

**Parogenum sulphuris**—sulphur parogen.

Sulphur subl. 3, linseed oil 37; dissolve by aid of heat; then mix with parogen to 100.

**Parogenum sulphuris compositum**—compd. sulphur parogen.

Sulphur parogen 10, oil of eade 10, thymol 0.3, eucalyptol 3, oil of turpentine 30, parogen to 100. Dissolve the thymol and eucalyptol in the oil, mix with the parogen.

**Parogenum terebinthina**—turpentine paraffin.

Venice turpentine fact. 20, parogen to 100; mix them.

**Parogenum spissum**—thick parogen.

Hard paraffin 12, liquid paraffin 48, oleic acid 30, alcohol ammon. (5 per cent.) 10. Melt the hard paraffin; add the liquid paraffin, then the oleic acid and the alcohol and continue the heat on a water-bath until the product weighs 90.

The following single generic names are suggested for the same reasons as was the parogenum for petrolatum saponatum. If physicians are expected to use these preparations, the generic titles must be composed of single words otherwise when the specific name is added they become too cumbersome.

**LANOLIMENTA—LANOLIMENTS****Lanolimentum mentholis**—menthol lanoliment.

Menthol 5, hydrous wool-fat to 100; mix.

**Lanolimentum mentholis salicylatum**—salicylated menthol lanoliment.

Menthol 5, methyl salicylate 10, hydrous wool-fat to 100; mix.

**Paraffinoleum mentholis**—menthol paraffinol—liquid petrolatum and menthol.

Menthol 2, liquid petrolatum to 100. Mix and strain if necessary.

**Paraffinoleum eucalypti**—eucalyptus paraffinol.

Oil eucalyptus 5, liquid petrolatum to 100; mix.

**Paraffinoleum thymolis**—thymol paraffinol.

Thymol 1, liquid petrolatum to 100. Dissolve by trituration in a warm mortar.

**Paraffinol phenolis**—phenol paraffinol.

Phenol cryst. 1, liquid petrolatum to 100. Dissolve by trituration in a warm mortar.

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**MEDICO-PHARMACEUTICAL ETHICS \***

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The heading of this paper sounds more like the title of a book on the subject than that of a more or less haphazard essay, but no other short caption suggested itself for a treatise on the proper attitude and mode of reciprocal action that should exist between the members of the professions of medicine and pharmacy.

No historical survey of the origin of either one of these callings from the other will be attempted, for some medical writers declare that pharmacy originally sprang from the forced surrender of the custom of primeval healers of preparing their own drugs, in order to keep abreast of more related advances of their work, and the pharmacists retort that there were no doctors at first, the healing art having been practiced by the ancient botanists, from whom pharmacy, more than medicine, can claim heritage. Nor will the subject be treated academically. An effort will be made to point out and describe some of the real and imaginary evils that have crept into the practices of medicine and pharmacy, which make pharmacists and physicians antagonis-

tic professionally to one another, and to suggest how these unethical errors can be corrected.

**COMMON VICES**

I shall get at the substance of the matter instantly by stating that there are some evils that are common to both professions, among which may be mentioned, first, the payment of percentages by pharmacists and physicians for patients referred; second, the recommendation of a certain physician or drug-store because of this commission; and, third, the expression of derogatory opinions against the members of the medical and pharmaceutical fraternities, because of the facts that, on the one hand, the physician in question will not send patients or pay the commissions others do, and, on the other, the pharmacist is not one from whom the physician can expect a percentage from his prescriptions.

There is only one side to the first of these three evils and that is this: The payment of a percentage by a pharmacist to a physician for prescriptions directed to his store is wrong, as it is practically collusion between the prescriber and dispenser in an effort to overcharge the patient. It only means that the patient is going to be forced to pay an additional amount to cover the commission paid. A physician should charge a sufficiently remunerative fee to satisfy himself financially and should not expect in addition a share of what the patient is paying (supposedly) for his medicine. It is equally unjust for the pharmacist to expect a commission for work referred to the physician, as this recommendation would then be made mostly for gain and, in this way, only physicians paying this commission, rather than those who are capable, would be named to the inquiring. The recommendation of a certain physician by the pharmacist should always be made because it is thought that that physician is the best fitted to advise the patient; and the medical man can feel justified in referring the sick to particular drug-stores only when he is of the opinion that in these places his prescription will be more accurately filled than in other pharmacies; in this way using his expected care that incompetent men will not be given a chance to make any errors.

The last of these common faults, that of making belittling remarks about either certain physicians or certain druggists who do not further the interest or meet the approbation of a member of either profession, is wrong because the physician or pharmacist often is mistaken in his opinion, and, again, because it may shake the confidence of a patient in his physician when the latter is censured and therefore tend to lessen the likelihood of the patient's cure. As pharmacists or physicians, we should not speak against one or the other. We can and should refuse to recommend to patients anyone who is incompetent, but should not speak evil of him. We only nullify each other's efforts in performing the noble work of aiding the sick when we speak against members of either profession. Let us recommend certain physicians or certain pharmacists when asked or when we think it necessary, but let it always be for meritorious reasons and never with the consideration of possible gain or revenge in view. In this way, each will reap his just reward and medicine and pharmacy will move on, hand in hand, in the work of humanity to which they should be devoted.

Let us now take up the consideration of evils confined almost entirely to one or the other profession, and we shall find much to speak about. The pharmaceutical evils are principally drug-store prescribing, substitution, the pushing of patent medicines, bad dispensing, and

\* Read at the Annual Meeting of the California Pharmaceutical Association, San Francisco, May 19, 1910, at which the San Francisco County Medical Society was present by invitation.

the practice of exposing mistakes supposed to have been made by prescribers. The medical profession is called on to defend itself against the charges of dispensing medicines, deficient knowledge of material medica and prescription-writing, which is responsible for the ordering of unsightly mixtures, overdosage and the prescribing of patent and proprietary medicines, as well as special makes of official preparations, and the custom of blaming the pharmacists for failure to obtain certain therapeutic results, a supposed color, odor or taste of a mixture prescribed. These topics cover the sources of complaint usually found when a threatened breach is wedging in between the professions, but do not include matters that often cause internal dissension between pharmacists themselves, like higher educational requirements, cut-rate methods and side-lines; or matters confined within medical ranks, such as advertising and specialization; or the subject of renewals of prescriptions, the ownership of the latter and the matter of the enforcement of the pure drug acts, which are regulated by law in many states.

#### PHARMACEUTIC TRANSGRESSIONS

Taking up the pharmaceutical vices, one by one, let us define them and see how far—if at all—they are permissible, and offer some suggestions for their correction or regulation.

*Drug-Store Prescribing.*—In the literature and by personal experience, I find that most of the antagonism felt toward the pharmacist by medical men is on account of drug-store prescribing, which includes treatment over the counter and in the back room. That it is wrong even to the patient, for the prescriptionist to attempt to diagnose or cure diseases, either by prescribing medicines or by giving treatments, as in the form of irrigations in venereal diseases, there is no doubt. The argument often advanced that this practice results in a financial loss to the physician as well as to the druggist, is not the strongest objection to this evil. For no one who realizes how difficult it often is for the skilled physician to diagnose and treat the symptoms of which the average patient complains can fail to see how impossible it is for the pharmacist, who has received no special training in these matters. Consider how misleading a symptom must be to one who knows nothing about reflected pain or who has never heard of an extra-uterine pregnancy! "But," some will say, "that does not apply to diseases which are self-evident, as for example, gonorrhea or syphilis." It does not make any difference, for it is often just as hard to treat these diseases successfully as it is to diagnose others. This statement is borne out by the experience of eminent gynecologists who have found that about 12.5 per cent. of all operations performed on women are caused by uncured gonorrhea affecting their husbands, who often were assured that they were cured and also by the startling fact that this disease is responsible for 80 per cent. of deaths from disorders peculiar to women.

But how far can the pharmacist go before he can be deemed guilty of intruding on the physician's domain? This is a limit on which not all agree. Some say that a prescriptionist should never give medicine without an order from a physician, but is this practical? It seems that the best compromise that has been offered is that a pharmacist should never try to diagnose a case, but should explain to a patient that the best thing would be to see a physician, as his opinion may be necessary, and then, if the customer refuses to do this, the druggist should give some unharmed mixture for the symp-

tom complained of with final directions to see a physician if not relieved. A member of the pharmaceutical profession is presumptuous when he fails to tell the sick that pharmacists are not able or taught to diagnose diseases and that it is the physician's work to do so, just as it is presumptuous for the physician to give a price on prescriptions without knowing how they are figured.

*Substitution.*—Substitution or omission of ingredients in a prescription is unjustifiable and criminal. The physician and patient have a right to insist that the medicines prescribed are dispensed and anyone who wilfully deals out one substance for another or who leaves out any of the contents ordered in a prescription is deserving of the bitterest condemnation from both professions. But there is an aspect to this subject not often considered by my exacting colleagues, and that is the custom of specifying the manufacturer's name when official preparations are prescribed. In rare cases this is along the lines of safety, but it can and is often carried out too far. For example, let me tell a story which Prof. W. M. Searby narrated to me, touching on this point. A pharmacist who had a large number—I think it was fifteen—fluidextracts of ergot, was handed a prescription in which a new inferior make was specified. This was an urgent case and the medicine was needed, for the messenger said the physician was waiting to use the ergot on the patient, who was suffering from a postpartum hemorrhage. So the pharmacist gave an excellent preparation of the drug instead of the one called for, which he did not have. Was he right in what he did? He certainly was, for it might have been the cause of a woman bleeding to death if, actuated by exaggerated ideas of avoiding substitution, he had given back the prescription and not dispensed what he did. Many other cases like the above happen and a drug-store must be kept stocked with many makes of certain preparations which are exactly the same in value. It would be better for physicians to specify the maker's name only when there is some good reason, leaving the pharmacist, who is better trained to choose between good and bad preparations, responsible for the quality of all drugs, as he is for ingredients of unspecified manufacture.

*Crude Dispensing.*—By the evil of bad or crude dispensing is meant the turning out of mixtures of offensive appearance and taste and doubtful therapeutic value because of inability to compound properly. Every physician has noticed this fault when for some reason he has had to write some prescription, not simple to dispense, a second time for the same patient, who has gone to a different pharmacist each time. I am not referring to those cases in which the trouble is due to the inability of the physician to prescribe, but to those instances in which in one drug-store the pharmacist will understand how to combine the ingredients ordered and turn out an excellent preparation, while at other places the compounding is done by men who do not know the proper way and hand a patient an abominable combination. So much for bad dispensing.

*Exposing the Mistakes of Physicians.*—This is just the course which the pharmacist should not take, considering how human it is to make blunders, especially in the crucial situations in which the prescriber often finds himself. Neither by word nor by sign should the patient know of any supposed error, but the pharmacist should communicate with the physician about the matter and, if this is not possible, the correction should be made by the prescriptionist and the physician be positively informed. It is wrong to be apathetic and to return the prescription, as the mistake might be overlooked in

another place and a fatality result. It follows that a physician should always act in a gentlemanly manner when called on to correct a mistake, and should feel that a dispenser is acting along the lines of carefulness and safety in communicating with the physician even if the error can be shown to be only apparent.

*Pushing the Sale of Patent Medicines.*—The matter is one almost wholly pharmacutic. Let us pass it by thus: Most of the prominent pharmacists would gladly do away with this feature of their business if it meant the abolishment of the public evil of self-medication, but, as it would be taken up by department-stores and the business increased rather than lessened, there is no reason why they should not keep these nostrums. When it is considered also that often even physicians prescribe these remedies, it seems unreasonable to expect a drug store to do without them. I believe, however, that the pharmacist should never recommend any of these preparations, but should furnish them only when called for. For druggists to push certain compounds of their own manufacture, like insect-destroyers and spring medicines for which customers rarely apply to a physician, is not much of a breach, especially when those are recommended to be "just as good" or better than widely advertised, but not so effective, nostrums. Care in proclaiming the virtues of these preparations should be exercised and no exaggerations indulged in that might offend broad-minded and intelligent physicians—no matter how great an impetus would be given to these goods.

#### MEDICAL EVILS

And, now, let us review the transgressions of which the medical profession seems to be guilty and reason out how much can be said to be excusable.

*Dispensing by the Physician.*—Dispensing at the office and at the patient's house is the oldest charge hurled at physicians. Let it be understood at the start that no reasonable pharmacist can deny that this practice is in order when immediate medication is needed or when the patient lives at a distance too remote from a drug-store. It was said in defending the physician against exposure of his errors that the nature of his work is such that mistakes often creep into his prescriptions; therefore the fact is evident that somebody must act as a checker in dispensing his orders, and who is better qualified than the pharmacist? Many times also the physician is wrong in his idea of the dosage of some powerful drug appropriate for the occasion, but rarely used, and it is here that the knowledge of posology taught in the college of pharmacy should be brought into play. The pharmacist also has a better opportunity to make sure, as he can look these matters up in the books on materia medica without exciting suspicion. It follows also that the physician cannot dispense as competently as the pharmacist, whose ability to do so is dependent on his knowledge of and experience in mixing drugs. Therefore, a physician who makes it a practice to dispense his own prescriptions acts detrimentally to his patient, the pharmacutic profession and his brother practitioners, in the latter case because of the unfair financial advantage gained by the custom.

*Inability to Prescribe.*—The inability to prescribe properly demonstrated by so many physicians is due to insufficient knowledge and practice in materia medica and is fundamentally responsible for its sequel, the ordering of proprietary and patent medicines. It probably would result in making better therapeutists—

though not as scientific laboratory men—if medical colleges would encourage prospective medical students as much in taking a course in pharmacy as a pre-medical study as they do in the completion of a purely scientific curriculum, the substance of which is hardly ever used by the average practitioner.

*Illegible Writing.*—That the notorious habit of prescribers of writing illegibly has not been responsible for more trouble is due to the extraordinary skill with which the pharmacists decipher the different parts of prescriptions. This subject has received legal attention in some countries, and carelessness in ordering has been made a crime.

*Overdosage.*—Overdosage and the writing of freakish physical and chemical incompatibilities only serve to bear out what was said about the limited idea of materia medica and pharmacy retained by medical men from the teaching given in these subjects at most medical colleges. As better courses in these subjects are being given now than five years ago, the reform in this deficiency is bearing fruit.

*Prescription of Proprietary or Patent Medicines.*—The use of ready-made proprietary or patent medicines has already been well thrashed out and will not receive the attention here it otherwise would. As this largely results from not knowing how to combine the remedies desired in a particular case in the most palatable and compatible form, it has decreased as the movement for a better knowledge of materia medica has progressed. This movement will spread until every physician will have a better idea of the drugs contained in the United States Pharmacopeia and National Formulary, using other drugs only when a real improvement of benefit to his patient is exploited. How few of the proprietaries of the last decade really were the products of advanced pharmacy, and how many were only well-known and often worthless drugs, done up in an elegantly deceiving style! In any of the big prescription pharmacies one will find dozens of preparations that once reigned supreme in their separate fields and are now condemned to the oblivion of the top shelves or the back room. In speaking of substitution the often unnecessary habit of specifying the maker's name when an official preparation is wanted was commented on sufficiently.

*Exposing Mistakes in Dispensing.*—Reciprocally the same feeling should manifest itself when the pharmacist is thought to have made a mistake in the dispensing of a prescription as was mentioned in discussing the delicate way a physician's error should be called to his attention by the prescriptionist. If a medicine has not the desired effect or does not come up to expectations as to palatability or appearance, the blame is not always with the dispenser. The physician may have forgotten to order some ingredient or may have prescribed something of which he did not know the properties as well as he might. If the medical man will use his ingenuity as often as his pharmacutic friend does, the patient will not have his confidence shaken in the latter and will probably not be as suspicious of the physician himself. Neither the pharmacist nor physician should forget the just defenses of idiosyncrasy and tolerance in any case in which these seem to be the explanation of the patient's complaint against one or the other.

#### SUMMARY OF SUGGESTIONS

In conclusion, let the members of both professions feel the need of co-operation with each other; let pharmacists, out of consideration for their medical friends,

refuse to do something and insist on doing others, and let the latter act reciprocally. At the same time nothing should be done which is unjust to the public. Therefore the practice of paying commissions to pharmacists for work referred, or to physicians for prescriptions, should be absolutely discontinued. Recommendation of either prescriber or dispenser should always be based on merit and not on expected financial gain. Opinions derogatory to any member of either calling should be indulged in only in extreme cases.

Pharmacists should prescribe only in rare cases, including poisonings and instances in which first aid is needed before the physician arrives. Skill in dispensing should be possessed by all pharmacists and substitution never practiced. Errors on the part of physicians should be handled so that the patient does not know of them and corrections explained where the medicine is urgent and it is impossible to reach the physician. The rule in the matter of handling patent and proprietary preparations should be "Buy what is called for and sell on demand only" (Coody).

Physicians, on the other hand, should not dispense their own prescriptions, except in cases in which urgency or remoteness from a drug-store demands it; should possess a proper knowledge of materia medica and prescription writing, and write legibly and order carefully, avoiding the unnecessary use of ready-made preparations and too extended specification of the manufacturer's name of official remedies, and should not expose to the patient blunders thought to have been committed by the pharmacist when unsatisfactory results are obtained.

Joint meetings where subjects of a kindred nature could be discussed are also advisable, so that such topics as those here suggested and others could be thrashed out.\* The two professions should act in unison in the propaganda for the United States Pharmacopeia and National Formulary.

I think that, as our differences are being adjusted, we are again making it plain to the pharmacist and to the physician just where the one is intruding on the ground

of the other. There seem to be many things too often left undone that would make up for the loss occasioned by a stricter adherence to one's own work. For example, much of the laboratory work of the physician, like the examination of blood, urine, sputum and feces, could be done for him by the pharmacist, as courses are given in most colleges in these branches; in this way the pharmacist becomes the co-worker of the physician in the diagnosis of the diseases of which mankind is affected.

Whether everyone will agree with all I have said or not, is it not better to give these matters attention? They mean much to both professions. As these and other infringements that often wedge in between these allied professions become adjusted we should have a better pharmacy and a better medicine, and together they will battle in the war on the ailments "that flesh is heir to." I can close in no better way than in the words of Dr. H. H. Rusby: "We are not taking part in this life for all that we can get out of it. The very best part . . . . . is its voluntary sacrifices, the best part of our possessions, that part which we freely give away because it will do better work elsewhere than if retained in our own possession."

346 Montgomery Avenue.

## THE NEW TEST FOR CANCER OF THE STOMACH, WITH SUGGESTED IMPROVE- MENTS \*

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### 1. INTRODUCTION

Medical means have been of no avail in the treatment of cancer. The only resort is surgery. If we succeed in radically extirpating the cancer *in toto*, the chances of a permanent cure are good. The importance of an early diagnosis in cancer in general, and in carcinoma ventriculi in particular, is obvious. Unfortunately in cancer of the stomach an early diagnosis is rather the exception than the rule, and in most cases, when we learn the diagnosis, we also learn the prognosis. The diagnosis of cancer of the stomach rests on the history of the patient; on the absence of free hydrochloric acid; on the presence of lactic acid, Boas-Oppler bacilli, a palpable tumor and occult blood; and on the occurrence of a variable degree of motor insufficiency. No single factor is diagnostic in itself, but a combination of these features is required for the establishment of the diagnosis. Unfortunately such a combination is not always present, and when it is present, it is not discernible at a very early stage of the disease. The Solomon test is of very little value. Any new sign that will aid in the diagnosis of carcinoma ventriculi is more than welcome.

A few months ago Neubauer and Fischer<sup>1</sup> published their results of a new test for the diagnosis of cancer of the stomach: the so-called glycytryptophan test. In order to comprehend the rationale of this test we must understand certain principles in physiologic chemistry. Our food, as such, cannot be assimilated by the system. In order to be absorbed most food substances must be converted into simpler cleavage products. Thus pro-

\* From experiments conducted in the Laboratory of Biological Chemistry of Columbia University, at the College of Physicians and Surgeons, New York, under the auspices of the George Crocker Special Research Fund.

1. Neubauer and Fischer: *Deutsch. Arch. f. klin. Med.*, 1909, xcvi, 490.

\* Some articles dealing with the relationship between physicians and pharmacists, which have appeared in medical journals, are here cited for the benefit of those who may wish to look up some of them:

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