. sec. art.	
Use *no* "shake well" label	

This prescription is quite common in some of the Eastern States, but one rarely sees combinations like this in which the physician asks that *no* shake label be used. This came about through the fact that in one particular store the pharmacist prepared it *sec. art.* and the product he turned out needed no shake label. The physician immediately recognized this fact and the superiority of the preparation and his prescriptions now contain the added note which often puzzles others when the prescription perchance is taken to another store.

As it stands, it is almost impossible to make a preparation that will hold together long enough for the patient to obtain a uniform application. If one attempts to mix the ingredients in a mortar, he finds that the partially emulsified oil separates from the water and clings tenaciously to the sides of the container and it is impossible to transfer the material to a bottle. If the mixture is prepared as carefully as possible there is a separation of oil globules, calamine, and water, and the product is very unsightly.

The secret of the "no shake label" is found in the addition of about six grains of tragacanth, which emulsifies the oil and acts as a suspending medium for the calamine, giving a uniform, smooth product, in which there is no separation. Of course an *extremely fine* calamine powder must be used; for the purpose enough powder should be bolted for prescriptions of this type.

PRESCRIPTION 5.

Sulphurated Potassa		
Zinc Sulphate	of each	ʒ i
White Petrolatum to make		℥ i

This combination is familiar to us as "white lotion" but we seldom see it prescribed in the form of an ointment. This particular physician asked if an ointment could be prepared in place of the lotion, and the following method of preparation was finally worked out.

To the sulphurated potassa is added just sufficient water to make a solution, about one drachm being required. The zinc sulphate is triturated directly with this solution and the reaction takes place, giving the characteristic white precipitate. About one drachm of anhydrous wool fat is now added, to take up the small amount of water which is present, and this mixture is then incorporated with the petrolatum.

These are only a few of the types which are always coming up for a pharmacist's consideration and we hope they will act as incentives to many of our fellowmen and make them realize their responsibility to their profession, to the doctor, and to the patient.

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COMMENT.

The paper was read in its entirety by Adley B. Nichols and at the close of the reading the prescriptions were discussed one by one. Each prescription was printed on a large card and these were placed where they could be viewed from the entire room while the discussion was going on. Two samples of each prescription were also displayed, one filled as written, or the wrong way, and the other by the corrected method as outlined in the paper.

It was generally agreed that the methods of procedure outlined in the paper were all within the scope of a pharmacist's rights as dispenser. It was recognized that a pharmacist has the right to modify a prescription, to produce a more satisfactory and a better appearing product, providing that the modification makes no serious change in the therapeutic effect.

A considerable amount of time was given to the discussion all of which was extremely interesting, the following members taking part: I. A. Becker, G. M. Beringer, H. A. B. Dunning, W. H. Frost, I. Griffith, Wm. Gray, D. F. Jones, J. C. Krantz Jr., A. B. Nichols and C. M. Snow.