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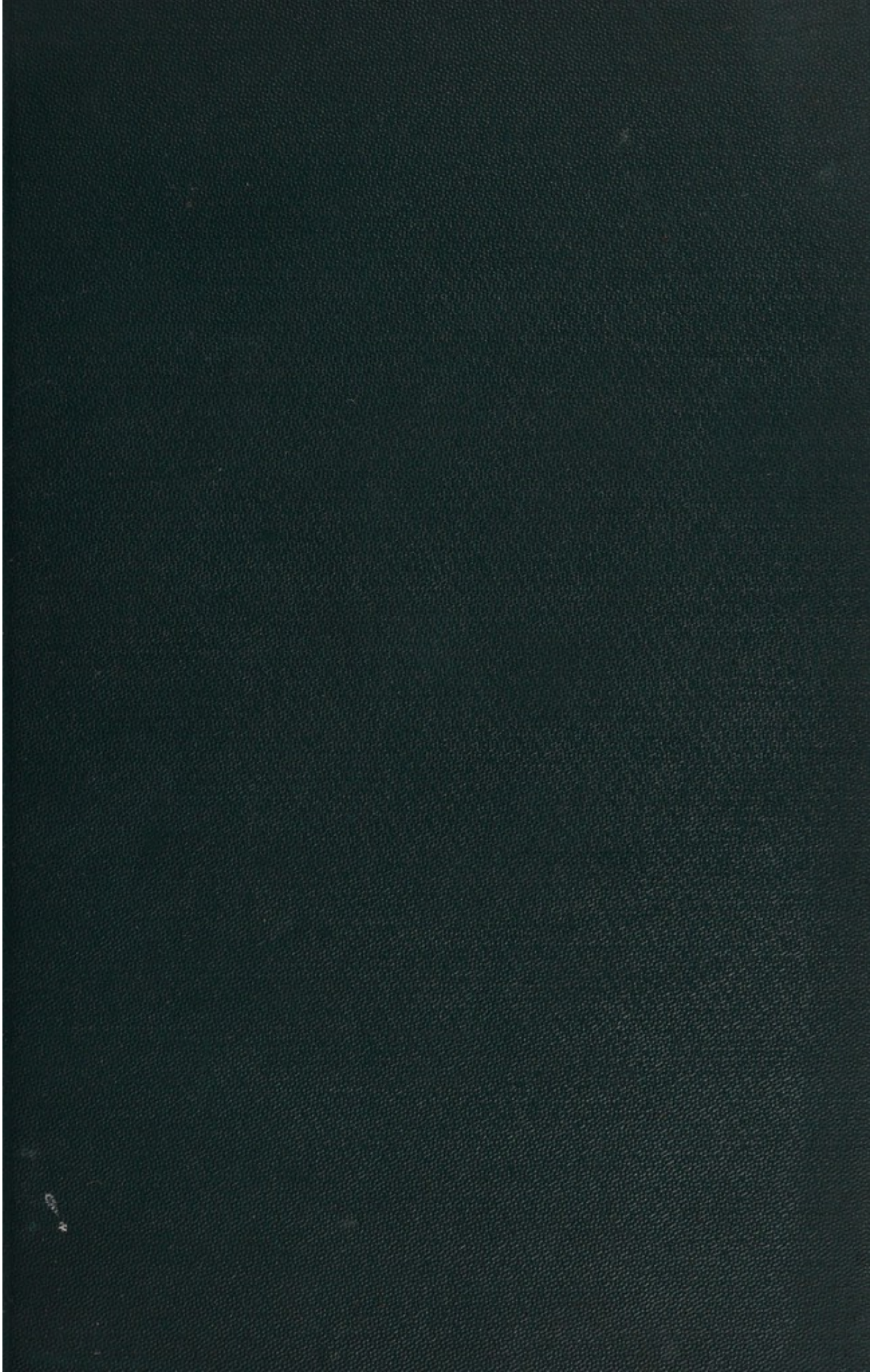
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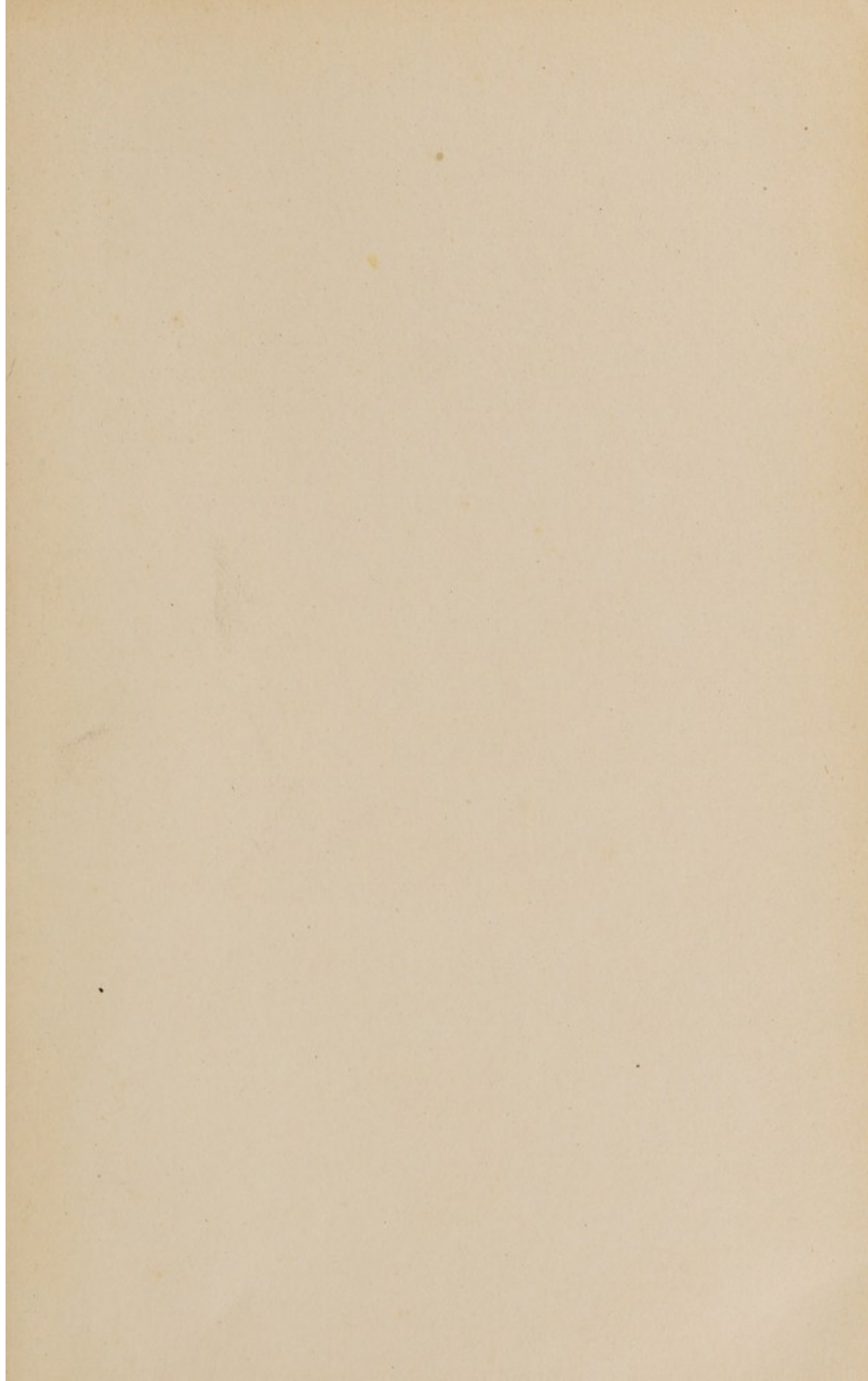
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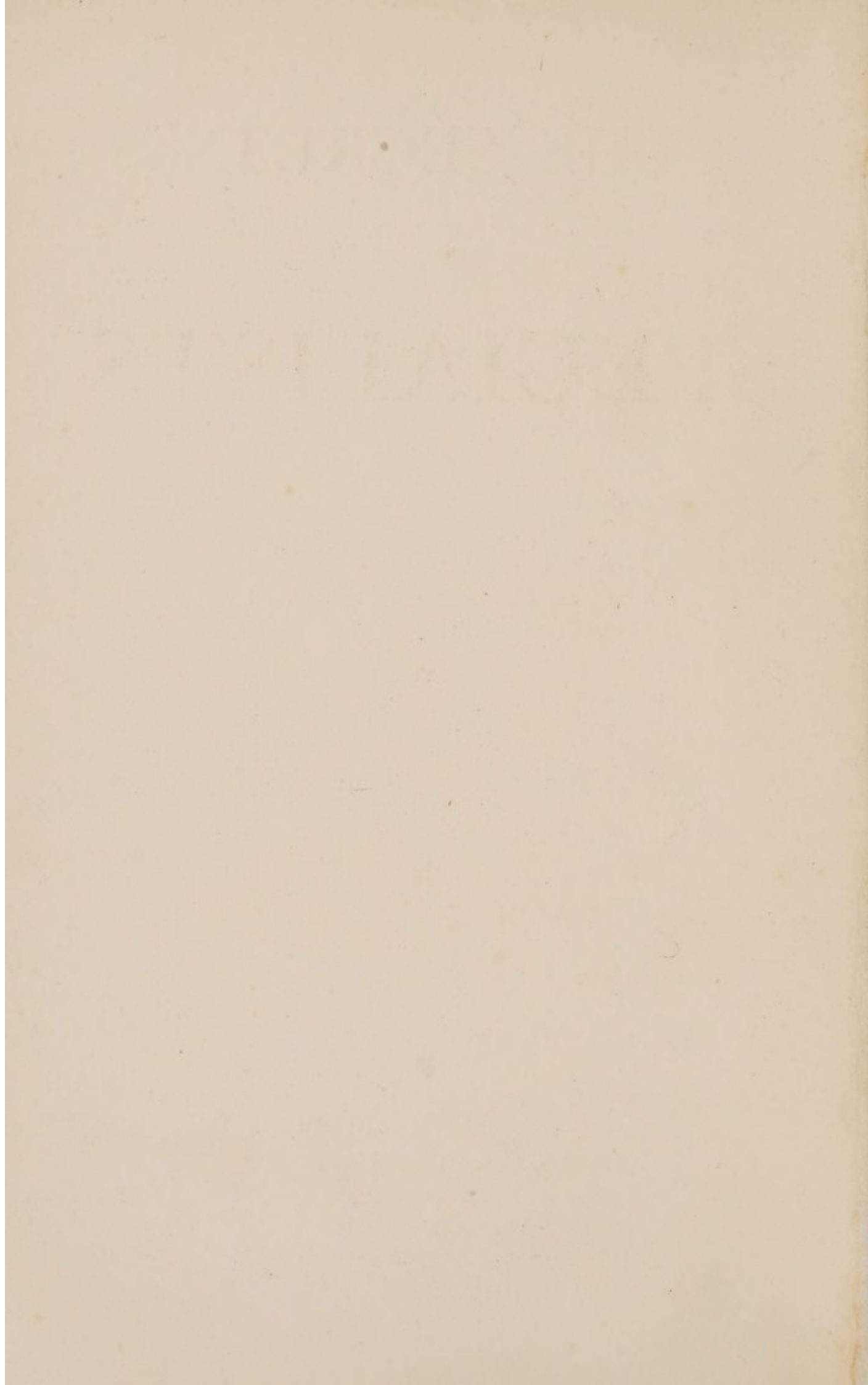


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JOHN R. SCOTT

THE SECRETS of SPECIALISTS

by

A. DALE COVEY, M. D.



“Prove all things and hold fast that which is good”



THIRD EDITION



PHYSICIANS DRUG NEWS CO.

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PREFACE

TO THE THIRD EDITION

Once more the author is called upon to revise this publication, as the two large former editions have been completely exhausted. It is very gratifying to the author to witness the cordial reception the former editions of this book received, and the many kind words of commendation is supporting evidence that physicians are interested in "mysterious medicine" and that many of the methods of treatment given in this publication which were formerly used in an unprofessional way can be adopted by the ethical physician with unexcelled therapeutic results and large financial returns.

The principal mission of this book is to outline specialties and special methods of treatment which will be of assistance in establishing a physicians office practice. With this object in view I have endeavored to carry out my former policy by briefly discussing the different subjects, believing that physicians prefer condensed facts to exhaustive theorizing.

It is always a pleasure to correspond and co-operate with physicians interested in this line of investigation, regarding any subject this publication contains; believing our mutual interest and the welfare of the Profession may be benefited thereby.

A. DALE COVEY, M.D.

PREFACE

TO THE FIRST EDITION

In offering this publication to the medical profession it has been the author's aim to unfold the somber robe which has formerly clothed some of the secrets and mysteries connected with the healing art, and present in a convenient form for reference information which is not generally found in medical text books, relating to the different methods of treatment which are successfully used by medical men who style themselves as specialists.

It has been said that "one-half the world knows very little what the other half is doing." It is also said that "there are tricks in all trades." This is particularly so in the practice of medicine, for the regular physician is seldom familiar with the methods which are used and have made fame and fortune for many of the so-called irregular and other specialists.

The object of this book is not only to expose as far as possible the secret methods used by these medical men and professional promoters who are fleecing the profession by the sale of some secret system with an extra charge for territorial right, but also to offer many suggestions and methods of treatment, and legitimate medical specialties which have exceptional merit, and are indispensable in curing diseases, and establishing and increasing an office practice either for a specialist or general practitioner.

Although this is not an exhaustive treatise, I believe that it fills a vacancy which has long existed, more thoroughly than any other work of its kind ever published, and I only hope that the practical application of many of the methods given will prove to be as successful in other hands as they have in mine.

The compilation of this volume has necessitated the examination of a large amount of medical literature, and a considerable outlay of money investigating the different secret methods used by specialists. While I have no apology to make to the latter, as they were paid in full, I feel under special obligations to the writings of Drs. Andrews, Agnew, Albright, Moll, Cortland, Usher, Shears, Waugh, Scudder, Hammond and others, whose efforts have always been to expose the methods used by the irregular practitioner. I also feel indebted to the Medical World, New Idea, Western Druggist, Medical Brief, Alkaloidal Clinic, and other medical journals, whose formulæ I have used with due credit.

I would be pleased to affiliate with members of the medical profession in weeding out the mysteries which lurk around the practice of medicine, with a view of throwing more light on the subject in future editions of this book. The information here contained has been gained and can only be maintained by a hearty co-operation on the part of the profession, and I hope the same liberal policy will govern our relations in the future as it has in the past.

A. DALE COVEY, M.D.

THE SPECIALIST.

Of the genius "City Doctor"
 Are species not a few;
 There are many arrant humbugs,
 There are others learn'd and true.
 The ever-weening egotist
 Will tell you all he knows,
 Some flourish on society,
 And some depend on clothes.
 One city man's an oculist;
 A second treats the ear;
 A third devotes himself to lungs,
 And curious sounds doth hear.

A fourth with his laryngoscope,
 Will see your glottis quiver,
 While many men the kidneys love,
 And many more the liver.
 Some specialists prefer the joints.
 A few the brain and nerves;
 Some spray away at old catarrhs,
 With hope that never swerves.
 Some think a man in buttons,
 A coach and pair to drive,
 May serve in lieu of wisdom
 And thus expect to thrive.

But 'mid these varied callings all,
 The man who heads the list,
 Is that gentle fingered ge-in-us,
 The gy-ne-col-o-gist!
 He's such a charming fellow,
 So clever in his way;
 He always thrives in cities—
 I meet him every day.
 His rooms are over-crowded
 With ladies, quite a host,
 And if he has a wife, they trust
 She'll soon give up the ghost.

God bless these noble specialists
 In all they have to do;
 And God have mercy on the souls
 Of all the patients, too.

W. TOD HELMUTH, M. D.

The Specialist

A medical specialist has been defined as a physician or a surgeon who knows something about every disease and everything about some disease, but we find that this definition is not applicable to all physicians who are in special practice, for we find men at the highest pinnacle of the profession adding the title of specialist to their names, while the caption is also adopted by the boldest kind of an advertising quack.

We therefore find that under the above title we could discuss many types of medical men, but inasmuch as every general practitioner is familiar with the work of the Regular Medical Specialist, we shall first discuss this subject from an advertising and non-ethical standpoint. What is to be said regarding advertising, is to explain the method rather than to encourage the practice.

These specialists might be classed as the itinerant advertising specialist; the local advertising specialist; the special disease advertising specialist; the mail order specialist; the ethical specialist; the office specialist; the observing specialist, etc.

All of these except the ethical and the office specialist are considered irregular practitioners, whose methods we wish to briefly outline. Those who think all advertising physicians are destitute of a sound knowledge of medicine are entertaining an erroneous idea, which should be released as soon as possible. While I must admit that there are a great many advertising physicians who are nothing more than medical ignoramuses, and are justly entitled to the name "quack" which best identifies them, on the other hand we find among them some of the best therapeutics we have ever had the pleasure of meeting. These physicians are advertising purely from choice, as they are better remunerated for their services and their labors are not so hard.

Many advanced methods of treatment have originated with the irregular practitioner. Many condemnable, demoralizing influences have also come from the same source. In all other lines of business, if a man makes a discovery he can have it patented and his rights protected, but if a physician holds his special method of treatment a secret, or sells the right to use it, he is at once denounced by the regular physicians.

The estates of Drs. Keeley and Brinkerhoff, and the promoters of the various injection treatments for hernia and other methods, would not have been so large if they had made their treatments publicly known. Fortunately "the tricks of medicine will out," and I doubt if there is a secret in the practice of medicine today which cannot be exposed or duplicated with equal therapeutic results. I shall endeavor to throw some light on the subject in the following pages, but I will scarcely be able to begin to tell what might be said.

There has been many discussions at medical societies as to the best methods of eliminating the quack, but to my knowledge there has never been any definite decision. My answer to this perplexing question would be, to adopt his methods, whenever they are worthy of recognition.

Advertising physicians are, generally speaking, good financiers and business men. They advertise as specialists for revenue instead of for the honor of practicing medicine. Oftentimes they depend upon their business ability more than on their knowledge of medicine to make a success. At least, I have seen many cases in which their skill was not apparent, even if they possessed any.

Of the advertising specialists I have met, I would say that fifty per cent. of them have a medical education equal to that of the average general practitioner. Twenty per cent. have a superior knowledge of certain diseases; the remaining thirty per cent. are far below the average, and why they should class themselves as specialists is beyond my comprehension.

The inducements from a financial standpoint are certainly such as to encourage one to enter the advertising arena, for advertising specialists often receive more

money for one day's labor than many physicians do in a year. You may think this is an overdrawn statement, but it is a fact.

I believe that there comes a time in life when a large percentage of physicians feel that they would like to enter the advertising field, but, owing either to a lack of confidence in themselves, or to the fear of being called a quack by their brother practitioners they confine themselves to the code of ethics, and it is well that these objections are considered, for advertising practices are not all sunshine, and they have been the means of ruining both the reputation and financial standing of many physicians.

Many of the most successful advertisers will tell you that if they had their lives to live over again they would prefer the general practice of medicine, wherein they could enjoy the esteem, confidence and respect of their patients and the many social functions of which the advertiser knows very little. I do not mean to say that advertising physicians have no grateful patients, but there is not the same friendly and respectful feeling towards them that there is between the general practitioner and his patients.

THE ITINERANT SPECIALIST.

These specialists travel from town to town and generally plan their circuit so as to make each point either once a month or once in two months. They advertise either to treat all chronic diseases or else they limit their practice to one or more diseases, such as piles, rupture, etc.

Most of the chronic disease specialists who travel have a deficient knowledge of medicine, and could not make a living if they had a permanent residence. It is rather discouraging for the local physician, who labors night and day for the good of his patients, and does more work for sweet charity's sake than any one else in the community, to read the advertisements of one of these specialists and witness the financial success of his visit, for, no doubt, he has received more cash in his pocket for his day's work than the local practitioner could book in a month.

It is rather amusing to read the headlines of some of the advertising circulars issued by the traveling doctor. I once picked up a bill on the street in a neighboring town with the bold faced headlines, "The President is coming." This certainly was a very "catchy" caption and everybody was wondering at first sight if the Chief Executive of the United States was going to make them a visit, but by reading a little farther it was Dr. Gordon, a traveling specialist, who was President of some Medical Institute.

There seems to be no way to suppress the practice of the itinerants, unless it is done by legislation. The laws of many states are so rigid that it prevents their operations to a certain extent.

The itinerant specialist treats his patients by the month; his charges range from five dollars to as much as he can get for each month's treatment, which, of course, includes all medicine. He always tries to bind them by a contract to take several months' treatment for a certain consideration; for this he takes their notes, which are indorsed by responsible parties. These notes are made payable each month as he visits the city. If possible, he will dispose of the notes at the bank and leave the city with cash on hand.

The traveling specialists principle field is in the treatment of chronic, obscure and long standing diseases, the thus afflicted are pseudonymed by them as "rounders," for nearly all patients consulting them have gone the rounds of the local physicians, and when they see the advertisements of these specialists, appearing in their local papers, they are attracted to them, as a boy is to the aroma of sawdust at a circus.

These specialists always dispense their own medicines which necessitates a road equipment and dispensary, which can be obtained in as portable and compact form as possible. In these days of compressed tablets, tablet triturates, pills and alkaloid granules. Such an equipment is an easy way of dispensing, but experience has taught them in many instances, in order to secure large fees they must "give their patients their moneys worth,"

and dispense large packages; they therefore cannot be weaned from the bottle and liquid medications; with this object in view many of these specialists have become quite expert extemporaneous dispensors.

There is no prescription writing done by the traveling specialists; he exercises sufficient judgment to keep his knowledge to himself and fatten his purse by direct prescribing. In order to carry a reasonably well equipped outfit from town to town, it is necessary that such remedies be selected as will occupy as little space as possible. Fluid extracts and Lloyd Brothers specific tinctures, which represent one grain of the drug to the minum are selected. Lloyd's tinctures are often preferred for this purpose, as they mix more readily with water and do not allow the resin to separate and be deposited on the side of the bottle or float on top of the mixture. The principal menstruum in their prescriptions is water or simple syrup which is preserved with about 10 per cent. of alcohol or sufficient resorcin or salicylic acid to keep their mixtures from decomposing or deteriorating in their therapeutic value, as will be illustrated in the following prescriptions. Resorcin seems to be in greatest favor as a preservative. A few grains of this remedy added to any mixture will preserve the preparation indefinitely and is one of the best gastric and intestinal antiseptics the physician can select and is always followed with good results in all fermentations and decompositions within the digestive tract. Many times a concentrated aromatic elixir is added in small quantities to flavor the preparation, extract of licorice is made from the common commercial stick licorice by adding water and heat and condensing the product to a semi-solid mass. This is used to disguise the taste of many of their bitter mixtures. Caramel is the principal coloring matter used where a rich brown color is desired. Simple syrup is made by simply filling the dispensing bottle about one-third full of granulated sugar into which aqua and the other ingredients are added.

In selecting remedies for the road you must bear in mind that you have exclusive chronic diseases to deal with, and the medications required are not such as are

always used in the treatment of acute diseases, but incorporate medicines known in therapeutic classification as tonics, alteratives, stimulants, aphrodisiacs, diuretics, restoratives, etc. Of the entire list *nux vomica* and its alkaloids of strychnine perhaps heads the list and is added to nearly all of their tonic mixtures, however the entire list of "multum in parvo remedies" enter into their prescriptions, that is such remedies as will make large dispensing packages, by the addition of a small amount of the more active remedies or such remedies as the maximum dose is from one to five minims, such as the fluid extracts of *nux vomica*, *hyoscyamus*, *Cannabis Indica* and nitrohydrochloric acid, etc. To illustrate their methods of dispensing, I will briefly outline a case, and also give one of the extemporaneous prescriptions, which entered into the treatment, which was taken from a case book of a traveling specialist.

Mrs. H.— aged 28 living in a malarious district, been sick for three years, the beginning was ushered in with intermittent fever, which lasted four weeks, from which she never fully regained her health and strength; when consulted the patient was extremely emaciated, and constipated by the use of cathartic pills, her bowels would move every third day, with clay colored stools, occasional attacks of sick headache, the appetite was poor, the complexion was pale and rather yellow, indicating an impairment of the blood, hepatic and digestive functions. It was plain to observe that she had a case of chronic malarial toxemia to deal with, the following prescription was one of several which entered into the treatment.

R

Arsenious acid	4 gr.
Nitrohydrochloric acid	2 dr.
F. E. Nux Vomica	2 dr.
F. E. Iris	1/2 oz.
Resorcin	1/2 oz.
Quinine Sulphate	1 oz.
Caramel	1/2 dr.
Sugar	
Aqua	q. s. ....16 oz.

Sig. A teaspoonful in a wine glass two-thirds full of old port wine after each meal.

In compounding this prescription the sixteen ounce bottle is filled two-thirds full of water, into which the arsenious acid, nitrohydrochloride acid and resorcin is dissolved, the sugar is now added and when partly dissolved the other ingredients added. Shake the bottle until all are thoroughly dissolved. The finished product makes a beautiful brown mixture, which is easily prepared in a minutes time and offers all the advantages of an intestinal antiseptic, antiperiodic gastro-intestinal and hepatic stimulant, and as a general tonic, although iron in the form of Bland's pills and other adjunct medication was administered, the principle credit in restoring the health of the above patient was given to the above prescription.

It is a well recognized fact that minimum doses of Cascara Sagrada combined with Nux Vomica will often accomplish better results in the treatment of chronic constipation and inactivity of the bowels than the maximum dose of Cascara Sagrada alone. The following prescription is a great favorite for this most common complaint and shows the way licorice may be used to partially disguise the bitter taste of the other ingredients.

R

Resorcin	2 dr.
F. E. Nux Vomica	2 dr.
F. E. Cascara Sagrada	2 oz.
Extract of Licorice	2 oz.
Simple Syrup .....q. s.	16 oz.

Dropsy is a frequent complication of chronic diseases of the heart, liver and kidneys. The following mixture is a great favorite as an adjunct treatment for the relief of this condition.

R

F. E. Digitalis	3 dr.
F. E. Scilla	3 dr.
Tincture Apocynum (Lloyds')	4 dr.
Resorcin	4 dr.
Potassium acetate	2 oz.
Simple Syrup .....q. s.	16 oz.

Sig. A teaspoonful every three hours.

There are hundreds of similar formulæ which could be given but the above examples will be sufficient to give the reader an idea in which some of their mixtures are compounded in a few moments time in the parlors they occupy at the hotel where they are temporarily domiciled.

THE LOCAL ADVERTISING SPECIALIST.

This man advertises either under his own name or under the name of a Medical Institute, or both. His business methods are conducted very much like those of the itinerant. Many of these specialists advertise to treat all diseases in general; others confine their advertising to eye and ear, throat, nose and lungs, catarrh and catarrhal deafness, hemorrhoids, hernia, etc., but the advertisement most frequently seen in the daily papers is one concerning the disease of the sexual system.

I once asked a physician, who had a large experience in advertising and treating all general diseases, why he finally confined his advertising to treatment of diseases of the sexual organs. He replied that in his experience he has found that people would pay more money for the treatment of diseases in that part of their anatomy than in any other. He also stated that if he had a patient who was suffering with both consumption and impotency he would be requested to cure him of impotency first.

There is a world of truth in what he said, for people will neglect every other disease longer than they will any disorder of the sexual system. Another reason which makes sexual diseases a profitable specialty is, that most people do not care to consult their family physician in such matters, and, seeing the advertisement of a specialist, will drift into his hands.

Many of these specialists endeavor to advertise in a modest way, but the majority are bold and offensive, for the louder they shout the more victims they will secure. Their advertisements are often decidedly misleading, with bold headlines of "Free Until Cured," "One Month's Treatment Free," etc. Such advertisements are, of course,

only to get the patient to call at the office and the process of landing them is an easy one, for instead of giving them one month treatment free, they tell the patient that they only offer their services free, but they will expect the patient to pay for the medicine for which they will only charge from five to fifty dollars a month. Their medicines are, of course, very expensive (?). They also issue circulars depicting the despairing future of the masturbator. These are illustrated with pictures of a brainless child born of a masturbator, or a half-naked man behind the bars, made insane by self-abuse.

No words can tell the demoralizing influence that such publications have on the half-educated youth who gets hold of them. They are led to believe if they have one or two emissions a month they are afflicted with some incurable disease. It is this state of mind that is desired by the advertisers, for the more morbidness and despair, the more money in their pockets. This systematized method of attempting to create disease and to fatten on the distress of their victims is the foulest possible prostitution of medicine.

This class of physicians also treat syphilis, gonorrhoea, and other venereal diseases. When business gets a little dull they buy a list of letters from some mail order man who is in the same business, and get a new list of patients. They often exchange names in order that each may work the discarded or discontented patients of the other and thus keep the machinery running. Some of the methods of treatment used by these specialists will be discussed in the chapter on genito-urinary diseases.

THE SPECIAL DISEASE SPECIALIST.

We find that these men are of a more refined nature, and generally very skillful in the special branch of medicine or surgery which they are practicing. They are entitled in every sense of the word to be called specialists. They are conscientious and are interested in the welfare of their patients; they believe that their methods of treatment are the best and they demonstrate in many cases

that they are. Under this class we find rectal, hernia, diseases of the stomach, cancer and other specialists, many of whom would be shining lights in the medical fraternity if it were not for their advertising, which is devoid, however, of objectionable matter. Whether or not advertising by such men should be allowed by the medical profession, I am not in a position to say, but it seems to me that if a man devotes his time in perfecting a treatment for some special disease, which his brother practitioner has failed to cure or recognize as incurable, he should for the sake of humanity let the world know it, and the easiest way is through printer's ink, unless he teaches his method to the profession, the members of which often do not care to spend the time to learn.

This has been illustrated hundreds of times by rectal, hernia, and cancer specialists. I have seen many patients with cancer and hernia cured by these specialists, who were offered little or no encouragement from their family physician.

In the following pages I will give several methods of treatment used by these specialists which are worthy of adopting in your practice, and by making use of them you will receive large financial returns.

THE MAIL-ORDER SPECIALIST.

Most physicians have very little conception of the amount of business done by the mail-order specialist. Up to a few years ago, if any one had told you that he could establish a large medical practice through the mail, you would have thought that he was a fit subject for the lunatic asylum; but at the present time there are hundreds of thousands of dollars spent every year in advertising, and many more thousands of dollars received by the advertisers.

There are about one hundred and seventy periodicals published for the sole convenience of the advertisers. These are called Mail Order Journals or Magazines. The rates for advertising in these publications range all the way from ten cents to six dollars a line. A four-line

advertisement inserted once in the entire list, would cost \$529.20.

This will give you an idea of the enormous amount of money that can be spent in advertising. A four-line advertisement is the smallest space some papers will allow you to take.

A Mail Order Medical Specialist who uses only from two to four inches of space each month is considered rather a small advertiser, although he is paying \$2,272.20 each month for his advertising, if he uses the entire list. There are many specialists who appropriate \$100,000.00 each year for their advertising.

By advertising in the so-called Mail Order Journals, you reach patients in the most remote parts of the country. You will have no idea from what country you may receive a reply from your advertisement. You may receive letters from Australia, Japan or Iceland, or from a mining or logging camp, which is many miles from the nearest railroad. On the other hand, you may receive a reply from your own or from a distant city. Of all the medical advertising business, the mail order business is the most fascinating, for when one once gets into it, it is hard for him to get out.

The specialists who are following the mail order industry generally confine their practice to one disease or to one remedy and advertise a specific treatment for Kidney complaint, Rheumatism, Catarrh, Obesity, Deafness, Diseases of the Eye, Impotency, Female Complaints, Consumption, Asthma, Epilepsy, etc.

The remedies for the cure of these diseases are generally first furnished to the patient in the way of free samples. If the remedy has any merit, the patient is quite sure to order a supply. In this way he is induced to continue the treatment for several months.

There are two important things to be considered in remedies to be sent through the mail. They should possess a certain degree of merit, and should contain a few or no poisonous ingredients; but this rule is not always adhered to, as will be seen by the formulas which are to follow.

The physician who treats all chronic diseases, supplies his patients with question blanks which the patient can fill out and send to the doctor, together with a description of his case in his own language. The physician may then prepare any treatment he deems the case requires. The fees for such treatments are from one to ten or more dollars a month. Mail order specialists generally treat their patients by the month, as do other advertising specialists.

Mail order patients should be treated with the same integrity and respect as local patients, and, under all circumstances the specialist should endeavor to hold the esteem and good-will of his patients. If a patient should write a tart, pointed, or impudent letter, it should never be answered by one of the same character, although the specialist may feel justified in doing so. No good can be accomplished from such correspondence, and much harm is often done. If one can succeed in holding the confidence of his patient and the treatment benefits him, he is sure to send other patients, but if the treatment is absolutely worthless, he will not hesitate to denounce it as a fraud. This is oftentimes done very unjustly, for no physician can expect as great a number of cures in a mail order practice as he can in patients who are constantly under his observation.

Although there are several preparations given throughout this book which have or can be used in mail order practice, I will add several more which have come to my notice and which can be used successfully by the general practitioner.

ASTHMA.

Remedies for this distressing disease have always found a steady and increasing sale. I know of one gentleman who has made a large fortune through the sale of the following Asthma cure, which is compounded after the formula of Dr. Covert. The formula is a good one and has been published in several Medical Journals:

R

Iodide of ammonium	2 dr.
Fl. ext. grindelia robusta	4 dr.
Fl. ext. glycyrrhiza	4 dr.
Tinct. lobelia	2 dr.
Tinct. belladonna	2 dr.
Syr. Tolu	q. s. ad. 4 oz.

Dose—Teaspoonful three times a day; extra doses during a paroxysm.

CONSUMPTION CURE.

The Slocum system of treatment for consumption has established quite a reputation, and the company is among the largest of mail-order advertisers. I sent for a sample of their preparations, which consist of a bottle of Psychine, Ozomulsion, Coltsfoot Expectorant and Ozojell.

The Ozomulsion is about a twenty per cent. cod liver oil emulsion with the addition of guaiacol. Psychine, the "greatest of all tonics," is a decoction of nux vomica and cinnamon, which is to be taken in a wine-glass full of whiskey before each meal to build up the appetite. The Coltsfoot Expectorant is a preparation very much resembling Ayer's Cherry Pectoral, given on another page. This treatment will cost from five dollars to ten dollars a month.

RHEUMATISM CURE.

These are also freely advertised and the patient liberally sampled. A gentleman who had the management of a large mail-order Rheumatism Cure Co., said that they only used one drug and that was prepared as follows in large quantities:

R Ammonium chloride	160 gr.
Aromatic elix	q. s. ad. 1 oz.

Mix.—A teaspoonful from three to six times a day.

Each teaspoonful of the above mixture represents twenty grains of ammonium chloride, and it is often surprising to note the influence which this drug has in con-

trolling muscular rheumatism. The cheapness of the drug makes it a very profitable remedy to handle, and it is a preparation that will establish a reputation upon its own merits, as the thousands of testimonials which this company possesses will attest.

EPILEPSY.

"I cure fits," is a headline seen in all mail-order publications, and several men have accumulated large estates by selling remedies for fits. A very convenient and profitable remedy for epilepsy and the neuroses is hydrocyanate of iron. Although this remedy has been used by a few physicians for several years, it has never gained the confidence of the profession which it fully deserves. It will seldom disappoint reasonable expectations and has the advantage for mail-order purposes that it can be dispensed in pill form, each pill composed of the following:

- R Hydrocyanate of iron 1 gr.
 Extract hyoseyamus $\frac{1}{2}$ gr.
 Powdered valerian (English) 2 gr.
 Sig. A pill morning and night, gradually increasing.

HEART DISEASE.

The frequency of diseases of the heart has created a demand for a "heart cure." The accompanying formula is used by one firm and I am told that they have the tablets manufactured in car-load lots. The formula is an old one and extensively used by the medical profession. Each tablet represents:

- R Glonoin 1-100 gr.
 Tinct. strophanthus 2 min.
 Tinct. digitalis 2 min.
 Tinct. belladonna $\frac{1}{2}$ min.

STOMACH DISEASES.

A physician who has a large local and mail order practice and advertises as a stomach specialist, claims he

can cure ninety per cent. of all cases of dyspepsia by confining his patient to a raw or very slightly cooked beef diet. In connection with this diet, his favorite stomach or digestive tablet is as follows:

R	Pepsin	1 gr.
	Sulphite of soda	2 gr.
	Resorcin	2 gr.
	Charcoal	2 gr.
	Capsicum	$\frac{1}{4}$ gr.
	Nux vomica	1-6 gr.

This treatment is certainly a very successful one and the raw meat diet should never be overlooked in treating stomach diseases, as it has a very soothing influence on the stomach when it is in an irritable or a diseased state.

ENURESIS.

A western physician has extensively advertised a cure for "bed wetting," which is put up in tablet form according to this formula:

R	Atropine	1-120 gr.
	Santonin	$\frac{1}{4}$ gr.
	Rus aromatica	5 gr.

The directions which accompany the treatment instruct children to retain their urine as long as possible during the day and not to drink any liquid for two hours before going to bed.

CANDY CARTHARTIC.

The following formula makes a preparation very much like Cascarets, which has had a remarkable sale:

R	Powd. ext. senna	1 oz.
	Powd. ext cascara sagrada	1 oz.
	Powd. ext. licorice	2 oz.
	Powd. sugar	2 oz.
	Oil anise	2 dr.
	Oil wintergreen	2 dr.
	Aqua	q. s.

Mix the first six remedies and add sufficient water to make a paste, then divide into tablets of thirty grains each.

OBESITY.

Pills for reducing weight have found a great demand. These pills are made from the active principals of the phytolacca berry and bladder wrack, and put on the market under different names.

THE EYE SPECIALIST.

For the last four years eye specialists have been using large space in mail order publications. They advertise to cure every form of eye disease, from cataract to the simpler forms of inflammation, and the surprising part of it is, they have been remarkably successful. Since the last edition of this book I have received many letters from physicians, requesting information regarding their treatment. Finally I secured the secrets of their business from a physician who attended to the compounding and shipping of the treatment for one of these specialists, whose income from mail order patients exceeded over \$100.00 a day. Their treatment for the disease of the eye is somewhat stereotyped. Their principal panacea for all diseases of the eye is the oil of thuja. This is certainly a remarkable remedy, and offers us one of the best means of treatment for many diseases of the eye. This remedy is advertised as a "harmless, painless, soothing and healing preparation that gives instant relief and absolute cure for all aches and pains, burning of the eyes, from inflammation, strain or granulated lids. It is also a sure cure for corneal opacities, etc."

The above statement, made by them, is true in many cases. This remedy is often combined with cocaine hydrastin and coloring matter, to disguise it.

Referring to this remedy, Prof. W. C. Converse, of Chicago, says:

"In cases of ophthalmia neonatorum or gonorrhoeal ophthalmia, where there has been considerable destruction of corneal tissue, the cicatricial tissue which takes the place of the destroyed cornea is hard and opaque, and cannot be absorbed or rendered transparent; it is not in

cases of this kind that I report success, but in the diffuse nebula, or in the more dense form called a macula, which follow corneal ulcers, that I have had my best results.

The classical treatment of calomel dusted in the eye, or the daily application of the yellow oxide-of-mercury in cosmoline, plus the indicated remedy, have helped to a certain point, and then improvement has stopped, and it is in these cases that I have used Thuja oil, and been surprised and gratified with the results. The Thuja oil seems to stimulate the blood-supply of the conjunctiva, promoting the reproduction of clear corneal substance.

My method of application is to have the patient drop one drop of Thuja oil on the affected eye; then close the lids and gently massage the eye over the closed lids, and apply a hot wet cloth to the lids for five minutes once a day after the massage, with the Thuja oil three times a day.

The two following cases whose records I give are College clinic cases that have been watched with interest by members of the present Senior class:

Olive S., 11 years old, has had many attacks of phlyctenular keratitis. The cornea had the appearance of an interstitial keratitis; she had been treated at the neighboring college clinics. She was not attending school, because of poor vision, for six months. She said they had used a yellow salve on her eyes with but slight improvement.

This was one year ago. I commenced the Thuja oil, which she used faithfully. Improvement was noticeable in two weeks. Vision at the last visit was 20-30, and she is now attending school.

J. P., 29 years old. A large macula following a large corneal ulcer treated one year at different eye-clinics, with no improvement. Up to date he has used one ounce of the Thuja oil, and now there is but a slight haziness of the cornea which can be noticed only with oblique illumination.

In the past year I have used Thuja oil on many other cases in my clinic and in private practice with uniformly favorable results. I consider that the Thuja oil treat-

ment is superior to any other method now in use for corneal opacities."

Another remedy which has obtained quite a reputation as a solvent for cataract and other diseases of the eye is *cineraria maritima*. This is another remedy imported from South America, (the land of healing products.) I am not familiar with the use of this remedy, but many favorable results have been reported from its use, and it is worthy of trial in many cases.

The sale of these remedies, together with the fitting of glasses, makes a very profitable industry for the mail order eye specialist.

SELLING RECIPES.

Every mail order Journal contains advertisements for selling recipes; this is particularly so with toilet articles, household preparations, etc. These recipes are sold at prices ranging from twenty-five cents to ten or more dollars. I give the following as illustrations of this class, the former representing a \$1.00 hair restorative recipe and the latter recipe for making artificial maple syrup, which has been sold many times to manufacturers from \$10.00 up:

GRAY HAIR MADE DARK.

R	Tannate quinia	1 $\frac{1}{4}$ dr.
	Lavendar flowers	4 dr.
	Rosemary leaves	6 dr.
	Bay laurel leaves	2 dr.
	Oil myrbane	20 min.
	Oil citronella	20 min.

Put one pint of boiling water on the above, and set it aside to cool for one hour. Then strain through a cloth and add one ounce of glycerine and two ounces of alcohol (or bay rum). It is then ready for use.

If your hair is naturally oily, you may omit the glycerine.

DIRECTIONS FOR USING.

After shaking the bottle, pour a few spoonfuls into a vessel. Take a sponge, moisten with compound, and rub

the scalp thoroughly. Do this every other morning and evening until the hair has resumed its natural color, and then apply once a week thereafter. It will not stain the scalp, and contains no poisons.

HARMLESS BLACK OR BROWN HAIR DYE.

R	Pyro-gallic acid	4 dr.
	Sulphite sodium	30 gr.
	Alcohol	1 oz.
	Soft water	3 oz.

Dissolve the Pyro-Gallic Acid in the Alcohol, and the Sulphite Soda in the water. Mix the two (2) solutions together, and then it is ready to use.

DIRECTIONS FOR USING.

Before using, the hair should be thoroughly washed with soap and water. It can be so applied as to color the hair either black or the lighter shade of brown. If black is the color desired, the preparation should be applied while the hair is moist, and for brown it should not be used till the hair is perfectly dry. To apply, dip the points of a fine tooth comb into the compound, and gently draw the comb through the hair, commencing at the roots, till the dye has preceptably taken effect. When the hair is entirely dry, oil and brush it as usual.

I send two recipes—The first is my own original recipe, and the one I recommend. The second one is given because of its easy use, and combining both black and brown, according to the way applied. It is excellent for dyeing the whiskers. Ingredients for the first recipe (except Alcohol and Glycerine) sent post-paid for 25 cents. Ingredients for the Harmless Dye (except Alcohol and Water) sent post-paid for 35 cents.

NOTE—It will be noticed that their object is not only to sell the recipes but also to supply the ingredients.

ARTIFICIAL MAPLE SYRUP.

Although this formula is a deviation from the theme of this publication, the product is a useful household article, and the process of manufacture is so simple and

valued so highly, that I feel justified in giving it, as much of the maple syrup bought at stores is made by this or a similar process and produces an article which is hard to detect from the genuine. The simple process of manufacture is as follows: Crack two quarts of hickory nut shells, remove the meat; tie the shells in cheese cloth and boil for about one-half hour in one gallon of water. When the solution becomes brown, add sufficient sugar to make the syrup the right consistency, and strain while hot.

THE PREMIUM TRUST SCHEME.

Another way of introducing proprietary medicines is to advertise for agents and give premiums. The applicant answering the advertisement is at once forwarded fifteen packages of head ache powders, which he sells at ten cents a package. He remits the full amount, \$1.50 and receives, as a remuneration for his services, jewelry and other articles. This is a very successful scheme and rather an honorable way of introducing remedies. If the remedy has merit the medical company receives many orders, as their address is printed on each package.

THE FREE PRESCRIPTION C. O. D. SCHEME.

This scheme has formerly been used by the "Lost Manhood" fakirs, and consists of advertising a free prescription for lost vitality. The prescription is sent to the applicant as ordered, in due time, and contains the fictitious names of many remedies. The patient also receives a flowery letter stating that these remedies are imported from Central Africa, South America or some other foreign country, and thinking perhaps, their local druggists might not carry them in stock, they decide to send them one complete month's treatment, by express C. O. D., \$6.00. If the prospective patient is slow in accepting the package, he is frequently written to by what is known as the "follow up system," which consists of a series of letters extolling the valuable properties of the treatment. The price of the treatment is also gradually reduced during the correspondence from \$6.00 to \$1.50; in the mean-

time the express company is notified if the package is not accepted, it can be destroyed, as its value is less than the express charges to return it. This has proven to be a very successful scheme, as fully three-fourths of the packages are accepted. There were no less than twelve of these medical companies in operation at one time. The Postoffice authorities have refused them the use of the mail, however, and they have closed out their business.

THE OBSERVING SPECIALIST.

DIAGNOSING DISEASES WITHOUT ASKING ANY QUESTIONS.

This is a new feature which is being practiced by many advertising specialists and, although this method cannot be applied to all cases, it is surprising to note how often they will hit the nail on the head.

I had occasion to visit one of those physicians for the purpose of learning his secret if possible, and was somewhat surprised at the accuracy in which he would often describe symptoms, and the weight it had in gaining the confidence of the patients, which is a very important feature from a financial standpoint. People generally think that if a physician can tell their ailments without asking any questions he must be a healer of wonderful skill and ability.

This physician had charge of one of the largest medical and surgical institutes in our country, which afforded him an opportunity to examine from twenty to seventy-five patients a day, and after watching him take cases, I am thoroughly convinced that the face will map out many diseases and the physician, who is the least observing and familiar with the symptoms of disease, can tell many of them by studying the physiognomy of his patients.

The expression and the color of the face, temperament, the carriage of the body, conversation, breathing, eye, the pulse, tongue, and, the occupation, are the principal things upon which these "physiognomy diagnostics" locate disease.

There are only three questions which are asked the patient, namely: To see the tongue, his age, and his occupation.

During my stay with this physician I watched him take many interesting cases, and I think it will be of sufficient interest to outline the ones which are quite familiar to every physician.

The first patient was a gentleman, forty-six years old, who entered the consulting room rather slowly and took a seat. There was an expression of melancholy on his face; he looked sad and friendless; the skin and complexion was slightly yellow, but not decidedly noticeable; the doctor looked at his tongue, which had a brown coat, and told him he had disease of the liver; a feeling of fullness in the right side, laying his hand on the right hypochondriac region; he also told him that he had a pain under the right shoulder blade; at times would feel drowsy; had no ambition; the urine at times was scanty and high-colored; was troubled with indigestion. He also mentioned other symptoms which are generally associated with diseases of the liver. In this case you will see that his diagnosis was founded upon the color of the skin, the general torpidness of the body and the coating of the tongue.

The next case was still less difficult. A young lady eighteen years old, whose face at once would explain her symptoms, for she had a pronounced case of anaemia. The doctor immediately told her disease was due to lack of red blood corpuscles in the blood; that her menstrual periods were scanty and irregular; that her heart would palpitate on the least exertion; that she would get dizzy when rising from a recumbent position, etc.

The next patient was a lady thirty-seven years old, mother of four children; was nearly as pale and anaemic as the former patient. The doctor examined her carefully and told her that she was suffering with female troubles; that her menses were too profuse and appeared oftener than they should; that this excessive loss of blood would not allow her body the proper nourishment, and at times she was extremely nervous and irritable; and also

that her digestive organs were feeble, due to lack of nourishment from the excessive loss of blood, and that like the former anaemic patient, she had palpitation of the heart, faintness, etc., all of which she admitted to be true.

After the patient was dismissed, I asked the doctor why he should diagnose her disease as originating in the female organs. He discussed the temperament of the patient; the tissues of the body were sleazy in texture and would readily yield to the congestion in the parts during the menstruation, and owing to this excessive loss of blood would naturally bring other organs into sympathetic suffering.

The next patient was a man, fifty-one years old, who apparently seemed to be enjoying the best of health, but, after examining the tongue, he was immediately told that he had dyspepsia. The tongue had a heavy white coat, which indicated that an excessive amount of acid was being secreted by the stomach and that he would have sour eructations, heart-burn, occasionally, pain in the pit of the stomach and soreness on pressure, etc.

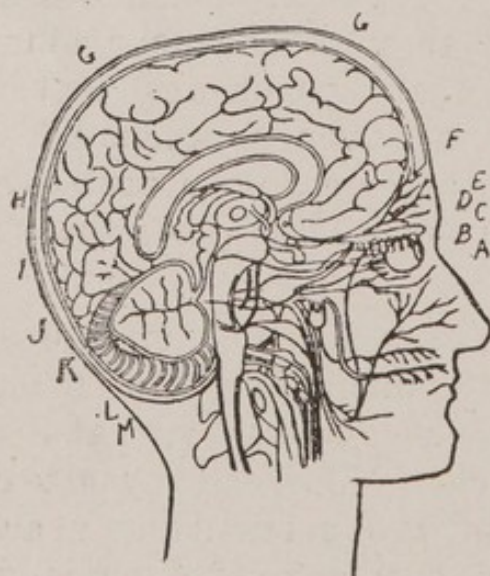
In this case it was plain to see that the tongue told the story.

The next case was a man sixty-one years old, with rather a plethoric temperament. After the doctor felt of his pulse, he at once advised him that he had a valvular disease of the heart. He called my attention to the receding pulse which was particularly characteristic with its forcible impulse, which rapidly declined; the so-called "water-hammer" pulse. The blood vessels throughout the body would pulsate so that they were visible to the eye. The use of the stethoscope showed plainly that the patient was suffering with aortic regurgitation.

The above only illustrate a small number of cases met with and, although he made many failures, he was reasonably successful in the majority of cases. I have seen him locate diseased organs by finding a sore spot on the spinal column, and relieve pain by making pressure on this spot and desensitizing the nerve supply, which is the method used by the osteopaths. He would locate rectal

diseases by the position which the patient sits in the chair. Kidney troubles can also be located by the condition of the eye, and the desire of the patient to press the small of his back upon some hard substance. The color of the skin will point out diseases of the blood and liver; the character of a cough will locate disease of the throat, bronchial tubes or lungs by its volume.

Acna rosacea is not always due to the use of alcohol, but is frequently associated with disease of the stomach and bowels. Falling out of hair is also connected with diseases of the kidneys. Dark circles and discolorations under the eyes are associated with disturbances within the pelvic cavity, female diseases, etc. Masturbators and those who indulge in sexual excesses can often be identified by the sheepish expression of their faces. Notched teeth are often a symptom of hereditary syphilis, etc.



Pain in the form of reflex headaches is one of the most frequent symptoms referred to. The accompanying diagram given by the late Dr. Nicholas Senn, will illustrate the methods in which many diseases of the internal organs are located through this reflex neurosis.

A—Ache around eyes and nose, indicates trouble with stomach, eyes and nose.

B—Ache in center of forehead above nose, indicates constipation, decayed teeth, errors of refraction.

C—Ache in center of forehead above "B" indicates trouble with nose and intestines.

D—Ache over each eye, indicates stomach trouble.

E—Ache or tight band-line sensation all around head above eyes, indicates an anemic or bloodless condition.

F—Ache in upper region center of forehead indicates nasal catarrh and nasal trouble.

G—Ache over entire top of head indicates uterine trouble, debility, anaemia, stomach and bladder origin.

H—Ache side of head over ear, indicates anaemia or poor blood.

I—Ache near center of back of head level with top of ear, indicates diseases of the eye.

J—Ache just below "I" indicates constipated condition of colon.

K—Ache just back of ear, indicates mastoid complication.

L—Ache back of neck at base of brain, indicates nervousness and spinal irritation.

M—Ache a little to one side and below "L" indicates dérangement of stomach and irritation of spine.

The late Dr. J. K. Scudder, of Cincinnati, was among the first to call attention to the different coatings of the tongue and their relation to diseases of the stomach, bowels and blood. The doctor says, "If the tongue is heavily coated at its base with a yellowish white fur, we know that there are morbid accumulations in the stomach. If the tongue is uniformly coated from base to tip with a yellowish fur, rather full, and moist, we have the history of atony of the small intestines. If the tongue is elongated and pointed, red at tip and edges, papillae elongated and red, we have evidence of irritations of the stomach with deterioration of the blood.

"Again, we have a tongue that might be designated as 'slick'." It is variously colored, but it looks as if a fly should light on it he would slip up and break his neck. It is evidence of a want of functional power, not only of the stomach and the bowels, but of all parts supplied by the sympathetic nerves.

"The tongue tells us of acidity and alkalinity of the blood in language so plain that it cannot be mistaken.

The pallid tongue with white fur is an index of acidity of the stomach and blood, and it is surprising to note how rapidly these conditions can be cured by the use of sulphite of soda. A deep red tongue indicates alkalinity and is readily cured by the employment of an acid.

“Impoverishment of the blood (sepsis) is indicated by a dirty dark colored fur, and requires a treatment that will antagonize this septic process.”

You will notice that this “unruly member” alone tells us a good deal and by careful study might tell us more. It is with these objective and semi-objective symptoms, together with the sense of touch, that these specialists become familiar and use as a foundation for their diagnosis. Although I have only given you a rough sketch of the subject and present this article only as good material for thought, hoping that it may prove of some assistance to you in locating diseases by observation.

THE ETHICAL SPECIALIST.

We find that medical men, even of this description, often like to see their names in print, which will react to a financial advantage on their part, but these men differ from the regular advertisers inasmuch as they do not pay for their advertising. There is hardly an edition of a local paper that does not contain an account of the discovery of some physician or the dexterity of some surgeon in a certain operation.

The detailed copy was, no doubt, handed to the editor by the physician himself, with a request that it should be printed. This, of course, is profitable advertising for the practitioner, but the editor is led to believe that the article was written for the advancement of science.

This is well illustrated in the world-wide advertising which Profs. Koch and Brown-Sequard have received out of their consumption lymph and the “elixir of life.” Although they were only scientific bubbles, the advertising these gentlemen received has had much to do in bringing their names before the public.

In smaller towns local items of births, fractures, etc., are handed to the editor with the name of the doctor at-

tached as being the attending physician. This is a very judicious way of advertising.

I remember once meeting a young physician, who has just located in a small city, who was called to adjust a fracture. The papers wished to encourage the young man and devoted a half column to praising his success. He afterwards told me that the editorial was instrumental in placing several cases of fracture in his hands that year.

Accoucheurs have also established a large obstetric practice by having their names published in connection with births. The mention of a physician's name in connection with any case, medical or surgical, will be of more or less advantage to the physician and is considered legitimate advertising.

Perhaps the most dangerous member of the Medical Profession is the ethical medical hypocrite. We can have some respect for the bold faced advertiser, as he makes no pretensions other than what he is, but the tricks practiced by many physicians under the cloak of ethics, would make many advertising physicians hang their heads in shame.

I once employed a stenographer who formerly was in the employ of a surgeon who was the shining light of the community. From this source I learned many of his business tactics, which will outstrip the methods of the lowest forms of quackery. This surgeon's principle object was money making, and it made no difference from what source. A lady wrote to him that she was afflicted with uterine cancer; he advised her that he could cure her by undergoing an operation and removing the organs. The fee asked was \$200.00; she replied the only possessions she had in the world to secure money was to sell her cow and piano, which she was advised to do. She finally secured \$90.00 and her hospital fees; she entered the hospital with the understanding that she was to have her uterus and ovaries removed, but instead the surgeon simply curetted the ulcerated surface. She left the hospital at the end of a week, thinking she had departed with her diseased organs. She continued to menstruate, which

created much suspicion. She finally consulted another physician, who told her she was still in possession of both her organs and disease. The patient finally died. But the brother still preserves the organs, pending legal action against the surgeon for mistrust.

Another well to do patient wrote this surgeon regarding her case and the cost of an operation. He replied, "The price of the operation will be \$400.00; if you are a pauper I will charge you only \$100.00." It was a question in this case whether or not one could admit being a pauper for \$300.00. I do not wish to be understood as entertaining pessimistic ideas regarding the ethical surgeon or specialist, for as a general rule they are noble, conscientious and charitable practitioners, but occasionally we find one whose trickiness surpasses that of the regular advertiser, still he is protected under the wings of ethics. Of all the specialities, those which incorporate surgery in its different branches are the most compensative. The shrewd and unscrupulous physician realizes this after he has been in practice but few years and never allows an opportunity to pass where an operation can be justly (or perhaps, unjustly), performed. You will observe that as a rule specialists who have the largest income are classed as surgeons or are practicing some speciality involving some of its branches. This often has a tendency to produce a narrower type of medical men by exaggerating the minute and advising operations when unnecessary. When you hear of a physician repeatedly saying, "he just arrived in time to save her life, or an operation will be absolutely necessary," he can generally be regarded as a medical or surgical "grafter."

THE OFFICE SPECIALIST.

I fully realize that most physicians do not care to advertise, and as I have previously stated, I do not wish to be understood as advocating the practice, but owing to the purpose of this book I thought it would not be out of place to briefly outline some of the methods of medical advertising, which are in use at the present day. With justice to all and malice toward none, we have now come

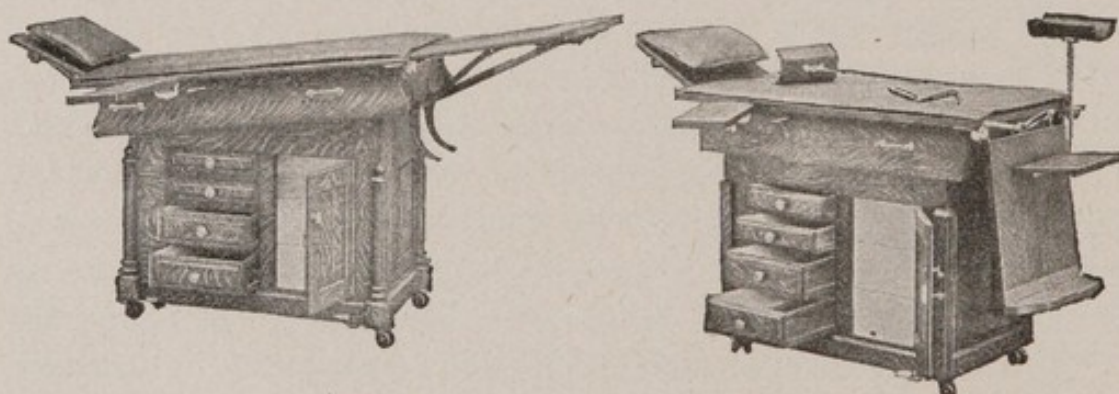
to the point where we can consider one of the most greatly neglected feature of a general practitioner's work—office practice and office specialties.

Of all the professions, the Medical Profession is the most over crowded, and still our 155 Medical Colleges are turning out Physicians at the rate of about 6,000 a year.

Referring to Polk's directory, we find there are over 135,000 physicians in the United States, which, according to the population, makes one physician to every 655 inhabitants, with an average income of about \$1,000.00 a year, or \$2.73 a day, which is about equal to ordinary skilled labor. There are thousands of learned and skillful physicians in the United States who scarcely make a living and there is no profession in the world which has so many side issues as medicine, and the general practitioner finds as competitors all kinds of speculative medical philosophers. When we stop to think that there are over one million Christian scientists, to say nothing of the various healers, hypnotists, mind curers, self inspired medical pretenders, patent medicines, etc., on the illegitimate side, while in legitimate medicine our cities are crowded with free clinics, dispensaries, hospitals, etc., which are visited by many people, who are perfectly able to pay for their medical services.

It is rather discouraging for the young physician who has spent four years in medical college and several hundred dollars, to confront the world with a laborious profession, which does not offer him a yearly income much greater than ordinary labor. The question arises, what can be done to make the practice of medicine remunerative in proportion to the amount of skill required, capital and time expended in obtaining the knowledge? It has been said that this is the age of specialists, which is quite true, and with this we find the general practitioner leaning towards a tendency to become sort of a general advisor and distributing agent, we find him sending his surgical patients to the surgeon, female patients to the gynaecologist, eye patients to the oculist, ear patients to the aurist, and throat and nose patients to the laryngologist, etc. While this is often advisable in many

cases they could often receive as effective treatment in his hands if he would provide himself with the proper instruments and equipment to treat them and thus receive the credit of curing them. If there is any credit or glory in the practice of medicine he will keep it within his bounds. The physician who walks the street with his office in his hat and depends upon writing prescriptions



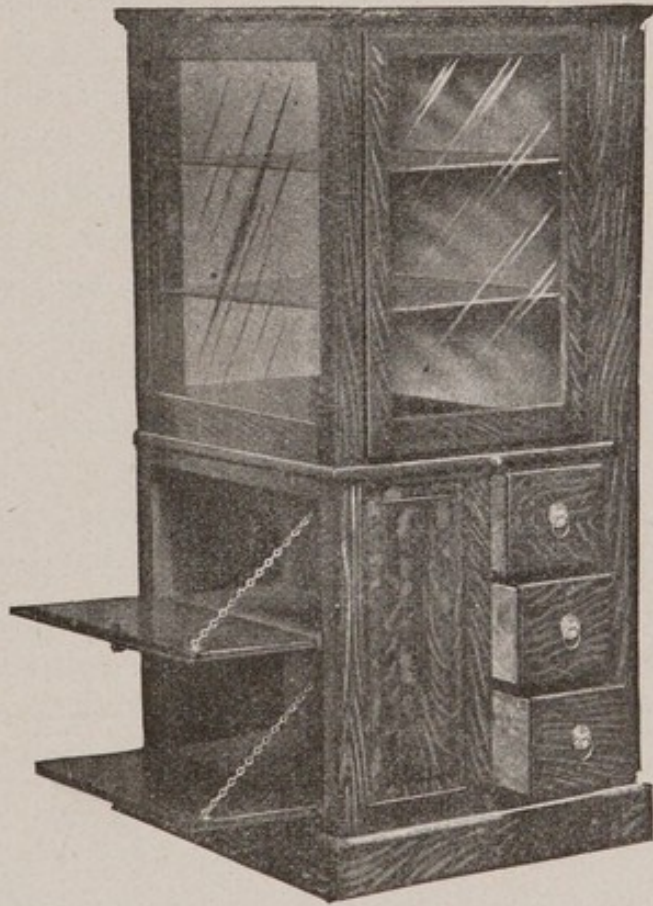
In these days of rapid progress the inventive genius of expert mechanics and the requirements of a progressive profession, have developed the "PERFECTION" tables to the highest point in efficiency. This table meets every requirement of the profession, which can be embodied in one simple and accurately acting piece of furniture and is presented in its complete design with the best quality of construction and finish. Every position is instantly and easily obtained without jar or vibration and with absolute rigidity.

These tables are made in any wood and finish desired at prices from \$60.00 up by THE PERFECTION CHAIR CO., Inc., 923 E. Pratt St., Indianapolis, Ind.

and visiting the bedside of the sick for one dollar a visit, is generally a physician who is always financially embarrassed; while on the other hand, we find the physician who has a well equipped and regulated office, with a working library and endeavoring to keep abreast with the times by subscribing for the leading medical journals and providing himself with suitable instruments, we find a physician who is progressive and prosperous and who no doubt is receiving the cream of the medical practice, which he justly deserves, for he is better able to combat with disease, as he has every modern appliance at hand for the benefit of his patients. This brings us up to the point of what may be considered a properly equipped office and what is the best way to make the practice of medicine remunerative in a legitimate ethical way. This depends upon two things, a reasonable amount of tact

and skill and a proper office equipment, and utilizing office specialties which has formerly been monopolized by other specialists.

In the following chapters we will endeavor to give the details of several specialties, many of which have



REVOLVING COMBINATION INSTRUMENT & DISPENSING CABINET.

In this progressive age the great science of medicine, assisted by the science of pharmacy, has developed dispensing from the crude to the more concentrated forms of exact dosage.

The progressive physician keeps pace with all improvements in his profession. These improvements make a demand for improved appliances of office furniture, among which an instrument cabinet and dispensing case are imperative.

To meet this demand THE PERFECTION CHAIR CO., Indianapolis, Ind., have succeeded in combining in the most compact and highly finished form a Combination Instrument and Dispensing Cabinet. It is 26 inches square, 54 inches high, four sided and full of just such compartments as needed. It contains on the side not shown in the above illustration, a case of shelves for medicines and standard packages, and drawers, two very convenient extension shelves, two compartments as shown above for battery, pitcher or bowl and a surgical instrument case with two shelves. The whole cabinet revolves on a base hidden from view, and that base on double roller anti-friction casters; hence can be easily moved or can be revolved easily to bring any side to the front.

These cabinets are made in any wood or finish desired. Prices from \$37.50 up.

made fame and fortune for their promoters, and can be as successfully used today as ever before, but in order to

successfully conduct that much neglected part of the general practitioner's work—office practice—requires the expenditure of a small sum of money for equipment, the more extensive the equipment, the greater his success and income.

If a physician were to enter any commercial business, one thousand dollars would be a very small capital to commence with. By appropriating this amount for the purpose of an office equipment which will assist him in his life work, he can have nearly every modern appliance and instrument in present use, and is far better able to meet the demands of the public and cure diseases than the physician who confines his stock in trade within the walls of his cranium. There is no other way in the world which will give a physician as much prestige and patronage as to conduct a small private sanitarium, or equip a suitable suite of offices with all modern appliances. I have seen this plan of properly equipping offices carried out on several occasions and in every instance the plan has been sufficiently remunerative to justify the extra expenditure in securing the equipment. Nearly every physician who has adopted this plan will tell you that his increased income for the first six months has paid for his complete outfit. It requires considerable room to equip offices of this kind and a good, modern, centrally located house, or a flat over some store is best suited for the purpose. The sanitarium, or office, as you choose to call it, should have a finely furnished reception room. Physicians as a rule, do not appreciate the value of a well furnished reception and consultation room, which has much to do in favorably impressing patients regarding the prosperity and refinement of your institution of business.

You should also have an electrical room, containing all modern electrical apparatus, a static machine, an X-ray outfit, a galvanic and faradic cabinet, etc. Baths of every description can be added at very little expense and are very profitable. I know of one physician in this city whose income is over six thousand dollars a year from baths alone, who is using the same bath apparatus and methods given in another chapter in this book. Other

rooms should be equipped with a compressed air outfit, for throat and nose work, vibratory massage, etc. Other appliances can be added as you desire. This will give you a decidedly up-to-date office, and I dare say there is not another office anywhere near you which is prepared to offer the treatment for diseases you are able to supply. I have been a very close observer of this method of conducting offices and sanitariums, as they are frequently called, and I have never known of a failure where there was a reasonable amount of energy back of them.

I know of no other field which offers the general practitioner as great a prestige or a richer financial harvest than a well equipped office outlined above. This institution requires no advertising and can be conducted in a strictly ethical and legitimate way, for "by their work ye shall know them." Many physicians are conducting these offices in small towns on a profitable basis. I recently met a physician who resided in a hamlet of only six hundred inhabitants, who stated he increased his business two thousand dollars the first year after adding the equipment. In selecting a location, however, it is best to establish yourself in a city of at least ten thousand inhabitants.

In the following pages I will outline several specialties and methods of treatment which will be of much service in establishing an office practice.

"Go to the pillow of disease
When night brings no repose,
And on the cheek where sickness preys
Bid health to plant a rose."

The Balneotherapeutic Specialist

BATHS.

In this chapter may be outlined the value of hot, cold, warm water, steam, medicated vapor, superheated air, sand, mud and electric baths, also the value of friction and massage, drinking water, etc., as therapeutic agents. The earliest history has given facts that baths have always been an important feature in the healing art, and bath institutions were established long before the birth of hospitals and sanitariums. Romans served their armies with all the advantages of the bath and wherever their armies were stationed elaborate bath institutions were founded, which had no doubt much to do with the physical superiority of the nation. During the reign of Tiberius, from 14 to 37 A. D., there were nearly nine hundred public and private baths in Rome alone, and no Villa was considered properly furnished unless provided with suitable bath apartments. Many of these were the grandest constructions that architectural genius has ever created. The Augustan age was an epoch conspicuous for the development of sanitary measures for the promotion of public health and officers of high dignity were appointed for the management of these establishments. The magnitude and gigantic proportions of some of these establishments is almost beyond comprehension, the era embraced by one of these immense establishments was equal to the space occupied by twenty-five ordinary city blocks. There were no less than eleven similar institutions in one city, some of them covering a space of one square mile, and accommodating 18,000 bathers at one time.

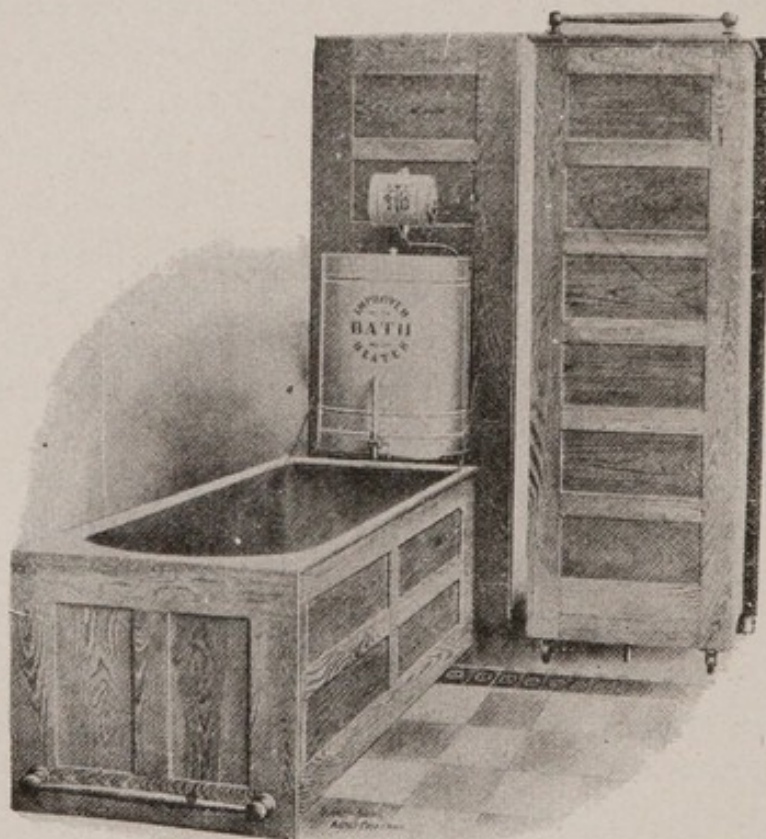
During the excavation of Pompeii, in the years of 1824 and 1825, many public baths were opened in a good state of preservation. It is my belief that if some of the modern philanthropists who wish to immortalize themselves by building public libraries, etc., for their monuments, would build public bath establishments, their efforts would be better appreciated, as the former is only a luxury for the few, while the latter is a necessity for the many. Most sanitariums of the present day have well equipped bath accommodations. Many of these institutions are located near Mineral Springs, where their principal drawing feature is in extolling the virtue and healing properties of the water, and thus we learn how the Warren Springs, Ind., mud baths were discovered by a laborer, who was cured of rheumatism while excavating for a ditch. Since then thousands have been burying their anatomy with the same results. It is also handed down in history that the famous Bethesda Springs, located at Waukesha, Wis., was accidentally discovered by a well known gentleman who was cured of diabetes by drinking the water. Similar history is generally connected with most watering places and mineral springs in both this country and abroad, where thousands of people go every year to wash out their ills.

Although a large number of sanitariums are located at these watering places, it is not necessary to be established near a mineral spring to derive all the benefits obtained from baths. With a very little outlay of money, any physician can incorporate baths with his armamentarium with equal results and receive large financial returns.

THE EQUIPMENT.

The equipment required to conduct a bath establishment can be secured at prices ranging from fifty to several thousand dollars. The four essential things required is water, a bathtub, a bath cabinet and a massage table. Realizing the fact that many physicians live in places where they have no waterworks, the equipment can be arranged independent of this privilege, with an outlay of capital amounting to a very few dollars; by securing

a portable folding bath tub and heater complete, a bath cabinet, and an operating table, which can be used for massage. With this equipment and whatever accessories



PORTABLE BATH TUB—FRENCH PATTERN.

you require, you are prepared to administer nearly every kind of bath in present use. If your bath patronage is very extensive, you should have four rooms, two for ladies and two for gentlemen, although the entire bath can be conducted in one room, but to save time, you should have a drying room for both ladies and gentlemen where they may rest after the bath and their bodies have the proper reaction to resist the prevailing atmospheric temperature.

BATHS.

Is the exposure of the body by immersion or otherwise to some medium to which it is unaccustomed, or else one to which it is accustomed, but is applied in an

unusual manner; therefore, we may take baths in air, water, mud, vapor, and medicated air, superheated dry air, etc., either for the purpose of cleanliness or medication. Baths taken in water, mud and sand have a range of temperature from 32 to 120 degrees F., according to the effect we desire to obtain. The temperature of baths are divided as follows: Cold baths 32 to 60 degrees, F., Cool baths range from 60 to 70 degrees F. Temperate from 85 to 92 degrees F. Tepid, 92 to 98 degrees F. Warm baths have a temperature of 98 degrees F. Above this they are considered hot.

COLD BATHS.

may be had either in the sea, stream or bath tub, the former offers no advantage over the latter, other than the motion of the water and the proportion of salt the sea water contains, which varies at different points. An artificial sea bath may be obtained by adding five pounds of common salt to 30 gallons of water, which adds much to the pleasure and stimulating effect of the bath. Cold baths should only be given to the robust, as they cause contraction of the external capillaries with a reduction of the external and a primary increase of the internal temperature, therefore should be avoided by patients suffering with heart disease, and those with a tendency to internal hemorrhage, also emaciated, anaemic and convalescent people. Cold baths are given for their tonic and stimulating effect and to reduce the temperature in fevers; they are used by athletes as a "hardening process," to develop muscle and to render the body less susceptible to atmospheric changes, they are also beneficial in neurasthenia, insomnia and scrofula; they seem to increase the weight in thin, and decrease the weight in fleshy people; the appetite is increased and general animation of the body is experienced after a cold plunge bath, which is best taken immediately on rising while the body is warm. After the bath the body should be rubbed with a harsh towel until the blood returns to the surface, which gives the skin a fine glow and is very in-

vigorating and refreshing. The cool bath has a similar effect in a less degree and is the proper one for infants, the weak and aged, where the tonic effect is desired. Before immersing, the head and face should be dampened with water of an equal temperature.

THE HOT OR TEMPERATE BATH.

or a bath in liquid about the same temperature as the body, has a larger field of usefulness than all other baths combined. This bath has no marked effect upon the temperature of the body, which remains about normal. A bath with the temperature varying from 103 F. to 110 F., acts as an antiphlogistic and analgesic, and is particularly advantageous in the treatment of neuralgia, muscular and articular rheumatism, convulsion, hysterical and maniacal excitement. It also hastens the appearance of the rash in measles and other eruptive fevers. It may be used to an advantage in many external and internal inflammations. These baths have both a local and general sedative effect in dysmenorrhoea, cystitis, vesical, spasms, and relieve the tension in strangulated hernia; they also sustain the animal heat and relieve depression in cholera, dysentery and many other morbid conditions. Very hot baths should be administered carefully and of not too long duration, as prolonged baths are generally followed by considerable debility and muscular lassitude. They should be particularly avoided in heart disease and diabetes. A hot or cold graduated bath may be had by adding hot or cold water to the bath water at 98 degrees F. until the degree desired is reached, thus avoiding the immediate shock of either the hot or cold water.

MEDICATIONS FOR BATHS.

The following formulae for the more commonly employed medicated baths used in diseases of the skin, etc., are as follows:

THE ACID BATH.

R	Acid nitric fort	1½ oz.
	Acid hydrochloric fort	1 oz.
	Aqua	30 gal.

These baths are employed in pruritus urticaria and papular eczema.

THE ALKALINE BATH.

R	Soda carb	3 oz.
	Potassium carb	4 oz.
	Borax pulv	2 oz.

Use one of these powders for 30 gallons of bath water, with one-half pound of starch employed in acute eczema ichthyosis psoriasis erythema and urticaria.

THE CREASOTE BATH.

R	Creasote	2 dr.
	Glycerine	2 oz.
	Aqua	30 gal.

MERCURY BATH.

R	Hydrarg. chlor. corrosive	45 gr.
	Ammonium chloride	2½ dr.
	Aqua	2½ oz.

This solution is to be poured into 30 gallons of bath water, is used in pruritus parasitic skin diseases and syphilis. Great care should be taken in this bath and avoid the water from coming in contact with the eyes or mouth.

TAN AND TAR BATHS.

Tar baths are employed by rubbing the diseased patches with tar, and then removing the tar by the ordinary bath. This bath was much employed by the late Professor Hebra in psoriasis. Tan baths contain a handful of fresh tan bark in each bath. This has been recommended for purpura.

MUD AND SAND BATHS.

Are also sometimes called Moor baths, antiphlogistic baths, and lava baths. They are of ancient origin and have recently become popular through the advertising efforts of the Sanitarium located at Warren Springs, Ind. They consist in burying the entire body, except the head, in mud mixed with mineral or common water until it assumes the consistency of the homogeneous mass. These baths can be given either in a bath tub or on a large table with elevated edges. The mud should be sifted and devoid of all coarseness before mixing with the water; the body is then packed in this substance thoroughly. These baths can be given in a higher degree of heat than ordinary water. The friction and heat from these baths is very stimulating to the skin and seems to have the power of eliminating many substances from the body, hence the term, "antiphlogistic." These baths are of special value in skin diseases, rheumatism, neuralgia, syphilis, diabetes and chronic exudations and indurations in the pelvic cavity, and are also useful in peripheral paralysis, contracted muscular ankylosis, etc. Baths of this description can be successfully conducted at any place.

I recently visited a physician who was conducting a very successful and prosperous Sanitarium, and although he was not located near a Mineral Springs, he administered nearly every bath utilized at the more fashionable watering health resorts.

For the simple mud bath, he used a good quality of blue clay, which he secured from a neighboring town, in car load lots. His patients were led to believe, however, that the clay was imported from a long distance and looked upon this earth very mysteriously, as being the panacea for all ills. Aside from the simple mud baths he made a great "advertising hit" with his sulphur, and what is termed "sulpho-lava" baths. Most invalids who visit health resorts expect an odor of some obnoxious healing water, and he successfully covered this point with the following fluid:

ARTIFICIAL SULPHUR BATHS.

are generally obtained by adding one or two ounces of sulphurated potassa in forty gallons of water. The following, however, is the one used at this institution :

R	Sulphurated potassa or soda	1½ oz.
	Sodium bicarbonate	1 oz.
	Sodium chloride	60 gr.
	Castile soap shavings	30 gr.
	Alum	30 gr.
	Calcium carbonate	30 gr.
	Water	1 gal.

Mix and boil, stirring with a wooden rod until thoroughly dissolved. This gives off an odor of sulphureted hydrogen, which has the characteristic odor of most sulphur mineral waters. This solution is added to forty gallons of water for the bath. The most popular bath given at this institution, however, was called the

SULPHO-LAVA BATH.

It was this bath which gave this Sanitarium its greatest reputation. The bath was a mixture of the above solution, with the blue clay and an addition of sufficient water to make the mud the consistency of plastering mortar. The patient was placed upon a massage table with elevated edges, and completely covered (except the head) with this mixture. During the bath the patient was constantly massaged by kneading and rotating the muscles from head to foot. This might seem rather ludicrous to one who is unfamiliar with baths, but as it was, it was very curative in its effects in many cases, and when patients left the institution they would ever sound the praises of Sulpho-Lava baths.

SAND BATHS.

Are given in a similar way to the mud baths by completely covering the body with the sand. There is no place in the world in which sand baths are taken in the natural state so extensively as at Atlantic City. You can stroll along the "Board Walk" for miles and see people burying their anatomy in sand. Most of the bathers take these baths for pleasure, while others claim they derive much benefit from the practice. On a recent visit to this resort I counted no less than one hundred and fifty, fat and lean, rich and poor, awkward and indifferent, isolated in a place back of the "Board Walk" not over eight rods square.

HOT AIR AND VAPOR BATHS.

Are also called Turkish, Roman and Russian baths. These baths are best administered in a bath cabinet where the entire body is concealed (except the head) which is allowed to protrude through an opening, with a tight-fitting cover around the neck. There are several cabinets on the market, which can be secured at prices ranging from \$5.00 to \$100.00. The accompanying cuts illustrate the bath chair and hot air apparatus, the two styles which are the most frequently used in hospitals, sanitariums and habitue institutes. The super-heated air and vapor baths are indispensable as a "boiling out" process for the elimination of the poisonous elements of many diseases. The smaller cabinet, although not as impressive, is equally as serviceable in many cases and has the advantage that medicated vapor can be obtained by placing the medicated solution in a receptacle over a heater. These two cabinets should be added to a physician's equipment to make it complete.

The use of vapor baths to aid the penetration of medicinal substances is well known in the treatment of syphilis by the use of the mercurial vapor bath. While the body is immersed in the mercurial vapor bath, it not

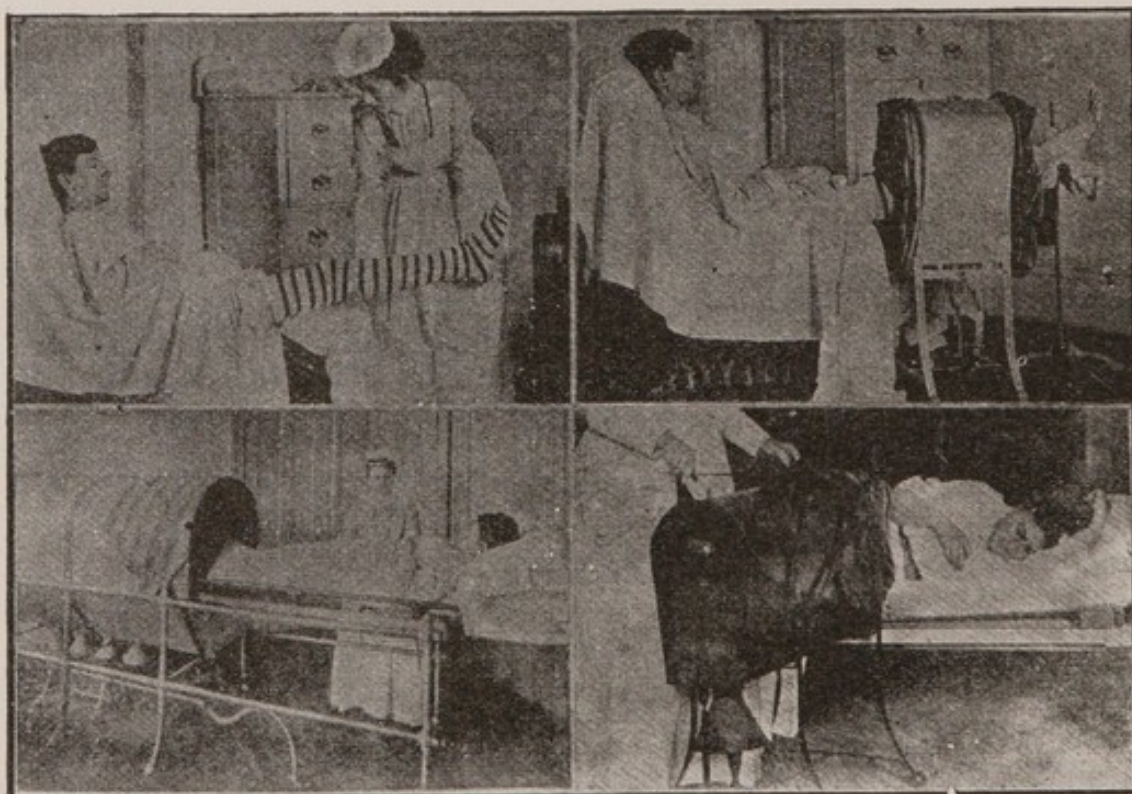
only eliminates the syphilitic virus, but we get the constitutional effect of the mercury. This is also true with many skin diseases, where sulphur and its compounds are chiefly used. A higher temperature can be tolerated in hot air than in vapor; by wrapping the patient in robes a temperature as high as five hundred degrees F. can be reached. If the body is naked, however, it cannot stand this degree of heat. In giving these baths the heat should be admitted gradually, and when a sufficient degree of heat has been reached to produce profuse perspiration or



THE TURKISH BATH CABINET.

the bath feels uncomfortable it should be modified or discontinued. These baths should not be of longer duration than twenty or thirty minutes. The patient is allowed all the water to drink he desires, and to prevent cerebral congestion, the head should be wrapped in cold cloths; the pulse should also be watched carefully, and never allowed to exceed 125 pulsations per minute. By the use of the apparatus these baths may be localized to any diseased

part of the body, as the arm, leg, back, etc, where we wish the specific effect of superheated air to cure certain organs and conditions. Superheated air, vapor and medicated baths will unquestionably cure many diseases where other medications are a total failure. They are of special value in the treatment of kidney diseases, rheumatism, gout, obesity, and as an eliminative process in the treatment of syphilis, malaria, lead and other metallic poisons, alcoholism and the drug habits, colds and certain forms of insomnia are also rapidly cured. In some instances it is a good



SUPERHEATED AIR BATH APPARATUS.

plan to follow these baths with a hot water or shower bath, which can be gradually cooled as desired.

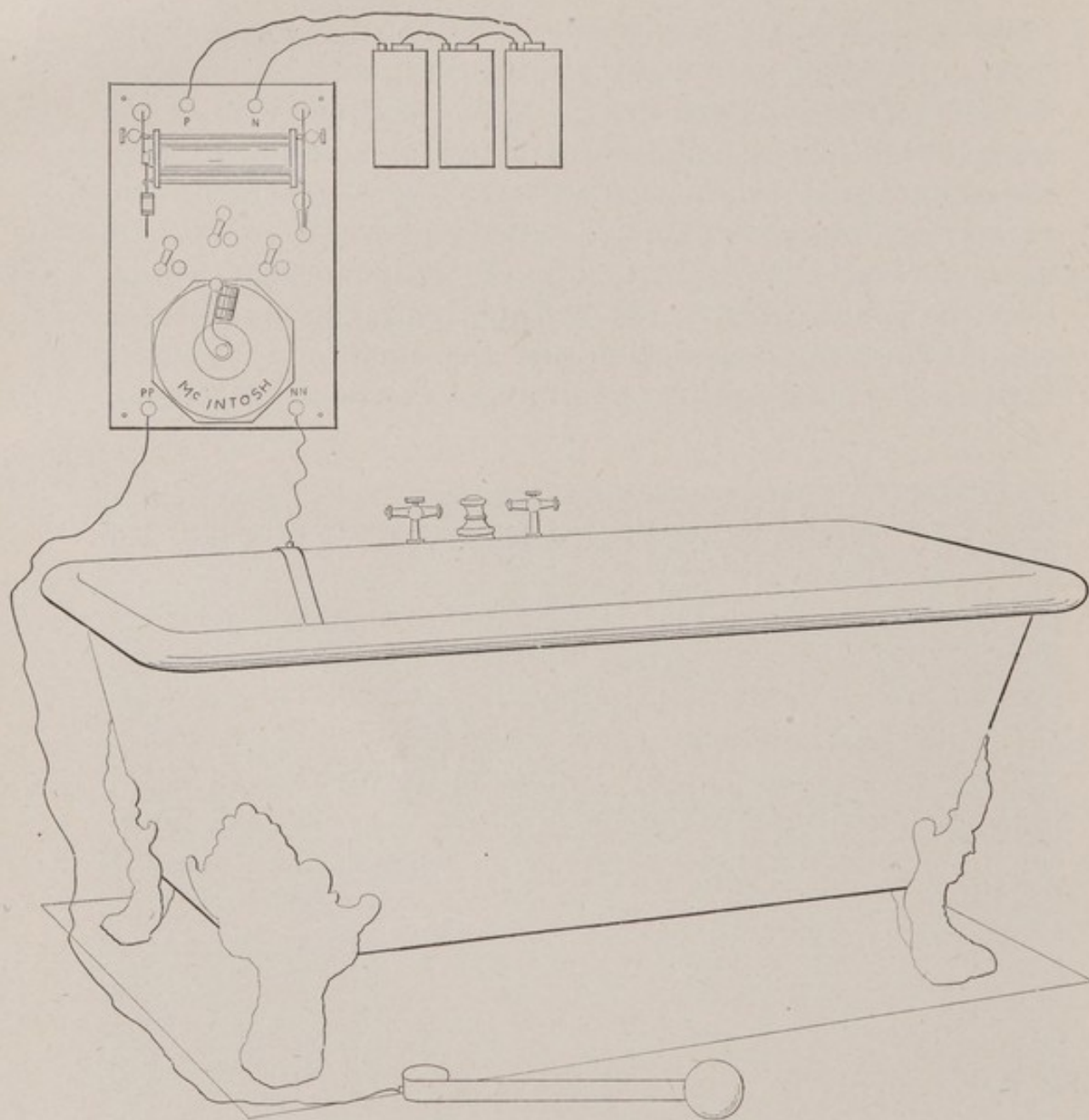
Drs. Skinner, Sterrett and others have made microscopic and chemical observations with patients taking hot air baths, with the following results: Both the white and red blood corpuscles are greatly increased. The quantity of urine passed for twenty-four hours following the bath is increased from twenty-five to one hundred per cent. as is also the excretion of urea.

Dr. Skinner in his excellent little book "The Thera-

peutics of Dry Hot Air," says: "When we consider the large number of pathologic conditions in which the reconstructive functions are deficient, the modifications in the composition of the blood noted above assume an interesting significance; and when we think of the number and variety of diseases which are dependent wholly or in part upon the retention in the system of products of sub-oxidation, the sphere of the body hot air treatment as indicated by its effect upon oxidation and the excretory functions become extended within the limits of considerable magnitude."

THE ELECTRIC LIGHT BATH.

Is supposed to have been originated by Dr. Kellogg, of Battle Creek, Michigan. This bath is conducted upon the same plan as the hot air bath, only electric lights are depended upon to furnish the heat. The cabinet contains several incandescent lights to produce the required heat; the globes are of different colors, which are supposed by some to have a curative effect upon disease, but this is doubtful.



THE ELECTRIC BATH EQUIPMENT.

THE ELECTRIC BATH.

The electric bath is a great benefit and is applied in all cases where electricity in general is of service as a therapeutic agent. These baths are obtained by applying the two poles at different points of the bath tub by means of two portable electrodes used for this purpose, as illustrated in the accompanying cut. Any small portable battery will be sufficient to supply the current. These baths are very stimulating and invigorating, and are of special service in nervousness, paralytic diseases, insomnia, etc.



THE SHOWER BATH EQUIPMENT.

THE SHOWER BATH

Is generally used as an after bath, as a stimulating, cleansing, rinsing or cooling process, after mud, soap and other materials have been used. It offers a very agreeable morning bath, where the plunge bath is objectionable. This bath can be added to any equipment at very little expense by the use of the portable attachment illustrated in the accompanying cut.

Osteopathy, Massage and Physical Culture

The above caption describes subjects which are fast becoming recognized as holding respective places as a means of restoring and preserving health. To the physician who has formerly been wedded to drugs, physical methods of curing disease may seem absurd. No attempt will be made in this chapter to give the minute technique of the different manipulations and movements used by these specialists, but I feel the subject is an important one, especially is used in connection with baths and deserves at least a passing notice, as it is a valuable adjunct to the healing process in many ways.

Osteopathy and Massage have been defined as a scientific method of treating disease by systematic manipulation, and it can be executed with better results if used in connection with baths. No bath institution in the country could obtain the results and the percentage of cures they do if it were not for the manipulations used during and after the baths.

Like many others, I have always objected to the term Osteopathy, believing these manipulations have a larger field of usefulness on nerve centers and muscular tissue than on bones, as the term suggests. The Osteopath has a decided advantage over the ordinary masseuse, as he generally possesses an accurate knowledge of anatomy and physiology and can determine when and where to manipulate and what results can be obtained.

Although Osteopathy was a subject of much ridicule in its infancy, the same as many other healing processes, its value has been demonstrated and I believe I am safe in prophesying that in a few years the subject will become recognized by all Medical Colleges. This subject

has too broad a scope to be discussed here, but if I can succeed in pointing out its value, text-books can be consulted with the complete technique of all manipulations, and a physician's time will be well spent in becoming familiar with these manual and mechanical agents. When a physician can suppress pain and open canals, that refuse matter may escape through nature's drainage system, or allow nutritive matter to enter without the aid of medicine, it is my belief that it is a far more scientific accomplishment than to give an opiate or cathartic pill for the same purpose.

Although this practice may have a limited field of usefulness, it can be specifically applied in many cases where other therapeutic measures do not have access. The fundamental principal of Osteopathy, Massage, and perhaps Physical Culture, is to create activity of cell life; equalize circulation, restore misplaced organs and functions, relax contracted muscles, nerve tissue, partial or complete ankylosed joints, stimulate nerve force and relieve nerve pressure. With this end in view the masseuse depends upon stroking, kneading, friction and percussion, while the Osteopath has access to the more remote organs through manipulation of the nerve centers, using the entire length of the spinal column for his principal operating grounds.

The spinal column bears the same relation to the Osteopath as the keyboard of a piano does to the pianist. Those who are not familiar with this method of treatment, it may seem exaggerating to state that fully one-half of all aches and pains of the body may be instantly relieved and cured by making pressure and interrupting nerve force from the spinal nerve centers. I have learned that in many cases it is more convenient to have educated fingers than to possess drugs. I will illustrate this point with my first introduction to Osteopathy.

While in attendance at a social gathering in the country, a lady was taken suddenly ill with excruciating pain in her stomach, and unfortunately, or perhaps fortunately, I could not relieve her with the usual hypodermic injection of morphine, she had been in the habit of taking

for these attacks, as I had left my medicine case at home. There was an Osteopath present, however, who gracefully came to her assistance; he advised her to remove her corset, and in less than two minutes he located the nerve centers in the spinal column, which were very sensitive to the touch. With a few manipulations and increased pressure, the patient experienced immediate relief. This terminated her suffering for the day and consequently gave him much credit for his display of skill. From this observation alone I learned the value of an educated finger and its superior advantages to morphine and other drugs in many cases.

Baths and manipulation are companionable adjuncts in restoring health; both can be practiced with a greater degree of success if used in conjunction. In visiting any reputable bath establishment much stress is laid upon massage and manipulations, and although many cures are credited to the baths and water, equal credit should be given to the manipulations. Simple friction of the skin with the hands or a rough towel, has long been recognized as a valuable means of suppressing local pain, while vigorous rubbing of the extremities hastens the general circulation and secretory functions of the skin, also soothes the nervous system even to a state of drowsiness, especially if used in connection with baths. These facts illustrate its value in conditions ranging from the simple stroking of the head to cure headache, to the more vigorous rubbing used to restore collapse, with which every physician is familiar. If these conditions can be relieved by simple friction of the hands of the uneducated masseuse, is it to be wondered at that scientific manipulators with the knowledge of anatomy and physiology can manipulate surfaces which will have a specific reaction on the more remote organs of the body?

Masseuses, or rubbers, as they are called, which best identifies them, as found at bath houses, have a deficient knowledge of massage other than superficial rubbing and kneading. With a rheumatic patient coming under their care they are instructed to give a general rubbing, not only of the affected part, but of the entire body and to

apply gentle tension to the local muscles surrounding the diseased parts; this is done by rotating the muscles on the bones and stretching the extremities. This results in a readjustment of circulation, elimination of waste and a general stimulation of the tissues and nerve centers, all of which tend toward the restoration of health.

These rubbings and baths are taken with great benefit by those who live a sedentary life and with the lazy and luxurious, as a rejuvenating and beautifying process. I quite agree with physical culturists that these groomings are not a suitable substitute for exercise and pure air, but the effects received from the combined treatment is wonderfully beneficial in many cases.

PHYSICAL CULTURE.

Since the beginning of the present century physical culture has created widespread interest and perhaps has gained more followers among the laity than any other subject for the preservation of health and prevention of disease. Although many physicians who are devoting their lives to the application of drugs as the only healing agents, look upon this subject in the same skeptical way they do regarding Osteopathy, massage, etc., it is the writer's belief, that much good can be accomplished in many ways from this source.

Physical Culture differs from Osteopathy and Massage inasmuch as its principal endeavor to teach the patient how to care for and cure their own weaknesses, while the Osteopath depends upon his knowledge of anatomy and skill in making the proper manipulations of the weak and diseased parts. Physical culture teaches people how they may establish hygienic methods in dress, diet and habits, relax stiff joints and contracted muscles, reduce adipose tissue and convert it into muscle, how to create vivacity of manner, sprightliness of carriage and activity of circulation; it teaches those who live sedentary and indolent lives as well as the hypochondriac, round shouldered and ill-shaped persons how they may overcome their difficulty, or develop their bodies to healthy, and graceful proportions and cure many diseases by devoting

a small portion of their time to this practice. If we can accomplish these things, it certainly should receive a few tender thoughts from physicians.

Exercise and living close to nature is the foundation of the teachings. Of all exercises there are none from which more benefit can be derived than in walking. The people who are most in need of physical culture are those who live a sedentary life. In our crowded cities there are hundreds of clerks and business men who hurriedly eat their breakfast, take a car to their place of business, sit at their desk all day, return to their home in the evening; after dinner read the paper and retire. By following this out for years their limbs become devoid of muscle and strength. Although their stomach may be "rounded out" the tissue is sleazy in texture, while if they had walked to and from their employment, their brain would be more active and all their mental and physical functions greatly improved. It is this class of people who furnish material for the various schools and "professors" of physical culture who manage their business, either by direct teaching or by a course of instruction through the mail. They outline different movements which can be carried out either by personal efforts or with the assistance of a developing machine; the latter is generally included in a course of instruction, which costs from \$10.00 to \$25.00.

I have investigated several of their systems and find they are very much alike. Their principal object is to incorporate such movements of the body, which will, during the course of the exercise, bring every muscle of the body into action. If certain parts of the body require developing more than others, this is the part which receives very particular attention. In carrying out this systematic way of exercise, each movement is practiced a certain number of times. These exercises are never allowed to be carried to the extreme, and as soon as the patient feels fatigue from one movement, he is placed upon another until the regular routine is completed.

I admit that at the present time physical culture is somewhat a fad. It is instrumental, however, in animating many lazy livers.

MINERAL WATERS.

If physicians were to accept the testimony of the proprietors of the various mineral water resorts, they would be led to believe that mineral water was a panacea for all ills. The fact of the matter is mineral waters are very much overestimated therapeutic agents. Although the water is the commercial drawing feature for many health resorts, the invalid who visits these places receives more benefit from the change of scene and the freedom of cares, business worry and the rigid dietetic and hygienic restrictions instituted at these watering places than they do from the medicinal properties of the water.

I am located only a few miles from Mt. Clemens, which has a world-wide reputation for its "wonder working water." I venture to say if the thousands of invalids who visit this city seeking for health, depended only upon drinking this water, many of them would be doomed to disappointment, but the use of water in connection with baths and massage eliminate many poisonous elements independent of any mineral the water may contain. I believe invalids can receive equally as effectual treatment with appropriate medication and the use of ordinary pure water.

The chemical and medicinal constituents of all mineral waters are well known, and if we decide they are the remedies required for an individual case, apply the medication in its regular commercial form, or they can be given in the way of artificial mineral water if preferred.

Although this country supplies mineral waters equal in medicinal value to the imported waters, distance seems to lend enchantment and more value is placed on the foreign products. It has been stated that much of the imported water bottled and sold in this country as the genuine, is made from artificial salts, according to the following formulae:

HUNYADI JANOS WATER.

The following makes an excellent imitation:

R	Potassium sulphate	6 gr.
	Calcium sulphate	60 gr.
	Sodium sulphate	3½ oz.
	Magnesium sulphate	4½ oz.
	Water enough to make	1 gal.

Mix, dissolve and filter.

CARLSBAD WATER.

(Sprudel Springs.)

R	Sulphate of potassium	2 gr.
	Chloride of sodium	18 gr.
	Bicarbonate of sodium	36 gr.
	Sulphate of sodium, dried	44 gr.

Triturate the ingredients previously well dried to a fine uniform powder. A solution of about sixteen grains of the above with six fluid ounces of water represents an equal volume of Carlsbad water in its essential constituents.

KISSINGEN WATER.

(Rakoczi Springs.)

R	Chloride of potassium	17 gr.
	Chloride of Sodium	357 gr.
	Sulphate of Magnesium, anhydrous ...	59 gr.
	Bicarbonate of soda	107 gr.

Triturate the ingredients, previously well dried, to a fine uniform powder. A solution of about 24 grains of this preparation in 6 fluid ounces of water, represents an equal volume of Kissingen Water in its essential constituents.

VICHY WATER.**(Grande Grille Springs.)**

R	Bicarbonate of sodium	352 gr.
	Carbonate of potassium	16 gr.
	Sulphate of magnesium, anhydrous ...	16 gr.
	Chloride of sodium	32 gr.

Triturate the ingredients, previously well dried, to a fine, uniform powder. A solution of about 14 grains of this preparation, in 6 fluid ounces of water, represents an equal volume of Vichy Water in its essential constituents.

CONGRESS WATER.

R	Potassium bicarbonate	$\frac{3}{4}$ oz.
	Sodium bicarbonate	$5\frac{1}{2}$ oz.
	Magnesium sulphate	$3\frac{3}{4}$ oz.
	Sodium chloride(pure)	$2\frac{3}{4}$ oz.
	Calcium chloride (anhydrous)	$3\frac{1}{2}$ oz.
	Water	10 gal.

Mix., dissolve and filter.

FRIEDRICHSHALL WATER.

R	Sodium bicarbonate	384 gr.
	Sodium sulphate crys.	$11\frac{1}{4}$ oz.
	Potassium sulphate	165 gr.
	Magnesium sulphate	20 oz.
	Sodium chloride (pure)	$10\frac{1}{4}$ oz.
	Calcium chloride (anhydrous)	1 oz.
	Water	10 gal.

Mix., dissolve and filter.

The Cancer Specialist

Surgeons, as a rule, regard the knife as the only effective means of removing tumors and cancerous growths, consequently, in systematic treatises very little is said concerning other means for their removal; and what is said is often in condemnation of them as useless, if not pernicious. This indifference, neglect and perhaps prejudice on the part of surgical teachers has opened a field for the cancer specialist who can remove these growths without cutting operations.

I have had the pleasure of visiting several of their institutes, and I find them enjoying a very remunerative practice. I consider their methods of treatment far more successful and desirable than those of the surgeon who depends upon the knife exclusively.

It may be laid down as almost a positive result of surgical practice that a cancer extirpated with the knife returns sooner than one removed by the caustic treatment. The separation attendant upon the latter, seems to remove the remaining cancer cells, while excision leaves them to begin anew their destructive proliferation. We therefore find that the principal objection to the knife in removing malignant growths is, that no surgeon in the world, no matter how skilled he may be, is able to distinguish the healthy from the diseased tissue, and after he feels that he has thoroughly removed every trace of the difficulty, some diseased cells may be left behind, and the growth will again develop.

From a therapeutic standpoint, there have been three methods devised for destroying these growths.

First, by local external applications; second, by hypodermic injections into the substance of the growth; and third, by internal treatment. While the two latter

methods are not practical, the former, in my opinion, is the treatment par excellence for all superficial malignant growths. I have had quite an extensive experience in the use of the caustic treatment and in this chapter I wish to disclose the methods which were used by myself, and which are identical with those used with success in most of the cancer institutes. Before discussing the treatment, I wish to outline in brief the characteristics of the different forms of malignant tumors, which may be of some assistance to you in forming a diagnosis.

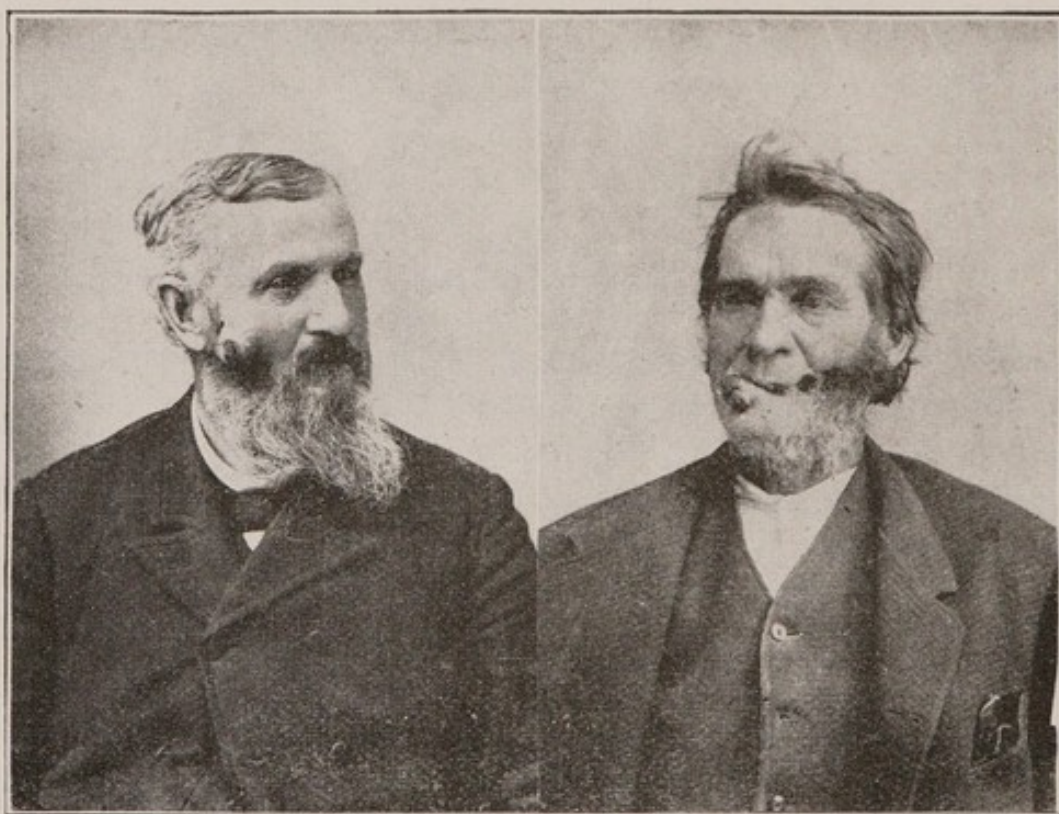
SARCOMA.

Definition. A malignant growth composed almost entirely of cells, which have their origin in those of the connective tissues and which are embryonic in character.

Character and Growth. The connective tissues are always the starting point of sarcoma. The cell elements are either round, spindle-celled, or in large, plate-like forms, and may exist either separately or in conjunction in the same tumor. External injury or local irritation seems in many instances to be the cause of the growth, but in others there is no evident cause. It may occur at any age, but is most common between the ages of twenty and forty. It begins as a single nodule, or several may commence at the same time, and it grows rapidly. After a time the neighboring glands become the seat of disease, the primary tumor ulcerates, and with the advent of ulceration the growth increases rapidly, the system becomes infected, and death supervenes. Sometimes the most distant organs, for example, the lungs or the liver, may be involved, without the intervening lymphatics being affected.

Diagnostic Features. Always begins in the connective tissues, is most common in the skin, periosteum and bone, infrequent in secreting and glandular organs. Differs in feel according as it occurs in hard or soft tissue. In the former it may be firm, tense and elastic, but is generally soft and fluctuating. May occur at any age, but is

most common between twenty and forty. Growth is generally rapid and may attain a large size. Ulceration is usually present, but does not take place until late in life of the disease. Little pain until ulceration occurs. The subcutaneous veins are only slightly enlarged. The contiguous lymphatics become infected with the disease, but not until late in its progress. Unless thoroughly removed



SARCOMAS—Supposed to have their origin in the periosteum of the inferior maxillary bone.

the tumor usually recurs and in the locality from which it was removed. The microscope shows the tumor to be composed of a mass of connective tissues without alveolar arrangement.

Prognosis. Is never favorable unless the growth is promptly removed by the caustic treatment. If allowed to run their course they terminate in death in six months, while others may continue for several years.

SCIRRHUS.

Definition. A malignant growth, composed of fibrous tissue and undeveloped epithelial tissue, known also as atrophying cancer, and stone cancer.

Character and Growth. Cause cannot always be determined. Frequently follows injury. Attacks in most cases the liver, uterus, or breasts. In the latter organs is more frequently found than all other forms of tumors. Is very rare before the fortieth year of age. Commences as a firm, hard, dense nodule under the skin, being at first easily movable. As it grows it contracts adhesions to the surrounding parts, becomes firmly fixed and is the seat of sharp, lancinating pains. As the disease progresses, the integument becomes infiltrated, hard, livid, and traversed by numerous blood-vessels. The glands in the immediate neighborhood take on the cancerous disease, the tumor ulcerates, the whole system becomes depraved and the patient dies.

Diagnostic Features. Seldom occurs before the fortieth year. Most common of all tumors of the breast at that age. Is uniformly hard. Grows slowly compared with other epithelial tumors. Early becomes anchored to the skin and surrounding tissue. Does not attain a large size. Sharp shooting pains. In the breast the nipple is retracted. The superficial veins are but slightly enlarged. Ulceration in about one year. The edges are steep and abrupt, and the discharge is very offensive. The neighboring lymphatic glands are early affected with similar disease. There is a marked constitutional involvement. The microscope shows small round cells with little pits or depressions, surrounded by a fibrous stroma.

Prognosis.. Invariably bad. Case usually terminates fatally in from two to four years, unless thoroughly removed by proper treatment.

ENCEPHALOMA.

Definition. A malignant growth containing less fibrous tissue than scirrhous, but a greater quantity of epithelial cells. Known also as the soft cancer, the cerebriform cancer, rose cancer, fungus hematodes.

Character and Growth. Is most common in the bones, the testicles, the eye, the lymphatic glands, mammae, uterus and liver. It may attack any portion of the body

and occur at any age. It is almost the only form of cancer that occurs in childhood. It may begin as a single nodule, or many nodules may appear simultaneously. Being an extremely vascular structure it grows with great rapidity, and often attains a large size in a short period of time. It is usually soft and fluctuating, and being easily compressed is modified much in form by the tissues surrounding it. Is peculiarly liable to extend into the muscular and other interspaces, acquiring deep-seated connections and surrounding important organs. At a period varying from a few months to a year and a half, ulceration takes place, a foul ulcer is formed, the lymphatic glands become affected, and the whole system becomes diseased. The disease may terminate by exhausting the strength of the patient or by the destruction of some important organ.

Diagnostic Features. Occurs at all periods of life. Soft, elastic and lobulated. Grows rapidly and attains a large size. Pain dull and heavy; not pronounced until ulceration takes place. Superficial veins early enlarged. Ulcerates readily. The ulcer has undermined edges. The lymphatics are early involved, and the constitutional symptoms pronounced. Microscopic appearances similar to those of scirrhus.

Prognosis Very grave. Terminates fatally in from eight months to two years, unless thoroughly removed in the early stages.

EPITHELIOMA.

Definition. A malignant growth, developed from the squamous epithelium. Comprises the malignant diseases of skin and mucous tissue.

Character and Growth. Most frequent locality is the lower lip, but it is often found in the tongue, cervix, uteri, face, anus, vagina, penis and scrotum. It begins usually in the skin or mucous membrane, but by extension may occupy any tissue, bone, muscle or cartilage. Occurs most frequently after the fortieth year. Long-continued-irritations is the most common cause. It be-

gins early as a crack, tubercle, wart, or incrustation, and extends with the progress of the induration. Lymphatic involvement occurs, but not until the disease has made considerable progress. The extension of disease,



EPITHELIOMAS OF FACE.

except in epithelioma of the tongue is not rapid, many years oftentimes elapsing before its termination.

Diagnostic Features. Situated at the junction of the skin and mucous membrane or upon either of these struc-



EPITHELIOMAS OF LOWER LIP.

tures. Originates in a crack, fissure or wart-like excrescence. Has an indurated base. Slow growth. Accompanied by similar disease in neighboring glands, and

eventually by constitutional disease. Microscope shows squamous-celled epithelium with the characteristic alveolar arrangement.

Prognosis. Very grave. When the tongue is affected terminates fatally in from six to eighteen months, in the lip and upper jaw, may exist for years. Free and early removal is followed by permanent cure.

COLLOMA.

Definition. A malignant growth resembling structurally the encephaloma, but containing besides a quantity of clear colloid material. Known as gelatiform cancer.

Character and Growth. Is found most frequently in the omentum, stomach, ovary, rectum and bones of the extremities. It may occur as an infiltration, its most common form, taking on the shape of the organ in which it is situated, or it may grow as a pronounced tumor. Its general history is similar to that of encephaloma, except that it rarely occurs in childhood, grows somewhat more slowly, and does not so readily involve lymphatic glands.

Diagnostic Features. Is difficult to distinguish, previous to removal from other forms of carcinoma. Is often situated in the abdominal cavity. Grows slowly. Upon section, clear, gelatinous substance is found in abundance.

Prognosis Grave. Usually terminates in death in a short time if allowed to run its course.

MELANOMA.

Definition. A malignant growth resembling encephaloma, but containing in addition a large amount of black pigment. Known as black cancer.

Character and Growth. Occurs most commonly in the eye and skin. In all the main facts of its history it

is in close conformity to the encephaloid cancer, but is particularly noticeable on account of the pigment which marks it in varying shades from iron gray to deep black. This coloring matter is similar to that which is found in the choroid membrane, and the rete-mucosum of colored skins. The cancer is very apt to begin in or underneath a pigmentary mole. Although popularly believed to be excessively malignant, its rate of progress differs but little from the ordinary encephaloid cancer.

Diagnostic Features. Has the same general characteristics as the encephaloma, except that it is marked by an excess of pigment.

Prognosis. Grave. Terminates in death in a short time, unless early removed.

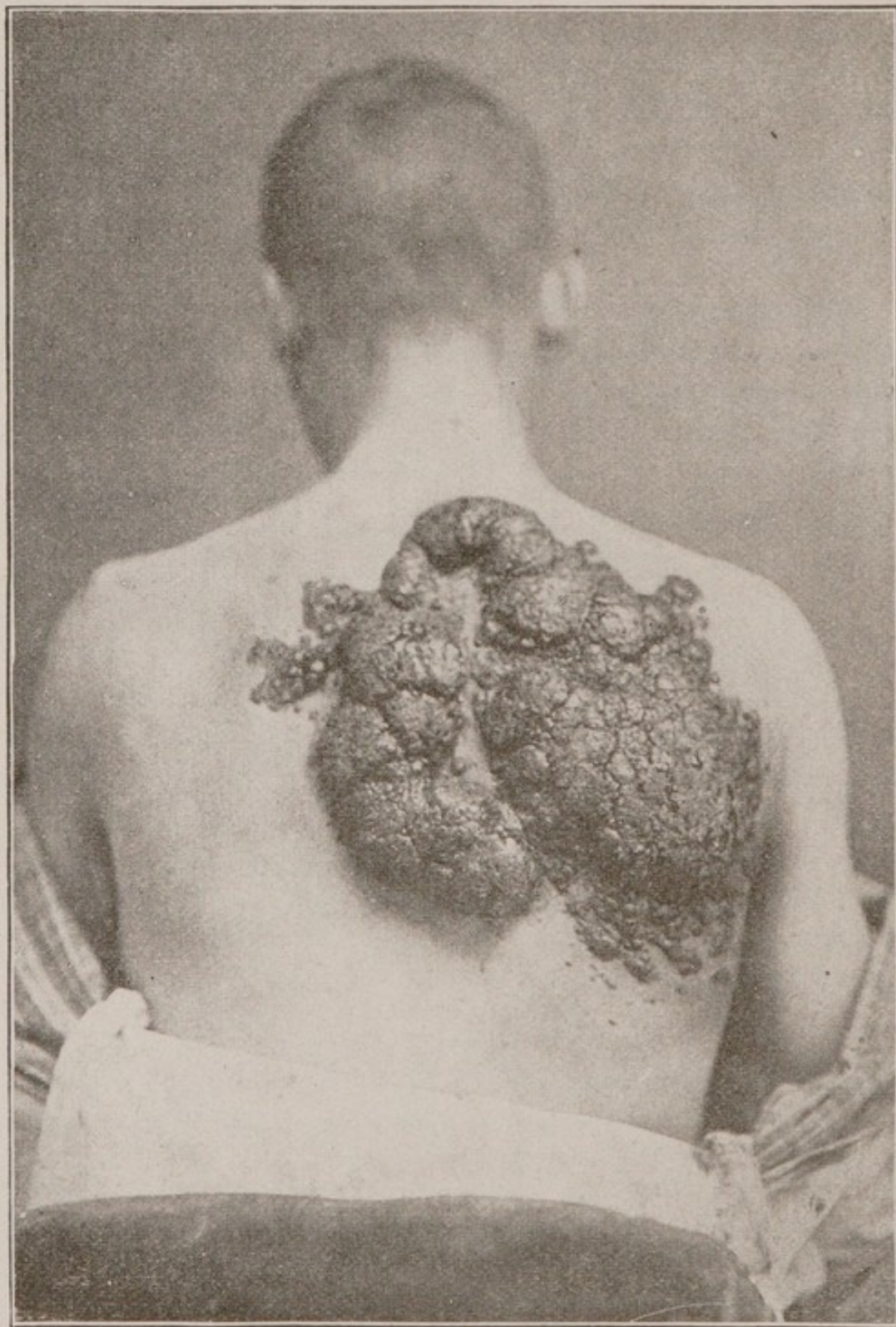
THE TREATMENT OF TUMORS.

Must necessarily be divided into two methods, viz.: The knife and the caustic treatment. For all tumors of a benign nature, whether internal or external, I would recommend a thorough dissection with the knife, as it will not leave as large a scar, and can be done more quickly, and causes less suffering, making use of either a local or a general anaesthetic.

If the tumors are no longer than a hen's egg, I have frequently removed them without any suffering whatever, by injecting cocaine as given in the Obtundent formulas on another page.

The injection should be made around the borders of the tumor, rather than into its center. There are also a few well-selected cases of malignant growths that can be removed by the knife in this way, but as a general practice, the caustic treatment is the best. On the other hand, there are tumors of a harmless nature which may be removed with the caustic treatment if preferred.

People usually have a perfect horror of the knife and the surgeon who will remove their unwelcome visitors



ENCEPHALO MELANOMA.

without its use, is the one they seek for relief, and he is the one to judge of the best method of treatment.

INTERNAL TREATMENT.

There have been many internal remedies highly lauded from time to time as a cure for cancer, but I believe that nearly every physician will agree with me that their use will be attended with more of a psychic effect than one of any real curative value.

Lassar stands almost alone in the belief that the iodide of arsenic, given internally, has an influence in curing carcinomatous formations.

Denissenko recently reported good results from the use of chelidonium majus as a constitutional and local remedy. But the good results that he seemed to have at first, have later failed both in his and in other hands, although this remedy does seem to have some deterrent action upon epithelial cell-growth.

Conium and phytolacca have been advocated at different times, but have fallen into disuse.

CAUSTIC REMEDIES.

The local remedies used for destroying these growths are numerous. Nitric acid, sulphuric acid, lactic acid and pyrogallie acid have all been advocated, but are of very little use. Nitrate of silver has also been used, but its action is too superficial to be practical. Caustic potash is another remedy worth mentioning, but its action has a tendency to destroy too much healthy tissue. In my opinion, there are only three remedies worthy of mention in the removal of cancers by the caustic method of treatment, viz: Salicylic acid, chloride of zinc and arsenic.

Salicylic acid has only a limited action, but, oftentimes it is a valuable one, as this agent may be used to good advantage in softening and removing the superficial layers of epithelium and preparing the way for other caustics, as will be mentioned later.

Chloride of zinc is perhaps the oldest caustic used in the local treatment of cancer, and has formerly entered largely into the "plasters" of the older cancer specialists.

Its action is very effective, but causes considerable pain. It establishes an aseptic slough and thus avoids any hemorrhage or constitutional poisoning. I have removed several growths by its use and have found it very satisfactory.

ARSENIC.

Dr. Marsden, the surgeon-in-chief of the London Cancer Hospital, was among the first to bring the use of arsenic into prominence as a caustic for cancer. He has used it in over six thousand cases with phenomenal success, and arsenic stands today the banner remedy in the local treatment of all forms of cancer. This remedy has many advantages over any other caustic. It can be used with less pain, and seems to produce just the degree of sloughing required to destroy the growth, whether superficial or deep-seated. It is rather select in its action, as it destroys only the diseased tissue and does not damage the healthy structures or through absorption cause arsenical poisoning, even if used over large surfaces. It removes every particle of the growth, and does not leave any cancer-cells to develop again. It does not leave an ugly-looking scar, as do other caustics. The deformity is very slight, even if the growth has been of large size.

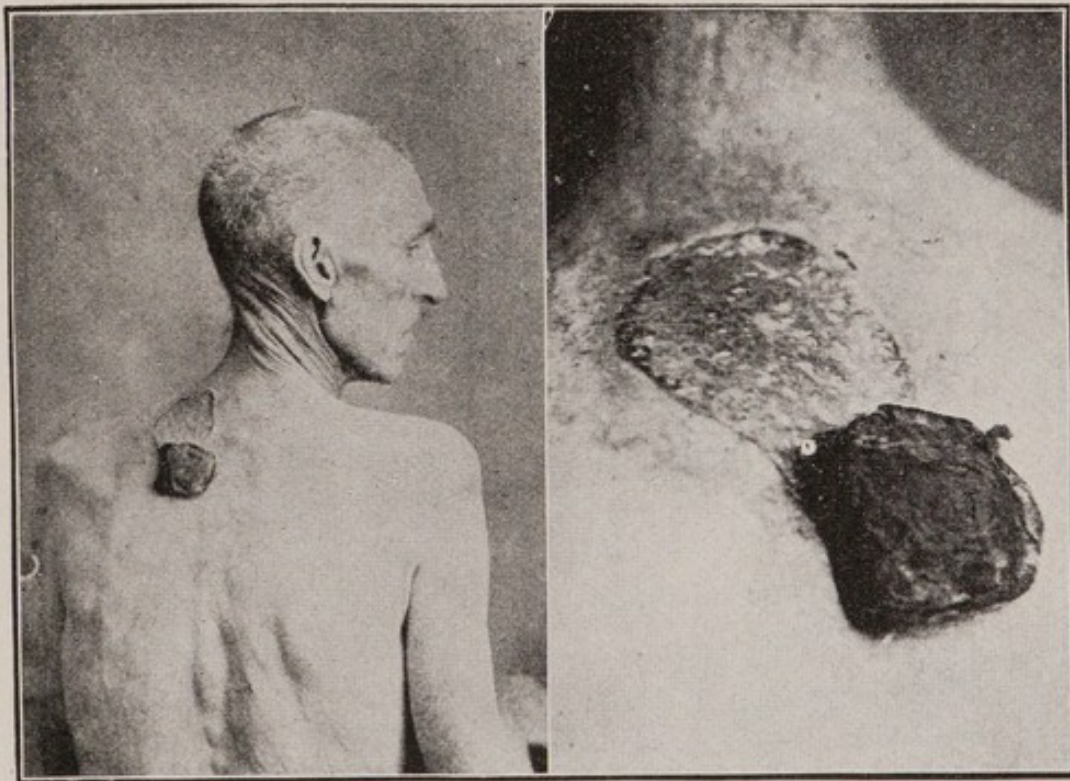
Dr. Marsden's original paste was two drachms of arsenic and one of powdered acacia, but I prefer the addition of cocaine, which lessens the pain, as used by Prof. John A. Wyeth, M.D., in the following formula:

R	Acid arsenicous	2 dr.
	Powdered acacia	1 dr.
	Cocaine muriate	5 to 20 gr.
	Aqua	q. s.

Mix the first three ingredients and add just enough water to make the paste the consistency of cream. The paste should always be prepared fresh before each application.

THE METHOD OF APPLYING.

I always begin the treatment of cancer by taking a piece of isinglass plaster and placing it over the parts to be removed. I then take a lead pencil and mark a line around the growth about one-quarter of an inch from the diseased margin. I now cut the center out of the isinglass plaster and dampen the piece which has a hole in the center and place it on the healthy parts which surround the growth. We have now outlined the exact tissue to be removed and the plaster will protect the healthy parts.



The above picture illustrates the action of Marsden's Paste in removing cancers. This growth was removed with two applications of the paste.

The skin or outer integument should now be removed either by curetting, with the use of a local anaesthetic, or by the use of salicylic acid as mentioned before. Now you have an abraded surface on which to apply your plaster.

The paste should now be prepared and spread on the piece of isinglass plaster you cut out, which is the exact size of the cancer to be removed, and applied to the growth, over which you can dress with absorbent cotton

and bandages. This should be allowed to remain insitue from twenty-four to forty-eight hours, as long as the patient can stand the pain. His suffering may be relieved, however, by the use of morphine hypodermically.

When the time comes to remove the plaster, you will find a black necrossed mass. You should now apply a flaxseed poultice until the slough separates, and the cancer comes away in one body. If you have any reason to believe that every particle has not been destroyed, you may apply another plaster, but if, in your opinion, the operation has been complete, apply iodoform ointment and a simple dressing and allow it to heal.

You will find that the plaster will cause extensive swelling. If on the face, the eyes may be swollen shut, but this will gradually subside and cause no trouble. You should always advise the patient that he may expect some swelling. Much caution must be exercised in applying this treatment around the lips and other mucous surfaces, and the parts must be protected, so that the patient will not swallow any of the paste, resulting in arsenical poisoning.

This method of treatment may be used in all cases in which the cancerous tumor is not over four inches in diameter. If the growth is larger than that, apply to one side first and after that has been removed, apply the treatment to the other side.

Although this is the best and most generally accepted treatment which is used by cancer specialists, I will add several formulas which have also been used with a greater or less degree of success, and have formerly made a reputation for their originators.

DR. LANDOLFI'S CANCER PASTE.

This practitioner obtained a wide celebrity throughout Italy by the use of a preparation which he claimed to be a specific cure for cancer, providing that the growth was accessible, and that the system was not already too deeply implicated in the cancerous cachexia. The for-

mula he usually employed, although it differed somewhat in the relative proportion of the ingredients, was the following:

R	Zinci chloridi	1 dr.
	Auri chloridi	1 dr.
	Antimonii chloridi	1 dr.
	Brominii chloridi	1 dr.
	Farinae and acqua..q. s. to separate form a thick paste.	

To be applied on small portions of linen to the ulcerated surface.

The essential element he regarded was the chloride of bromine, the quantity of which he often increased to two or three drachms. The chloride of zinc was used chiefly for its hemostatic qualities, and he increased this ingredient when there was a marked tendency to hemorrhage. The pain of the application is considerable, and must be allayed by opiates. The application need not remain on more than twenty hours, and may then be replaced by an emollient cataplasm. About the eighth day the eschar should become detached and leave a healthy granulating surface. If any points remain of less satisfactory appearance, or still presenting cancerous ulcerations, a little of the caustic paste is again to be applied. Dr. Landolfi believed it best, though not in all cases indispensable, to administer the chloride of bromine internally in doses of one-tenth or one-twelfth of a drop, in pill form, twice a day, for three to six months.

BOUGARD'S PASTE.

R	Hydrarg. chlor. cor.....	1 part.
	Acid arseniosi.....	2 parts.
	Hydrarg. sulphuret. rub.....	10 parts.
	Ammonium mur.....	10 parts.
	Farini trit.....	120 parts.
	Amyli	120 parts.
	Zinc chlorid. crys.....	120 parts.

CERNY AND TRUNECEK'S TREATMENT.

- R Acid arseniosi..... 1 part.
 Spts. vini rect.....75 parts.
 Aqua dis75 parts.

Mix, spread over the parts each day with a brush, until the entire cancer has sloughed off.

COSME'S PASTE.

The following is the formula of Cosme's Paste as modified by Herba:

- R Acid, arseniosi..... 1 part.
 Hydrarg. sulphuret rub..... 1 part.
 Ungt. aq. rosae.....40 parts.
-

WHEELER'S PASTE.

- R Acid arsenious..... 1 part.
 Morphine sulphate..... 1 part.
 Calomel 8 parts.
 Pulv. acacia.....48 parts.
-

HUE'S TREATMENT.

Dr. Hue uses the following formula hypodermically:

- R Acid arsenous..... 1 part.
 Cocaine hydrochlor..... 5 parts.
 Aqua dist500 parts.

Mix, inject into the substance of the cancer every few days. This treatment he employed in the treatment of internal cancers, where it seemed impossible to apply the plaster:

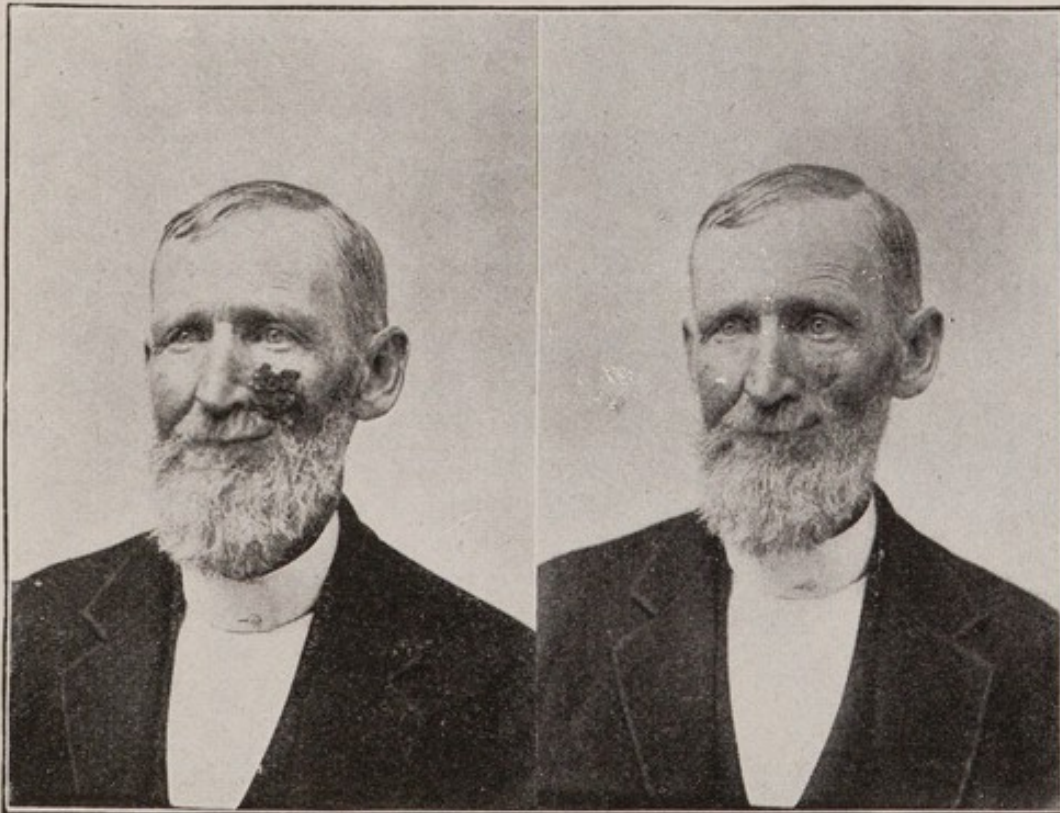
DAVISSON'S CANCER REMEDY.

For several years a man named Davisson resided near Lake Zurich, Ill., who established quite a reputation as a cancer specialist. The following formula is said to be the correct recipe for his plaster:

R	Rochelle salts.....	1 oz.
	Sulphur	1 oz.
	Sulph zinc.....	1 oz.
	Arsenous acid.....	1 oz.

DR. FELL'S CANCER PASTE.

This is one of the oldest cancer remedies and was successfully used three-quarters of a century ago. The au-



The above cancer was removed with Dr. Fell's Cancer Paste, and illustrates before and one month after treatment.

thor has used this paste several times with excellent success. The formula is as follows:

R	Zinc chloride.....	1 dr.
	Pulv. sanguinar. rad.....	1 dr.
	Flour and aqua.....	q.s. to form paste.

KLINE'S PAINLESS CANCER PASTE.

R	White wax.....	1 oz.
	Fir. balsam.....	1 oz.
	Chromic acid.....	1 oz.

Melt the wax and the balsam together, and add the acid slowly, stirring while cooling. Remove the cuticle by blistering if necessary, and apply the plaster, spread upon thin muslin. When a sufficient depth of tissue has been destroyed, slough out with poultices if necessary.

OZONE CANCER PLASTER.

A Physician recently canvassed this country, selling a cancer cure under the above name, for the formula of which he charged from ten dollars up. Out of curiosity, I purchased the formula, which was as follows:

R	Zinc chloride.....	1½ dr.
	Arsenous acid.....	1 dr.
	Powdered sanguinaria.....	1 dr.
	Flour and water.....	q.s. to make paste.

In Southern Illinois a cancer cure has been extensively sold in a similar way, under the name of

THE HOWARD CANCER CLAY.

R	Chloride of zinc.....	1 dr.
	Powdered blood root.....	1 dr.
	Pulv. charcoal.....	1 dr.
	Aqua	q. s. to make a paste.

While the above formulae possesses a certain degree of merit it only illustrates "what fools we mortals be," who pay from ten to twenty-five or more dollars for a name and receive formulae which are the common property of the medical profession.

FUSCHIUS PASTE.

- ℞ Arsenous acid..... 1 oz.
 Vegetable charcoal..... 1 oz.
 Powd. serpentaria..... 1 oz.
 Mix. Make into a thick paste with water and apply.
-

GUY'S ARCANUM.

This formula was held a secret for many years :

- ℞ Acid arsenous..... 1 dr.
 Powd. sulphur..... 1 dr.
 Peucedanum off..... 1 dr.
 Ranunculus sylvestris..... 1 dr.
 Mix. Make into paste with water.
-

ESMARCK'S PASTE.

- ℞ Acid arsenous..... 1 dr.
 Morphine sulphate..... 1 dr.
 Mercurous chloride, mild..... 1 oz.
 Powd. acacia..... 6 dr.
 Aqua enough to make paste.
-

HEBRA'S PASTE.

- ℞ Acid arsenous..... 1 dr.
 Mercuric sulphide, red..... 3 dr.
 Vaseline 3 oz.
-

SHERMAN'S PASTE.

- ℞ Zinc chloride..... 5 gr.
 Alum 5 gr.
 Acid tannic..... 2 gr.
 Persulphate of iron..... 3 gr.
 Glycerine..... q.s. to make paste.

LASSAR'S PASTE.

R	Acid salicylic.....	10 gr.
	Powd. starch.....	2 dr.
	Zinc oxide.....	2 dr.
	Lard	4 dr.

DR. LUTTERLOH'S PASTE.

R	Sanguinaria pulv.....	1 part.
	Galangal pulv.....	3 parts.
	Zinc chloride.....	q.s. to make paste.

There are several other formulae of cancer plasters which could be added, but it would only be a repetition of those already given, somewhat modified, and by publishing them would not offer a means of broadening our knowledge on the subject, as what has been said will allow you to treat cancers as successfully as any specialist who holds his methods a secret.

The Rectal Specialist

Most practitioners have greatly neglected the treatment of diseases of the rectum, and like many other things, it has been rather a green pasture for the specialist. Although diseases of this organ have existed for centuries, the medical profession has been slow to recognize the different pathological conditions which exist, and until the invention of the speculum this was one of the unexplored parts of our anatomy, but by the use of this instrument, the surgeon may now have full access to different diseased conditions which exist. Until recent years rectal operations were considered of so grave a character that they could only be successfully treated by the regular surgeon, and I have no doubt that the treatment of diseases of the rectum would have still remained exclusively in the hands of the surgeons if it had not been for the much condemned advertising and itinerant rectal specialist, whose visits invited competition and compelled local physicians to investigate his methods and devote more time to the treatment of rectal diseases.

The opinions of surgeons differ as to the best method of treatment for hemorrhoids. Allingham's ligature operation seems to be in general favor with most surgeons, but is considered by Dr. Pratt and others as "unscientific and a relic of past rectal inquisition." Allingham says that the clamp and cautery is six times as fatal as the ligature. Others speak of it as being a barbarous practice. The Whitehead and American operations are too tedious, difficult and bloody for the general practitioner, and few specialists care to undertake them.

We now come to the injection method, which has seldom met the approval of the regular rectal surgeon; on the other hand, he is ever ready to raise the following objections:

First—That it takes too long to effect a cure, owing to the fact that only two or three pile tumors can be treated at a time. It is quite true that this method takes longer, but we find that patients, as a rule, prefer longer and gentler methods of treatment to speedy cutting operations.

Second—That the operation is not uniformly successful. At this point we differ with him, as this method of treatment may be used with the same degree of success as other operations if the proper fluid is injected and the application made in the right place.

Third—That it cannot be used in external piles. This, to a certain extent, is true, although many operators are using it with a degree of success. We shall limit its application to internal piles and the ligature to the external.

Fourth—That it causes excessive sloughing. This is a great mistake. If the fluid is properly used, it will not cause any more sloughing than the ligature or cautery and it is surprising to note that the surgeon who advocates the cautery and ligature will condemn this method because it causes a sloughing of the pile tumor. Tell me how their methods cure, if it is not by sloughing? That is what we make the injections for and the sloughing from this method is no greater than from theirs.

Fifth—That the method is more dangerous than other operations. We must admit that when this method of treatment was introduced into this country, unfortunately, it fell into the hands of not only a few unskillful practitioners, but also into the hands of some men who were entirely destitute of a sound medical knowledge, and outside of what they had learned about treating piles, knew nothing of the true and sacred mission of the healing art; hence the mortality which followed the operations of these men, who would buy some secret method and indiscriminately inject their fluids into the walls of the rectum, cannot be compared with the careful and judicious way the method is being practiced today; but even as it was, this method of treatment compares quite favorably with other methods. Dr. Andrews has collected reports of 3,304

cases with thirteen deaths. This was when the method was in its infancy and used by unskilled operators, as just mentioned. Allingham reports six deaths in 5,863 cases from the use of the ligature. Dr. Matthews after successfully using the ligature in over a thousand cases reports one death from tetanus, also several alarming cases of hemorrhage.

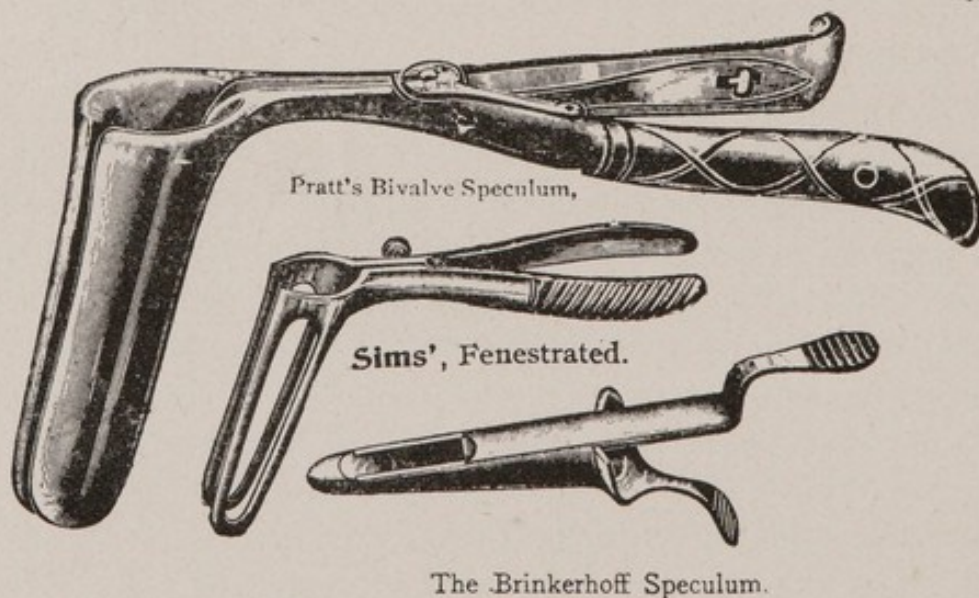
I am sure that the injection method is as free from danger as the cautery, for several cases of excessive sloughing and hemorrhage have followed that operation. Furthermore, I am satisfied that the injection method of treating hemorrhoids, where indicated, is fully as successful as any operation in use at the present time. With the right fluid, skillfully injected, this method may be used with uniformly curative results, and is free from all danger and practically painless.

The diseases of the rectum which the physician is called upon to treat are hemorrhoids, fissure, fistula, rectal ulcer, prolapsus and polypus, and in order that these conditions may be successfully treated, it is necessary that the operator should have a thorough knowledge of the parts. A detailed description of the anatomical histological and pathological conditions of this organ would be rather out of place in this book, but this information is accessible to every physician in other works, and it will repay him to devote his time in studying them.

DIAGNOSIS OF RECTAL DISEASES.

When a patient consults you in regard to any form of rectal disease, he will almost invariably tell you that he has piles. This is the extent of his knowledge in the matter. After he has described his ailments as best he can, the physician may often determine the nature of his disease by carefully questioning him. Pain will, no doubt, be the most prominent symptom. The pain from a fissure, fistula or hemorrhoids may often be told by its character. Is there constipation or diarrhoea? How long has this disease been existing? Is there a discharge of blood or

mucous? Do the bowels protrude during defecation? Does he have an irritable bladder? etc. After you have a history of his case, it is always best to request him to submit to a local examination, as this will allow you to obtain a more thorough knowledge of his case. No patient with an atom of common sense will object to this, and by placing the patient on a table, either in the Sims or the Lithotomy position, with the aid of a good light and the speculum, you can determine the exact nature of his trouble. This brings us to the point of considering the value of different speculums. For the preliminary examination of the rectum and a few minor operations, I prefer a very small Sims speculum. This can be introduced with but little



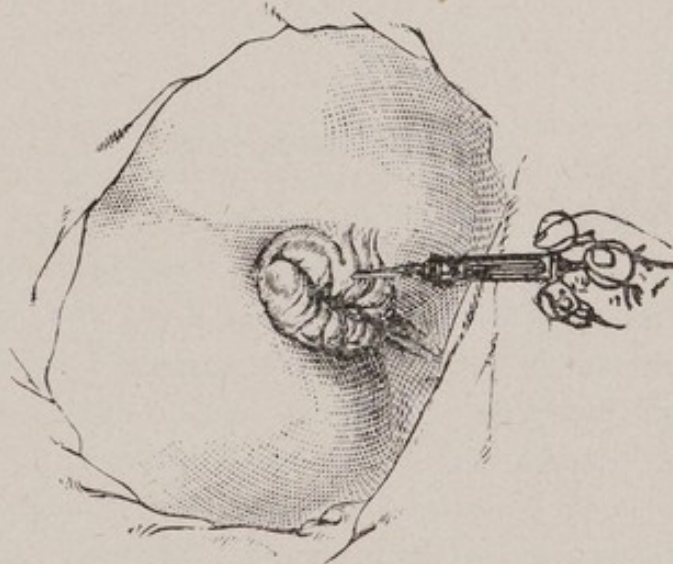
pain and will reveal the condition of affairs. For operating by the injection method, the Brinkerhoff speculum is, beyond a doubt, the best instrument in existence. This speculum is a hollow, conical tube, with a slide which can be withdrawn, exposing the surface you wish to operate on. It also has the advantage of a reflector in the end which throws light on all sides of the tumor. Another good feature of this speculum is, that its tubular shape will act as a basin to catch any superfluous fluid which may escape while injecting. In this way you will cauterize only the surface of the rectum which has been punctured.

For dilating and other operative work Pratt's bivalve

speculum is to be recommended. All speculums should be well oiled with vaseline and heated to the temperature of the body before introducing them. After learning the nature of the diseased condition which exists, we will next consider its treatment.

LOCAL ANAESTHESIA IN RECTAL OPERATIONS.

It has been only within the last few years that local anæsthetics have been used to any great extent in the surgical treatment of rectal diseases. Cocaine has always been considered too dangerous a drug to anæstheze as large a surface as is often required in rectal operations.



Since the introduction of quinine and urea-hydrochloride, however, the rectal surgeon has at his command a local anæsthetic whereby any rectal operation can be successfully performed nearly or absolutely painless. The technique of producing anæsthesia with this valuable remedy is as follows: The index finger of the left hand is introduced into the rectum as a guide for the needle. The syringe should hold at least one dram of a one or two per cent. solution of the quinine and urea-hydrochloride anæsthetic. The needle is now introduced about one-half of an inch from the muco-cutaneous border to avoid the hemorrhoidal vessels and directed as near as possible to the center of the internal sphincter which can be detected by the finger in the rectum. When you are satisfied that you reached the internal sphincter the entire dram of the

anæsthetic should be discharged. This procedure should be repeated three or four times at different parts around the anal orifice. When the last injection is made the finger can still remain in the rectum and massage the internal sphincter by rotating it around this muscle. This diffuses the anæsthetic and at the end of about five minutes nearly any operation can be performed painlessly. Owing to the fact that this remedy retains its anæsthetic effect for several days, offers an advantage over any other local or general anæsthetic ever introduced, and many operations can be performed in the physician's office or the patient's home without the assistance of another physician to administer anæsthetic as was formerly required.

HEMORRHOIDS.

These are generally classified as external and internal tumors, resulting from a varicose condition of the hemorrhoidal veins or other blood vessels, of the rectum. The former have their attachment outside of the external sphincter, while the latter have their attachment inside the grasp of this muscle, but can be forced down by straining if they are of sufficient size. Internal hemorrhoids are covered with mucous membrane and may be found of almost any shape, size and color. The color will generally indicate whether they are of a venous, capillary or arterial origin. Venous hemorrhoids are bluish in color unless they are strangulated, when they become more purple. Capillary hemorrhoids are of dark color. They are not painful, but bleed easily. Arterial hemorrhoids are of a bright red appearance, are irritable, and also bleed freely.

External hemorrhoids are visible to the eye without the use of the speculum, and may assume different shapes and color. The skin and mucous membrane covering external piles is extremely sensitive, while internal piles are nearly devoid of sensibility. All forms of piles seem to have a remarkable erectile power, much resembling the corpus spongiosum of the penis, and, if handled

roughly, will become more prominent. This is very advantageous to the operator as it brings them into more prominence, where they can be easily treated.

TREATMENT OF HEMORRHOIDS.

The words knife or surgical operation pierces the ears of most patients almost as keenly as the instrument itself, and if they are assured that they can be cured without pain, detention from business, and cutting operations, without endangering their lives, they are sure to favor such a procedure. Thus we find that patients will submit to the injection treatment when they would prolong their suffering in silence rather than undergo a surgical operation.

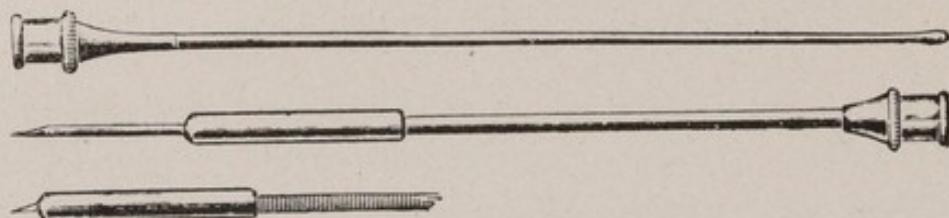
The injection treatment has many advantages other than the ones just mentioned, from the physician's point of view. The busy general practitioner can not always devote the time to learning the technique of cutting operations, as it is a well known fact that such operations require much skill and practice, and the practitioner who sends all his rectal patients to the surgeon, is depriving himself of both reputation and revenue which could be retained by the use of this method.

Since the injection treatment has been used, nearly every caustic in the vegetable and mineral kingdom has been tested, but it is the universal opinion of physicians who use this method that carbolic acid, either used single or in combination with other remedies, is the best, and that better results can be obtained from a forty per cent. or stronger solution than from the weaker ones. The following formula is the most generally accepted one:

℞ Carbolic acid.....40 parts.
Olive oil.....60 parts.

Mix. Sig.—Inject enough of the fluid to change the color of the tumor to a grayish white. The amount of the fluid required to accomplish this will depend upon the size of the tumor. Small tumors require only from one to three minims, while larger ones will require more.

The hypodermic syringe for hemorrhoidal work should have a large piston-head and strong finger-brace. The piston stem should be graduated in minims with a



GUARDED NEEDLE AND CANULA.

set-screw. After you determine the amount of fluid a pile tumor will require, regulate the set-screw on the piston-stem so as to get about the amount of fluid you will require for each injection. In this way you can determine the exact amount of fluid used in each operation. The Hypodermic syringe plays quite an important part in the different operations mentioned in this book, and we wish it understood that when we use the term minims we mean minims as regulated by the piston and set-screw of the syringe, and not drops as they are ejected from the point of the needle, as there is quite a difference, for five graduated minims will be equivalent to nearly fifteen drops if a fine needle is used. The hypodermic syringe is more thoroughly discussed in the obtundent system of painless dentistry on another page to which you are referred.

The needle used for injecting hemorrhoids should be of extra length. I prefer a needle with a finer caliber than most operators use, as the larger needles have a tendency to allow the fluid to escape more freely when it is withdrawn, and thus cauterize the healthy walls of the rectum.

Needles for this work should have a set-screw near the point, which will prevent you from puncturing the opposite walls of the tumor and injecting the fluid where it is not required. If you have a plain needle, you can regulate the depth of the injections by putting a very small piece of paper on the needle at the distance you deem necessary from the point.

HOW TO OPERATE.

After you have examined the patient and located the piles you wish to treat, the Brinkerhoff speculum should be gently introduced and the slide withdrawn, so that the tumor will protrude through this opening. This will give you full view of the tumor. The patient may be placed on either side, or on his back. He should always be placed in such a position as to allow the tumor to point downward if possible. This has two advantages, first, you are not so liable to inject the fluid too near the base of the tumor; second, if any fluid should escape when you withdraw the needle, it will be caught by the speculum. There will not be an overflow, however, unless you use too large a needle and withdraw it too quickly.

After you have exposed the tumor to full view, tell the patient to strain a little, then take a wire snare, such as is used in throat and nose work, and surround the tumor you wish to inject. Do not make sufficient tension on the snare to cut the tissues, but just enough to restrict its base. The needle should now be inserted about one-third the distance from the apex. The injection should be made as near the center of the tumor as possible and forced into the pile a drop at a time. This will allow the coagulum to gradually form and avoid forcing any of the contents of the tumor back into the main blood vessels. If the tumor is an extra large one, several injections may be required to thoroughly cauterize it. The needle should be gently withdrawn and, if any blood should follow its withdrawal, it indicates that there has not been enough of the fluid used and the operation should be repeated. One who is not accustomed to making these injections might think the operation would be attended with pain, but such is not generally the case, as carbolic acid is a powerful anaesthetic when used in this strength. If there should be pain, it generally comes on a few hours after the operation, and indicates that the injection has been made too near the base of the tumor into the deep structure. This should be avoided, as extensive ulceration has been attributed to this mistake. The tumor should be covered with an ointment com-

posed of boric acid, two drachms, and vaseline, six drachms, and the speculum withdrawn. Not more than two small or medium sized, or one large pile tumor should be treated at a time and two or three weeks should elapse before another treatment. It is always best to treat the large tumors first, for as soon as they are removed, the smaller ones are thrown into better view.

There are several complications to be considered in all rectal operations. Retention of urine may follow an operation. This can be relieved by the catheter or other treatments. Constipation is present in a large majority of people who are suffering with piles and great care should be taken to relieve the patient of this difficulty as it has a decided tendency to retard the progress of your treatment. Secondary hemorrhage is a complication of all rectal operations, but it seldom occurs with the injection treatment. If it should occur, the rectum should be tamponed above the bleeding point and astringent applications made to the bleeding surface.

Extensive ulceration will not occur unless the injections have been made too deep. These ulcerations can be treated like other ulcerations of the rectum.

One of the dangers which has been pointed out by surgeons opposed to this method is, that the injection fluid might form a thrombus, but I am doubtful if any such complication ever occurs. This can be guarded against, however, by the use of the circular pressure at the base of the tumors with a snare as described before. It might be stated that weaker solutions of carbolic acid would have a tendency to produce this condition more than the stronger ones, as the latter make a complete coagulum and cauterize the tissue as completely as the actual cautery.

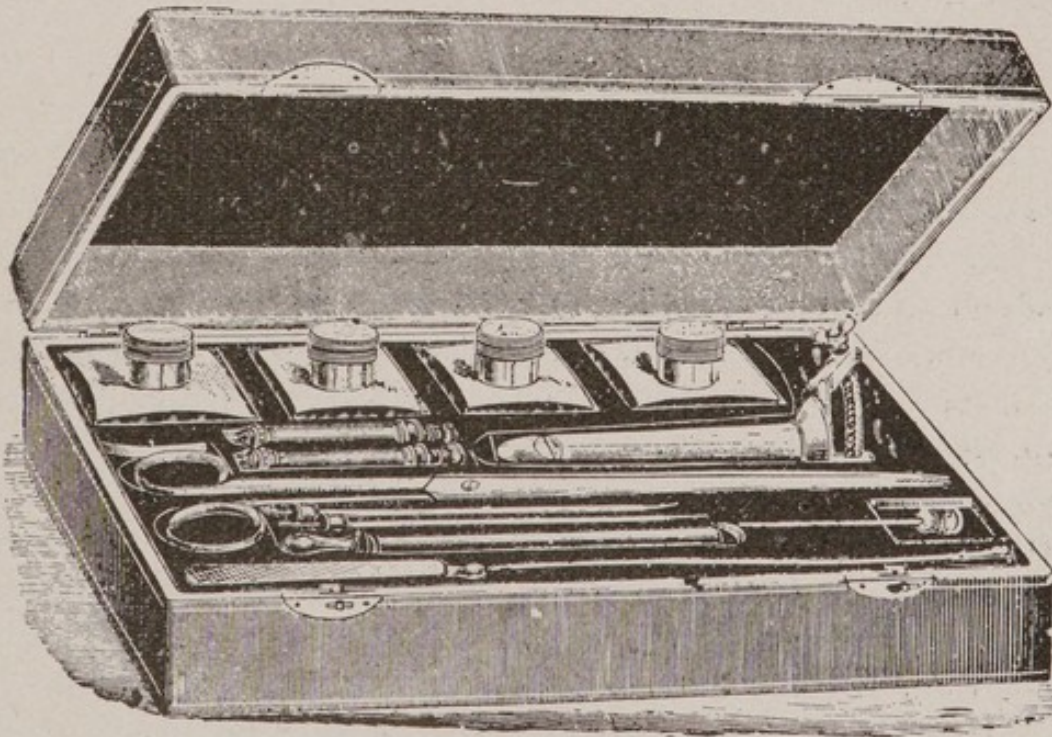
EXTERNAL HEMORRHOIDS.

There are certain forms of external hemorrhoids that can be successfully treated by the injection method. These tumors are of recent formation and decidedly vesicular.

Pile tumors which are hard and fibrous should be removed by excision or the ligature. Many prefer the latter because it is practically bloodless. The minute details

of these operations are given in nearly all works on surgery, and it will not be necessary to repeat them here, but I will give you a brief outline of the operation, which is very simple.

These tumors do not require the use of the speculum as they are already exposed to your view. Anaesthetize the surface to be operated upon by first saturating a piece of absorbent cotton with a ten per cent. solution of cocaine, and cover the parts. This is applicable only to tumors that are covered with mucus membrane as the anaesthetic will have no effect upon the skin. This should be allowed to remain about ten minutes. Then inject a three per cent. solution of cocaine as given in formula No. 3 in the Ob-



RECTAL CASE.

This makes a very convenient set for the Rectal Specialist. It contains four metal screw-top bottles for holding medicines, two syringes, one Brinkerhoff speculum, one rectal polypus or dressing forceps, one suppositor for ointments, one silver probe-pointed canula, one guarded and one plain hypodermic needle.

tudent formula on another page. These injections should be made just under the skin or the mucous membrane around the base of the tumor. The snare should now be applied at about the place you have made the injection, or just a little above, and sufficient force used to make circular pressure around the tumor without cutting the surface.

Now take a knife or a pair of fine-pointed scissors, and sever the outer integument along the line of the snare, being careful not to cut too deep. This incision severs the nerves of sensation and will lessen the suffering and also hasten the sloughing process. The ligature can now be applied to the cut surface and the tumor strangulated. I generally use two silk ligatures and tie several knots in each. This will prevent after-hemorrhage.

After the tumor has been thoroughly ligated, snip off a little of the summit of the tumor and dust the parts well with antiseptic powder. Apply over this a piece of absorbent cotton and a bandage. If the patient suffers much pain after the operation, he can be allowed sufficient morphine to quiet him.

FISTULA.

It is claimed by Allingham that two-thirds of the rectal operations performed at the St. Mark's Hospital, London, were for fistula, but American surgeons find hemorrhoids the most common affection. There are several varieties of fistula, generally classed as complete, which have an external and an internal opening; internal incomplete, which have an internal opening leading to a blind pouch which may become a receptacle for foreign matter; external incomplete, with an external opening only. The complete and external incomplete are very easily detected by the eye by their openings. The internal incomplete may require the use of the speculum.

Fistulas are not always attended with severe pain, but they give the patient a feeling of uneasiness, owing to the discharge from them, which may cause a soreness of itching at the anus.

DIAGNOSIS AND TREATMENT.

If on examination, we find an external opening, we can determine whether or not the fistula is complete by inserting a probe into the opening and following the point of the probe with the finger in the rectum. If the internal opening is a little obscure injections of antisep-

tic colored water injected into the external opening can be seen oozing through the internal orifice.

After determining the nature of the affection, we can apply the treatment we deem required. Most operators prefer to treat these affections upon a surgical basis. For the details of these operations we refer the reader to any text-book on surgery. There are several ways in which this ailment can be cured, however, without resorting to surgery. The oldest of these is the ligature, which is said to have been used by Hippocrates.

This method consists in passing a ligature through the sinus into the bowel and tying it outside allowing the ligature to gradually cut its way to the external surface. The silk ligature was soon replaced by the rubber ligature as the contraction of the rubber would have a tendency to cut through to the surface in less time, generally requiring from five to ten days. If the rubber should break or become relaxed, the operations should be repeated. Rubber ligatures should never be tied, but the ends placed in a small piece of lead and pinched together so as to avoid slipping.

Another way of successfully treating many cases of fistula is to first inject peroxide of hydrogen into the cavity. After this has thoroughly "boiled out," the pus, the interior of the fistulous tract should be scarified by passing a probe or a scarifier up and down the canal several times; then inject carbolic acid through a silver probe, canula, commencing at the internal opening, gradually withdraw the probe and press out a drop at a time. The finger should now follow the canal and press out the excess of acid, if there should be any. This can be followed up by an injection, at least once a week, of eucalyptol, thoroughly saturating the cavity. Brinkerhoff used the following mixture which he called "Ulcer Specific:"

R	Dist. ext. hamamelis.....	5 dr.
	Liq. ferri. subsulph	1 dr.
	Acid carbol. cryst.....	2 gr.
	Glycerine	2 dr.

Mix. Sig. Inject ten or fifteen drops deeply into the fistula and press the tract of the fistula with the finger to force the fluid more deeply in.

The principal thing to avoid is having the external opening heal before the internal. You should always keep the external orifice open; this will allow free drainage for the septic fluids as the healing process should start from within and work towards the surface.

FISSURE.

Of all diseases of the rectum a fissure is the most painful. To the inexperienced, it would seem almost impossible that such an innocent-looking little ulcer could cause so much suffering. It is, however, the cause of intolerable pain and gravely disordered reflexes.

A fissure is simply an ulcerated abrasion of the mucocutaneous membrane which lays bare certain nerve fibers which come in contact with foreign matter and produce spasmodic contraction and pain of an intense character. The treatment of a fissure is the simplest known in surgery and it can be cured in several ways. Dilating the sphincters to the full extent with a Pratt's bivalve speculum will, in nearly every case, effect a cure. If you haven't a speculum at hand, the thumbs of each hand can be inserted into the rectum and the same force applied. Patients can object to this treatment for no other reason except that they should take a general anaesthetic. If patients fear this, you can effect a cure by saturating a piece of absorbent cotton with a ten per cent. solution of cocaine and allow it to remain on the ulcer for five or ten minutes, then scarify the surface and apply a solution containing equal parts of carbolic acid and glycerine. This will convert the ulcer into a simple sore which will rapidly heal by keeping it dressed with antiseptic powders or ointment.

RECTAL ULCERS.

Situated above the anus are not of uncommon occurrence and give rise to many reflex troubles. These ulcers may be caused by mechanical injury, as from in-

roducing the nozzle of a syringe, or by a seed lying in the folds of the mucous membrane. They may also result from simple inflammatory or specific diseases.

Ulcers of the rectum are attended with pain and tenesmus and a feeling of uneasiness in the lower bowel. There may be a discharge of pus, mucous or blood. Morning diarrhoea is nearly always present, although in some cases the bowels are constipated.

If ulceration of the rectum is suspected, the speculum should be introduced and the extent and character of the ulceration ascertained. If they should be due to syphilis, constitutional treatment alone is all that will be required, but, if from any other cause, they will require local medication, in the form of antiseptics and astringents.

When ulcers can be outlined through a speculum, they may become converted into a simple sore by saturating the surface with nitrate of silver, seventy grains to an ounce of water. This can be applied with a cotton pointed applicator or the surface can be anæsthetized with a ten per cent. solution of cocaine, then scarified and touched with a solution containing one drachm of carbolic acid and three drachms of olive oil. These treatments should be applied by the physician once or twice a week. The patient should also be supplied with an antiseptic astringent home treatment. The vaginal suppositories as given on another page in the chapter on diseases of women, form the best treatment to my knowledge, and they are used with wonderful curative results in all cases of rectal ulcerations and inflammations. The patient should insert one of these suppositories up the rectum at the ulcerated surface each night before going to bed and after the bowels move in the morning. These suppositories contain a happy combination of remedies which is all that can be desired to promote healing, and extensive ulceration will rapidly yield to their use.

PROLAPSUS OF THE RECTUM.

This condition is of quite common occurrence in children and is also occasionally found in adults and is fre-

quently associated with hemorrhoids. This protrusion of the rectum is generally due to excessive straining at stool, or in patients who are paralyzed. The walls of the rectum can easily be placed in their normal position by lubricating the fore finger with vaseline and inserting it into the rectum and gently pushing the membrane over the finger into the orifice.

The patient should be supplied with antiseptic and astringent treatment such as the vaginal suppository just mentioned, and be instructed to avoid straining at stool. If the bowels are constipated, treatment should be directed so as to produce free watery stools without straining. If the prolapsus is due to hemorrhoids, they should be removed; this will also cure this condition.

POLYPUS OF THE RECTUM.

Polypoid tumors are found in the rectum the same as on other mucous membranes. The treatment is very simple. They may be removed either by injecting the same hemorrhoidal fluid as that used for piles into the pedicle of the tumor, or they may be ligated at the base of the pedicle and the top cut off. They may also be removed by the snare, and the pedicle cauterized. Polypi have a tendency to bleed quite freely at times and the treatment should be directed to avoid this complication.

PRURITUS.

This is a very common and troublesome ailment. It may be caused from acid, mucous, or purulent discharges from the anus. Some physicians believe many cases are of a purely parasitic origin. The following formula has always been very serviceable in my practice:

R	Acid carbolie.....	20	gr.
	Camphor	20	gr.
	Zinc oxide.....	15	gr.
	Vaseline	1	oz.

M. Sig. Apply to the surface two or three times a day.

The following formulae have been advocated and successfully used by their originators for the hypodermic treatment of piles:

POWELL'S FORMULA.

R	Acid carbolie (crystals).....	2 dr.
	Tinet. thuja.....	1 dr.
	Aqua dist	q. s. ad. 1 oz.

OVERALL'S FORMULA.

R	Acid carbolie.....	1 dr.
	Fl. ex. ergot.....	1 dr.
	Ol. olive.....	1 dr.

BRINKERHOFF'S FORMULA.

R	Carbolie acid.....	1 oz.
	Olive oil.....	5 oz.
	Chloride of zinc.....	8 gr.

The little pamphlet furnished to the itinerants purchasing the "System" directs that the amount of injection inserted into the tumors shall be as follows:

Largest piles.....	8 min.
Medium piles.....	4 to 8 min.
Small piles.....	2 to 3 min.

Club-shaped painless piles near orifice 2 min.

"Brinkerhoff's System" forbids the injunction of any but internal piles.

RORICK'S FORMULA.

R	Carbolic acid.....	2 dr.
	Glycerine	2 dr.
	Fl. ex. ergot.....	1 dr.
	Water	1½ dr.

DR. GREEN'S FORMULA.

R	Carbolic acid	1 oz.
	Creosote	10 min.
	Acid hydrocyanic.....	1 min.
	Olive oil.....	1 oz.

DR. SMITH'S FORMULA.

R	Acid carbolic	35 parts.
	Fl. ext. ergot.....	20 parts.
	Glycerine	30 parts.
	Distilled water.....	15 parts.

DR. SHUFORD'S FORMULA.

R	Sodium biborate.....	1 dr.
	Acid salicylic.....	1 dr.
	Glycerine	1 oz.
	Acid carbolic.....	3 dr.

Mix. Sig. Inject three to five drops in small and eight or ten or more in large ones.

DR. HOYT'S FORMULA.

R	Acid carbolic.....	80 min.
	Ext. hamamelis.....	6 dr.
	Distilled water.....	6 dr.

The Alcohol and Drug Habit Specialist

What are the factors which predispose certain individuals to the excessive use of liquor, while others do not care to use it at all? This is a question that has never been satisfactorily answered. I believe that certain individuals are born drunkards, just as I believe that others are born thieves, and there are children born every day cursed in their mother's womb by the dissipation of one or both parents. Bad company and poor literature contribute, perhaps, more toward the development of the drink habit than any other cause. A man with a timid disposition often thinks he is better able to combat with the world if he imbibes freely of the amber-colored liquid, while a man with an unevenly balanced mind believes he can be made more worldly if he flushes his stomach with the fiery fluid. A poor man feels rich if he is in a state of semi-intoxication, and especially so if he is in a glittering bar-room with company in a similar state. Finally, the intoxication increases, stupor comes on, and after this has worn off in the morning comes thirst, misery, headache, tremor and nervous irritability. Again he seeks relief by the usual "eye-opener," and again he keeps his jaded nervous system stimulated during the day until outraged nature rebels, and his stomach will no longer retain the poison, and the disordered brain and nervous system are on the border of collapse unless rest or medical aid will restore him to the normal, and compel him to leave alcoholic liquors alone for a few weeks or months. This is the history of the average periodical drinker.

There is another class of men whom we generally find

in active business who do not intoxicate themselves to the extent just described, but who consume a large amount of liquor every day and keep it up for years, without much apparent injury, but by carefully watching these subjects, we find that they finally die from some disease for which alcohol is responsible. Possibly the heart may become exhausted or the liver or the kidneys give out, or the weakened blood vessels at some point of the brain will yield and apoplexy result.

There is another class of men who may properly be called degenerates. These individuals are certainly physically and mentally weak, and, if allowed, will consume as much liquor as they can get their hands on. They wish to keep in a state of intoxication all the time, until they are finally taken to the prison or madhouse or wear out the lives of their most devoted friends.

From so high authority as Sir William Roberts we find in his excellent little work on "Diet and Digestion," that tea, coffee, tobacco and alcohol have been beneficial in strengthening both the muscles and the brains of Americans. He argues that this is one of the reasons why we have outstripped our eastern brethren in civilization and intellectual attainments. If such be the case, we have bought our civilization and our intelligence at an enormous expense.

There has been much discussion in medical literature as to whether the excessive use of alcohol is a disease or a habit. I am inclined to think that it is both, and that it may be either hereditary or acquired. If a man goes on an occasional spree and has no particular taste or craving for liquors, we may say that he has a habit. If he has an uncontrollable appetite for alcohol and feels that he cannot exist without the stimulant, we must admit that it is a disease, for there are certain pathological changes which take place in his nervous system.

Whether or not alcohol may be used without being abused is too broad a question to be discussed here, but we all know that it is a dangerous companion with which to associate, and we may live longer and better lives if we disinherit this king of many crimes.

It was Henry W. Grady who said that whisky had wasted more lives, dug more graves and sent more souls unshrived to judgment than all the pestilences and wars since God sent the plague into Egypt and Joshua stood before Jericho.

HOW TO ADMIT PATIENTS FOR TREATMENT.

When a person applies for treatment for alcoholism he is generally in a state of intoxication; he wants sympathy and a friend. Possibly he has been called a drunken brute, which may be true in many instances, for there are many individuals who are correct impersonations of Dr. Jekyll and Mr. Hyde when under the influence of liquor. Men who have a kind, lovable and charitable disposition are transformed into perfect demons by its influence. A person not addicted to the liquor habit might think that it is not a difficult task to stop drinking, and we often find people who subject the drunkard to the most severe criticism, is a habitue or perhaps a milder stimulant or narcotic, i. e., tea, coffee, snuff or tobacco. I have seen as pronounced tea drunkards as I ever have whisky addicts.

Although Dr. Keeley and others who were among the first to classify alcoholism as a disease, were ridiculed by the Medical Profession, we are pleased to note at this writing that their views have been generally accepted, and by treating these conditions as disease, patients can be rapidly restored to their former manhood.

Any man of ordinary intelligence knows right from wrong, and by explaining to him the evil effects of his habits and how his dissipation has reflected upon himself and family; how he and his have been shunned by society; how his noble and faithful wife has patiently waited for the time to come when he would abandon the evil habit and become the same kind father, brother or son that he once was. She has, no doubt, many times knelt in prayer, and implored the Divine Giver of Life to shield her loved one from this terrible curse. Have your patient to understand that he is able to live a dif-

ferent and a better life and that he has applied to you for the purpose of having you cure him of an uncontrollable disease, alcoholism, and when he has completed his treatment, he will return to his loved ones a much different man. But in order to be successful, he must avoid his former associates and places where liquor is sold, and in order that the treatment may be properly carried out, you must have his fullest co-operation.

EQUIPMENT.

There has been a diversity of opinion whether or not a physician in general practice, can treat alcoholism and the drug habits as successfully as they could be treated at habitue institutes. The principal and only advantage the institutes have they are generally equipped for treating such cases, and the psychic influence it has on the patient, of "leaving home for a vacation," which is generally their excuse. Alcoholic habitues dislike to admit their weakness and acknowledge that alcohol is their master. You often hear the most profound drunkard remark, "I can drink or let it alone," but they more often drink to show you they can drink than they do to abandon its use for demonstrative purposes.

There is rather a fraternity among drinking men, and while at an institute they discuss many experiences regarding the evil effects of alcohol, which often leads from the cradle to the prison or mad house. If the modern temperance lecturer is deficient for food for argument, his time will be well spent in visiting one of these institutes. There is no special class of men exempt from this evil, and we find inmates at these places who were clergymen, doctors, lawyers, etc., holding respective repentance with men of the lower classes, all congregated for one grand purpose of restoring manhood and placing themselves before the world once more, the same honorable, upright citizen they once were. They leave the institute with new resolutions and a brighter future before them.

A well equipped institute should possess everything

which will be conducive to entertainment and health. For this purpose a small gymnasium is of special value, not only for amusement, but as a strengthening process. Baths of every description offers the same advantages. I feel I cannot say too much regarding baths, as they offer us one of the best means of elimination obtainable, the Turkish bath chairs and folding bath cabinet mentioned on another page will answer the purpose, but the shower and other baths can be added to a good advantage. Patients should be required to take a Turkish bath, at least every other day throughout the treatment. Although the institutes have a few advantages, a physician in general practice can treat patients equally as successful as far as actual medication is concerned. The only equipment other than medicine is the bath outfit just mentioned. His first step toward success is to obtain the utmost confidence and co-operation of his patients and keep them under his observation and treatment for at least four weeks. At the end of the first week, he no doubt will abandon the use of liquor and by the judicious use of remedial measures, at the end of the remaining three weeks, he will leave your care with no further desire for alcohol beverages.

PRELIMINARY TREATMENT.

The preliminary treatment for alcoholism depends somewhat upon the condition of the patient when he presents himself for treatment. He may be perfectly sober, or, on the other extreme, he may be brought to you in a state of total collapse, or suffering with delirium tremens, or manifesting symptoms bordering upon this condition, as a result of a recent debauch; the former condition will require no special treatment, while the latter demands the physician's immediate attention. The patient's stomach may be in such a state that he cannot tolerate solid foods; in such cases we find hot broths, milk and invalid foods are the best diet. If the patient is not able to take this nourishment by the mouth, it can

be given by the rectum. Many drunkards eat and sleep very little while on a debauch, and it is owing to this deficiency of rest and diet which have a tendency to induce collapse and delirium tremens, by over-taxing their already shattered nervous system.

It has often been observed that alcoholics who eat and sleep well never manifest delirious symptoms. We therefore find that the most important factors as a preliminary restorative treatment will be to sustain nourishment, quiet the nervous system and induce nature's sweet restorative—sleep—and eliminate all the poisonous elements from the body. The patient should be encouraged to eat, the congested liver and portal system should be relieved by a full dose of calomel followed by a saline purgative or the continuous use of phosphate of soda. The congested kidneys should also be relieved with an active diuretic, through diaphoresis should be obtained by means of the Turkish bath given in the bath cabinet illustrated on another page and followed by a hot plunge bath for a few minutes in water of 110 degrees F.

These baths are indispensable as a means of elimination, and should produce sleep. If the baths should fail to produce sleep, the patient can be given a full dose of bromidia, sulphonal, trional, veronal paraldehyd, or any other suitable hypnotic, which will be discussed later in what is known as the "Rest Cure."

Patients have been educated by the former founders of the so-called "gold-cure" institutes to believe they can have all the liquor they desire. Thus we often find it necessary to carry out our treatment on the same plan, or the patient may think our treatment an inferior one. If the patient is very weak he should only be allowed sufficient liquor to support him. There is no remedy in existence which will support an irritable heart or calm the nerves of the whisky habitue as quickly as whisky. This should only be allowed in moderate doses, however, for a few days, until nature has an opportunity of recuperating from other sources. If the patient is a moderate drinker and in a state of intoxication or semi-intoxication, he may be allowed a four ounce bottle of whisky and ad-

vised to see how long he can make that last. All patients should be emphatically forbidden to enter any place where liquors are sold, or drink any intoxicating liquor other than that which he receives from you.

In order that the reader may become familiar with the different methods of treatment, I will first give the treatment I used while in charge of an institute and which I have since used in private practice with excellent results for the treatment of alcoholism and the drug habits. I will also outline many secret cures and systems, sold to the profession at different prices according to territorial right, etc. By the judicious use of these treatments you will be prepared to treat and cure alcoholism and the drug habits as successfully as they can be treated elsewhere.

THE REST CURE.

Some institutes have what is known as the "Rest Cure," which in detail is very much like the preliminary treatment just described. This treatment is of special value as a preliminary treatment for patients who are nervous or present themselves in a state bordering on collapse, or manifest symptoms of delirium tremens. The patient is given a hot water bath or a hot blanket bath, which consists of wrapping the patient in woolen blankets taken from water with the temperature 140 degrees F. These baths are frequently repeated to keep up free diaphoresis. Nourishment is given in small amounts as the patient awakens. The patient is allowed as little whisky as is necessary to support him and is kept in a hypnotic or semi-hypnotic state from two to four days, until the effect of the alcoholic poison wears off.

The remedies used for the purpose of producing "rest" (hypnosis) are hyoscine, trinal, veronal and paraldehyd.

Dr. J. Collins, in writing regarding the relative value of the three last named remedies, says:

The reliance which we place upon them, apparently, judging from the frequency with which they are used,

is indicated by the order in which they are enumerated. Although veronal, one of the most recently introduced hypnotics, has something to be said in its favor, and particularly that it produces a hypnosis more profound than that caused by trional, there are disagreeable features attendant upon its use which compel us to admit that trional is the more suitable hypnotic. My experience with veronal, which I have used upward of a year in a great many cases of insomnia of manifold causation, is that it causes quite the ideal artificial sleep, it sometimes produces motor incoordination, especially of the lower extremities, erythematous eruption, neuralgia, and it diminishes the solids and urin. Although trional will do all of these, I have not noticed any of them with anything like the frequency that I have after giving veronal. Nevertheless, veronal is an excellent hypnotic, and the sleep-producing effects are greater than those of trional, given in from ten-grain to fifteen-grain doses. It usually produces sleep after the second or third dose in patients with delirium, whereas trional must be given oftentimes in twice or in three times this quantity before any considerable hypnosis results. We have the best results from the administration of trional when we give it in ten-grain doses every hour and with large draughts of hot water. After from four to six doses have been taken, the patient usually secures a more or less protracted sleep.

Paraldehyd is the most reliable of all hypnotics. Every one who has much experience in nervous and mental diseases will concede that this is a fact. It is never a pleasant medicine to take, and if given frequently it is sure to disorder the digestion. In delirium tremens the subacute or chronic gastro-duodenal catarrh is almost invariably present, and paraldehyd tends to increase it and exaggerate it; for this reason we never give it in the City Hospital as a routine measure, but when other hypnotics fail we rely upon its administration in producing sleep and are rarely disappointed.

The rest cure is only given to patients who are delirious or extremely nervous and irritable and have muscular tremor, etc., and require rest. If the patient places him-

self in your charge in a reasonable state of sobriety, the rest treatment is omitted, with the exception of a hypnotic at bedtime, otherwise the patient is placed at once upon the following general tonic and reconstructive treatment:

TONIC AND RECONSTRUCTIVE TREATMENT.

The first treatment I ever used was that known as the Dunlap Cure, which was approximately the same treatment, somewhat modified, as that used by Dr. Gray, the formulae of which were made public through the efforts of Dr. Andrews, of Chicago; and it is my belief that this treatment is quite as good as any in use at the present time, if used according to the following revised formulae:

I commence giving the patient hypodermically:

R Gold and sodium chloride.....4 gr.
Aqua. dis.....1 oz.

M. Sig. Inject five to ten minims at seven and eleven-thirty a. m., and at five and nine p. m. Each ten minims represents one-twentieth grain of the chloride of gold and sodium.

I also give the following internally:

R Atropine $\frac{1}{4}$ gr.
Strychnine nitrate..... 1 gr.
Tinct. Capsicum..... 2 dr.
F. E. erythroxylon coca..... 1 oz.
F. E. avena sativa..... 1 oz.
F. E. chionanthus virg..... 1 oz.
Compound F. E. cinchona..... 3 oz.
Simple elixir..... 1 oz.

Mix. Sig. A teaspoonful every two hours while awake.

In briefly resuming the therapeutic value of the above medication, I may add that it is the belief of many physicians that the only important part gold has in the treatment of alcoholism is the gold coin which passes from the

hand of the patient to the pocket of the doctor. This is a great mistake, although the term "gold cure" has been extensively advertised for commercial purposes and sounds well and looks well. The therapeutic value of the chloride of gold and sodium is strongly indicated to antagonize the evil effects of alcohol. By referring to all modern literature upon the subject and accepting the views of the most competent clinicians, we find that the salts of gold are alteratives of the highest order and seem to exercise their best efforts upon organs and tissues destroyed by the poisonous effects of alcohol.

It is a remedy par-excellence for sclerosis of the internal organs, especially the liver and kidneys, drunkards dyspepsia, characterised by red glazed tongue, relaxation of the bowels, catarrh of the bile-ducts, duodenum, jaundice, etc. It has been highly commended for suicidal mania, melancholia and a tonic for low spirited people, and many other conditions which are associated in a direct or indirect way with chronic alcoholism, thus we find that the use of gold is not as empiric as we are often led to believe, and is one of the principal remedies used at many successful institutes. Atropine has been judiciously added to the preparation as a means of relieving cerebral congestion and headache, which is nearly always present after a debauch. It is also especially useful as a cardiac and respiratory stimulant. Strychnine is also a valuable adjunct in the treatment of alcoholism and the drug habits as a stomachic tonic and a stimulant to the heart respiratory, muscular and nervous system. Erythroxylin, avena sativa and the cinchona compound have been added for their respective tonic properties. Chionanthus in passive doses, as given here, is a cholagogue and mild diuratic and promotes activity of the liver and kidneys, and assists elimination. There is no remedy which replaces the fiery taste of whisky better than capsicum. Whisky drinkers are accustomed to hot drinks and this remedy supplies this desire. This can be omitted in many cases, however, and should always be gradually reduced within a few days, or it can be administered separately if desired.

After the patient has taken this treatment for a few days, he generally loses his desire for liquor and discontinues its use, but the treatment should be continued for a period of three or four weeks. On the other hand, we occasionally find a patient who thinks he is overly-wise and can "beat the cure." These patients are generally of the lower classes and will drink, drink, and drink until compelled to stop. They are easily managed, however, and it is rather amusing to see how quickly you can relieve their minds of these erroneous ideas. After a patient has been taking the treatment a few days and you feel that he is fighting the treatment, when the time comes for the hypodermic injection, give him an extra large drink of whisky. Have him secure it at the drug store, if you wish, so that he will not think you have doctored it, and instead of the regular injection, give him one-tenth grain of apomorphine. This, of course, will make him sick at his stomach and vomit. In nine cases out of ten you cannot get him to touch liquor any more, but once in a while a patient will attempt to drink again. I remember once giving a patient seventeen of these injections before I could conquer him.

Apomorphine and the "sickening process" have always formed one of the "trade secrets" of the different gold-cure institutes, and I believe that apomorphine is one of the most valuable drugs we have as an emergency treatment in the cure of alcoholism, as it makes you master of the situation, and at the same time, impresses the patient with the fact that the treatment you are giving is a complete antidote to alcohol, and that the two can not be taken at the same time. You will also find that some patients before quitting the treatment wish to see if they can take a drink of liquor, to learn whether or not the cure has been complete. In many cases I have requested them to drink and then given them an injection of apomorphine at the same time. This satisfies them in the extreme. This might be condemned by some as an unprincipled and injudicious practice, but, such as it is, it is effective and curative and I believe that there is a larger percentage of cures in those who have under-

gone the sickening process at least once while taking treatment than in those who have not. The mental impression the patient receives (and alcoholism is conceded to be partially a mental disease, hence the term "dipso-mania") is lasting in its results. After this treatment the patient is thoroughly disgusted with his favorite beverage. I have often seen patients become sick at their stomach by watching others drink, several days after taking the apomorphine.

This is what is known at most gold-cure institutes as the "barber pole shot." They have three solutions for injecting, labeled number one, two and three. Number one is white and contains a solution of nitrate of strychnine; number two contains gold and sodium and is colored red; number three contains the apomorphine, which if mixed with water will turn a bluish green, hence, by taking medicine from each bottle, we get the red, white and blue.

There is no special advantage of treating alcoholism by hypodermic medication, other than you have the patient under your immediate control. You can absolutely compel him to stop drinking by the use of apomorphine and having him report regularly for his hypodermic treatment, you can keep him constantly under your observation and control and witness the progress of your treatment. The hypodermic injections also have a wonderful psychic effect. Many patients have never received a hypodermic injection before they imagine that this method of treatment is much more certain and curative in its effects than the ordinary treatment given by the mouth.

Although the apomorphine treatment is not required in all cases it would be almost impossible to cure some cases without its use, and this method of producing emesis is far better than to give an emetic in whisky, and is not nearly so easily detected.

The combined treatment which I have just outlined is the one I prefer for the general class of patients and it will establish as great a number of cures as any treatment in present use. It can be used in either private or a sanitarium practice with equal success.

THE TREATMENT FOR OPIUM, COCAINE AND OTHER DRUG HABITS.

There are several different types of drug habitues and several different methods of treatment to cure them, each method having its enthusiastic advocate. The treatment of drug habits differs from alcoholism inasmuch as nearly every case presents different individual characteristics and requires special attention and skill on the part of the physician to meet the emergencies. While we find alcoholic patients desire companionship and enjoy social functions, opium and other drug habitues are generally secretive in their disposition, and the physician who treats them should lose no time in securing the confidence and co-operation of his patients. They are wedded to their drug and believe that it is part of their existence; therefore they should have the assurance that they can have all of the drug their system requires during the treatment, but that they are to take only that which they receive from you.

To illustrate the cautiousness of many patients, I remember one lady who applied for treatment who had three drachm bottles of morphine and a hypodermic syringe secreted in her clothing. She did not tell me this until after she had completed the treatment, when she handed them to me and confessed her actions, stating that she had heard so much about the torture received in curing the morphine habit, that she came prepared not to suffer. She was placed upon the gradual reduction treatment and made a splendid recovery.

There are several things to be considered in carrying out a treatment for the drug habits. We have to combat the physical and mental disturbances, which are sure to follow the withdrawal of the drug. We have to relieve the patient from the craving of the drug, that we may enable him to permanently discontinue its use. We have to restore his mental and physical condition so that he will not depend upon the drug for support. These are problems which often confuse the minds of the most skill-

ful physicians, but they can be solved by the appropriate therapeutic measure.

Among patients applying to you for treatment, you will find first, the young vigorous patients, who have not taken the drug long enough to produce any marked pathological changes in their anatomy. Second, the one who has used the drug for several years without its seemingly producing any ill effects. Third, the one who uses the drugs for the relief of pain of some co-existing disease, such as cancer, chronic sores, hepatic and renal calculi, etc. Fourth, the old and feeble who have existed upon the drugs for years and have brought about pathological changes which are beyond repair.

As the digestive and assimilative organs are practically paralyzed; the secretions of the stomach, liver and bowels are checked. They become emaciated and live upon their reserve of former years.

The first and second class will generally yield to proper treatment. The third class may also be cured, providing you can establish a cure for the painful disease, but as a rule, the fourth class is beyond all medical aid and the patients should be allowed to use the drug as long as they live. The preliminary treatment for drug addicts should be very much the same as that for alcohol. If, in your judgment, you think the case is a curable one, for a few days previous to the treatment you adopt, the patient should take hot air and water baths and open the pores of the skin. The alimentary tract should be cleaned out by the use of calomel and phosphate of soda. Acetate of potassium will be found a good remedy to stimulate the secretions of the kidneys. The patient will then be ready for the regular routine treatment. There are several ways in which the drug habit may be treated, viz:—the gradual reduction method; the rapid reduction method, and the immediate withdrawal method, etc.

THE GRADUAL REDUCTION METHOD.

This is one of the most satisfactory methods of treatment in present use for curing morphine and other drug habits and has the advantage that it can be used in private practice nearly as well as at a sanitarium or institute with full co-operation of the patient this method of treatment offers the following advantages, viz: It is not attended with any marked discomfort to the patient, no weakness or profuse perspiration, generally no pain or diarrhoea or extreme nervousness, collapse, etc., often accompanying other treatments. With this treatment there is no fixed amount of the drug reduced each day, but the patient is requested to take as little of the drug as possible, and still remain comfortable.

The principal point to be observed is to build up the patient's general constitution and prepare him for the reduction previous to withdrawing his drug supply, and allow him as minimum amount of the drug as is compensative with health and comfort, and to withdraw the amount so gradual that it will not be noticeable to the patient. Most patients take much larger amounts of the drug they are using than is generally necessary to keep them comfortable. If a patient is taking 30 grains of morphine a day it can be reduced to at least one-half that amount, or even less the first few days, and hardly be noticed, and the patient always feels better for its removal. It is always a good rule to commence the first day's treatment by reducing the amount of the drug at least one-half; if you are satisfied that the patient is absolutely in need of more you may allow it. If he has passed the first day successfully and in comparatively a comfortable manner, the drug may be reduced as much as you think he will stand the next day, finally you will reach the minimum amount which will support him without distress, and this should be your starting point. Remember, however, that you should never allow the patient to suffer for the want of the drug; on the other hand, they often imagine they want the drug when they really do not require it; in such instances a hypodermic injec-

tion of water will often pacify them. After you have found the minimum amount he can stand, the reduction should be made from now on in such small amounts each day that the patient will not be able to detect the reduction. As soon as you commence to reduce the drug the functions of the body, which have been chained down, will awaken to new life and activity, the appetite will usually increase, the secretions will be more profuse, the bowels will become more regular, although the patient may be somewhat restless at night. What sleep he does procure will be more profound and refreshing. If he should suffer too much from insomnia, a suitable hypnotic may be given when he awakens. The heart may become irritable, weak, fast or irregular, requiring a hypodermic injection of strychnine.

With this method there is no stated time promised to effect a cure; it might require one month, or it may require ten weeks; this depends somewhat upon the physical condition of the patient, which is always to be supported in advance or in proportion to the amount of the drug withdrawn, always watching the condition of the appetite, bowels, kidneys and heart, and see that the skin is active with hot air and water baths, which assist the eliminative process. If the patient has weak recuperative powers, it will take longer to effect a cure than it will where the functions of the body are more active. During the reduction the patient will require a good thorough tonic and eliminative treatment. The following offers one of the best hypodermic medications to support the heart's action and nervous system:

R	Strychnine nitrate	1½ dr.
	Sparteïn sulph.	6 gr.
	Aqua	1 oz.

Mix. Sig. Inject ten minims with the amount of morphine you find necessary to support the patient; each ten minims represents strychnine, one ninety-sixth grain, and sparteïn one-eighth grain. The best time to make the hypodermic injections is about fifteen minutes before meal time and just before going to bed. The stimulating

effect allows the patient to eat and sleep better if given at these times, and it is absolutely necessary that he should maintain a good appetite and rest to have the treatment progressive and accomplish results. The patient should also take internal treatment. The following formula has given excellent satisfaction:

R	F. E. avena sativa	1 oz.
	F. E. passiflora incarnata	1½ oz.
	F. E. Cinchona comp.	2 oz.
	Bromidia	1½ oz.
	Spts. ammonia aromatic	2 oz.
	Syr. lactucarium virosa	2 oz.

M. Sig. A teaspoonful every two hours while awake.

To illustrate the use of this method of treatment, we will say that the patient is in the habit of taking forty grains of morphine; we know that he can exist in perfect comfort with twenty grains, we therefore commence our first day's treatment with twenty grains. If the day is passed comfortably, the next day we make a still further reduction of two grains. This reduction is made from one to two grains a day until we have reached the minimum amount which will support him comfortably. If this should require twelve grains we will commence from this amount as a starting point and from now on we will make the reduction so gradual that the patient will not be aware of it. I have the following solution prepared;

R	Morphine sulphate	96 gr.
	Aqua	1 oz.

Mix. Each five minims of the above solution represents one grain of morphine; of this he receives four injections the first day by taking ten minims (two grains of morphine) of this solution and ten minims of the spartein and strychnine solution at about 6:45 and 11:45 a. m., and 5:45 and 9:30 p. m. He is also allowed two powders of one-half grain each triturated with ten grains of sugar of milk, to be taken if absolutely necessary between the injections, allowing him to have only one powder at

a time. We will now attempt to reduce the morphine one grain a day for five days. After about two weeks, under judicious management, we will find we have reduced the drug from forty to about six grains a day without much discomfort to the patient. The reductions from now on will have to be made in much smaller amounts. A new solution should be prepared containing one grain to every ten minims and from this solution you can commence by using twelve minims with one-half grain powders if necessary. At the end of another week the patient can be well supported by three grains. By reducing the drug in very small amounts for about three or four weeks longer it can be gradually withdrawn altogether without the patients knowledge. During the last three weeks if you have not abandoned the internal powder, it is well to substitute quinine, which has a similar bitterness and cannot be detected by the patient. Of course, you will find there are many complications arising from this treatment the same as there are with others, but by carefully watching the patient and with his co-operation, you can effect a cure in fully eighty-five or ninety per cent. of all cases. If the patient is weak and nervous, endeavor to build him up physically and mentally in proportion to the amount of the drug you withdraw. Do not attempt to be in too great a hurry and cause the patient discomfort, for it is better to have the patient in a peaceful state of mind than otherwise, even if it takes longer.

Complete recoveries can be made by this treatment in six weeks in many cases, while in others it will require three months. Although this treatment is condemned by enthusiastic advocates of other treatments, I believe it to be the best medication for the average patient and it is particularly advantageous in the aged and persons with low vitality. If we fail to get the full co-operation of the patient by the gradual reduction method, there is only one alternative, which is the rapid reduction method.

THE RAPID REDUCTION METHODS.

There are two ways generally practiced of reducing drugs rapidly; one is known as the Intermediate Withdrawal Method and the other as the Radical Withdrawal Method; both require much discipline on the part of the physician, and some distress and will power on the part of the patient, for a few days after the drug has been entirely abandoned. The latter can be greatly overcome, however, by appropriate medication. Both of these methods have been largely used at institutes where the patient only had a limited time to receive treatment. Many patients start on this treatment and terminate with the Immediate Withdrawal Method, as will be discussed later.

INTERMEDIATE WITHDRAWAL METHOD.

The drug can be reduced by this method by either hypodermic or internal medication. I prefer the internal treatment in powder form, triturating the drug with sugar of milk. If you are treating the patient for the morphine habit, duplicate quinine for the morphine as you withdraw the latter. This will give the powder a bitter taste so that it will not be noticed by the patient that you are using less morphine each day, and at the same time you get the tonic effect from the quinine.

The amount by which the morphine is reduced each day will depend upon the amount consumed. To illustrate, if, the patient is in the habit of consuming fifteen grains of morphine in twenty-four hours, it should be prepared with sugar of milk as follows:

R Morphine sulphate	15 gr.
Sugar of milk	45 gr.

Triturate and divide in as many powders as the patient wishes. He can take these powders at the same intervals as was his former custom. The next day we will

make a reduction of two grains and add quinine as follows:

R	Quinine sulphate	2 gr.
	Morphine sulphate	13 gr.
	Sugar of milk	45 gr.

Triturate and divide in powders as required.

We will attempt to reduce the morphine two grains a day for the first five days and add two grains of quinine each day, then one grain a day for three days, then half a grain a day for four days. After this, the drug should not be given at all, if possible. Now we commence to reduce the quinine as we did the morphine until the patient requires none of the powders. This is the general plan of treatment by the simple reduction method, but oftentimes we have to deviate from this, and not reduce the drug so rapidly, also giving an extra dose of morphine to allay the nervousness. But this method of treatment should be adhered to as nearly as possible, and be sure that the patient gets a smaller quantity of the drug each day. The tonic treatment may be kept up for some time after the powders are abandoned, but it should be taken in smaller doses each day and withdrawn altogether a week or two after the quinine is stopped.

THE RADICAL REDUCTION METHOD.

The amount of the drug is much more rapidly reduced by this method than it is by the gradual reduction or intermediate treatments previously given. The patient is allowed the drug which he is addicted for about seven to twelve days and then it is given up altogether. The method of reduction is to reduce the drug by one-half each day. To illustrate, if the patient should take thirty-two grains of morphine each day, the second days treatment he receives sixteen grains, the third day eight grains, and so on until the end of the tenth day, when he receives one-sixteenth grain, then it is used no longer. From the time he is allowed less than two grains a day for about

ten days or two weeks, he will suffer considerable mental and physical distress, but by successfully bridging him over this critical period by the use of judicious therapeutic measures, he will reach the crisis successfully.

Aside from the hypodermic and tonic treatment he receives during the critical period, a suitable hypnotic and baths should be given to induce sleep. It might be necessary to confine the patient to his bed for a few days and keep him in a semi-hypnotic condition, by alternating hyoscine with other suitable hypnotics. This method of treatment is rather a severe one and is only a modification of the Levinstein treatment. It can be used successfully, however, in many cases where time is limited and the patient has sufficient courage and vitality to withstand its application. It is this and similar treatments, however, which give institutes a bad reputation, as having a torture process connected with their treatment. It is best never to use this treatment without first explaining the details of the treatment before commencing its use. Patients who have taken this treatment are not liable to give the method a very hearty commendation, which often reacts to a disadvantage to the physician's reputation.

IMMEDIATE WITHDRAWAL METHOD.

The Three Day Cure.

A few months ago there was a Dr. Swain located in this city, who afterwards established a sanitarium in Cleveland and advertised quite extensively what was known as the "Three Day Cure." This and similar quick cure treatments used at institutes are described as the "Immediate Withdrawal Method," which is approximately the treatment I wish to outline here. This treatment can be adopted to a good advantage in the young, vigorous, and in new cases. The patient is prepared for this treatment the same as for other treatments, by giving hot air and water baths a few days. Before commencing the treatment remove all foreign matter from the bowels by

cathartic remedies; the kidneys should also have diuretic treatment. In the meantime the drug should be reduced to a minimum. After giving these preliminary measures the attention they require and the day comes to commence the treatment proper, the patient is requested to abstain from the use of the drug to which he is addicted until he can no longer resist the craving. Then he may be given a hypodermic injection of five minims of the following formula:

HYPODERMIC MEDICATION.

Formula No. 1.

R Hyoscine hydrobromide $\frac{1}{2}$ gr.
Tincture rhus tox 5 min.
Tincture apis mellifica 5 min.

Solution boracic acid (2 per cent.) .. 1 oz.

Mix. Sig. Use hypodermically. Maximum dose ten minims, minimum dose five minims; use according to the directions which follow:

At the end of fifteen minutes, give him five minims more, and in a half hour he can take ten minims more. The patient will now tell you that his throat is very dry, and he will fall asleep; his sleep will probably last four or five hours. If he should become sleepy after the second dose, five minims will be sufficient for the last injection.

When the patient awakens he will complain of being dizzy; his pupils will be dilated and his face flushed. If he has been asleep four or five hours, he should have another injection of ten minims.

By this time he is getting the characteristic physiological effects of the hyoscine. He will imagine and do all sorts of things. He may cry, sing or imagine he sees funny people; he will pick at the bed clothes, etc. This should not cause you to be alarmed, as all these symptoms are due to the denarcotizing effects of the hyoscine. The patient should be given hypodermic injections at intervals of four or five hours until he has been kept in this condi-

tion for a period of twenty-four hours; then discontinue their use and allow the patient to resume his normal mind. He may ask for more of his accustomed drug or he may say that he has no desire for it, whatever. If he should still crave the drug, he should be kept under the influence of hyoscine for a period of twelve hours longer; then stop the treatment again until he is rational. If he still has a craving, you may again produce the semi-intoxicated condition with the hypodermic injections for a few hours longer, but if he states he has no further use for the drug, and is free from the craving, you should discontinue the hypodermic injections and at once commence giving him the following:

INTERNAL MEDICATION.

Formula No. 2.

R	Hyoscine hydrobromide	$\frac{1}{8}$ gr.
	Strychnine nitrate	1 gr.
	Nitro-glycerine	$\frac{1}{4}$ gr.
	F. E. avena sativa	2 oz.
	Simple elixir	q. s. ad. 6 oz.

Mix. One teaspoonful every four to six hours.

During the time you are giving the hypodermic injections, the patient may manifest a variety of symptoms. His heart action generally remains about normal, but if it should become weak, give him a hypodermic injection of 1-40 grain strychnine nitrate or 1-100 grain nitro-glycerine, if his body is cold. The patient will almost always vomit freely and feel much better afterwards. He may also have fetid breath, dry tongue and free salivation. None of these symptoms should cause you alarm.

Respiration may be accelerated, but this is of little concern. If it should become labored, one-fourth or one-half grain of morphine may be given, which will give immediate relief without retarding the treatment. During the treatment, the patient should have all the water he wants and nutrition should be kept up as much as possible with milk or with some one of the prepared invalid foods.

After the patient tells you he has no desire for his accustomed drug, he should commence taking a teaspoonful every four hours of formula No. 2. This should be continued for a few days, according to the needs of the patient, when it should be gradually withdrawn.

The most common complaint of one who has taken the opium cure is insomnia, and it is always best to omit hypnotics. If possible, try to induce sleep by having the patient take hot or cold baths, but, if it is absolutely necessary, you may give from seven to fifteen grains each of hydrate of chloral and bromide of potassium.

A patient undergoing this treatment should be undressed and confined to his room, and have the constant attention of a nurse, who should watch the patient very closely and see that he has a hot or cold bath every day. This has a remarkable soothing effect. Allow the patient to sit up or lie down as he prefers. The bowels should move at least every other day, but, if diarrhoea should exist, it should be checked by appropriate treatment.

This method of treatment may be considered rather heroic, but it is not dangerous in selected cases. The patient should never be told beforehand the effects of the treatment, but you can inform his friends if you wish. This is a very successful treatment and will produce remarkable results in curable cases, but I prefer the gradual reduction method when it can be applied.

THE MIXED TREATMENT.

It becomes necessary at times to change from one treatment to another; this is particularly so if you do not succeed in getting the full co-operation of the patient. You might commence the gradual reduction method and find the patient is taking his drug on the sly, which, of course, detains the progress of the treatment. In such cases the immediate withdrawal of the drug and the use of hyoscine bears the same relation to the opium habit as the apomorphine does to the alcohol habit; it rather compels them to abandon the drug. It can also be used

to a good advantage in many cases, where for various reasons, the patient has only a limited time to complete his treatment. I have seen beautiful results from commencing treatment with either the Gradual, Intermediate or Rapid Withdrawal Treatment, and when the point has been reached where the patient craves more of the drug than you are supplying him, to place him at once upon the Immediate Withdrawal Treatment and terminate the cure. While on the other hand there are a few selected cases where the Immediate Withdrawal Treatment has been used first and the Gradual Reduction Treatment completed a cure.

GENERAL COMPLICATIONS.

As I have previously stated, there can be no stereotyped rule, treatment or medication which can be applied in all cases alike. Although you will find that there are several complications, idiosyncrasys and personal characteristics which may confront you and require your immediate attention as they present themselves during the course of any treatment you deem best suited for any particular case. These complications should be readily met with proper therapeutic measures. The condition of the appetite, heart, kidneys, liver and bowels should always be watched. Endeavor to keep them in as normal state as possible. The heart may become weak and require a stimulant, of which we find strychnine, spartein or nitroglycerin acceptable. The sudden withdrawal of morphine may cause diarrhoea, which may require the use of salol, bismuth, the sulpho-carbolates, etc. Excessive perspiration and night sweats may be checked with atropine. Sickness at the stomach and hyperacidity often require the physician's attention. A morphine addict who has existed upon the drug a long time, pain will be a prominent symptom when the drug is withdrawn; this may be either real or imaginary. Rest, hot air and water baths, accompanied by hypnotics, are the best means of relief. If the patient should manifest symptoms of delirium, some one of the hypnotics mentioned in the

“Rest Cure” will be serviceable. The treatment of alcoholism and the drug habits in general require remedies thoroughly classed as a heart stimulant, nerve tonics, sedatives, reconstructives, hypnotics, etc. Elimination is the foundation of all curative measures and is well expressed by Dr. Waugh in his favorite quotation “Wash up, clean out and keep clean,” cannot be used in any disease to a better advantage than in eliminating poisonous drugs, which have found a lodging place in the bodies of habitues for years.

Every excessable source we have in promoting elimination should be utilized. The most important of these is hot air and water baths; these baths have as important a relation in the treatment of alcoholism and the drug habits as quinine does in malaria, or mercury in syphilis. Baths are the one indispensable agent in assisting nature to eliminate the poisonous elements. They should be taken at least as often as every other day from the commencement of the treatment and continued for several months afterwards. Baths are not only important as an eliminating process, but they will often relieve pain and induce rest and sleep when other treatments fail.

When the patient has successfully completed his treatment, it is always a good plan to provide him with remedies which will stimulate the secretions of the kidneys and liver and regulate the bowels.

There are many remedies and emergency treatments which might be mentioned here, but every physician is familiar with the therapeutic value of the drugs required, and by carefully observing the condition of the patient during the process of the treatment, he will be able to meet the demands of the different complications and successfully bridge him over the critical period to a successful crisis.

A CURE FOR THE TOBACCO HABIT.

It may seem rather unreasonable to state that the tobacco habit is one of the most difficult to conquer, but such is the case, and in order to effect a cure, the patient

has to exercise his will-power to its fullest extent. In this habit we have what may be termed a mechanical as well as a physical and mental condition to overcome.

Those who use tobacco are accustomed to having something in their mouth and they miss this as much or more than they do the narcotic effect of the tobacco. I once treated a patient for the tobacco habit, who used at least three ounces of fine-cut every day, and after the cure was completed, he stated that he had no desire for tobacco, but he must have something in his mouth; he, therefore, chewed wheat. He was still keeping up this practice when I saw him last, four years after taking the treatment. Others want gum, while cigarette, cigar and pipe smokers often like to hold a lead-pencil in their mouth.

The following formula has proved that it meets the demands in curing the tobacco habit in many cases in my practice:

R	Atropine sulphate	$\frac{1}{8}$ gr.
	Tr. nux vomica	$\frac{1}{2}$ dr.
	Tr. humulus	1 oz.
	Tr. quassia	$1\frac{1}{2}$ oz.
	Tr. gentian	$1\frac{1}{2}$ oz.
	Tr. cinchona comp.	2 oz.

M. Sig. A teaspoonful every two or three hours while awake.

For the chewing tobacco habit the patient should be allowed a small amount for a few days; he should use fine-cut and use a piece no larger than a bean.

This may be used every three hours for the first day; every five hours the second day; the third day it may be used twice; and the fourth day it should be given up altogether; but every time the patient thinks he wants a chew from this time on he should take a few drops of medicine on his tongue. This will stop his craving.

If the patient smokes, he should be instructed to

smoke a pipe instead of cigars or cigarettes. He may have a short smoke of not more than a quarter of a pipe full at a time every three hours the first day, and every five hours the second day; twice the third day, and none the fourth day. The same plan of treatment of taking a few drops of medicine on the tongue will apply to smoking the same as it does for chewing. From now on he need not take a teaspoonful of the treatment every three hours, as the medicine he takes when he has a desire to use tobacco will be sufficient to cure him. The treatment should be kept up for a month or more.

WHAT CONSTITUTES A CURE FOR THE ALCOHOL, MORPHINE AND OTHER HABITS.

The physician in charge of institutes or sanitariums where these habits are exclusively treated, differ greatly as to the percentage of cures, some claiming ninety-five per cent., and others as low as fifty per cent. These different percentages of success naturally lead us to inquire what may be considered a cure.

I believe that if we can succeed by proper treatment in placing a patient in a condition in which he does not require or crave any alcohol, morphine or other drug to which he is addicted, for a period of six months, he may be considered cured, and, if he has any strength of character, he can let it alone from that time on. There are always periods after a patient has taken treatment when he has a feeling of loneliness or absent-mindedness steal over him. This cannot be termed a craving, but he cannot help realizing the delightful sensations that were present when he was full of his once accustomed poison. It is therefore many times beneficial to give a good tonic preparation after the regular treatment is abandoned and to tell him that if he should ever have a desire for his liquor or drug to take this preparation for a day or so. This in many cases will carry him through.

Patients of this kind should have their minds occupied either with work, amusement, travel or change of scene, or some other diversion.

If we consider a term of six months a sufficient length of time to pronounce a case cured, the percentage of cures will be much larger than they would if we accept only those cases which are permanently cured. Of the first fourteen cases I treated for alcoholism, the first to relapse was at seven months. From this time up to two years, eight went back to their former habits, one died six months after taking treatment, of pneumonia. Some of these eight took the treatment again, however, and did not drink again for many months. The last time I heard from the remaining five, they were still total abstainers. I have had occasion to note patients who have taken the Keeley and other treatments, and I found that the percentage of cures are about the same. Owing to the lack of association, I believe that the percentage of cures in drug habits is greater. We will always notice that those who drink alcohol want associates, while those who indulge in drugs want secretiveness.

Even if the percentage of permanent cures may be considered small, this treatment has been instrumental in doing more good than any other temperance cause ever instituted. If its only field of importance were to make homes happy for a period of six months or a year, it would be a worthy practice, but we find, on the other hand, a certain percentage of permanent cures, which bring with them new manhood and happy families. In the foregoing pages I have endeavored to give the details of the different methods of treatment generally used at gold cure institutes, private sanitariums and in private practice. Although the treatment may vary in many instances it is practically all founded upon the methods already outlined. There have been several other methods and secret systems used which have come under my observation, and in order that the physician may broaden his knowledge as much as possible upon the subject, I will append the formulæ and details of several of these secret and non-secret systems.

LEVINSTEIN'S METHOD OF SUDDEN WITHDRAWAL.

This method is also often spoken of as the English Method, due to its first being introduced in England by the above author. This treatment consists of placing the patient in a padded cell and suddenly withdrawing all morphine. He is constantly watched by a medical attendant and provided with stimulants or other medication he may require to meet the emergencies as they present themselves. The patient raves and fights until he is often in a state of collapse; at the end of from four to six days his struggle is over, and with appropriate tonic treatment he reaches a successful crisis.

This barbarous treatment needs no mention other than its condemnation, as it requires an extra amount of courage for both physician and patient, although it is successful in many cases. There have been many sudden deaths, and the mortality is much greater than the use of other treatments.

DR. MATTISON'S TREATMENT FOR MORPHINISM.

In opposition to the English method, Dr. Mattison, of Brooklyn, has published what he calls the American Method, which is an intervening method of treatment from the cruel method of sudden withdrawal without supporting the nervous system, as practiced by Levinstein and avoids the long delay of reaching the crisis by the use of the gradual reduction method. The treatment used by this noted specialist, in brief, is as follows: The morphine is gradually reduced in from ten to twelve days, and as the reduction is taking place the nervous system is supported with increasing doses of bromides. The bromide of sodium is preferred, as it is attended with the least cutaneous eruption and is more agreeable and acceptable by the stomach. The sodium is administered twice a day, at ten a. m. and ten p. m.

To illustrate, the patient states he generally uses about thirty grains of morphine each day; we find this about one-third more of the drug than is necessary to support him comfortably. We therefore commence the first

day's treatment with twenty grains of morphine; from now on we reduce two or more grains a day until at the end of ten days the drug is entirely withdrawn.

To support the nervous system and produce sedation the bromide of sodium is given in increasing doses, as the morphine is withdrawn. The first day the morphine is reduced three grains and the patient receives ten grains of the bromide of sodium twice daily; the next day the morphine is likewise reduced and the sodium increased to twenty grains twice a day; the third day another reduction is made with the morphine, and the patient receives thirty grains of the sodium each morning and evening, thus the decrease of morphine and the increase of sodium is kept up until the morphine is entirely withdrawn and the patient is taking the maximum dose of sodium bromide, which might reach to seventy-five or one hundred grains daily. The object of this treatment is to produce sedation and conquer all nervous manifestations by large doses of the bromide.

The length of time required to carry out this treatment and the amount of morphine reduced each day and the quantity of bromide required to produce sedation, will depend largely upon the condition of the patient and the judgment of the physician. The patient should not have any stated amount of the bromide, but sufficient to produce complete sedation at all times. After the patient has taken this treatment a few days, he will appear to be drowsy and want to sleep; he may also manifest symptoms due to the increased amount of bromides he has taken, i. e., acna, retid breath, etc. All these symptoms may be absent if the bromide of sodium causes an increased action of the kidneys, as it often does. After the patient takes his last dose of morphine he may require a few injections of codeine to carry him through the critical stage. Insomnia is often present and is treated with trional. For pain and restlessness he gives large doses of fluid extract cannabis indica, thirty to forty minims.

Dr. Mattison has devoted many years of his life as a specialist in drug addictions and has been remarkably successful with this method, of which he is the originator.

TRIUMPH FORMULAE FOR LIQUOR, MORPHINE, COCAINE, CHLORAL AND TOBACCO.

Two years ago a gentleman representing a concern from Knoxville, Tenn., canvassed this state, selling the formulæ and "system" of the Triumph Cure, for liquor, morphine, cocaine, chloral and tobacco habits. The price charged for the system was from \$10.00 up, according to territorial right; the purchaser pledging himself under a \$500.00 contract never to disclose the secrets. This is a fair example of the many things which are offered the medical profession, although this system is above the average in merit. I have used some of the formulæ with good results, and will give a verbatim copy of the original, which was bought for ten dollars by a physician residing in Indiana.

WHISKY TREATMENT.

Drunkenness is now recognized as a disease. Since it is a disease of the nervous system, or pathological condition which disturbs the mental equilibrium, or as it were, a defect in the will power, termed dipsomania. Being convinced, therefore, that we have a disease of a specific nature to deal with, we must set out to find a specific treatment, using such therapeutic re-agents as will maintain or bring back the nervous system to its original physiological equilibrium, or normal condition of will-power. This may be accomplished by improving the patient's general tone, by stimulating and strengthening his nervous system and by surrounding him with good moral influences. It has been proved that strychnine is a specific remedy, as it is the most powerful and valuable neurotic which we possess. Atropine has a specific action in decreasing the appetite for alcohol; hence, a combination of the two remedies with others gives us as nearly a specific as can be wished for. I would advise that you get the full confidence and consent of the patient before commencing treatment and have him stop all work and worry for the first few days. This should always be the case

with morphia, cocaine, chloral or cigarette habits. If you follow this rule, you will cure every case. If you do not, your percentage of cures will be smaller. If a patient stubbornly persists in drinking liquor, give him a full drink of whisky, and immediately follow it with apomorphia. This will soon nauseate him so that he will not attempt a repetition while under treatment, and he will be fully convinced of the fact that his disgust for the taste or even the smell of liquor is due to the whisky and not to the apomorphia which he has taken. Then push the treatment to its fullest extent, even to the point of toxic effect.

The maximum dose must be reached, gradually until the drug effect becomes manifest, then gradually decreased. Should any antidote be needed, give chloral hydrate.

It is necessary to use considerable judgment with some patients, as they have physiological idiosyncrasies regarding the drug employed. With all patients, especially those who are weak, nervous or worn out, begin the treatment cautiously, with two-thirds of a dose. Prolong the treatment and do not be in too great a hurry. In all cases it is necessary to give an internal medicine as tonic. When the patient refuses liquor it is well to discontinue the atropine entirely and substitute picrotoxine, and if perspiration should be copious, discontinue this also. Have all your patients take a warm bath every two or three days, and keep the liver acting and bowels open with calomel in combination with ipecac and soda. If you follow the above treatment and use discretion when needed, studying each individual case, you will meet with no disaster, nor fail to perfect a cure. You may give the patient all the whisky he wishes, having him drink in your presence, but I would not advise it. Stop them immediately, or in a day or two, at most. This can be done by moral persuasion and encouragement. The diet should consist largely of vegetables and fruits.

Directions for compounding these medicines and for using them successfully are found on the following pages, classified under their respective diseases.

HYPODERMIC INJECTIONS.

This is a certified copy of the original formulæ No. 3795 registered with The Maltbie Chemical Company, of Newark, N. J., from whom it may be ordered.

R	Strychnine	85-100 gr.
	Atropine sulph	40-100 gr.
	Acid boracic	10 gr.
	Hydrastis canadensis	10 drops.
	Aqua destillata	q. s. ad. 1 oz.

Mix. Sig. According to directions as below.

Then I have four empty two-drachm vials, corked; upon one cork I mark No. 1, in ink, and upon another cork I mark No. 2, and so on to 4. Then I put 100 drops of the original formulæ No. 3795 in each of the four two-drachm vials. Understand, now, all four vials are like the original formulæ. Vial No. 1 leave as the original formulæ, without adding any tablets of strychnine nitrate as it is the weakest proportion used. Vials Nos. 2, 3 and 4 I will make each so many points stronger than the other, as shown below:

To vial No. 2 I add 5 1-40 gr. tablets of strychnia nitrate.
To vial No. 3 I add 10 1-40 gr. tablets of strychnia nitrate.
To vial No. 4 I add 20 1-40 gr. tablets of strychnia nitrate.

Five drops is a dose from any of the vials Nos. 1 to 4. Give this hypodermically or by the mouth at 8 a. m., 12 m., 4 p. m., 8 p. m.

Always commence hypodermic injection with one dose from vial No. 1; then one dose of vial No. 3; then one dose of vial No. 2; then one dose of vial No. 1, skipping backward and forward this way.

If you need a stronger dose, work in vial No. 4 in the same manner as stated above. Use picrotoxin 1-40 grain, by adding to a dose from any of the vials (1 to 4) hypodermically or by the mouth, enough to make the patient sweat the poison out of the system and to bring back the natural color.

If you want to treat a patient entirely by the mouth, instead of treating him hypodermically, use vial No. 3

through the whole course of treatment; use the same sized dose, with alcoholic tonic, as if you were treating hypodermically; and you should know the patient gets the medicine regularly to make a cure. I advise you in all cases to treat hypodermically if possible; then you know that the patient gets the medicine regularly, and you are sure of success.

Don't expect physiological effect before five or six days, viz., twitching of muscles, dryness of mouth, etc., and as soon as you get the toxic effect, go back to vial No. 1 and stay after it is obtained. You may now hold the effect with the weakest vial, No. 1. As the least medicine given to any patient is always the best, give always the smallest dose that will produce the desired effect. After you have reached the maximum dose you may decrease the amount and still hold the physiological effect, which is best. Then the fourth day always ask your patients if they still want whisky or beer. Of course some of them will say yes. Don't be alarmed at this. Then tell them you don't see how it is, as you are sure the medicine is taking effect, or is about to, at any rate, as now is the time to make it take effect, etc. As the patient has entire confidence in you by this time, since he is feeling so much better, eating and sleeping well, and the thirst and desire is leaving him, tell him you want to see him drink in your presence. This may be done on the fourth day after you have commenced treating the patient; then tell him to go and get some whisky or beer, as you don't want to furnish it to him, for he would say you had "drugged" it and would lose confidence in you. In this way he sees you had no chance to touch the whisky or beer, and he is perfectly satisfied you have not tampered with either. This must be done at one of the regular times of the hypodermics. Then, in place of giving the regular dose, skip one and give instead 1-10 grain of apomorphia immediately after he has taken the whisky or beer. Of course, you know the result. Repeat this once or twice a day, until whisky is disgusting to him in sight, smell or taste. Then keep up the regular treatment three weeks, or longer if the case should demand it.

Never increase the size of the hypodermic or dose. If you want a stronger dose, go from vial to vial, as you see each vial is marked so many points stronger than the other, as tabulated. Cases of delirium tremens are best treated by giving hypodermic from vial No. 1, and by adding to each injection 1-250 grain of hydrobromate of hyoscyamine. By using the drug in this way you see that there can be no bad results obtained, as by using morphine to quiet the patient, to make him sleep, and taking the chances of adding to the whisky or beer habit the morphine desire.

Keep the dispensing vials clean, rinsing them well before refilling, being careful not to inject sediment or deposit in solution in the arm, as it will produce an abscess. All air must be excluded from the syringe before injecting. Wipe off the needle after using on one patient and before using on another.

As a tonic for whisky patients I use a private formula which you will find below.

ALCOHOLIC TONIC.

R	Acid muriatic, C. P. free	2048 gr.
	Powdered phosphate of lime	768 gr.
	Powdered phosphate magnesia	1024 gr.
	Fl. ext. hydrastis canadensis	256 gr.
	Powdered quinine muriate	256 gr.
	Crystal strychnine nitrate	10 $\frac{1}{4}$ gr.
	Fl. ext. pulsatilla	255 gr.
	Simple syrup	q. s. ad 1 gal.

Mix. Sig. As directed below.

Teaspoonful every four hours in a little water, and taken between hypodermic injections or doses.

A similar preparation is Maltbie's Syrup of Phos-

phates Compound with quinine and strychnine. This is given at 6 a. m., 10 a. m., 2 p. m., 6 p. m., and 10 p. m., when the patient is up at the first and last hour. After stopping the use of hypodermics it is necessary to give the tonic twice a day for a week or so, with one tablet of 1-60 grain of strychnine nitrate added to every teaspoonful contained in the bottle.

A FEW WORDS OF CAUTION.

Examine each case thoroughly before treatment, especially the action of the heart and the nervous system, that you may note with benefit to yourself the changes that will be produced by the action of the remedies used. Question patients particularly as to why they drink; whether from the love or the taste of whisky or beer or the effect produced. If a patient drinks from love of the taste of whisky or beer, you need not hesitate to take him and guarantee a cure, for you can make the taste or smell of whisky or beer disgusting to him, and he will not drink it again when the fascinating taste is gone. This is accomplished by giving the treatment with one dose of apomorphia. If the patient drinks for the effect of whisky or beer, don't fail to give hypodermic of apomorphia on the fourth day, just after giving him a drink of whisky or beer in your presence, repeating the dose once or twice a day until whisky or beer becomes nauseating to him in sight, smell and taste. If the patient who drinks for the love of whisky or beer persists in drinking, or it is difficult to turn him against it, give apomorphia in manner as stated above until you do obtain the desired results.

MORPHINE, OPIUM, LAUDANUM, COCAINE AND CHLORAL TREATMENT.

The most perfect antidote for these poisons is permanganate of potash. For all cases give one injection of

the antidote, and let one grain of permanganate of potash be the maximum dose to be given at the beginning of treatment hypodermically. It matters not what amount of morphine taken in 24 hours. If they take less than one grain of morphine in 24 hours let the dose of the permanganate of potash be governed accordingly.

Usually you can get your patient off morphine at once by the addition of 1-200 grain of hydrobromate of hyoscyamine to the hypodermic injection from vials No. 1 to 4. Use in the same way as in whisky cases, whatever strength you deem sufficient.

Don't give the hydrobromate of hyoscyamine oftener than is necessary to control the patient, viz., Nos. 1 to 4, given every four hours and continued from one to five weeks or longer as the case demands.

The tonic I use for the above mentioned diseases is No. 3796, which you will find below. Then I have two four-ounce bottles filled with the tonic. To one bottle add about three-fourths the amount of morphine taken by the patient each day. You must multiply three-fourths of the morphine taken by the patient for one day by eight, as four-ounce bottle, No. 2, has thirty-two doses; four doses per day will last eight days. This bottle we mark No. 2; the other bottle, without the morphine, as No. 1. Have the patient take a teaspoonful out of the bottle with morphine, No. 2, four times a day, adding to this bottle with morphine, viz., No. 2, a teaspoonful from the bottle without morphine, No. 1, after each dose taken. These doses are to be taken between the hypodermic injections. By treating this way you see bottle No. 2 will last sixteen days. The patient has been taken off morphine in this way so easily and quickly that he is not aware of it, and you can hold him. After taking these two bottles, continue the hypodermic injection three weeks or longer, as in whisky cases, and also the tonic, No. 3796, which you will find below, without adding any morphine, registered with The Maltbie Chemical Company, Newark, N. J.

MORPHINE, OPIUM, LAUDANUM, COCAINE AND CHLORAL TONIC.

R	Powd. red cinchona	1 lb.
	Powd. hydrastis canadensis	1/2 lb.
	Powd. pulsatilla	1/2 lb.
	Powd. nux vomica	2 oz.
	Powd. xanthoxylum berries	2 oz.
	Powd. capsicum	1/2 oz.
	Powd. avena sativa	8 oz.
	Dilute alcohol	q. s. ad. 1 gal.

Mix. Sig. Teaspoonful every four hours of the above tonic.

The morphine patient cannot be trusted, and you must examine him thoroughly for any morphine, opium, or hypodermic that he may have in his possession, demanding that they be given up. An attendant should be with patients for some time and the physician with them should always be on the alert, examining the pupils of the eye constantly, for the drug will first show its effect there. If you can keep them from using morphine or opium for a week you may be certain of a cure. The bowels are at first likely to be affected, and patients may have cramps in their limbs. For this condition use 10 per cent. solution veratrum album in four or five drop doses, which will greatly benefit and relieve them. You may tell them that you will reduce the quantity of the drug gradually, but do not let them know at what time you cease to give them morphine. Should these cases at anytime need something to make them sleep, give them whisky. Do not labor under any delusion that you must increase the size of the dose and the strength of the hypodermic injection, if you fail to obtain the physiological effects of the remedies used within a few days, and under no circumstances add any additional strychnia nitrate tablets to the doses or vials as tabulated under hypodermic injections. Increase doses by using solutions from vial to vial.

CIGARETTE TREATMENT.

Begin this treatment with hypodermic injections of picrotoxine in 1-40 grain dose added to one of the hypodermic injections from vials Nos. 1 to 4, treat in the same way as for whisky cases until copious perspiration ensues; then have an attendant give the patient a hot sponge or steam bath, cooling him off gradually with a shower, at first warm, then cold, rubbing until dry. The cigarette habit in time will cause the user to be effected with a mental condition resembling insanity more than any of the foregoing habits. It particularly affects the will-power, and is similar to insanity, pitiable, yet harmless.

℞ Formula No. 37952 dr.
Tr. cannabis indica5 drops.

Mix. Sig. As directed below.

Inject hypodermically from five to ten drops, from two to four times a day, using your judgment in individualizing your case and the dose to be used, as in whisky cases; continue treatment, however, from three to five weeks hypodermically, and the tonic, as mentioned below, for a week or ten days longer.

CIGARETTE TONIC.

℞ Syr. Phosphates, comp. with quinine and
strychnine (Maltbie)8 oz.

Sig. As directed below.

Teaspoonful at a dose, from three to four times per day. If the patient becomes nervous you have to use the following prescription, viz.;

℞ Thein8 gr.
Acid boracic2 gr.
Aqua destillataq. s. ad. 1 oz.

Mix. Sig. As directed below.

Inject from five to ten drops hypodermically, repeating the dose as your discretion dictates. Treat cases in the following manner: Giving injections hypodermically at 8 a. m., 4 p. m., and 8 p. m., giving a tonic at 6 a. m., if the patient is up at the first and last hours; then at 10 a. m., 2 p. m., 6 p. m., and 10 p. m.

The cigarette habit is about the most difficult of all we have to contend with and requires from three to five weeks to perfect a cure. It is about as good a plan as any in the treatment of these cases to cut them short. If you do not adopt this plan, have them decrease the number of cigarettes each day by one-third or one-half and in four or five days you may stop them entirely. Patients will get very nervous and weak, but encourage them in every way you can.

If the patient stubbornly persists in smoking, after the first nine days, give him 1-10 grain apomorphia hypodermically, just after you have given him a cigarette to smoke in your presence, and keep this up until the sight, smell and taste is disgusting to him. Give this at one of the regular hours of treatment, instead of the regular hypodermic at that hour.

TOBACCO TREATMENT.

R	Formula No. 10041	1½ dr.
	Tr. plantago Major	¾ dr.
	Tr. avena sativa	¾ dr.

Mix. Sig. As directed below.

Give the patient three drops by turning the bottle on the cork and touching it to the tongue each time he feels like taking a chew or a smoke, especially a dose after each meal, asking the patient to assist you by lessening the number of chews of tobacco or cigars each day. Give the patient treatment hypodermically, in the same manner as for whisky patients, from vials Nos. 1 to 4, five drops at a dose, three times a day. In from nine to fourteen days' treatment, tobacco will be disgusting to his sight, smell and taste. Then stop the tobacco entirely and continue the prescription for tobacco cure by touch-

ing it to his lips or tongue when he feels like using tobacco. If necessary give alcoholic tonic No. 10043, a teaspoonful three times a day. If the patient becomes very weak and nervous for the first few days give ten per cent. solution veratrum album in four and five drops at a dose. If the patient is stubborn and persists in smoking or chewing tobacco after the ninth day, give him 1-10 grain apomorphia hypodermically, just after taking a chew or smoke, in your presence, and keep this up once or twice a day until the sight, smell and taste of tobacco is disgusting to him. Give this at one of the regular hours of treatment instead of regular hypodermic at that hour.

You will find many things to worry and disappoint you in the treatment of patients for these diseases, but do not lose your temper and do not get disheartened, but hang on to them as long as there is any hope of reclaiming a wreck to his friends, family and society.

The foregoing treatment is the best known for dipsomania, morphia, cocaine, chloral, tobacco and cigarette habits that is today endorsed by the medical profession as can be verified by the experience of numerous physicians throughout the United States.

THE KEELEY TREATMENT.

A physician who was in charge of one of the Keeley Institutes and who afterwards conducted a sanitarium of his own, for the cure of alcohol, drug habits and nervous and mental diseases, published a little booklet giving the methods of treatment which he used, which he claims were identical with the methods used at the Keeley Institute. This booklet was sold to physicians for \$25.00, and had many purchasers, and I believe the treatment he gives is reasonably correct, as I have met several physicians who had charge of similar institutes and are willing to vouch for its accuracy. Space will not allow me to publish the entire article, which to a certain extent would be only a repetition of what has been said, but I will give the formulæ of some of the preparations used, and the reader can judge for himself as to their value.

HYPODERMIC SOLUTIONS.

Solution "S."

- ℞ Boracic acid 4 gr.
 Strychnine nitrate $\frac{1}{2}$ gr.
 Aqua dest 1 oz.
 Tr. cudbear q. s. color

Sig. Dose five to ten minims, four times a day.

Solution "A."

- ℞ Atropine sulphate $\frac{1}{2}$ gr.
 Boracic acid 20 gr.
 Aqua dest. 1 oz.

Mix. Sig. Dose five to eight minims.

Solution "A P."

- ℞ Apomorphine 4 gr.
 Boracic acid 20 gr.
 Aqua dest. 1 oz.

Mix. Sig. Dose six to ten minims.

Solution "T."

- ℞ Thein. mur 8 gr.
 Boracic acid 20 gr.
 Aqua dest 1 oz.

Sig. Dose five to ten minims.

Solution "P."

- ℞ Pilocarpine mur 8 gr.
 Boracic acid 20 gr.
 Aqua dest 1 oz.

Mix. Sig. Dose five to six minims.

Solution "M."

- ℞ Morphine sulph 8 gr.
 Aqua dest 1 oz.

Mix. Sig. Dose fifteen to thirty minims.

It will be noticed that the name of the solution is an abbreviation of the active ingredient contained. To illustrate, Solution "A" is atropine, "S" is strychnine, etc.

TREATMENT FOR ALCOHOLISM.

When the patient enters the institute he is given a mixture containing the following:

- ℞ Gold and sodium chloride30 gr.
 Strychnine nitrate 4 gr.
 Atropine sulphate 1 gr.
 Glycerine 2 oz.
 Fl. ext. cinchona compq. s. ad.16 oz.

Mix. Sig. One teaspoonful in water three times a day.

In addition to the internal remedy, the patient is also given hypodermic injections from the solutions that the physician deems the patient requires. The atropine solution is generally pushed, until patients get the full physiological effect of the drug. The apomorphine is used when it is desired to produce the "sickening process." You will notice that the solutions are colored conveniently for the "barber pole shot." After the desire for liquor has been conquered the patient is given hypodermic injections from Solution "S," and the following internal remedies throughout the balance of the treatment:

- ℞ Ext. cinchona solid40 gr.
 Grd. gentian root 2 oz.
 Powd. capsicum.....20 gr.
 Grd. bitter orange peel1½ oz.
 Glycerine 3 oz.
 Aqua 2 quarts.
 Caramelq. s. to color

Mix the first four drugs in the water and boil twenty minutes; remove and filter; then add the glycerine and caramel.

Sig. One teaspoonful every two hours in water.

FOR ALCOHOLIC GASTRITIS.

- ℞ Pepsin sacch 1 dr.
 Bismuth subnit 1 dr.
 Powd. capsicum20 gr.

Mix. Ft. powders XXX. Sig. A powder every three or four hours.

FOR NEURASTHENIA.

R	Tr. cinchona rub	2 oz.
	F. E. kola	2 oz.
	F. E. scutellaria.....	1 oz.
	Elix. aromatic	q. s. ad. 6 oz.

Mix. Sig. One teaspoonful in water four times a day.

THE TOBACCO TREATMENT.

R	F. E. calumba	1/2 oz.
	Tr. quassia	1/2 oz.
	Alcohol	1/2 oz.
	Aqua	q. s. ad. 4 oz.

The hypodermic treatment consists of injections from Solution "T" four times a day, and an occasional injection from Solution "P," or if the "sickening process" is required, from Solution "A P."

DR. GRAY'S TREATMENT.

Dr. J. L. Gray, of Indiana, was among the first to use the so-called "Gold cure" for the alcohol habit, and his method was made publicly known through Prof. Edmond Andrews, of Chicago, who published an article on it in one of the Chicago papers. The treatment given was as follows: On entering the institute the patient was given a hypodermic injection four times a day, containing one-tenth grain of chloride of gold and sodium, and one-fortieth of a grain of nitrate of strychnine. He also received a mixture to be taken by the mouth composed as follows:

R	Chloride of gold and sodium	12 gr.
	Muriate of ammonium	6 gr.
	Nitrate of strychnine	1 gr.
	Atropine	1/4 gr.
	Comp. fl. ex. of cinchona	8 oz.
	Fl. ex. of coca	1 oz.
	Glycerine	1 oz.
	Aqua des ,	1 oz.

Mix. Sig. Take a teaspoonful every two hours when awake.

I have used this treatment on several cases and find it is an excellent one, but do not believe that it is necessary to give such large doses of gold and sodium and strychnine, as they cause the muscles to twitch and an eruption to break out on the skin in many cases.

THE ANTI-NARCOTIN CURE.

Since the first edition of this publication I have received many letters from physicians wishing to sell secret formulæ, of which this is an illustration: This treatment came from Dr. J. E. Clark of Hiattsville, Kansas, who claims it was formerly obtained from a Dr. Williamson, who was the attending physician at the Anti-Narcotin Institute, of St. Louis, Mo. Although it offers no special advantage over other treatments already given, it illustrates the simplicity of another "great cure," for which I gave approximately \$10.50.

R	Hyocine hydrobromate	1-100 gr.
	Pilocarpine	1-100 gr.
	Strychnine nitrate	1-100 gr.
	Atropine	1-600 gr.

The above medication is given hypodermically every three hours, missing the treatment at twelve and three at night, during which time the patient generally sleeps. The directions for using, which came with the treatment are as follows: On the evening before commencing the treatment the patient should be given a full cathartic and remove all foreign substance from the bowels; on the morning of the first day's treatment, the patient is allowed his usual quantity of morphine, and about two hours afterwards the above treatment is commenced and given at regular intervals.

Thou sparkling bowl; thou sparkling bowl;
 Though lips of bards thy brim may press,
 And eyes of beauty o'er thee roll,
 And songs and dance thy power confess—
 I will not touch thee; for there clings
 A scorpion to thy side that stings.
 —John Pierpont,

The Hernia Specialist

The treatment of hernia by the subcutaneous injection method was first practiced by Joseph Pancoast, M. D., of Philadelphia, and a report of his success was published by Dr. Warren, of Boston, in 1867. Afterwards Dr. Heaton, also a Boston surgeon, proposed a radical cure for hernia, which had been successfully used by himself in a number of cases, by what he called tendinous irritation. It is also stated that Dr. Heaton was assisted by Dr. Warren in perfecting his method of treatment. This method differed somewhat from that of Dr. Pancoast in points of detail and the irritant employed. Although these surgeons made some remarkable cures, they met several cases where disastrous results followed the injections and the system was finally abandoned and lay dormant for several years. It was afterwards revived, however, and today it is receiving the attention it justly merits.

At the present time, this method of treatment is placed upon a sound therapeutical foundation. With the advantages of antiseptics, and the present enlightenment upon the subject, will allow the general practitioner to treat these afflictions with a more marked degree of success than other means of surgical interference, and avoids the dangers which are always connected with surgical operations.

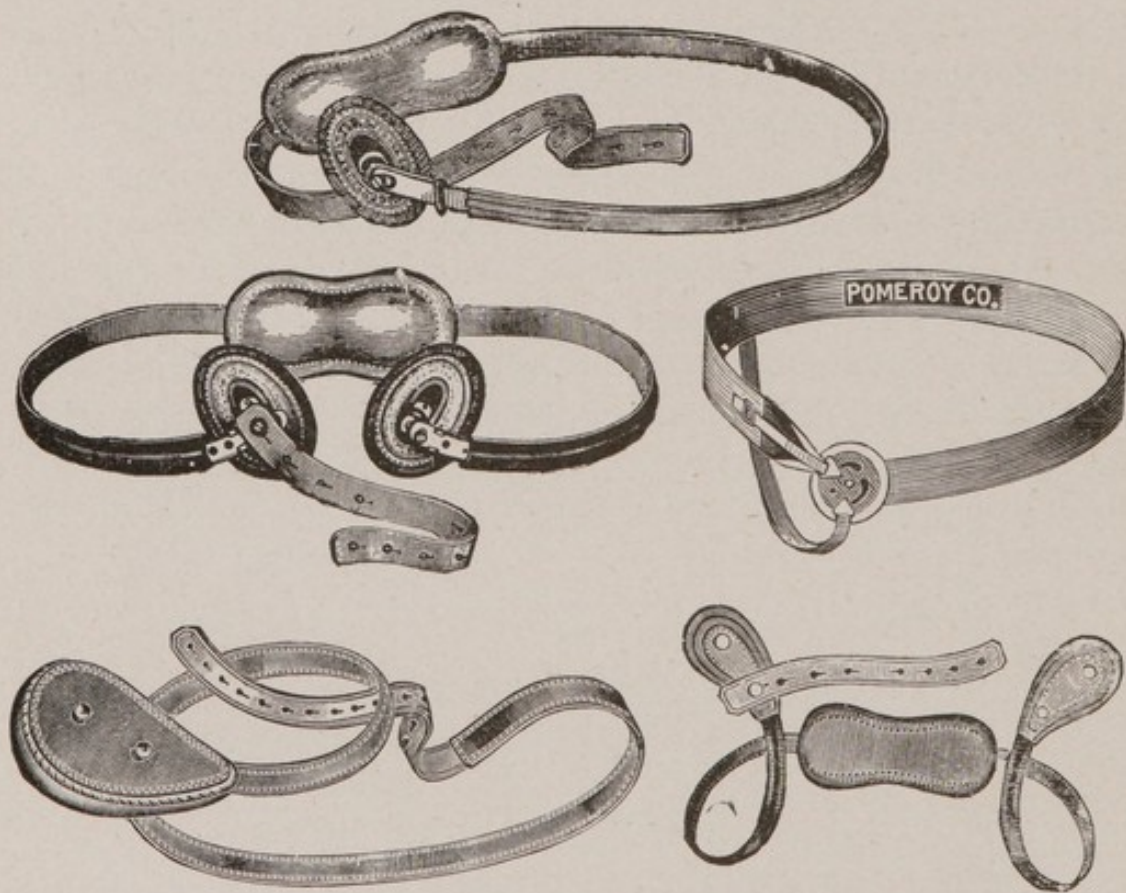
The injection method for the radical cure of hernia has only one object in view, which is, to close the canal, and thus prevent the descent of the bowels and membranes.

That the injection method offers many advantages superior to surgical interference, is beyond a doubt, as it is perfectly safe, and nearly free from pain. It will not

detain the patient from business, and a permanent cure can be obtained in fully eighty-five per cent. of all cases in which it is applicable.

This method of treatment can be adopted in any case of hernia which may be reduced and retained by a suitable truss. This is absolutely necessary to insure good results. There are several good trusses on the market. The accompanying cuts illustrate the ones which are most generally used.

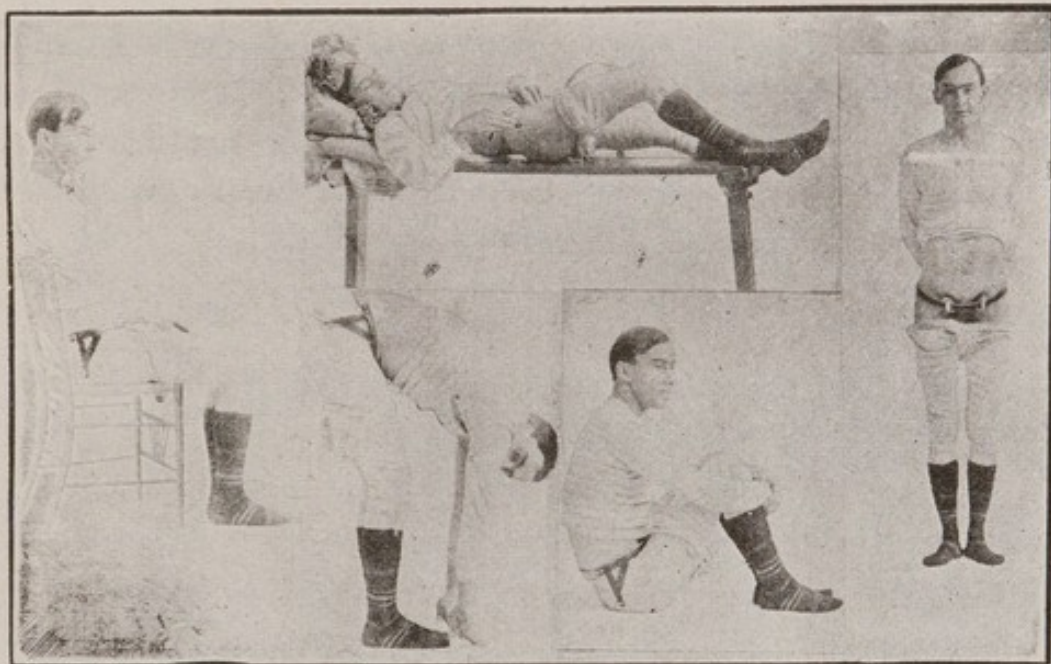
If the patient should fail to have a proper fitting



truss, he should be supplied with another. The physician should take the measurements and also superintend its first application. The patient should wear the truss for several days previous to the first operation to make sure that it holds the hernia perfectly. In selecting a truss, the following rules are to be observed: Never accept a truss until you get one which fits properly; try it by putting it on and stooping down and rising up suddenly; cough violently and persistently; separate the limbs when sitting

down and go through various motions. Of course the truss is not a proper fitting one if it allows the hernia to slip while going through these experiments.

In wearing a truss, the following precautions must always be taken: Never take off a truss unless you are in a recumbent position; rub the parts thoroughly when



Testing the Truss.

putting the truss on. The truss should be removed the last thing before retiring, and put on the first thing in the morning. In many cases, it is best to wear the truss night and day while you are giving the treatment. After you are satisfied that the truss is a perfect fit, and it has been thoroughly tested, the patient is ready for treatment.

THE INJECTION FLUID.

This is a very important thing to be considered, and should consist of such remedies as will create a mild irritation without excessive inflammation, and throw out sufficient plastic and adhesive material to unite the parts, and close the canal.

Since the discovery of the injection method of treating hernia, many remedies have been tried with a view of accomplishing this result. Dr. Pancoast commenced the

treatment by injecting tincture of iodine and cantharides. This was followed by Heaton and Warren, by the use of quercus alba, which is one of the principal drugs in use at the present time. The following formula is an excellent one and was sold to an Ohio physician with the exclusive right of use for that state for eighteen hundred dollars. This offers us another illustration, of what can be done by the professional promotor, who has a secret system and territorial rights for sale.

EXCELSIOR HERNIA FLUID.

R	Zinc sulphate	10 gr.
	Carbolic acid	6 min.
	Guaiacol (pure)	15 min.
	Thuja (Lloyd's specific tinct.)	1 dr.
	F. E. quercus alba	2 dr.
	Oil of cinnamon	2 min.
	Glycerine	2 dr.
	Aqua	q. s. ad. 1 oz.

Mix. Dissolve the sulphate of zinc in the water, add the glycerine, carbolic acid, oil of cinnamon and guaiacol, then, when thoroughly mixed, add the other drugs. This should stand for a few days and be shaken frequently and finely filtered through absorbent cotton.

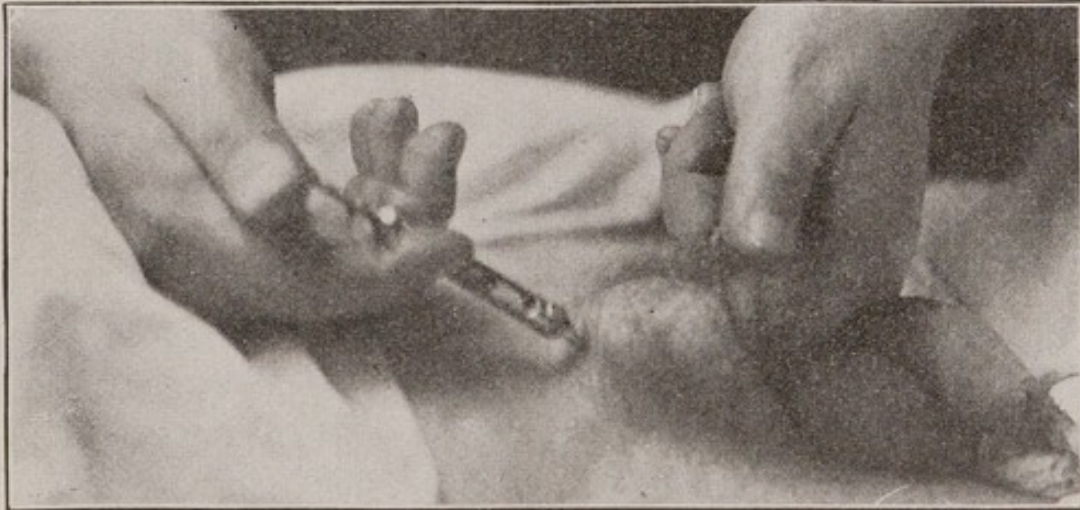
In resuming the therapeutic effects of this formula, we have a mild astringent antiseptic and an irritant which will abstract from the surrounding tissues sufficient plastic material to unite the walls and close the inguinal canal.

DIRECTIONS FOR USING THE FLUID.

After you are satisfied that the patient has a well-fitting truss and one that will hold the rupture under all circumstances, you may commence treatment with every assurance of success, but if the truss allows the hernia to protrude occasionally, you cannot expect to receive the results from the treatment which you otherwise would. This is a very important thing to be observed, for after

the treatment has been commenced, the hernia should never be allowed to descend, even if the patient has to wear the truss day and night.

The injections should be made when the patient is in a reclining position. The parts should be thoroughly washed with some antiseptic solution. The needle and syringe should also be clean and aseptic. The best place to make the injection is on a surgical chair or table, with the head slightly lowered so that the bowels will have a tendency to gravitate away from the canal. The hypodermic needle for this work should be a little longer than the ordinary needle. A hypodermic syringe with a glass cylinder is all that is required. After drawing the fluid



The above illustrates the method of making the injections.

into the syringe, the needle should be pointed upward and sufficient pressure made to force all the air out of the syringe. The set screw on the piston should be adjusted to regulate the amount of fluid used at each injection, which will vary from two to ten or more minims. I generally commence by using two minims and increase each injection as the case requires. After the patient has been prepared for the operation, the operator, if right handed, should take a position at the left side of the patient, and with the fore finger of the left hand, invaginate the canal to the point of the internal opening. He should now grasp the integument with the finger in the canal and the thumb on the external surface, and elevate the tissues

somewhat. This draws the tissues away from the cord and avoids any danger of puncturing the contents. The needle should now be passed through the tissues directly over the end of the inside finger until it has reached the canal. The canal can be determined by the inside finger, which only has the covering of the thin scrotal wall. You can generally determine when you have entered the canal as the needle meets with little or no resistance and can be moved around quite freely. The fluid should now be injected slowly and deposited at several different places at the highest points of the opening. You should always avoid making the injection too low in the canal, for if it should close the canal too low down, it will prevent invagination and the application of the treatment at the point it is required. After the needle has been withdrawn, the point of injection should be gently massaged. This will have a tendency to scatter the fluid and cause it to cover a greater area. The truss may now be replaced, which gives constant pressure on the parts and the patient allowed to go about his business.

The treatment will cause him but little annoyance. The parts treated will have a somewhat uneasy feeling, which is due to the mild inflammatory action the injection has caused. This will subside in a few days, when the treatment should be repeated. The succeeding treatment should not be applied until the soreness from the last treatment has abated. I commence the treatment by injecting one or two minims and request the patient to call at the office in a few days, or as soon as the soreness leaves. At the next treatment the injection is increased one or two minims. I always govern the amount of the injection by the condition of the patient. The injection should never be made as long as there is any inflammatory action existing. As soon as you have determined the amount of fluid each case requires to produce the desired amount of irritation, the following treatments may be given in the required amounts, which will vary from three to ten minims. The average dose, however, will be four or five minims.

The length of time required to effect a cure depends

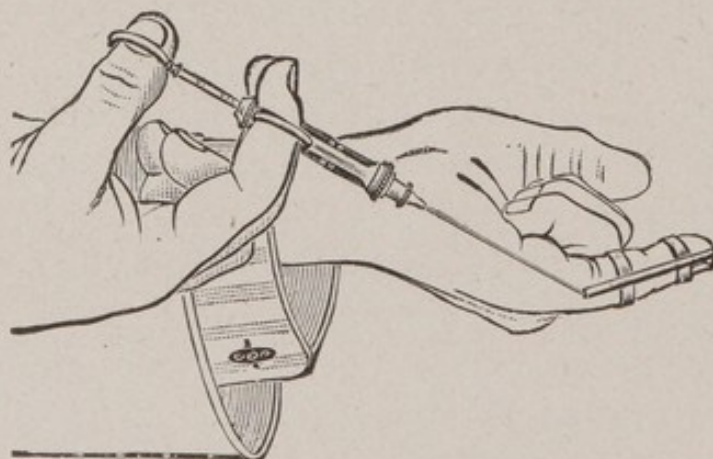
upon the condition of the patient and the size of the opening. Young and vigorous patients, whose tissues are firm, can be cured more rapidly than older people whose tissues are flabby and relaxed.

After the patient has had several injections, you may make a test to find out if the treatment has been successful. This test should be made in your presence. The patient should first be in the recumbent position and be instructed to cough. If the hernia has a tendency to come down, the treatment should be continued, but if sufficient adhesions have taken place to retain the bowels, the patient may try the same experiment by standing up, hand over the parts where the injections were made when he was testing the truss. The physician should place his hand over the parts where the injections were made when he is testing the results of his treatment, for if there should still be a weakness, the physician can detect the vibration. If you are satisfied that the cure has been complete, the patient should be instructed to wear the truss for another month or so and another test made. If all is well, the patient can remove the truss unless he is a laboring man and does heavy lifting. If such is the case, it is well that he should wear the truss for a while when engaged at such work, but finally it may be given up altogether.

Physicians have been rather timid in applying this method of treatment for fear they would produce some of the bad results that were formerly witnessed before the days of antiseptic surgery, but I wish to state that this method of treatment is perfectly safe, if a reasonable amount of skill is exercised in carrying out the details of the operation. I have never seen a case of peritonitis, orchitis, abscess or injury to the cord occur. If the inflammation should be a little more extensive than you expected, it is due to the use of too much of the fluid. This will subside, however, in a few days, and may be treated the same as inflammation elsewhere, but rest for a day or two is generally all that is required.

DR. LANGDON'S OPERATION.

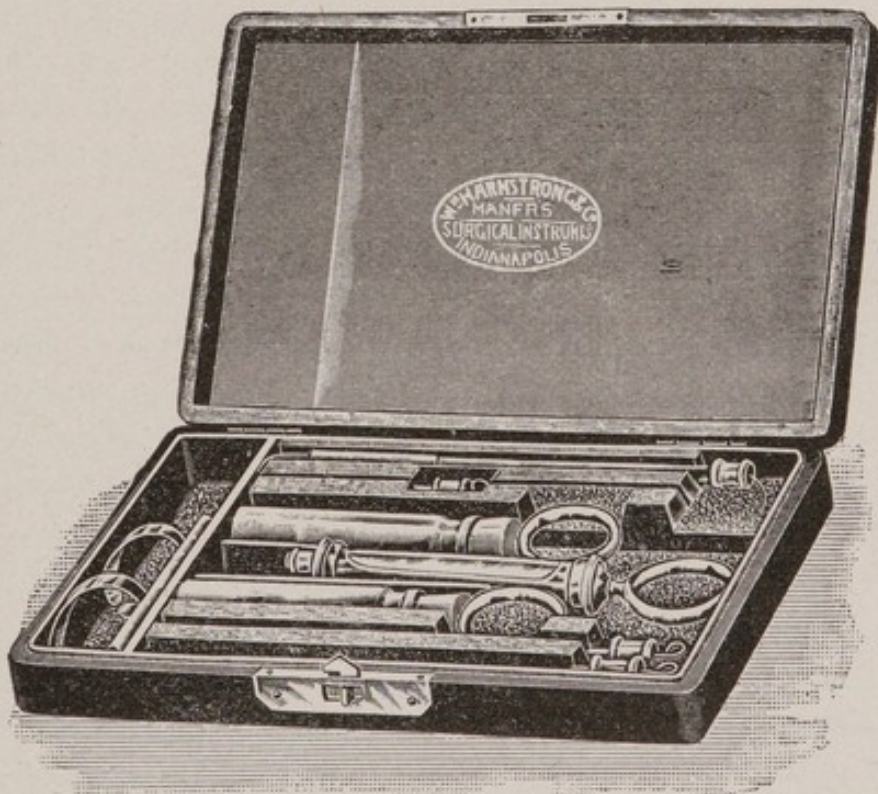
Dr. R. K. Langdon of Nebraska has devised a new method of making injections within the inguinal canal with which he claims originality and greater success than by injecting fluids through the external, surface, as described in the foregoing pages. With this method the scrotum is invaginated within the canal and the fluid deposited through the walls of the scrotum in order to guide the course of the needle. He has had a special instrument devised, which clasps on the little finger by means of two adjustable flanges or bands; as you pass the finger up the canal you can guide the course of the needle to any point desired (see cut). The needle has a blind point with openings on each side about four lines from the point.



DR. LANGDON'S NEEDLE AND CANULA.

In making injections the scrotum is invaginated and the point of the canula is directed to the point where you wish to deposit the fluid. The needle is now introduced through the canula into the canal or ring, and the fluid deposited. It is claimed that this method has the advantage of always depositing the fluid into the canal, and not in the adjacent tissues as often occurs with the external method. If desired the complete canal may be obliterated by depositing the fluid along the track as you withdraw the needle. The internal opening should always be closed first, however. By closing the external canal you will not be allowed access to the internal opening, which is the most important point.

Although Dr. Langdon met with many failures when he first adopted this method, he later reports no failures by using this method constantly for five years, and he firmly believes today that with very few exceptions, he can cure every case regardless of age when the tissues are not too thin from the long use of a truss. He also states that he has used almost every known method and at least one hundred different ingredients and combinations. He prefers for a child up to nine years of age, fluid extract quercus-alba boiled down in a test tube to one-



DR. LANGDON'S HERNIA SET, IN CASE.—Contains one Special Hypodermic Syringe for treating hernia; an Aspirating Needle, Hypodermic Needle, a Flexible Silver Probe-pointed Needle, a Hemorrhoid Needle with screw slide, two Vials, on Canula with adjustable metal flange, etc.

half, of which two to ten minims are injected. Always commencing with the minimum amount and increasing if necessary. The injections are made once a week for five or six weeks. For cases from nine to twenty years of age, he uses quercus alba in combination with zinc sulphate. The fluid extract quercus alba is reduced by heat in a test tube to about four-tenths, and to each minim used, he adds one-tenth grain of zinc sulphate. Older patients

from twenty-five to sixty he uses the same fluid he does for children, and to each three minims of quercus alba, he adds one-half minim of beech wood creasote.

In conclusion the Dr. says: "I have no doubt that others have just as good results with other formula, but assuredly in later years my record is almost perfect, so that today I feel confident to cure nearly every case.

THE OLSTRUM METHOD.

Dr. Olstrum who has devoted several years of his life to the rupture specialty, and although a very enthusiastic advocate of the injection method, says he can cure fully fifty per cent of all cases which are curable with other methods by scarifying the surface of the canal or ring. He uses for this purpose the ordinary large hemorrhoidal needle and endeavors to scarify the opening so thoroughly at one treatment that he will get immediate union. After the surfaces of the opening have been thoroughly scarified the abraded surfaces are kept together by the pressure of the truss, union takes place immediately, and one operation is often all that is necessary. This operation, skillfully and painlessly performed by the use of a local anaesthetic, certainly deserves to be recognized as an advanced treatment to other radical cutting operations. It accomplishes the same results by the same process of inviting union of two abraded surfaces and has the advantage of overcoming the fear of the knife. The patient should be kept in bed for a few days until all soreness has disappeared; he is also instructed to wear a truss for a few months afterwards. This method of treatment illustrates what one of the simplest operations in the category of surgery can accomplish in curing a condition which is attended with a certain amount of danger to life, if not interfered with, and also avoiding the dangers of the radical cutting operations.

I once asked the doctor if he could devise a special knife or instrument which would be better suited for the operation than the point of a hypodermic needle to scarify the surface. He remarked: "I am used to a hypodermic

needle and have no desire to change it for other instruments." While there are many cases in which this treatment cannot be applied, it will often close the doors of the canal more quickly and with greater certainty than injecting fluids and cutting operations.

PARAFFIN INJECTIONS FOR HERNIA.

Paraffin has been used with a greater or less degree of success in the treatment of hernia and is frequently referred to as the "supportive treatment." The paraffin is used at about the same melting point as injected for the saddle back nose, and with the regular paraffin syringe. The object of the treatment is to fill the canal with the paraffin and thus prevent the descent of the bowel.

Although many favorable reports have been recorded, it is not as practical a way to treat hernia as the other methods already described.

THE IDEAL HERNIA CURE.

The Ideal Hernia Cure Company of St. Paul, Minn., formerly used large space in Medical Journals, offering to sell a formula for the cure of hernia, and a hypodermic syringe for \$10.00. The syringe was of the regular \$1.50 variety, and this places the value of the formula at \$8.50. The following is the formula they sold:

R Glycerole of tannic acid (90 gr. to the
 oz. 1)2 dr.
 Alcohol1 dr.
 Tinct. cantharides1 dr.

Mix. Sig. Five to fifteen drops should be injected at each treatment. The patient must remain in bed at absolute rest for two days after each treatment.

HEATON'S FLUID.

This is one of the oldest fluids in use and the original way of preparing it is as follows:

R	Fld. Ext. quercus alba	1/2 oz.
	Alcoholic solid ext. quercus alba	14 gr.
	Morphine	1/4 gr.

Mix. Triturate with the aid of gentle heat for a long time in a mortar until the solution is as perfect as possible. It is well not to exceed this amount of the solid extract, else the mixture will be too irritating. Dr. Heaton usually prepared a quantity of this mixture sufficient for a six month's supply, and was very cautious in using it at first, adding a little more of the solid or fluid extract, accordingly as he observed that it produced too little or too great an effect. The amount of this fluid used at each operation is about ten minims.

DR. FIELD'S FLUID.

R	Zinc sulphate	15 gr.
	Alcohol	2 dr.
	Acid carbolie	30 gr.
	Aqua	q. s. ad. 1 oz.
Mix.	Inject from five to ten drops at each operation.	

DR. PROVOST'S FLUID.

R	Guaiacol	30 min.
	Zinc sulphocarbonate	10 gr.
	Creasote beechwood	30 min.
	Tannin-glycerite	q. s. ad. 1 oz.

Mix. Reduce from ten to fifty per cent. with alcohol, and inject four or five drops, which can gradually be increased as the case requires.

DR. SAUNDER'S FLUID.

R	Zinc sulphate	2 gr.
	Creasote	2 min.
	Guaiacol	2 min.
	F. E. hamamelis	30 min.
	Glycerine	30 min.

Mix. Inject two to four minims.

DR. WALLING'S FLUID.

This fluid is sold at \$2.50 for a two-drachm vial. He publishes the following formula, which is so complicated that it would require further instructions to properly prepare it.

R	Complex salts of aldehyde	30 per cent.
	Iodo-ethylate of guaiacol	30 per cent.
	Sulpho-tannate of zinc	20 per cent.
	Free guaiacol	5 per cent.
	Beechwood creasote	15 per cent.

The above formula is a fair example of many of the so-called non-secret remedies (?) which are offered physicians with every intention to deceive them.

THE FIDELITY FLUID.

The following formula has been published as the exact formula of the fluid used by this company:

R	Carbolic acid	95 per cent.
	Glycerine	
	Alcohol	a. a. p. e.
	Tinct. iodine	q. s. color.

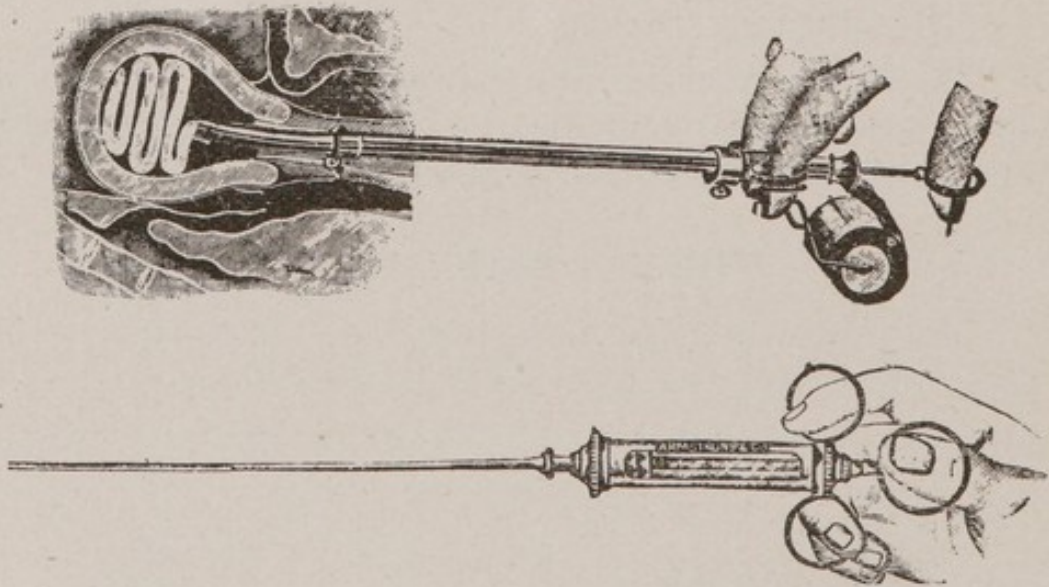
THE MILLER TREATMENT FOR HERNIA.

This company used both the hypodermic method of treatment and an external astringent. The injection fluid was the same as that proposed by Dr. Heaton. The external astringent, which was to be applied by the patient, was as follows:

R	Tinct. iodine comp	
	Soap liniment	a. a. p. e.

The Genito-Urinary Specialist

Before giving the treatment for Genito-Urinary and female diseases I wish to direct your attention to two instruments, for making local applications, which are indispensable to any physician who treats these affections. Applications to the urethra and inter-uterine cavity can be made in either liquid or solid form. Most physicians prefer the liquid applications as they are more easily ap-



UNIVERSAL APPLICATIONS WITH ATTACHMENTS.

For Applying Liquid Treatments and Medicated Bougies to the Urethral and Intra-Uterine Surfaces, also Medicated Gauze, etc.

plied, but often-times the solid applications are preferable. With this end in view it has become necessary to devise the two instruments illustrated here.

The first is known as the Universal Applicator and is designed from what was formerly known as Wood's gauze packer. This instrument has such a wide range of

usefulness, that its name scarcely describes it. It may be used to apply treatment in powder or bougie form to any cavity or canal and is equally useful in applying treatment to the nose and throat, rectum, male or female urethra of the intra-uterine surface.

It offers a means of applying treatment to the prostatic and other parts of the male urethra, and well fills the capacity of a catheter, or it may be used to give a recurrent douche to the bladder, or the intra-uterine surface. It may also be used as a gauze packer, to apply antiseptic dressings or to check hemorrhage in the nose or the uterus. In fact its scope of adaptability is greater than that of any instrument I have any knowledge of, as the illustration will demonstrate.

The second is called the Intra-uterine Applicator, but it is also indispensable in making liquid applications at any part of the urethral or other surface.

DISEASES OF THE PROSTATE GLAND.

Enlargement and hyperæsthesia of the prostate gland are extremely common affections and our best authors have asserted that fully one-third of all men between the ages of thirty-five and sixty have disease or weakness of this organ. I will not attempt to give the pathology and symptoms of the different diseased conditions which exist, as they are familiar to most physicians. I wish to describe a special method of treatment, however, which has been uniformly successful as a palliative and curative treatment in a great number of cases, and will yield as good results as many surgical and electro-therapeutic measures.

In treating diseases of glandular organs the process of cure is naturally slow. This is especially so with the prostate gland, the location of which is so relatively influenced by external and internal disturbing elements as to render an impediment in restoring the diseased organ to the normal.

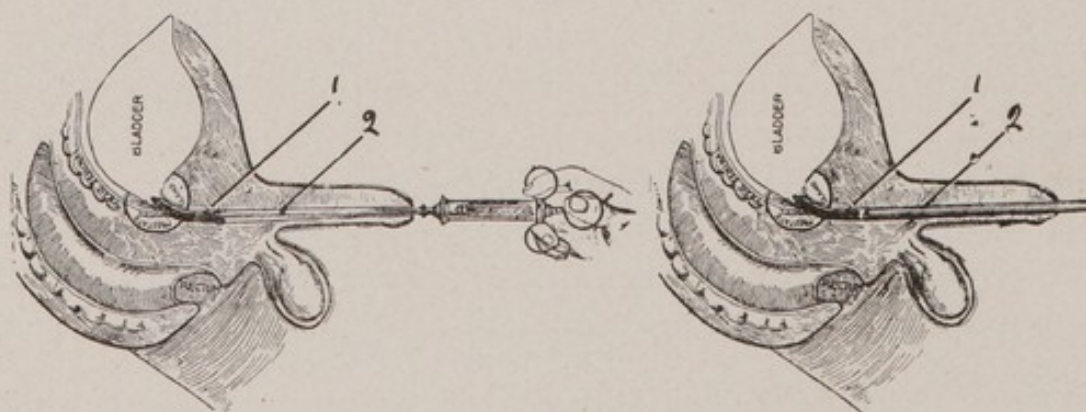
Its anatomical situation is such that bicycle or horse-back riding or sitting in cold, damp places exposes it to

external detrimental influences, while inflammatory conditions of the bladder, hyperacidity of the urine and excessive sexual indulgence deter the process of cure.

The treatment for the enlarged prostate gland may require both local and internal medication, if the urine is excessively acid, thus causing continual irritation to the gland. The following in tablet form will render the urine somewhat alkaline and allay this vesical irritability:

R	Acid boracic	2 grs.
	Potassium bicarb	2 grs.
	Ext. buchu	1 gr.
	Ext. tritium, rep	1 gr.
	Ext. corn silk	1/2 gr.
	Ext. hydrangea	1/2 gr.
	Atropia sulph	1-500 gr.

We have two remedies specifically indicated for controlling the vascular supply which is one of the most important features in the treatment of this disease, Saw Palmetto and Chromium Sulphate. These remedies can be used either singly or in combination. Full doses of Saw Palmetto three times a day reinforced with a four grain tablet of Chromium Sulphate is one of the best



DR. LANGDON'S NEEDLE AND CANULA.

The above cuts illustrate the method of making Liquid or Bougie Applications to the Urethral Tract.

medications in our possession. Chromium Sulphate is growing into popular favor very fast for the treatment of this disease and will be more thoroughly discussed on another page.

A combination of bromide of potassium, ergot and tincture of gelesmium may also be indicated if there is an increased vascular supply and hyperactivity of the sexual system.

Local treatment can be applied to the prostrate part of the urethra, either in liquid form or by medicated bougies with the instrument previously described. The following medication either way once a week will often prove very gratifying to both the physician and patient:

R	Eletarium	.....	1-60	gr.
	Hydrastine	.....	$\frac{1}{4}$	gr.
	Cocaine	.....	1-10	gr.
	Ichthyol	.....	2	gr.

The above remedies act as a sedative and anti-phlogistic and although we usually expect only palliative results, in many cases of long standing, in other patients all symptoms of hyperthrophy seem to leave and the difficulty of expelling the urine and clearing the urethral canal are permanently overcome.

SPERMATORRHOEA.

There is no other subject in medical literature which has been more misused than that of spermatorrhoea. The medical profession at large have almost ignored the subject, this being perhaps due to the obnoxious literature which is supplied to the layman by the advertising physician, who attempts to make a large majority of his patients believe they are afflicted with the disease and are rapidly going into a decline. This subject has so many good talking points regarding the "sapping of vitality," etc., that any patient who has a slight discharge of mucus from the urethra when straining at stool or otherwise is advised of the horrors of premature decay, associated with this disease. This is the state of mind which the so-called quack desires, for the more his patient broods over his imaginary spermatorrhoea, the more compensatory the case will be and the greater the praise when finally cured.

The facts are that spermatorrhoea is not a very com-

mon disease, but when it does exist will often require the utmost skill of the physician to effect a cure. The anaphrodisiac remedies are the most popular routine methods of treatment. The following in tablet form taken before retiring has produced good results in depressing sexual excitability in many cases:

R	Sodium bromide	5 gr.
	Acetanilid	2 gr.
	Hyoseyamine	1-400 gr.
	Digitalin	1-400 gr.

As a single internal remedy for nocturnal emissions and spermatorrhoea silax nigra heads the list. It should be given in thirty-drop doses of the fluid extract before going to bed. This remedy acts like magic in many cases and should be one of the first to be considered.

Direct medication to the prostratic urethra and the ejaculatory ducts when judiciously applied offers one of the best methods of treatment. The following remedies incorporated in a gelatine bougie or applied in liquid form, make an excellent application and this form of treatment has cured many cases where other treatments have failed. Each treatment contains:

R	Ichthyol	2 gr.
	Sulphate of zinc	$\frac{1}{4}$ gr.
	Creasote	1-10 gr.
	Fluid hydrastis	2 gr.
	Ext. hyoseyamus	1-10 gr.

Apply by the use of the applicator to the prostratic part of the urethra one or twice a week.

A CURE FOR NOCTURNAL EMISSIONS.

A number of mechanical appliances have been devised to prevent nocturnal emissions, but one of the best is called the "spermatorrhœa ring," which was invented by an advertising specialist. This consists of a ring which can be applied to the circumference of the penis

when flaccid. This ring is so arranged that when an erection takes place it will inflict punishment by moderately pricking the organ. The device is applied to the organ before going to bed and if an erection takes place during the night it will awaken the patient. He should be instructed to temporarily remove the appliance and urinate before going to sleep again.



SPERMATORRHOEA RING.

This instrument has a tendency to produce such good results that it is seldom given the patient until after the advertising specialist has received large revenues from other treatments, for he knows very well if he supplies this appliance at first his remuneration will be cut short, therefore this is given as "the last resort."

IMPOTENCY.

It is this disease in particular which has offered both the local and mail-order specialist a Mecca to which the afflicted may journey, either in person or by letter, more than any other. The amount of money spent in advertising cures for "lost manhood," "premature decay," and "general debility," reaches into the millions every year. Although many local specialists have made fortunes, the mail order medical companies have taken the lead as far as financial success is concerned. One of the principal reasons why this, like all other sexual diseases, has brought them such a golden harvest is the same old story—the fear that their family physician will expose their weakness. The following formula combines six of the best known aphrodisiacs and, after thoroughly testing the merits of this combination of drugs, I can unhesitat-

ingly recommend it as being a superior treatment. Each tablet contains:

R	Chromium sulphate	2 gr.
	Ext. nux vomica	$\frac{1}{8}$ gr.
	Zinc phosphide	1-10 gr.
	Cannabin	1-0 gr.
	Cantharides	1-25 gr.
	Avenine	1-200 gr.

In the former edition of this publication, the writer gave two grains of Ext. damiana instead of chromium sulphate in the above formula, but since the investigations of Dr. Louis Kolipinski and the favorable reports from hundreds of other medical men I duplicate chromium sulphate for damiana, and found the change was met with excellent reward. Chromium sulphate is not only a remedy for impotency but has a large field of usefulness in many other diseases which have seemed to baffle the therapeutic action of other remedies.

Locomotor ataxia, hypertropical, prostrate, neurasthenia, uterine fibroids and other diseases of a fibrous, glandular and nervous origin are reported being cured by this remedy, and I believe that Dr. Kolipinski's report will be of sufficient interest to quote in full.

"At the annual meeting of the American Therapeutic Society, May, 1902, the writer read a concise paper on the "Therapeutics of Chromium Sulphate." As far as he knows, the statements there made have not been confirmed by others, nor has this chemical attracted attention as a medicine.

"Since that time the chromium salt has been used continuously by him in the treatment of the maladies previously specified, and also in others with good and favorable effects. It is, therefore, now proper to review the subject anew, to verify what has been said, and to add whatever has been recognized since then.

"Dosage.—Because chromium sulphate causes no toxic symptoms, the dose originally given has been much increased. Instead of 1 to 4 grn., 8 grn. three or four times a day is the quantity administered. Thirty to forty grains

at one time result in no unusual sensations except a very mild vertigo or lightness in the head.

"A 4-grn. tablet or pill is the most convenient form. It is better taken after than before meals. Occasionally the unabsorbed residue colors the feces. Chromium sulphate dissolves in water very slowly.

"No unpleasant by-effects have been observed in patients who have taken it continuously for as long a period of time as four or five years.

"The diseases in which chromium sulphate has been used with success are: Cirrhosis of the female breast, castration, menopause, functional impotency in men, chronic alcoholicism, nervous vomiting and vomiting in pregnancy, neurasthenia, locomotor ataxia, exophthalmic goiter, and the migraines.

"Of these neurasthenia, exophthalmic goiter, and locomotor ataxia are of particular interest and importance. Results from this salt are speedy and the unique position of being the only drug which is curative, dispensing with all treatment of rest, travel, diversion of mind, dietetics, and physico-mechanics.

"In exophthalmic goiter the rapid pulse and churning motion of the heart are invariably reduced to nearly normal, the pulse remains so. The nutrition of the body is bettered, the trembling ceases, likewise the state of nervous erethism and irritability. The bulging eyes and struma recede slowly.

"The cases treated have been for the greater part old, neglected, or mismanaged ones. Fresh cases yield prompt results. Founding his opinion on this treatment the writer cannot believe that surgical operation in this disease is proper. The risk to life and instability of cure make such undertaking uncertain and extreme.

"Locomotor ataxia is curable with chromium sulphate. The more recent the case and the earlier the treatment, the quicker the result. The neuralgic pains and the several form of crises, especially the epigastric, succumb to its use. Hypnotics, anodynes, and antineuralgics are not administered. The writer has seen a number

of first-stage cases in which all symptoms vanished and no further ones appeared.

“The essential action of chromium is displayed in the second or atactic stage by permanently removing the incoordination of muscle actions. The staggering walk and the unsteady motions of the hand, the paralytic weakness of vesical and rectal sphincters, are restored to normal function.

“In the third stage most decided improvement is possible. The patient's chances of betterment are good. The profoundest atactic unsteadiness, the paralysis of the lower limbs making standing an impossibility, can be so far removed that the use of the legs is regained, not alone in standing erect but in walking fairly well with or without crutches. In fact, the patient's condition becomes again that of the first stage, and this then recedes.

“The single symptoms of locomotor ataxia, and the changes they undergo in the chromium treatment, can be thus stated:

“The ataxia in its various forms disappears. Tabetic pains require no other medical treatment.

“Diminution of sensation, tactile pain, touch and temperature senses are restored gradually if obtunded. Anesthesia the same.

“The Argyll-Robertson pupil and absent patellar reflex are permanent impressions of the disease, as no diagnosis can be confirmed without their existence; so in greatly improved or cured instances they have still been found present. Paralysis of the external ocular muscles are transient.

“Atrophy of the optic nerve does not occur, or, if already present, does not advance. Hearing, taste, and smell are never markedly affected.

“Atony and paralysis of vesical and rectal sphincters restored to functional action, and total sexual impotency has been known to be replaced by normal power in old, far-advanced cases. The various forms of crises are cured. Constipation is replaced by regular alvine evacuations.

"The rapid pulse, if present, is reduced to normal. Shedding of the hair and nails, submucous hemorrhage, perforating ulcer of the foot, spontaneous fracture of bone, and joint effusions have not been observed to develop during the treatment. Further, no case of progressive paralysis of the insane, dementia, paralysis. In one case, much abused, a right-sided cerebral hemiplegia occurred.

"The following is the present condition of a man of fifty years, tabetic for ten years, who has been treated with chromium for five years. In the beginning he was helpless and hopeless, and was so generally considered by a number of medical men:

"Sexual function normal.

"Tabetic pains: none, or but rarely.

"Anesthesia: Right hand, normal; left, very slight.

"Function of hand is ambidexter, formerly unable to write at all.

"Girdle sensation: Gone.

"Migraine attacks: Gone.

"Neuralgia of face: Gone.

"Vision not impaired.

"Pupil reaction and tendon reflex, none; bladder function normal, formerly incontinence.

"Locomotion: With cane can walk for an hour without fatigue; unaided, for ten minutes. There is no unsteadiness at all in legs, but muscular power not of normal endurance.

"Cutaneous sensibility not effected.

"A mild cystitis present due to former urethral stricture. Heat and cold sensation normal. Color sense normal; hearing not affected; pulse per minute, 72 erect; weight, 184 pounds.

"In the treatment of locomotor ataxia two important adjuvants must be employed: A nutritious, fat-making diet, and moderate, regulated exercise of the lower limbs in walking. Where the patient is unable to walk or where he is in danger of falling from loss of power of equilibration, active in-door exercise, as with the pedal machine—the pedals of the bicycle secured to a frame upright.

All atatics have suffered great loss in weight. The emaciation is apparent in the legs, so that their slender outlines, on inspection, can be used as a symptom suggestive of the disease.

“The treatment of tabes required, on the part of the practitioner, tact, patience, and forbearance. The mind and thoughts of the tabetic are gloomy and hopeless. Scepticism and distrust prevail. The knowledge of the name of his disease engenders a variable degree of despair, which may culminate in suicide. He will, in all probability, find out that a syphilis of former years, a Nemesis of secret vice, has doomed him to be incurable and helpless. The most seek aid from superstition or fraud, arts which are practised only among those able and willing to pay. A tabetic subject, well plundered by charlatans, when compelled to throw himself into the hands of the medical men, never becomes a willing or grateful patient. The human mind, once tricked, suspects tricksters everywhere.

“Where the tabetic is received as a recent and untampered case, and marked improvement quickly appears, another obstacle impedes the finishing work. He becomes dissatisfied, considers further treatment unnecessary, omits it, and thoughtlessly continues to live or diverts himself with self-medication or irregular treatment. Perchance it occurs to him that his primal foe, the venereal infection, deserved a renewed assault, and the anti-syphilitic forces are brought up.

“The writer is among the number of those practitioners who have not seen mercury or potassium iodides help, but who have seen from their use great harm.

“Later successes with chromium sulphate are chronic enlargement, hypertrophy of the prostate gland in old men. A symptomatic cure is usually achieved in a few months. The patient becomes able to retain and void a pint of urine. The frequent impulses to urinate and the recurring desire at night, cease. The patient enjoys either an undisturbed sleep or is awakened not more than once, and that toward morning. That the aged sufferer passes his nights like the days of his prime from the

taking of chromium, is the reason of the claim for a symptomatic cure. Where residual urine has been daily drawn with a catheter; where retention and paralysis demand its repeated introduction; where no urine flows unless through the instrument, the chromium does away with this labor and danger. So uniform have been the good results from chromium in this infirmity that the absence of good effects after a reasonable time of administration excludes hypertrophy of the prostate from the diagnosis, and directs the investigator to the thought of calculus, new growths, carcinoma, and papilloma.

"The cystitis which accompanies this disease or has been inoculated by the use of instruments, is not benefited by this treatment, but required the use of the oil of sandal-wood, which is further an aid to chromium.

"Successes with this salt in prostate enlargements have been had in men of ninety years.

"Chromium retards the growth and reduces the size of uterine fibroid tumors. Most striking results are apparent in young women.

"The writer has observed a shrinking of two-thirds of its former value of an interstitial fibroid in a woman of thirty-four years. The growth of the tumor had been so rapid that surgical removal of it had been strongly advised by sincere and competent operators.

"The number of cases treated with chromium is small, and none were of large size or long existence. The good results, however, have been so pronounced that further trials are earnestly recommended.

"Herpes preputialis occurs in young and in old men, single and married. It may appear with more or less regularity of time for years. Its etiology has not been discovered. While herpes preputialis is trivial in its nature and insignificant to the resolute, to the neurotic and timid it causes much fear of disease and distress of mind.

"Self-limited and transient, the eruption needs no treatment; the relapses alone are worthy of our attention.

"It becomes evident to an observer that their frequency depends on the physical debility of the subject and the apprehension and dread he displays in awaiting a

new eruption. Or is he ever disappointed when he feels that the herpes is sure to come back,

“Chromium cures these recurrences with absolute uniformity. A fair number of obstinate cases have been known to remain well for periods of one to three years. These patients are anxious and zealous in pursuing the treatment, the more so when other remedies have been long used without effect.

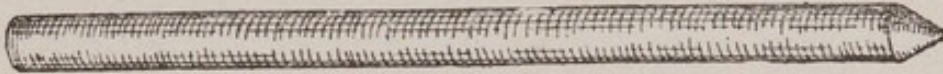
“Of herpes progenitalis, the same cutaneous lesion in both sexes, no particular statement is made, as the writer's cases were all in males.

“These observations on the therapeutics of chromium, although carried on for a long time and applied in the treatment of many cases, are yet incomplete and imperfect in that they lack any information of the action of substance as ascertainable by pathological and histological changes of a retrograde or absorptive effect. That it mitigates the symptoms and seems to cure fibroid growth and hyperplasia has been only apparent, in so far that absorption seems to be promoted, and with it obstructive and pressure symptoms abrogated. Material has as yet been completely lacking for autopsic study. The same is true of that most common of the chronic diseases of the cerebrospinal system—locomotor ataxia. For these studies opportunity is wanted, and, as the writer hopes, may engage the attention of others more qualified than he to determine if these empirical uses of chromium may not be proven to be true by the unquestionable researches of the pathological anatomist.”

Although Dr. Kolipinski's investigations are not specifically directed to the treatment of impotency, in this paper it has been proven beyond a doubt by other investigators that chromium sulphate is one of the most reliable remedies in our possession, for the treatment of functional impotency and enlargement of the prostate gland. The other remedies in this formula are so well and favorably known, suffice to say that the physician can readily see the large field of therapeutic application this combination of remedial agents offers.

GONORRHOEA AND GLEET.

These are among the diseases which these specialists are most frequently called upon to treat. The cleanest and most efficient way to treat these affection is by the use of a medicated urthral bougie. These bougies may be inserted by the patient where they will come in contact with the inflamed surface and gradually melt at the



URETHRAL MEDICATED BOUGIE
To be used with Universal Applicator.

temperature of the body and thus offer continuous medication. The following formula has always been a favorite with me. Each bougie contains:

$\frac{1}{8}$	Zinc sulphate	$\frac{1}{2}$ gr.
	Antipyrine	1 gr.
	Boric acid	2 gr.
	Carbolic acid	$\frac{1}{4}$ gr.
	Fluid hydrastis	3 gr.
	Morphine sulphate	1-10 gr.

Insert a bougie three or four times a day after urinating.

THE SOLVENT METHOD OF TREATING STRICTURE.

This is another method of treatment which originated from the irregular practitioner and is extensively used by both local and mail-order specialists. I believe that the treatment is an exceptionally good one in a large number of cases. The following drugs are to be applied to the constricted part of the urethra either in the form of a powder or emulsion:

R	Ext. hyoscyamus.....	$\frac{1}{2}$ gr.
	Ext. calendula.....	1 gr.
	Carica papaya.....	1 gr.
	Powd. slippery elm.....	5 gr.

The stricture should first be dilated with a sound, which can be more easily admitted by first injecting a few drops of the fluid extract of hyoscyamus and forcing it back to the constricted part with the finger. The

treatment can now be applied to the parts by the use of the applicator.

This treatment has received the name of solvent from the fact that the papaya has to a certain degree the power of dissolving or loosening the tissues of the stricture in very much the same way that it dissolves a diphtheric membrane. The treatment when combined with the other remedies is an excellent one and has the indorsement of the leading members of the medical profession, although many of them have attempted to shield the formula and sell it for a large consideration.

VEGETABLE TREATMENT OF SYPHILIS.

My attention was first called to the medical treatment of this disease by an article written by Dr. J. Marion Sims, which contained many astonishing assertions, and, after using this vegetable alterative, in my practice in many cases, I am convinced that the prescription he gave might almost be called a specific, if such a thing were possible in the treatment of the disease. Although many physicians are familiar with this prescription, I think it will be of sufficient interest to give you a history of it which dates back from its discovery among the great medicine men of the Creek Indians, who in early times inhabited middle Georgia. The negroes in that vicinity finally adopted the preparation and prepared it as given to them by the Indians. Dr. Sims' article would be too long to insert here, but Dr. B. Rush Jones, brother-in-law of Dr. Sims, gives the following:

“A few years before the civil war there were many obstinate cases of secondary syphilis around Montgomery, which had resisted the efforts of the best physicians. They went the round of the doctors, and could not be cured. One of these was advised to consult an obscure negro, by the name of Lawson, who worked on a cotton plantation, and after being under his treatment for a few weeks was perfectly cured. His recovery was so great an event that others applied to this same Lawson and were also cured.”

Dr. G. W. McDade, hearing of these cases, took a great interest in the subject, and visited Lawson and obtained from him the formula used so successfully. It seems that this formula had come down from a mulatto slave, by the name of Horace King, who resided among the Creek Indians for several years before they removed west of the Mississippi river (1837) and had learned while with them their method of treating syphilis.

Dr. McDade says that instead of adopting the so-called Indian remedy as he found it, he began by eliminating those roots and herbs and inert substances which he knew were absolutely of no value. He selected the few known to possess medicinal properties, and instead of making a decoction, as had been done before, and which had to be made in large quantities every day or two, he had them prepared in the form of fluid extracts, which placed the remedy on a scientific basis and insured uniformity of action. He then gives the formula as follows:

R Fluid ext. of smilax sarsaparilla.....16 parts
 Fluid ext. of stillingia sylvatica.....16 parts
 Fluid ext. of lappa minor.....16 parts
 Fluid ext. of phytolacca decandra...16 parts
 Tinc. of xanthoxylum carolinianum 8 parts

Dr. Sims in his article gives many cases which were treated by the negro Lawson on the plantation; he also mentions the success Dr. McDade has had with it. Dr. B. Rush Jones of Montgomery, who has been treating syphilis for more than 40 years, now says he has but little dread of undertaking the worst case since adopting this formula. He has repudiated mercury and iodide of potash entirely, as he says they are unnecessary when this formula is used.

From the odor and general properties of this combination we are led to believe it identical in formula with the much advertised and secret preparation called S. S. S. The printed matter on this latter preparation, which states that it has been in domestic practice in certain parts of middle Georgia ever since the retirement of the Creek Indians in that section of the state, does much to strengthen our belief.

The Gynæcological Specialist

NON-SURGICAL TREATMENT FOR THE DISEASES OF WOMEN.

The treatment of the diseases of women has always contributed largely towards the yearly income of the general practitioner, while the gynæcologist continues to fatten upon the revenue he receives from operations. Ovariectomies and we might add operations for appendicitis and laparotomies in general have become an epidemic in some localities to the extent that many surgeons think they will be branded as being unskillful if they allow their patients to get well without operative procedures. When the fashionable period of ovariectomies and other operations wear off, and physicians learn to apply rational, therapeutic measures there will be a revolution in gynæcological practice. I do not wish to be understood in condemning the progress of surgery or its application in many cases, but every physician who is familiar with hospital and sanitarium practice will attest that many organs are removed which might have been restored to health by non-surgical means.

Owing to the prevalence of female diseases, a large territory is also opened for proprietary remedies, and we find lady agents everywhere who are extolling the virtues of some secret remedy for the diseases peculiar to their sex. Among the most prominent preparations may be mentioned, Viavi, Mountain Rose, Neuvita, Orange Blossom, Olive Branch, etc. On the other hand we find many physicians who use preparations like Micajah's Uterine Wafers, without knowing the ingredients they contain.

Regarding the success obtained from the use of these

preparations I am not able to say, but I do believe that every physician is aware of the fact that a large percentage of these cases eventually drift into his hands for a more thorough and scientific course of treatment.

From the peculiarities of constitution and the duties assigned by nature, woman is subject to a class of diseases, which entitles her to all that is humane, delicate and skillful on the part of the physician, whose duty it becomes to advise and treat her.

The degree of suffering, physical and mental; the pain and discomfort endured; the disturbing elements in social life; the severing of domestic ties, and the propagation of weakness and disease, often have their origin in the diseased organs and the perverted use of feelings and faculties designed for the creation of the race, and the happiness and well being of mankind.

The cause of the prevalence of ill-health among women may be attributed probably to the various acute and chronic diseases, to which all mankind are alike liable, but in a greater degree to the numerous class of ailments peculiar only to the female sex; and also to the fact that women are timid about broaching these subjects, and from a false modesty often conceal their disease, instead of seeking for a means of recovery. Thousands of women, from a mistaken sense of womanly delicacy, are passing the springtime and summer of their lives in silent suffering from disorders they do not understand, and know not how to alleviate.

A modest, sensitive woman often shrinks from consulting a physician regarding sexual subjects in general, and especially so concerning the private and special ailments of her own generative organs, preferring to suffer in silence rather than to expose her weakness; and the most serious results are often attributed to this cause.

It is owing to this delicacy on her part that has opened a large field for the various preparations mentioned above. I have given the medical treatment of the diseases of women much thought, and after thoroughly investigating many of the secret and non-secret remedies used by physicians, I have formulated a system of intra-

uterine, extra-uterine and internal treatment, which associate physicians and myself have used in thousands of cases with remarkable success, and I believe the constituents of same will appeal to the judgment of every physician in cases where surgical interference is not required.

The conditions in which this method of treatment is particularly indicated are amenorrhoea, dysmenorrhoea, menorrhagia, leuorrhoea, ulcerations, erosions, vaginitis, metritis, endometritis, backache, bearing down pains, irritation of the ovaries and bladder, frequent and painful urination, in fact all forms of congestion, inflammation or pain in the pelvic cavity.

In devising a treatment for the above conditions there are several things which need the physician's attention.

Upon examination, you will find the uterus enlarged and possibly either hard or sleazy in texture. The circulation is torpid and requires new activity. Such conditions require the combination of an astringent, an antiseptic, a sedative, an analgesic and absorbent. These are all provided in the following formula, which may be called the

EXTRA-UTERINE APPLICATION.

R	Elaterium	$\frac{1}{8}$ gr.
	Powd. jequirity	$\frac{1}{4}$ gr.
	S. E. belladonna	$\frac{1}{2}$ gr.
	S. E. hyoscyamus	$\frac{1}{2}$ gr.
	S. E. hydrastis	$\frac{1}{2}$ gr.
	S. E. hamamelis	1 gr.
	S. E. calendula	1 gr.
	S. E. thuja	1 gr.
	Zinc sulphate	2 gr.
	Boric acid	4 gr.

I have had some difficulty in finding a suitable base in which to incorporate the above medication in order that it would rapidly disintegrate; this is a very essential point in order to receive the desired results. The affinity elaterium has for serum, seem so great that the latter has a tendency to coagulate around the application, thus

preventing it from dissolving. I formerly depended exclusively upon this application prepared in tablet form, and although the treatment was reasonably successful, I was often disappointed in cases where I expected the greatest success. I afterwards learned that the more pelvic congestion or inflammation present, the more serum there would be exudated, and the more serum exudated the less liable for the tablet to dissolve, owing to the tendency of the serum to accumulate around the application. Oftentimes the tablet would be removed thoroughly encapsuled, with coagulated serum, which of course prevented the complete medicinal effect of the treatment.

After much experimenting my chemist now prepares this treatment in two forms, one in a tablet, resembling in shape the ordinary suppository, with a rapidly disintegrating base. The other in a base composed of cocoa-butter, slippery elm and Thymol as suggested by Dr. Hall, of Chicago. The tablet is generally dispensed in chronic diseases where slow, continuous medication is desired; the latter in all acute diseases, where pain is present in the pelvic cavity, via dysmenorrhœa, painful urination, hemorrhoids, cancer, etc., where rapid action of the treatment is required. In fact I prefer this medication in a cocoa butter and slippery elm base as a general treatment in 95 per cent of all cases. This can also be used in the rectum with equal success.

Since Dr. J. Marion Sims recognized the affinity glycerine has for serum and advocated tampons applied to the cervix as a depilatory, for the relief of congestion, etc., with the pelvic cavity. Physicians have been in search of a remedy to replace this treatment, which could be applied by the patient herself.

My attention was first called to elaterium, as a uterine depilatory and antiphlogistic by Dr. Gentry, who stated that he had used the remedy in his practice for twenty years, and argued that if this remedy when taken by the stomach will extract serum from the alimentary tract and produce profuse watery stools, it would extract serum from other mucous surfaces if applied locally, and

there is no other place where it can be applied to a greater advantage than in the vagina or uterine canal, where it seems to have its greatest curative influence in removing congestion, engorgements and impurities from the female pelvic cavity, that the organs may resume their normal condition. Elaterium alone, is rather drastic in its effects, and we have, therefore, combined it with other remedies to control its action, each of which has its specific value. Jequirity resembles somewhat the action of elaterium, but is more mild. However, it is a valuable adjuvant. Belladonna and hyoscyamus have their anti-spasmodic and anodyne effects, while hydrastis, hamamelis, calendula and thuja each have their respective actions as local alternatives, antiseptics, styptics and sedatives. The zinc sulphate and boric acid added for their astringent and antiseptic properties.

This formula might be open to criticism as containing too many remedies, but I wish to assure you that each of them has been added from time to time with a marked improvement, and it seems to me that it would be impossible to dispense with any one of them.

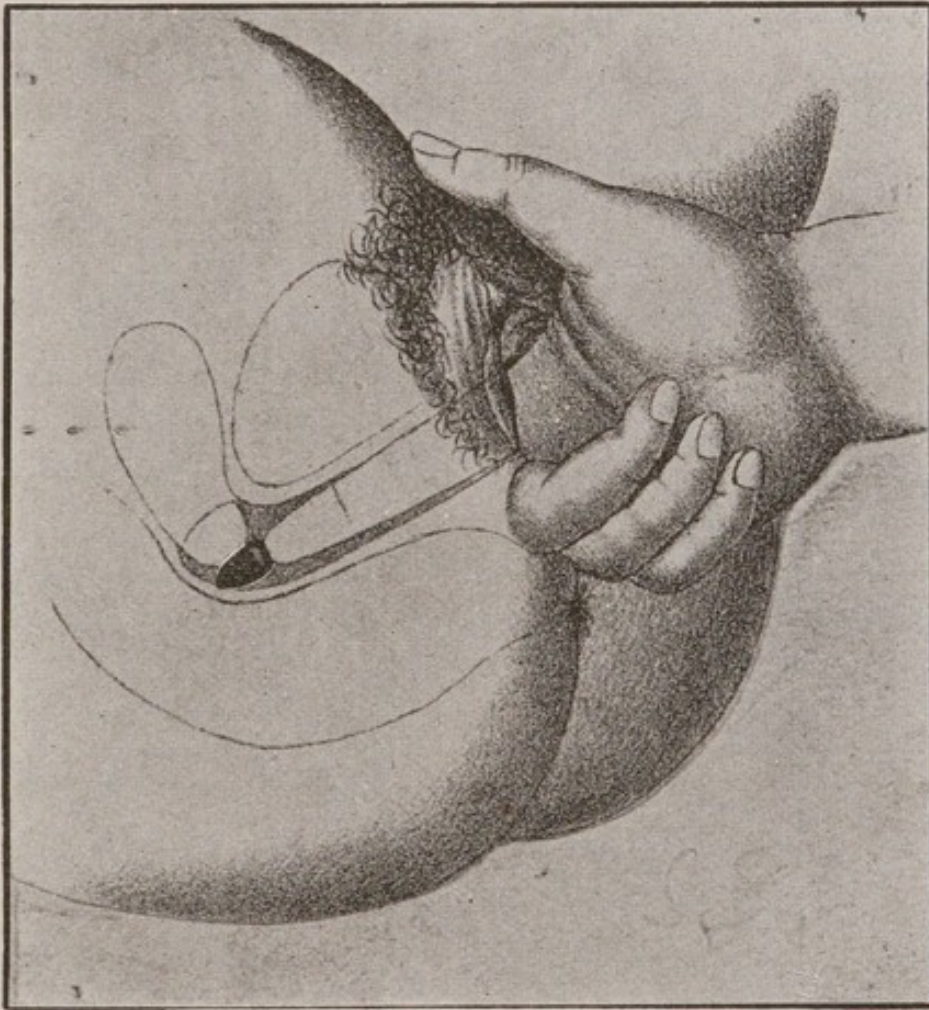
There is great satisfaction in recommending and using this preparation, for every time it is applied, good results are seen and felt, although I do not offer this preparation as a panacea, I am convinced that it is far superior to any general extra-uterine treatment with which I am familiar, and its practical application will convince the most skeptical that it has extraordinary merit when judiciously applied.

This treatment has a wide range of usefulness, and has always found a place in my medicine case, to be used in emergency cases. By inserting a suppository at the mouth of the womb it will immediately suppress pain and ill feelings of every character in the pelvic cavity, often times with nearly the same rapidity as an injection of morphine, and thus cure dysmenorrhœa, ovarian irritation and neuralgia. Although it is not curative in cancer, it will abate the odor and alleviate the burning and gnawing pains. It is almost a specific for irritation of the blad-

der, frequent and painful urination and vaginitis, gonorrhœa, etc.

It is also an excellent treatment for piles if inserted in the rectum, where it soothes the congested and inflamed surface and heals the ulcers.

This application may also be depended upon to relieve engorgements, erosions and ulcerations, and its continuous use will control menorrhagia and metorrhagia.



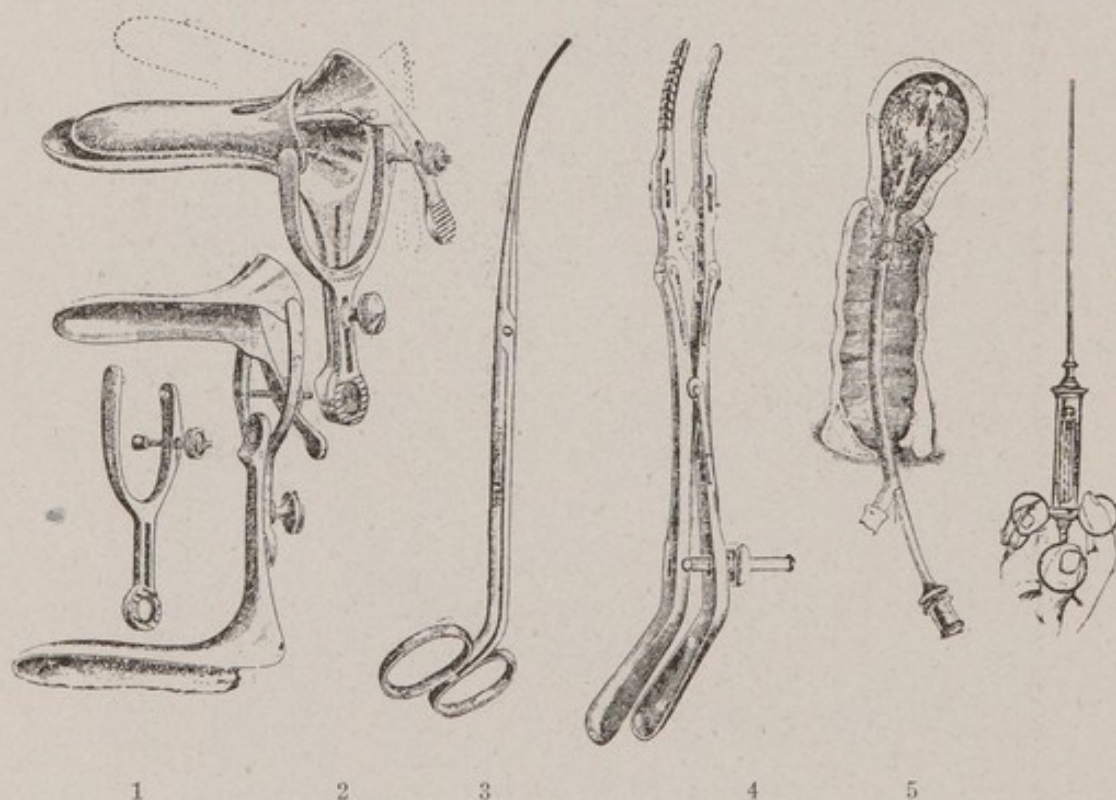
Method of Applying Extra-Uterine Application.

It is likewise used to a great advantage at the menopause, as it will draw from the uterus the accumulation of diseased matter so that it will not enter the circulation and cause "hot flashes," etc. Its antiphlogistic and contractile power will readily contract the flaccid and loose walls of the vagina, at the same time it exerts a contractile influence upon the tissues which support the womb and retain the organ in its natural position.

METHOD OF APPLICATION.

In chronic diseases the patient should use a douche of warm water before retiring, and insert a suppository as far as possible up the vagina. This should be allowed to remain until the next evening, when the douche should be repeated, and another suppository applied. This treatment should continue for several months in obstinate cases to obtain the desired results.

With some patients where pain is present and immediate results are wanted, as in dysmenorrhœa, piles,



frequent and painful urination, cancer, etc., the treatment may be applied several times a day if required, but the patient should be instructed to use a douche of warm or rather hot water, before each application.

For the class of patients which every physician meets, women and young ladies who are over-modest, bashful, timid and diffident, who fear exposure, examination, expense and dread the local treatment, this treatment has many advantages, for it is always attended with good results, and it may be used by the patient herself at home.

With many patients it is absolutely necessary that they should submit to an examination and local treatment, in order that you may treat them intelligently, and with a degree of success that you could not otherwise obtain without observing the progress of your treatment. In order to make examinations, and successfully treat these diseases, requires the use of several well selected instruments. The accompanying cut illustrates those of my choice.

No. 1, the combined bivalve and Sims speculum. No. 2, fine pointed dressing forceps, which may be used in making intra-uterine applications if necessary. No. 3, dilator used for rapid dilation of the uterine canal. No. 4, intra-uterine douche for cleansing the uterine cavity and bladder; its use in miscarriages and other purulent conditions are indispensable. No. 5, intra-uterine applicator for liquid medication in the cervical and uterine cavity. These instruments, together with the universal applicator, a douche curette and sound offers quite a complete outfit and are indispensable to the physician for the medical treatment of the diseases of women.

INTRA-UTERINE MEDICATION.

Intra-uterine treatments are indispensable for the cure of many diseases. This is particularly so in metritis and endometritis, deep-seated erosions, etc., where more favorable results may be obtained by direct medication, to the lining membranes of the uterus or cervical canal. In these conditions, examination will disclose ulcerations and erosions of the cervix, and large quantities of mucous oozing from the uterine canal; menstruation is often profuse and appears too often. Whenever this condition exists, I apply an intra-uterine application, composed of the

following remedies, either in liquid or bougie form, each maximum quantity:

R	Elaterium	1-16 gr.
	Hydrastine	1/2 gr.
	Resorcin	1 gr.
	Oil of thuja	2 min.
	Ichthyol	8 min.

I regret to say that I have to differ in opinion with the "old healing masters" regarding local applications to the cervical canal and uterine cavity. I was taught and it is the general treatment given in many text books to-day, that caustic acids, nitrate of silver, carbolic acid and tincture of iodine, and the fashionable cautery electricity are about the only remedies of any value as local applications to the cervical canal and the uterine cavity. After using these treatments for years I was compelled to abandon their use, as my efforts were never marked with any great success. After giving the subject much thought I wondered why physicians who stand at the head of the ranks of the profession, and gynecologists of more than a national reputation, should advocate such treatment. Would they apply this continuous caustic treatment to ulcerations of the mouth or other mucous surfaces in less isolated parts of the body, and expect to encourage the healing process? No. Then why should this heroic treatment be applied to erosions and inflamed conditions of the uterus. These are the problems which confront the physician. Dr. Skeen, in making reference to this point, says: "I am satisfied that in times past, and even at present, much of the treatment of uterine diseases, while it arrests the inflammatory trouble, proves so destructive to the normal structure of the organs as to render the last condition of the patient worse than the first."

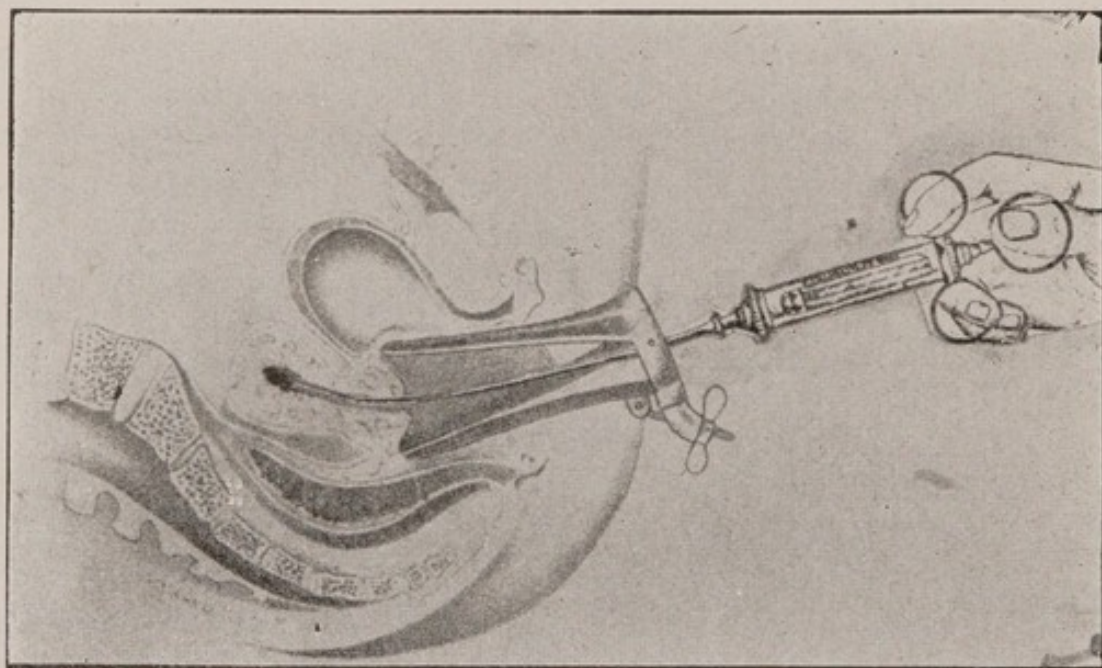
The facts are that erosions of the os and cervical canal, or other parts of the uterus, require the same gentle treatment that ulcerations in general do. Accompanying cervical ulcerations, however, we often find chronic inflammatory conditions involving other parts

of that organ, metritis and endometritis, which require treatment at the same time. If I were to select only one remedy for the local treatment of these conditions, my first choice would be ichthyol. This remedy is in no way a caustic, but it penetrates deeply into the tissues and its contractile action upon the vascular system is so great that it rapidly relieves the chronic congestion and inflammation and encourages the healing process. It is also a marked antiseptic and anodyne. Several months ago I learned the value of the oil of thuja in ulcerated conditions of the eye, and argued if this remedy was of value in the treatment of the delicate structures of the eye, it would be of equal service in treating erosions of the cervix and elsewhere, and decided to use it in combination with ichthyol, and the results were the most pleasing. This remedy seems to be a solvent of the highest order. These remedies combined with hydrastis and the antiphlogistic effect of elaterium, and the antiseptic properties of resorcine, gives us a treatment which does not act as a caustic irritant, but as a healing agent in the broadest sense of the term. I have been using this treatment constantly for about ten years with greater satisfaction and success than any treatment I have previously applied. It will be found particularly serviceable in all erosions, congestions and chronic inflammatory conditions of the uterus.

METHOD OF TREATMENT.

Dr. Henry Mills is supposed to be the first physician in this country to apply medication within the uterine cavity. Since this time gynecologists have seemed to differ somewhat in opinion regarding the practicability and utility of intra-uterine medications. They all agree, however, that medication to the cervical canal is of much benefit to diseased conditions of the entire organ. No doubt the reason why intra-uterine medications of former years has been a failure is due to the use of too strong applications of caustic compounds. Nearly every

caustic remedy in the *Materia Medica* has been used for this purpose, often doing much injury. There is another point to be observed in applying intra-uterine medica-



Method of Applying Intra-Uterine Applications.

tions. With some women there seems to exist an idiosyncrasy regarding the application of medicine to the interior uterine walls, and they cannot withstand the mildest form of medication, while others can endure the most heroic measures. I have observed that where the inner os was sufficiently large to allow the escape of any excess of the fluid, uterine applications could be made with greater success than where the inner orifice was small or contracted. When the latter condition exists, the inner os should always be previously dilated; for this purpose I use a strong pair of narrow-pointed dressing forceps. This allows the escape of any superfluous medication. These facts are constantly before my mind, and when a patient presents herself for treatment, I make several applications to the cervical canal before entering the cavity of the uterus, and I always satisfy myself that the os is well dilated before making each application. The first treatment should consist of only about one or two minims which can be increased in amount as the treatment pro-

gresses. There are only a very few cases where medication will be required in the uterine cavity. Fully 90 per cent. of the diseases of women can be cured by making applications to the cervical canal, where there is absolutely no danger. The instruments should always be at least of an equal temperature to that of the body, and after each application a tampon of glycerine combined with some suitable antiseptic be applied.

There has been several instruments devised and many different forms of medication used for applying treatments within the uterine canal and uterus. The most practical of these consists of the remedies in liquid form or incorporated in bougies in a base of either cocoa butter or glycerine and gelatine. These bougies should be applied with the universal applicator (see cut). The old way of making medicated applications to the endometrium by means of cotton saturated with the medicated solution applied with a probe or applicator, is fast falling into disuse as being unpractical. Dr. P. F. Mundy says: "In the vast majority of cases with normal canals I really believe that the effect of the medication (when applied with cotton) is expended entirely on the mucous lining of the cervical canal and external os, and the endometrium proper is touched merely by the albuminous coating of the applicator." The bougie treatments have the disadvantage of being expensive to manufacture and somewhat difficult to apply. The liquid medication is therefore the more practical for all general purposes and is much more easily applied.

For several years I used a glass pipette which consisted of a glass tube with a rubber bulb on one end resembling the ordinary medicine dropper, but I found this instrument had many disadvantages. There was no way of determining the amount of medicine used at each application, and by making pressure upon the rubber bulb you would often force air into the inter-uterine cavity, which would often produce uterine colic. A few years ago I had a special instrument made, which resembled the ordinary hypodermic syringe, with a flexible metallic

tube attached, the size and shape of the ordinary uterine sound. This has many advantages, as it allows you to accurately gauge the amount of medicine used, as the piston is graduated in minims, and by adjusting the point upwards you can force all the air out of the syringe before each application. The point can be adjusted to any shape which will best enter the uterine cavity. In making applications to the cervical canal or inter-uterine cavity, I always regulate the amount of medicine used by the graduate on the piston stem. The amount of medicine used at each treatment is usually from five to fifteen minims.

By carefully observing these rules and judiciously applying this treatment you will meet with phenomenal success, and find it far superior to the caustic treatment so much in vogue. This treatment is particularly serviceable in all erosions and ulcerated conditions at the external os and cervical canal; and in cervical or corporeal endometritis and chronic inflammations of these organs.

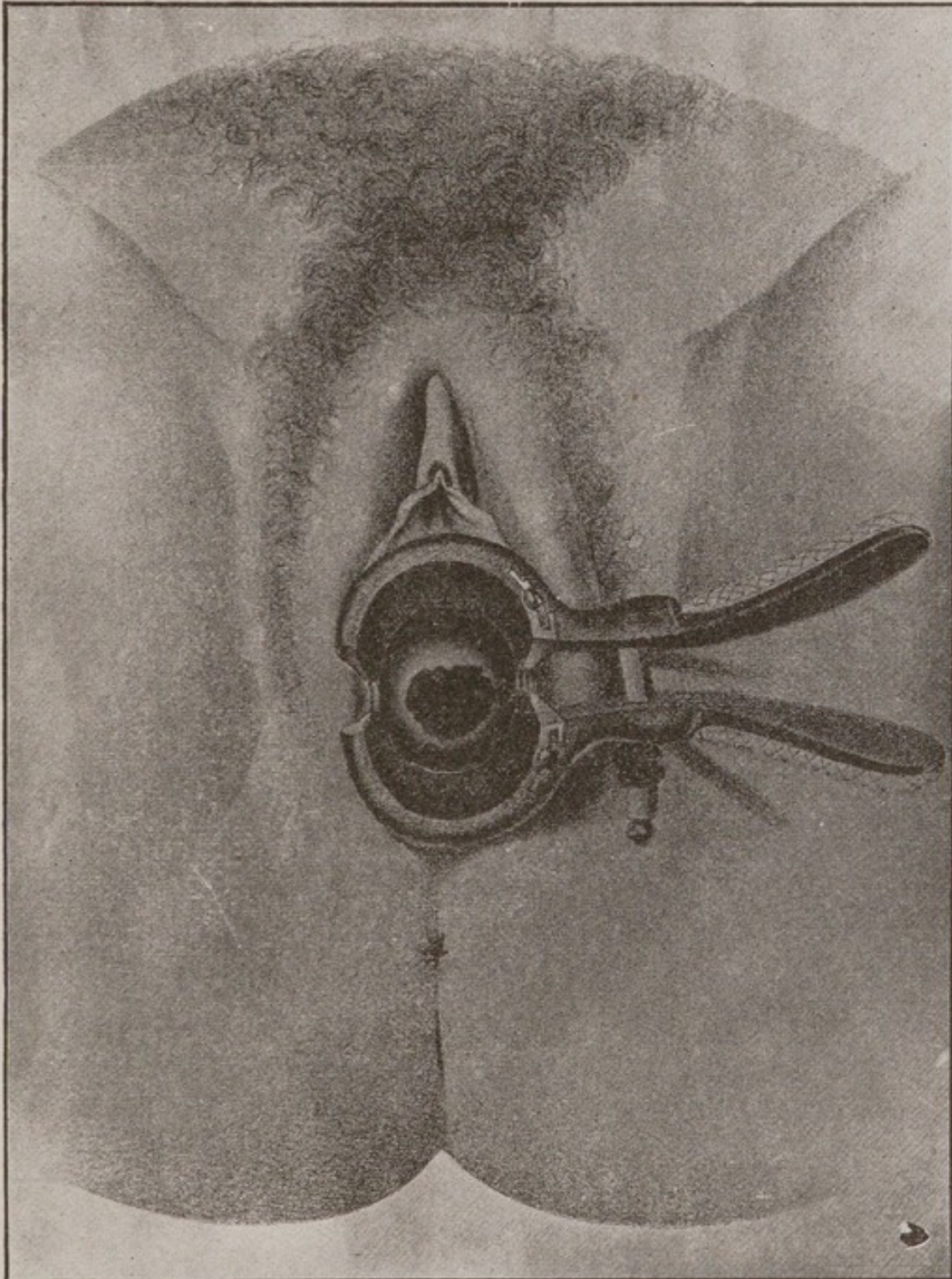
INTERNAL TREATMENT.

Internal treatment is always of great importance and should consist of such therapeutic measures as may be required in each individual case. I believe in dispensing all internal medication in as palatable a form as possible, and when no specific treatment is required, the following tablet, chocolate coated, has rendered me much service as a uterine tonic:

Ext. Viburnum prun	1 gr.
Ext. Viburnum opul	1 gr.
Ext. Star grass	$\frac{1}{2}$ gr.
Ext. Squaw vine	$\frac{1}{2}$ gr.
Ext. Helonias	$\frac{1}{2}$ gr.
Caulophyllin	$\frac{1}{4}$ gr.
Hydrastis, represented by white alkaloid	$7\frac{1}{2}$ gr.

THE COMBINED TREATMENT.

When a physician becomes too enthusiastic regarding a special treatment he is often branded as a "crank." If



The above illustrates the way all Exterior Erosions or Ulcerations of the External Os should be "Painted" with the Intra-Uterine Application.

this caption applies to my case it will be accepted very gracefully, and I only wish I could be as "successfully

cranky'' with many other treatments in the practice of medicine. I consider this treatment, either used in part or combined, as the case may require, one of the most successful treatments in present use for the diseases of women commonly met with, and far superior to the caustic remedies or the fashionable cautery, electricity. As a rule I do not believe in "stereotyped therapeutics" and occasionally I modify this treatment to meet the requirements of some individual case, but in a large majority of cases I know of no means of improvement, and use it as given here. With a large number of patients I find the best results are obtained from the combined treatment, and usually I have a patient visit my office once or twice a week, that I may apply the intra-uterine application and watch the progress of the treatment. During the intervals she is instructed to take a douche of warm or rather hot water each night before retiring, and apply the extra-uterine application; throughout the treatment she also takes a tablet of the Viburnum tonic compound six times a day, or whatever other internal treatment her case may demand. By the judicious use of these remedial measures I am convinced that they will effect a cure in many cases where other methods of treatment have failed to be of benefit, and it will excel the numerous routine treatments, proprietary preparations and nostrums often used by physicians. To demonstrate its wide range of usefulness, I will point out its value in the following illustrated cases:

IRRITATION OF THE BLADDER.

Miss G., an actress appearing at one of the theaters in this city, consulted me regarding this troublesome and painful condition with which she had been suffering at different times for about two years. She stated that it was almost impossible for her to fulfill her engagement, as she was in such distress; between each act she would attempt to urinate, but there would be only little urine and such unbearable, spasmodic pains afterwards. This was about 5:30 p. m.; I instructed her to take a vaginal

douche of two quarts of hot water, as hot as she could comfortably endure, and apply an extra-uterine application (in cocoa butter and slippery elm base) and to repeat the operation at 7:30, just before the performance. She followed my advice and reported the next day that in about twenty minutes after she made the first application all of her distressing symptoms left her and she passed the evening in perfect comfort. The following day I washed out the bladder and instructed her to use the extra-uterine application three times a day. She continued the treatment during her week's stay in this city and took sufficient medicine with her to last two months, making one application each night before retiring. I did not hear from her again until the following season, when she visited my office and informed me that she had never been troubled since. She wished me to prepare some more medicine, however, to be used in case of emergency as she was in constant fear of the old trouble returning. I relieved her mind, however, by telling her that in all probability she would never be troubled that way again.

AMENORRHOEA.

Miss H., age 16, applied for treatment for irregular menstruation. The menstrual periods were established when 13 years of age. At this time she thought she "took cold" from bathing; at least, the periods did not return again for four months; since this time they have always been irregular, appearing at intervals from two to three months. The patient was anæmic and complained of having much backache. Her anæmic condition was, no doubt, one of the primary causes of her condition. I prescribed the "Viburnum compound" three times a day, and after each meal she was given a five grain Bland's pill combined with arsenic and strychnine. I instructed her to use a hot water douche each night before retiring and insert an extra-uterine application. She continued this treatment nearly five months; at the end of this time she was menstruating regularly; her complexion became florid, and her general health was seemingly good. She

continued the internal treatment for several months, omitting the iron tablets at intervals. She has been constantly under by observation, and at this writing is perfectly well, strong and healthy.

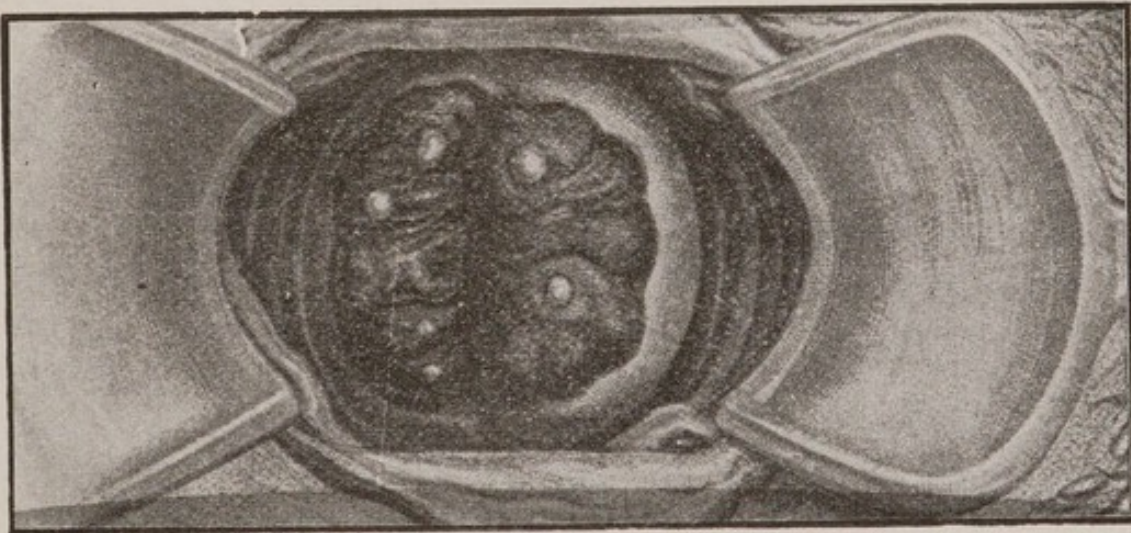
CONGESTIVE DYSMENORRHOEA.

Mrs. H. consulted me regarding her daughter, 19 years of age, who had always suffered with dysmenorrhoea. Menstruation was not established in her case until 16 years of age, and during the menstrual period she was confined to her bed the greater part of the time. She was a very plethoric girl and appeared rather timid in disposition, although she frankly informed me she "hated doctors." If I had suggested examination in her case she no doubt would have been out of the office before the words left my lips. After briefly discussing her case with her mother, I pronounced it congestive dysmenorrhoea, and prescribed a douche of two quarts of hot water each night before retiring, and instructed her how to use the extra-uterine application (in a cocoa butter and slippery elm base). After the douche I also gave her a tablet of the "Viburnum tonic compound" six times a day. She promised to carry out the treatment persistently and report after the next menstruation; in due time her mother called and informed me she had suffered some pain, but it was not so severe as at former periods. She continued the treatment as above, and the next period was passed with still less pain; the next period was passed in perfect comfort. She continued the treatment altogether about five months, and has never suffered since. It is now a year since she has abandoned all medication.

This is only one of many cases which have come under my observation which has demonstrated the curative value of this treatment. Had I prescribed the application during the first two periods she no doubt would have not suffered at all, as will be illustrated in the following case:

DYSMENORRHOEA.

Miss B. I was called at the bedside of this lady, who was suffering intensely. She informed me that she always suffered this way, but the pain was less severe after the appearance of the menstrual discharge. I immediately gave her a douche of hot water and she inserted an extra-uterine application; in less than half an hour nearly all the pain had left her. She repeated the operation twice during the night; in the morning the menstrual flow had made its appearance, but she continued the application twice a day throughout the period, with but very little pain.



This lady continued the treatment for about four months, with the aid of the "Viburnum compound," and occasionally dilating the cervical canal, and she was discharged and pronounced cured.

CANCER OF THE CERVIX.

I was called to see Mrs. P., aged 47, who was flowing excessively. She had been advised by another physician that her condition was due to the change of life, although he had never examined her. Speculum examination revealed the fact that she was suffering with a cancer of the cervix, involving the lower third of the fundus and the upper walls of the vagina. I informed the husband regarding her serious condition and also told them that I believed operative procedures would be of no value, as

the destruction of tissues was so great, and the only treatment would be to offer her as much comfort as possible until the end. She was suffering much pain, which was very severe at times. I gently curetted the sloughing surface and applied the intra-uterine application to the abraded surface, and advised her to take a douche of warm water and apply the extra-uterine application every two or three hours as her case required. It was surprising to note how rapidly this treatment relieved the pain and seemed to control the hemorrhage and abate the odor. This treatment was continued until the very last, when morphine had to be restored to. Although the treatment in this case was only palliative, it offered all that can be accomplished in such cases.

Endometritis of the Cervical Canal.

This lady was 29 years old; was married and had never become pregnant, very much contrary to her wishes. Her general health seemed excellent, but she said she had been troubled with leucorrhœa for years. After reading some domestic medical book she became alarmed at her condition, thinking the discharge was a sure means of destroying her life. I made a speculum examination and, with the aid of the sound, I found the diameters of the uterus and the internal os about normal. The external os, however, was ulcerated, everted and enlarged. By passing the sound the mucous surface would bleed very easily, showing the mucous membrane was very much congested. It was easily determined that she had endometritis limited to the cervical canal. I applied ten minims of the intra-uterine application to the entire length of the canal, and also thoroughly covering the external ulcerated surface with the medicine, after which I inserted a tampon saturated with glycerine and thymol at the external os before removing the speculum. These local treatments were continued twice a week; during the intervals she used the extra-uterine application, with warm water injections each night before retiring, and the Viburnum compound. This treatment was continued

about four months. At the end of this time the mucous membrane of the canal seemed to be perfectly healthy, and the external erosions entirely healed. In order that I could watch her condition I had her visit my office once a month for several months, but the old condition never returned.

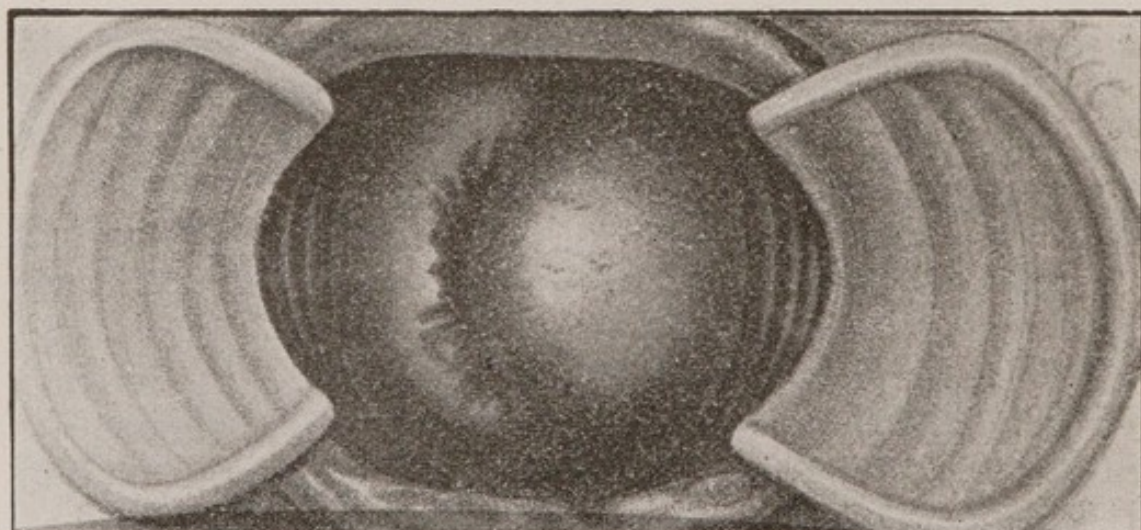
Corporeal Endometritis.

Mrs. D., 41 years of age, came to my office, stating that "It seems as though beavers are building a dam in my womb, there is such a constant gnawing." By examining her with a speculum I found the external os and cervical canal in apparently a healthy condition, but on entering the uterus with a sound she complained of some pain, and said "that is the very place which is causing me so much discomfort." The surface would bleed easily at the most gentle manipulation. Menstruation was irregular, but when it did appear it was too profuse and lasted longer than it should. She also had leucorrhœa, which at times was offensive. I decided that she had endometritis limited to the uterine cavity, which is not of common occurrence. I treated her twice a week with the intra-uterine application, and curetted the surface occasionally, and also had her use the extra-uterine application and "Viburnum compound." At the end of three months all symptoms of the disease had left her, and she was discharged as being cured.

A Complicated Case.

Mrs. J.—This was one of those complicated cases not unfrequently met with, where the inflammatory condition seemed to involve the entire pelvic cavity, and had she fallen into the hands of the modern gynæcological surgeon, she no doubt would have parted with much of her anatomy. Congestion and hyperthesia was manifest everywhere within the pelvis; the ovaries were sensitive, and at times she would have frequent and painful urination, backache and constant pain in the pelvic region. Speculum examination revealed an enlargement of the cervix, which was fairly purple in color, showing retard-

ed circulation. There was a large erosion on the external os, the lining membrane of the cervical canal and uterine cavity were sensitive and bled very much when touched with the sound. There was large quantities of mucous oozing from the canal, which was often streaked with blood. Menstruation appeared too often and was too profuse; her general health was very much impaired; she was weak and anæmic, had disturbances of the stomach, and was extremely constipated and nervous. It was not difficult to see she was suffering with metritis and endometritis, involving the entire membranes of the uterus. She was placed upon a thorough course of reconstructive and tonic internal medication, and the intra-



uterine application was applied to the entire uterine cavity and cervical canal, by gradually increasing the amount of medicine at each application until ten or fifteen minims were used, which was sufficient to cover the entire surface. She was also instructed to use the extra-uterine application and a hot water douche each morning and evening, as an intermediate treatment. The extra-uterine application seemed to have a wonderful effect in her case; at the end of one week she declared she had not a pain or discomfort in the pelvic region. Often when she would take a douche there would be large pieces, amounting sometimes to entire casts of the vagina, of coagulated serum, come away, which demonstrated

the value of the application as a depilatory in curing these conditions by exosmosis.

After she had continued the treatment for several months, she had gained about 25 pounds in flesh, the size of the uterus was gradually diminished and the endometrium was apparently in a healthy condition, when an accident occurred which ended in her death, by falling down an elevator shaft in one of the large department stores in this city.

Specific Vaginitis.

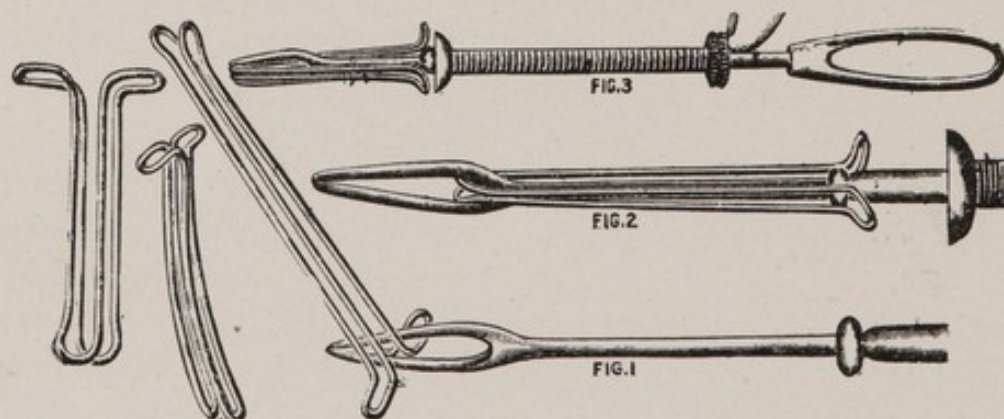
Mrs. C., a refined lady, 32 years of age, contracted gonorrhœa from her husband, who was "rather sporty inclined." I did not inform her the cause of her condition, as I did not wish to take an active part in a family disturbance, as I was treating the husband for the same disease. (I think St. Peter will pardon a few prevarications under such circumstances.) She was suffering intensely with vesical and rectal tenasmus, had a profuse discharge and all the accompanying symptoms of the disease. She was instructed to use a douche of two quarts of warm water in which 2 drachms of borax had been dissolved, 5 or 6 times a day. After each douche she inserted an extra-uterine application. She experienced great relief from the first, and at the end of ten days the symptoms of the disease had left her and she was practically well. She continued the local treatment, however, once or twice a day for about three weeks.

STERILITY.

Among other problems confronting the physician is a successful treatment for sterility. Barrenness may be either congenital or acquired; or it may exist for years and a seemingly spontaneous cure result from the action of unknown causes. This is illustrated with Anne, of Austria, who was sterile for twenty-two years before she became a mother. Catalina de Medicis, wife of Henry the Second, was unfruitful for the first ten years of her

marriage, after which time she became so prolific that she had ten successive children.

The cause of sterility has been attributed to several different sources; chronic inflammation of the vagina, giving rise to excessive acid secretions which destroy the life of the spermatozoa, as will also the excessive secretions from the uterus. Inflammatory conditions of the uterine cavity and canal has often been pointed out as one of the principal conditions preventing conception. Physiologists lay much stress on the proper time for coition as reacting favorably to produce conception, and the fruitful period is given from three days before to ten days after the monthly period every physician is familiar



DR. OUTERBRIDGE'S DILATORS AND APPLICATORS.

with the fact, however, that there is no stated time when a woman can be considered unpregnable.

The Mosiac laws forbid women from accepting visits from their husbands for fourteen days after the menstrual period, and still the Jews are a very fruitful people.

Many persons who desire to prevent conception abstain from intercourse during the supposed fruitful period, but while it may lessen the probability of the occurrence of conception, it is by no means sure. It has been demonstrated that some women are more susceptible to conception immediately before the menstrual period, others during the period and others immediately after. In summing up my own observations regarding the subject, I am convinced that the cause of sterility in the majority of cases has been due to diseased conditions

of the cervical canal and inner uterus and stenosis of the canal, which has often been traced to the use of too strong caustic applications.

When a patient asks, "What can I do to become a mother," I advise an examination, which will generally reveal the condition described above. The treatment for sterility depends largely upon three things, viz.: Cure any existing disease of the endometrium, remove all obstructions from the cervical canal and advise copulation at the time when physiological conditions are the most favorable to conception, which is just before, during or after the menstrual period. The diseased condition will usually yield to the extra-uterine and intra-uterine medications already given, and now we wish to keep the canal open and allow the spermatozoa to enter the uterine cavity. This is best done by the use of the Outerbridge stems, or dilators. These instruments consist of a set of stems and an introducer to apply them with; when once introduced into the cervical canal and adjusted to the right position, they will keep the canal open, and while they are indispensable in the treatment of sterility, they can also be used to a good advantage in the treatment of certain forms of dysmenorrhœa and endometritis. The shape of this instrument adapts itself to the anatomical position of the uterine canal and is so constructed that it is self-retaining without changing position.

There are several different styles of these stems designed to meet the requirements of different canals; these dilators can be introduced from either the Sims or dorsal position. The dilator is placed within the grasp of the instrument made especially for the purpose and after examining the position and length of the canal with a uterine sound, the stem is selected to correspond with the canal, which is previously dilated with an ordinary dilator, and the Outerbridge dilator introduced, where it may be left for several days. The time selected to cure sterility and dysmenorrhœa is from three days before the menstrual period until five days after, then the instrument can be removed. The instrument should not be used at the next period unless you are satisfied that con-

ception has not taken place. In dilating the cervical canal with this instrument you should be very careful not to injure the mucous membrane, as this may prevent the emigration of the spermatozoa and thus prevent the process of conception.

These instruments are made of several different materials, but the only dilators of any value are made from some non-corrosive metal, of which aluminum is preferable, owing to its lightness, strength and elasticity as a treatment for sterility and obstructive dysmenorrhœa. This method is without a doubt the most successful and will not disappoint reasonable expectations.

IMPOTENCY IN THE FEMALE.

SEXUAL INDIFFERENCE.

Although there have been many volumes written on impotency in the male, this condition, which is often termed sexual anæsthesia, sexual indifference and sexual apathy, in the female has received little or no attention by the general practitioner, and like many other things, opens the door for a specialist, although this may seem an unusual subject of which to make a single specialty. I recently met a physician who was enjoying an income of several thousand dollars a year by operating upon women afflicted with this unfortunate condition.

There is no doubt that our Creator designed the organs and functions of women to be as highly and sensitively developed as those of men, and the sexual embrace should be conducted in a manner mutually agreeable to both husband and wife, but it is a well-recognized fact that fully ten per cent. of women are entirely devoid of sexual passions, and in such women, intercourse is conducted for the sole gratification of the husband. It is also unnecessary to state that this is one of the elements which help to fill our courts with divorce suits. Women thus affected almost invariably state that their sexual conditions has caused more shadows and domestic disturbances than any other one thing in their

marital union. Every physician recognizes the fact that the happiest homes are those in which husband and wife are sexually mated, and we must also admit that the healthy performance of these functions are not only conducive to good health, but largely to the development of much that is lovable and affectionate in a woman's nature.

There are two varieties of this condition: First, one in which there is no sexual desire whatever, and, second, where there is a mild desire, but without gratification.

The cause of this dormant condition of the female sexual organs can be traced to a number of sources. Functional diseases of the ovaries and uterus often cause a depression in the sexual instinct, while at the change of life and during pregnancy and lactation, this function may be suppressed. In other cases, this function may have been fully developed and the organ fully or partly paralysed in child-birth or by accident.

It may also be due to spinal trouble or sexual excess. Such cases often experience excitation without gratification or relief. This often leads to mental depression and melancholy. The most frequent cause, however, is an elongation of the hood and its adherence to the walls of the clitoris, completely obliterating that organ. It is this condition, principally, that I wish to discuss.

My attention was first called to this point by the specialist mentioned above, who, I have every reason to believe, has operated upon thousands of cases. My experience will vouch for his success, for I have restored this function in fully ninety per cent. of all the cases upon which I have operated. The operation is very easy and consists of simply removing the foreskin from the clitoris as follows: Pinch up the foreskin with the thumb and finger and inject a few drops of the cocaine solution as given in the obtundent formulæ on another page, and also saturate a piece of absorbent cotton and allow it to cover the clitoris for a few minutes until it is thoroughly anæsthetized; insert a tenaculum through the foreskin and lift it upwards, then take the handle of a scalpel and break up all adhesions between the clitoris and covering

membrane and cut away a V-shaped piece of the fore-skin, entirely denuding the clitoris. Unite the two layers of membrane by applying a suture on each side of it, and one at the apex. Keep the parts separate by placing absorbent cotton between them and use the usual antiseptic dressings.

The sutures may be removed in two or three days. The doctor should always provide the patient with an antiseptic ointment, containing sufficient tincture of capsicum to furnish warmth to the parts, as follows:

℞ Tinct. capsicum20 min.
Boracic acid 1 dr.
Vaseline 1 oz.

Sig. Apply to the parts four times a day.

Although this is one of the most simple minor operations in the whole category of surgery, it is one of the most remunerative, as the patient will not hesitate to pay from \$25 to \$50, and one patient is always likely to send another.

The physician also gives the patient a two months' supply of aphrodisiac tablets, as given on another page.

The Painless Dental Specialist

THE OBTUNDENT SYSTEM OF PAINLESS DENTISTRY.

Whoever procures exemption from physical suffering may be considered a public benefactor and in no other field of labor has there been a better chance of earning such a title than in that of extracting teeth, as the painless operator is the one whom people praise and patronize, but as a general rule a large percentage of operators have made a failure of local anæsthetics, (nostrums) and have discarded them altogether, as being worthless. They do not understand why some can make a success of their use and others can not. While this chapter will not be an exhaustive treatise on the subject, I will endeavor to make it as plain and practical as possible, and give all the information that will be required to handle local anæsthetics successfully. What will be said has been taken from the experience of myself and other operators under my observation, who have used this method successfully in over sixty thousand different operations; and I believe that every operator of ordinary skill and intelligence, who will faithfully follow the directions given will be equally successful.

In the year 1874 Dr. Oliver Wendell Holmes created the words, "Artificial Anæsthesia," and wrote: "Nature herself is working out the primal curse which doomed the tenderest of her creatures to the sharpest of her trials; but the fierce extremity of suffering has been steeped in the waters of forgetfulness, and the deepest furrows in the knotted brow of agony has been smoothed forever."

The diminution of the cutaneous sensibility by the application of ice and freezing mixtures has long been practiced. It was not, however, until Richardson's method by the hand-ball spray apparatus had been proposed that there had been much use made of local anæsthesia; this method consists in directing a current of atomized ether against the part to be anæsthetized. The ether employed for this purpose should have a specific gravity not to exceed 0.723. Rhigolene, the lightest liquid known, a product of the fractional distillation of petroleum, is more effective than ether, but great difficulty attends its use, owing to its extreme volatility. When a current of atomized ether, or Rhigolene, is directed against the skin, the rapid evaporation produces an intense degree of cold, in consequence of which the nerves lose their power of transmitting impressions to the sensorium.

A serious drawback to this process of producing local anæsthesia is the unpleasant burning which follows in the part when it recovers from the freezing, and also the great pain which attends the application of the ether spray to certain parts.

Shortly after the spray apparatus fell into disuse, local anæsthesia was introduced by hypodermic medication, and while there has been an abundance of good energy wasted by some of our best authors (who have made a failure of it) in condemning the method, we find on the other hand a larger percentage of admirers who have discarded every other system of anæsthesia believing this to be superior to all.

COCAINE.

Careful research in the study and chemical analysis of the many local anæsthetics (nostrums) which have flooded the market, prove that all local anæsthetics used successfully by hypodermic medication have from one and one-half to five per cent. cocaine basis, and this work would be incomplete, without giving the reader a comprehensive knowledge of the physiological action of this valuable drug.

Although erythroxyton (cocaine) has been the subject of investigation, and its powers to suspend the functions of the sensory nervous system recognized, the character of its local action was not suspected. It was reserved for Dr. Koller, of Vienna, to discover its analgesic effects when applied directly to the mucous membrane, and this great fact he demonstrated before the ophthalmological congress at Heidelberg. It happened that the distinguished ophthalmologist of New York, Prof. Dr. Noyes, was in attendance on the congress and he sent to the New York Medical Record, a letter giving facts of the discovery, and this proved to be the first statement in the English language of Koller's demonstration. As the possibilities of the future utility of cocaine as a local anæsthetic was then recognized, it created a profound impression, and in an incredibly short time this remarkable discovery became of common interest and in common possession. Everywhere cocaine was investigated by physiological and chemical methods, and the results confirmed the statements of Koller. To no one this side of the ocean, was the investigation of the properties and powers of cocaine of as much interest as to the medical and dental profession.

The character of the action of cocaine is much influenced by the amount administered, and the several stages of its action differ because the immediate and primary effect is necessarily opposed to the condition of reaction which seeks to restore the normal. When a sufficiently active (or toxic) dose is given, the first effect is stimulation; the heartbeats are accelerated; the respiration becomes more frequent; the reflexes respond to a distant irritation more promptly; the mind experiences a grateful sense of well-being and of activity, and ideation is ready, acute and comprehensive.

The stage of excitement continues for an hour or two, and is succeeded by depression, which is at the same time physical, mental and moral. The pulse may continue quick, but its force declines, and some irregularity of its rhythm may occur; the skin grows moist or profuse sweating comes on; the bodily temperature declines

a little, possibly; the appetite is lost, and nausea and vomiting increase the feeling of physical wretchedness and mental distress. Although cocaine is not actively toxic, and may be taken in enormous doses, we find some persons who are susceptible to its action, and are somewhat depressed by a smaller quantity. On the other hand, we find in an interesting article written by Dr. William A. Hammond and read at the eighteenth annual session of the Medical Society of Virginia, at Richmond, in which he reports taking eighteen grains at a dose, which I think will be of sufficient interest to quote in full, for it fully explains the true physiological action of the drug better than any article ever written, to my knowledge. The doctor said:

“About two years ago I undertook a series of experiments with this agent on myself, with the object of obtaining more satisfactory information relative to its action than it seemed possible for me to get otherwise, I began by injecting a grain of the substance under the skin of the forearm, the operation being performed at 8 o'clock p. m.

“The first effect ensued in about five minutes, and consisted of a pleasant thrill which seemed to pass through my whole body. This lasted about ten minutes and shortly after its appearance, was accompanied by a sensation of fullness in the head and heat of the face. There was also noticed a decided acceleration of the pulse with increase of force. This latter symptom was probably, judging from subsequent experiments, the very first to ensue, but my attention being otherwise engaged, it was overlooked. On feeling the pulse five minutes after making the injection, it was found to be ninety-four, while immediately before the operation it was only eighty-two.

“With these physical phenomena, there was a sense of exhilaration and an increase of mental activity that were well marked, and not unlike in character those that ordinarily follow a glass or two of champagne. I was writing at the time, and I found that my thoughts flowed with increased freedom, and were unusually well expressed. The influence was felt for two hours, when it

gradually began to fade. At 12 o'clock, four hours after the injection, I went to bed, feeling, however, no disposition to sleep. I lay awake till daylight, my mind actively going over all the events of the previous day. When I at last fell asleep, it was only for two or three hours, and then I awoke with a severe frontal headache. This passed off after breakfast.

“On the second night following, at 7 o'clock, I injected two grains of the hydrochlorate of cocaine into the skin of the forearm. At that time the pulse was eighty-four full and soft. In four minutes and a half it had increased to ninety-two, was decidedly stronger than before, and somewhat irregular in rhythm. The peculiar thrill previously mentioned was again experienced. All the phenomena attendant on the first experiment were present in this, and to an increased degree. In addition there was twitching of the muscles of the face, and a slight tremor of the hands, noticed especially in writing. In regard to the mental manifestations there was a similar exhilaration as in the last experiment, but much more intense in character. I felt a great desire to write, and did so with a freedom and apparent clearness that astonished me. I was quite sure, however, at the time that on the following morning, when I came to read it over, I would find my lucubrations to be of no value; I was therefore greatly disappointed when I came to peruse it, after the effects of the drug had passed off, that it was entirely coherent, logical and as good, if not better, in character than anything I had previously written.

“The effects of this dose did not disappear till the middle of next day, nor until I had drank two or three cups of strong coffee. I slept little or none at all, the night being passed in tossing from side to side of the bed, and in thinking of the most preposterous subjects. I was, however, at no time unconscious, but it seemed as though my mind was, to some extent, prevented from its usual course of action. The heat of the head was greatest at about 12 o'clock, and at that time my pulse was 112, the highest point reached. I had no headache until after

rising, and the pain disappeared in the course of the morning.

"Four nights subsequently I injected four grains of the hydrochlorate of cocaine into the skin of the left forearm. The effects were similar in almost every respect with those of the other experiments except that they were much more intense. The mental activity was exceedingly great, and in writing, my thoughts, as before, appeared to be lucidly and logically expressed. I wrote page after page, throwing the sheets on the floor without stopping to gather them together. When, however, I came to look them over the following morning, I found that I had written a series of high-flown sentences altogether different from my usual style, and bearing upon matters in which I was not in the least interested. The result was very striking as showing the difference between a large and excessive dose of the drug, and yet it appeared to me at the time that what I was writing consisted of ideas of a very superior character, and expressed with a beauty of diction of which I was, in my normal condition, altogether incapable.

"The disturbances of the action of the heart was also exceedingly well marked, and may be described best by the word "tumultuous." At times beginning within three minutes after the injection, and continuing with more or less intensity all through the night, the heart beat so rapidly that its pulsations could not be counted; and then its action would suddenly fall to a rate not exceeding 60 in a minute, every now and then dropping a beat. This irregularity was accomplished by a disturbance of respiration of a similar character, and by a sense of oppression in the chest which added greatly to my discomfort.

"On subsequent nights I took six, eight, ten and twelve grains of the cocaine at a dose, but I will not detain the society with a detailed account of the effects produced. It will be sufficient to say that they were similar in general characteristics, though of gradually increasing intensity in accordance with the dose taken, to that in which four grains were injected.

“In all there was great mental excitement, increased fluency of thought, and exaggerated disposition to write; the matter written being disconnected and at times, almost incoherent, though it appeared to me at the moment to be wonderfully logical and profound. In one, that in which twelve grains were taken, I was conscious of a tendency to talk, and as far as my recollection extends, I believe I did make a long speech on some subject of which I had no remembrance the next day. In all the action of the heart was increased, was irregular in rhythm and force to such an extent that I was apprehensive of serious results. Insomnia was a marked characteristic, and there was invariably a headache the following morning.

“In all cases the effects passed off about midday and by evening I was as well as ever.

“Up to this time I certainly had not taken a poisonous dose of cocaine, or one that had produced inconvenience. My experience had satisfied me that a much larger dose than any I had up to that time injected might in my case, at least, be taken with impunity. A consideration of the phenomena observed appeared to show that the effects produced by twelve grains were not very much more pronounced than those following six grains. I determined therefore to make one more experiment, and to inject eighteen grains. I knew that in a case of attempted suicide twenty-three grains had been taken into the stomach without seemingly injurious effect, and that in another case thirty-two grains were taken within the space of three hours without symptoms following of greater intensity than those I had experienced.

“I had taken the dose of eight, ten and twelve grains in divided quantities, and this dose of eighteen grains I took in four portions, within five minutes of each other. At once an effect was produced upon the heart, and before I had taken the last injection the pulsations were 140 to the minute and characteristically irregular. In all the former experiments, although there was great mental exaltation, amounting at times almost to delirium, it was nevertheless distinctly under my control, and I am sure

that at any time under the influence of a sufficiently powerful incentive I could have obtained entire mastery over myself, and have acted after my normal manner. But in this instance, within five minutes after taking the last injection, I felt that my mind was passing beyond my control, and that I was becoming an irresponsible agent. I did not feel exactly in a reckless mood, but I was in such a frame of mind as to be utterly regardless of any calamity or danger that might be impending over me. I do not think I was in a particularly combative condition, but I was elated and possessed of a feeling as though exempt from the operation of deleterious influences. I do not know how long this state of mind continued, for I lost consciousness of all my acts within, I think, half an hour after finishing the administration of the dose. Probably, however, other moods supervened, for the next day when I came down stairs three hours after my usual time, I found the floor of my library strewn with encyclopedias, dictionaries and other books of reference, and one or two chairs overturned. I certainly was possessed of the power of mental and physical action in accordance with the ideas by which I was governed, for I had turned out the gas in the room and gone up stairs to my bed chamber and lighted the gas, and put the match used in a safe place, and undressed, laying my clothes in their usual place, had cleaned my teeth and gone to bed. Doubtless these acts were all automatic, for I had done them all in pretty much the same way for a number of years. During the night the condition which existed, was judging from the previous experiments, certainly not sleep, and yet I remained entirely unconscious until 9 o'clock the following morning, when I found myself in bed with a splitting headache and a good deal of cardiac and respiratory disturbance. For several days afterwards I felt the effects of this extreme dose in a certain degree of languor and indisposition to mental or physical exertion; there was also a difficulty in concentrating the attention, but I slept soundly every night without any notable disturbance from dreams.

“Certainly in this instance I came very near taking

a fatal dose, and I would not advise anybody to repeat the experiment. I suppose if I had taken the whole quantity in one single injection, instead of in four, over a period of twenty minutes the result might have been disastrous. Eighteen grains of cocaine are equivalent to about 3,630 grains of coca leaves, and of course, owing to its concentration, capable of acting with very much greater intensity.

"I am not aware that a fatal dose of cocaine has yet been indicated by actual fact. Probably eighteen grains would kill some people, and perhaps very smaller quantities might, with certain individuals, be fatal. But these are inferences and not facts; but so far as I know, there is not an instance on record of a person dying from the administration of cocaine. So far as my experiments extend (and I think it will be admitted that they have gone as far as is safe), I am inclined to think that a dose sufficient to produce death would do so by action on the heart. Certainly it was there that, in my case, the most dangerous symptoms were perceived. The rapidity, force, and marked irregularity of the pulse all showed that the innervation of the heart was seriously affected.

"It is surprising that no marked influence appeared to be exercised upon the spinal cord, or upon the ganglia of the base of the brain. Thus there were no disturbances of sensibility (no anæsthesia, no hyperæsthesia) and no interference with motility, except that some of the muscles, especially those of the face, were subjected to slight twitchings. In regard to sight and hearing, I noticed that both were affected, but that while the sharpness of vision were decidedly lessened, the hearing was increased in acuteness. At no time were there any hallucinations."

Cocaine is eliminated by the kidneys, and may be detected in the urine; the excretion takes place in a few hours and hence, any effect it has on the organism is not persistent. An impression has prevailed that it is especially hurtful, but this conception of its character has developed out of a misconception, and unless an idiosyncrasy exists (which is easily detected), the proper use of

cocaine, seems to be not incompatible with a normal degree of bodily and mental vigor.

In formulating a local anæsthetic to be used in dental or minor surgery, there are several objects to be obtained, viz.: First, to have one that will be safe at all times; second, one that can be used in all pathological conditions of the gums; third, one that will have no bad after effects; fourth, one that will not decompose, within a reasonable length of time.

In the following formulæ I think we have overcome all these obstacles and have an anæsthetic that is safe and can be used in all pathological conditions of the gums without any bad after effects, if used with anti-septic precautions and ordinary skill.

OBTUNDENT FORMULAE.

No. 1.

R	Cocaine hydrochlor	20 gr.
	Atropine sulphate	3-10 gr.
	Chloral hydrate	20 gr.
	Phenoresorcine	1/2 dr.
	Aqua cinnamon	4 oz.

No. 2.

R	Cocaine hydrochlor	40 gr.
	Atropine sulphate	3-10 gr.
	Chloral hydrate	20 gr.
	Phenoresorcine	1/2 dr.
	Aqua cinnamon	4 oz.

No. 3.

R	Cocaine hydrochlor	1 dr.
	Atropine sulphate	3-10 gr.
	Chloral hydrate	20 gr.
	Phenoresorcine	1/2 dr.
	Aqua cinnamon	4 oz.

No. 4.

R	Cocaine hydrochlor	80 gr.
	Atropine sulphate	3-10 gr.
	Chloral hydrate	20 gr.
	Phenoresorcine	1/2 dr.
	Aqua cinnamon	4 oz.

Mix and filter through absorbent cotton until clear.

The above formulæ represents at one, two, three and four per cent. solution. For all general purposes, I use formula No. 3. In having these formulæ compounded you should be sure and have it done by some one who is careful and competent and will see that the drugs are fresh and pure, and from a reputable house, of which Merck's is preferable. The question naturally arises, why the above formulæ have any advantage over a common cocaine solution?

Atropine given in small doses, as in this formula, is a cardiac, respiratory and spinal stimulant, and tends to counteract the effects of the cocaine more than any other remedy we possess. By the term phenoresorcine is meant by Riverdine, a mixture of carbolic acid and resorcine, sixty-seven parts of the former and thirty-three of the latter. This mixture crystallizes on cooling and by the addition of ten per cent. of water (which is always used in the above formulæ as follows):

R	Carbolic acid	67 parts
	Resorcine	33 parts
	Aqua	10 parts

The above formula mixes with water in all proportions, combining the virtues of both remedies.

Phenoresorcine is not only an efficient and valuable antiseptic and local anæsthetic, but is indispensable in localizing the anæsthesia, and preventing its constitutional absorption, it was also discovered by laryngologists if used in conjunction with cocaine, it alleviated the nausea which sometimes follows the use of that drug. Phenoresorcine is also one of the most valuable remedies we could select to preserve the preparation. While a common cocaine solution is almost worthless at the end of a week, this preserves the preparations for months. Chloral hydrate, like phenoresorcine has a marked antiseptic and local anæsthetic effect, and also assists the other remedies in localizing the anæsthesia and prevents its absorption

into the general circulation. Aqua cinnamon as used in these formulæ is composed as follows:

R	Oil of cinnamon	.....6 drops
	Glycerine	.....1 dr.
	Aqua distilled	.....4 oz.

Mix and filter through absorbent cotton until clear.

This makes an aromatic solution which disguises the odor of the phenoresorcine. It also assists in preserving the preparation.

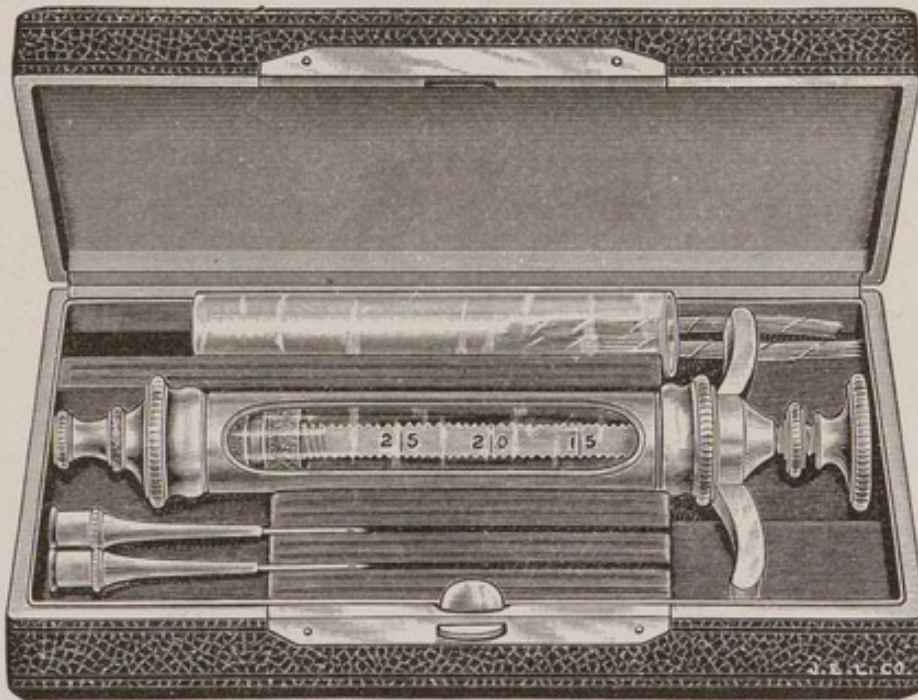
HYPODERMIC SYRINGE AND NEEDLES.

The syringe for this kind of work should have a strong broad cross bar, or finger brace, also a large flat piston head so that by continual use it will not make the fingers sore. The piston stem should have a minim graduate, or scale, and an easy working nut on the same (for we can best regulate the use of our medicine with this nut.) The diameter of the glass cylinder should be quite small, so that you may run up a high pressure when required. Never use a syringe that holds over thirty minims, as larger ones take up too much room when operating. The metal frame work holding the glass cylinder should be open on both sides so that you can have a clear view of the contents of the syringe, and know that it contains no air or floating matter when operating.

The needle should be of medium size, about twenty-two- twenty-three or twenty-four standard wire gauge is the proper size. When the syringe is not in use, put a wire previously dipped in olive oil through the needle, and screw the cap on the syringe tight; this keeps the needle from rusting and getting stopped up and the packing of the syringe from drying out. If you are not using the syringe continually, you should oil the cylinder occasionally and always keep it in working order, and ready for use. Before using the syringe again, be sure that it has been disinfected and is in a thoroughly antiseptic condition. Never use a rusty needle, or one that has a

blunt, or rough edge. They always cause more or less irritation. One of the best things to sharpen a needle on, is a common honing stone.

The accompanying cut represents the kind of syringe to be used when operating with local anæsthetics: 1. Piston head. 2 A 30 minim graduated piston stem with scale. 3. Nut which is set for about two minims, sufficient to inject one side of a molar. 4. Finger brace. 5. Metal frame work supporting glass cylinder. 6. Glass cylinder.



SYRINGE AND CASE DESIGNED FOR DENTAL OPERATIONS.

7. Plunger with oil chamber. 8. Needle. 9. Cap to be applied when syringe is not in use. If your needle should get stopped up, so that you cannot get a wire through, but can force water through, put a drop of sulphuric or hydrochloric acid in the funnel end of the needle, and blow until it shows at the point, allow it to remain this way a little while, they try to get the wire through; should you fail, try the acid preparation again until you succeed and then rinse the needle and syringe thoroughly.

TO FILL THE SYRINGE.

With the medicine screw the needle on tightly (never remove the needle to fill the syringe.) Insert the needle in the anæsthetic until it has been thoroughly immersed

then slowly draw the piston back until you get all the medicine you can in the syringe. Adjust the needle upwards and make sufficient pressure on the piston to force all the air out of the syringe and needle; in this way you obviate the danger of injecting air into the tissues. Before operating make a swab by winding some absorbent

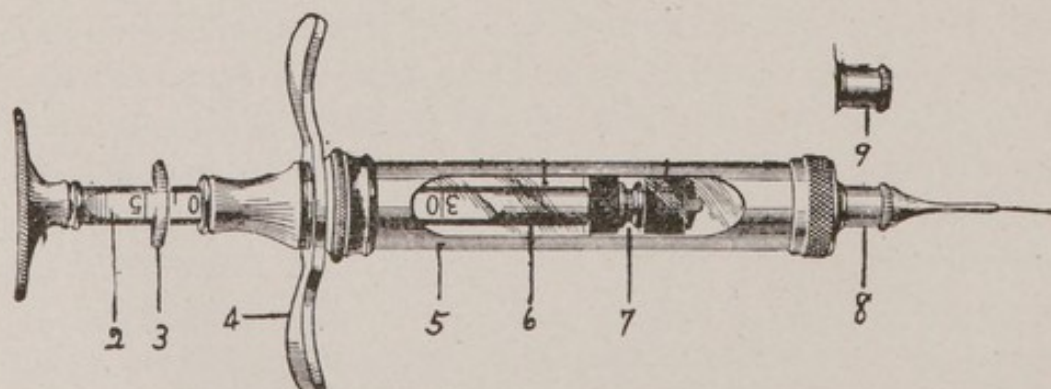


ANTISEPTIC SWAB—ONE-HALF SIZE.

cotton around the point of a pair of pliers. ((See cut.) Dip this into an antiseptic solution of which listerine is one of the best for this purpose, and bathe the gums thoroughly around the teeth to be operated on. This makes the operation thoroughly antiseptic, providing you have kept your syringe aseptic.

THE GUMS.

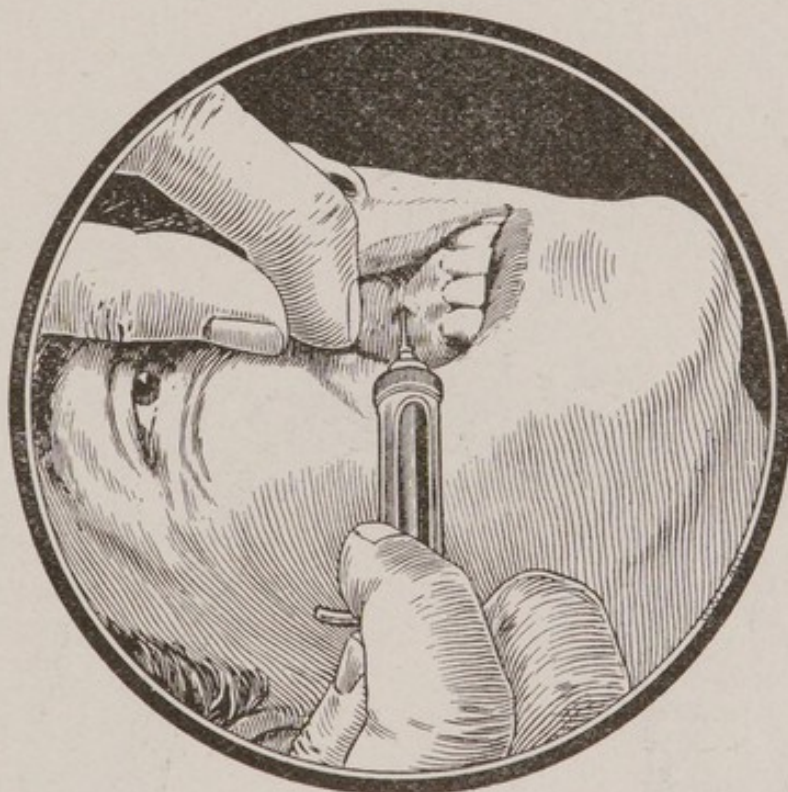
To be operated on by the use of local anæsthetics can be divided in three classes, viz.: Firm, spongy and diseased. The firm gums are the most favorable of all for the use of local anæsthetics, inasmuch as they retain the medicine in place a greater length of time, and lessen



REGULAR DENTAL SYRINGE—TWO-THIRDS SIZE.

the constitutional absorption. You will find it requires a greater degree of pressure to force the medicine in firm gums than it does where they are spongy, and generally

a sac will form where the medicine has been injected which should always be spread by the antiseptic swab. Spongy gums are much more treacherous than firm gums, and if you do not watch them carefully after withdrawing the needle the medicine will escape, and you will not get the desired effect. Hence, after withdrawing the



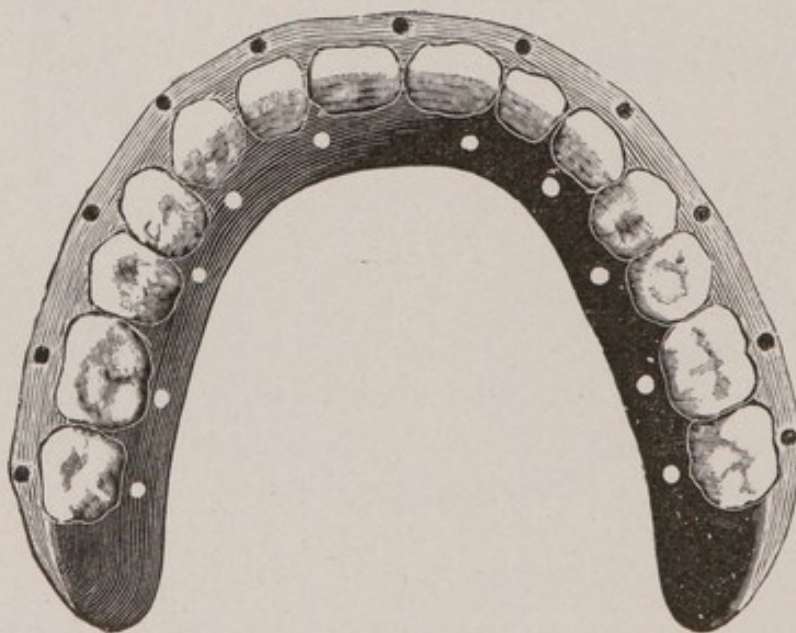
METHOD OF INSERTING THE NEEDLE.

needle, apply the antiseptic swab and scatter the medicine immediately. Ulcerated and diseased gums are almost invariably spongy and should always be treated as such, and carry out the antiseptic method of treatment more thoroughly by using listerine freely. Should there be an abscess I always open it freely and inject peroxide of hydrogen.

Swelling of the gums will follow the use of local anæsthetics in a certain per cent. of operations, which seems unavoidable, especially if the gums are diseased. The difficulty subsides in a few days, and leaves the gums in a perfectly healthy condition.

TO INSERT THE NEEDLE.

Insert the needle about one-tenth of an inch above or below the gum margin, as the case may be. Do not try to insert the needle between the gum and the tooth at its margin (a mistake made by many operators,) as you are quite sure to insert some debris which generally accumulates at the margin, along with the needle, which always causes more or less irritation. To insert the needle with but little pain, put the flat side of the needle on the gums and just make sufficient pressure to catch the needle under the gum tissue, and as you push the needle in on a line with the roots, force the medicine ahead of the needle until you have reached a depth cor-



The dots in the above cut represents where the needle should be inserted for a complete operation.

responding with the length of the roots; withdraw the needle and make sufficient pressure on the outside surface with the antiseptic swab to scatter the medicine and hasten its absorption by the alveolus. A similar treatment should then be made on the opposite side of the tooth and extract immediately. I never exceed waiting over one minute after rubbing the gums with the antiseptic swab. In this way you liberate a large portion of the medicine, hence more can be used for this purpose than where it gets access to the general circulation. Regulate

the amount of medicine used at each injection by the nut on the graduated piston stem. In this way you do not have to watch the syringe to see how much medicine you are using at each injection, but you know when the nut on the piston stem comes in contact with the syringe, just how much medicine has been used.

THE AMOUNT OF MEDICINE USED.

In preparing teeth varies according to the teeth being prepared for operation. Molars and canines require more medicine than incisors and bicuspidés. It also requires more medicine to prepare a single tooth than it would a number located together. For instance, if I were to prepare a single molar I would use from two to two and one-half minims on each side of the tooth, where if I was to prepare a number of molars located together I would use from one and one-half to two minims on each side. In preparing the four incisors at once, I make five injections, two on the lingual and three on the labial side, using about one and one-half or two minims at each injection. In preparing any single tooth, all molars and canines always inject on each side of the tooth. The reason it does not take as many injections on the lingual side as it does on the labial is, the space is more compact and the tissues more dense, and you can spread the medicine at your will with an antiseptic swab, which I always hold in my left hand when preparing the teeth. The accompanying cut will show about where to insert the medicine for a complete operation. The dots representing about where the needle should be inserted. It will require a little experience to become skilled in manipulating the syringe and needle, and the more you operate, the less medicine you will use, as it requires a little practice to learn where the medicine will do the most good. While I claim that the use of these anæsthetics when carefully administered are perfectly harmless, at the same time I insist that they be properly used. Dentists generally think if they cannot inject a whole mouth full of a local anæsthetic into a patient's gums at once, the anæsthetic is at fault. Experi-

ence with the use of these formulæ in over sixty thousand different operations by myself and others under my observation, convinces me, that they are the safest and best in use, and, if handled with one-fourth the skill other anæsthetics are, you would never hear of any bad effects resulting from their use. It is not the use of a medicine but the abuse of it, that makes people condemn it. In carefully looking up the records of the use of local anæsthetics, I am not able to report a single death caused by their use. If a patient presented himself for you to administer chloroform, you wouldn't commence by pouring one or two ounces of the drug on a napkin for inhalation, but would begin gradually, the same method should be observed in using local anæsthetics. Instead of injecting a patient's gum full of the anæsthetic the first thing, carefully prepare one or two teeth, and operate in this way. If the operation is painless and successful, you get the patient's confidence, and he loses all fear of proceeding farther. Always allow a few minutes (from five to fifteen) after each operation for the patient to rinse his mouth and the gums, to stop bleeding. Then prepare three or four more, allowing sufficient time after each operation for the patient to rinse his mouth, and his gums stop bleeding. If your patient gets impatient, tell him you cannot operate while his gums are bleeding; for the secret of safety and success is to allow sufficient time to intervene after each operation. I will admit I am a hundred times more reckless than the instructions given above, as I frequently prepare from ten to sixteen teeth at a time, but I am so accustomed to its use, and can judge the temperament of a patient so well that I am perfectly safe in doing so, and the above instructions are laid down for operators with less experience and it is always best to be on the safe side.

Should you ever make such a mistake as to inject the gums full of the medicine at once and the patient should complain of feeling faint, sick at his stomach, etc., extract immediately, and this will liberate a large portion of the anæsthetic, also give the patient a liberal supply of good liquor (preferably brandy), and they will gen-

erally feel all right in a few minutes; but do not continue the operation until the patient tells you he feels better and is ready to proceed.

If stronger stimulants are required, aromatic spirits of ammonia and amyl nitrate may be used to good advantage.

YOUR SUCCESS.

There has been much said of late in current literature regarding sloughing gums and disastrous after effects following the use of local anaesthetics, and they do not understand why one dentist can handle a local anaesthetic successfully and another cannot. Many dentists will secure some nostrum, allow it to stand around the office for three or four months exposed to the heat and light until it decomposes and loses its strength, throw their syringe into a box, allow it to corrode, dry up, and the needle get rusty, and when a patient presents himself he gets the benefit by having some decomposed medicine injected in his gums through a corroded and rusty syringe and needle. The patient complains that the operation has been painful (and he ought to): He will probably return in a few days with his face swollen badly and you might find an abscess where the needle was inserted to add to the patient's misery.

There is always a right and a wrong way for everything, and if the operator will follow the instructions given and observe the following "pointers" I will assure him that he will be successful while his competitors are not: First—Always operate under antiseptic precautions by using listerine or some other antiseptic freely. Second—Never allow your syringe and needle to corrode, dry up and become rusty, but always keep it aseptic and in working order. Third—Never get in a hurry, but give the patient plenty of time to rinse his mouth, etc. Fourth—Always operate more slowly on weak, nervous and sickly people, than you would on the robust. Fifth—Be sure that the medicine has been inserted in the gum and not squirted in the mouth, as the medicine that gets into the mouth is what causes the patient to complain of sore

throat, stiff tongue, faint, sick at stomach, etc. Never operate without having liquor at hand that no needed stimulation may be delayed.

SECRET NOSTRUMS AND NEW PREPARATIONS.

It has seemed to be the sole ambition of the nostrum venders to formulate a local anæsthetic without the use of cocaine, and with this aim in view, some of them have extolled the virtues of many familiar preparations, such as Aristol, Listerine, etc. While others who have wished to make their "wonderful discoveries" more mysterious, have attributed them to some foreign country, and now we have offered us "The Hindoo Anæsthetic" and the "Brazilian Anæsthetic" (Dorsenia,) and many others, all of which are claimed to be a reliable substitute for cocaine, and free from its disadvantages.

On the other hand, there has been many legitimate products offered which are entitled to all the credit given them by their manufacturers. Most prominent among these may be mentioned eucaine, tropo-cocaine and chlore-tone. I have used these remedies quite extensively, but do not believe that their action can be compared with cocaine, which in my opinion is par excellence as a local anæsthetic. There has been several secret preparations analyzed to determine the percentage of cocaine, which I will give and also the published formulæ of several advertised dentrifices.

ODONTUNDER.

A. W. Diack, D.D.S., in the Medical World, gives the following for the above named much advertised local anæsthetic. He says the following has been given me as (approximately) the correct analysis of the compound:

R	Carbolic acid	1½ dr.
	Tinct. iodine	1½ dr.
	Potassium iodide	1 dr.
	Glycerine	2 oz.
	Aqua	2½ oz.
	Cocaine, about	34 gr.

Charles M. Kerr, M.D., writes that he made an analysis of a similar compound called

ANÆSTHETINE.

With the following results.

R	Cocaine	.....4 per cent. solution
	Boracic acid	.....quantity not estimated
	Creasote	.....quantity not estimated
	Glycerine	.....quantity not estimated

DENS ANTI POENA.

The following is the result of an analysis of the above named compound made in Frederick Stearns & Co. laboratory. The examination was made to find the per cent. of cocaine with the following results:

R	Cocaine	.....about 2 per cent.
	Chloral	.....per cent. not estimated
	Carbolic acid	.....per cent. not estimated
	Cinnamon	.....per cent. not estimated

PARSONS' LOCAL ANÆSTHETIC.

R	Chloroform	.....12 parts
	Tinct. aconite	.....12 parts
	Tinct. capsicum	.....4 parts
	Tinct. pyrethrum	.....2 parts
	Oil cloves	.....2 parts
	Camphor	.....2 parts

Dissolve the camphor in the chloroform, then add the oil of cloves, and then the tinctures. The venerable Dr. Parsons, in sending this formula for publication says: "I cannot expect to remain much longer in this world, and I want the profession to know the value of this local anæsthetic."

ODONTODOL.

R	Cocaine hydrochlorate	.....1 part
	Oil of cherry laurel	.....1 part
	Tincture of arnica	.....10 parts
	Solution of ammonia acetate	.....30 parts

JESSOP'S ANÆSTHETIC.

- R Cocaine hydrochlorate2.63 per cent.
 Carbolie acidper cent. not estimated
 Oil of roseper cent. not estimated
 Aquaq. s.

DICKSON'S ANÆSTHETIC.

- R Cocaine hydrochlorate3.90 per cent.
 Carbolie acidper cent. not estimated
 Chloral hydrateper cent. not estimated
 Aqua, distilledq. s.

DORSENIA.

- R Cocaine hydrochlorate0.20 per cent.
 Carbolie acidper cent. not estimated
 Camphorper cent. not estimated
 Alcoholper cent. not estimated
 Aquaq. s.

WEINMANN'S ANÆSTHETIC.

- R Cocaine hydrochlorate5.68 per cent.
 Aristolper cent. not estimated
 Oil of peppermint ...per cent. not estimated
 Br. coloring matter ..per cent. not estimated
 Alcoholper cent. not estimated
 Aquaq. s.

DENTAL SURPRISE.

- R Cocaine hydrochlorate1.46 per cent.
 Carbolie acidper cent. not estimated
 Aquaq. s.

ANÆSTHETO OBTUNDENT.

R	Cocaine hydrochlorate	.....3.39 per cent.
	Carbolic acid	.....per cent. not estimated
	Camphor	.....per cent. not estimated
	Glycerine	.....per cent. not estimated
	Oil of cinnamon	.....per cent. not estimated
	Oil of citranella	.....per cent. not estimated
	Alcohol	.....per. cent not estimated
	Aqua	.....q. s.

ODOLGINE.

R	Cocaine	.....21 gr.
	Tincture of iodine	..... 9 min.
	Potassium iodide	..... 2 gr.
	Carbolic acid	..... 6 min.
	Witch hazel	..... 1 oz.
	Glycerine	..... 1 oz.
	Aqua	..... 3 oz.

BARR'S ANÆSTHETIC.

R	Alcohol	.....per cent. not estimated
	Oil of peppermint	...per cent. not estimated
	Oil of cloves	.....per cent. not estimated

EUREKA ANÆSTHETIC.

R	Cocaine hydrochlorate	.....3.26 per cent.
	Carbolic acid	.....per cent. not estimated
	Oil of Rose	.....per cent. not estimated
	Aqua	.....q. s.

AROPHENE.

R	Cocaine hydrochlorate	.....1.46 per cent.
	Carbolic acid	.....per cent. not estimated
	Chloral hydrate	.....per cent. not estimated
	Glycerine	.....per cent. not estimated
	Oil of rose	.....per cent. not estimated
	Alcohol	.....per cent. not estimated
	Aqua distilled	.....q. s.

DENTIFRICES.**REID'S ANTISEPTIC LIQUID DENTIFRIC.**

R	Thymol	2 gr.
	Carbolic acid	5 drops
	Oil of sassafras	8 drops
	Oil of wintergreen	8 drops
	Oil of rose geranium (Turk)	8 drops
	Oil eucalyptus	3 drops
	Oil calamus	5 drops
	Oil pinus pumilio	20 drops
	Glycerine	2 oz.
	Alcohol	4½ oz.
	White castile soap	2 dr.
	Dist. water q. s. to	16 oz.
	Calcium phosphate	q. s.
	Caramel	
	Tinct. cudbear	aa. q s. to color

Dissolve the soap in five ounces of warm water. Dissolve the acid and oils in the alcohol and add to the soap solution. Filter through paper containing a small quantity of calcium phosphate. Add glycerine.

VAN BUSKIRK'S SOZODONT.

R	White soap (powdered)	1½ dr.
	Alcohol	1 oz.
	Aqua	6 dr.
	Glycerine	2 dr.
	Oil of peppermint	
	Oil of cloves	
	Oil of wintergreen	q. s.
	Powdered cochineal	q. s. to color

FRAGRANT SOZODONT POWDER.

R	Calcis precipitate	1 oz.
	Magnesii carbonatis	1 oz.
	Iridis florent radicis	1 oz.
	Triturate.	

RUSHMERE LIQUID DENTIFRICE.

℞ Soap bark ground.....	2 oz.
Glycerine	1½ oz.
Salicylate sodium	2 dr.
Oil bergamot	½ dr.
Oil wintergreen	½ dr.
Oil cloves	10 drops
Alcohol	1 oz.
Solution carmine (N. F.)	q. s.
Dilute alcohol, to make	16 fl. oz.

Macerate the soap bark with the diluted alcohol and glycerine, then percolate. To the percolate add the oils dissolved in the alcohol. To this add the salicylate of sodium and sufficient solution of carmine to color. Shake thoroughly and filter through wetted talcum, returning first portion to the filtrate until it runs clear and add enough to dilute alcohol through the filter to make the measure one pint.

CALDER'S SAPONACEOUS DENTINE.

℞ Calcium carbonate	59 per cent.
Soap	44 per cent.
Oil of wintergreen	sufficient to flavor

ROSE DENTOLINE.

℞ Quillaja, coarse powder	2 oz.
Glycerine	2 oz.
Cologne spirits	8 oz.
Rose water	2 pts.
Solution carmine	3 dr.
Essence vanilla	½ oz.
Oil wintergreen	30 drops
Oil cloves	10 drops

Dissolve the oils and essence in the spirits, add the rose water, and in the whole digest the quillaja for two weeks, shaking occasionally. Finally add the glycerine and coloring solution and filter.

The carmine solution is made by rubbing one dram carmine with one-half ounce aqua ammonia till dissolved, then add three and one-half ounces water.

BROWN'S CAMPHORATED SAPONACEOUS DENTINE.

R Calcium carbonate71 per cent.
Soap
Camphoraa. 29 per cent.

The Hypnotic Specialist

The medical profession of this country have never seemed to study the phenomena of hypnotism as our medical brothers across the water have. Although it is a subject that interests the statesman, the scientist, the professional man and the layman alike, it is discussed by a few only, and is marveled at by the many.

Showmen and charlatans have endeavored to hold the world at bay regarding its secrets by teaching the people that they were in possession of a gifted mystic power.

While the phenomena of hypnotism are beyond the scope of this book, I feel that I would be neglecting a very important subject if I did not divert it of the supernatural and explain how it is done.

If there is any class of people who should acquire a knowledge of hypnotism, it is the medical profession, for in their hands, it will find its greatest field of usefulness as a healing agent and sociological factor.

In the following pages, I will endeavor to give, in brief, the history of hypnotism; the different methods of producing the hypnotic state; hypnotism as a curative agent, etc. This may seem very simple to you. It is simple and by following the instructions, and with a little practice, you can produce all the different phenomena of hypnotism, as well as other operators. Every physician should at least be familiar with the subject, if he does not practice it.

THE HISTORY OF HYPNOTISM.

It is almost impossible to realize what an important part hypnotism has played in the political and religious histories of the world. It has made prophets and seers

of old, witches and wizards at the beginning of the last century, and all kinds and conditions of religious fanatics of our present day. The laying on of hands, the absent treatment and other methods used by the modern divine healers (?) were practiced by the Egyptians before the year 1552 B. C. It is also known that Francis I., of France, and other French kings up to Charles X., practiced the art of healing by the imposition of hands. Another system was presented at the end of the middle ages, which developed out of the doctrine of the influence the moon and stars had upon men, which is well known to be practiced by astrologers at the present day.

In the beginning of the eighteenth century, we find Santanelli in Italy, recognizing the great influence of imagination and advancing the theory that every thing material possesses a radiating atmosphere which operates magnetically. Although the foundation of "animal magnetism" was thus laid, universal attention was first drawn to it by Mesmer (from whom the name mesmerism developed), a Viennese doctor (1734-1815). Mesmer used animal magnetism in the treatment of diseases. He cured, at first, by contact, but believed later that different objects of wood, glass, iron, etc., were capable of receiving the magnetism, consequently he made use of them as a means of conveying his magnetism.

Mesmer made many disciples. His pupils and successors were generally called Mesmerists, and the doctrine of animal magnetism was also called mesmerism, vital magnetism, bio-magnetism. These practices flourished and gained a strong foothold all through Europe.

Mesmerism was introduced in Manchester, England, in 1841, when Dr. Braid, of that city, became interested in the subject and showed with much method that the phenomena were of a subjective nature. By carefully fixing the eyes upon a given object, it induced a condition of sleep which he called "hypnotism," which was the origin of that term.

A few years later, Dr. Braid came to America and introduced hypnotism in New Orleans, which was its chief center for many years.

In the year 1878 Dr. Charcot, of Paris, France, began his public classes, in which he directed attention to the physical states of hystero-epileptics during hypnosis. Later hypnotism was introduced by Prof. Bernheim, in the second Medical College of France, at Nancy. This created a contest between the school of Charcot, and that of Nancy, which is not yet entirely settled. The latter, however, has gained ground more and more.

At the present time hypnotism has gained its entrance into the lecture rooms of several universities and medical



CHARCOT'S CLINIC, PARIS, FRANCE.

colleges, both in Europe and America; therefore it must be mentioned that animal magnetism, out of which hypnotism has developed, has retained many adherents in the scientific world, and today, we can recognize three great schools with many points of transition: First, the school of Charcot; second, the school of Nancy, and third, the school of Mesmerists.

METHOD OF INDUCING HYPNOTISM.

There are several ways of producing the hypnotic condition, but for convenience, I will divide them into

only three ways: First, the mesmeric method, which is the system used at most public exhibitions, and I believe the easiest way to induce hypnosis; second, the so-called mental method, and third, the fascination method. It is these methods, used either singly or combined, that Charcot, Bernheim, Feré, Braid, Regnard, Preyer, Dumont and all others used.

Hypnotists of international reputation are using the mesmeric method. I consider this method the easiest and most practical way of producing hypnosis. The first thing to accomplish, is the concentration of thought in the subject. Require him to sit down; give him a coin or some other article, tell him to look steadfastly at it and not take his eye from it, and think of nothing else except the article you hand him. By watching the subject carefully, you can tell whether or not his mind is upon the object. If you think his mind is not wandering, approach him and suggest that his eyelids are growing heavy, that it is impossible for him to keep his eyes open. Have him close his eyes and make passes from the head to the knees (the mesmeric passes). Now suggest that his eyelids have grown together, and it is impossible for him to open his eyes. Have him try hard (he will try, but in vain). Place his hands upon his knees and tell him that he cannot remove them. He will try, fail to do so. Keep up the passes and suggest that he is now going to sleep, sound asleep; that his mind is a blank; he can no longer think of anything, but will remain sound asleep until you tell him to wake up. If your subject is susceptible to the hypnotic influence, he will sit before you in a complete state of hypnosis, and ready for any suggestions you may offer. You may tell him he is a horse, broom, or thrashing machine, and he will believe it and act his part well. In order that I may give you a clearer idea of the phenomena of this mystic power, I will tell you my first experience as a hypnotist. I was attending a medical convention in Cincinnati, and some of the physicians, with whom I was stopping, requested me to join them in a theatre party, to attend a performance given by a lady hypnotist. I consented to do so, and watched her perform

very attentively. She used the same method as described above. On arriving at our hotel, after the performance, we entered into a discussion regarding hypnotism, and I stated that I believed that if that lady could produce the hypnotic condition, I could, for I could see nothing supernatural about her, and I really had more confidence in my own ability than in hers. This self-confidence and positiveness, I afterwards learned, is one of the chief requisits for a successful hypnotist. To be brief, the physicians present volunteered to supply me with the subjects if I would hypnotize them. This was agreed to, and they presented me with three persons, two ladies and a young man. I seated them and handed each a coin, requesting them to concentrate their thoughts on that one thing and to think of nothing else. They took the matter seriously and followed my instructions. Presently, I approached one of the ladies and told her that her eyes were getting tired and advised her to close them. I then commenced to make passes from her head to her knees. I suggested that her eyelids had grown fast and she could not open them. I told her to try hard, and she did, but in vain. She was perfectly conscious, but could not get her eyes open. I then assured her that she had grown fast to the chair and could not get up. She tried, but failed. I then told her that I was going to give her a magnetic treatment, and make a few passes over her body and she would go fast asleep. I commenced to make the passes and at the same time to suggest "You are going to sleep now, fast asleep," etc., and in a few moments she sat before me in as complete a state of hypnosis as one would wish for. You may imagine my surprise. To tell the truth, I was somewhat confused, for I had never studied hypnotism, and did not know the first principle of it; in fact, I did not know whether or not I could awaken her, but I slapped my hands loudly in front of her face, and said "Wide awake," and she immediately opened her eyes and smiled, which was, I assure you, a great relief to me.

I next tried the young man. I could place him in a condition in which he could not open his eyes, but could go no farther.

The other young lady I could do nothing with.

I cite this experience to show you how simple the subject is, and when you make your first efforts in that line, you will, no doubt, be as much surprised at your success as I was. I had never read an article on the subject, and knew very little about it, except what I had seen the lady do that evening.

The mental method of inducing hypnosis is the method used at the school of Nancy, and is frequently referred to as the Nancy method. This is the most popular method in use throughout Europe. By its use the subject is thrown into a hypnotic state by arousing in his mind the image of sleep. This is more easily practiced on subjects who have previously been hypnotized. The following is the exact method proposed by Dr. Bernheim, and used at the college in Nancy, France: The person is advised to be seated and close his eyes. Then tell him: "You must try and go to sleep;" "think of nothing, but that you are to go to sleep." Leave him in this condition for a few seconds and then continue: "You are commencing to feel tired and sleepy all over your body;" "your arms and legs feel heavy;" "a feeling of drowsiness is now taking possession of your body;" "your head feels dull;" "your thoughts grow more confused;" "you can no longer resist, you are now sound asleep;" "You cannot open your eyes;" "your mind is a blank," etc. These mental suggestions are often all that is required to produce a complete state of hypnosis, and it is a very convenient way with some subjects. You can now ask him if he is asleep, and he will answer, "Yes." Ask him if he hears the band playing; he will say, "Yes." Tell him to open his eyes, and he will see a beautiful white horse. Place a chair in front of him for a horse. Tell him to get on the horse and take a ride. He will straddle the chair and attempt to ride. You can ask him what he sees while riding through this beautiful forest and he will describe very accurately some scene he has viewed in his life. You now have completely robbed the subject of his will by simply suggesting sleep. He is *en rapport* with you and you only.

The fascination method is induced by looking the subject straight in the eye. After you have done this for some time, take him by the arm and draw him away with you. Still keep your eyes fixed upon each other; then raise your arm and he will do the same; in fact, you can have him imitate any movement or position that you make as long as you keep your eyes fixed upon his, but as soon as you cease to look at him, the charm is broken. This method is demonstrated in lower animals. We have often seen snakes and cats charm birds. For all practical purposes it is used less than the other methods.

THINGS THAT PREVENT AND ENCOURAGE THE PRODUCTION OF HYPNOTISM.

When you are attempting to hypnotize a subject, you must insist that the place shall be kept quiet; disturbing noises of all kinds have a tendency to distract the attention and interfere with the mental condition required to induce the hypnotic-state. Have those who are present assume rather a serious mood and avoid all actions, either by word or gesture that will give any evidence of mistrust. Gain the confidence of those upon whom you operate. Endeavor to have perfect harmony in your presence. This, together with soft, sweet music and quietness, will assist you in establishing the results you desire from your efforts.

HOW TO AWAKEN FROM THE HYPNOTIC STATE.

There are as many ways of awakening a subject from the hypnotic state as there are of putting him into it. Crying out "Wide awake," or "All right," "Open your eyes," and slapping your hands loudly, or snapping your fingers in front of the subject's face is generally all that is required. They will also awaken if left alone, but this will take some time if they are in a deep state of hypnosis. If passes have been made downward, reverse them. You will never have any trouble in bringing your subject out of the hypnotic state.

HYPNOTISM AS A THERAPEUTIC AGENT.

In the foregoing paragraphs you were told how to induce the hypnotic state, and now we wish to know how its influence can be used as a curative agent, but before discussing its various applications, we wish to call your attention to the importance of the way in which you make suggestions.

A hypnotist must always be positive and firm, yet kind and gentle. Your subject must feel that you understand your business, and that you are master of the situation. You should make your suggestions in as concise and impressive a manner as possible. For instance, do not say, "Try to open your eyes; they are closed fast and it is impossible for you to open them," but say, "Your eyes are closed fast, you cannot open them, try hard."

The first suggestion you give is the first to be received by the subject, that is, in the first sentence, you told him to open his eyes, which he might do before you finish the balance of your suggestion. In the latter sentence you told him that his eyes were closed. This he receives and his efforts to open his eyes will fail.

There are a great many ways in which hypnotism can be applied to good advantage. It can produce either local or complete anæsthesia. Under its influence, Jules Cloquet removed a breast, and Dr. Loysel amputated a leg painlessly in the year 1845. Its influence is also used at the present time by hundreds of physicians in America and Europe for the treatment of certain diseases and in minor surgery. Teeth have been extracted, small tumors removed, the pain of neuralgia relieved, and it is applied to good advantage in various diseased conditions, which I will illustrate in the following cases:

Case 1—Mr. H., aged 23, applied to me to have an upper molar tooth extracted, and requested me to hypnotize him for the operation, as he was prejudiced against the use of local anæsthetics. I directed him to be seated; I had hypnotized him before and it was very easy to place him in a state of hypnosis, which I did. I told him, "I wish to extract a tooth for you which will be done with-

out pain. You must open your mouth wide," which he did without any hesitation. I then added, "Your mouth is now wide open, and it will be impossible for you to close it." I took this precaution to prevent his closing his jaws upon my fingers or the instruments. I now placed my thumb and finger on each side of the tooth and made heavy pressure, and said, "This tooth is perfectly dead now. The nerve has been killed and there will be no pain." I now loosened the gums from the alveolar process and removed the tooth. The patient still sat in the chair with his mouth open and face motionless. I now told him, "The tooth is out, close your mouth and spit out the blood." He did as I suggested, after which I slapped my hands in front of his face and added, "All right, wake up." He opened his eyes and said, "Did you get it, doctor?" He seemed surprised to find his mouth full of blood.

This is the usual method of producing all forms of local anæsthesia through hypnotism. If I were to remove a small tumor, I would carry out nearly the same method of suggestion, and stroke the part to be removed before operating upon it, and never forget to suggest that it will be done without pain.

SIMPLE SUGGESTION.

I do not wish to associate hypnotism with Christian science, but their modern operations are very much alike at times. Their principal therapeutic agent is suggestion, which will be illustrated in the following case:

In the early days of my medical career, I was treating a patient who had a fever. Her temperature was 104½. She was delirious and I had much difficulty in getting her to sleep. Various remedies were used, but with little effect. I invited an older brother practitioner to visit the case with me. On entering the room, we found that she had had a very little sleep in the last twenty-four hours, and was very nervous. The doctor was a kindly magnetic old soul, and after discussing the case briefly, he sat down beside the patient and gently stroked her forehead, and said, "I guess you can go to sleep now. Try hard. Think

you are going to sleep and you will sleep." He continued stroking her head for a few minutes and she fell into a beautiful sleep, which lasted four and one-half hours, and awakened feeling much refreshed.

This patient was not hypnotized, but she took the suggestion favorably. This demonstrates what simple suggestion will often do as a restorative agent if properly applied.

It is by this simple method of suggestive therapeutics, that the modern Christian scientists, faith cures, and divine healers, have claimed to achieve their great success, and, although its field of usefulness is limited, it is worthy of consideration in many cases, and can often be applied in the general practice of medicine. It might be well for me to add, however, that if I had told the good old doctor he was practicing hypnotism or Christian science in that case, he would have ceased to be my friend, for he was very skeptical on such subjects.

The following case is reported by Dr. Bernheim, and will illustrate the way hypnotism is applied at the school of Nancy, and the power it has over muscular rheumatism. The doctor says: "A child was brought to me with a pain like muscular rheumatism in the right arm, which dated back four or five days. The arm was painful to pressure; the child could not lift it to its head. I said to him, 'Shut your eyes and go to sleep,' I held his eyelids closed and went on talking to him, 'You are asleep and you will keep on sleeping until I awaken you. You are sleeping very well, as if you were in bed. You are perfectly well and comfortable. Your arms and legs and whole body are asleep, and you cannot move.' I took my fingers off his eyelids and they remained closed. I put his arms up and they remained so. Then touching the painful arm, I said; 'The pain has gone away; you will have no more pain; it will not come back any more.' In order to increase the force of suggestion by embodying it, so to speak, in a material sensation, I suggested a feeling of warmth. The heat took the place of pain. I said to the child, 'You feel that your arm is warm; the warmth increases and you have no pain.' I awakened the child in

a few minutes; he remembered nothing. The sleep had been profound. The pain had almost completely disappeared. The child lifted the arm easily to his head. I saw the father on the day following, and he told me that the pain had disappeared completely, and that there was no return of it."

The above case is interesting, for it illustrates the way in which painful disorders of every description will often yield like magic to the influence of hypnotism. Tooth-ache, neuralgia, dysmenorrhœa, headache and other affections of a nervous origin, may often be cured by placing the patient in a hypnotic state and stroking the parts, and suggesting that the pain has left, never to return. There are thousands of victims of the alcohol and drug habits that have been cured by hypnotism, while the great Charcot and his followers have used it with wonderful success in all diseases of the mind and the nervous system.

In conclusion, I will say that wherever hypnotism can be applied, it has a large field of usefulness. It is simple in practice and deep in theory. As yet no entirely satisfactory explanation has been made why this phenomena exists, but we know that it does exist, beyond a doubt, and today hypnotism holds a respected place in the scientific world. But its nature, like the nature of most other mental phenomena, is not understood, and to the medical practitioner who is wedded to drugs, a statement of the result obtained from the hypnotic influences may seem like the miracles of some ancient Oriental work.

I do not wish it understood as my belief that hypnotism will ever be the universal curative agent, the panacea for all ills, or that it will ever supplant the use of cocaine, chloroform, ether or gas as an anæsthetic for surgical purposes. My experience with hypnotism has been very limited, but I must confess that it has been rather satisfactory.

It is practical when it can be used, but on the other hand, it is impractical when we stop to consider that only about one in three can be hypnotized, and a smaller per-

centage cured by its use. I really believe that hypnotism has a bright future, and if this chapter has succeeded in merely throwing a small ray of light upon the subject and robbing it of its mysteries, I will feel that I have not wasted my efforts.

"God bless the man who first invented sleep!
So Sancho Panza said and so say I;
And bless him, also, that he didn't keep
His great discovery to himself, nor try
To make it—as the lucky fellow might—
A close monopoly by patent right."

—J. G. SAXE.

The Featural Specialist and Dermatologist

For many years the John H. Woodbury institutes seemed to monopolize this specialty. In late years, however, several members of the medical profession have entered this special field of practice and find it a very remunerative branch of the medical and surgical art. This specialty differs largely from the methods practiced by the so-called beauty specialists, inasmuch as it incorporates surgery of very minute detail, and many of the operations are of a very delicate nature, requiring extraordinary skill in their performance, as it will be remembered that all operations upon the face are performed with a view of removing the deformity, blemish or disease without leaving any mark, scar or trace of your work, and the surgeon who can accomplish results with the least detection is the one generally sought for.

The face being the most conspicuous part of the body, it is also the most subject to accident, leaving deformities and unsightly scars, which are of the most embarrassing nature. What defects cannot be traced to accident, Nature has seemed to select the face as the favorite place for disease and blemishes, thus we will see the face the favorite seat for moles, birthmarks, cancers, pimples, etc., while other parts of the body are by far less exempt. Physicians have greatly neglected the treatment of these deformities and blemishes, many thinking this part of medical or surgical practice beneath their dignity; others have given it so little thought that they are ignorant of the many simple methods of treatment used by the advertising Dermatologists. There is no special branch of medicine or surgery where patients are more grateful for skillful service than in the correction of deformities, or the removal of blemishes or diseases from the face.

By successfully treating these defects the physician not only receives the credit for his skill, but he will receive the life-long gratitude of his patients.

DEFORMITIES OF THE NOSE.

The nose is the most prominent part of the face and is likewise the more often subjected to injury and deformity. So universally recognized are the disadvantages of the crooked, ill shaped or deformed nose, in both a social and business way, that it becomes one of the most important duties of the featural specialist to maintain its conformity. It has been stated that ancient Persians will allow no man to sit upon the throne, who had a crooked or deformed nose, and children of the royal blood were accustomed to have their noses molded into perfect shape by eunuchs, who had charge of the royal offsprings.

From a surgical point of view nasal deformities may be divided into deformities which effect the bony structure, and deformities which effect the cartilagenous por-

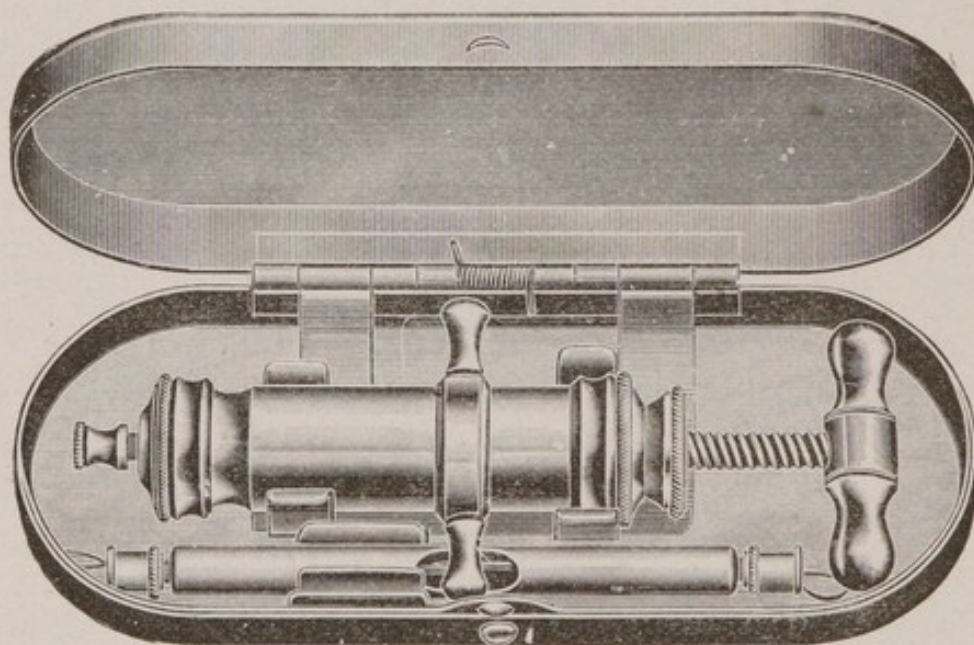


tions. These deformities may be congenital or acquired through accident or disease. The accompanying cut illustrates the deformities commonly met with, which vary in a greater or less degree. These deformities have been described as the convex, or Roman nose, concaved or saddle back nose, and the bulbous nose; we also find a nose with a depressed tip, due to destruction of the septum by disease, the too broad or narrow nose, etc. Each deformity presents characteristics which may require individual attention. One of the most common nasal deformities is the concaved or saddle back nose; the cause of these deformities are usually traced to accidents, from falls or blows, breaking down the bony structure. There

has been several methods of treatment devised for correcting these deformities. Some surgeons prefer to break up the old adhesion and replace the bony frame work; others have been treated with metallic plates. The easiest and I believe the most practical way in most cases, is to build out the concaved surface with paraffin, or as some specialists choose to call it, "neoplastic treatment." Neoplasine is another coined name for paraffin and consists of paraffin and sufficient white petrolatum to bring the melting point down to 110 degrees. Ordinary commercial paraffin generally has a melting point from 120 to 170 degrees, and in order to have the paraffin the right consistency, the white petrolatum is added and we have what the manufacturers call "an independent product" (neoplasine), which sells for a fancy price. The combination makes a perfectly inert substance, which, if thoroughly sterilized, can be injected into any living tissue, even the peritoneal cavity, without injury. After the paraffin has been injected and allowed to remain some time, it becomes incapsulated and there seems to be an inter-woven network of fibrous tissue which protects it in holding its conformity.

Neoplasine has a wide range of usefulness to the featural specialist other than the treatment of deformed nose. It has been found useful in building out a receding chin (see cut) and in filling in scars and indentures, as the result of alveolar and other abscesses. Some operators have even filled out hollow cheeks and neck with this injection. In order to use neoplasine successfully requires a special syringe, as illustrated; this syringe is made of metal with a screw piston, which allows more force and an even distribution of the neoplasine; this is a very important point as neoplasine injected with the ordinary hypodermic syringe is a very treacherous substance to handle, for it is impossible to regulate the force on the piston, and if you make a heavy pressure it will take a sudden spurt and you will inject too much and not in the place you intended to deposit it. When once deposited there is no way of removing it, other than dissecting it out, therefore in making the injection great caution

should be exercised in not injecting too much, or you may cause a greater deformity than the one you were treating. Another thing I have always observed with neoplasine injections is that the tissues injected are inclined

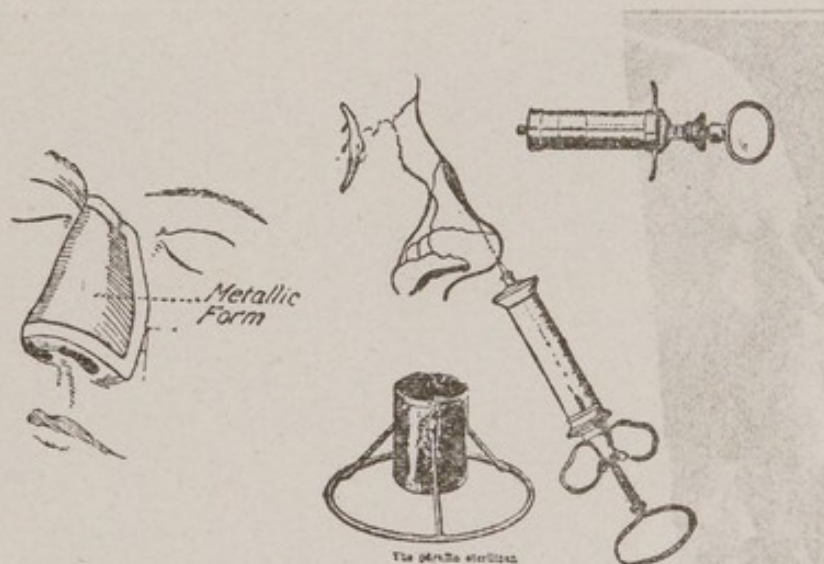


NEOPLASTIC SYRINGE AND NEEDLES.

to expand somewhat, therefore I never inject the full amount to level up the depressed surface, allowing from one-sixteenth to one-twentieth inch to be filled in by expansion of tissue. If it is necessary to make another injection to complete the operation this can be done later. In this way you will always avoid duplicating one deformity for the one you are treating. The only value neoplasine has in the treatment of deformities is to substitute neoplasine for destroyed or deficient tissue, thus we find it indispensable in adding contour to the face in many ways. It can be used successfully in building out a concaved nose or a receding chin, and to fill in depressions and indentures at any point desired. For this purpose it has the following advantages: It can be used without a general anæsthetic or any resulting scar; it will not detain the patient from business pursuits, and is easily applied with ordinary skill and under purely antiseptic surgical procedures; there will be no abscess or sloughing and the most gratifying results are obtained.

TECHNIQUE OF NEOPLASTIC OPERATIONS.

In order to successfully use neoplasine in subcutaneous operations it is absolutely necessary that both the syringe and neoplasine be rendered sterile and surgically clean. The neoplasine should be placed in a glass or metal receptacle, surrounded by water, and boiled. The syringe should also be boiled and devoid of all grease, as is sometimes found in ordinary syringes. While the neoplasine is still in a liquid state, the syringe should be filled; the point of the needle is pointed upwards and sufficient force applied to force all the air out of the needle. When you operate you can place the syringe, charged

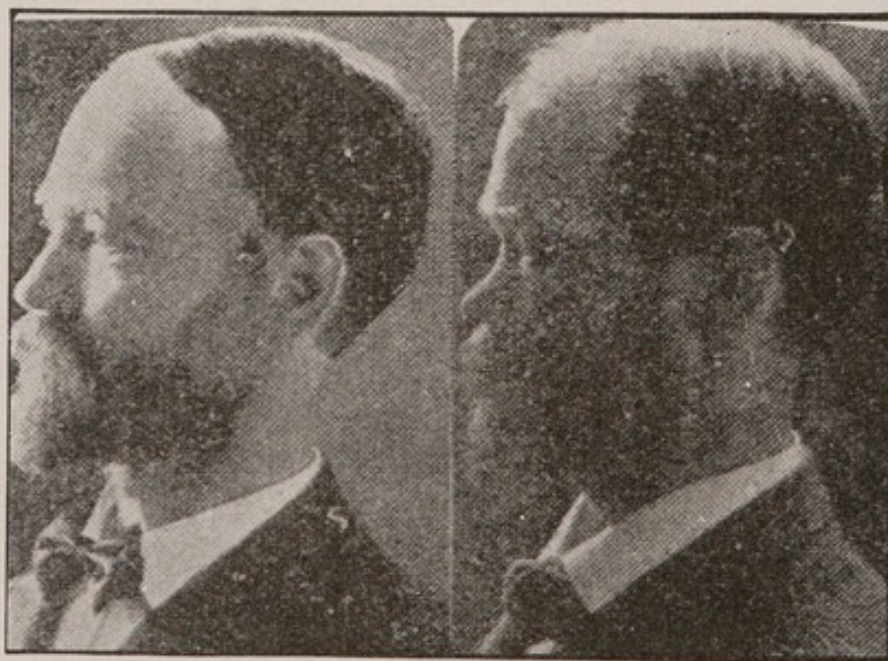


The above cut illustrates the method of Inserting the Needle, the Neoplasine Sterilizer and Syringe and the Application of a Metallic Form after Operation for Convex Nose.

with neoplasine, into warm water at about 120 degrees F. for a few minutes, or it can be injected in a semi-solid state at a temperature of about 111° degrees F. The latter method is preferred by many, as it avoids the danger of embolism, although I have never heard of this complication. A brief resume of the operation for a concaved nose is as follows: After thoroughly sterilizing the neoplasine and syringe, as just described, the surface to be operated upon can be anæsthezied with the obtundant solution No. 3, given on another page, but as a rule, I prefer to operate without an anæsthetic, as the anæsthetic injection has a tendency to distend the tissues somewhat,

and not allow you to judge as accurately the amount of neoplasine required to fill out the surface.

Injecting neoplasine without an anæsthetic is not painful, and is well borne by most patients. The needle is now inserted at a point of the nose to the furthest point of the deformity, and as the needle is withdrawn the screw on the piston stem is turned sufficiently to deposit the neoplasine required to fill in the concave surface; as the needle is withdrawn the fingers of the left hand molds the neoplasine to the proper shape and prevents it from entering places where it is not desired, and also



RESULTS OBTAINED FROM NEOPLASINE INJECTION FOR
CONCAVE NOSE.

smooths the surface to a normal contour. After the needle has been removed the point of entrance should be sealed with collodion, and cold applications of ice water may be applied for a few hours. There may be some swelling, but this will subside in a few days; the nose may also continue to be red for a week after the operation, but it will gradually resume its normal color.

Operations for a receding chin and other depressions are performed in a similar manner. In several cases scrawny necks and even female breasts have been built out by this means. Although this treatment has been

somewhat abused by over enthusiastic operators, it is practical when carefully and judiciously used, and offers

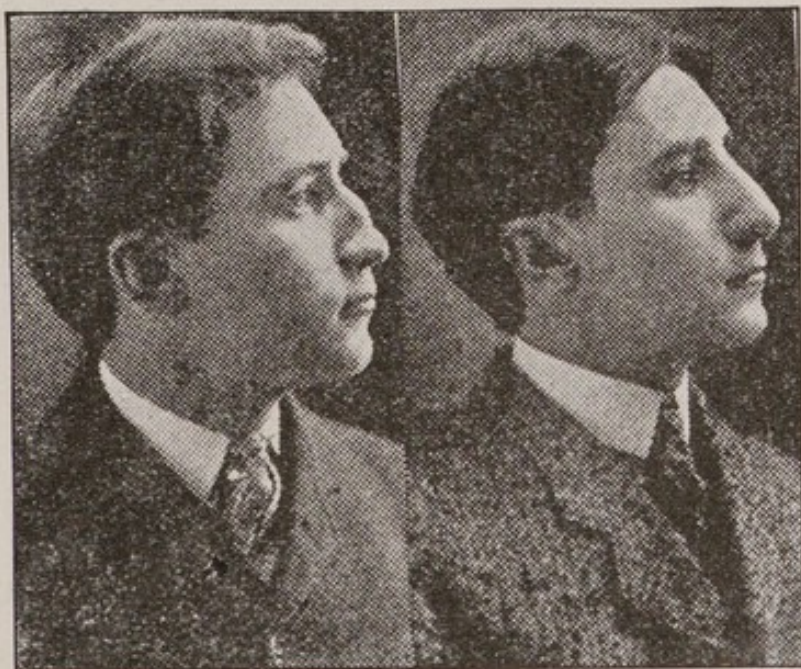


RESULTS OBTAINED FROM NEOPLASINE INJECTION FOR
RECEDING CHIN.

us one of the best means of treatment for many deformities.

OPERATION FOR ROMAN OR CONVEX NOSE.

The operation for this deformity is somewhat more difficult, and requires considerable surgical skill to ob-



RESULTS OBTAINED FROM NEOPLASINE INJECTION FOR
CONVEX NOSE.

tain success. In some cases the nose has been built out with neoplasine at different points to produce a straight

bridge, as illustrated in the accompanying cut. This is not a very practical operation, however, most cases require a complete and thorough removal of the projecting bony framework, and in order that you leave no mark or scar, the operation performed by Dr. J. O. Roe, of Rochester, N. Y., is the most desirable. As described by him the operation is as follows: "The skin is first raised from the projecting portion by incising the wall of the nose from the inside of the nostrils through to the inner side of the skin, great care being exercised not to wound the skin. The opening is then enlarged sufficiently to admit the instruments required, which may consist of bone scissors, Rongier forceps, a slender saw and such other instruments as may be necessary, according to the condition present. In removing the projecting portion great



RESULTS OBTAINED FROM DR. ROE'S SUB-CUTANEOUS OPERATION FOR CONVEX NOSE.

care must be exercised not to remove too much of the redundant tissue, lest a depression be left on the top of the nose, which may be more unsightly than the original deformity. This mistake more readily happens in those cases in which the upper portion of the nasal passage extends all the way up into the projecting portion. In these cases the nasal passage is very easily opened on removing the projecting angular portion. After this operation a compress is made by placing a piece of ad-

hesive plaster under a metallic form, so as to maintain symmetry throughout until healing takes place. This operation can be performed with less difficulty by making a lineal incision along the field of the operation and removing the tissues desired, but has the disadvantage of leaving a small scar. The scar tissue can be removed, however, by the different methods explained on another page.

THE BULBOUS NOSE.

The bulbous nose is generally found in drinking men in the form of a lipoma, and consists of an enlargement and thickening of the cartilaginous and cutaneous tissues. The operation required is to make a V-shaped incision at the point splitting the septum, and removing as much tissue on each side as is desired to make the nose the proper contour. Redundant tissue on the alæi nasi may be either dissected out or destroyed by electricity. This is also done with the operation for expanded nostrils. There are other nasal deformities, each requiring special mechanical surgery; the nose may be too narrow or too broad, or the tip tilted to one side, etc., which requires special mechanical devices to retain the nose in its normal position or the replacing or transformation of tissue. These conditions are not difficult to manage, if the surgeon is somewhat of a mechanical genius.

PROTRUDING EARS.

Protruding ears are pictured out by many featural specialists, as convincing evidence that Darwin's theory is correct, regarding the evolution of man, and arguments to this effect are used as a persuasive means of inducing the patient to have the "deformity corrected." Protruding ears can be corrected in two ways, first by removing the skin from the back surface of the ear and mastoid process, and uniting the denuded surfaces by means of sutures, after which an adhesive bandage is placed around the head, until healing takes place. Another way of oper-

ating is to remove cartilaginous portions of the ear. The incisions are made from behind, where the scar will be



RESULTS OBTAINED FROM OPERATION FOR PROTRUDING EARS.

less noticeable, and the adhesive bandage placed around the head, as in the former operations.

THE ENCORCHMENT TREATMENT.

There has never been a treatment devised which has found such a universal field of usefulness in the treatment of facial blemishes as that described in the above caption; on the other hand, this treatment has been greatly misused by ignorant beauty specialists, who possess little or no knowledge of the physiology of the skin, and the therapeutic application of this preparation, which they have endeavored to use as a sort of a panacea. This treatment has always been held in the greatest secrecy, and the "process" has changed hands several times, for many thousand dollars. If the applicant did not have sufficient cash to secure the working formula, he was supplied with the medicine only at a fancy price.

This treatment, it has been said, originated with a French surgeon, and at the present time is very extensively used in Paris, where beauty culture is in great demand. This treatment is far superior to the iodine plaster treatment used in this country, and is much more easily and painlessly applied. The original formula of this treatment was a paste containing equal parts of resorcin and zinc oxide, which was used as a treatment

for acne rosacea; it was later discovered that the treatment was of exceptional value in many other skin diseases and blemishes. The formula, as used today by some of the most successful Dermatologists, is as follows:

R	Salicylic acid	4 gr.
	Ichthyol	8 min.
	Zinc oxide c. p.	20 gr.
	Resorcin	80 gr.
	Lard	2 scr.
	Olive oil	16 min.

Triturate the Resorcin, Salicylate Acid and Zinc Oxide into a fine powder, then add and mix the other ingredients.

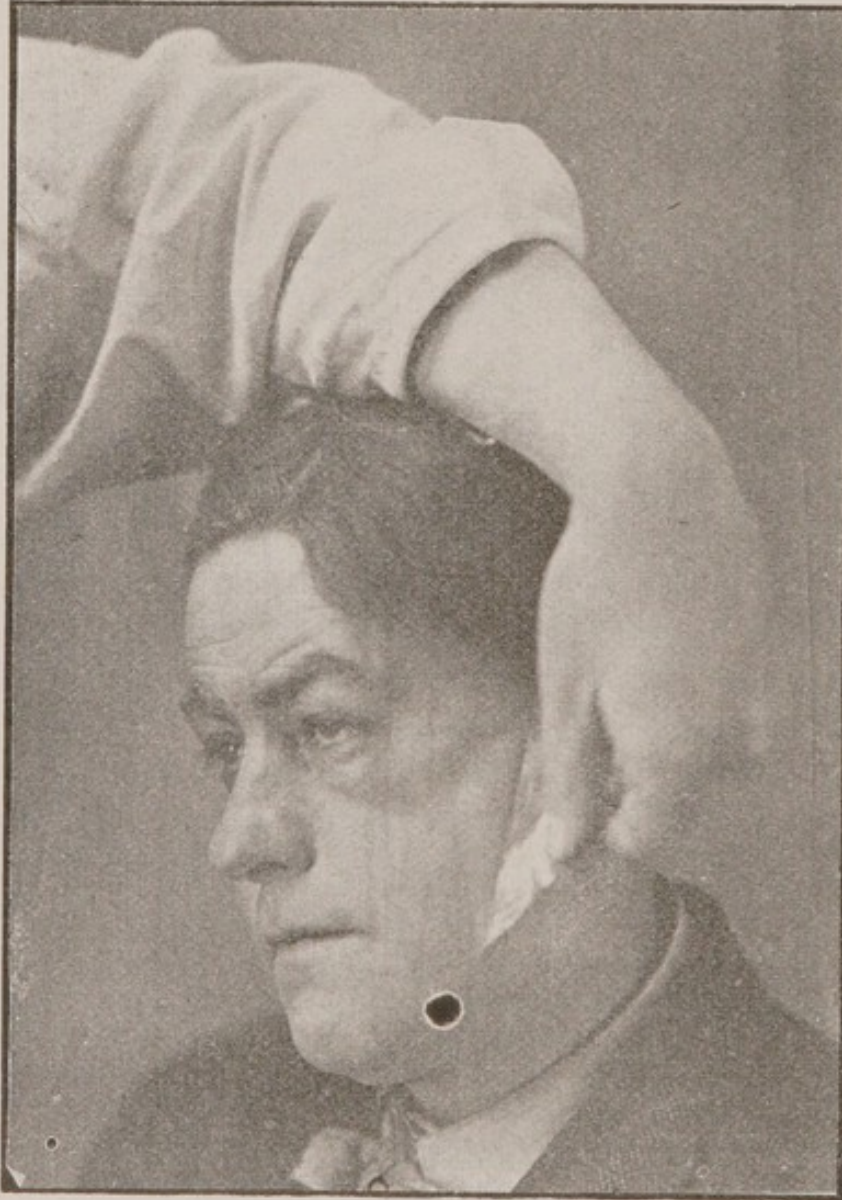
This preparation is applied to the diseased surface morning and night for about four or five days, when the epidermis becomes like parchment; the surface is now thoroughly cleansed with soap and warm water and the skin wiped dry in order to remove the superficial layer of skin. The surface is now painted with the following mixture:

R	Zinc oxide, c. p.	2 dr.
	White gelatin	4 oz.
	Glycerine	15 min.
	Aqua bullient	q. s.

Dissolve the gelatin with sufficient hot water and stir in the other ingredients while in a water bath.

This should be applied while hot to the surface you wish to remove, and covered with surgeon's gauze, and another coat applied over this. It is best to cut the gauze in small pieces, about one and one-half inches square, and apply one at a time. If you have a large surface to cover; in a few days the little pieces of gauze will work loose from the edges and can be picked off, leaving the new under skin exposed, taking the blemish or disease with the outer cuticle on the plaster you have removed. One of the greatest mistakes made by ignorant operators is they leave the plaster on too long.

I was recently visited by a lady who had this treatment applied in Buffalo, the face being left in a mask for one month before removing, and the result was that large abscesses had formed and made her last condition much worse than the first. While this is an exceptionally valu-



Illustrates Method of Peeling Skin With Encorchment Treatment.
Favorite Locations For Birthmarks.

able treatment it should be used with much caution and it is best to have the patient confined to the house and constantly under your observation. The object of the treatment is to remove the outer cuticle and take with it any disease, discoloration or blemish it may contain. It

is almost a specific for aena and certain forms of eczema, chloasma, or liver spots, tan, freckles and black heads,



RESULTS OBTAINED FROM ENCORCHMENT TREATMENT
FOR SMALLPOX PITS.

while small-pox pits and scars have been treated with a greater or less degree of success.

ELECTRICITY.

Electricity plays a very important and useful part in the treatment of facial diseases and blemishes, therefore before discussing the different treatments used in the removal of these diseased conditions, it is well to briefly outline the electrical equipment required. Nearly every physician is familiar with the use and technique of electricity and it will not be necessary to give the minute details of the construction of the electrical apparatus which produces this mystic therapeutic agent. Suffice to say that Dermatologists prefer for convenience a portable battery, containing from six to twelve cells, which is all the current required for their work. This simple equipment is all that is required to master the electrical treatments in facial blemishes. The method of application will be briefly described when discussing the treatment for different diseases.

Before giving the application of electrolysis as a means of removing certain blemishes, I wish to make

some general remarks regarding its practical use and limitations :

The galvanic current is the only one to be employed. Electrolysis only offers us a means of cauterization and its only means of cure is to cauterize, the same as the use of other acids or alkaline caustics. If we insert the needle attached to the negative pole into living tissue, hydrogen gas, caustic soda and potassa are formed; if the needle is inserted, attached to the positive pole, oxygen, chlorine and the acid radicals of the inorganic acids appear. The amount of caustic liberated and consequently the amount of tissue cauterized and destroyed depends upon the strength of the current and the amount of surface the needle covers. It will thus be seen we have at our service an acid or alkali caustic which may be regulated and dispensed to any strength desired. If we attach the needle to the negative pole we liberate an alkali caustic, which is generally preferable and nearly always used in Dermatological operations, as it does not create as much cicatricial tissue as the acid caustics eliminated from the positive pole. There is always some scar tissue following the use of the electrical needle, but this is not nearly so great when the negative pole is used. A gold or iridio-platinum needle also lessens the formation of cicatricial tissue or inflammatory tendency.

THE TREATMENT OF WARTS, MOLES AND BIRTH-MARKS.

There are several methods of treatment for the removal of these blemishes. They can be treated purely upon a surgical basis and carefully dissected out and unite the surface by making as close union as possible, as described in the treatment for scars. If the surface is a large one, as it usually is, in naevi, it may require several operations. Electrolysis is one of the most popular and successful treatments and leaves very little scar tissue. The patient should hold the positive electrode in her hand, and the needle connected to the negative pole is inserted in a vertical direction, through the base of the wart or mole, on a level with the skin, several times at different

points and allowed to remain about one-half minute. If the current from four to six cells has been used, bubbles of hydrogen gas will be observed around the entrance of the needle and the mole will appear blanched and in a few days entirely disappear. A most excellent way to remove warts and moles is to cut a piece of isin-glass plaster to fit tightly around the healthy skin, allowing the mole or wart to protrude, thus protecting the healthy skin from being cauterized. The patient is given a small vial of pure glacial acetic acid and instructed to thoroughly bathe the surface of the growth by dipping one end of



FAVORITE LOCATIONS FOR BIRTHMARKS.

a match in the acid and applying it to the surface three or four times a day. If this should cause much inflammation, the application can be omitted for a day or so before applying again. By continuing this treatment for a few days the growth will entirely disappear.

Birthmarks can be removed by electrolysis in two ways, viz., by inserting the platinum needle attached to the negative pole into the center of the growth, and then make several punctures in the tiny capillaries which radiate from this source. If the growth is large a needle disc may be used covering the entire area at one treatment.

The principal object of electrical treatment is to destroy the nourishment of the growth and allow it to retrograde. Dr. Neiswanger recommends the following treatment as preferable to electricity in many cases of naevi. He says, "If the mark is not elevated it is best to employ the following method:

R	Antim tart	.....	1 dr.
	Soap plaster	.....	3 dr.
	Green soap	.....	1 dr.

This is thickly spread about 1-12 inch on adhesive plaster, leaving an adhesive edge to facilitate holding it in place. Being placed upon the mark it is pressed down firmly to insure good and even contact; it must then be frequently examined and just as soon as active escharotic effect is evident, which is from three to five days, the plaster must be removed and the surface dressed with

R Zinc oxide 20 gr.
 Cold cream 4 dr.

When the surface is healed the mother mark will have disappeared.

Dr. Beck successfully treats naevi by transforming the vascular bulk of a navus into connective tissue by subcutaneous sutures introduced at several sittings. A thread of cat gut is passed in a zig zag manner first below the skin, then underneath the base of the tumor, then



RESULTS OF TREATMENT FOR GUN POWDER MARKS.

(Only one side of Face Treated—Illustration used by Featural Specialist.)

again underneath the skin and tumor, and so on, until the tumor mass is included in this continuous suture. The suture is drawn tight and closed at the point of entrance. In this manner the circulation is shut off within the tumor and at the end of a week the size of the tumor

will be reduced and another ligature inserted. This operation is repeated until the tumor is reduced to the smallest possible size, when it may be excised and the borders united by lineal union.

TO REMOVE GUN POWDER AND TATTOO MARKS.

Powder marks can be removed by the electrical needle, but the process is very tedious and painful.

Dr. Watson uses a small trephine designed for this purpose. The trephine is placed over the mark and given a slight rotary motion, going sufficiently deep to take out the little disc of skin containing the powder, which is clipped off; the cavity is filled with a healing powder or ointment, and leaves a very little scar, which in time is hardly detected. One of the most rapid and practical ways is to pierce each mark with a sharp lance, exposing the imbedded powder and apply a saturated compress of peroxide of hydrogen. The operation may be repeated in a few days, if necessary, until all the marks disappear.

Tattoo marks may be removed by tatooing the same surface with papaya solvent.

UNSIGHTLY SCARS.

Scars caused by burns, cuts, wounds etc., are best removed by carefully dissecting away the cicatricial tissue. The bordering skin is very elastic and can be stretched quite a distance. If the scar is not over one-half inches wide it can be removed in one operation. Should it cover a surface of more than one or two inches square it may require several operations. The object of the operation is to remove the scar tissue and unite the sound borders of the healthy skin by lineal union and without leaving any more mark than is possible; the closer the union the smaller the scar. After union has taken place the remaining scar tissue can be reduced by the electric needle. Birthmarks are often removed in this way.

BAGGY SKIN, WRINKLES, ETC.

The method of removing baggy skin and wrinkles, as used by the featural specialist is purely surgical, and consists of what is known as "wrinkle tucks," which means

to remove pieces of skin under the hair and chin where it will not be observed. These tucks may follow the entire border of the scalp, about one-fourth inch from the hair margin. In this way the skin is stretched to its former smoothness and makes the face devoid of wrinkles or puffiness.

REMOVAL OF SUPERFLUOUS HAIR.

There has been several depilatories introduced from time to time for the purpose of removing superfluous hair,



REMOVING SUPERFLUOUS HAIR WITH A DEPILATORY.

which have been sold under "a positive guarantee (?) that the result would be permanent." The commercial

end of this business has been well taken care of by the mail order specialist. I have secured several of their preparations, and have never found any agent other than electricity, which will accomplish this purpose. As a depilatory application for the temporary removal of superfluous hair, barium and strontium sulphide heads the list. I prefer strontium, as it is less toxic, and differs from other depilatory agents in not evolving hydrogen sulphide. My favorite formula is as follows:

R	Strontium Sulphide	30 gr.
	Zinc Oxide	15 gr.
	Starch	15 gr.

Triturate thoroughly and mix sufficient water to make a paste. This is applied over the surface containing the superfluous hair and allowed to remain five or ten minutes, when it can be removed by scraping the surface with some blunt knife similar to a paper knife, or it may be rubbed off with absorbent cotton; the face should be washed, cleaned and some bland oil applied. This will give excellent results, but will not permanently destroy the hair follicle. The only sure means of removing superfluous hair is by electrolysis.

ELECTROLYSIS.

The patient should be placed in a comfortable chair with a head rest, and before a strong light. The positive electrode is laid on the patient's lap or attached to the arm of the chair; the needle is attached to the negative pole and a current from two to six cells are thrown into circuit. The needle is then introduced along the hair shaft to the root and the patient is requested to place the palm of her hand over the sponge electrode of the positive pole and thus complete the circuit. If the current is strong enough in a few seconds a little froth will appear about the entrance of the needle. The hair can now be removed with the depilatory forceps without much force. If you should meet with some resistance, it indicates that the electrolysis has not been complete and may require a stronger current or another operation. This requires

a delicate sense of touch on the part of the operator. There are two very important things to be considered in removing superfluous hair by electrolysis.

Never operate at the same sitting on hairs located too close together, for fear of a resulting scar, and to be successful at each operation the needle should follow the hair follicle as close as possible to the terminus of the



hair root. The small depression around the hair at the external surface should be your point and the direction the hair takes will be your guide.

The accompanying cut illustrates the needle which has not entered at the depression at the surface of the skin, but accidentally penetrated the sheath and gain access to the papilla. Of course such hair will be permanently destroyed, but it illustrates that more caution should be exercised in the point of entering the needle.

LOCAL ANAESTHESIA AND PAINLESS, BLOODLESS AND SUTURELESS SURGERY.

It is doubtful if surgical science has ever made a greater achievement in minor surgery than that described in the above caption. This is not only one of the interesting accomplishments in modern surgery, but also one of the most practical. When a surgeon can make an incision without the appearance of blood, or any indication of pain, and unite the surfaces without applying sutures through the living tissues, we have certainly reached the highest goal of success. Although this method of surgical practice has a limited field, it can be successfully used in part or in whole in 90 per cent. of all external minor operations. Operations can be made painless to the extent and limitation of the use of a local anæsthetic, can be made practically bloodless wherever a local anæsthetic

can be applied, can be made sutureless on any cutaneous surface where tension is not too great. This method has a large field of usefulness in minor operations, upon the eye, ear, throat and nose, extirpating small tumors and growths upon the skin, hernia, rectal, urethral and scrotal operations, in fact operations upon any surface of the body accessible to the use of the hypodermic needle. This brings us to the point of describing the value of local anæsthetics.

Since Dr. Koller, of Vienna discovered the analgesic effects of cocaine which we have discussed quite thoroughly in another chapter there has been a number of local anæsthetics introduced from time to time, none of them however have seemed to create the interest with the Medical Profession, to as great an extent as the discovery of quinine and urea hydrochloride by Dr. Henry Thibault, of Arkansas, in 1907. His favorable reports were immediately confirmed by other observers and at the present time we find this drug to be cocaine's most successful rival, and offering advantages over the latter drug in many ways, for general surgical purposes. The five principal advantages offered by this drug are as follows: First, it is absolutely safe at all times, and there is no depressive effects upon the heart. Second, it can be rendered absolutely sterile by boiling whereby it has been proved that strong toxicity has developed at times in cocaine as the results of boiling. Third, the analgesic effects lasts much longer than cocaine, often maintaining its anæsthetic effect from four to ten days which is a decided advantage where sensitive organs are operated upon. Fourth, the drug has a somewhat hemostatic effect and thus preventing post hemorrhages in vascular surfaces. Fifth, it is not as liable to be followed with nausea and other unpleasant symptoms when used about the mouth or nasal cavities. This anæsthetic is used in solutions varying from one-fourth to twenty per cent. depending of course upon the character and extent of the operation. When applied to the mucous membrane depending solely upon its direct absorption as in operations upon the urethra or correcting the womb from ten to twenty per cent. solution should be

used; when used subcutaneously from one-fourth to a three per cent. solution is required, a one or two per cent. solution, however, will suffice for nearly all purposes. The technique of its application is the same as that of cocaine and can be used upon the most delicate and sensitive surfaces. Dr. Thibault even reports of breaking up peritoneal adhesions and allowing the anæsthetic solution to escape into the abdominal cavity without producing any irritation or unfavorable results.

Quinine and Urea Hydrochloride may be used in single solution or combined with adnephryn which increases its hemostatic properties as follows:

℞ Quinine and Urea Hydrochloride.....5 gr.
 Adnephryn solution.....1 dr.
 Aqua, q. s.....1 oz.

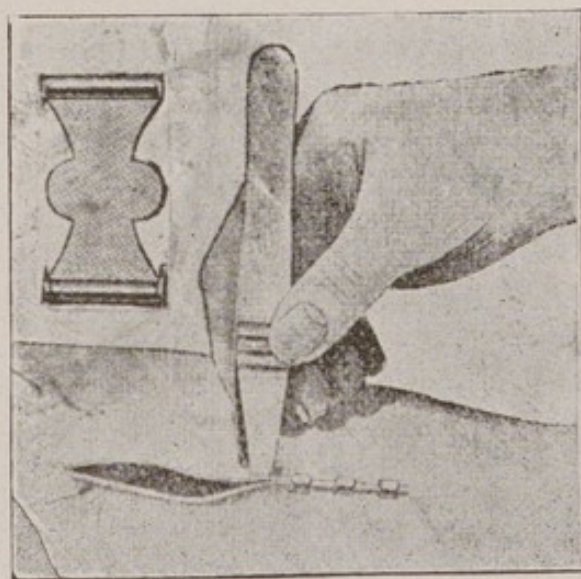
The above represents a one per cent. solution of quinine and Urea Hydrochloride and is one of the happiest combinations in the *Materia Medica*, as each remedy seems to have a controlling influence over the other. The adnephryn not only increases the hemostatic properties of the quinine and Urea Hydrochloride but it also increases its anaesthetic influence through its contractile influence on the capillaries.

This solution, injected into the tissues not only renders the operation painless but also nearly bloodless in all surface operations, thus allowing you full view of the operation with very little use for the surgical sponge. To illustrate the advantage of this hemostatic anæsthetic, I will give you two illustrations, one by direct absorption, and the other by subcutaneous injection.

Mr. H.—who had a stricture for three years and it was decided upon to perform Urethrotomy, two drams of a fifteen per cent. solution was injected into the urethral canal, and retained there for ten minutes. The operation was performed absolutely painless and the severe burning which usually follows the operation, when urinating for a few days was not complained of, showing that the anæsthetic has a lasting effect.

Mrs. J.—aged 38, possessed a small fatty tumor about the size of a silver dollar, which appeared to be growing

rather rapidly below and a little anterior to the ear, about one dram of the above solution was injected along the line of incision and at different points around the surface to be operated upon. At the end of about five minutes the tumor was carefully dissected out without any complaint of pain, the edges of the wound were trimmed in the usual way to secure as close a union as possible, the edges were drawn together and Luken's wound clips were used to unite the surfaces as illustrated below, these clips have the advantage of making even pressure on all parts of the denuded surface, and it also makes a very close union, avoiding the formation of much cicatricial tissue, and eventually leaving the surface free from any perceptible mark or scar, which is a great advantage, especially in facial surgery. The solution used as a hemostatic anæ-



thetic should be made fresh each time, as it deteriorates with age and the results are not as satisfactory. To one who has never witnessed an operation with the use of this solution the results will be surprisingly marvelous, at the calm and composed condition of the average patient. One can readily see the field of usefulness of this solution. I have used it in circumcision, male and female, ingrown toe nails, for the removal of tumors of all kinds, large as could be successfully operated upon by the use of local anæsthetics, in fact when you become acquainted with its true merits, you will find it one of the most reliable preparations in your possession.

The Goiter Specialist

Goiter, or "big neck," as it is popularly advertised, has been isolated as a specialty by some physicians, and there is one Medical Co. in Cincinnati who claim to have the names of two-thirds of the goiter patients in the United States. This list has been secured by persistent advertising for several years.

The treatment used by this company is an ointment composed of iodosyl incorporated in a base of lard and lanoline, applied three times a day. The internal treatment consists of iodide of potassium. Some years ago Dr. Hale devised a treatment by hypodermic injection, which has been used by several physicians with excellent success. The treatment is as follows:

Injection No. 1.

R	Carbolic acid	1/2 dr.
	Tinct. iodine	2 dr.
	Glycerine	1/2 oz.
	Aqua des	1 oz.

Mix the carbolic acid and water, add the tinct, of iodine and glycerine and filter through absorbent cotton.

Injection No. 2.

R	Iodoform	40 gr.
	Glycerine	3 dr.

Mix by triturating in a glass mortar and keep the solution in a colored bottle.

LOCAL APPLICATION.

R	Tartar emetic	1/2 dr.
	Tinct. benzoin comp	2 dr.
	Tinct. iodine	3 oz.
	Aqua	1/2 oz.

Dissolve the tartar emetic in the water and add the tincture of benzoin and iodine, and filter.

Injectations No. 1 and 2 should be alternated by first injecting from 1 to 5 minims of No. 1, and in three days inject from 2 to 10 minims of No. 2. In this way a patient receives about two hypodermic treatments a week. The amount of medicine used will depend somewhat upon the extent of the growth and the age of the patient. It is always best to commence with a minimum amount and increase the amount of medicine used as the treatment progresses. It is not necessary to inject deeply into the tissues, as you are dealing with a glandular substance and the medicine is readily diffused. The patient is also requested to apply the local application two or three times a day.

If you wish to remove the discoloration caused by the iodine, you can readily do so by applying a concentrated solution of hyposulphate of soda.

DR. CHAVETTE'S GOITER CURE.

R	Zinc sulphate	2 dr.
	Salicylic acid	2 dr.
	Boracic acid	3 dr.
	Iodoform	3 dr.
	Oleic acid	8 oz.

Mix and keep at boiling heat for four hours, then pour off the liquid, and after cooling, bottle and cork and keep in a dark colored bottle.

This preparation should be applied to the enlarged gland by using slight friction twice a day until slight desquamation occurs, then it may be applied only once a day until the enlargement has been entirely reduced. It has been stated that this is a permanent cure for goiter.

The Hair Specialist

A physician in general practice would hardly think that the treatment of the disease of the scalp, falling hair and baldness would offer a large enough field for a specialty, but we find many regular physicians and many irregular "professors" entering this specialty and conducting "Bald Head Institutes" on a profitable basis. Many of these specialists limit their work to the treatment of falling hair and baldness, while others treat all condi-



HIRSUTE MONSTROSITIES—LIONELL THE "DOG-FACED" RUSSIAN AND THE BEARDED LADY.

tions pertaining to the hair, give scalp massage, electric treatments, shampoo, bleach and dye the hair, etc.

The average person, especially men, pay very little attention to their hair in a way of grooming, until he finds his hair is falling out and he is fast becoming bald. This excites his vanity and he seeks relief by consulting a specialist. In this chapter we will give the treatments used by these specialists, and the different views regarding

baldness. There are four varieties of hair; first and most important of these is the long and pliant hair of the head; second, the shorter and coarser hair on the face of man, and on the pubies and under the arm pits of both sexes; third, the shorter and coarser hair found on the eyebrows, eyelids, nostrils, etc.; the fourth is called lenugo, which is the fine hair which covers nearly the entire body. Although there is no race on earth whose bodies are entirely covered with heavy hair, there are many monstrosities in the way of hirsute growths, as is well illustrated in the accompanying cuts, of Lionell, the dog-faced Russian boy, whose ancestors possessed a similar growth, and the bearded lady, who was born in the northern part of Michigan, whose ancestors did not possess an abnormal growth of hair. There has also been several individuals, whose bodies were covered with hair, which represented nothing more than their own individuality. These freaks are not of as great interest, however, to the hair specialist as the gold and silver taken in exchange for the treatment of restoring silver hair to its natural color, and producing the golden shade in others and curing baldness.

ALOPECIA.

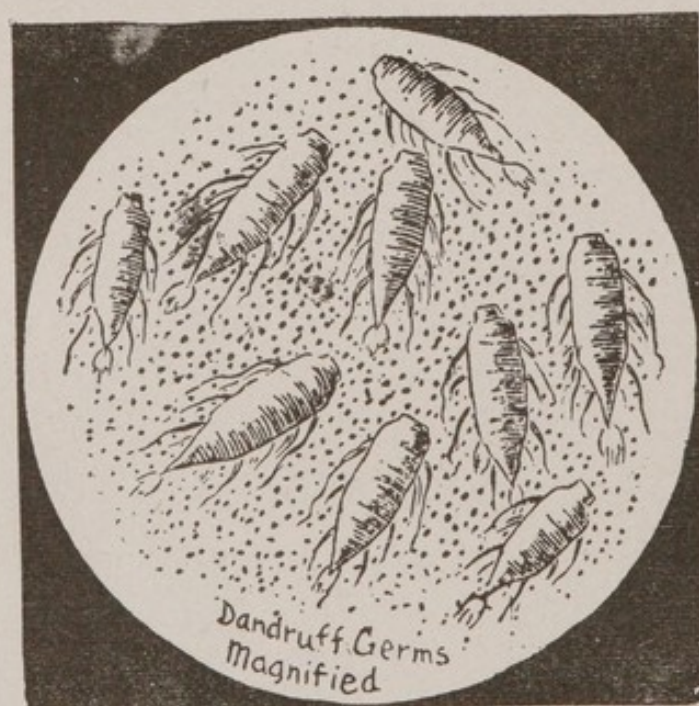
There has been a diversity of opinions as to the cause of baldness, but it is the general belief of most investigators that it is of microbic origin.

Prof, Unna, in the year 1887, was among the first to publish a paper advancing the theory that dandruff and subsequent baldness was of parasitic origin, and although his theory was not kindly accepted by many at first, his statements were afterwards verified by Morrell, who claimed he succeeded in isolating the dandruff germ—diplococcus. Since his report there has been much investigation along that line, which prove that dandruff and premature baldness is of parasitic origin.

It has been noticed by many careful observers that seborrhœa often attacks several members of one family, who used the same hair brush and comb. It has also been demonstrated that mice placed in the combings of hair become bald rapidly, and that dandruff rubbed into the

hair of a rabbit will cause their hair to come out. I am of the same opinion as Dr. Bernheim, that much contamination originates at the barber shop. The less hair a man has on his head the more frequent he visits the barber shop and exposes others to the same contagion, by coming in contact with his own falling hair and dandruff left upon the comb and brush.

We also notice many men who lead public lives and use public toilet utensils, brushes and combs, in hotels, offices, etc., are also encouraging baldness. Another and one of the most convincing proofs that dandruff and fal-

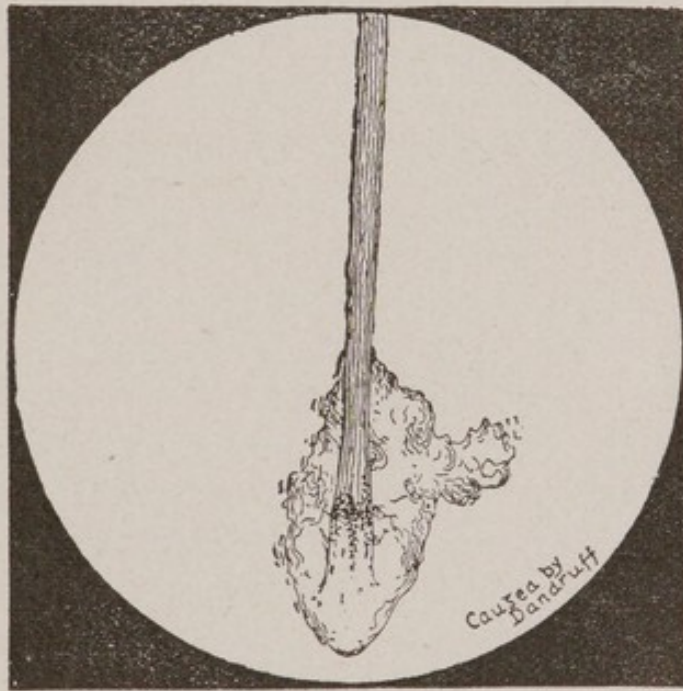


DIPLOCOCUS AS IDENTIFIED BY MORRELL.

ling hair is of parasitic origin is that the only successful treatment is based upon cleanliness, antiseptic and parasitic medications. Among other things which have been attributed to the cause of falling hair and baldness may be mentioned, excluding the top of the head from light, air and sunshine, which is nature's greatest hair grower. Did you ever see a bald-headed Indian? Much credit is given as a cause of baldness to wearing too tight hat bands, thereby obstructing the circulation in the top of the head. The loss of hair is also associated with all debilitating diseases, etc.

TREATMENT OF ALOPECIA.

The essential requirements to successfully treat dandruff, falling hair and premature baldness, are cleanliness, antiseptics, and stimulants, also the untiring patience on the part of the patient and physician. With this object in view there has been hundreds of hair restoratives placed on the market and many devices invented to promote the growth of hair.



DECOMPOSITION OF HAIR FOLLICLE CAUSED BY DANDRUFF.

In considering the requirements for treatment as enumerated above, the following simple formula is one of the best preparations, to my knowledge, to quickly and thoroughly remove dandruff, and is what is known as

PEERLESS SEAFOAM:

R	Aqua ammonia	2 dr.
	Cologne	1 dr.
	Alcohol	8 oz.
	Aqua	8 oz.

Mix. Sig. Apply about a tablespoonful at a time to the hair when dry and rub briskly. This makes a profuse foam which is very refreshing and cleansing to the scalp. After this has been repeated several times, the

hair should be washed thoroughly with a good tar soap. Owing to the poor quality of tar soap on the market, it is best to superintend the compounding yourself by using forty parts of beechwood or birchwood tar to sixty parts of castile soap. After using these shampoos the head should be thoroughly rinsed with hot water, gradually cooled. The bath water will contain many hairs, which may give the patient the impression that the treatment is doing more harm than good; you should explain to them that the hairs which have come away are diseased hairs and would have fallen out in a few days of their own accord.

These shampoos should be repeated at least as often as once or twice a week. Some specialists use what they call "scalp food," which is used after the shampoo; these foods are mixtures of olive oil, lanoline, resorcin and mercury bichloride, and can be applied to a good advantage in many cases. It is applied with a tooth brush, rubbed in to the scalp, in the same way hair tonics are used. The next treatment used are what is popularly known as "hair tonics or restoratives," (see nostrums), and there is no end to the different combination of remedies used for this purpose. The principal thing to be considered is the combination of a mild stimulant, antiseptic, germicide and tonic. The remedies incorporated in these compounds are mercury bichloride and resorcin, for their antiseptic and germicide properties, quinine and nux vomica for their tonic effect, jaborandi or capsicum for their stimulating effect. The following formula will be found an excellent combination for promoting the growth of hair:

R	Quinine sulphate	20 gr.
	Tinct, nux vomica	2 dr.
	Tinct. cantharides	2 dr.
	F. E. jaborandi	2 dr.
	Resorcin	1 dr.
	Alcohol	2 oz.
	Glycerine	2 oz.
	Bay rum	6 oz.
	Rose water	q. s. 16 oz.

Mix and filter. The best way to apply this and other hair tonics is to part the hair about one-half inch apart, lengthwise the scalp and dip a stiff tooth brush into the solution and rub it into the scalp two or three times a week.

Another form of hair restorative contains a preparation of sulphur and lead. It not only acts as an alleged curative for baldness, but as a coloring agent in dying and deepening the color of the hair.

The following formula is a very popular preparation for this purpose: (The reader is also referred to the formula given in the chapter on the mail order specialist, and other parts of the book for vegetable and other hair dyes.)

R	Lead acetate	6 dr.
	Sulphur precipitated	1 oz.
	Tinct. cantharides	4 dr.
	Glycerine	8 oz.
	Alcohol	4 oz.
	Oil of citronella	1 dr.
	Oil of bergamot	1/2 dr.
	Water enough to make	64 oz.

Dissolve the oils in the alcohol, add the glycerine and tincture of cantharides and mix with the water, then add the sulphur and lead. Preparations containing sulphur and lead, when exposed to the light, form black lead sulphide, therefore they should be kept in dark bottles. Patients using sulphur and lead hair restoratives should be cautioned that they are not entirely free from danger.

To recapitulate: The treatment of seborrhœ, alopecia or falling hair, should consist of thorough cleanliness, antiseptics and stimulants, which may be obtained by the first two preparations; the latter formula is not to be used unless you wish to darken the hair.

The secret of success in promoting the growth of hair and treating scalp diseases lies in untiring perseverance. This should be explained to the patient and no case should be admitted for treatment unless he is willing to continue the medication for two or more months.

ADVANCED ALOPECIA.

The treatment of advanced baldness will depend upon the condition of the scalp; if the scalp is shiney and the glands entirely atrophied, there is absolutely no help except the topee. If there are a few hairs left it offers the specialist a chance for argument and encouragement, and the physician's favorite quotation is often given: "where there is life there is hope."

All treatments for advanced baldness point towards one thing, viz., to improve the circulation of the scalp. This has been attempted by blistering, electricity and the vacuum treatment; of these treatments the vacuum treat-



THE EVAN'S CAP FOR GIVING THE VACUUM TREATMENT.

ment is to be preferred, as it has many advantages in its favor. It is not claimed by specialists who use the vacuum treatment that it will create live hairs when there is none, but it provides every possible means of promoting hair growth under the most adverse circumstances; however, in no case will it restore hair to a perfectly bald or shiney scalp when the life of the hair follicle has been extinct. The object of the treatment is to loosen the scalp and improve the circulation, which is of much benefit in all cases of alopecia.

HAIR DYES.

The people of the occident have to a certain extent, followed the universal custom of those of the orient in

dyeing and bleaching the hair to hide its grayness or to give it a preferred color. Hair dyes are of two classes, those containing the dye already formed, and those in which it is produced in the hair by some chemical process. Some hair-dyes contain substances which in their nature are very injurious to the hair, and cause baldness. Before dyeing the hair, the oil should be removed by washing thoroughly with soap and water, and the dye applied when nearly dry. The scalp should also be protected from staining by a broad, fine-tooth comb.

PERMANGANATE OF POTASSIUM DYE.

R	Permanganate of potassium	5½ oz.
	Distilled water	2 qt.

The above combination forms a dark violet solution. When this is brought in contact with any organic substance like the hair, it rapidly discolors it and imparts a brown tint, due to the hydrated oxide of magnesia.

The hair is washed as stated above, and the dilute solution applied with a soft brush. The color is produced at once. According to the degree of dilution, this innocuous preparation can be made to give any desired color from blonde to very dark brown. It is this preparation which has recently been extensively used by ladies in their latest fad of coloring the hair auburn. Of course this preparation and other hair dyes may be used for the beard as well as the hair.

TESIAN AUBURN HAIR DYE.

“Zaza Shade.”

R	Dioxide of hydrogen	2 oz.
	Nitric acid	3 min.
	Aqua ammonia	5 min.
	Resorcine	15 gr.

SILVER HAIR DYES.

This, and similar hair dyes, consists of two preparations, preserved in bottles labeled Nos. 1 and 2; the lat-

ter, containing the silver solution, should be kept in a dark, amber-colored bottle, as the silver salts are decomposed by light. For use, some of the liquid from bottle No. 1 is poured into a cup, and the hair is moistened with it by means of a soft brush. The liquid from bottle No. 2 is now poured into another cup and applied with another brush. These dyes are prepared in different strengths in order to color the hair brown or black.

TO DYE THE HAIR BROWN.

No. 1 (in white bottle.)

R	Sulphide of potassium	7 oz.
	Alcohol	1 qt.

No. 2 (in dark bottle.).

R	Silver nitrate	4 $\frac{1}{4}$ oz.
	Distilled water	1 qt.

TO DYE THE HAIR BLACK.

No. 1 (in white bottle).

R	Sulphide of potassium	$\frac{1}{2}$ lb.
	Alcohol	1 qt.

No. 2 (in dark bottle).

R	Silver nitrate	5 $\frac{1}{2}$ oz.
	Distilled water	1 qt.

The sulphide of potassium appears in fragments of a liver-brown mass, which readily dissolves in water. The solution must be filtered before being poured into the bottle as it becomes turbid in the air. Keep in well corked bottles. When the two solutions are brought together, black sulphide of silver results and darkens the hair. After the use of this preparation, a disagreeable odor adheres to the hair, which may be readily removed by washing.

CHRISTADORO'S HAIR DYE.

No. 1 contains sixty grains of pyro-gallic acid dissolved in one dram of alcohol and 4 ounces of distilled water; No. 2 consists of 1 ounce of nitrate of silver dissolved in 1 ounce of distilled water and 1 ounce of concentrated ammonia, to which is added $\frac{1}{2}$ ounce of gum arabic dissolved in 3 ounces of distilled water.

WALNUT HAIR DYE.

R	Green walnut shells	2 oz.
	Alum	$\frac{1}{4}$ oz.
	Olive oil	4 oz.

Heat together in a water bath until the water has been completely expelled, then express, filter and perfume.

TO BLEACH THE HAIR.

There are several preparations on the market, under different names, as Goldine, Auricome, Golden Hair Water, etc. These preparations are nothing but peroxide of hydrogen, perfumed. When this is applied to the hair as a bleaching agent, it should be diluted and the hair deprived of its oil by first washing it with soap and water.

HAIR RESTORATIVES AND GROWERS.**NOSTRUMS.**

The following formulæ will allow you to become familiar with many of the extensively advertised hair preparations:

SEVEN SUTHERLAND SISTERS' HAIR GROWER.

R	Bay rum	7 oz.
	Distilled extract of witch hazel	9 oz.
	Common salt	1 dr.
	Hydrochloride acid (5 per cent.)	1 dr.
	Magnesia	q. s.

Mix the bay rum and distilled extract of witch hazel, and shake with a little magnesia; filter and in the filtrate dissolve the salt and add the hydrochloric acid. The agitation with magnesia causes the preparation to assume a yellow color, but by rendering it very slightly acid, with the hydrochloric acid, this color all disappears.—(New Idea.)

ALLEN'S WORLDS HAIR RESTORER.

R	Sulphur	6 parts
	Acetate of lead	8 parts
	Glycerine	100 parts
	Perfumed water	200 parts

Dissolve the acetate of lead in the water, then add the glycerine and sulphur. Any aromatic water may be used for making the water.—(American Pharmacist.)

HALL'S HAIR RENEWER.

R	Sulphur	1 dr.
	Lead acetate	1 dr.
	Salt	2 dr.
	Glycerine	8 oz.
	Bay rum	2 oz.
	Jamaica rum	4 oz.
	Water	16 oz.

BORDET'S HAIR TONIC.

The American Druggist gives the following for this preparation, and it is my opinion that it is much better than the lead and sulphur mixtures:

R	Carbolic acid	30 min.
	Tincture of cardamon	30 min.
	Tincture of nux vomica	2 dr.
	Compound tincture cinchona	1 dr.
	Cologne water	1 dr.
	Cocoanut oil	q. s. ad 4 oz.

AYER'S HAIR VIGOR.

R	Acetate of lead	3 parts
	Flowers of sulphur	2 parts
	Glycerine	14 parts
	Water	80 parts
—Formula d'Hygiene Populaire.)		

The Beauty Specialist

The above title describes another type of specialist with which every city is familiar. These specialists are generally of the feminine gender, and their finely furnished parlors are found on every fashionable thoroughfare. As most women are ambitious to become handsome, we find these specialists well patronized, and "for ways that are dark and tricks that are vain" they are unapproachable.

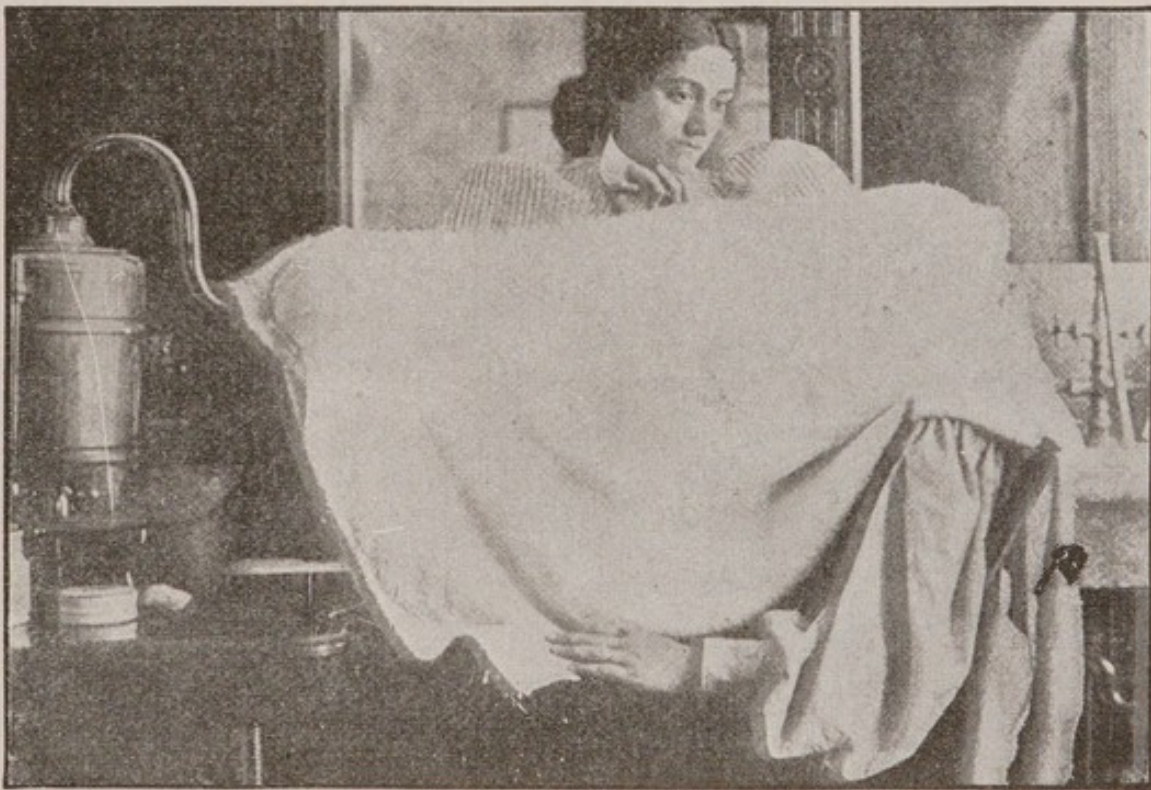
Georgine Champbaron, of Paris, was among the first to establish a reputation with her famous rejuvenating treatment. Afterwards Mrs. Harriet Hubbard Ayer opened an establishment on Fifth avenue, New York, for the purpose of beautifying the complexion of patients. From a financial standpoint, her success must have been phenomenal, for at the present time, we find temples of beauty everywhere, with a presiding princess, who is usually a woman past her first youth, hard in feature, illiterate to a degree, but seductive in manner and fluent in argument.

These "ladies" generally claim to be philanthropists, pure and simple, animated solely by a desire to help their less beautiful sisters (at a trifling charge of from fifty to three hundred dollars for each case.) Their primary training as beauty specialists is often obtained at some fashionable manicure or hair-dressing establishment, where they have acted as an apprentice and learned to listen to and sympathize with women who are not blessed with good complexions by nature.

A clever woman at once finds the field a large and profitable one, and enters into business on her own responsibility, with a few pretty young ladies as her assistants.

By consulting some recipe book, she finds the formulæ for the preparations required in her practice, places them in fancy bottles and labels them "Creme de Beaute of the French Court," "Helen of Troy Skin Rejuvenator," "Circle's Bloom," or "Elixir of Youth." They also have wrinkle-eradicators, hair dyes and bleaches, plasters, etc. They have steaming and other appliances which impress their patrons favorably.

A young lady once delivered herself into the hands of one of these philanthropic "ladies," for the purpose of



FACE STEAMING APPARATUS.

learning their methods, and under her treatment, was kneaded, pinched, massaged, greased, steamed, lotioned, powdered, painted and elixired during six weary days. She claims that she got along with the treatment more easily than many others, for as soon as she had retired from their apartments, she washed their stuff off, and was not self-sacrificing enough to undergo the rejuvenating process, for she did not care to submit to the torture, and be flayed alive. She describes the process of beautifying as divided into three departments, bleaching, steam-

ing and plastering. The almost invariable basis of the complexion bleach is corrosive sublimate, the action of which is to remove the outer cuticle, leaving the smooth, pink underskin exposed. The pain connected with the use of this preparation varies according to the strength in which it is applied, and the delicacy of the skin.

The face-steaming treatment used at these institutions is too well known to require much description. The face is thoroughly greased, and then bathed with medicated steam. This opens the pores and allows all secretions to escape, including the natural oil which is absolutely essential for the nourishment of the skin. The great argument in favor of the face-steaming treatment is, that it removes all impurities, which is quite true, but experience has demonstrated that the continual and excessive use of these steaming treatments will weaken the secretory gland of the skin, and have a tendency to leave it dry by extracting its oil. This, of course, is the cause of wrinkles, which no amount of their creams or flesh food will repair.

The most horrible and barbarous of all the complexion processes is known by the alluring title of "rejuvenating treatment," and is guaranteed to make a person look twenty years younger in a few weeks. This is practically a revival of the torture process in vogue in France in the fifteenth century, and the suffering which it entails varies only in degree.

Unlike the other treatments given, the skin, in this process, is peeled off in strips. The face is first bathed with a mixture of iodine some use the pure tincture. Plasters are then applied, which not only loosen the skin, but draw out a thick, milky pus. The outer skin is finally torn off with the plaster, leaving the half-raw and agonizingly sensitive under-cuticle exposed. When the surface has entirely healed, the shortest time being from four to eight days, the complexion in many cases is really marvelously beautiful, although all the lines of character have disappeared, leaving the face as expressionless as that of a doll.

For weeks afterward, the faintest breath of wind or

the touch of the softest cloth in bathing the face, causes the most excruciating pain. In a few months after taking this treatment, the sensitive skin commences to show thousands of criss-cross lines almost imperceptible at first, but gradually deepening until the face, when viewed, closely, shows a shrivelled surface somewhat resembling that of a peach which has been plucked too soon. In connection with the above treatment, these specialists often give massage treatments; bleach, dye and shampoo the hair, treat baldness, and remove superfluous hair, have remedies for pimples on the face and other skin diseases, advertise flesh foods to develop the bust and to round out



APPLYING AND REMOVING THE PLASTERS IN THE
REJUVENATING SYSTEM.

the neck. They also have complexion tablets and other beautifying articles.

Although physicians, as a rule, do not care to assume the dignified title of "Beauty Specialists," they are often requested to compound toilet preparations for some of the above conditions. I, therefore, append some of the formulas of their secret preparations, which may be of service to them.

THE SKIN.

It is this part of the anatomy that offers the "beauty specialists" their greatest opportunity to hold high car-

nival, and we find their preparations extensively advertised to cure every thing from a pimple to a "mother mark." Among the remedies used for beautifying the skin, glycerine, no doubt, heads the list. Pure glycerine should never be used, however, in concentrated form, as it abstracts water from the skin and produces a sensation of heat and burning, but when it is combined with an equal part of rose water, we find it a very valuable agent in rendering the skin white, supple, soft and glossy. No other remedy will clear a sun-burned skin in so short a time as this preparation.

Owing to the penetrating properties of lanoline, we find it also a valuable preparation, in which other remedies may be incorporated to convey them to the under cuticle. Corrosive sublimate is the remedy most generally used as a bleaching agent.

To remove freckles, moth patches, liver spots, etc. I subjoin several formulæ which are used extensively in treating these different conditions of the skin:

ALBADERMINE TREATMENT.

Under the title of Albadermine, a foreign specialist has devised a method of treatment for the removal of "tan" and the milder varieties of "freckles," which is as follows:

SOLUTION A.

R	Potass: iodide	2 dr.
	Iodini pur	6 gr.
	Glycerine	3 dr.
	Infus. rosae	4 oz.

Dissolve the iodide of potassium in a small quantity of the infusion and a drachm of the glycerine; with this fluid moisten the iodine in a glass mortar and rub it down, gradually adding more liquid until complete solution has been obtained; then stir in the remainder of the ingredients, and bottle the mixture.

SOLUTION B.

R	Sodii hyposulph (Thiosulphate)	1/2 oz.
	Aqua rose	1 pt.

Dissolve and filter.

With a small camel's hair pencil or piece of fine sponge apply a little of "Albadermine A" to the tanned or freckled surface, until a slight but tolerably uniform brownish-yellow skin has been produced. At the expiration of fifteen or twenty minutes moisten a piece of cambric, linen or soft rag with "B," and lay it upon the affected part, removing, squeezing away the liquid, soaking it afresh, and again applying until the iodide stain has disappeared. Repeat the entire process thrice daily but diminish the frequency of the application if tenderness is produced. In the course of from three or four days to as many weeks the freckles will either have disappeared entirely or their intensity will be greatly diminished. "Summer freckles" yield very speedily to this treatment.

GLYCERINE CREAM.

R	Glycerine	1/2 lb.
	Almond oil	14 oz.
	Rose water	12 1/2 oz.
	Spermaceti	3 1/2 oz.
	Wax	480 gr.
	Oil of rose	60 gr.

Melt the wax and spermaceti by gentle heat, then add the almond oil, next the glycerine mixed with rose water and the oil of rose. This makes a splendid preparation for sun-burn, chapped hands, etc.

MELVINA CREAM.

The following formula will make a preparation closely resembling the original:

R	Saxoline	265 gr.
	White wax	50 gr.
	Spermaceti	30 gr.
	Bismuth oxychloride	40 gr.
	Mercuric chloride	1½ gr.
	Spirit of rose (4 drachms of oil to one pint)	20 min.
	Oil of bitter almonds	1-8 min.

Warm the saxoline, white wax and spermaceti together until melted. While cooling incorporate the bismuth oxychloride and the mercuric chloride; this last previously dissolved in a little alcohol, and when nearly cold, stir in the perfume.

MELVINA LOTION.

This lotion is used in connection with the Melvina Cream, and is recommended by the manufacturers to remove freckles, pimples, moth-patches, liver moles, ringworm and salt rheum, and also to straighten wrinkles in the face, and cleanse and soften the skin to youthful freshness. The following formula will make a preparation similar to this remedy:

R	Mercuric chloride	2 gr.
	Zinc oxide	3 dr.
	Almonds	2 dr.
	Rose water	1 pt.

Make an emulsion of the almonds and rose water; dissolve the mercuric chloride and add this with the zinc oxide.—(New Idea.)

ROSALIND.

This is a cosmetic for tinting the fingers, face and lips, which preserves the skin, cures chapped hands, etc.

The New Idea gives the following formula as approximately replacing the original:

R	Eosine	10 gr.
	White wax	30 gr.
	Spermaceti	30 gr.
	Amber saxoline	410 gr.

MADAM RUPPERT'S FACE BLEACH.

Recent analysis assigns the following composition to this highly lauded cosmetic:

R	Corrosive sublimate	1 gr.
	Tincture of benzoin	7 gr.
	Water	500 gr.

Mix. —(Western Druggist.)

COMEDONE LOTION.

R	Sulphuric ether	1 oz.
	Carbonate ammonia	1 dr.
	Boracic acid	20 gr.
	Water, to make	16 dr.

Mix, and apply twice a day.

The ammonia carbonate forms a soap with the grease. The boracic acid acts as an antiseptic and the ether as a solvent.—(Analytic.)

HAGAN'S MAGNOLIA BALM.

Said to resemble the genuine.

R	Pure oxide of zinc	1 oz.
	Rose water	4 oz.
	Glycerine	1 dr.
	Perfume	25 drops

—(Lillard's Prac. Hints and Formulæ.)

LAC VIRGINS.

Cosmetic for the skin:

- R Tinct. of benzoin 10 parts
 Rose water 150 parts

Mix.

A teaspoonful of this mixture, added to an ordinary hand-basin of water, makes an admirable cosmetic for the skin of the face and hands.

FUNK'S CREAM OF ROSES.

- R Tragacanth 1 dr.
 Glycerine 1 oz.
 Triple extract of white rose 1 oz.
 Water 8 oz.
 Carmine q. s. to color

DELIGHT OF THE HAREM.

This name sounds quite Oriental enough to enable one to conjure up a vision of some dusky beauty. This cream is used to whiten the skin of the neck and arms temporarily and is especially useful for the purpose of disguising a bad skin in the evening.

- R Oxide of zinc 1 oz.
 Spermaceti 1 oz.
 White wax 1 oz.
 Paraffin 1 oz.
 Orange blossom oil 20 min.
 Almond oil 6 oz.

LA DIAPHANE.

This preparation is also known as Sarah Bernhardt's face powder, and has had a wonderful sale in some localities.

- R Talcum powder 10 oz.
 Rice flour 10 oz.
 Zinc oxide (Hubbuck's) 5 oz.

Mix well and perfume with a mixture of oils of bergamot, ylang ylang and neroli.

RED LIP SALVE.

R	Expressed oil of almonds	2 lbs.
	Wax	4½ oz.
	Spermaceti	4½ oz.
	Oil of geranium	150 gr
	Oil of santal	90 gr
	Alkanet root	4½ oz.

The beautiful red color which distinguishes this preparation is produced with alkanet root; the mass, before the essential oils are added, is macerated for from six to eight hours under frequent stirring with the comminuted root and then decanted from the sediment.

FINGER NAIL POLISH.

The finger nail being an appendage to the skin, we give the following formula for imparting smoothness and gloss to the nails:

R	Oxide of tin	4 lbs.
	Carminc	¾ oz
	Oil of lavender	150 gr.
	Oil of bergamot	150 gr.

The oxide of tin must be an impalpable powder and is mixed with the other substances in a mortar.

ECCHYMOSIS.

The following formula is the very best treatment known for discolored skin due to a bruise, especially the so-called "black eye."

R	Tincture of Capsicum	1 dr.
	Gum arabic	1 dr.
	Glycerine	10 drops

Paint this over the affected parts, allow it to dry and then apply again, until the surface has three or four coats. The formulæ for other toilet preparations will be found in the chapter on Secret Nostrums.

THE NEW REJUVENATING OR ENAMELING TREATMENT.

One of the most amusing incidents the writer has ever had in investigating beauty culture, was to visit the parlors of an itinerant beauty specialist, who had advertised quite extensively, and given several lectures regarding her rejuvenating treatment for the removal of wrinkles, etc. Her parlors were always crowded and she did a flourishing business during her stay in the city.

By allowing her to understand that I wished to secure an interest in the business, she was extremely willing to enlighten me as much as possible regarding her method of treatment. The specialist occupied three rooms in one of the leading hotels; one was used as a reception room, one as a consultation and treatment room and the other for what she called the "retiring room." Patients were required to take a course of ten treatments for \$15.00 in advance. At this nominal price she found many victims from all walks of life, but old maid school teachers seemed to predominate.

The treatment, or enameling process, consisted of painting the entire face, using a common half-inch round paint brush, with the following formula, which I learned afterwards:

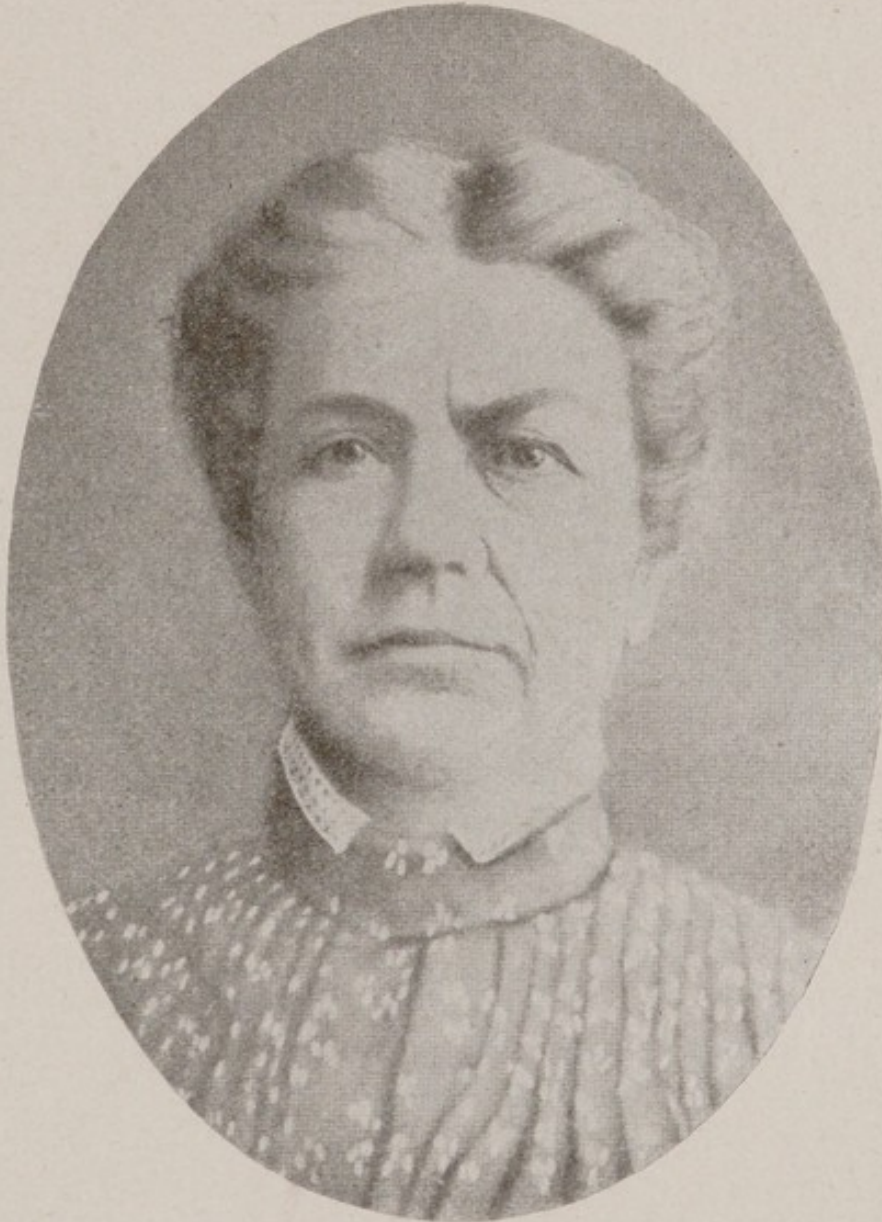
R	Mercury bichloride	2 gr.
	Boracic acid	2 dr.
	White of eggs	1 pt.

Mix by beating and trituration.

The entire face was given a heavy coat of this substance and allowed to dry, when another coat was applied. This was repeated several times. With the assistance of a fan this process took about fifteen minutes and several ladies were treated at the same time. After the last coat they were placed in the retiring room and requested to stay there three hours; they were not allowed to talk or open their mouth, for fear they would break the enamel. Imagine yourself placed in a room full of

ladies, where all is silence and their faces as expressionless as a doll's; it reminds one of a visit to some ancient Egyptian, incarnated mummery.

The process removes the wrinkles, however, but of course, the results are only temporary, and many of the



RESULTS OBTAINED FROM THE NEW REJUVENATING TREATMENT—ONE SIDE OF FACE TREATED.—ILLUSTRATION USED BY BEAUTY SPECIALISTS.

ladies abandon the treatment before the course is completed. This illustrates one of the many ridiculous things which a fluent and persuasive tongue can accomplish in inducing the gentler sex to improve their complexion and restore their youthfulness.

TO DEVELOP THE BUST.

It is doubtful if there is any one thing other than a beautiful complexion that a woman admires more than a full, symmetrical bust. This has caused the inventor and the specialist to contrive all kinds of devices to assist nature in the development of the mammary glands in flat-chested women, and we find bust foods and vacuum treatments advertised very extensively.



THE ABOVE ILLUSTRATES THE VACUUM INSTRUMENT AND THE METHOD OF APPLYING.

The vacuum treatment consists of a cup-shaped glass (see cut) which will fit around the gland, and when suction is made at the apex, either with a rubber bulb or pump, it will draw the breast into the cup, where it is allowed to remain in this expanded condition during the night.

Bust foods are nothing more or less than lanoline, which may be adulterated with lard or cheap oils and perfumed. This is rubbed into the breast by a course of massage treatment, which occupies from one or two hours each evening before retiring. I have never had any experience in the use of either of these treatments, but the accompanying cut is supposed to represent the results obtained from their use.

The Medical World has the following to say regarding the development of the bust: If woman's "crowning glory" be her hair, it is certain that a well-developed bust is a more attractive feature to most people. Many women go through life with scrawny figures which are a source of constant mortification to them, when a little advice and proper exercise would modify matters materially. The quack advertisements in the yellowest of lay papers are matched by the better worded advertisements in the highest class of ladies' magazines in bidding for the money of the credulous. The proof is evident that there is a demand for some method of developing the figure, and the family physician should know what advice to give; in fact he should frequently have the tact to give advice unasked. The average physician would ridicule a lady patient who asked such advice, when he should encourage and aid. Of course one must ridicule any drug which has the merit(?) of "developing the bust four to six inches in a few days," but we can instruct our patients in the use of inunctions, massage, bathing, and breathing so as to obtain for them appreciable results. The following extract is taken from Ostrom's *Massage and Swedish Movements*: "Massage and exercise are the only means by which the bust may be properly developed. The patient should be taught how to breathe properly, and for the quick development of the mammary glands, use in massage the following preparation:

R	Cocoa butter	2 oz.
	Lanolin	2 oz.
	Extract saw palmetto	2 oz.
	Oil cajuput	1 oz.
	Oil sassafras	1½ oz.

This preparation has not a fine odor, but produces a pleasant sensation in the skin. It a valuable compound wherever we wish to develop a part, but it should not be used on the face."

A few deep breaths taken on rising each morning will work wonders in the course of a few months. The growing girl should be taught to stand and walk with the abdomen drawn back, the chest thrown well forward,

shoulders well thrown back and on a line with the hips. Bathing with alcohol or cold water on rising or retiring is not only grateful, but beneficial. If your flat chested



THE RESULTS OBTAINED FROM VACUUM MASSAGE AND
FLESH FOOD TREATMENT.

girl patients do not speak to you on such matters, it is your duty to speak to them (probably through their mothers), thus not only earning their gratitude, but benefiting their health.

GALEGA.

Galega is the internal remedy used by most mail order specialists and at local institutes for bust development, and it is claimed that wonderful results have been obtained in many cases, not only as a bust developer, but as an aphrodisiac for women. The discovery of this drug was due to its extensive use in the central parts of Europe, where it is given to cows to increase the quantity of their milk from thirty to fifty per cent.

Pasteur's Method for Treating Hydrophobia

One of the most successful of the toxin treatments is Pasteur's treatment for rabies. From the years 1886 to 1893 inclusive there were 14,430 cases treated at the Pasteur Institute in Paris, with only 72 deaths. This leaves a mortality of one-half of one per cent. The institute in New York treated 424 cases with but two deaths.

As yet there has never been a microbe discovered which is associated with rabies, yet proof is abundant that the disease is due to a micro-organism. Pastuer found the virus most abundant in the spinal cord of the rabid animal and showed that its inoculation upon a healthy animal will produce the characteristic symptoms of the disease, also that the virus may be attenuated in virulence by drying the spinal cord containing it.

He also found by inoculating on each successive day the virus from a cord dried during a shorter period than that used on the previous day the animal so treated may be gradually made almost certainly secure against rabies, either from the bite of a rabid animal or from any method of subcutaneous inoculation. Upon these facts he founded the preventative treatment of this disease, commenced by him in Paris in 1885, which consists in the daily inoculation of the bitten person with emulsions of gradually increasing virulence, made from the dried spinal cord of rabbits that have died from rabies. By this procedure chemical substances (toxins) produced during the life of some specific organism and known to be inhibitory of its growth, are introduced into the system of the patient (V. Horseley.)

Dr. Horwitz gives the following as his mode of conducting the treatment of a case of hydrophobia:

The substance used for inoculation is perfectly pure veal broth, free from microbes, in which has been dissolved a little of the spinal marrow of a rabid rabbit. The broth is carefully prepared and put into a glass receiver of spherical form with a long neck, hermetically sealed. It is then submitted for half an hour, under pressure, to a heat of 239 degrees F. This boiling is for the purpose of destroying all germs. When perfectly clear it is decanted in one of Pastuer's receptacles. To obtain the infected marrow, a rabbit is chloroformed and trepanned, the infected broth is injected under the dura mater, then the edges of the wound are stitched together, and the rabbit is left to recover.

After the inoculation, rabies declares itself in the rabbit at the end of six days. Two or three days later the animal dies. The spinal cord is carefully extracted and then hung up in a flask containing caustic potash. It is placed in a room kept at a heat of 68 degrees F. When the infected substance is to be used, a piece about a centimetre in length is cut off and mixed with pure broth. The first day the patient receives half a hypodermic syringe of broth, with marrow of thirteen days' strength. The following day the patient receives a hypodermic injection of twelve days' strength. Each day the marrow is one day younger, the operation being repeated daily for twelve days.

Rabies may be considered a very rare disease and many old practitioners have never seen a case. It is therefore best for the physician to send the patient who has been bitten by a rabid animal to one of the Pasteur institutes. He should be accompanied by a piece of the medulla oblongata of the rabid animal if possible. This will allow the physicians in charge to determine whether or not the animal was rabid.

The Tape-Worm Specialist

These gentlemen are, as a rule, not graduates of medicine, and often prefix the title "professor" instead of doctor to their names. They are either permanently located in cities or travel through the country, lecturing on worms, from a buggy on the street corners of small towns, where they display large bottles of the different specimens of worms, which they claim to have removed.

They cure all kinds of worms and, by their persuasive oratory, make a large portion of their audiences believe that they have worms whether they have or not. The fact that physicians often overlook the symptoms of worms, gives them an opportunity to sway their audience by their convincing arguments.

The treatment of tape-worms is very simple and specific. The best remedy, without a doubt, is the tannate of pelletierine. This is best administered in the form of Tanrat's solution of pelletierine, which is sold in bottles containing one adult dose, for two dollars each. I have used this in several cases without a single failure. I regret that I cannot give the formula of this preparation, but it is a preparation like many others used by physicians, of which the manufacturers hold the vehicle a secret, and charge many times the price it is worth.

If a physician wished to prepare a similar preparation, from crude drugs, the following formula comes from high authority, and is said to be used with equal success:

R	Granati	2 oz.
	Pepinis	1 oz.
	Aspidii oleoresin	1½ dr.
	Aqua acacia and syrup	q. s. ad 9 oz.

The granati should be mixed with a pint and a half of water and boiled down to seven ounces. The pepinis should be deprived of their outer coats and beaten to a

paste with fine powdered sugar. The aspidii should now be made into a emulsion with acacia and the decoction of granati, then added to the paste of pepinis and add sufficient flavored syrup to bring the mixture up to nine ounces.

One-third of this mixture should be taken in the morning after a light diet and laxative the previous day. If the first dose is not successful, the second and third portions can be taken at intervals of every three hours. When the worm comes away the patient should be sitting on a vessel partly filled with warm water to prevent the weight of the expelled portion tearing off the head. The patient should be instructed never to attempt to pull on the worm, for he will always break it and the treatment will have to be repeated.

Another way is to cover a vessel with a piece of mosquito netting so that the cloth bags somewhat into the vessel. The fæces will readily pass through and leave the worm on top, where it can be easily examined.

In the large cities we find German specialists who have established a reputation among their countrymen for removing tape-worms. They are usually successful and their method is worthy of mention. Their procedure is as follows: The patient is requested to omit two meals and during that time a brisk saline cathartic is given until the bowels are emptied, after which, they are given a teaspoonful of the ethereal oil of male-fern (Merck) in a teaspoonful of warm milk. The patient can now lie down and suck a lemon. If the dose nauseates him at the end of two or three hours, the patient is given an ounce of castor oil with ten drops of oil of turpentine and one drop of croton oil. After a short interval the bowels will move copiously and the worm will be expelled. As soon as the worm is expelled it should be examined to ascertain if the head is present.

The Stammering Specialist

The treatment of stuttering and stammering does not properly belong to the physician, as they are habits, not diseases, and no medicine will have any effect upon them; but as he is often consulted in regard to these impediments of speech, a statement of the manner of curing them will not be out of place in this work. They differ very slightly, one being an inability to pronounce certain words, the other to give certain sounds, and by persistent effort both are easily overcome. A New York professor, who is a graduate of a German college for the study of the vocal organs, says:

“The whole thing is very simple, so simple that you will smile when I tell you the sole and only cause of stuttering and stammering is careless respiration. People who suffer from the impediment have only to pause, take in a long breath, and then, opening the mouth in the manner laid down in the charts used by elocutionists, pronounce the word sharply. Have you ever noticed the remarkable fact that people who are inveterate stammerers are often accomplished vocalists? That is because in the act of singing respiration is done in a proper way.

“A novel fact is that the troubles of stammerers or stutterers lie entirely with the vowel sounds. Patients do not seem to understand this. In describing their cases they will tell me that they have difficulty in sounding ‘p’ or ‘d.’ That is where they are wrong. They sound the consonant all right, but stagger at the vowel. A patient comes to me, and I say, to him, ‘Say papa.’ He will commence, ‘P-p-p-p-p, oh, professor, I e-c-e-c-e-can’t say p-p-p-p-p-papa.’

“It is at once apparent that his trouble lies with the vowel ‘a.’ Then the treatment commences. Standing before him, I suggest that he take a long breath through

the partially closed mouth until the lungs are well filled, and then, at the moment of exhalation, following my direction, he opens the mouth in the proper manner, as indicated by a chart, and pronounces with me in a high, mechanical voice, "pawpaw." This is often repeated, the vowels being changed.

'From words we pass on to sentences and so on to introduce in close connection all the vowel sounds. The respiration before each vowel sound is necessary. The treatment therefore consists in forming this habit. As the patient pupil progresses, the length of this respiration is reduced, the pronunciation is made in a lower pitch and in a few weeks, rarely over five, the most inveterate stutterer can talk fluently and rapidly with no sign of his former affliction. But eternal vigilance is necessary.

"Should the apparently cured patient become careless and forget the necessity of respiration as taught him, he may relapse into his former state, and then his training must be done all over again. A boy of sixteen years of age was brought to me. His was a stubborn case, but in six weeks I had him talking all right. Time passed on for two years. I frequently saw the boy at his father's house and was delighted with the cure. Last summer he came to my institute. He was as badly off as when I first saw him.

"It seems that his father had sent him on a short business trip to Europe, away from the restraining influence of the father, whose ears were always alert for any return of his son's affliction, and, much disturbed by the noise of the vessel's machinery, he became careless, and having once relapsed he became worse every day, and was really forced to shorten his stay abroad and return to New York for treatment.

"He was a bright lad, who readily applied himself to my rules, and in a week he was all right again. As a matter of fact, he need not have come back to me, but could have applied his old lessons with success.

"The German government has long recognized the importance of rational treatment of vocal impediments, and school children afflicted in this manner are put

through a regular course by graduates of the college at Frankfort, where this specialty is taught in the government employ. The German treatment is that of elementary training in elocution.

"The habit of imperfect respiration is generally found in connection with some diseases of childhood like the measles, but a most frequent cause is unconscious imitation. One stuttering child in a family will set all the others to struggling with the vowel sound. An adult in conversation with a stuttering person finds it difficult to speak without stammering."

In this city there is an institute for the cure of stammering and stuttering, and I have an acquaintance who took the course and was at the institute for about three weeks. Through this gentleman I received the following information, although the professor is very careful to keep his methods a secret, and I believe each student is required to sign an agreement not to teach or expose his methods.

A synopsis of the treatment is as follows: The first day or so the student is "put in silence," that is, he is not allowed to speak a word to anyone. After this, he is taught to pronounce each word in syllables and at the same time mark each syllable by waving his fingers in very much the same way as a director of a band or orchestra marks the time of music. To illustrate, have the person take a full breath and repeat the following sentence and words: "Breathes-there-a-man-with-soul-so-dead, who-nev-er-to-him-self-hath-said, this-is my-own-mynat-ive-land. Con-stan-ti-no-ple; Phil-a-del-phi-a." You will see that each syllable should be pronounced separately and each word and each syllable marked by a right angular wave of the finger or hand, the same as a musician marks time. As the pupil progresses, he can combine the syllables of words and pronounce them as one.

This is what he called "the method," and it is surprising to notice how well many extreme stammerers can speak after following this method for a few days. The method was, no doubt, founded upon the knowledge that stutterers could sing with as free flow of words as others,

and by using this method, he is practically singing his conversation without any tune. He gradually overcomes the sing-song conversation and talks as freely as others. In connection with the method the student is given exercises in breathing and pronouncing different vowels, reading sentences, etc.

This is a very simple method and I believe one of the best, for it will cure a large percentage of cases, if patients will be persevering and persistent.

Hall's Hygienic Treatment

Several years ago Dr. Wilford Hall attempted to startle the medical world by announcing he had made a wonderful discovery of a treatment which would cure almost every known form of disease, as well as preserve health and prolong life, without the use of medicine.

The pamphlet which unfolds the secrets of this new discovery he sold for \$4.00, the purchaser agreeing by "pledge of honor" not to divulge the treatment outside of his or her family. Physicians were allowed, in addition, the right of using the treatment on their patients. His theory was this:

"Disease depends upon the absorption of poisonous materials from the colon and rectum. Wash this out thoroughly with hot water once or twice a day and disease is robbed of its power, death of its terror and the doctor of his occupation. Use a large quantity of water, one or two gallons; retain it as long as possible and that which is not absorbed can finally be expelled, taking with it accumulations which have a tendency to create disease." He claims this to be a sure cure for consumption and Bright's disease, while all minor ailments vanish like mist before the sun.

This subject has recently been revived by several New York Medical concerns under the name of the "Internal Bath," and several devices in the way of rectal irrigators have been offered the Medical Profession. There is no question regarding the value of large injections of water, used as a rectal irrigation, thus we find the "Internal Bath" will relieve and cure many conditions with greater dispatch than medicine. The principle condition where this treatment will be found beneficial is in extreme cases of constipation, where the fecal accumulations have been allowed to remain in the bowels for a

long time and a systemic absorption of the decomposed matter takes place. With this we get all kinds of reflex disturbances, sallow skin, chloasma flatulence, anæmia, anorexia, functional eye diseases, dizziness and blind spells, insomnia, fetid breath, sick headache, pyrosis, nausea, low spiritedness, capricious appetite, etc.

This is one of the most harmless treatments in existence, and by washing out and keeping clean, the physician will be surprised at the results obtained in many cases. It will not be necessary, however, for him to invest several dollars for "Hall's" or any other system of "Internal Bath," as this treatment can be instituted with an ordinary one gallon fountain syringe. Although this method of "flushing the colon" has been severely criticised by several members of the Medical Profession, it is far from being entirely destitute of merit.

If physicians will question their patients carefully, they will find many of them allow the fecal matter to accumulate several days before attempting to expel it and these large injections will afford him a valuable adjunct in curing these extreme cases of constipation with its various reflex detrimental influences.

The Optical Specialist

Among other specialties which physicians have allowed to drift from their possession, is the fitting of glasses. This specialty is a very compensative adjunct to an office practice, and should not be allowed to remain in the hands of the traveling spectacle peddler or local jeweler, who have seemed to monopolize the business, although they are absolutely devoid of any knowledge of the diseases of the eye; other than the manipulation of a trial case.

The cost of equipment for fitting glasses is so small, compared with the profits received that every physician should incorporate this specialty with the other routine of office work, and thus place the specialty where it justly belongs, in the hands of the physician.

TRIAL CASE.

The case contains pairs, plus and minus spheres, and pairs plus and minus cylinders, also prisms numbered from $\frac{1}{4}$ to 20 degrees. The spheres are numbered in intervals from 0.12 D. S. up to 3.50 D. S. The interval is 0.25 D. S. from 3.50 D. S. to 8 D. S. the interval is $+ 0.50$ D. S., and from 8 D. S. to 20 D. S. the interval is 1.00 D. S.

The cylinders have the same intervals, but only go to 6 or 8 diopters.

The trial case also contains a frame called the trial frame, which is used to place lenses in front of the patient's eyes. The best frames have three cells, two in the front, and one in the back of the frame. The eye pieces of such a frame are numbered on the periphery in degrees of half a circle, so that the axis of the cylinders can easily be seen during refraction. The left of the horizontal line in each eye piece is recognized as the starting place or zero (0) and the degrees are marked from left to right

on the lower half, counting around to the horizontal meridian, which at the right hand is numbered 180. This horizontal meridian is, therefore, as horizontal zero (0) or 180 degrees. The meridian halfway being zero (0) and 180 degrees is the vertical meridian or 90 degrees. The trial case also contains plano lenses, colored lenses, blinders, stenopaic slit, pin-hole disk, maddox rod etc. The frame can easily be adjusted; the pupillary distance measured, bridge properly adjusted, riding bows measured and height of nose piece taken.

RECOGNITION OF LENSES.

Convex sphere lenses in the case are put in nickle rims. These lenses are thick at the center and thin at the edge, and have the power of converging the ray of light.

The convex lens is a magnifier and a 20 D. S. lens is often used in removing foreign bodies from the eye through oblique illumination. Objects viewed through a convex lens as it is moved before the eye appear to move in an opposite direction. If a convex lens is brought toward the eye, objects already enlarged appear smaller and more distant. A concave sphere is thick on the edge and thin in the center and causes the rays of light to diverge. When the lens is moved away from the eye objects appear smaller through a concave lens and larger as the lens is brought nearer the eye.

If a convex cylinder is moved in front of the eye in the direction of its axis, objects seen do not change position, but when moved at right angles to its axis the objects appear to move in the same direction as when a convex sphere is used.

If a concave cylinder is moved in front of the eye in the direction of its axis, objects seen or looked at do not change their position, but when moved at right angles to its axis the objects appear to move in the same direction as when a concave sphere is used.

A cylinder lens has two little diamond scratches on the edge of each lens and these scratches note the axis of the lens and when astigmatism is corrected you can note

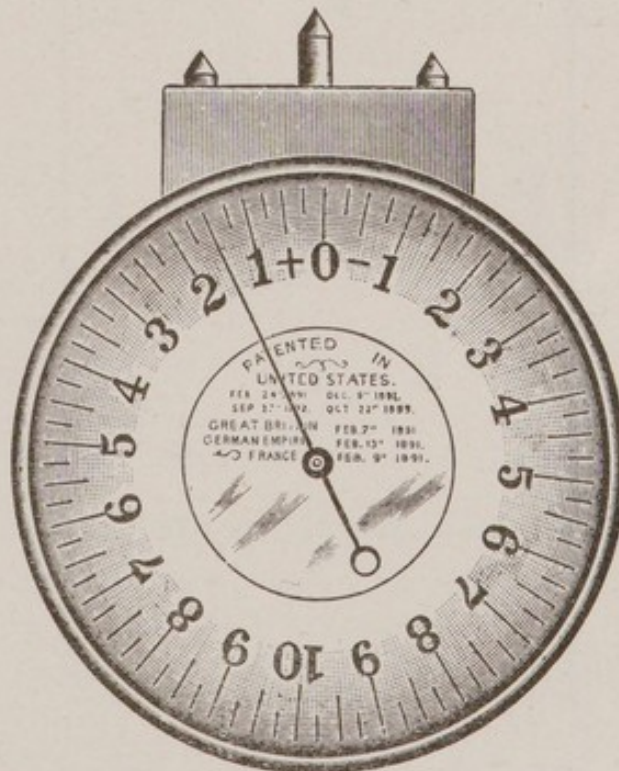
the axis of the cylinder on the trial frame through these scratches.

A circle viewed through a strong convex cyl. (cylinder) appears as an oval with its long diameter in the opposite direction to the axis of the cyl. The long diameter of the oval will be in the same direction as the axis of the cyl. when the circle is viewed through a concave cyl.

The sides of a prism converge to a thin edge at one extremity of the prism. This is called the apex. At the other extremity they diverge from each other, forming the base. Objects viewed through a prism are displayed toward its apex and that portion of a straight line seen through a prism never coincides with the straight line.

NEUTRALIZING LENSES.

The optician should supply himself with a lens measure, and by the use of the same can in a moment's time find



LENS MEASURE.

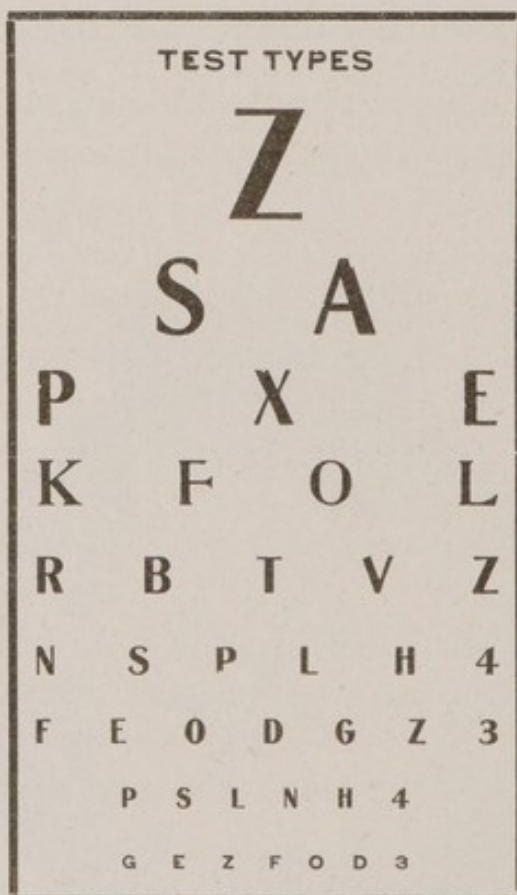
the curvature on each side of a lens. If a spherical lens, the difference of the sides are subtracted from one another and then you have the strength of the lens.

If a compound lens you measure the sphero, and cylin-

der sides and you then have the strength of each side. Now to find the axis of the compound you take a sphero. lens, opposite strength from the one found in the compound lens, also cylinder lens opposite strength from one found on cylinder side of compound lens; place these two lenses before compound lens and looking at distance objects rotate cylinder and when the neutral point is found you have located the axis of the compound lens.

FITTING THE LENSES.

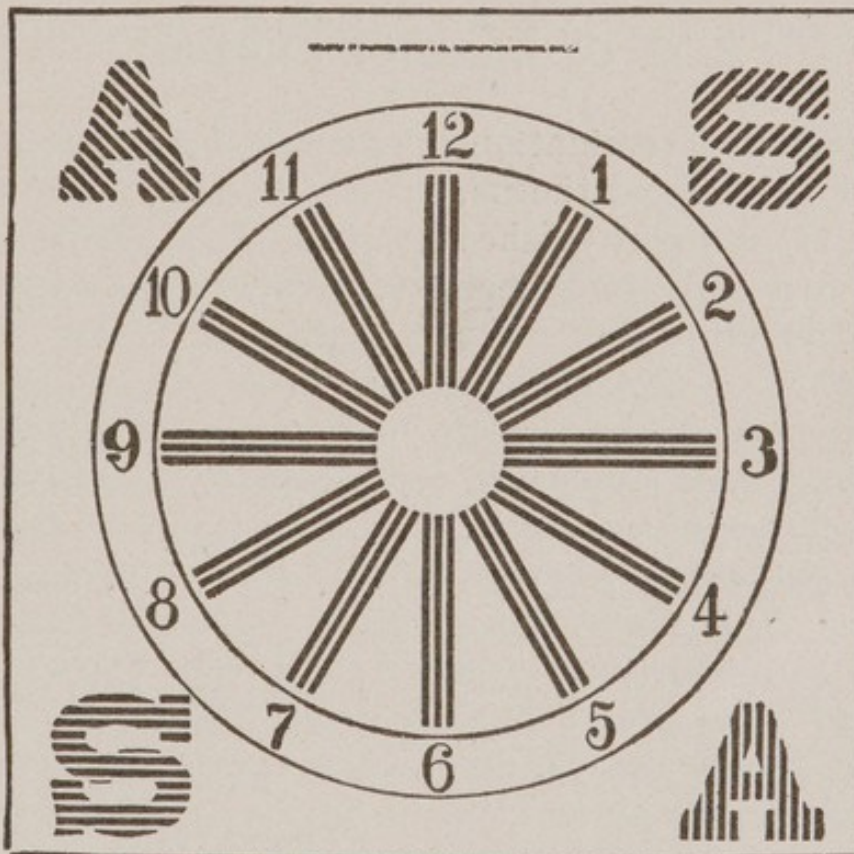
Seat your patient twenty feet from the charts used; these charts should be well lighted and "Snellen's" type of chart is considered the best. The trial frame is then



adjusted. Be sure that it fits the patient comfortably. The pupillary distance properly placed and see that the eye lashes do not touch the lenses when inserted in the frame. Now you proceed to test your patient's eyes. First place a blank before the left eye; then in the right eye insert a $+0.25$ D. S. lens and see if this helps the

vision. If it does add $+0.25$ D. S. more and keep on adding a $+0.25$ until you have given the best vision possible. Now you have the Hyperopia corrected.

Next is to determine if there is any astigmatism present. Have the patient look at the clock dial placed beside the test type, and see if all lines appear the same shade of black, and if some of them are lighter than others, the patient has astigmatism and these lines are to be made uniform by the aid of a cylinder lens. The correction of



ASTIGMATIC TEST DIAL.

astigmatism will always give the patient better vision. If the patient is far sighted and has astigmatism the 9 to 3 line on the clock dial will appear darker. Plus cylinder placed at 90 degrees is used to make the proper correction. In finding the axis of the astigmatism the cylinder is rotated to where the best vision is found, and can be proven by rotating the axis a small distance from this point each way, where the vision will blur. If the patient should be myopic minus lenses are used, instead of plus lenses, and the same course as heretofore described is followed with minus spheres instead of plus and after the

myopia is corrected have your patient look at the clock dial, and if astigmatism is present, a minus cylinder is used and rotated from zero to 180 degrees, until the lines are all uniform, combining the spherical and cylinder lenses after the myopia and astigmatism is corrected you have a compound lens and the proper correction for the eye. The same course here described is used in examining the left eye with the blank placed over the right eye.

KIND OF GLASSES NEEDED.

After your examination is completed and all errors of refraction corrected the next thing to note is the kind of glasses the patient wishes to wear. If spectacles are wanted note on your prescription blank whether they are to be rimless or with rims, quality of frame wanted; whether with cable temples or plain wire temples, the cable temples are best as they do not irritate behind the ears, and should always be recommended. Next note the length of temple required, then the pupillary distance is taken, and the size of lenses that will give proper pupillary distance. Next thing to note is the base of the bridge on the nose, also the height of the bridge, whether the bridge is inward or outward, so as to bring the lenses a proper distance from the eyelashes. If nose glasses are preferred note whether the patient wants rimless or with rims, style of nose glasses, also distance between guards, at top and bottom, pupillary distance measured, size of lens required to bring about pupillary required and see that the eyelashes do not touch glass at any point; if they do use an offset guard or stud in eyeglasses, so as to avoid lashes touching lenses. If the lashes be long toric lenses should be recommended, as they give a wide field of vision, and with their inside curve of six diopters the glass can be placed very near the eye and still avoid the eye lashes.

If bifocal lenses are required, or both distance and reading lenses together, you note the style of bifocal, whether cement or invisible, and this is checked off on prescription blank.

In prescribing bifocals the size and shape of segment should be noted and the segment should never come above the center of the distance lens, and the lenses should be tilted a little downward, as this will give better vision. Your nearest optical house will furnish you with prescription blanks, gratis, which you will find very handy for putting down frame measurements.

If a physician will secure a test case and practice the heretofore rules laid before him he will be able to correct ninety per cent. of patients coming to him with defective vision.

MADDOX ROD.

A Maddox rod is found in every trial case, and can be used as a most reliable test for the muscles of the eye. In making the examination of the muscles of the eye you place your patient six metres from a small flame, place the rod horizontally before one eye, a red colored glass before the other; if the line formed from the Maddox rod passes through the flame, there is orthophoric, as far as the horizontal movements of the eye are concerned. Should the line be to either side of the flame, as in most people it will, there is either latent convergence or latent divergence, the former if the line is the same side as the rod, the latter if to the other side.

In order to test the vertical deviation the rod is placed vertically before the eye, a horizontal line of light appears and the patient is asked if the line passes directly through the flame, or if it appears above or below the flame. If the flame is lowest there is a tendency to upward deviation of the naked eye; if the line is lowest of the eye before which the rod is placed.

The measurements of the extent of the deviation may be made in the ordinary way, by finding that prism placed before the naked eye, for the eye covered with a red glass, which brings the line and flame together.

PRESBYOPIA.

The accommodation diminishes gradually from early life onward, and the near point recedes farther from the eye with each succeeding year. As long as it remains within 20 or 30 C. M. no appreciable inconvenience in reading is noticed, but when the near point has fallen off to a greater distance than this, it is not possible to read fine type without the aid of convex glasses unless the visual acuity is much above the average. This condition is termed presbyopia and is a normal result of growing old.

The cause of presbyopia consists of hardening of the crystalline lens, which is thus prevented from assuming the increased convexity which constitutes the essential factor of accommodation. The increase of convexity necessary for seeing near objects must be supplied to the eye by a spectacle lens. In early stages of presbyopia weak convex lenses are used and as the patient grows older and the power of accommodation diminishes, stronger convex lenses will have to be prescribed.

RETINOSCOPY.

Retinoscopy is a system of examination of the refractive errors and measuring the eyes for glasses, and it was discovered by Cuignet and later by Sir William Pagent Bowman in the sixties. Since that time many writers have produced works covering this subject, but in every instance it is quite apparent they have had a greater desire to show their profound knowledge rather than to make plain this intricate yet fascinating method for diagnosing difficult cases.

This system is the objective method for estimating the refraction of the eye by the character of reflected images thrown from a plane or concave mirror, observing the movements which the retinal illumination makes by rotating the mirror. It gives the advantage of a quick diagnosis of the case without asking a question. Positive information is obtained as to whether the case is hyperopic or myopic, except in low degrees of either defect; when

spasms of the ciliary muscle or accommodation exists, then the true condition of the eye is uncertain; this may be obviated to a certain extent by having the eye turned slightly inward, thus preventing the light from falling directly on the macula lutea, and by so doing the test is made much easier by removing at least part of the spasm.

There are four methods in retinoscopy, named as follows: First, the McFatrigh; second, the static; third, the dynamic; fourth, the fogging. In the following explanations let it be understood that only the plane mirror is used.

The McFatrigh method is to seat the optician fifty-three inches from the patient, and with the retinoscope reflect the light into the eye, directing the patient to look slightly inward; this illuminates the retina; then rotate the mirror in such a manner as to cause the light to move directly across the face from left to right. If the shadow moves with the mirror the case is hyperopic, caused by the eye being too short, thus making the focus come back of the retina of the eye, and a plus lens is required. Place a $+ 0.50$ D. lens in the trial frame before the eye, and if the shadow still moves with the mirror keep adding plus lenses until you find the weakest lens that just reverses in that meridian. Then if it is a simple case of hyperopia you will find that if you rotate the mirror in the vertical meridian, the shadow will just reverse in that one also.

We will take, for example, a case where we find in the right eye in the horizontal meridian that the shadow moves with the mirror and it takes $+ 5.50$ D. to just reverse it, so after making a $+ 0.75$ D. deduction, (an allowance made for bringing the far point of the eye to a point in front of him), we have a $+ 4.75$ D. lens for the correction of the horizontal meridian. We next examine the vertical meridian and find that the shadow still moves with the mirror, and that it takes a $+ 3.25$ D. lens to just reverse it, and after making the $+ 0.75$ D. deduction we have a $+ 2.50$ D. for the result. Now, if it takes a $+ 2.50$ D. to correct the vertical and a $+ 4.75$ D. to correct the horizontal meridian, we have a difference of a $+ 2.25$ D. between the two meridians, so we can use a $+$

2.25 cyl. axis 90 over the $+ 2.50$ D. sphere, thus making a compound, and the correction for the right eye would be as follows: O. D. $+ 2.50$ D. () $+ 2.25$ cyl. axis 90.

We next examine the left eye and find that the shadow moves with the mirror in the horizontal meridian, and find that it takes a $+ 4.50$ D. to just reverse it; after making the $+ 0.75$ D. deduction, we have for the result a $+ 3.75$ D. We now rotate the mirror in the vertical meridian and find that it takes a $- 1.75$ D. lens to just reverse the shadow, so we add a $- 0.50$ D. (an allowance made in myopia, as the far point has been carried back of the operator, so that a $- 0.50$ D. must be added to the concave lens that just reverses the shadow), making a $- 1.75$ D. in the vertical meridian. Now the difference of the two meridians would be the sum of 3.75 D and 1.75 D., which is 5.50 D., so that the retinoscopic corrections for the eye is as follows: O. S. -1.75 D. $+ 5.50$ cyl. Axis 90.

We will suppose another case; that in the horizontal meridian that the shadow moves against the mirror, and we find the weakest minus lens required to just reverse the shadow is a $- 0.25$ D.; then we add the $- 0.50$ D. and that makes a $- 0.75$ D. for the horizontal meridian to just reverse it, so after deducting the $+ 0.75$ D. from it we find the eye emmetropic in that meridian. Our retinoscopic finding for this eye is a cylinder written as follows: O. D. $- 0.75$ cyl. ax. 180.

We next examine the left eye in the horizontal meridian and find that the shadow moves against the mirror and the weakest minus lens required to just reverse it is a $- 1.50$ D., and after adding the $- 0.50$ D., we have the result, a $- 2.00$ D. for the above mentioned meridian. We then examine the vertical meridian and find that the shadow with the mirror and it takes a $+ 3.75$ D. to just reverse it, so after deducting the $+ 0.75$ D. we have a $+ 3.00$ D. for this meridian. Now if it takes a $+ 3.00$ D. to correct the vertical and a $- 2.00$ D. the horizontal, we take the sum of these two for our cylinder, which is a $- 5.00$ cyl. ax. 180, so that our retinoscopic finding for the left eye is as follows: O. S. $+ 3.00$ D. () $- 5.00$ cyl. ax. 180.

Then again we have the numerous cases where the shadow does not run with or against the mirror in either the horizontal or vertical meridians, but runs obliquely instead; then we rotate the mirror in the oblique at right angles to each other, and proceed using the same rules as heretofore described.

The static method is to place a $+ 1.00$ D. lens in the trial frame in front of each eye; then rotate the mirror at a distance of 40 inches from the eye, requesting the patient to look at the test card 20 feet away, and if the shadow remains still in the meridians, then the case is emmetropic, as the $+ 1.00$ D. lens just neutralizes the distance between the optometrist and the patient. If the shadow moves with the mirror, the case is hyperopic, and if it moves against it is myopic, and from all retinoscopic findings in this method, a $+ 1.00$ D. should be deducted.

The dynamic method is just the reverse of the static, and a system of shadow testing where the accommodation is active. In this method the patient is directed to read a small card of different size letters, placed on the forehead of the optometrist 40 inches away; now to do this he has to use 1.00 D. of his accommodation. Now let the deep thinking optometrist follow this explanation closely, then he can judge as to the real value of this method, as it is the writer's intention to give facts and prove that this method, which seems so nice in theory, does not meet with accurate results then in practical use.

Here are a few examples, as follows: First case: If the eye is emmetropic the rays of light will emerge parallel and the 1.00 D. of accommodation will converge these rays and cause them to focus at a distance of 40 inches and no motion will be observed in either meridian, as the 1.00 D. of accommodation used takes the place of the $+ 1.00$ D. lens that is used in the static method.

Second case: If the patient has 1.00 D. of hyperopia he will be obliged to use 1.00 D. of his accommodation to see the test card clearly at a distance of twenty feet and 1.00 D. to read the brow card at a distance of 40 inches, thus making a total of 2.00 D. of accommodation used.

Third case: Suppose a patient has 1.00 D. of myopia; his far points for distance vision is 40 inches and the emergent rays will focus at this point, and the patient will not use any accommodation to read the brow card.

Now, it is claimed by the exponents of the dynamic method that it is impossible to separate accommodation and convergence by placing the plus lenses in front of the eyes, except for hyperopia, they may have. In the first case we find the eye emmetropic using 1.00 D. of accommodation. They place plus lenses in front of the eye and find the strongest that will be accepted without reversing the shadow. In an emmetropic eye they state that a $+0.25$ D. will cause a reversal even though the eye is accommodating 1.00 D.

In the second case we find the eye using 2.00 D. of accommodation. They claim that this eye will relax 1.00 D. for it is that much hyperopic, but it cannot relax any of the other 1.00 D. as the convergence checks it so it will not relax.

In the third case, the eye being myopic 1.00 D., no accommodation is in use. They place an over correction of minus spheres, rendering the refraction of this case hyperopic. Then they gradually reduce with minus spheres until they find a point of reversal.

The special advantage claimed by the exponents of this system is: In case of a spasm of accommodation sometimes found in a case of hyperopia the eyes will test myopic at 40 inches because the spasm holds the focus in front of the retina. The spasm covers the 1.00 D. of hyperopia and renders the eye myopic 1.00 D. and at 40 inches requesting the patient to read the brow card; this calls for 4.00 D. of accommodation, and as the patient has a spasm of 2.00 D. covering his 1.00 D. of hyperopia, thus bringing the focus 1.00 D. in front of the retina, so it will only be necessary for him to use 3.00 D. of hyperopia; but right here the dynamic exponents claim that he will accept just 1.00 D. as this is the amount of his hyperopia and that his convergence checks relaxation at this point, but does it?

This whole system hinges upon their theory that accommodation and convergence are so closely related that by placing plus lenses in front of the eyes this relation cannot be disturbed. If we allow the exponents their premise in an argument, we generally have to admit it, as their reasoning will be logical all the way through. If right here we take pains to experiment so we can determine the truthfulness of their first proposition, and then we will discover why this method proves up inaccurate in nearly 90 per cent. of all its cases. The writer states fearlessly that convergence is not a check upon accommodation and will prove it by the following experiments.

If the exponents are right in the relation of these two functions in their shadow test, it surely ought to be demonstrated with lenses subjectively. Take a person with emmetropic eyes, and if we place — 2.50 D. sphere in front of their eyes, and in order that they can read the 20-20 line, on the test card 20 feet away, they will have to use 2.00 D. of their accommodation. The 20-20 line on the test card 20 feet away is perfectly plain, bearing in mind that their accommodation is fixed for 16 inches. This ought to prove most conclusively to any optometrist that under the above-named conditions the accommodation can be exercised 2.50 D. while the convergence remains fixed for 20 feet. If we were to increase the strength of the minus spheres, it would produce diplopia, thus showing that 2.50 D. is the limit of their power of separation between these two functions.

In another experiment we find that they can read the 20-20 line perfectly with 25 degree prisms (half of the amount over each eye) base out. This shows that they can send a nerve force to the internal muscles without affecting the ciliary muscles in the least. It seems to the writer as if these two last experiments, which can be made on yourself or anyone else, ought to convince any deep-thinking optometrist of the inaccuracy of the theory of the dynamic method.

In all cases of hyperopia, except the "squints," we find these two functions working entirely out of harmony with each other, showing the wonderful power of adjustment in

nature. In all cases of myopia we have the same conditions reversed, for while the convergence is fixed for 20 feet, the accommodation is nearer to the eye according to the myopia.

The fogging method of retinoscopy is one that relaxes all accommodation, as it is an active accommodation that is responsible for many errors in refraction. The test is made by placing a plus 4.00 D. lens before the eyes, and have the patient look off into space. This renders the eyes myopic and puts them in a condition of rest. If the eyes are emmetropic, the emergent rays will be parallel and a $+ 4.00$ D. sphere will bring these parallel rays to a focus at 10 inches in front of the lens. As you observe the motion of the shadow from 40 inches, you will find the eye decidedly myopic. Move closer and closer until you reach the point of no motion. Measure from the lens to the mirror, and if the eyes are emmetropic you will find the neutral point or conjugate foci to be 10 inches. If your case happens to be hyperopic of 1.00 D. the rays of light will emerge 1.00 D. divergent; as it requires 1.00 D. of your $+ 4.00$ D. to make these rays parallel, they will be brought to a focus 13 inches from the eye. The motion will reverse at this point. In all cases of myopia the emergent rays are convergent and the $+ 4.00$ D. will make them still more convergent. If there is 1.00 D. of myopia, the convergent rays would focus at 40 inches without any lens. Placing a 4.00 D. sphere in front of the eye causes the rays to focus at 8 inches in front of the lens.

If we wish to be exact in our measurements in this or other methods we can attach a tape measure to our trial frame and hold the same in one hand, while we rotate the mirror with the other, at the required distance. In the fogging method this will give you the exact distance between the lens and the mirror and you will find your conjugate foci. The rule to follow is: place a $+ 4.00$ D. sphere in front of both eyes. Reflect the light with a plane mirror into the eye and find the point where there is no motion. If it is the focal point of the lens 10 inches, the eye is emmetropic.

Liquid Air and Carbon Dioxide in Dermatology

Ever since the discovery of liquid air, the medical profession has been experimenting with the product in dermatological practice. Drs. Dade and Whitehouse were among the first to demonstrate its therapeutical value in the treatment of certain cutaneous affections and during the International Congress of Dermatologists in 1908 liquid air was first officially demonstrated as a therapeutic agent and created the most intense interest. The principal difficulty which renders liquid air impractical is the process of manufacture, and owing to its limited field in industrial uses it is difficult to obtain, and cannot be kept for any length of time, as it is subject to gradual evaporation through the cotton stopper with which the special cylindrical vessels containing it are closed; for these reasons the use of liquid air has practically been abandoned and in its place carbon dioxide has been adopted, which is entirely analogous in character. The temperature of liquid air is approximately 310 degrees below zero, Fahrenheit, while the temperature of carbon dioxide is 110 degrees below zero. Notwithstanding this great difference in temperature carbon dioxide will accomplish the same therapeutic results as liquid air, and owing to the fact that carbon dioxide is so extensively used in the manufacture of carbonated beverages, it can be found in all quarters of the world. Liquid carbonic acid is evaporated within a perforated receptacle until crystallization takes place. The accumulation of crystals of snow is then compressed and molded into proper shape and applied to the defect or diseased part by means of contact under a light pressure. Its application differs from liquid air only in the form in which it is used. Liquid air is applied by

means of a stick, the end of which is wrapped with cotton. It will therefore be seen the advantage carbon dioxide offers in its form for application.

The compression and molding of carbon dioxide snow takes place within a cylindrical instrument by means of a screw-piston. In this it is compressed into a solid and almost transparent cylindrical body of the diameter of the instrument and several inches in length. This allows the operator to form the end into a point should the nature of the defect or diseased part make this desirable.

Among the defects and diseases which readily yield to this treatment may be mentioned the various forms of naevi, warts, lupus, erythematosus rodent ulcers, stubborn cases of keratosis palmaris, indurated eczema, adenoma sebaceum, multiply neuro-fibromata, cheloid, epithelioma, and various other cutaneous affections where other methods of treatment has failed.

The technique of the operation is very simple for the treatment of epithelioma, ulcers, and other diseases covering a large area. It is generally preferred to treat only a part of the diseased surface at one time. The instrument holding the carbon dioxide cone has a diameter from one-eighth to one-sixteenth inch; this can be regulated to suit the operator.

Instruments of a larger diameter permit the formation and compression of crystal cones up to one and three-sixteenth inches in diameter. It will thus be seen that the cone can be made practically as large as the area of ordinary defects or diseases to be operated upon. Most operators prefer the cones of small or medium caliber and treat the diseased surface in sections. As soon as the carbon dioxide has been suitably compressed and formed it may be either left in the instrument or it may be removed therefrom and handled by means of a small piece of chamois skin or gloves. In fact it has been found that carbon dioxide snow in loose crystals produces a more rapid freezing action than the compressed ice. This offers a great advantage in many cases.

For the removal of facial blemishes or malignant growths the crayon of carbon dioxide is placed against

the surface to be treated and sufficient pressure made to cause, within a second or two, a moderate depression of the frozen area below the level of the skin. This depends, however, on the structure of the treated area. Callous places or warts, for instance, are not easily depressed, and it is advisable to increase the pressure on such growths.

The physiological effects upon the frozen area vary according to the time of exposure from a simple erythema to necrosis. A bulla will form, as a rule, after five or ten seconds of deep freezing when the epidermis is solid. Raw surfaces respond with free serous exudation. The surrounding tissues are usually involved and become more or less oedematous.

Notwithstanding this very energetic freezing process the final results as far as the cosmetic condition of the skin is concerned is always satisfactory and the resulting scar, if it is at all permissible to speak of as a scar, is perfectly smooth. Although the therapeutic application of carbon dioxide is in its infancy I have every reason to believe that its future possibilities are almost beyond comprehension.

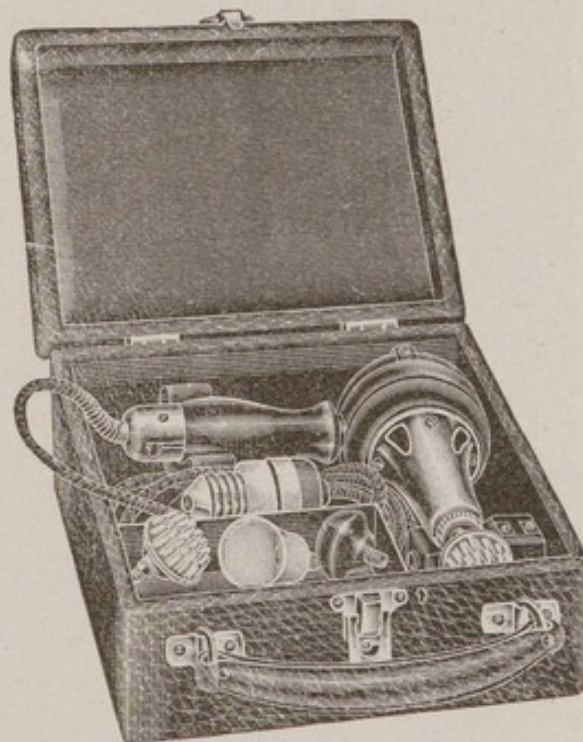
Vibratory Massage

Among many other means of mechanical therapeutics vibratory massage is creating widespread interest with the medical profession; while vibratory massage may be associated as being closely allied to the Swedish method of manual massage and osteopathy, as it involves many of the principles upon which these methods are based. It has an independent field of therapeutic application; the fundamental principles upon which it is based, which was originated by Dr. Pilgrim, is as follows: Vibration increases the volume of blood and lymph flow to a given area or organ; it increases nutrition by stimulating secretion; it improves the respiratory process and functions; it improves muscular and general metabolism, and increases the production of bodily heat; it stimulates the excretory organs and assists elimination; it tends to soften and relieve muscular contractions; it relieves engorgements and congestion; it facilitates the removal through the natural channels of the lymphatics of tumors, exudates and other products of inflammation, relieving varicosities and dissipating eruptions.

Like osteopathy the greatest field of the therapeutic application of vibratory massage is through the spinal nerve centers, and the physician should first become familiar with the distribution of the cerebro-spinal and sympathetic nervous system, recognizing these two great systems of nerve force we find the cerebro-spinal system controlling sensations and motion, and the sympathetic system governing the vital automatic processes of the internal organs, that is the circulation, digestion, secretion, absorption and excretion.

These two systems of nerves are intimately connected by branches which are called *rami communicantes*, and the point of connection is between the inter-spinous pro-

cesses of the transverse vertebrae. It is at these points all along the spinal column that osteopathy and vibratory massage has its greatest field of action. In all diseased conditions of the internal organs these connecting points become irritated; hence by making a digital examination along both sides of the spine these tender spots are easily identified and it means that there is disease or irritation in the organ or part supplied by these nerves. Vibration applied to these tender points stimulates the nerves to a new activity and either sedates or inhibits and relieves, or a cure is the result.



This is an illustration of the Premier Vibrator operated by electric light current.

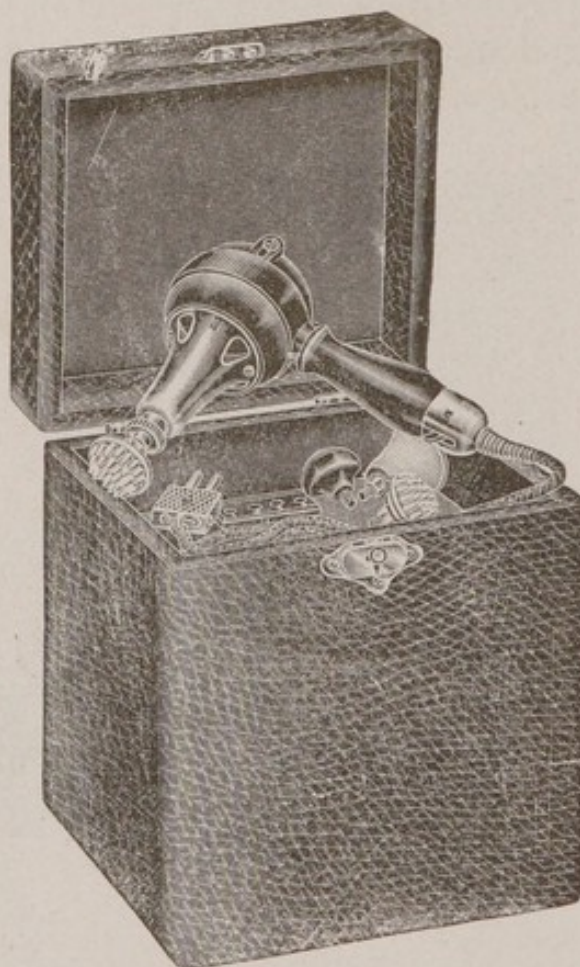
It is the best vibrator to use when your house is fitted with electric lights. All you have to do is to screw the attachment plug at the end of the cord into the most convenient socket.

It can be used on direct currents from 100 to 120 volts; and on alternating currents of 60 cycles, 100 to 120 volts.

This Vibrator may be obtained from The Maltbie Chemical Co., Newark, N. J. **Price \$25.00.**

Vibratory massage has three principal degrees of therapeutic action, namely, stimulation, sedation and inhibition. These are supplied with a motive force known as a vibrator and different styles of appliances which come in contact with the body, called vibratodes or applicators; the result desired will depend upon the amount of pressure, length of stroke, and length of treatment, to

any special area. Stimulation is produced by a short stroke and light pressure for an average of from seven to ten seconds. Sedation is obtained by a short stroke and a medium pressure, while inhibition is the result of a long stroke and heavy pressure, the latter is always used in urgent cases for the relief of pain, attacks of asthma, etc. It is also well to remember that deep-seated nerves always require the long stroke, while the superficial nerves



This illustration shows the Vibrator as operated by six dry batteries.

Advantage of this style is that the vibrator can be used anywhere regardless of whether an electric current is available or not. One set of dry batteries for ordinary use will last a long time.

New batteries can be obtained in any locality, as they are standard size as used for automobile ignition and should cost not to exceed 25 cents each.

only require the short stroke. This brings us to the consideration of a vibrator. There are many vibrators on the market, with varying degrees of efficiency. The principal point to be considered in selecting a vibrator is as follows: See that it is well equipped with vibratodes for the treatment of different areas; be sure that it localizes its stroke

and that it can be changed from a light to a heavy stroke quickly; also be sure that it has a lateral stroke for the treatment of cavities, and also a rotary stroke.

In speaking of vibratodes we refer to them as soft, hard, etc. The accompanying cut illustrates the principal style of vibratodes in present use.



No. 1.



No. 2.



No. 3.



No. 4.

No. 1. Cup applicator. Made of soft rubber, cone shaped, used for facial applications, especially around nose and eyes.

No. 2. Cup applicator. Made of soft rubber, with serrated edges for scalp massage.

No. 3. Cup applicator. Made of soft rubber. Used for the face and more sensitive portions of the body.

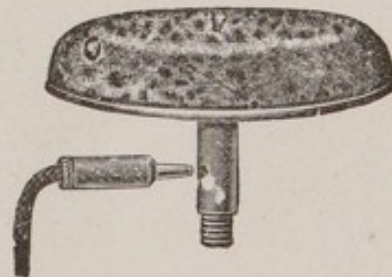
No. 4. Ball shaped applicator. Made of ebonized wood. Used for back, limbs and less sensitive parts.



No. 5.



No. 7.



No. 8.

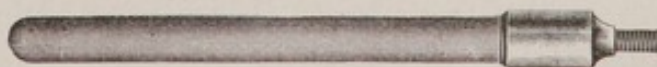
No. 5. Soft toothed applicator. Made of soft rubber and intended for the face and neck.

No. 7. Hard toothed applicator. Made of rubber, somewhat harder than the fine toothed applicator. Used on the back, limbs, etc.

No. 8. Combination applicator. Consists of a metal disc with sponge electrode attached so that combined message and magnetic treatment can be given at the same time.



No. 9.



No. 10.

No. 9. Curved applicator. Made of hard rubber and designed for the throat and other curved surfaces.

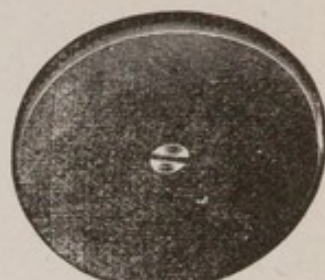
No. 10. Rectal applicator.



No. 11.



No. 12.

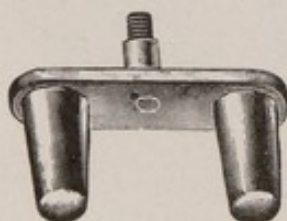


No. 13.

No. 11. Cushion applicator. Made of soft rubber and used wherever desired but generally for face and neck.

No. 12. Disc applicator. Made of corrugated hard rubber for body massage.

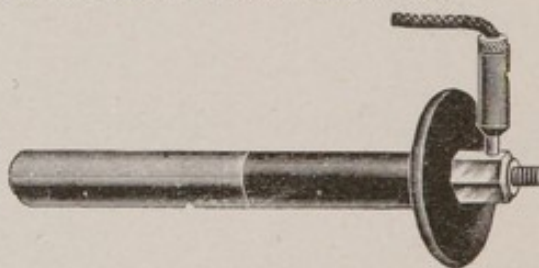
No. 13. Heart applicator. Made of hard rubber concave.



No. 14.



No. 15.



No. 16.

No. 14. Spinal applicator. Made of two rubber fingers attached to metal cross piece. Fingers are separated sufficiently to space the spine.

No. 15. Muscle applicator. Hard rubber. Convex shape. Used as a roller applicator for the muscles.

No. 16. Combination prostatic applicator and electrode.

Reginal Technique.

When we expect to obtain results in treating certain organs by vibratory massage we must locate in the spinal cord the central points where the nerves convey and receive impressions. To illustrate: If you were treating a patient with acute gastritis he would complain of pain in the stomach. By examining the spinal column you would probably find tender spots between the inter-spineous spaces of the sixth, seventh, eighth and ninth dorsal vertebra. This is due to an irritation of the afferent nerves, and by applying vibratory massage from the second to the ninth dorsal, inclusive, to the extent of inhibition, immediate relief will follow. The same is true with all the other internal organs. Mechanical therapeutics has given much study to these points and the following is the general accepted guide in treating these diseased organs. In examining the spinal column you will observe the prominent spinous process of the seventh cervical vertebra.

This is used as a landmark to count from in locating the centers where treatment is required. The following table will point out the vasomotor centers and also where pain or tenderness will be found in the spinal column.

Head and Neck.—For pain in these locations, vibration should be applied from the third cervical to the fifth dorsal, inclusive.

Arms.—Vibrate from the third to the seventh dorsal, inclusive.

Heart.—Vibrate from the third cervical to the fifth dorsal, inclusive, and tender spots may be located at the first, second and third dorsal.

Lungs.—Vibrate from the third to the seventh dorsal; tenderness may be located from the first to the fifth dorsal, inclusive.

Stomach.—Vibrate from the second to the ninth dorsal; tenderness from the sixth to the ninth dorsal.

Spleen.—Vibrate from the third dorsal to the first lumbar, inclusive, especially the fifth, sixth, seventh, eighth and ninth dorsal on the left side sensitiveness will be detected; on the left side from the fifth to the ninth dorsal vertebra.

Liver.—Vibrate from the third to the eleventh dorsal, especially from the fifth to the ninth on the right side. Tenderness will be found from the seventh to the tenth on the right side.

Pancreas.—Vibrate from the fifth dorsal to the first lumbar, inclusive.

Kidney and Ureters.—Vibrate from the fourth dorsal to the fourth lumbar. Tenderness will be located from the tenth dorsal to the first lumbar, inclusive.

Bladder.—Vibrate from the eleventh dorsal to the fourth sacral, inclusive, and look for tenderness over this area.

Prostate.—Vibrate from the first lumbar to the fifth sacral; look for tenderness from the tenth dorsal to the third sacral.

Uterus and Vagina.—Vibrate the lumbar nerves and also look for pain or tenderness at this region.

External Genitals.—Vibrate from the twelfth dorsal to the fourth sacral; tenderness over the same region.

Intestines.—Vibrate from the sixth dorsal to the first lumbar, inclusive; tenderness from the ninth to the twelfth dorsal.

Colon and Rectum.—Vibrate the sacral nerves and look for tenderness at the second, third and fourth vertebra.

Anus.—Vibrate from the twelfth dorsal to the fourth sacral; tenderness over same area.

Legs.—Vibrate from the eleventh dorsal to the third lumbar, inclusive.

Skin of the Body.—Vibrate from the first dorsal to the fourth lumbar, inclusive.

Testis Epididymis and Ovary.—Vibrate from the eighth dorsal to the fourth sacral; tenderness will be found from the tenth dorsal to the first lumbar.

While the foregoing outlines the vasomotor centers and the visceral afferent nerve fibres of the spinal ganglia in man there are many other points requiring vibratory treatment in order to successfully combat with disease, always keeping in mind, however, these special points in the spinal column, which are used in connection with other treatment. To illustrate: In the treatment for constipation, the nerve centers in the spinal column should be treated from the fifth dorsal down to the coccyx, using the ball applicator on both sides of the spinal column and just sufficient pressure made to produce stimulation, which will create a peristaltic movement of the bowels. Always bearing in mind that if the massage is carried too far, to the extent of inhibition, it will produce constipation instead of relieving it—stimulation will relieve the symptom, inhibition will produce it, therefore use the light or medium stroke for eight or ten seconds, and repeat the operation two or three times. The patient should now be placed upon his back with his knees drawn up to relax the abdominal muscles, and the region of the liver massaged with a flat or brush applicator. The colon should now be thoroughly massaged; start at the cecum and follow the course of the bowel to the rectum, using deep pressure and a rotary stroke. This course should be repeated two or

three times and finally the rectal applicator is inserted into the rectum, with the patient in Sim's position, and the medium rotary stroke used; the applicator is pressed firmly against the rectum. This treatment should last from twenty to sixty seconds until the sphincter muscles are thoroughly relaxed, as a rule a desire to evacuate the bowels will immediately follow this rectal treatment. To permanently cure these obstinate cases, the patient should be treated at least three times a week at first, while later only one treatment a week will be sufficient until entirely cured.

As a general rule pain in different parts of the body can be immediately relieved by treating the spinal nerve centers, and vibrating directly over the painful parts. This is especially so in headaches, neuralgia, rheumatism, etc.

The lymphatic glands is one of the greatest fields for the use of vibratory massage. These vessels are divided into two sets, the deep seated and superficial. These vessels arise between the lymph spaces of the capillaries and are found everywhere except the hair, nails, cuticle and cartilages. By applying stimulating massage with a brush applicator to the axilla groin and other parts of the body, where these glands are abundant, we aid drainage to these regions or cause absorption of exudates.

Nerve trunks, ganglia and plexus are important points requiring vibratory treatment. In massaging large nerve trunks, such as the sciatic, vibration should be directed from the terminus toward the centers in the spinal column.

The solar plexus is best influenced by vibrating upwards and downwards about two and one-half inches on both sides of the umbilicus, commencing at the rib line and extending to about one inch below the umbilicus.

Nearly all forms of frontal headache is relieved by vibrating the supra-orbital nerve at the notches above the orbital cavity.

The pneumogastric nerve is best reached along the anterior border of the sterno-cleido-mastoid muscle by stimulating or inhibiting this nerve at this point will have

the desired result upon all the organs supplied by this nerve. Always remember, however, that prolonged vibration will lessen the heart beat, and cause fainting, which should be avoided.

In abdominal vibration the patient should be placed upon his back, with his knees drawn up to relax the abdominal muscles, the flat disc or brush is best employed with a lateral or rotary stroke. The entire course of the colon should be massaged in rather a spiral direction, and other parts of the bowels treated in the same way.

Vibratory massage will always hold a permanent place as a therapeutic measure and it is pleasing to note that the very physicians who formerly ridiculed this means of treating disease are the most staunch advocates of its use at the present time.

The Dispensing Specialist

When physicians commence to awaken to the fact that oftentimes pharmacists can be counted as one of his greatest competitors, and that pharmacy of the old school has degenerated into a sort of semi-free dispensary, he will commence to dispense his own medicines, and the time is fast approaching when the physician will abandon his former custom of sitting at his desk with his pen and prescription pad at hand, ready to deplete his own purse for the benefit of some brother pharmacist, who in return many times would not hesitate to counter prescribe for the same patient, if opportunity presented itself, and thus rob the physician of his vocation and income.

There are many reasons why physicians should dispense his own remedies; the most important are as follows: it allows him to become acquainted with the tools of his profession, and it also allows him to keep within his professional domain; a larger financial income, than he would receive from prescription writing. Hundreds of dollars are thrown into the hands of the pharmacists every year which should have fallen into the purse of the physician, and many physicians little realize what it means to send a prescription to an unscrupulous pharmacist, who not only receives the revenue from continually refilling the prescriptions, but by becoming familiarly acquainted with patients often quizzes him regarding his ailments, and when another patient with similar ailments asks the pharmacist to prescribe for him he will prescribe from this same prescription. We therefore find that the pharmacist prizes his prescription files more than any other thing in his armamentarium.

At the present age, when compressed tablets, pills, tablet triturates, alkaloidal granules, fluid extracts, and specific tinctures, etc., are so accessible to the physician, the art of dispensing is an easy and accurate procedure

compared with former years, and our many reliable pharmaceutical manufacturing and chemical companies can supply their products in nearly every form the physician may desire, which he can dispense in their original form or compound into stock preparations with little or no trouble. The only equipment required would be a glass graduate mortar and pestle, a glass funnel, a percolator, and filtering paper. The following stock preparations are in daily use with many physicians and will be found superior to many similar preparations found in the drug stores.

Elixir of Buchu, Juniper and Potassium Acetate.

F. E. buchu.....	12 dr.
F. E. juniper berries.....	4 dr.
Potassium Acetate.....	192 gr.
Alcohol	1 oz.
Simple syrup	1 oz.
Simple elixir.....	12 oz.

Mix. Allow to stand 24 hours and filter through talcum. Each fluid dram contains $1\frac{1}{2}$ grains of potassium acetate, and represents about $5\frac{1}{2}$ grains of buchu, and 2 grains of juniper berries.

Elixir of Celery Compound.

F. E. celery seed.....	1 oz.
F. E. cocoa.....	1 oz.
F. E. kola.....	1 oz.
F. E. of black haw.....	1 oz.
Alcohol	2 oz.
Aromatic elixir, enough to make.....	16 oz.

Mix the alcohol with four fluid ounces of aromatic elixir; to this add the fluid extract of celery in several portions, shaking after each addition, and afterwards the other fluid extracts; finally add the remainder of the elixir, allow the mixture to stand 24 hours, and filter.

Elixir of Four Chlorides.

Mercuric chloride	2 gr.
Solution of arsenic	5½ dr.
Tinct. ferric chloride	2 oz.
Hydrochloric acid, diluted	11 dr.
Syrup of ginger	4 oz.
Water enough to make	16 oz.
Mix, dissolve, and filter if necessary.	

Each fluidram contains about 1-40 grain of arsenious acid (as so-called "chloride of arsenic"), 1-64 grain of mercuric chloride, about ¾ grain of ferric chloride, and about 5 minims of diluted hydrochloric acid.

Elixir of Helonias, Compound.

F. E. false unicorn (helonias dioica)	2 oz.
F. E. Mitchella	4 oz.
F. E. blue cohosh	2 oz.
F. E. crampbark	2 oz.
Purified talcum	½ oz.
Aromatic elixir, enough to make	16 oz.
Mix and filter.	

Each fluidram represents 14 grains of michella, and 7 grains each of helonias, blue cohosh and crampbark.

Elixir of Hypophosphites.

Calcium hypophosphite	384 gr.
Sodium hypophosphite	128 gr.
Potassium hypophosphite	128 gr.
Citric acid	30 gr.
Water	4 oz.
Glycerin	4 dr.
Compound spirit of cardamon	4 dr.
Aromatic elixir, enough to make	16 oz.

Dissolve the hypophosphites and the citric acid in the water; then add the glycerin compound spirit and the aromatic elixir. Filter if necessary.

Each fluidram contains 3 grains of calcium hypophosphite and 1 grain each of sodium and potassium hypophosphite.

Elixir of Hypophosphites of Iron and Quinine.

Iron hypophosphite.....	128 gr.
Potassium citrate.....	128 gr.
Quinine sulphate.....	128 gr.
Calcium hypophosphite.....	30 gr.
Spirit of orange.....	2 dr.
Spirit orange flower water.....	1 oz.
Sugar	5 oz.
Alcohol	

Distilled water; of each sufficient.

Dissolve the iron hypophosphite with the aid of the potassium citrate in the orange flower water, and enough water to make the solution measure 6½ fluid ounces, and in this dissolve the sugar. Triturate the quinine sulphate with 5 fluid ounces of alcohol, add a solution of the calcium hypophosphite in 4 fluidrams of water, and shake the mixture occasionally during 1 hour; filter, and wash the filter with enough alcohol to make 6½ fluid ounces. Add this solution to the spirit of orange, mix this with the iron solution and sugar solution previously prepared, and filter the whole.

Each fluidram contains 1 grain each of the hypophosphites of iron and quinine.

Elixir of Six Iodides.

Arsenic iodide.....	1 gr.
Mercuric iodide.....	1 gr.
Manganese iodide.....	13 gr.
Sodium iodide.....	128 gr.
Potassium iodide.....	128 gr.
Solution of iron iodide, N. F.....	15 m.
Sodium hypophosphite.....	sufficient
Simple elixir, enough to make.....	16 oz.

Add the six iodides to the elixir, dissolve by agitation, add a few grains of sodium hypophosphite, or sufficient to decolorize the liquid, and filter.

Each fluidram contains 1-128 grain each of arsenic and mercury iodides, 1-12 grain of ferrous iodide, 1-10 grain of manganese iodide, and 1 grain each of sodium and potassium iodides.

Elixir of Long Life.

Aloes	200 gr.
Rhubarb	35 gr.
Gentian	35 gr.
Zedoary	35 gr.
Spanish saffron.....	35 gr.
Water	84 oz.
Alcohol	12 oz.

Mix the drugs in coarse powder with the two liquids, macerate for 3 days, agitating frequently; express and filter. Sometimes 35 grains of agaric is added to the other drugs, and the menstruum generally employed is diluted alcohol.

Elixir of Orange.

Bitter orange peel, cut.....	1600 gr.
Cinnamon, bruised.....	320 gr.
Potassium carbonate.....	80 gr.
E. gentian.....	160 gr.
E. wormwood.....	160 gr.
E. Buckbean.....	160 gr.
E. Cascarella.....	160 gr.
Sherry wine, enough to make.....	16 oz.

Macerate the orange peel, cinnamon, and potassium carbonate with the 16 fluid ounces of sherry wine for 8 days, agitating occasionally; express the liquid portion in the latter, dissolve the extracts, filter, and add enough sherry wine through the filter to make the filtrate measure 16 fluid ounces.—Germ. Pharm.

The National Formulary recognizes what is identically the same preparation under the title "Compound Wine of Orange." In the latter no extracts are used, but the drugs themselves are mixed with the orange peel, cinnamon and potassium carbonate, the whole being extracted by percolation.

Elixir of Pepsin, Quinine and Strychnine.

Strychnine sulphate.....	1 $\frac{1}{4}$ gr.
Distilled water.....	4 dr.
Elixir of pepsin and quinine.....	15 $\frac{1}{2}$ oz.

Dissolve the alkaloidal salt in the water and add the elixir. Each fluidram contains 1-100 grain of strychnine sulphate, nearly $\frac{1}{4}$ grain of quinine sulphate, and nearly 1 grain of pepsin.

Elixir of Phosphorus, Quinine and Strychnine.

Elixir of phosphorous.....	8 oz.
Quinine hydrochlorate.....	32 gr.
Strychnine sulphate.....	1 $\frac{1}{4}$ gr.
Distilled water	4 dr.
Tincture of cudbear.....	2 dr.
Simple elixir, enough to make.....	16 oz.

Dissolve the quinine in 7 fluid ounces of simple elixir, and the strychnine salt in the water; mix the two solutions and then add the other ingredients.

Each fluidram contains 1-100 gr. of strychnine sulphate, $\frac{1}{4}$ grain of quinine sulphate and 1-100 grain of phosphorus.

Elixir Pulmonic.

Pure E. licorice, U. S. P.....	300 gr.
F. E. squill.....	128 min.
F. E. senega.....	128 min.
F. E. henbane leaves.....	128 min.
F. E. ipecac.....	64 min.
Morphine sulphate	8 gr.
Distilled water	4 dr.
Tinct. cacao	4 oz.
Tincture of cherries, enough to make.....	16 oz.

Dissolve the morphine in the water, add the licorice extract, mix well, add the remaining ingredients, and filter.

Each fluidram contains 1-16 grain of morphine sulphate.

Elixir of Rhubarb and Potassium.

(Neutralizing Elixir.)

Rhubarb	320 gr.
Golden seal.....	160 gr.
Cinnamon	160 gr.
Potassium bicarbonate	320 gr.
Spirit of peppermint.....	1 dr.
Simple syrup	2 oz.
Diluted alcohol,	
Simple elixir—of each sufficient.	

Reduce the three drugs to moderately coarse powder, extract them in the usual way by percolation with diluted alcohol until 6 fluid ounces of percolate are obtained. In this percolate dissolve the potassium bicarbonate, add the spirit of peppermint, syrup, and enough elixir to make 16 fluid ounces of product, and filter.

This preparation represents the well-known syrup of rhubarb and potassium in the elixir form.

**Emulsion of Cod Liver Oil with Creosote and
Hypophosphites.**

Cod liver oil.....	8 oz.
Creosote, pure	1½ dr.
Acacia powder	2¼ oz.
Glycerin	1 oz.
Syrup of orange.....	4 dr.
Calcium hypophosphite	128 gr.
Sodium hypophosphite	128 gr.
Oil of wintergreen.....	½ dr.
Oil of sassafras.....	½ dr.
Oil of cinnamon.....	½ dr.
Distilled water, enough to make.....	16 oz.

Mix the cod liver oil, creosote, and essential oils with the acacia in a dry mortar; dissolve the hypophosphites in 3 fluid ounces of warm water, pour the solution all at once into the mixture of oils, creosote and acacia, and stir briskly in one direction with the pestle until emulsification takes place; then add the glycerin, syrup and water enough to make 16 fluid ounces, and strain through a cloth.

Solution, Antiseptic, Seiler's.

Sodium bicarbonate	240 gr.
Borax	240 gr.
Sodium benzoate	10 gr.
Sodium salicylate	10 gr.
Eucalyptol	5 min.
Thymol	5 gr.
Menthol	2½ gr.
Oil of wintergreen.....	8 drops
Glycerin	4¼ oz.
Alcohol	1 oz.
Distilled water, sufficient to make.....	8 pints

Dissolve the salts in 64 fluid ounces of water by the aid of heat, also the eucalyptol, thymol, menthol, and the oil in the alcohol, mix the two solutions, add the glycerin and the remainder of the water, allow to stand for 24 hours, and filter.

Solution, Antiseptic, Lister's.

(Lister's Antiseptic Fluid.)

Benzoic acid.....	64 gr.
Borax	64 gr.
Boric acid	128 gr.
Thymol	20 gr.
Oil of eucalyptus.....	5 drops
Oil of wintergreen.....	5 drops
Oil of peppermint.....	3 drops
Oil of thyme (white).....	1 drop
F. E. of wild indigo.....	20 drops
Alcohol	6 oz.
Distilled water—sufficient.	

Dissolve the two acids and borax by the aid of heat in 8 fluid ounces of water, also dissolve the thymol and oils in the alcohol, mix the two solutions, agitating frequently during mixing, add the fluid extract, and then enough water to make 16 fluid ounces; set aside for 24 hours, and filter through purified talcum.

Secret Prescription Writing

Very often we find physicians who wish to have their prescriptions filled at a certain drug store, either because they think they have better drugs or else because they receive a percentage on prescriptions or perhaps they have an interest in the store. This has caused different secret systems of prescription writing to be introduced. The following very simple method has been used in some places and is a very convenient way to write prescriptions.

By the use of this system all medical ingredients are divided into grains, minims, and drachms. If the drug is a solid, it is designated either as grains or drachms, if a liquid, either minims or drachms. Grains and minims are distinguished from drachms by the position of the period. If the period appears at the right of the number, it either means grains or minims (1. one grain or minim); if at the left of the number, it signifies drachms (.1 one drachm). To illustrate, the following prescription will give the symbols of both ways of writing the same prescription:

R Strychnine nitrate $\frac{1}{2}$. equals $\frac{1}{2}$ gr.
Tinct. capsicum 20. equals 20 min.
F. E. cinchona com..... .6 equals 6 dr.
Simple elixir ...q. s. ad. .32 equals 4 oz.

M. Sig. A teaspoonful every hour as a "bracer" for debauch.

For writing prescriptions in this way you should have special printed prescription blanks directing the patient to the pharmacy where it is to be filled or tell the patient that he can get it filled only at that certain store.

To the pharmacist who is not familiar with this way of writing prescriptions it is rather puzzling and some will refuse to fill the prescriptions altogether, while others will attempt to guess it out, which might act to the disadvantage of the prescriber.

The Nostrum Specialist

Nostrum venders should not be classed under the title of specialists, but most nostrums have a specialist at their helm, who is exercising great energy for the sale of his preparations. The amount of money spent in advertising the so-called patent medicines will reach into the millions every year, and the methods of advertisers has created quite a rivalry, and we often see one attack another through printer's ink.

There has been hundreds and hundreds of nostrums offered for sale, and while many of them have only become popular in certain localities, others have gained a national or international reputation, depending somewhat upon the amount of money, energy and cleverness displayed in advertising them. It is the author's belief that any preparation with a reasonable degree of merit can be sold if it is placed before the public in the right light, and the amount of popularity gained will depend altogether upon the "man behind the gun." To illustrate the great and small, I will give some instances which have come to my notice.

ESTABLISHING THE SALE OF NOSTRUMS IN SMALL COMMUNITIES.

Several years ago I had a friend who was conducting a drug store in a small city. One day we entered into a discussion regarding the profit made in patent medicines. I argued that any meritorious preparation could be manufactured at about one-third the cost of nostrums and would find a ready sale, if the same amount of money was expended in advertising; he decided to test the project and made up a quantity of King's Consumption Cure, after the formula given on another page. The preparation was identical with King's Consumption Cure, except

that he added more caramel to give it a deeper color. This was cartooned and labeled nicely and placed upon the market under the name of Halwood's Cough Cure. By keeping his advertisement persistently before the public, he has created a great demand for the preparation, which today is bringing him a greater profit than all the rest of his drug business. Although the preparation is only known in one county, there is no doubt that if he would exercise more energy and use more capital, he would create a demand for the preparation throughout the state, or perhaps the United States, and it would gain the same popularity as the original; but he is contented with his lot. One county satisfied his ambition. This is given to show how the sale of a nostrum can be limited or expanded according to the ambition of the proprietor.

There are several other ways in which patent medicines have been brought before the public. Most of the Indian remedies have been introduced through Indian medicine companies, who travel from town to town; pitch their tents on some public thoroughfare and give an Indian show. The presiding professor tells the story of the skill the Indians possess in selecting remedies for the sick and suffering(?). The New Idea gives the following regarding a company that visited this city a few years ago for the introduction and sale of

HARTLEY'S SOUTH AMERICA CURE.

“During the summer of the present year a man calling himself Prof. Hartley occupied a vacant lot in Detroit, with a large tent, lighted by electric light, wherein he had immense audiences every evening during his stay which lasted some two months. The professor gave a short lecture upon a South American cure, which he stated to be composed of roots, herbs, seeds, barks, and flowers growing exclusively in South America, and used for centuries by the Araucanians, a tribe of people who inhabit the western slope of the Andes, in the southern part of Chili. During his lecture the professor managed to give the audience to understand that this wonderful medicine performed more cures of indigestion, dyspepsia, catarrh,

rheumatism, liver complaints, and kidney diseases, than any other medicine on the face of the earth. Being curious to know something more concerning the internal constitution of this South American Cure, we purchased a bottle, and subjected it to an analysis, according to which we find that it consists of fluid extract of rhubarb, 8 parts; fluid licorice and anise, each 2 parts; fluid capsicum 1-3 part; fluid aloes, 1-6 part, alcohol, 6 parts; water enough to make 32 parts, to which a small percentage of sodium bicarbonate is added, about ten grains to the ounce. How is this for a South American cure, which country does not furnish to commerce one ingredient in the nostrum? It is asserted that 60,000 bottles were sold in Detroit in a few weeks that this so-called professor held forth."

Other medicine firms depend exclusively upon newspapers, circulars, and sampling, free prescriptions, etc. The following will give you an idea of the way the free prescription fake schemes are worked:

DR. CHURCHILL'S PRESCRIPTIONS.

The "Churchill Prescriptions" are being sent out "free." As this particular form of the "sands of life" kind of philanthropy will be new to some readers, we will copy literally, as a sample, one of the prescriptions, which is for "nervous debility," etc.

R Pareira brava	1/4 oz.
Hydrastic C	1/2 oz.
Peruvian bark calisaya	1/2 oz.
Bromide potassium	1/2 oz.
Carbonate lithia	1 dr.

The "mode of preparing" is given as follows:

"Put one-quarter ounce pareira brava to one ounce of boiling water; let it stand for two hours; then add of finely powdered hydrastic C, one ounce; mix well and reduce to the consistency of syrup by evaporation. Put one ounce peruvian bark calisaya to two ounces of boiling water; let it boil five minutes; then filter and add one and one-half ounces bromide potassium. Wash two drachms

in the salts of carbonate lithia in proper vessels, and add all the ingredients together, and heat on a slow fire in a close covered vessel to 100 degrees specific gravity; remove it to a mortar, pulverize well, and triturate. Divide the whole mixture into fifteen powders."

The reader is warned in the customary fashion against "unprincipled druggists" who undertake to prepare the "prescriptions" as "best they can," and is invited to send to the advertiser for the "remedies."

The difference between these prescriptions and the "Blodgetti" and "Arabain sea-grass" operations is, that the former direct nothing but medicines that really exist, but cannot be "compounded" according to the absurd directions, which appear very learned to the average reader.

The only course left open to a conscientious pharmacist who is asked to prepare such a prescription, is to inform the customer of its exact nature, and to "back up" his statements by the Circular, in which he will find all such schemes explained as they arise. As people seem to take more kindly to what they see in print than to what is told them by a familiar acquaintance, this plan has been found to work well; the pharmacist sustaining his reputation for knowledge and ability.

CORRASSA COMPOUND.

Another free recipe for the permanent cure of spermatorrhoea, seminal weakness, involuntary emissions, impotence, etc.:

R	Extract of corrassa apimis	8 dr.
	Extract of salarmo unbellifera	4 dr.
	Powdered alkermes latifolia	3 dr.
	Extract of carsadoc herbalis	6 dr.

Mix well together in a mortar, then put the mixture in a box and keep it covered, or wrap it in paper and cover with tinfoil to exclude the air. For a dose, take about one-half a teaspoonful of the mixture, and moisten it with a little cold water in a glass or cup, then add about two tablespoonfuls of cold water, or just enough to en-

able you to take it down easily. Take the medicine at night before going to bed, and in the morning before eating. If you wish to sweeten it you may add as much sugar or syrup to each dose as may suit your taste. The circular continues as follows:

“The above named herbs, so remarkable for their healing qualities, are found in the great valleys of the Amazon and through most of the valleys of the South American mountains. Their wonderful medicinal properties are known to the Indian medicine men, and also to some of the learned missionaries from Europe, who reside in South America.

This particular combination of remedies is called the Corrassa Compound, taking its name from the first of the four medicines which compose the recipe when it is ready for use.

The Corrassa Compound acts particularly on the membranes which line the urinary and genital organs, allaying irritation, curing the unhealthy discharges, and imparting a healthy tone to the nerves and tissues which compose these parts. Its tonic properties give strength to the weak and incompetent, while its soothing properties keep down over-excitement of the sexual organs. In gonorrhoea or gleet this medicine cures almost like magic. It is also highly beneficial for females who suffer from leucorrhoea or whites.

This remedy from South America (the land of medicines) is entirely a product of the vegetable world. No deleterious ingredients enter into its composition; no injury to the constitution can possibly occur from its use, and no other remedy will so effectually eradicate mercury and other mineral poisons from the body. On the human system it acts like a charm. It improves the digestion, purifies the blood, gives tone to the nerves, prevents the tendency to consumption, imparts to the skin a fresh bloom, and gives to the countenance an animated and brilliant expression. The good effects of this medicine in my own case you will find related in the following circular, which you will please read.” (Extract from accompanying circular.)

“Following this the Rev. Jos. T. Inman tells a plaintive story of how he suffered from the effects of his youthful indiscretions; how he tried all the best physicians in America and Europe; how at last his friends managed to transport him to the good ship Reindeer, R. I. Marsh, captain, to Para, South America, to spend his last hours as a missionary among the heathen. While there he devoted his “spare time to the study of medicinal plants,” and while doing so, “first learned the virtues of the Cor-rassa Compound,” and also made the acquaintance of a “learned and venerable physician named Ferandez Colina, a native of Spain, who had studied in Paris, and had traveled extensively through South America.”

All of this is intended to frighten and obtain money from the hoped-for victim. No such drugs as are given above being in existence, the dupe is expected to purchase them from the “Reverend” Inman.

This wonderful (?) preparation having been analyzed by Dr. A. B. Lyons, of Detroit, was found to consist of:

R	Gentian	15	per cent.
	Licorice	15	per cent.
	Sugar	50	per cent.
	Sodium bicarb	17½	per cent.
	Cochineal	2½	per cent.

All in fine powder.

—(New Idea.)

THE RAPID METHOD OF CREATING A LARGE DEMAND FOR NOSTRUMS.

One of the most novel and profitable ways of introducing patent medicines was told me by a druggist, who was formerly proprietor of a drug store in northern Michigan, and I think the story will be sufficiently interesting to repeat here, from the fact that the company is now located in Columbus, Ohio, and is among the largest of patent medicine advertisers, as it spends several hundred thousand dollars every year in advertising. This company had three preparations for which it wished to create a rapid demand, and its method was to send an

advance agent to various given points, to contract with some local druggist to place so many gross of each kind of medicine in his store for sale. The druggist was not to pay for the medicines until they were entirely disposed of, when he was expected to pay the regular wholesale price. After making the contract with only one store in each place, the advance agent immediately commenced to circularize the entire population not only of the city, but of the country for many miles around. The circulars conveyed the information that a certain specialist of wonderful skill and ability would visit that city for the purpose of healing the afflicted. The physician was billed as a philanthropist of the highest character, and under no consideration would he accept any remuneration for his services, his skill being absolutely free and at the command of the sick and suffering.

THE SPECIALIST ARRIVED.

As early as six o'clock in the morning the hotel parlors were packed to their fullest capacity. Each patient was handed a card giving instructions how to approach the doctor, a part of the advice being to "ask the doctor no questions, as he can tell your ailments better than you can describe them yourself. Each patient will be allowed only five minutes' consultation," etc. When the patient was admitted to the consultation room he was given a seat and the doctor then proceeded to describe his ailments in very much the same manner outlined in the chapter on the Observing Specialist. The doctor then dictated a prescription to his stenographer, which consisted principally of fictitious names of pharmaceutical products, handed it to the patient and dismissed him.

THE DOCTOR'S UNDERSTANDING WITH THE DRUGGIST.

It was understood between the physician and druggist that any prescription he sent him, containing a sixteen-ounce mixture would be the preparation he left at the store, containing the same amount of medicine (which is

supposed to be a mild cinchona tonic.) The twelve and fourteen-ounce mixtures were also identified in the same way. The physician did not always confine his prescribing to the stereotyped preparations at the store, but often added a little nux vomica or other medicines he thought the patient required. The druggist supplied the doctor with prescription blanks, with the name and address of his store, which was supposed to be the only store in the city where the prescription could be compounded. The physician instructed the druggist to remove the original labels the preparation contained, and replace them with the regular druggist label with Sig. The gentleman who conducted the store told me that the financial receipts for the prescriptions that day amounted to several hundred dollars, but they did not end there, they continued to fill the same prescriptions for several years afterwards, and thus created a demand for the nostrums which I suppose are still supplied by the same company.

This method has proven to be one of the most successful methods of introducing nostrums that the author has any knowledge of, for today the company is rated at over a million dollars, and it did not take the doctor and his staff over two years to visit most of the principal cities of the United States, and thus cover the entire country.

THE COST OF NOSTRUMS.

In the preceding paragraphs we have outlined some of the ways of promoting the sale of nostrums. We will now discuss the cost of nostrums. My attention was first called to this subject by an article which appeared in the *Indiana Pharmacist*, in which it said:

“Why should you pay \$1.90 a dozen for Bull’s Cough Syrup, when you can put up a better article containing no opium, giving three times the quantity for the same money, at a cost of 46 cents a dozen?”

Here is a formula for a most excellent cough syrup:

R	Fl. ext. ipecac.....	2 oz.	38 cents.
	Chloroform	1½ oz.	2 cents.
	Tinct. white pine.....	8 oz.	14 cents.
	Water	28 oz.	
	Sugar	56 oz.	25 cents.
	Magnesia carb.....	2 oz.	3 cents.
	Tinct. gelsemium	1 oz.	2 cents.

Total84 cents.

This makes five pints of the finished product, which put up in three ounce ball-neck panels, holding 2¼ ounces, would make 3 1-6 dozen bottles. The cost of the bottles would be 50 cents, and the labels, wrappers, etc., would cost not more than 10 cents, making a total cost of \$1.44 for three and one-sixth dozen syrup, or about 46 cents a dozen, as against \$1.90 a dozen for Bull's.

Take the subject of bitters. None of the patients can be bought for less than \$7.00 a dozen, and from that up to \$8.50. They retail for \$1.00 where "cutting" is not known. Take the following formula:

R	Cinchona bark, red.....	8 oz.	30 cents.
	Gentian root	8 oz.	5 cents.
	Columbo root	8 oz.	10 cents.
	Juniper berries	8 oz.	3 cents.
	Glycerine	8 oz.	9 cents.
	Alcohol	1 part.	
	Water	3 parts.	

To make one gallon of finished product.

Have the drugs ground to a coarse powder, pack in a percolator, pour on menstruum until the top of the drug is evenly covered. When the percolate begins to drop, insert a cork in the percolator, cover the top, and allow the contents to macerate 48 hours. Then proceed to obtain 7½ pints of percolate, to which add the glycerine. Flavor with oil of wintergreen.

This makes eight pints of finished product, which put up in pint bottles, sells for \$1.00 a bottle. The bottles

cost 25 cents, and the labels and wrappers not to exceed 10 cents, making a total cost of \$1.50 for eight bottles, or \$2.25 for a dozen, as against \$7.00 to \$8.00 for the regular nostrum.

For a blood purifier that will "do the work every time:"

R	Fl. ext. sarsaparilla	8 oz.	50 cents.
	Fl. ext. stillingia	8 oz.	25 cents.
	Fl. ext. yellow dock	8 oz.	25 cents.
	Podophyllin	24 gr.	3 cents.
	Aqua	2 pt.	
	Elix. simplex	2 pt.	23 cents.
	Alcohol	2 pt.	55 cents.
	Iodide potash	1 oz.	18 cents.

Mix and filter. Put up in paneled 14-ounce bottles. This will give nine bottles to the gallon. The bottles will cost 26 cents, label and wrappers 10 cents, making a total cost of \$2.35 for nine bottles, or \$3.13 a dozen, as against \$7.00 to \$8.50 a dozen for the much-vaunted nostrums that are generally only a solution of epsom salts, colored and flavored.

For a kidney cure, one that invariably brings back the customer, recommends itself and makes business brisk:

R	Fl. ext. buchu	8 oz.	35 cents.
	Fl. ext. pareira brava.....	4 oz.	20 cents.
	Fl. ext. stone-root.....	4 oz.	20 cents.
	Acetate potass	4 oz.	15 cents.
	Holland gin, best	8 oz.	20 cents.
	Simple elixir, to make.....	1 gal.	72 cents.

Mix. Filter and put up in bottles holding eight ounces, plain or paneled, as best suits. The bottles will cost 44 cents, and the labels and wrappers 10 cents, making a total cost of \$2.35 for 16 bottles, or \$1.77 a dozen. This can be sold for 50 cents a bottle, and will afford a much better per cent. and larger profits than Warner's nostrum and do the patient some good.

For a liniment for general purposes, that will relieve pain and soreness, giving much better satisfaction than St. Jacob's oil:

R	Soap liniment	5 pt.	\$1.00
	Aqua ammonia	2 pt.	.12
	Tinct. opium	1 pt.	.60

After reading the above article it occurred to me that physicians might need a little of the same advice, when we stop to consider the number of pharmaceutical preparations, which are offered to the medical profession at an enormous advance in price, and the only defense their manufacturers can offer, is that their products are "chemically pure," which is no doubt true, but when we have access to products from the laboratories of Parke, Davis & Co., Merck's and many others, why should we pay many times the original cost to have some pharmaceutical manufacturing company place these chemical products in an aromatic vehicle? This is well illustrated in the preparation Bromidia, Peacock's Bromides, Sanmetto and others. I would suggest why pay one-dollar for a four-ounce bottle of Bromidia when you can get the identical preparation in purity and therapeutical value in the following formula:

BROMIDIA.

R	Chloral hydrate (Merck's)....	1 oz.	11 cents.
	Potassium Brom. (Merck's)...	1 oz.	5 cents.
	Fl. ext. cannabis ind. (P.		
	D. & Co.).....	4 min.	
	Fl. ext. hyoseyamus (P.		
	D. & Co.	4 min.	
	Caramel	q. s.	color.
	Aromatic elix.	q. s.	4 oz. 4 cents.

The above makes an excellent preparation and only represents one of the many stock preparations which a physician could prepare and have in his dispensing case at little expense.

Perhaps no greater illustration can be made in the way chemical products have been sold to physicians, at

fancy prices, than in the different ways acetanilid has been introduced. The cheapness of this remedy (fifty cents a pound) makes it a very profitable preparation to compound with other remedies, and dispose of under a "coined name." Dr. Potter's *Materia Medica* gives the following regarding some of the preparations this drug is supposed to largely enter:

AMMONOL.

A proprietary antipyretic and analgesic, claimed to possess unusual stimulating and expectorant properties due to the loosely combined ammonia in its composition. Beringer concludes that it is merely an admixture of:

R	Acetanilid	2 parts.
	Sodium bicarbonate	1 part.
	Ammonium carbonate	1 part.

With a minute quantity of the dye mentanil—yellow. A similar mixture is used at the Philadelphia Hospital under the name ammoniated acetanilid, which consists of:

R	Acetanilid	2½ gr.
	Sodium bicarbonate	1½ gr.
	Ammonium carbonate	1 gr.

This for a minimum dose. Dose of ammonol or ammonol salicylate gr. v-xx.

ANTI-KAMNIA.

Is a proprietary preparation widely advertised as an antipyretic and analgesic. Analysis of several samples have been made by different chemists, all of which agree in finding the chief ingredients to be acetanilid and sodium bicarbonate in varying proportions. By some observers caffeine was detected, also tartaric acid, etc. The preparation is formulated by the latest analysis as a mixture of:

R	Acetanilid	70 parts.
	Sodium bicarbonate	20 parts.
	Caffeine	10 parts.

Dose, gr. v-xv, in powder or tablets.

Since the passage of the Pure Food and Drugs Law acetphenetidin has been substituted for acetanilid.

ANTI-KOL.

R	Acetanilid	75 parts.
	Sodium bicarbonate	17½ parts.
	Tartaric acid	7½ parts.

Dose, gr. v-xv. (Squibb.)

ANTINERVIN.

R	Acetanilid	2 parts.
	Salicylic acid	1 part.
	Ammonium bromide	1 part.

Dose, gr. v-xv. (Ritser.)

EXODYNE.

R	Acetanilid	90 parts.
	Sodium salicylate	5 parts.
	Sodium bicarbonate	5 parts.

The name sufficiently states its claim to medicinal virtue. Dose, gr. iij-x.

FEBRINOL.

So called by its proprietors, is a mixture of acetanilid and other inert substances, advertised at one-half the price of similar coal-tar preparations.

PHENOLID.

R	Acetanilid	58 parts.
	Sodium salicylate	43 parts.

And competes with the above as a panacea. Dose, gr. v-xv.

I am not aiming to do an injustice to the manufacturers of the different non-secret preparations, which are offered the medical profession, but I only wish to point out the large revenues they receive for adding an aromatic vehicle and favorably impressing the profession that their preparations offer special advantages, because they are chemically pure and pharmaceutically correct.

PHYSICIANS AND NOSTRUMS.

Many physicians are, generally speaking, no different from the laity, and often entertain some of the mysteries which hover around the healing art, and place more value upon a remedy of which they know little of the contents, than they do on their own knowledge of medicine. The principal thing they are seeking is "results," and with this end in view prescribe nostrums, with the same grace and dignity that a grandmother will goose-oil.

I have seen many physicians prescribe such nostrums as Hive Syrup, Castoria, Trask's Ointment and others of a similar character, when superior treatments were at their command. This practice has become as profound a habit with some physicians as tobacco has with others on the other hand the medical journals contain advertisements of several preparations which are nostrums in the broadest sense of the term. To illustrate, Micajah's Uterine Wafers, which are sold at fancy prices, do not compare, in results, with those which can be obtained from the use of the extra-uterine application, given on another page.

If the practice of medicine is the exercise of medical art, and embraces all that pertains to the knowledge of medicine, my plea is to broaden our knowledge to the extent that we may prescribe knowingly, intelligently and specifically in each case, and abandon as far as possible "shot gun therapeutics."

THE FORMULAE OF NOSTRUMS.

It is the author's belief that most physicians will appreciate a collection of the formulae of the most prominent secret nostrums, and for several years I have been extracting these formulæ from medical journals, books, newspapers, etc., and in addition to the formulæ already given throughout this volume, I will add several more. Preserving these formulæ in a convenient form for ready reference, affords many advantages, as patients will often ask physicians regarding the contents of a certain patent medicine, and by referring to this collection, he can not only supply them with the information, but encourage

them to abandon their use for a more thorough course of treatment, as their case may require.

In cases of poisoning from patent medicines, which is not of infrequent occurrence, this allows the physician to select the antidote. It also gives your patient to understand that you are familiar with the ingredients these preparations contain, and you cannot recommend their use, because you can furnish a more specific course of treatment. Although some of these medicines have a certain degree of merit, many of them are of little or no value, as their formulæ will indicate. Out of curiosity I have had several of these formulæ compounded and compared them with the original, to ascertain whether or not there was a resemblance, and if they could be prescribed with equal therapeutical results, and I have been surprised at the success obtained in many cases.

I, in no way wish to be held responsible for the correctness of all these formulæ. The author's name is appended in each case, when known.

ACTINA.

Prof. Flavel B. Tiffany, of the University Medical College, this city, says the extensively advertised "Actina" has this composition:

R Menthol crystals1 dr.
Alcohol $\frac{1}{2}$ dr.
Ether sulp.....1 dr.
Oil mustard.....2 dr.
Sponge sufficient to make 1 oz.

ALLEN'S LUNG BALSAM.

R Tinct. sanguinaria.....8 oz.
Tinct. lobelia.....8 oz.
Tinct. opium.....4 oz.
Tinct. capsicum $1\frac{1}{2}$ oz.
Essence sassafras1 oz.
Essence anise1 oz.
New Orleans molasses.. $\frac{1}{2}$ gal.

Bring the syrup to a boil, and add cautiously the other ingredients.—(Kilner.)

AMICK'S CONSUMPTION CURE.

The Amick advertisements appeared shortly after the publication of Dr. N. B. Shade's paper in this and other journals. Amick copied Shade's language, speaking of the "chemical" cure, etc., and I believe adopted Shade's method of treatment. These are fully described by Shade, and consist of the use of calomel, iodoform, guaiacol, etc.—(Dr. Waugh in Times and Register.)

ARABIAN BALSAM.

R Oleum gossypium15 oz.
Oleum origani1 oz.
Oleum terebinth4 dr.
Mix.—(S. W. Rogers.)

ASEPTIN.

R Borax2 parts
Alum1 part
Mix.—(National Druggist).

ATHLOPROHOS.

R Acetate of potash.....1 dr.
Salicylate of soda490 gr.
Sugar4 oz.
Caramel3 drops
Water14 fl.oz.
Mix.(New Idea.)

ATKINSON'S INFANT PRESERVATIVE.

R Carbonate magnesia6 dr.
White sugar $2\frac{1}{2}$ oz.
Oil anise20 drops
Comp. spirits ammonia $2\frac{1}{2}$ dr.
Rectified spirits $2\frac{1}{2}$ dr.
Tinct. opium.....1 dr.
Syrup saffron1 oz.
Caraway water enough
to make1 pint

Mix. Use as an antacid, anodyne and hypnotic.—(Pharm. Record.)

AUGSBURG ESSENCE OF LIFE.

R Rad. rhei.....1 oz.
 Myrrhae2 oz.
 Rad. gentian2 oz.
 Croci opt..... $\frac{1}{2}$ oz.
 Camphor $\frac{1}{2}$ oz.
 Rad. zedoar1 oz.
 Rad. angelica $2\frac{1}{2}$ oz.
 Castor $\frac{1}{2}$ oz.
 Aloes, socot.....2 oz.
 Sp. vini. rect.....2 pts.
 Aqua2 pts.
 Mix. Digest five days and filter.
 Dose—Teaspoonful twice a day.
 —(Medical World.)

AYER'S AGUE CURE.

This is said to be a syrupy tincture of cinchona with aromatics. Each bottle holds 6 fluid ounces, and each fluid ounce was found to contain 3.2 grains of amorphous cinchona, alkaloids, 3 grains cinchonine, 0.9 cinchonidine, 0.8 quinine, and 1 grain quinidine.

AYER'S VITA NUOVA.

Dr. R. G. Eccles published in the Druggists' Circular a lengthy article on Hubbard-Ayer preparations, and calls attention particularly to the presence of cocaine in the Vita Nuova. We have recently examined this preparation also and find it to contain notable quantities cocaine easily detected by the organo-leptic test, and also about $19\frac{1}{2}$ per cent., by volume of alcohol.—Boston Herald.

AYERS' CHERRY PECTORAL.

R Acetate of morphia.....3 gr.
 Tincture of bloodroot....2 dr.
 Wine antimony3 dr.
 Wine ipecac3 dr.
 Syrup wild cherry.....3 oz.
 Mix.
 —(Pac. Med. and Surg. Journal.)

AYER'S PILLS.

Consist of Colocynth, Gamboge and Aloes, coated with Starch and Sugar.

AYER'S SARSAPARILLA.

R Fluid extract sarsaparilla3 oz.
 Fluid extract stillingia 3 oz.
 Fluid extract yellow dock2 oz.
 Fluid extract may apple2 oz.
 Sugar1 oz.
 Iodide Potassium90 gr.
 Iodide iron.....10 gr.
 Mix. —(Chicago Druggist.)

BAREEL'S INDIAN LINIMENT.

R Tr. capsicum1 dr.
 Oil origanum $\frac{1}{2}$ oz.
 Oil sassafras $\frac{1}{2}$ oz.
 Oil pennyroyal $\frac{1}{2}$ oz.
 Oil hemlock $\frac{1}{2}$ oz.
 Alcohol1 qt.
 Mix. —(New Idea.)

BARKER'S BONE AND NERVE LINIMENT.

For man or beast.

R Camphor70 gr.
 Oil of tar..... $\frac{1}{2}$ dr.
 Oil of thyme1 dr.
 Oil of turpentine2 dr.
 Franklin oil (black oil, lubricating oil) sufficient to make2 oz.
 Mix. —(New Idea.)

BATEMAN'S PECTORAL DROPS

R Tinct. of opium..... $1\frac{1}{2}$ oz.
 Tinct. of opium benzoated20 oz.
 Tinct. of Canada castor.5 oz.
 Cochineal, ground1 oz.
 Mix. Dose, for adults, 20 to 30 drops, morning and evening. Not to be given to children under 10 years of age.
 —(Hager.)

BECKER'S EYE SALVE.

R Calmine $1\frac{1}{2}$ dr.
 Tutty $1\frac{1}{2}$ dr.
 Red oxide of mercury...6 dr.
 Camphor in powder1 dr.
 Almond oil1 dr.
 White wax $1\frac{1}{2}$ oz.
 Fresh butter8 oz.

Reduce the mineral substances to a very fine powder and incorporate with the oil, in which the camphor has been dissolved with the wax and butter, previously melted together.

—(Kilner's Modern Pharmacy.)

BENSON'S SKIN CURE.

This secret nostrum consists of two preparations, one for internal use and one for external application.

A—Internal.—It consists, according to our examination, of clover blossoms 720 grains, yellow-dock root 90 grains, gentian root 120 grains, boiled (one hour) with one pint of water. Cool, transfer to a closed vessel, and add one ounce of alcohol in which has previously been dissolved oil of rosemary, oil of thyme each one minim; let it stand over night, strain next morning; make up to one pint with water sufficient.

B—External Application—This solution consists, according to our examination, of acetate of lead 2 grains, acetate of copper 1 grain, acetate of zinc 15 grains, benzoated water 12 fluid ounces; mix. The benzoated water is readily prepared by agitating half an ounce of tincture of benzoin with 12 ounces of warm water, allowing it to cool and settle; then filter. It is warranted to cure all the skin diseases described in the medical dictionaries. —(New Idea.)

BEGG'S FEVER AND AGUE PILLS.

Each pill contains one grain of quinia sulphate, one-half grain cinchona sulphate, rhubarb one grain, with a little flavoring. These pills are put up in a half-ounce plain flint vial; they are uncoated, 32 pills in a bottle, balance of space filled with powdered licorice root. A small slip with title, uses, and directions surrounds the bottle, and a red lead wrapper, type set, surrounds the whole. This is an excellent ague cure. —(New Idea.)

BIG G INJECTION.

An examination made in our laboratory shows the presence of boric acid, or borax and berberine, the yellow alkaloid of hydrastis. No zinc sulphate or other astringent was found. No quantitative estimates were made.

BLAIR'S GOUT AND RHEUMATIC PILLS.

Are composed of acetic extract of colchicum and extract of hyoscyamus.

BOERHAVER'S BITTERS.

R Alcohol, 90 per cent. 140 parts
Sugar 76 parts
Aloes 10 parts
Cinnamon 23 parts
Galangal 23 parts
Zedoary 23 parts
Angelica 23 parts
Cloves 23 parts
Gentian 23 parts
Quassia, cut 23 parts
Water 200 parts

Mix, —(Hager.)

BOSCHEE'S GERMAN SYRUP.

R Oil of tar 1 dr.
Fluid extract ipecac. 4 dr.
Fluid extract wild
cherry 6 dr.
Tincture of opium. 4 dr.
Carbonate of magnesia. 3 dr.
Water 6 oz.
White sugar 10 oz.

Triturate the magnesia, first, with the oil of tar; then with a mixture of the fluid extracts and water, filter and form a solution with the sugar, by agitation, without heat.

—(Medical World.)

BRADYCROTINE.

A compound closely resembling it may be made by the following formula:

R Caffeine (alkaloid) 5 gr.
Potassium bromide 20 gr.
Sodium bromide 20 gr.
Simple syrup 2 dr.
Alcohol 2 dr.
Port wine sufficient to
make 2 oz.
Caramel sufficient to color.
Mix. —(Druggists' Circular.)

BROWN'S MALE-FERN VERMIFUGE.

R Fl. ext. male fern. 3 oz.
Oil wintergreen 1 min.
Simple syrup 5 oz.
Mix. —(New Idea.)

BRANDBRETH'S PILLS.

R Extract colocynth 20 gr.
Aloes, Socotrine 2 dr.
Gamboge 1 dr.
Castile soap ½ dr.
Oil peppermint 2 min.
Oil cinnamon 1 min.
Powdered arabic and
alcohol, of each. q. s.

Mix and make 80 pills. Dose: 1 to 3, as directed.

—(Dr. D. S. Clark.)

BROMO-CHLORALUM.

Kilner gives the following:
R Alum, coarse powder. 1 lb.
Boiling water 2 pts.
Aqua ammonia q. s.
Muriatic acid q. s.
Bromine ½ oz.
Water q. s. ½ gal.

BARNES' FROST BALSAM.

R Copaiba ½ oz.
Oil turpentine ½ oz.

BROWN'S BRONCHIAL TROCHES.

Said to be like the original formula:

R Powdered ext. of lic-
orice1 lb.
Powdered sugar1½ lb.
Powdered cubebs¼ lb.
Powdered gum arabic...¼ lb.
Ext. conium1 oz.
Mix. —(New Idea.)

BROWN'S IRON BITTERS.

Are said to contain in each fluid drachm:

R Iron1 gr.
Calisaya bark2 gr.
Phosphorus1-200 gr.
Coca1 gr.
Viburnum prunifolium..1 gr.

BRODIE'S LINIMENT FOR ASTHMA.

R Oil of stillingia4 dr.
Oil of cajeput2 dr.
Oil of lobelia1 dr.
Alcohol1 oz.
Mix. Bathe the chest and throat
three times a day.

BRONCHILLINE.

R Mullein64 gr.
Hoarhound64 gr.
Senega64 gr.
Ipecac64 gr.
Sanguinaria64 gr.
White pine64 gr.
Wild cherry256 gr.
Chloroform64 min.
Sugar14 oz. av.
Alcohol8 oz.
Tar water (U. S. P.)...8 oz.
Mix. —(New Idea.)

BRODIE'S LINIMENT.

R Sulphuric acid1 dr.
Olive oil1 oz.
Turpentine1 oz.
Add the acid gradually to the
oil, stirring in a mortar; after-
ward add the turpentine.

BUCKLEN'S ARNICA SALVE.

R Extract arnica1 oz.
Resin cerate8 oz.
Vaseline2 oz.
Raisins, seedless8 oz.
Fine cut tobacco.....½ oz.
Waterq. s.
Boil the raisins and tobacco in
one pint of water until the
strength is extracted; express
the liquid and evaporate to four
ounces. Soften the extract of ar-
nica with a little hot water and
mix the liquid with it; add this
to the resin cerate and vaseline
previously warmed and mix
thoroughly.
—(Kilner's Modern Pharmacy.)

BUCKLER'S CROUP MIXTURE.

R Tartar emetic2 gr.
Pluv. ipecac40 gr.
Syrup of squills2 oz.
Mix. Dose: Teaspoonful every
10 minutes until emesis occurs.

BULL'S BLOOD SYRUP.

R Iodide of potash12 dr.
Red iodide of mercury..2 gr.
Tinct. of poke root.....3 dr.
Comp. syrup of still-
ingia6 oz.
Simple syrup, to make..1 pt.
Mix. —(National Druggist.)

BULL'S COUGH SYRUP.

We have no reason to believe
that it contains anything else of
medicinal consequence than the
morphia and sugar-house syrup.
—(New Idea.)

CALIFORNIA LINIMENT.

R Tinct. myrrh1 oz.
Tinct. capsicum1 oz.
Sweet spirits nitre.....1 oz.
Sulph. ether1 oz.
Chloroform½ oz.
Tinct. arnica1 oz.
Oil spearmint2 dr.
Oil wintergreen2 dr.
Oil lobelia1 dr.
Aqua ammonia½ oz.
Alcohol1 qt.

CARTER'S LITTLE LIVER PILLS.

R Podophyllin1½ gr.
Aloes3½ gr.
Mucilage of acaciaq. s.
Mix; divide into 12 pills and
coat with sugar.
—(New Idea.)

CARBOLIC SMOKE BALLS.

Upon examination, made in our
laboratory by H. W. Snow, it
was found to consist of glycyrrhiza
and flour (identified by mi-
croscopical examination and
physical properties) and one of
the veratrums, probably white
hellebore identified (by means of
the alkaloid jervine, which was
separated and identified.) The
smoky body is some tar product,
not easy to say just which. It
is this latter and the white hel-
lebore which it contains that
cause it to yield a temporary re-
lief; permanent relief we do not
believe it can afford. No quanti-
tative estimates were attempted.
—(New Idea.)

CARBOLATE OF IODINE IN-
HALANT.

R Comp. tinct. of iodine 180 min.
Carbolic acid, No. 1...48 min.
Glycerine1 dr.
Water5 dr.
Mix and expose to the sunlight
until the mixture is entirely col-
orless. —(National Druggist.)

CASTORIA.

The following formula, from
the Indiana Pharmacist, is given
as approximating this prepara-
tion:

R Senna4 dr.
Manna1 oz.
Rochelle salts1 oz.
Fennel, bruised1½ dr.
Boiling water8 oz.
Sugar8 oz.
Oil of wintergreen.....q.s.

Pour the water on the ingredi-
ents. Cover and macerate until
cool; strain and add the sugar,
dissolve by agitation and add oil
of wintergreen to flavor.

CATANI'S SPECIFIC.

Catani's specific for uric acid is
a mixture of:

R Carbonate of lithium.1 part
Carbonate of sodium.2 parts
Citrate of potassium.4 parts
All in powdered form.
—(Pharm. Post.)

CAZEAUX'S NIPPLE OINT-
MENT.

R White wax4½ oz.
Oil of sweet almonds.½ oz.
Clarified honey½ oz.
Balsam Peru2½ oz.
Mix. —(Kilner.)

CHAMBERLAIN'S RELIEF.

R Tinct. capsicum (about) 1 oz.
Spts. camphor (about) ¾ oz.
Tinct. guaiac (about) ¼ oz.
Color tinct. to make.....2 oz.
Mix. —(The Drug Mill.)

CENTAUR LINIMENT.

This widely advertised nostrum
comes in two forms, "For Man"
and "For Beast."

For Man.

R Oil pennyroyal½ oz.
Oil thyme¼ oz.
Oil turpentine¼ oz.
Soap130 gr.
Caustic soda10 gr.
Water to make1 pt.

For Beast.

R Oil spearmint1 dr.
Oil mustard15 min.
Oil turpentine¼ oz.
Oil amber (crude).....½ oz.
Black oil½ oz.
Soap130 gr.
Caustic soda10 gr.
Water to make1 pt.
Mix. —(New Idea.)

CHAMBERLAIN'S COLIC CHOL-
ERA AND DIARRHOEA
REMEDY.

R Tinct. capsicum20 dr.
Tinct. camphor16 dr.
Tinct. guaiacum12 dr.
Mix. —(Medical World.)

CHILD'S COUGH MIXTURE.

R Syr. Squills2 dr.
Wine ipecac1 dr.
Tinct. camphor comp...1 dr.
Simple Syrup4 dr.
Water3 oz.

CHLORODYNE.

The following is a mixture re-
sembling Brown's, and I think
fully as good:

R Chloroform1 dr.
Morphia5 gr.
Ether½ dr.
Oil peppermint4 min.
Dil. hydrocyanic acid....1 dr.
Tinct. capsicum1 dr.
Molasses10 dr.
Ext. licorice15 gr.
Mix.

CHLORALUM.

R Aluminum chloride20 oz.
Sulph. of lime. ⅓-oz. per gal.
Mix. —(New Idea.)

CLARK'S BLOOD MIXTURE.

R Iodide of potassium....64 gr.
Chloric ether4 dr.
Liquor potash30 min.
Water7½ oz.
Caramel to color.

The chloric ether is made by
dissolving one part by weight of
chloroform in 19 parts by volume
of alcohol.

CLEARY'S ASTHMA POWDER.

R Pulv. stramonium
leaves30 parts
Pulv. belladonna
leaves30 parts
Pulv. saltpetre5 parts
Pulv. opium2 parts
Mix. A little to be burned and
fumes inhaled.
—(Chemist and Druggist.)

COALINE HEADACHE POW-
DERS.

We would suggest antipyrine, 3 grains, cane sugar in powdered form, 15 grains, to each powder. One powder to be dissolved in a teaspoonful of water and taken as a dose, to be repeated in three-quarters of an hour.

—(New Idea.)

COE'S DYSPEPSIA CURE.

R Powdered rhubarb2 dr.
Fluid ext. of gentian...3 dr.
Peppermint water7½ oz.
Bicarbonate of sodium...6 dr.
Mix. Dose: A teaspoonful half hour before meals.

—(The Drug Mill.)

COKE'S DANDRUFF CURE.

This preparation is said to be a solution containing large quantities of resorcin, which renders it a valuable antiseptic in parasitic conditions of the scalp.

COMBE'S ASPERIENT.

R Sulphate of magnes 35 parts
Roasted co3ee.....40 parts
Boiling water.....500 parts
Mix. Boil for two minutes, sweeten to taste with white sugar. Dose: One wine-glassful in the morning.

COOK'S ELECTRO-MAGNETIC
LINIMENT.

R Alcohol1 gal.
Oil amber8 oz.
Gum camphor8 oz.
Castile soap (fine)2 oz.
Beef's gall4 oz.
Aqua ammonia12 oz.
Mix. —(Kilner.)

COBB'S PILLS.

P Extract of hyoscyamus ½ dr.
Extract of conium½ dr.
Extract of colocynth...11 gr.
Extract of nux vomica..4 gr.
Mix. Divide into 30 pills.

CRAM'S FLUID LIGHTNING.

Mr. I. L. Fulton (Western Druggist) gives the following formula, which was represented to him as being the original from which Cram's Fluid Lightning is prepared:

R Oil mustard2 dr.
Oil cajeput2 dr.
Oil cloves2 dr.
Sassafras2 dr.
Ether1 oz.
Tinct. opium1½ oz.
Alcohol20 oz.
Mix and filter.

CUTICURA OINTMENT.

The much advertised "Cuticura Ointment" has been found to consist of a base of petroleum jelly, colored green, perfumed with oil of bergamont and containing two per cent. of carbolic acid. —(Northwestern Lancet.)

CUTICURA RESOLVENT.

R Aloes, Socot1 dr.
Rhubarb powdered1 dr.
Iodide potass36 gr.
Whiskey1 pt.
Macerate over night and filter.
—(St. Louis Druggist.)

DELLENBAUGH'S COUGH
CURE.

R Picrate of ammon2 gr.
Chloride of ammon1 dr.
Extract of licorice1 dr.
Water3 oz.

DERBY'S LINIMENT.

R Linseed oil1 gal.
Aqua ammonia4 oz.
Tinct. capsicum1 oz.
Oil origanum1 oz.
Mix. —(Kilner.)

DESHLER'S SALVE.

R Resin12 oz.
Suet12 oz.
Yellow wax12 oz.
Turpentine6 oz.
Linseed oil7 oz.

DOW'S WHITE LIQUID PHYSIC.

R Sodium sulphate8 oz.
Dissolve in water.....24 oz.
Then add nitro-muriate
acid2 oz.
Powdered alum68 gr.
Mix. The dose is a table-
spoonful in water. A cooling
purgative.

ECLECTIC STILLINGIA LINI-
MENT FOR CROUP.

R Oil stillingia8 dr.
Oil cajeput4 dr.
Oil lobelia2 dr.
Alcohol16 dr.
Mix. In addition it is sometimes
given internally in one drop
doses.

EDISON'S POLYFORM.

R Chloroform2 oz.
Chloral hydrate2 oz.
Alcohol1½ oz.
Gum camphor1 oz.
Ether1 oz.
Morphine sulphate6 gr.
Oil of peppermint2 dr.
Mix. —(Druggist' Circular.)

EDWARD'S ALTERATIVE AND TONIC BITTERS.

- R Fluid extract of hops...16 oz.
 Fluid extract of red
 cinchona8 oz.
 Fluid extract sarsapa-
 rilla6 oz.
 Fluid extract hydrastis.6 oz.
 Fluid extract podophyl-
 lum4 oz.
 Oil of wintergreen6 dr.
 Oil of sassafras3 dr.
 Oil of peppermint.....2 dr.
 Oil of lemon2 dr.
 Sugar6 lb.
 Alcohol2 gal.
 Water, enough to
 make12 gal.
 Mix. —(Myers Bros.' Druggist.)

EGYPTIAN EYE SALVE.

- R White rosin6 dr.
 Burgundy pitch30 gr.
 Beeswax30 gr.
 Mutton tallow30 gr.
 Venice turpentine30 gr.
 Balsam fir30 gr.
 Spread on thin leather or cloth
 and apply to affected part.

ELEPIZONE.

- R Magnesii bromidi3 dr.
 Sodii bromidi3 dr.
 Aquae½ oz.
 Ol. cassiae2 min.
 Syr. simplex sufficient to
 make4 oz.
 Ammonical sol. carmine to
 color. —(New Idea.)

ELIXIR IODO-BROMIDE OF CALCIUM COMPOUND.

- R Bromide of calcium....256 gr.
 Iodide of sodium256 gr.
 Chloride of magne-
 sium256 gr....
 Iodide of potassium....256 gr.
 Comp. fl. ext. of sar-
 saparilla2 oz.
 Comp. fl. ext. of still-
 ingia2 oz.
 Elixir of orange4 oz.
 Sugar4 oz.
 Water to make16 oz.

Dissolve the salts in the water,
 add the sugar and to this syrup
 add the fluid extracts, previously
 mixed with the elixir of orange.
 After standing two days, filter,
 adding water to make the meas-
 ure 16 fluid ounces.

ELIXIR PINUS COMP.

It is evident that this elixir is
 modeled on the Syrup of White
 Pine Comp. (White Pine Expect-
 orant), introduced some years
 ago by Mr. C. S. Halberg. On
 the basis of the claimed formula
 of the elixir we would offer the
 following formula:

- R Fl. ext. white pine bark 6 dr.
 Fl. ext. balm gilead
 buds5 dr.
 Fl. ext. spikenard5 dr.
 Fl. ext. wild cherry ..4½ oz.
 Fl. ext. ipecac40 min.
 Sanguinaria nitrate.....2 gr.
 Chloroform64 min.
 Morphia acetate8 gr.
 Ammonium chloride ...64 gr.
 Spirits of orange (1 in
 8)30 min.
 Spirits coriander (1 in
 8)10 min.
 Spirits of anise10 min.
 Alcohol3 oz.
 Simple syrup4 oz.
 Water to make1 pt.

This elixir should be allowed
 to stand four or five days before
 filtering. —(New Idea.)

ELIXIR THION COMPOUND.

- R Powdered rhubarb5 oz.
 Powdered golden seal....5 oz.
 Sodium hypophosphite 100 gr.
 Sodium sulpho-carbol-
 ate40 gr.
 Alcohol5 pts.
 Water40 pts.

Dissolve the salts in the water
 and alcohol and with this men-
 struum percolate the powdered
 rhubarb and golden seal. Flavor
 with peppermint.

—(Indian Medical Journal.)

ELLIMAN'S ROYAL EMBROCA- TION.

- R Oil turpentine½ oz.
 Oil thyme½ oz.
 Oil amber (crude).....½ oz.
 Soap130 gr.
 Caustic soda10 gr.
 Water sufficient1 pt.

To be prepared in the same
 manner as Mexican Mustang Lin-
 iment. —(New Idea.)

ELY'S CREAM BALM.

- R Vaseline1 oz.
 Thymol3 gr.
 Carb. bismuth15 gr.
 Oil wintergreen2 min.

Mix. —(New Idea.)

ENO'S FRUIT SALT.

- R Soda bicarbonate...168 parts
 Tartaric acid.....150 parts
 Rochelle salt.....110 parts

Mix. —(New Idea.)

ESPEY'S CREAM.

R Cydonium	1½ dr.
Ac. boric	4 gr.
Glycerine	2 oz.
Alcohol	3 oz.
Carbolic acid	10 gr.
Cologne water	2 dr.
Rose water	q. s. ad 1 pt.

Dissolve the boric acid in four ounces of rose water, macerate cydonium in solution for three hours, press through straining cloth, add glycerine, alcohol, cologne and sufficient rose water to make one pint. Lastly add the carbolic acid and shake well.—(Druggist Circular.)

FAHNESTOCK'S VERMIFUGE.

R Castor oil	48 parts
Oil worm-seed	48 parts
Oil anise	24 parts
Oil turpentine	1 part
Tinct. myrrh	3 parts
Mix. —(National Druggist.)	

FALKE'S SULPHOLINE CREAM.

R Very thick mucilage	
of quince seeds.....	300 parts
Glycerine	40 parts
Sulpho-carbolsate of	
sodium	20 parts
Mix. —(New Idea.)	

LINDSEY'S PAIN CURE.

This is said to be an excellent application for pain of any kind; or in any place, and especially for neuralgia and inflammatory rheumatism.

R Alcohol	4 oz.
Ethereal oil of wine....	4 dr.
No. six	4 oz.
Spirits of camphor	4 oz.
Oil hemlock	2 oz.
Oil cinnamon	1 dr.
Oil sassafras	1 oz.
Oil cloves	4 dr.
Ether	2 oz.
Chloroform	2 oz.
Sweet spirits of nitre....	4 oz.
Chloral hydrate	2 oz.
Lard oil	4 oz.
Oil cedar	4 oz.
Oil origanum	1 oz.
Oil wintergreen	2 dr.

Mix. It may be taken internally in doses of 5 to 60 drops. The number six is tincture of capsicum and myrrh, made double strength. The spirits of camphor is also made double strength by the aid of chloroform.

—(Dr. McCann.)

FEBRILINE.

Dr. R. G. Eccles declares in the Druggists' Circular, May, 1889, that he has investigated a preparation sold under the name "Febriline or Tasteless Syrup of Amorphous Quinine (Lyon's)" by the Paris Medicine Co., of Paris, Tenn., and finds it contains no quinine at all. Instead of quinine, quinidine is used, another alkaloid of cinchona bark. Its lack of bitterness renders it convenient for administration to children, and its imperfect solubility is not disadvantageous when a slow or tonic action is alone desired.

FELLOW'S HYPOPHOSPHITE.

R Glucose	1 lb.
Simple syrup	1 pt.
Hypophosphite cal-	
cium	128 gr.
Hypophosphite potas-	
sium	48 gr.
Sulphate iron	48 gr.
Sulphate magnese	32 gr.
Sulphate quinine	14 gr.
Sulphate strychnine.....	2 gr.
Water	q. s. ad 2 pt.

Mix.

—(I. B. Lyons, Therapeutic Gazette.)

FIRWEIN.

Dr. Lewis, of Belvidere, gives the following formula for Firwein:

R Solution bromide, iod-	
ine and phosphorus....	1 oz.
Fir bark (in coarse	
powder)	1 oz.
White pine bark (coarse	
powder)	½ oz.
Tamarac bark (coarse	
powder)	½ oz.
Dilute alcohol	16 oz.
Sugar	4 oz.

Percolate the barks with the dilute alcohol until 13 fluid ounces are obtained; remove the tannin; add the solution bromine, iodine, and phosphorus. Dissolve the sugar; allow to stand 24 hours and filter.

The solution of bromine, iodine and phosphorus is made thus:

R Phosphorus	10 gr.
Iodine	170 gr.
Bromine	170 gr.
Alcohol	1 oz.
Glycerine sufficient to	
make	8 oz.

Dissolve the iodine in the alcohol, then add the glycerine, then bromine and lastly the phosphorus gradually in fine shavings. Use great care in adding the phosphorus. One ounce of this for the above Firwein.

—(New Idea.)

FLEURY'S TASTELESS CAS-CARINE.

Examination proves it to be subnitrate of bismuth and calomel, triturated through powdered cane sugar.

—(New Idea.)

FLAGG'S RELIEF.

R Oil of cloves, about.....1 dr.
Oil of sassafras, about...2 dr.
Spirits of camphor,
about1½ dr.

Mix. —(J. J. Pierson, Ph. C.)

FORD'S BALSAM OF HOAR-HOUND.

R Hoarhound herb3½ lb.
Licorice root3½ lb.
Water8 pt.
Infuse for 12 hours, then strain off six pints. To these add:
Camphor10 dr.
Opium1 oz.
Benzoin1 oz.
Dried squills2 oz.
Oil of anise seed1 oz.
Alcohol12 pt.

Macerate for one week and then add 3½ pounds of honey.

—(New Idea.)

FOSGATE'S ANODYNE COR-DIAL.

R Fluid extract rhubarb...5 dr.
Fluid extract rhatany...2 dr.
Fluid extract ginger...6 min.
Paregoric1 dr.
Simple syrup1 dr.
Dilute alcohol5 dr.
—(New Idea.)

FROSTILLA.

R Quince seeds60 gr.
Hot water21 oz.
Glycerine6 oz.
Deodorized alcohol5 oz.
Mix. —(Druggist Circular.)

FREEMAN'S VERMIFUGE OIL.

R Oil of worm-seed.....½ oz.
Oil of turpentine2 dr.
Castor oil1½ oz.
Pink root½ oz.
Hydrastin10 gr.
Syrup of peppermint...½ oz.

Dose for a child 10 years old, a teaspoonful three times a day, one hour after each meal. If it purges too freely, give it less often.

GADBERRY'S MIXTURE.

Gadberry's Mixture is used to a great extent in the Mississippi Valley to control malaria.

Liquor tersulphate iron.3 dr.
Liquor arseniate pot-

ash90 min.

Saltpetre2 dr.

Sulph. quinine2 dr.

Water to make2 oz.

Mix. —(Bulletin of Pharmacy.)

GARGLING OIL.

R Crude petroleum13 oz.
Ammonia water6 oz.
Soft soap16 oz.
Benzine16 oz.
Crude oil amber.....2 oz.
Tincture iodine1 oz.
Water5 pts.

Mix the petroleum and soap, add the ammonia water, oil of amber, and tincture of iodine and mix thoroughly. Then add the benzine and finally the water.

—(Salmon's Pharmaceutical Compendium.)

GARFIELD TEA.

Our examination showed it to contain chiefly senna leaves and crushed couch-grass. There are perhaps small amounts of other drugs present; but if so they are relatively of little importance.

—(New Idea.)

GILE'S IODIDE OF AMMONIA LINIMENT.

R Iodine1 dr.
Camphor1 oz.
Oil of rosemary½ oz.
Oil of lavender½ oz.
Aqua ammonia4 oz.
Alcohol2 pts.

Dissolve the iodine in the alcohol; add the camphor and then the oils; then add water of ammonia enough to remove the dark color of the mixture.

—(Kilner.)

GOLDEN EYE WATER.

R Sulphate of hydrastia...2 gr.
Distilled water1 oz.

GENUINE WHITE OIL LINI-MENT.

R Ammonia carbonate.19 parts
Camphor20 parts
Oil turpentine21 parts
Oil organum20 parts
Castile soap19 parts
Water to make (by weight)300 parts

GOOCHE'S MEXICAN COUGH SYRUP.

R Fluid extract wild cherry2 dr.
 Glycerine6 dr.
 Simple syrup2 dr.
 Syrup of tar, sufficient to make3 oz.
 Mix. —(New Idea.)

GOOD SAMARITAN COUGH SYRUP.

R Morphia muriat1 gr.
 Aq. lauro-cerasi1 dr.
 Syrupi2 oz.
 Mix. One dr. to two drs., once or twice daily.

GOOD SAMARITAN LINIMENT.

R Oil of sassafras1 oz.
 Oil of hemlock1 oz.
 Spirits of turpentine.....1 oz.
 Tinct. of capsicum.....1 oz.
 Tinct. of opium1 oz.
 Tinct. of myrrh4 oz.
 Oil of origanum2 oz.
 Oil of wintergreen4 dr.
 Gum camphor2 oz.
 Chloroform1½ oz.
 Alcohol4 pts.
 Mix. —(Kilner.)

GOMBAULT'S CAUSTIC BAL-SAM.

R Croton oil4 dr.
 Cotton-seed oil2 oz.
 Oil of camphor1 dr.
 Oil of turpentine2 dr.
 Oil of thyme½ dr.
 Kerosene4 dr.
 Sulphuric acid20 min.

To the mixture of croton and cotton-seed oils add the sulphuric acid, stirring continually, then add the other constituents. After standing a few days it resembles the original preparation fairly well.

—(Western Druggist.)

GUNN'S RHEUMATIC LINIMENT.

R Linseed oil1 oz.
 Oil cedar1 oz.
 Oil amber1 oz.
 Take gum camphor ½ ounce; rub in a mortar with alcohol or sulphuric acid till pulverized, and while still damp add
 Olive oil½ oz.
 Turpentine½ oz.
 Laudanum½ oz.
 After which add the first three oils.

GRANDMOTHER'S OWN COUGH REMEDY.

R Liquid tar5 gr.
 Fluid ext. hemlock.....1 dr.
 Powdered white sugar..2 oz.
 And add
 Alcohol½ oz.
 Water1½ oz.
 Molasses3 oz.
 Fluid ext. ipecac.....8 min.
 Mix well and add finally
 Chloroform1 dr.
 Mix. —(New Idea.)

GRAY'S SPECIFIC PILLS.

R Asafetida2 gr.
 Camphor1 gr.
 Lupulin½ gr.
 The specific action is in the direction of an aphrodisiac.
 —(Western Druggist.)

GREEN'S AUGUST FLOWER.

R Rhubarb360 gr.
 Golden seal90 gr.
 Cape aloes16 gr.
 Peppermint leaves120 gr.
 Carb. of potash120 gr.
 Capsicum5 gr.
 Sugar5 oz.
 Alcohol3 oz.
 Water10 oz.
 Ess. of peppermint ...20 min.
 Powder the drugs and macerate with the mixed alcohol and water for several days; filter and add enough alcohol to make the product measure one pint.
 —(New Idea.)

GREEN MOUNTAIN SALVE.

R Resin5 lb.
 Burgundy pitch¼ lb.
 Beeswax¼ lb.
 Mutton tallow¼ lb.
 Oil of hemlock1 oz.
 Balsam fir1 oz.
 Oil origanum1 oz.
 Oil of red cedar.....1 oz.
 Venice turpentine1 oz.
 Oil wormwood½ oz.
 Verdigris (powdered)....1 oz.

Melt the first articles together, and add the oils; having rubbed up the verdigris with a little oil, put it in with the other articles, stirring well; then put into cold water and work until cold enough to roll.

GREEN WONDER OIL.

R Terebinth venet4 oz.
 Zinc sulphat15 gr.
 Cupri acetat1½ oz.
 Bals. Peru1 dr.
 Ol. olivae1 lb.
 Ol. lini1 lb.
 Boil the oils; when warm add the turpentine and zinc; when almost cold add the other ingredients and stir well. For scalds, burns, wounds, and piles.

GREAT LONDON LINIMENT.

- R Acetate of morphia.....10 gr.
 Chloroform1 oz.
 Olive oil1 oz.
 Water of ammonia1 oz.

GRIMAULT'S INJECTION OF MATICO.

A satisfactory and valuable substitute could be made by distilling about $\frac{1}{2}$ to 1 fluid drachm of fluid extract of eucalyptus globulus, with water sufficient to obtain 5 fluid ounces of distillate, and then in this dissolve 4 grains of sulphate of copper.

—(New Idea.)

HAINE'S GOLDEN SPECIFIC FOR OPIUM HABIT.

- R Bayberry root bark,
 powdered16 oz.
 Ginger, powdered8 oz.
 Capsicum, powdered1 oz.
 Mix. —(Western Druggist.)

DR. B. W. HAIR'S ASTHMA CURE.

- R Wine of tar14 oz.
 Iodide of potassium220 gr.
 Make a solution. Shake well before taking. The wine of tar to be used in the above must be made as follows:

- R Common pine tar2 dr.
 Sherry wine2 pts.
 Pine sawdust $\frac{1}{2}$ oz.

Mix the tar with the sawdust so as to form a sort of powder; then macerate it for a week with the wine and filter through paper.

—(Dr. Palmer.)

HALLOWAY'S PILLS.

- R Aloes2 dr.
 Rhubarb1 dr.
 Capsicum20 gr.
 Saffron5 gr.
 Sulphate of soda5 gr.
 Make 100 pills.

HALL'S CATARRH CURE.

- R Gentian root $1\frac{1}{4}$ oz.
 Bitter orange peel5 dr.
 Cardamon seeds100 gr.
 Potassium iodide1 oz.
 Dilute alcoholsufficient

Macerate the crude drugs in 12 ounces of dilute alcohol for 48 hours, then transfer to a percolator and allow to percolate slowly. When the liquid has ceased to percolate, pass enough menstruum through the percolator to make the finished product measure 16 ounces. In this dissolve the potassium iodide.

—(New Idea.)

HAMLET'S AGUE PILLS.

- R Sulph. quinine2 dr.
 Powd. myrrh1 dr.
 Powd. capsicum1 dr.

Mix and make sixty pills.

HAMLIN'S WIZARD OIL.

- R Alcohol1 pt.
 Gum camphor1 oz.
 Oil sassafras $\frac{1}{2}$ oz.
 Tinct. myrrh $\frac{1}{2}$ oz.
 Tinct. capsicum $\frac{1}{2}$ oz.
 Chloroform $\frac{1}{2}$ oz.

—(Dr. Douglas in Medical World.)

HAMBURG BREAST TEA.

It is said that a preparation similar to this may be made by mixing:

- R Marshmallow flowers....8 oz.
 Licorice root3 oz.
 Coltsfoot4 oz.
 Mullein flowers2 oz.
 Anise seed2 oz.

HAMBURG DROPS.

- R Powdered socotrine-
 aloes $1\frac{1}{2}$ oz.
 American saffron $\frac{1}{2}$ oz.
 Tincture of myrrh16 oz.

Macerate for fourteen days and filter through paper.

HANSON'S MAGIC CORN CURE.

- R Simple cerate1 oz.
 Salicylic acid1 dr.

Mix intimately.

—(Indiana Pharmacist.)

HUNTER'S RED DROPS.

- R Corrosive sublimate10 gr.
 Muriatic acid12 drops
 Rub in a glass mortar and gradually add:

Compound spirits of
 lavender1 oz.

Dose—Five to twenty drops in wine, or spirits and water. A powerful alterative in syphilitic diseases.

KOHLE'S ONE NIGHT CORN CURE.

This is claimed to consist of lard containing 25 per cent. of salicylic acid.

—(Western Druggist.)

HARLEM OIL.

R Flowers of sulphur.....2 oz.
 Linseed oil1 lb.
 Oil of amber2 oz.
 Oil of turpentine ..sufficient
 Boil the sulphur and linseed oil on a gentle fire until the sulphur is dissolved; then withdraw from the fire, and when the mixture has somewhat cooled, add the oil of amber and enough oil of turpentine to bring the preparation to the consistence of molasses. —(National Druggist.)

HARDY'S OINTMENT.

R Beef tallow17 gr.
 Castor oil6 dr.
 Gallic acid30 gr.
 Essence vanilla sufficient to flavor.

HARTER'S WILD CHERRY BITTERS.

R Wild cherry bark8 oz.
 Yellow cinchona bark...1 oz.
 Orange peel2 oz.
 Cardamon seed1 oz.
 Asarum canadense½ oz.
 Alcohol dilute6 pts.
 Honey1 pt.
 Syrup1 pt.

Percolate the drugs, in moderately fine powder, with the dilute alcohol, and when six pints are obtained add the honey and syrup.

HELMBOLD'S JELLY OF GLYCERINE AND ROSES.

Our examination shows the following to be the formula for the above:

R Tragacanth1 dr.
 Triple ext. of rose6 drops
 Glycerine2 oz.
 Water4 oz.
 —(New Idea.)

HEISKEL'S TETTER OINTMENT.

Heiskell's Tetter Ointment, according to the Western Druggist, is said to be simply cerate of subacetate of lead.

HIND'S HONEY AND ALMOND CREAM.

According to Mr. Geo. H. Rose, this preparation may be practically duplicated by the following formula:

R Ointment of rose water5 parts
 Oil of sweet almonds 5 parts
 Glycerine5 parts
 Boric acid5 parts
 Solution of soda, U. S. P.12 parts
 Mucilage of quince seed (2 drs. to 1 pt.) 25 parts
 Water sufficient to make200 parts
 Oil of bitter almond, and oil of rose, of each sufficient to perfume.

HINKLEY'S BONE LINIMENT.

R Oil of wormwood40 min.
 Oil of hemlock2 dr.
 Oil of thyme2 dr.
 Oil of turpentine4 dr.
 Fl. ext. of capsicum.....1 dr.
 Alcohol to make.....4 oz.

HIMROD'S ASTHMA REMEDY.

Dr. Geo. Covert, of Clinton, Wis., in a recent article, says in regard to this preparation: "A one-time school-mate and friend of mine cured himself of asthma with his own remedy. He went to Europe, introduced his asthma remedy to the notice of Kaiser William, who used it with benefit and gave it his royal commendation. Our friend's fortune was made, and Himrod's Asthma Remedy is still on the market."

R Powdered lobelia2 oz.
 Powdered stramonium leaves2 oz.
 Powdered nitrate potash2 oz.
 Powdered black tea.....2 oz.
 Sift well and mix.

HOLMES' LIVER PILLS.

R Colocynth pulp1 oz.
 Gamboge1 oz.
 Scammony1 oz.
 Barb. aloes2 oz.
 Castile soap½ oz.
 Oil peppermint2 fl. dr.
 Watersufficient
 Make into three-grain pills, of which from two to three are an average cathartic. These pills formerly had a big reputation in Pittsburg, Pa.

HOLLOWAY'S OINTMENT.

The formula for this preparation is said to be:

R Yellow wax10 parts
 White wax10 parts
 Turpentine25 parts
 Lard50 parts
 Sweet oil75 parts

HELMBOLD'S BUCHU.

R Short buchu9 oz.
 Uva ursi4½ oz.
 Licorice root10 dr.
 Macerate in 9 pints of boiling water, strain, and add:
 Caramel2 oz.
 Molasses8 oz.
 Mix well, and add:
 Fluid extract cubeb.....5 oz.
 Alcohol2 pt.
 Oil peppermint1 oz.
 Water sufficient to make12 pt.
 —(Lillard's Prac. Hints and Formulas.)

HOP BITTERS.

The following is said to be the formula:

R Tinct. of hops $\frac{1}{2}$ oz.
Tinct. of buchu.....3 dr.
Tinct. of senega3 dr.
Podophyllin (dis. in
spirits of wine).....10 gr.
Tinct. of cochineal..20 drops
Distilled water suffi-
cient to make1 pint
Mix. —(Medical World.)

HOSTETTER'S BITTERS.

R Sugar2 lb.
Calamus root2 lb.
Orange peel2 lb.
Peruvian bark2 lb.
Gentian root2 lb.
Columbo root2 lb.
Rhubarb8 oz.
Cinnamon4 oz.
Cloves2 oz.
Dilute alcohol4 gal.
Mix. —(The Medical Bulletin.)

INJECTION BROU.

A preparation which is substantially the same, may be made by the following formula:

R Tinct. catechu (1 in 16)..1 dr.
Cocaine muriate10 gr.
Lead acetate10 gr.
Zinc. sulphate10 gr.
Water $6\frac{3}{4}$ oz.
Alcohol $\frac{1}{4}$ oz.

Dissolve the mineral salts each in $\frac{1}{4}$ ounce of water and mix them. Dilute the tinct. catechu with 4 fluid ounces of water; add the minerals and then the solution of cocaine muriate in an ounce of water; lastly the alcohol and water to make $7\frac{1}{2}$ fluid ounces. The color of Injection Brou may be fairly well simulated by using a small amount of magenta.

—(New Idea.)

JACKSON'S COUGH SYRUP.

The following is the formula recommended by Prof. J. U. Lloyd to be followed as a standard for the above preparation, which also goes by the name of "Compound Syrup of Morphine:..

R Fl. ext. ipecac $\frac{1}{2}$ oz.
Fl. ext. senega3 oz.
Fl. ext. rhubarb4 dr.
Sulphate morphine8 gr.
Oil sassafras22 min.
Syrup, to make32 oz.
Mix. —(American Druggist.)

JAYNE'S ALTERATIVE.

R Tartar emetic4 gr.
Spirits of camphor1 dr.
Fluid ext. of ipecac...4 min.
Laudanum2 dr.
Tinct. of lobelia1 dr.
Syrup of tolu12 dr.
Tinct. digitalis1 dr.
Syrup of squills2 oz.
Mix. —(National Druggist.)

JAYNES EXPECTORANT.

The following is given in New Idea as approximating this preparation:

R Syrup squills2 oz.
Tinct. tolu $1\frac{1}{2}$ oz.
Tinct. camphor1 dr.
Tinct. Digitalis1 dr.
Tinct. opium2 dr.
Wine ipecac2 dr.
Antimon. and pot. tart.2 gr.

KEATING'S COUGH LOZENGES.

R Lactucarium $7\frac{1}{2}$ gr.
Ipecac $3\frac{3}{4}$ gr.
Squills3 gr.
Ext. Licorice3 dr.
Mucil tragacanthq. s.
Mix and divide into lozenges
each containing 19 gr.

KENDALL'S SPAVIN CURE.

The following formula makes a preparation substantially the same as the proprietary liniment:

R Turpentine1 oz.
Alcohol2 oz.
Camphor240 gr.
Iodine25 gr.
Petroleum oil (heavy).. $\frac{1}{2}$ dr.
Oil of rosemary1 dr.

In the mixed oils (without filtering) dissolve the camphor and the iodine.

—(New Idea.)

KENNEDY'S MEDICAL DISCOVERY.

R Sneezewort1 oz.
Bitter root4 dr.
Mix and add:
Boiling water8 oz.
Proof spirits10 oz.
Licorice root4 dr.
Macerate for 48 hours, then add:
White sugar4 oz.
Tinct. gaultheria1 oz.
—(King's American Dispensatory.)

KELLOGG'S RED DROPS.

R Spirit of camphor.....2 oz.
Spirits of origanum $\frac{1}{4}$ oz.
Oil of sassafras $\frac{1}{4}$ oz.
Oil of turpentine $\frac{1}{2}$ oz.
Color tincture (about)..4 oz.
Mix. —(Pharmacist and Chemist.)

**KENNKLE'S VEGETABLE
WORM SYRUP:**

According to our examination
each bottle contains:

- R Santonin27 gr.
Oil sassafras1 min.
Alcohol2 oz.
Fl. ext. pink root.....2 oz.
Fl. ext. dandelion..... $\frac{1}{2}$ oz.
Fl. ext. golden seal..... $\frac{1}{4}$ oz.
Molasses $\frac{1}{2}$ oz.

The santonin in a finely tri-
tured condition.

—(New Idea.)

KEPHALGINE.

This remedy for headache, con-
sists of:

- R Antipyrine5 parts
Roasted coffee5 parts
Caffeine2 parts
Salicylate of sodium..2 parts
Mix. —(Amer. Journal of Phar.)

KICKAPOO INDIAN OIL.

- R Camphor $\frac{1}{2}$ oz.
Oil turpentine1 dr.
Oil peppermint $\frac{1}{2}$ dr.
Oil wintergreen $\frac{1}{2}$ dr.
Tinct. capsicum $\frac{1}{2}$ oz.
Alcohol, sufficient to
make1 pt.
Mix. —(New Idea.)

KING'S NEW DISCOVERY.

The following is said to repre-
sent its composition:

- R Sulp. morphia8 gr.
Fl. ext. ipecac $\frac{1}{2}$ dr.
Chloroform60 min.
Tinct. white pine.....2 oz.
Water7 oz.
Carbonate of magnesia. $\frac{1}{4}$ oz.
Sugar14 oz.

Rub the magnesia with one
ounce of the sugar in a mortar,
and triturate with the tincture
of white pine and the fluid ex-
tract of ipecac; gradually add
the water, and triturate with the
mixture in the mortar. Filter
and dissolve the morphia sul-
phate in the filtrate; mix the
chloroform with the rest of the
sugar in a bottle and add the
liquid above. Keep in a tight
vessel. —(New Idea.)

KITCHELL'S LINIMENT.

- R Water ammonia1 part
Water3 parts
Caramelq. s. color
Mix. — (Western Druggist.)

KING'S ROYAL GERMETEUR.

- R Sulphuric acid2 oz.
Water (saturated with
sulphureted hydro-
gen)1 oz.
Hydrant or well water
to make1 gal.
Mix. —(Dixie Doctor.)

KLINE'S NERVE RESTORER.

- R Bromide of ammonia....3 dr.
Bromide of potassium..3 dr.
Bicarb. of potassium....80 gr.
Tinct. columbo6 dr.
Water6 oz.
Mix. Dose: Teaspoonful thrice
daily in water.
—(Dr. Wade in Med. World.)

KREYDER'S AGUE PILLS.

- R Sulph. quinia20 gr.
Dover's powder10 gr.
Sub. carb. iron10 gr.
Mix with mucilage of acacia
and form 20 pills. Dose: Two
each hour, commencing five
hours before the chill should set
in. Then take one night and
morning until all are taken.

LALLEMAND'S SPECIFIC.

- R Sulph. quinia1 dr.
Sulph. cinchona1 dr.
Ex. colocynth4 dr.
Wine colchicum seeds...8 oz.
Tinct. verat, viride1 oz.
Dilute alcohol8 oz.
Sherry wine31 oz.
Mix. Dose: One teaspoonful.
—(National Druggist.)

LANGELL'S ASTHMA REMEDY.

- R Powd. belladonna
leaves1 part
Powd. nitrate of pot-
ash10 parts

**LAUBACH'S ECLECTIC LINI-
MENT.**

- R Oil of turpentine60 parts
Tinc. arnica flowers.120 parts
Stronger water of
ammonia120 parts
Soap liniment900 parts
Oil of sassafras6 parts
Oil of thyme2 parts
Alcohol240 parts

Total parts (by meas-
ure)1448
—(New Idea.)

LAVARRE'S SURE CURE.

- R Fl. ext. poke berries..80 min.
Fl. ext sassafras.....40 min.
Liquid ammonia, caus-
tic5 min.
Sodium bromide20 gr.
Alcohol $\frac{1}{2}$ oz.
Oil of peppermint1 min.
Powdered cochineal....4 gr.
White sugar3 dr.
Water (enough to
make)4 oz.
Mix. —(New Idea.)

LAVILLE'S GOUT CURE.

This patent preparation is said to have the following composition:

R Quinine	7.7 gr.
Cinchonine	9.3 gr.
Colocynthin	3.8 gr.
Lime salts	7.6 gr.
Coloring matter	4.6 gr.
Alcohol	3½ dr.
Water	2½ dr.
Port wine	1234.0 dr.
Mix. —(National Druggist.)	

LEE'S LITHONTRIPTIC.

R Powdered castile soap..	2 oz.
Carbonate of potassium..	4 dr.
Nitrate of potassium....	2 dr.
Powdered gum arabic....	5 dr.
Oil of juniper	2 dr.
Mix. —(Druggists' Circular.)	

LEE'S GRAVEL REMEDY.

R Sapo. Venet	4 oz.
Sal. nitre pulv.....	4 oz.
Oil juniper	4 oz.
Gum arabic pulv	1 oz.
Sal. absynth	1 oz.

LEE'S ANTI-BILIOUS PILLS.

R Calomel	30 gr.
Jalap	60 gr.
Gamboge	12 gr.
Tartar emetic	3 gr.

Beat into a mass and make into 24 pills, mix with gum arabic or extract of dandelion. Dose: 3 to 5 pills as a purgative.

But substituting podophyllin in the place of calomel (same quantity) it makes a safer and better pill for common use. Dose: 2 to 3 pills.

LIEBIG'S CORN CURE.

The following formula for Liebig's Corn Cure is said to be very effective:

R Ext. of cannabis indica	5 parts
Salicylic acid	30 parts
Collodion	240 parts

Mix until dissolved. Apply with a camel-hair pencil four consecutive nights and mornings to form a thick coating. The collodion protects the corn from irritation and rubbing, while the extract of cannabis indica acts as an anodyne, and the salicylic acid dissolves and disintegrates the corn.

LITTLE HOP PILLS.

R Podophyllin	3 gr.
Ext. colocynth	6 gr.
Oil of peppermint	1 min.
Ext. rhubarb	Sufficient
Mix, divide into 12 pills and coat heavily with sugar.	
—(New Idea.)	

LINIMENT FOR MAN AND BEAST.

R Powdered myrrh	1 oz.
Powdered aloes	1 oz.
Balsam fir	1 oz.
Alcohol	8 oz.

Mix. —(National Druggist.)

LIQUID CARBONIS DETEGENS.

R Quillaya saponari (soap bark)	4 lb.
Alcohol (65 per cent.)..	2 gal.
Macerate and filter.	
Tinct. (as above)....	100 parts
Coal tar	50 parts

Mix. After eight days, filter. Used externally in skin diseases.

LIQUID COURT PLASTER.

If soluble gun cotton is dissolved in acetone in the proportion of about 1 dram by weight of the former to 35 or 40 drams by volume of the latter, and half a dram each of castor oil and glycerine be added, a colorless, elastic and flexible film will form on the skin wherever it is applied. Unlike ordinary collodion it will not be likely to dry and peel off.

LOCOCK'S PULMONIC WAFERS.

R Sugar	10 dr.
Starch	10 dr.
Gum arabic	5 dr.
Lactucarium	75 gr.

Equal parts each of vinegar of squills, Oxy-mel of squills, Wine of ipecac.

The last three are to be mixed and evaporated to one-sixth the original bulk and added to the powders in quantity sufficient to make a mass of proper consistence. This is to be divided into lozenges of seven and one-half grains each.

LOWNDES' MAGIC CREAM.

R Hydrarg. ammoniat ...	1 part
Zinc oxide	3 parts

Must be thoroughly incorporated in powder: sufficient glycerine and lard then added to make a stiff cream. For application to venereal ulcers.

LYDIA PINKHAM'S VEGETABLE COMPOUND.

- R Cramp bark4 oz.
 Partridge berry vine4 oz.
 Poplar bark2 oz.
 Unicorn root2 oz.
 Cassia2 oz.
 Beth root1½ oz.
 Sugar1½ lb.
 Alcohol1 pt.

Water, a sufficient quantity
 The drugs should all be reduced to a moderately coarse powder; pour on boiling water, let stand until cold, then percolate with water until percolate measures one pint, add the sugar, bring to a boil, remove from the fire, and when cold add the alcohol and strain.

Dose: One or two teaspoonfuls of this may be taken three or four times a day.

LOW'S MAGNETIC LINIMENT.

The following formula furnishes a liniment nearly identical in contents, character, and color:

- R Oil of turpentine....90 parts
 Tinct. of capsicum...120 parts
 Spirits of camphor...960 parts
 Stronger water of ammonia90 parts
 Alcohol (sp. gr. 820)...180 parts
 Oil of sassafras6 parts
 Fluid ext. of sassafras40 parts

Total (parts by weight)1486

—(New Idea.)

LYON'S KATHAIRON.

The following formula will exactly duplicate the original:

- R Castor oil1 oz.
 Tinct. cantharides.....1 dr.
 Oil of bergamot.....20 min.
 Stronger water of ammonia1 min.
 Alcohol, sufficient to make3 oz.

Mix. —(New Idea.)

MARMOLA.

This wonderful remedy for reducing fat is said to be made from the following formula:

- R Powdered thyroids
 13 lb., 14 oz., 100 gr.
 Powd. ext. bladder wrack
 18 lb., 8 oz., 100 gr.
 Powd. ext. poke root
 9 lb., 4 oz., 50 gr.
 Phenolphthalein
 6 lb., 15 oz., 37½ gr.
 Oleo ginger.....4 oz., 232 gr.
 Sugar72 lb., 4 oz.
 Chalk55 lb., 8 oz., 300 gr.
 Burnt umber.....4 lb., 8 oz.

Oils sassafras and wintergreen
 q. s. Flavor, mix, compress into tablets weighing 9 grains each.

Sig.: A tablet six times a day.

MARSHALL'S PILLS.

- R Compound ext. colocynt60 gr.
 Mass mercury60 gr.
 Powd. aloes60 gr.
 Powd. Soap60 gr.
 Powd. rhubarb60 gr.
 Mix and make into 60 pills.
 —(Pharmaceutical Record.)

MAYER'S OINTMENT.

- R Olive oil2½ lb.
 White turpentine½ lb.
 Beeswax4 oz.
 Unsalted butter.....4 oz.
 Mix. —(Pharmaceutical Era.)

McLEAN'S STRENGTHENING CORDIAL.

- R Gentian root.....8 oz.
 Columbo root8 oz.
 Orange peel2 oz.
 Coriander seed1 oz.
 Cardamom seed½ oz.
 Serpentina1 oz.
 Whisky7 pts.
 Glycerine1 pt.

Grind the drugs to coarse powder, moisten with whisky, pack in the percolator, percolate with the whisky, forcing out the last with water, and in the percolate mix the glycerine.

MEIBOM'S. PECTORIAL.. BAL-SAM.

- R Benzoin10 parts
 Dragon's blood10 parts
 Opium10 parts
 Bals. Peru.....10 parts
 Spermaceti5 parts.
 Butter10 parts
 Sweet oil of almonds50 parts
 Oil of turpentine100 parts
 Acetic acid.....2 parts

Digest for some days, frequently shaking, and strain through linen. To be rubbed on the breast once or twice daily, in doses of 10 to 15 drops, for coughs and catarrh.

METZ'S BALSAM.

Metz's Balsam, which is quite popular in some sections of the country, it is said is prepared as follows:

- R Linseed oil.....180 parts
 Olive oil.....180 parts
 Oil of laurel berries..30 parts
 Turpentine (oleo-resin)
 60 parts

Melt by a gentle heat and add:
 Powdered aloes8 parts
 Powdered verdigris...12 parts
 Powdered white vitrol 6 parts..

Pour into a bottle and add:
 Oil of juniper15 parts
 Oil of cloves.....4 parts

Mix by shaking. It is used as a dressing for ulcers, boils, wounds, etc.

—(National Druggist.)

MEXICAN MUSTANG LINIMENT

- R Oil turpentine..... $\frac{1}{2}$ dr.
 Oil thyme $\frac{1}{2}$ dr.
 Oil amber, crude..... $\frac{1}{2}$ dr.
 Black oil1 dr.
 Kerosene oil3 dr.
 Water3 oz. 2 dr.
 Soap35 gr.
 Caustic potash.....3 gr.
 Mix. —(New Idea.)

MILLER'S GOLDEN OIL.

According to New Idea, this consists mainly of:

- R Essential oil of lavender30 min.
 Essential oil eucalyptus20 min.
 Essential oil of sassafras20 min.
 Oil of turpentine1 min.
 Cotton-seed oil7 dr.

MITCHELL'S EYE SALVE.

- R Saxoline, snow white..350 gr.
 White wax.....130 gr.
 Oxide of zinc.....45 gr.
 Oxide of mercury.....5 gr.
 Oil of lavender.....10 min.

Melt the wax and saxoline together and stir constantly while cooling. As soon as the mass begins to solidify incorporate the oxides and oil of lavender.

—(New Idea.)

MORRISON'S PILLS.

- R Powdered colocynth.....3 gr.
 Powdered gamboge.....6 gr.
 Powdered aloes.....9 gr.
 Cream of tartar12 gr.

Also syrup enough for 12 pills. Serious results are often produced by large doses of these pills.

MICAIAH'S MEDICATED UTERINE WAFERS.

The Medical Summary gives the following formula as one practically duplicating this preparation, which is so extensively used by the medical profession:

- R Mercury bichloride ..1-16 gr.
 Zinc sulphate5 gr.
 Bismuth subnitrate15 gr.
 Acacia5 gr.
 Carbolic acid3 gr.
 Waterq. s.

MOREHEAD'S MAGNETIC PLASTER.

Is said to be composed of tar and extract of belladonna, of each equal parts.

MOUNTAIN ROSE.

This remedy is similar to Viavi and is said to have been invented by the same Dr. Springsteen. Mountain Rose comes in sixteenth-grain round tablets, which are applied with a placer. These tablets are said to contain jequirity, calendula, hydrastis, boric acid and slippery elm.

MOXIE.

This "Moxie," despite the wonderful tale of its discovery, and although so "wholly unknown to botanists," is, we presume to say, a plant otherwise termed *avena sativa*. The great "Nerve Food" is a decoction of oats, made into a syrup and flavored with sassafras and wintergreen.

—(Western Druggist.)

MOTHER SIEGEL'S SYRUP.

- R Conc. decoction of aloes (1 to 4)60 min.
 Borax1.3 gm.
 Capsicum, powdered... .0.13 gm.
 Gentian, powdered... .2.3 gm.
 Sassafras oil0.3 gm.
 Wintergreen oil.....0.12 gm.
 Rectified spirits.....7.5 gm.
 Fluid extract dandelion7.5 gm.
 Syrup125 gm.

MURRAY'S INFALLIBLE SYSTEM TONIC, M. I. S. T.

Our examination proved it to be:

- R Aloes50 gr.
 Cinnamon, pulv.....25 gr.
 Glycyrrhiza root, pulv..25 gr.
 Watersufficient

Make into a pill mass with a little water, and divide into 50 parts. Press into gelatine capsules for use. —(New Idea.)

NERVURA NERVE TONIC.

Smile-ax writes to the Druggists' Circular that he is informed from a reliable source that Dr. Green's Nervura so much advertised is composed about as follows:

- R Coca tincture.....4 oz.
 Damiana tincture4 oz.
 Calisaya tincture4 oz.

While by no means a "wonderful discovery," still if made from the best materials, it would afford a handsome profit to the manufacturer.

NUMBER THIRTEEN.

- R Ol. santal alb. opt.....2 dr.
 Tinct. cubebs..... $\frac{1}{2}$ oz.
 Spts. lavender comp..... $\frac{1}{2}$ oz.
 Spts. nit. dulc..... $\frac{1}{2}$ oz.
 Ol. Cassia opt.....15 min.
 Syr. acacia.....2 $\frac{1}{2}$ oz.

Mix. Dose: A teaspoonful before meals.

OCULINE OR "THE BRILLIANT EYE."

This is a collyrium advertised by a New York firm. It is guaranteed to cure every description of eye disease, and to impart a beautiful and lasting brilliancy to the organ of vision.

Examined by Dr. Fr. Hoffman, it has been found to consist of water containing 1 per cent. of boric acid and 5 per cent. of glycerin. —(Pharm Rundschau.)

OIL OF JOY.

- R Alcohol4 pts.
Gum camphor.....½ oz.
Oil of sassafras1 oz.
Oil of Cedar.....1 oz.
Tinct. of gualc.....1 oz.
Tinct. of capsicum.....2 oz.
Water of ammonia.....4 oz.
Chloroform3 oz.

OIL OF GLADNESS.

- R Oil of marjoram1 dr.
Oil of peppermint.....1 dr.
Oil of horsemint.....1 dr.
Ether2 dr.
Tinct. of capsicum.....4 dr.
Tinct. of opium1 dr.
Tinct. of red sanders....1 dr.
Alcohol, sufficient to
make8 oz.
Mix. —(Druggists' Circular.)

ORANGE BLOSSOM.

This takes the form of a suppository for female disease, each suppository weighing about 31 grains. The New Idea gives the constituents as follows:

- R Zinc sulphate1 dr.
Alum15 gr.
Cocoa butter.....3 dr.
White wax½ dr.
Oil sweet almonds.....1½ dr.
Ext. henbane.....1 gr.
Make suppositories of above weight.

OSGOOD'S CHOLAGOGUE OR CELEBATED AGUE CURE.

- R Sulph. quinine.....2 dr.
Fluid ext. leptandra.....2 dr.
Saturated tinct. stillin-
gia4 oz.
Fluid ext. podophyllin...3 dr.
Oil of sassafras.....10 min.
Oil of wintergreen ...10 min.
New Orleans molasses
sufficient to make ...8 oz.
Mix. Dose: One to two tea-
spoonfuls.

OZONE UTERINE WAFERS.

The Boston Journal of Health says that these wafers consist of powdered jequirity in capsules.

PAINE'S CELERY COMPOUND.

- R Celery seed2 oz.
Red cinchona1 oz.
Orange peel¼ oz.
Coriander seed¼ oz.
Lemon peel¼ oz.
Hydrochloric acid....15 drops
Alcohol5 oz.
Glycerine3 oz.
Water4 oz.
Syrup4 oz.

Grind the solids to No. 40 powder, mix the acid and the water, add the glycerine and alcohol, and in the menstruum so prepared macerate the power for 24 hours; then percolate, adding enough water and alcohol in the proportion to make 12 fluid ounces. Finally add the syrup and if necessary filter. Make 32 pints.

—(Boston Herald.)

PARSON'S PURGATIVE PILLS.

- R Aloes1 gr.
Calomel½ gr.
Powd. coloynth½ gr.
Gamboge½ gr.
Soap½ gr.
Mandrake root½ gr.
Oil peppermint½ gr.

PEEKSKILL'S COUGH SYRUP.

- R Syrup of tolu5 oz.
Syrup of ipecac.....1 oz.
Paregoric4 oz.
Syrup of wild cherry....1 oz.
Mix. —(Medical World.)

PERUNA.

- R Copaiba6 dr.
Cubebs2 dr.
Calisaya bark, ground..2 oz.
Stone root (Collinsonia)
ground2 oz.
Corydalis (Turkey Corn)
ground2 oz.
Deodorized alcohol.....1 pt.

Add all the ingredients to the alcohol. Let stand one week. Shake the bottle frequently and finally strain through several thicknesses of muslin or filter through filtering paper, which may be obtained at any drug store.

PALMER'S COSMETIC LOTION.

It is said to be a weak (one per cent.) solution of sulpho-carbolate of zinc in glycerine and rose water.

PATERSON'S EMULSION OF PUMPKIN SEEDS.

Patterson's Emulsion of Pumpkin Seeds is said to be a good emulsion for expelling tape-worms.

Take two ounces of pumpkin seeds, peel and pound to a paste with sugar, then add by degrees eight fluid ounces of water, the whole to be taken in two or three draughts at short intervals.

PERRY DAVIS' PAIN KILLER.

R Gum myrrh2¼ lb.
Capsicum10 oz.
Gum opium8 oz.
Gum benzoin6 oz.
Gum gualiac3 oz.
Gum camphor10 oz.
Alcohol5 gal.

PHENOL SODIQUE.

R Carbolic acid188 gr.
Caustic soda31 gr.
Distilled water4 oz.

PLEIS' FIT POWDERS.

R Bromide of potassium..15 gr.
Powdered gentian5 gr.
Mix. Make one powder.
—(The Drug Mill.)

PERRY'S COMPOUND SARSA-PARILLA BLOOD PURIFIER.

R Turkey-corn root2 lb.
Stillingia root2 lb.
Sarsaparilla root2 lb.
Yellow-dock root2 lb.
Sassafras bark1 lb.
Simple syrup2 gal.
Diluted alcohol32 pt.
Iodide of Potassa.....2 lb.
Watersufficient
Percolate roots and bark with diluted alcohol, add syrup, then iodide of potassa. Dissolve in water to make six gallons.
Mix.

—(Kilner's Modern Pharm.)

PETTIT'S EYE SALVE.

The formula for this old and popular remedy is as follows:

R Olive oil4 dr.
Spermaceti1½ dr.
White wax½ dr.
Melt together, and add gradually under trituration in a warm mortar, to the following in fine powder, and thoroughly mix:
White precipitate20 gr.
Oxide zinc30 gr.
Acid benzoic2 gr.
Morphine sulph.....¾ gr.
Oil rosemary½ gr.

Finally stir until cool, and preserve in a well covered vessel.

—(Western Druggist.)

—(New Idea.)

PIERCE'S FAVORITE PRESCRIPTION.

R Savin150 gr.
Cinchona150 gr.
Agaric75 gr.
Cinnamon75 gr.
Water sufficient to make
a decoction of8 oz.

To this add:

Acacia150 gr.
Sugar75 gr.
Tinct. digitalis½ dr.
Opium½ dr.
Oil Anise8 min.

Dissolve the gum and sugar in the strained decoction, then add Alcohol, 2 fluid ounces, in which the oil has previously been dissolved.
—(Hager.)

PIERCE'S GOLDEN MEDICAL DISCOVERY.

R Fluid extract of cin-
chona16 oz.
Fluid extract of colum-
bo4 oz.
Fluid extract of guala-
cum8 oz.
Fluid extract of licorice 4 oz.
Tincture of opium1 oz.
Podophyllin (resinoid) 120 gr.
Glycerine6 pt.
Alcoholsufficient

Dissolve the podophyllin in the alcohol, and add the rest of the ingredients. Mix them. Dose: A tablespoonful.

—(The Drug Mill).

PLATT'S CHLORIDES.

Platt's Chlorides we found to be approximately as follows:

R Magnesium chloride...1½ parts
Potassium chloride...1½ parts
Sodium chloride.....1½ parts
Zinc chloride.....7½ parts
Aluminum chloride...7½ parts
Water, sufficient quan-
tity100 parts

Mix. —(New Idea).

POPE'S CURE FOR NEURALGIA.

R Iodide of potash.....4 dr.
Extract of conium.....1 dr.
Comp. tinct. of cinchona..2 oz.
Syrup of sarsaparilla.....4 oz.
Mix. Teaspoonful three times a day.—(National Druggist.)

POWELL'S BALM OF ANISE SEED.

This patent preparation is merely a modification of "Paragoric Elixir," without the perceptible presence of camphor, but with the addition of a small quantity of extract of licorice, and the faintest presence of rhu-barb.

The medicine is distinctly acid, owing to the presence of benzoic acid, and when water is added it becomes turbid and milky, from anise seed oil being one of the principal constituents.

PROCTOR'S VERMIFUGE.

R Santonin16 gr.
 Fluid ext. of senna2 oz.
 Fluid ext. of pink-root.....2 oz.
 Dose for a child two years old,
 one teaspoonful night and morn-
 ing until purging takes place.
 Used to expel stomach worms
 from children.

PISO'S CURE FOR CONSUMPTION.

R Tinct. tolu $\frac{1}{2}$ oz.
 Fl. ext. lobelia.....2 dr.
 Fl. ext. cannabis indica...2 dr.
 Chloroform1 dr.
 Sulph. morphia4 gr.
 Tartar emetic4 gr.
 Ess. mentha viridis.....10 min.
 Water8 oz.
 Sugar14 oz.

Mix the fluid extracts, tincture tolu, chloroform and essence of spearmint, and shake with the sugar in a bottle. Dissolve with the morphine and tartar emetic in hot water, then add the water to the sugar in a bottle. Dose: One teaspoonful. —(New Idea.)

PRICE'S PILE OINTMENT.

R English calomel1 oz.
 Powdered opium $\frac{1}{2}$ oz.
 Pure carbonate of lead...1 lb.
 Oxide of zinc.....1 lb.
 Olive oil2 lbs.
 Fresh lard (without salt) 2 lbs.

Mix by trituration in wedge-wood mortar. It was put up in two-ounce gallipots, tied over with a bit of bladder, and was sold readily at \$1, the principal purchasers being river and flat-boat men.

QUICK STOPS FOR HEAD-ACHES.

Besides camphor, it contains a little over $1\frac{3}{4}$ grains of cocaine to the bottle; that is about $\frac{1}{4}$ grain of the alkaloidal salt to the dose. The greenish color is evidently due to some greenish fluid extract, and underneath the camphor there is an odor suggestive of henbane, though we failed to isolate any alkaloid having decided mydriatic qualities. The cocaine dilated the pupil slightly, but the dilation was attributed to the cocaine itself, which is reported to sometimes have this effect. —(New Idea.)

RADWAY'S PILLS.

R Aloes4 parts
 Jalap2 parts
 Ginger2 parts
 Myrrh2 parts
 Make into a mass with mucilage and divide into 2-grain pills, of which about four dozen are put into each box. —(Cooley).

RADWAY'S READY RELIEF.

R Soap liniment, about..... $1\frac{1}{2}$ oz.
 Tinct. capsicum, about..... $\frac{1}{2}$ oz.
 Water of ammonia, about $\frac{1}{2}$ oz.
 Alcohol, about $\frac{1}{2}$ oz.
 Mix. —(J. J. Pierson, Ph. C.)

DR. RADWAY'S RENOVATING RESOLVENT.

R Potassium iodide2.5 grm
 Concentrated sarsaparilla decoction15 grm
 Bitter almond water...10 grm
 Syrup30 grm
 Parrish's simple elixir...90 grm
 Distilled water.....250 grm
 Caramel sufficient to color.
 Mix. —(H. B. Parsons).

RADAM'S MICROBE KILLER.

Dr. R. G. Eccles, in the Druggists' Circular, gives the following formula for the preparation:
 R Sulphuric acid (strong)...4 dr.
 Hydrochloric acid.....1 dr.
 Red wine (about).....1 oz.
 Well water1 gal.

RANSOM'S HIVE SYRUP AND TOLU.

R Fluid ext. squills.....2 dr.
 Fluid ext. senega.....2 dr.
 Soluble essence tolu.....2 dr.
 Tartar emetic.....4 gr.
 White sugar.....4 oz.
 Water to make.....4 oz.

It is readily prepared by rubbing the tartar emetic and sugar well together, adding the fluid extract and essence of tolu, and then enough water to make, after short slight heating and straining, four fluid ounces. Each fluid ounce of the syrup contains 1 grain of tartar emetic.

—(New Idea.)

REAVE'S EMBROCATION.

R Olive oil..... $1\frac{1}{2}$ oz.
 Aq. ammonia.....1 oz.
 Goulard's extract of lead.1 oz.
 Oil origanum.....2 oz.

RECAMIER CREAM.

R Rice flour.....48 oz.
 Zinc oxide.....60 oz.
 Glycerine640 oz.
 Cocoa butter.....48 oz.
 Lard48 oz.
 Mercuric chloride4 oz.

RECAMIER BALM.

R Zinc oxide5 lbs.
 Glycerine2 dr.
 Alcohol2 oz.
 Mercuric chloride4 oz.
 Distilled water64 qts.
 —(Boston Herald).

RED STAR COUGH CURE.

We purchased a bottle of it and have submitted it to examination, and find that it is a syrup preparation of wild cherry bark, with a little tar and slight trace of chloroform or chloric ether, with possibly a little bitter almond added. It is put up in a green panel bottle containing full three fluid ounces. It is a clear reddish-brown syrup, of thick substance, has a very faint acid reaction; but has pronounced bitter-almond flavor, and tarry taste and odor. —(New Idea).

REE'S CHOLERA MIXTURE.

R Spts. chloroform12 oz.
Spts. lavender, comp.....12 oz.
Vin. opium3 oz.
Oil of cloves.....40 min.

REVALENTA ARABICA FOOD.

Consists solely of lentils ground up into a fine powder.
—(Stokes, in Hygiene).

REX MAGNUS.

According to Science, the composition is roughly indicated by the following formula:

R Boric acid33½ per ct.
Borax33½ per ct.
Chloride of potassium 15 per ct.
Water18 per ct.

RIPAN'S STOMACHIC TABLETS.

These widely advertised Stomachic tablets are said to derive their name from the first letter of the name of the ingredients they contain, which spells R-I-P-A-N-S. Each tablet containing the following:

R Rhubarb, powd.....2 gr.
Ipecac, powd.....1-20 gr.
Peppermint½ min.
Aloes½ gr.
Nux vomica.....½ gr.
Sodium bicarb.....5 gr.
Dose: One or two tablets after each meal.

The above combination offers a splendid tonic-digestant of known power and activity. The chief aim in dyspepsias is, not to perform the act that is lacking, but to stimulate the organs to perform this for themselves. Thus, this combination tends to stimulate all the secretions of the *prima vitæ* and enable each and every organ connected with the digestive and assimilative processes to functionate.

Where digestive ferments—pepsin and pancreatin and their derivatives—are employed, it is with the expectation that they will artificially and mechanically perform the offices that belong to the digestive organs, leaving the latter no labor but that of assimilation. The result is a putrefaction process that, theoretically, reduces proteids to an assimilable form. Stomachic Tablets, on the contrary, stimulate the organs themselves to normal activity, whereby digestion becomes a physiological instead of forced and mechanical act, and ensures, with a reasonable degree of certainty, the desired assimilative function.

—(Western Druggist.)

RICHMOND'S SAMARITAN NERVINE.

According to our analysis, this wonderful agent has the following formula:

R Potass. bromide1 oz.
Sugar1 oz.
Caramel20 min.
Water5 oz.
Dissolve and add oil
cassia10 min.
Mix. —(New Idea).

ROCHE'S HERBAL EMBROCATION.

R Digest asafetida2½ parts
with
Olive oil60 parts
for some hours; decant
and mix solution with—
Oil caraway2 parts
Oil turpentine2 parts
And add a few drops of oil
gaultheria.

ROGERS' ANTI-NEURALGIC PILLS.

R Asafetida10 gr.
Ext. valerian10 gr.
Galbanum10 gr.
Castoreum10 gr.
Mix. Make 10 pills. Dose: Three or four pills a day.
—(Country Doctor.)

ROGERS' EXCELSIOR CORN CURE.

R Fluid ext. cannabis indica 1 dr.
Sulph. morphine20 gr.
Salicylic acid10 gr.
Collodion to make.....2 oz.

Mix well. Pare the corn down thin, apply till a coat forms; do so twice or more, and you can pick the corn out.
—(Dr. Sullivan in Medical World).

RUSSIA SALVE.

A formula for a preparation said to resemble this preparation is given in the Druggists' Circular:

R White pine pitch.....2 lbs.
Beeswax1 lb.

Temper it with olive oil to the proper consistence. The "pitch" and wax are, of course, to be melted before the "tempering" process begins.

RUSSELL'S BOTANIC KING.

As Dr. Russell states on the label, of a mixture of powdered extracts of dandelion, mandrake, buchu, yellow dock, and peruvian bark, each 10 parts; aloes, 50 parts.
—(New Idea).

SAGE'S CATARRH REMEDY.

R Powdered hydrastis cana-
densis1 oz.
Powdered borax10 gr.
Salt10 gr.
Ferro-cyanuret of iron; suffi-
cient to color.

Mix.

The above is the formula of Dr. Sage, and sold by him to Dr. Pierce, of New York, for \$500. The formula was given to me by Dr. Sage himself, while on a visit to relatives in Switzerland county, Indiana, two years ago.

—(Dr. Hewitt in Medical World).

SAUL'S CATARRH REMEDY.

R Comp. tinct. benzoin.....2 oz.
Tinct. tolu2 oz.
Chloroform1 dr.
Sulphuric ether1 dr.
Aromatic spts. of ammonia 1 oz.
Oil of tar.....1 dr.
Rectified spirits5 oz.

Mix. Use with Cutler's inhaler.
—(Dr. Brucker in Med. World).

SANFORD'S RADICAL CURE
FOR CATARRH.

Consists, according to an analysis made by Prof. A. B. Lyons, of a distilled extract of witch hazel, containing a little alcohol and glycerine, perhaps as much as 5 per cent. of the latter, and between 10 and 15 per cent. of the former (no exact determinations attempted), also an important constituent — morphine—quantity not estimated.

The "solvent" consists mostly of nitre and bicarbonate of soda, with a small quantity of the yellow powder, insoluble or sparingly soluble in water—probably a vegetable powder.

—(New Idea).

SCHENCK'S PULMONIC SYRUP.

The following formula for Schenck's Pulmonic Syrup was given to me by an old lady several years ago, who professed to know all about the late Dr. Schenck when he commenced:

R Wormwood $\frac{1}{2}$ oz.
Catnip $\frac{1}{2}$ oz.
Tansy $\frac{1}{2}$ oz.
Hyssop $\frac{1}{2}$ oz.
Hoarhound $\frac{1}{2}$ oz.
Hops $\frac{1}{2}$ oz.
Chamomile $\frac{1}{2}$ oz.
Comfrey $\frac{1}{2}$ oz.
Senega $\frac{1}{2}$ oz.
Elecampane $\frac{1}{2}$ oz.

Boil with sufficient water to make, after straining, one quart; then add:

gum arabic $1\frac{1}{2}$ oz.
Liquorice $1\frac{1}{2}$ oz.

Then one good-sized Indian tur-
nip, and finally add:

Sugar3 lb.
Brandy $\frac{1}{2}$ pt.
Juice of two lemons.

—(H. M. Wilder, in Pharmaceu-
tical Record).

SCOTCH OATS ESSENCE.

Recent analysis assert that a certain nostrum, "Scotch Oats Essence," widely advertised as a wonderful nerve tonic, containing neither alcohol nor other harmful ingredients, is, in fact, loaded with 35 per cent. alcohol and with two grains of morphine to each bottle.
—(Western Druggist).

SEELEY'S PILE OINTMENT.

R Sulph. morphia3 gr.
Tanin48 gr.
Pine tar72 gr.
White wax72 gr.
Benzoated lard766 gr.

SEVEN BARKS.

R Extract of hydrangea.....1 lb.
Extract of poke root.....12 lb.
Extract of Culver's root..12 lb.
Extract of dandelion.....12 lb.
Extract of lady-slipper..12 lb.
Extract of colocynth.....12 lb.
Extract of bloodroot.....6 lb.
Extract of blue flag.....6 lb.
Extract of stone-root.... $6\frac{3}{4}$ lb.
Extract of golden seal.... $7\frac{1}{2}$ lb.
Extract of mandrake.....24 lb.
Extract of black cohosh..24 lb.
Extract of butternut....48 lb.
Spirits of sea salt..... $14\frac{1}{2}$ lb.
Aloes10 lb.
Borate of sodium.....15 lb.
Infusion of capsicum..... $4\frac{1}{2}$ lb.
Powdered sassafras.....11 lb.
Ginger6 lb.
Sugar-house syrup.....40 gal.
Water, sufficient to make 98 gal.

Mix.

—(H. Greeley, in National Drug-
gist).

SENCKENBERG'S MIGRANE PASTILLES.

- ℞ Methozine (antipyrine).....4½ gr.
 Antifebrin7½ gr.
 Rhubarb¾ gr.
 Calamus1-3 gr.
 Cinchona½ gr.
 Mix. —(Pharm. Cent.).

SEA-SHORE DIPHTHERIA AND SORE THROAT SPECIFIC.

The following formula will make a preparation practically identical with the original:

- ℞ Sol. of chloride of iron.....18 min.
 Zinc chloride2 gr.
 Magnesia chloride.....2 gr.
 Sodium chloride.....4 gr.
 Chloride of potassium.....6 gr.
 Water2 oz.
 Mix. —(New Idea).

SEVEN SEALS, OR GOLDEN WONDER.

- ℞ Ether4 parts
 Chloroform6 parts
 Camphor4 parts
 Oil of peppermint.....2 parts
 Tinct. of capsicum.....35 parts
 Alcohol (90 per cent.).....50 parts

These proportions are approximate. This preparation is recommended for "cholera-morbus, rheumatism, wart, corns and all diseases."

—(National Druggist).

SEQUAH'S OIL.

A mixture of two-thirds Turpentine and one-third Fish Oil, scented with a few drops of Oil of Camphor.

—(Stokes, in Hygiene).

SEQUAH'S PRAIRIE FLOWER.

Has to the ounce—

- ℞ Aloes52½ gr.
 Carbonate of soda.....17½ gr.
 Water362 gr.

And a few drops of the Tincture of Capsicum and Myrrh.

—(Stokes, in Hygiene).

SHILOH'S CONSUMPTION CURE.

- ℞ Muriate of morphine.....3 gr.
 Muriate acid3 min.
 Fl. ext. of henbane.....2 dr.
 Fl. ext. of ginger.....3 dr.
 Fl. ext. of wild cherry.....3 dr.
 Diluted alcohol3 dr.
 Chloroform1 dr.
 Essence peppermint30 min.
 Syrup of tar.....3 oz.
 Simple syrup enough to make8 oz.
 Mix. —(New Idea).

SIROP GIBERT.

Is a favorite French anti-syphilitic remedy, and has the following composition:

- ℞ Biniodide of mercury.....2 gr.
 Iodide of potassium.....100 gr.
 Simple syrup6 oz.

Mix. Dose: Two teaspoonfuls given after meals, three times a day.

ST. JOHN LONG'S LINIMENT.

- ℞ Yolks of eggs.....8
 Oil of turpentine.....24 oz.
 Acetic acid16 oz.
 Water24 oz.

Mix.

—(Philadelphia Medical Times).

ST. JOHN'S LINIMENT.

According to Eclectic Medical Advocate, this preparation is composed of:

- ℞ Turpentine7 oz.
 Sweet oil3 oz.
 Tincture arnica4 oz.
 Oil origanum1 oz.
 Oil hemlock1 oz.
 Oil juniper1 oz.
 Oil amber2 oz.
 Laudanum2 oz.
 Spirits ammonia½ oz.
 Camphor½ oz.

ST. JACOB'S OIL.

- ℞ Gum camphor1 oz.
 Chloral hydrate1 oz.
 Chloroform1 oz.
 Sulph. ether1 oz.
 Tinct. opium½ oz.
 Oil origanum½ oz.
 Oil sassafras½ oz.
 Alcohol½ gal.

Mix.

—(Medical World).

SIMMON'S LIVER REGULATOR.

- ℞ Hepatica1 oz.
 Leptandra1 oz.
 Serpentaria1 oz.
 Senna1½ oz.

Mix. Put the ingredients into 2½ pints of boiling water. Let stand 19 hours, then strain. Add ½ pint of good whisky.

—(New Remedies).

SKINNER'S DANDRUFF MIX- TURE.

- ℞ Chloral hydrate1 part
 Glycerine4 parts
 Bay rum16 parts

Mix. —(National Druggist).

SMEDLEY'S FEVER POWDERS.

- ℞ Camphor gum½ oz.
 Gum myrrh½ oz.
 Blood-root1 oz.
 Lobelia (seeds, pods, and leaves)2 oz.
 All pulverized fine and well mixed.

For colds and to break a fever in its first stages, in powders of ordinary size. For catarrh in the head, use as a snuff.

SMITH BROS.' COUGH DROPS.

R Average weight of each drop36.5 gr.
 Sugar (and glucose in small quantities).....35.5 gr.
 Powdered charcoal80 gr.
 Licorice in small quantities.
 And highly flavored with oil of sassafras with a little oil of anise. —(New Idea).

STRONG'S ARNICA JELLY.

The following formula may be taken as one which will duplicate the proprietary article in all essential particulars:

R Glycerine1 oz.
 Water1 oz.
 Starch120 gr.
 Fl. ext. arnica.....2 dr.
 Sp. bitter almonds (1 to 8) 2 min.
 Carbolic acid8 min.
 Mix. —(New Idea).

STOKE'S EXPECTORANT.

R Carbonate ammonia.....30 gr.
 Fluid ext. squills.....1 dr.
 Fluid ext. senega.....1 dr.
 Paregoric6 dr.
 Syrup of tolu.....12 dr.
 Water10 dr.

Dissolve the carbonate of ammonia in the water and add the remaining ingredients. Dose: A teaspoonful.

STEDMAN'S SOOTHING POWDERS.

R Opium pulv.....3 gr.
 Ipecac1 gr.
 Milk sugar8 gr.
 Rice flour12 gr.
 Mix and divide into eight powders. —(New Idea).

STUART'S DYSPEPSIA TABLETS.

Each tablet contains the following:

R Pepsin1 gr.
 Soda bicarb.....2 gr.
 Precip. chalk3 gr.
 Jamaica ginger1 gr.
 Sugar of milk.....11 gr.

SWAIM'S VERMIFUGE.

R Worm-seed2 oz.
 Valerian1½ oz.
 Rhubarb1½ oz.
 Pink-root1½ oz.
 White agaric1½ oz.

Boil in sufficient water to yield 3 quarts of decoction, and add the following oils dissolved in a quart of rectified spirits:

Oil of tansy.....30 drops
 Oil of cloves.....45 drops

SWAYNE'S OINTMENT.

Its composition appears to be precipitated sulphur, 2 parts; talow, 3 parts; lard, 3 parts. It states on the label that ointment cures tetter, itch, salt-rheum, scald-head, piles, ringworm, pimples, blotches, barber's itch, ulcers and eruptions of the skin.

—(New Idea).

SYRUP OF FIGS.

The formula for syrup of figs is as follows:

R Senna leaves14 oz.
 Coriander seed6 oz.
 Figs24 oz.
 Tamarind18 oz.
 Cassia pulp18 oz.
 Prunes12 oz.
 Ext. licorice1½ oz.
 Ess. peppermint1½ oz.
 Syr. simp.1 gal.

The formula omits directions; but probably a water extract should be made of the drugs, so as to measure about four pints, and in this dissolve eight pounds of sugar to make the syrup.

—(Druggists' Circular).

DR. SYKES'S CATARRH CURE.

Mr. D. S. Sager, chemist, Brantford, Canada, writes the American Druggist that an analysis showed that it consisted of between 66 and 67 per cent. of chlorate of potassium, with powdered licorice root, and a small amount of brown powder not analyzed. The liquid made by adding the powder to a stated amount of water, filtering out the sediment, and then flavoring with wintergreen.

SYRUP OF STILLINGIA COMPOUND.

This is an old eclectic remedy and may be prepared as follows:

R Fl. ext. stillingia comp....1 oz.
 Fl. ext. corydalis.....1 oz.
 Fl. ext. blue flag.....½ oz.
 Fl. ext. elder flowers.....½ oz.
 Fl. ext. prince's pine.....½ oz.
 Fl. ex. prickly ash berries ¼ oz.
 Fl. ext. coriander.....¼ oz.
 Sugar14 oz.

Watersufficient.
 Mix the fluid extracts and add water to make 6½ fluid ounces. In this dissolve the sugar, using as little heat as possible, and add water to make one pint.

TAMAR INDIEN.

R Tamarind pulp450 parts
 Powd. sugar40 parts
 Powd. sugar of milk.....60 parts
 Glycerine50 parts
 Mix and evaporate to the consistency of a soft extract, then add—

Powd. anise10 parts
 Essence lemon3 parts
 Tartaric acid3 parts
 Mix and divide into 100 boluses and roll in the following mixture:
 Cream of tartar.....5 parts
 White sugar35 parts
 Sugar of milk.....35 parts
 Tragacanth2 parts
 Tartaric acid2 parts
 Powd. red sandal.....25 parts
 Dry and put up in tin foil.
 —(American Druggist).

TARRANT'S SELTZER
APERIENT.

The Assistant State Geologist of Arkansas offers this hypothetical combination for this well known article, which we quote as reported by J. J. Beidelman to Meyer Bros., druggists:

R Bi-carbonate of soda 28.25 per ct.
 Rochelle salts26.04 per ct.
 Potassium, soda tartar.
 Tartaric acid free...30.95 per ct.
 Sulphate magnesia..12.89 per ct.
 Magnesia28 per ct.
 Silica01 per ct.
 Chloride of sodium.. .17 per ct.

Total98.60 per ct.
 Loss probably Tartaric acid1.40 per ct.

THIELMAN'S CHOLERA MIXTURE.

R Oil peppermint4 dr.
 Chloroform4 dr.
 Fl. ext. ipecac.....3½ dr.
 Fl. ext. valerian.....1¼ oz.
 Tinct. opium, deod.....1½ oz.
 Ether2 oz.
 Alcohol6 oz.
 Sherry wine sufficient to make16 oz.
 Mix. —(Western Druggist).

THORN'S COUGH MIXTURE.

R Hive syrup2 oz.
 Paregoric1 oz.
 Sweet spts. nitre.....1 oz.
 Mix. Dose for an adult: One teaspoonful every two or three hours.

"THAT LINIMENT."

R Oil of turpentine.....1 oz.
 Oil of spike.....1 oz.
 Oil of origanum.....1 oz.
 Barbadoes tar2 dr.
 Spirits of camphor.....½ dr.

THOMPSON'S EYE-WATER.

R Zinc. sulphate20 gr.
 Copper sulphate5 gr.
 Tinct. saffron2 dr.
 Tinct. camphor1 dr.
 Rose-water8 oz.
 Distilled water8 oz.
 Mix and filter.

—(New Remedies).

THOMAS' ELECTRIC OIL.

R Gum camphor4 dr.
 Oil gaultheria4 dr.
 Oil origanum4 dr.
 Chloroform1 oz.
 Tinct. opium1 oz.
 Oil sassafras1 oz.
 Oil hemlock1 oz.
 Oil turpentine1 oz.
 Balsam fir1 oz.
 Tinct. gualacum1 oz.
 Tinct. catechu1 oz.
 Alcohol4 pt.
 Alkanet.....sufficient to color.
 Mix. —(Medical World).

TIP TOP.

R Calomel60 gr.
 Tinct. iodine1 oz.
 Oil sassafras1 dr.
 Kerosene oil3 oz.
 Mix. Shake well before using.
 This preparation is "tip top" in some skin diseases, and does not belie its name. With a few drops of carbolic acid added, it will arrest or stop a spider or any other poisonous insect bite from assuming the erysipelatos or gangrenous form that we frequently see in course of the practice of medicine.

—(Dr. Sturdivant in Medical Summary).

TOWNSEND'S PILLS.

Have been in considerable use among physicians of our acquaintance. The formula is the following:

R Mass hydrarg20 gr.
 Gamboge20 gr.
 Ext. aloes20 gr.
 Zingiber pulv.20 gr.
 Oil peppermint3 drops.
 Mix. Divide into 16 pills.
 —(American Druggist).

TOLU, ROCK AND RYE.

R Good whisky1 gal.
 Rock candy4 lb.
 Balsam tolu2 oz.

Put the whole into a two-gallon jug. Set in a warm place and agitate several times a day until the candy is dissolved. Then strain through muslin.

TOBIAS VENETIAN LINIMENT.

R Spirits of ammonia.....5 parts
Tinct. of capsicum.....5 parts
Camphor2 parts
Alcohol34 parts
Water10 parts
Mix. —(Hager).

TRAFTON'S BALM OF LIFE.

R Iodide of potassium....80 parts
Fl. ext. of opium.....20 parts
Fl. ext. of senega.....50 parts
Fl. ext. of squills.....120 parts
Alcohol240 parts
Water enough to make,
by measure1920 parts

Filter. —(New Idea).

TRIUMPH CORN PLASTERS.

We would suggest the following formula as a satisfactory one for making a good plaster to replace the secret article. Make an adhesive plaster by melting equal parts of resin and balsam of fir together; while warm spread on linen, and when cold cut into circular discs, about the size of a nickel, and in the center of each place a quantity, about the size of a half pea, of the following mixture:

R Resin3 parts
Balsam of fir.....2½ parts
Salicylic acid5 parts

Melt the resins together, then stir in the salicylic acid.
—(New Idea).

TRASK'S MAGNETIC OINTMENT.

R Lard1 oz.
Raisins1 oz.
Fine cut tobacco.....1 oz.

Simmer well together. Then strain, and press out all from the drugs. "This is a splendid remedy in all skin diseases, as salt rheum, tetter, etc." —(Kilner).

TROPIC FRUIT LAXATIVE.

The following is offered as being a very fair duplicate of the article:

R Jalap, powdered5 parts
Senna, powdered5 parts
Sugar5 parts
Tamarind pulp (E. I.)...30 parts

Make into lozenges weighing 45 grains each, and coat with chocolate and sugar, and wrap in tin foil.
—(Adam Sonrath).

VIAVI TREATMENT.

This treatment has been extensively advertised and sold through agents. The treatment consists of a suppository and cerate, the latter to be applied externally over the womb and ovaries. The suppositories are to be inserted each night at the mouth of the womb. They are dispensed in two-grain gelatin capsules, filled with cocoa butter, in which jequirity is believed to be incorporated. The cerate is sold in oval tin boxes and contains a cheap oily, substance which becomes rancid in a few weeks and looks like a mixture of tallow, lard, boric acid and coloring matter. The cerate was, no doubt, devised for the value which may be derived from the massage treatment while it was being applied.

WALKER'S VEGETABLE VINEGAR BITTERS.

R Aloes Socotrin2 dr.
Guaiaci Resinae4 dr.
Sassafras Mucil1 oz.
Aceti2 dr.
Aquaeq. s.
Coque, et ft. decoctum, add 19 ounces deinde cola, et addantur—
Sodii Sulphatis1 oz.
Acaciae2 dr.
Spt. Anisi, 10 p. c.....2 dr.
Alcoholis1 oz.
Mix. Dose: Two teaspoonfuls.
—(Eberbach).

WASHBURN'S SALICYLICA.

A preparation bearing a close resemblance to Salicylica may be made by the following simple prescription:

R Salicylate of soda.....4 dr.
Make 24 powders.
—(Druggists' Circular).

WARNER'S SAFE CURE.

In Germany each maker of patents must furnish the government with the formula for the patent he makes. This is the one furnished by Warner for "Safe, Kidney, and Liver Cure:"

R Ext. of lycopus Virg.
(the herb)308 gr.
Ext. of hepatica (the herb)232 gr.
Ext. of gaultheria7½ gr.
Potassium nitrate39 gr.
Alcohol (90 deg.).....2½ oz.
Glycerine10 dr.
Water sufficient to make 1 pt.
—(Formulary and Druggists' Magazine).

WATT'S ANTI-RHEUMATIC PILLS.

Said to be as follows:

R Powd. aloes	4 dr.
Powd. gamboge	4 dr.
Powd. hellebore	2 dr.
Powd. guaiac	$\frac{1}{2}$ dr.
Calomel	$\frac{1}{2}$ dr.
Precip. sulphide of anti-	
mony	15 gr.
Oil of cloves	$\frac{1}{2}$ dr.
Soap	1 dr.
Spirits of camphor...	sufficient.
Mix. Make into five-grain pills.	

WAYNE'S DIURETIC ELIXIR.

R Potass. acetate	3 oz.
Fl. ext. buchu	3 oz.
Fl. ext. juniper	$1\frac{1}{2}$ oz.

WEIDEMEYER'S CATARRH CURE.

We examined in 1880 and found it to be composed almost entirely of bicarbonate of soda, costing less than one-tenth of one cent for the contents of a box, which retails for \$1.50. —(New Idea).

WHEELOCK'S COUGH MIXTURE.

R Sulph. ether	3 dr.
Tinct. hyoscyamus	1 oz.
Syr. wild cherry	1 oz.
Syr. tolu	1 oz.
Water to make	4 oz.
Mix. —(Pharmaceutical Era).	

WHITE'S ELIXIR.

The following is the formula of "White's Elixir," a nostrum extensively sold throughout Vermont for lung complaints:

R Antimonii et potassii tart	32 gr.
Tinct opii	2 dr.
Tinct. camphorae	2 dr.
Tinct. anisi	2 dr.
Alcoholis dil.	3 oz.
Syrupi simplicis	10 oz.
Aquae to make	1 pt.

Mix.

—(Dr. Ladue in Medical World).

WILLIAM'S PINK PILLS FOR PALE PEOPLE.

R Sulphate of iron	240 gr.
Carbonate of potassium ..	140 gr.
Sugar	48 gr.
Tragacanth	16 gr.
Strychnine	$1\frac{1}{2}$ gr.
Arsenic	$1\frac{1}{2}$ gr.
Glycerine	10 min.
Water	q. s.

To make mass mix and divide into 90 pills and coat with pink sugar.

WILSON'S LIGHTNING LINIMENT.

R Oil of cedar	3 oz.
Oil of sassafras	3 oz.
Tinct. of opium	3 oz.
Tinct. of guaiac	3 oz.
Tinct. of capsicum	3 oz.
Aqua ammonia	4 oz.
Spirits of camphor	4 oz.
Spirit of turpentine	4 oz.
Chloroform	3 oz.
Alcohol	1 gal.

Mix. —(Druggists' Circular).

WINSLOW'S SOOTHING SYRUP.

R Morphia suplh.	$\frac{1}{2}$ gr.
Sodii carbon	1 gr.
Simp. syrup	$1\frac{1}{2}$ oz.
Aqua	$\frac{1}{2}$ oz.
Spirit foeniculi	1 dr.
Mix. —(New Idea).	

WOLCOTT'S PAIN PAINT.

I have made an article closely resembling this, and answering the same purpose, by taking:

R Oil of peppermint	1 to 2 dr.
Dried mint leaves, finely	
pulv.	1 to 2 dr.

Moisten the leaves with the oil, enclose in lead wrappers (to prevent evaporation), leave enclosed a few days, then dissolve in four ounces of alcohol; add 12 ounces of water, shake and filter.

—(Dr. Crull, in Medical World).

WOOLFORD'S SANITARY LOTION.

A preparation which is substantially the same in every respect may be made from the following formula:

R Sodium hydrate	3 dr.
Sulphur	5 dr.
Water to make	1 pt.

Dissolve the sodium hydrate in 4 or 5 ounces of water and add sulphur, and boil until the preparation assumes a reddish-brown color, which will require probably 15 or 20 minutes. It may now be diluted to one pint and sulphurated hydrogen passed through it for a few minutes, and then filtered.

—(New Idea.)

WISTAR'S BALSAM OF WILD
CHERRY.

The following formula makes a preparation which is substantially the same as the proprietary article:

R Fl. ext. wild cherry.....1 oz.
Fl. ext. ipecac.....2 dr.
Fl. ext. squills.....2 dr.
Tinct. opium1 dr.
Tartar emetic2 gr.
Sugar house syrup.....3 oz.
Alcohol6 dr.
Sp. anise (1 in 8).....20 min.
Tinct. cudbear comp.
(N. F.)2 dr.

Water sufficient to make 8 oz.
Mix. —(New Idea).

WITCH-HAZEL OINTMENT

R Tinct. hamamelis12 dr.
Lanoleum6 dr.
Petrolatum16 oz.
Mix. Lanoleum is here used in place of the copyrighted term lanolin. —(Medical Standard).

YELLOW FAMILY DROPS.

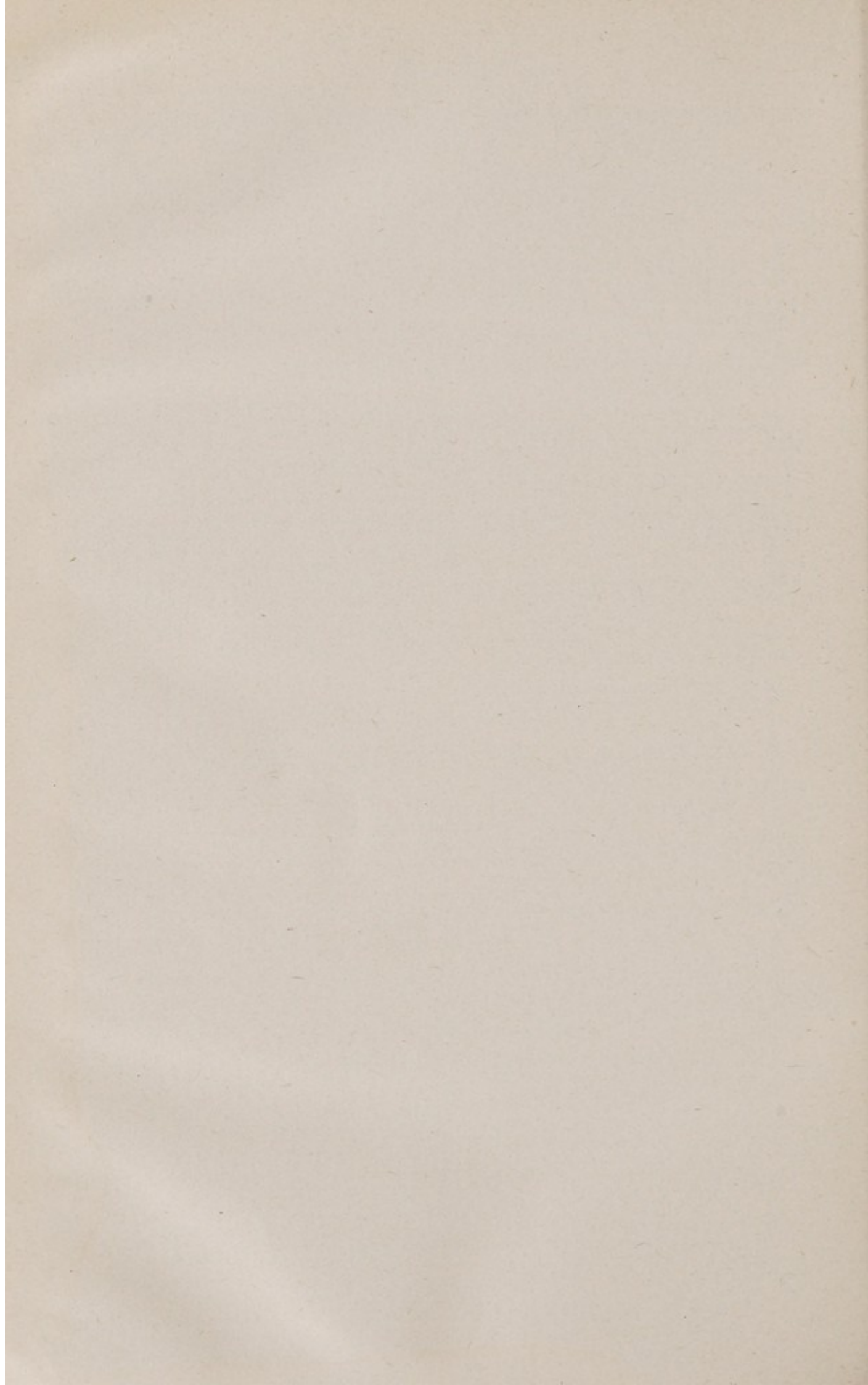
R Opium2 oz.
Sapo venet1 lb.
Croci opt2½ oz.
Sp. rosemarini2 lb.

Mix. Digest for a week and add

Ol. rosemarini2 oz.
Ol. origani2 oz.
Camphor2 oz.
Mix well.
For spirit rosemarini take—
Rosemarini3 oz.

Alcohol, sufficient to make 2 lb.
The above, with the Ausburg Essence of Life and Green Wonder Oil, are famous old formulae used for a century and longer in Pennsylvania. They came to me by chance in a curious old book of prescriptions, which belonged to one of the Fahnestock family. The Yellow Family Drops are still used to break up colds, and are an efficient remedy.

—(Prof. Waugh, in Medical World).



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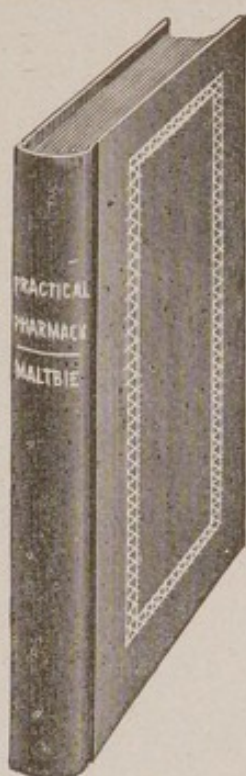
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