soap with only a slight alkalinity results. Benzoic Acid may be added to a liquid soap to reduce alkalinity when it is desired to make a neutral or acid-liquid soap.

POTENT MEDICAMENTS IN SUGAR-COATED PILLS AND IN CONFECTIONS.*

BY JOHN F. SUCHY.[1]

The subject of pill-coating and candied medicaments has received much consideration in recent years. The coated commercial pill or tablet has become a masterpiece of attractiveness and palatability. Disagreeable substances have been skilfully blended into confection form until their gustatory incompatibilities have completely faded away. Repellance has given place to attractiveness and one can now look forward to the swallowing of his tonic or cathartic dose, of strychnine, of Nux Vomica or of Atropine with pleasant anticipation. Nature's warnings of physiological potency—extreme bitterness or nausea—have become masked. Disagreeables have become agreeables—a creditable achievement of modern pharmacy.

As is true with so many good things, undesirable factors so frequently manifest themselves, calling for modification or restriction. The barbiturates once hailed as hypnotics par excellence have been found to have a destructive action on the white blood cells. Emetine though found distinctly amœbicidal, cannot be practically used in tooth-pastes in sufficient quantities to effect pyorrheal cures. So it has also proved true of our sugar coatings and confections. Frequent newspaper head-lines call attention to poisonings of children due to accidental ingestion of pills or other medicaments containing highly potent substances. More intimate experiences of members of this group will undoubtedly recall instances when these individuals themselves, their children or child-friends have eaten such pills or licked off their alluring coatings. The interest of the author in this study began only last fall and even since then articles regarding two pertinent incidents have appeared in the local press of Western Montana, an area occupied by less than 250,000 inhabitants. The first—a case in Orchard Homes, a community adjacent to the city of Missoula, wherein a $2^1/_2$ year-old girl swallowed eighteen aspirin gum tablets with the result that her subsequent condition was for some time considered as critical. The second incident occurred only about two months ago in Great Falls where two youngsters showed symptoms of poisoning, presumably due to the eating of pills containing belladonna—one of these cases resulted in a fatality.

About two years ago a rather pitiful case was reported from Butte where an uncle from one of the eastern states had just arrived for a visit with his Montana relatives and accidentally or perhaps thoughtlessly left a package of Hinkle's Pills on the dresser of his room. Somewhat later during his absence his little niece spied the alluring pellets, tasted them, found them good and ate several with the sad sequel that shortly afterwards she died in convulsions.

In a fine address (1) delivered in 1930 and later published in the *Journal of the American Medical Association*, President Aikman of the Pediatrics Society of

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* Section on Practical Pharmacy and Dispensing, A. PH. A., Portland meeting, 1935.

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Rochester presents statistical data taken from New York Health Reports which show that in that state alone during a period of four years, there occurred 177 deaths traceable to accidental poisonings. Eighty children of five years of age or under were included among the victims. Forty of these deaths were due to the eating of pills or tablets containing strychnine. This list does not include cases which resulted in recovery nor does it include many of those which proved fatal before the arrival of a physician or where his period of supervision was of too short duration to warrant proper conclusions. A report compiled by the Metropolitan Life Insurance Company (2) lists 273 deaths of children under five years of age insured in the Industrial Department of this company as due to accidental poisoning. Definite information of the type of poison consumed was reported in 242 of the cases. Strychnine was held responsible for 82 of these deaths or approximately one-third of those in which the nature of the poisonous substance was known. Forty-six of these deaths were found to have been due to the eating of strychnine pills or tablets. Quoting from the bulletin itself—

> "Children, and especially young children, are the most frequent victims of accidental poisoning. Strychnine takes a heavier toll of child life than does any other poison.—More than half of the young children who die from strychnine poisoning are victims of pills or tablets containing this substance."

It has been reported that more deaths occur in the State of New York among children of less than five years of age because of accidental consumption of strychnine pills than are caused by both rabies and tetanus.

While it is true that the relative percentage of fatalities is likely to be lower in Western Montana owing to less congestion of population and a consequent lesser chance of youngsters picking up poisoned medicaments in rubbish heaps, abandoned houses, etc., yet even in this area the hazards involved merit consideration. Surely there is need of a greater care in the dispensing and handling of dangerously potent pills and confections. The American Medical Association and other scientific groups have seriously considered the subject. It has been suggested that pills and tablets containing poisons be left uncoated which argument does not seem unreasonable. Perhaps it would be even well to coat these deadly buckshot with aloes or quinine or some other similar bitter substance. It has also been suggested that caution labels with appropriate antidotal directions be applied to containers in which these substances are dispensed. This remedy likewise seems worth while for cautionary specifications on the label would tend to localize the sale of these remedies to the *bona fide* drug store, thus stressing the professional status of pharmacy with the laity. The true nature of even such old remedies as Hinkle's Pills makes the drug store the proper and logical place for their sale. To purchase strychnine one must invariably sign the poison register but to buy it in candied form one needs only to write to some mail order house or in many states to go to the grocery or department store. Besides, what youngster would want to eat the unblended alkaloid anyway?

It has been suggested that the omission of strychnine from laxative pills would markedly lessen the number of accidental poisonings. Several authorities, including Dr. Fantus (3), express a certain skepticism as to the therapeutic utility of the alkaloid in such preparations. In their splendid article published in one of last

December's issues of the *Journal of the American Medical Society*, Drs. Yonkman and Singh (4) report results of five experiments performed on four persons, all of which seem to indicate that strychnine has little if any peristaltic effect even if administered in amounts two or three times as large as is contained in the usual cathartic pill. Both of these workers strongly advocate the discontinuation of the alkaloid for purposes of promotion or augmentation of catharsis.

We are ever ready with our protests when the dog poisoner plies his business of canine destruction, and throws out his toxic bait. "This is criminal," we say, because of the hazard to children—yet who worries when the careless tenant, too frequently uninformed of the possible dangers, moves out of a dwelling and leaves behind him veritable traps of candied poisons. The problem of candied or sugar-coated medicaments does merit consideration of this organization.

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NATIONAL UNITY OF STATE COÖPERATION BETWEEN PHARMACIST, PHYSICIAN AND DENTIST.*

BY GEORGE C. SCHICKS.[1]

Much has been written to date concerning the closer coöperation between the allied medical professions. The thinking pharmacist has come to realize that if prescriptions employing official drugs and preparations are to be written for, that authentic information regarding United States Pharmacopœia and National Formulary preparations must be effectively and repeatedly presented to those groups of men who are licensed by law to prescribe medication. It is encouraging to note that progressive individual pharmacists have devised effective means of meeting the situation of closer coöperation with the medical men whom they serve. It is equally stimulating to watch the progress of various county pharmaceutical associations and the contacts they have made with county medical and dental groups. New Jersey county pharmaceutical groups have been especially active in their efforts to encourage inter-professional relationship, and because New Jersey has gone a step further and organized a state-wide movement to foster closer contacts between pharmacist, physician and dentist, I am asking your permission to outline briefly the work that this state is undertaking in its effort to increase the professional usefulness of its practicing pharmacists.

"In the New Jersey Pharmaceutical Association, there is a Professional Relations' Committee with duties obvious from the name of the committee. This committee, through the coöperation of the state medical and pharmaceutical associations, has created the Joint Committee on Professional Relations of the

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