MORE
SECRET REMEDIES.

WHAT THEY COST & WHAT THEY CONTAIN.

BASED ON ANALYSES MADE FOR THE

BRITISH MEDICAL ASSOCIATION.

SECRET REMEDIES—SECOND SERIES.

LONDON:
BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.
1912.
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PREFACE.

The publication by the British Medical Association—under the title "Secret Remedies: What they Cost and What they Contain"—of the results of a series of analyses of some of the most advertised of the many proprietary medicines put forward for the cure of disease, has perhaps done more than anything else to open the eyes of the public, the authorities, and the Legislature to the true facts in regard to the nature of such articles and of the enormous traffic that goes on in them. At the time of the publication of this second volume, a public inquiry into the matter by a Parliamentary Committee has just been opened, with a view to deciding on what alterations of the law are necessary or desirable. The present state of the law in regard to the matter, and of its administration, undoubtedly leave room for much amendment. But the surest enemy of quackery in this department is increased publicity in regard to the facts, and the recognition by the public of the great disparity that exists in many cases between the actual composition of many nostrums on the one hand, and the extravagant claims that are made for their curative powers on the other. As a further contribution to a general enlightenment on the subject, the British Medical Association publishes in the present volume the results of a further series of analyses of proprietary medicines which have been carried out for the purpose, together with extracts from the statements of the proprietors of the medicines. The number of those at present existing is so vast that it is only possible to deal with comparatively a few, and these have been selected, as a rule, as being some of the most widely advertised or the most largely sold.

It will be recognised at once that there is a very wide variation in the degree of exaggeration in the claims put forward. In a few cases—a small minority—the advertisements appear to consist of very little but an indication of the disorders for which the medicine is recommended. At the other end of the scale there are nostrums put forward with the greatest assurance for even the most serious disorders, including consumption, smallpox, cancer, etc., etc., and in many cases one and the same article is asserted to be a cure for almost every disease to which the human body is liable. As a rule, the more extravagant the claims made, the more surely does the composition of the article, as revealed by analysis, show it to be of little or no value, if not even harmful, for the diseases named. Between these extremes, of the modest proprietary medicine—more or less of the nature of a harmless domestic medicine—on the one hand, and the most fraudulent quackery on the other, are to be found all gradations. The medicines described in this book have not been chosen as inclining more in one direction than the other, but include the various grades. From the facts stated the reader will be able to draw his own conclusions; it has not been necessary, as a rule, to express opinions on the articles described, a juxtaposition of the claims made and the facts shown by analysis being sufficient.

The analyses here published have been made with the greatest care during the last few years. Since it is open to the maker of a proprietary medicine to alter its composition at any time without warning (and very great alterations have been proved in some cases), it is, of course, possible that some of those described may have been altered since the analyses were made, though there is no reason to suppose that such has been the case. It is desirable to repeat here the caution that was expressed in the first volume: most of the active substances employed in medicine can be detected with

certainty, even in complex mixtures, by sufficiently painstaking work on the part of the analyst; but this is not the case with preparations of some organic drugs, usually of vegetable origin, that have never been fully investigated, and especially with mixtures of the extracts of several vegetable drugs; in such cases analysis can only give approximate results, and constituents having no well-defined characters may escape detection. Since the maker of a secret medicine is in no wise limited to the Pharmacopœia or to drugs in ordinary use, but may employ, for example, a mixture of extracts of a dozen plants, none of which possesses any medicinal virtue or is recognised as a drug, it is no matter for surprise if all the constituents of a nostrum cannot be named as the result of analysis. But if it is remembered that the *active* ingredients of most substances having medicinal properties possess well-defined characters by means of which they can be identified, it will be seen that the limitations of the powers of analysis here referred to are of comparatively little importance in regard to exposing the *essential* nature of a given medicine, or substance put forward as such.

The figures given in this book as the "estimated cost of ingredients" of the various articles refer only to the ingredients, the cost prices being taken from a wholesale druggist's list; nothing is allowed for the cost of making up the ingredients into the form in which they are sold, or for bottles, boxes, packages, etc. Where the results of analysis are not sufficiently definite for the cost of ingredients to be estimated with reasonable fairness, the figure is omitted.

Dr. F. Zernik, of Berlin, has continued the publication in the *Deutsche Medicinische Wochenschrift* of the results of his analyses of various nostrums sold in Germany, and some of his results are here included.

MORE SECRET REMEDIES.

WHAT THEY COST AND WHAT THEY CONTAIN.

CHAPTER I.

REMEDIES FOR GOUT, RHEUMATISM, AND NEURALGIA.

The medicines described in this chapter include some of those most widely advertised for the treatment of these complaints. They show a great variety in the methods of treating them, including as they do powders, pills, tablets, drops, and mixtures to be taken; liniments to be applied externally (one of these being also taken internally), paint, ointment, and plasters to be stuck on to the soles of the feet. The medicaments employed also vary much, but for the most part consist of articles in common use. The advertisements are in several respects instructive; for example, there is undoubtedly a prejudice among the more ignorant section of the public in favour of drugs coming from other and less civilised countries where they have been discovered by "natives," or introduced in some other way than through careful experimenting, and some of the statements made are clearly intended to turn such prejudices to account. Thus in one case it is stated that the discoverer "went back to the heart of Nature in an endeavour to wrest from it the secret of an ideal liniment. In the course of his searches he was favourably impressed with the healing properties of many herbs used by native tribes," etc.; in another, "this wonderful preparation is the discovery of a Hindu doctor in the Himalayan Mountains." In their varied forms of appeals to "Nature" some of the advertisers do not hesitate to ascribe high intelligence to the medicines or to parts of the body other than the brain. Thus one states that

"No one can reasonably deny an instinctive knowledge and a physical power exerted in the stomach by a conscious principle which selects and rejects, and which in its natural purity may be ranked as a nerve of sense"; another that "Immediately the liniment has been applied it sets out upon its message of discovery and healing, travelling with lightning rapidity to the seat of the trouble"; yet another calls his preparation "A subtle extract from the vegetable kingdom, the hidden fire or life of plants and flowers, the 'Quintessence of Life.'"

Among these articles, as in most other groups of nostrums, the claims made by rival proprietors are mutually exclusive; those dealt with in this chapter include the following: "Greatest and latest discovery in medicine . . . . there is nothing known in medicine which will compare with it"; "the only efficient remedy ever discovered for these disorders"; "the finest cure for these complaints," curing "when all other remedies fail"; "we guarantee magic foot drafts to cure any case of rheumatism"; "it is the one remedy that achieves a complete and permanent cure"; "the most effective scientific remedy." Obviously, such claims cannot all be true.

Most advertisers of proprietary medicines seem unable to resist dragging in references to the medical profession into their advertisements. There are two principal ways in which this is done: the one is to claim to be receiving the support and recommendations of medical men, and the other is to vilify and slander them as rogues and fools, or both. These two methods are both illustrated here; the former includes "highly endorsed by the leading medical profession" and "physicians are already using them in their regular practice, and recommending them"; the latter is exemplified by "certain medical men have done their best by tongue and pen to persuade the public that Box's Golden Fire is poisonous . . . . Those who raise the cry of

'poison' are wholesale traffickers in the same—it is their stock-in-trade; poisons bring grist to their mills, while the poor victims who swallow them perish by thousands." It is hardly necessary to remark that statements of the former kind are as a rule just as baseless as those of the latter.

One preparation described below—Bengué's Balsam—cannot be properly described as a "secret remedy," since the principal constituents are mentioned on the label; seeing, however, that it is advertised in somewhat the same way as others, it is useful to include it here.

DR. HOFFMAN'S RHEUMATIC POWDERS.

These powders are supplied by "The International Chemical Co.," from an address in London. They are advertised in the following terms:

Greatest and latest discovery in medicine.
Dr. Hoffman's Celebrated Rheumatic Powders.
Great German Rheumatic Cure.

Will cure permanently all forms of Rheumatism, Gout, Neuralgia, Sciatica, Excess of Uric Acid, etc.

Highly endorsed by the leading Medical Profession, Analytical and Consulting Chemists, and general public in all parts of the world. Contain absolutely no injurious drugs, poison, or any kind of Narcotic. Its manufacture is based on scientific principles.

Relief is felt after the First Dose.

There is nothing known in medicine which will compare with it.

A circular enclosed in the package contained statements similar to the above, accompanied by a so-called "analysis" in the following terms:

I hereby certify that "Dr. Hoffman's Rheumatic Powders" have been tested in these laboratories, the data obtained being of a most satisfactory character, and indicating them to be judicious and skilful preparations that are well suited for the purposes for which they are designed. They are valuable powders for rheumatism, gout, and kindred complaints. These powders are free from narcotics, poisons, or undesirable constituents, but are powerful uric acid solvents. I consider them to be perfectly safe, reliable, and effective medicines.

This recommendation, or testimonial, bears the name of an individual who has made himself conspicuous by giving such puffs under the guise of analyses; his name is followed by a long paragraph setting forth his title to speak with authority, commencing with "Ph.D.," and concluding with "Ph.D., etc.,"

but with no mention of the university which conferred this duplicate degree. Such distinctions as "author of . . . . 'The Physiology of the Invertebrate,' 'Respiratory Proteids,' etc. . . . Analytical Chemist, Assayer and Chemical Engineer, Consulting Chemist, and Expert Adviser to Foreign Governments, Corporations, Collieries, Companies, Pharmaceutical and Chemical Manufacturers; . . . . Bacteriological and Agricultural Expert," are no doubt intended to display his ability to pronounce with authority on the merits of powders for rheumatism or on any other subject whatever.

The powders are supplied in boxes at 1s. 1½d. and 2s. 9d. A 1s. 1½d. box was found to contain 12 powders. The directions are:

Take one powder every three or four hours; place on the tongue, and wash it down with a draught of water.

It would appear that the amount taken at one time is not regarded as of great importance, as the powders in one box varied in weight from 11.3 to 20.8 grains, the average of the 12 being 15.8 grains. Analysis showed the powder to have the following composition:

Acetyl-salicylic acid	66.4	per cent.
Phenacetin	11.4	,,
Caffeine	1.3	,,
Sugar	20.1	,,
Moisture	0.8	,,

Acetyl-salicylic acid is also known by the shortened name of the B.P. Codex, acetosalic acid, and by the trade names Aspirin, Xaxa, etc. The estimated cost of the materials for 12 powders is 1d.

EADE'S GOUT AND RHEUMATIC PILLS.

These pills are supplied by a firm in London. In an advertisement it is stated that they

instantly relieve and rapidly cure the worst form of gout, rheumatism, rheumatic gout, pains in the head, face, and limbs.

The extracts which follow are from a circular enclosed in the package with the pills:

They are specially recommended to the afflicted, with confidence arising from experience, as one of the valuable results of the improved state of

medical science, and the only efficient remedy ever discovered for these disorders.

The never-failing effects of Eade's Gout and Rheumatic Pills in curing these distressingly painful diseases have secured to them a celebrity unequalled by any medicine of past or present times. They not only give relief in a few hours where the patient has been driven to madness by the horrible, excruciating tortures of this disease, but restore to perfect health in an inconceivably short space of time—in most cases giving relief from the intolerable pain in one or two hours; one bottle will frequently carry off the attack in two or three days, even when the patient has kept his bed for as many weeks, and sometimes months.

These Pills have repeatedly succeeded after all the usual internal and external remedies have failed; and it is their peculiar property that the first dose completely arrests the frequent tendency of those diseases to attack some vital part while, if attacked, the symptoms are immediately and effectually removed.

The pills are supplied in bottles at 1s. 1½d. and 2s. 9d.; a 1s. 1½d. bottle was found to contain 18 pills, and a 2s. 9d. bottle 60 pills. The directions are: "Take one pill three times a day, and two at bedtime; for delicate females and weak persons, one pill night and morning."

The pills were not coated, as ordinarily understood, but had a thin irregular layer of adherent powder, which proved to be carbonate of magnesia; the average weight of one pill was 5.4 grains. Analysis showed the presence of aloes, powdered colchicum corm, and extractive, with cane sugar, glucose, gum and dextrin, various characters indicating that the sugars were added in the form of treacle; the amount of colchicine was determined (and the alkaloid identified) and was found to be considerably more than would be proper to the amount of corm present, and this fact and the presence of an extract pointed to extract of colchicum being present as well as the corm. The amounts of the different constituents were determined as accurately as possible; the amount of aloes, not being determinable with any exactness, was arrived at by comparing the pills by various tests with a mass of known composition. The formula was found to be approximately as follows:

Barbadoes aloes	10	per cent.
Extract of colchicum	18	,,
Powdered colchicum corm	35	,,
Treacle	27	,,
Gum and dextrin	10	,,

Estimated cost of materials for 18 pills, ¾d.; for 60 pills, 2½d.

URICURA DROPS AND LINIMENT.

These preparations, also known as Hammond's Specifics, are made by a firm in Glamorganshire. An advertisement inquires:

Have you tried to eliminate the cause of Rheumatism, Gout, Lumbago, and Sciatica? Uricura Drops will do this for you, being the finest cure for these complaints.

The price of each is 1s. 1½d. A bottle of the drops contained half a fluid ounce, and of the liniment 4 fluid ounces. On the package of the former appears:

N.B.—In conjunction with the drops it is strongly recommended to use Uricura Liniment.

And on the package of the liniment:

N.B.—It is strongly recommended that for Rheumatism, Lumbago, and Sciatica, Uricura Drops be taken in conjunction with the Liniment.

In a circular enclosed in each package it is stated that:

"Uricura" Liniment and Drops (Hammond's Specifics) Cure Rheumatism, Gout, Sciatica, Lumbago and Neuralgia When All other Remedies fail.

These invaluable preparations have permanently cured many bad cases of from One to Twenty Years' standing. They give immediate relief, and effect a Cure quickly if Regularly and Persistently used as directed. . . .

For Colds in the Chest, Sore Throat, and Swollen Glands, nothing better than the Liniment can be used.

Athletes and others will find the Liniment a most efficacious remedy for Sprains, Bruises, Stiffness and Cramp. It has been used with remarkable results by leading Football Players.

Uricura Drops.—The directions are:

Dose.—Four Drops on sugar, night and morning. Increase two drops each day up to 10, and then reduce two drops each day.

Analysis showed the liquid to contain oil of turpentine, terebene, and oil of amber; no other ingredient could be detected. The proportions of the constituents were ascertained as nearly as possible by analytical methods and checked by comparison with made-up mixtures. The approximate formula arrived at was:

Oil of amber	5	per cent.
Terebene	47.5	,,
Oil of turpentine	47.5	,,

Estimated cost of ingredients of half a fluid ounce, ½d.

Uricura Liniment.—The directions are:

To be gently rubbed in for 10 to 15 minutes, night and morning.

The liniment consisted of a partly separated emulsion, which was found to contain oil of turpentine, acetic acid, ammonia, alcohol, egg-substance (as emulsifying agent), and water; a trace (under 0.01 per cent.) of alkaloid was found, but this did not possess any properties by which it could be identified, and may have consisted of bases derived from the egg. The acetic acid and ammonia of course combine, but the former was in excess and the liniment moderately acid, about one-fourth of the acetic acid being in the free state. The quantities of the different ingredients were determined (the egg-substance only approximately) and the formula arrived at was as follows:

Oil of turpentine	42	parts (by measure)
Acetic acid (*B.P.*)	10	,, ,,
Strong solution of ammonia	2.3	,, ,,
Alcohol	9.0	,, ,,
Egg-substance	2.0	,, ,,
Alkaloid (?)	0.01	,, ,,
Water, to	100	,, ,,

In estimating the cost of ingredients, the alkaloid is neglected; if the alcohol present were added in the form of rectified spirit, the cost of the ingredients for 4 fluid ounces would be about 1½d.; but if, as is more likely, "non-mineralised methylated spirit" were used, the different odour and other characters would be covered by the other ingredients, and the cost would be about ¾d.

CHAMELEON OIL.

This is made by a limited company giving an address in London. It is advertised as "The Only Perfect Liniment," but the directions show that it is intended to be taken internally as well as applied externally. Besides being recommended for human patients, it is described as "The Best Veterinary Medicine Known."

It is stated on the package that:

Chameleon Oil Relieves and Cures Rheumatism, Sciatica, Lumbago, Neuritis, Neuralgia, Toothache, Headache, Earache, Backache, Colds, Sore Throats, Sprains and Strains, Stiff and Swollen Joints, Chilblains, Chapped Hands, Insect Bites, etc., etc.

A pamphlet enclosed in the package gives further particulars; paragraphs headed "The Story of its Birth" and "Discovery of an Ideal Liniment" do not actually give much information, but the references to the heart of Nature and herbs used by native tribes seem to indicate a method of discovery common to a very large number of nostrums. The following are extracts from these paragraphs:

When a Roman Scholar coined the word "Liniment" which, literally translated, means "to anoint," he had in mind the germ idea of what a perfect liniment should be. In his day the physician anointed his patient with a healing balm which had the magical effect of curing muscular trouble without the aid of that tiresome modern invention—massage. Such a thing was totally unnecessary with the Romans, who possessed a supreme knowledge of the curative action of simple herbs upon the human frame. . . . But the priceless secret of that painless balm was lost, and so it happens, at the present day, when an embrocation or a liniment is mentioned one instantly conceives of some crude preparation which must be rubbed into the skin violently.

. . . it was left to Dr. Chas. F. Roberts to bring the word back to its original meaning, as being an ointment whose sole method of action would consist of simply anointing the affected part, and thus painlessly effecting the cure. The task he had set himself was to produce an external application which, to the two other virtues of being "soothing and pain-killing" should add a third, and the most important of all, "a healing power." As an advanced medical man he realised that the ideal of the healing art should be to relieve human pain by natural means. And so, like the ancient physician, he went back to the heart of Nature in an endeavour to wrest from it the secret of an ideal liniment. In the course of his searches he was favourably impressed with the healing properties of many herbs used by native tribes, because being a rational person he believed, like the late Rev. Charles Spurgeon, that there was a deal to be gained from the use of "sanctified commonsense," which, after all, is the sum of a man's own tried and trusted experience. Armed with this knowledge, which he further tested by very careful laboratory research, his industry was at length rewarded in finding a perfect liniment with the treble merit of being "healing, soothing, and pain-killing," the result of which is embodied in Chameleon Oil Liniment.

The action of Chameleon Oil is simplicity itself. Immediately the Liniment has been applied it sets out upon its message of discovery and healing, travelling with lightning rapidity to the seat of the trouble. This found, it restores to the affected part all that pristine freshness which pain and suffering has caused it to lose, quickens the action of the blood, and renews the patient's vitality. . . . The principle of Chameleon Oil Liniment may be summed up in a few words—it releases those healing powers which nature itself has set in the human body in order to overcome the constant wastage and ravages of disease.

The general directions are:

Shake the bottle thoroughly until the contents become cream coloured

Rub the Oil gently into the affected part (use plenty of the Oil) until the pores of the skin refuse to take any more and sweating begins; then cover with a layer of wool, flannel, or other porous material, and fix with a bandage. For Stronger Effect, wash affected part with hot water and apply Oil as above after drying. For Very Powerful Effect, wash first with very hot water, apply Oil as above after drying, and bandage with flannel or absorbent cotton wool soaked in the Oil or solution of it. Keep on bandage as long as possible; note that if kept on too long it will raise a blister.

Special directions are given for its use in various complaints. The following will serve as a sample:

For Coughs and Colds. For Cold on the Chest.—Rub the throat, chest, and the back between the shoulder blades thoroughly with the Oil, and while the skin is still moist apply a fold of warm flannel; take 15 to 20 drops of the Oil in a little sweetened water, or gruel, at bedtime. For Catarrh or Cold in the Head.—Mix one part of the Oil with eight parts of warm water, gargle the throat, inhale the fumes up the nostrils, and a few applications will cure. For Continued Colds.—Rub the chest thoroughly every night with the Oil, and cover with a piece of flannel. Take 15 drops of the Oil in a wineglassful of water three times a day between meals.

A 1s. 1½d. bottle which was examined contained 3 fluid ounces, and a 2s. 9d. bottle 9¼ fluid ounces. The liquid in the two bottles differed in composition; it consisted of an oily and an aqueous layer, these being in the ratio of 1 to 1.66 in the one case and 1 to 2 in the other. The figures given on the next page refer to the mean composition of the two.

The oily layer consisted of a mixture of essential oils; this was submitted to fractional distillation, and the following were recognised: Oils of turpentine, camphor, mustard, spearmint, pimento, and cassia (or cinnamon). The aqueous layer contained some alcohol, free ammonia in considerable quantity, and a resin in combination with ammonia as a soluble resinate; some of the resin was extracted and examined, but its characters did not agree with those of any single resin in ordinary use; various mixtures were made and compared with it, but complete agreement in all characters was not arrived at, and it is not possible to speak positively as to the nature of the resins present. By making a mixture of balsam of tolu (4 parts) and storax (1 part), boiling with ammonia, and filtering from the undissolved portion, a solution of ammonium resinates was obtained which agreed fairly well with that present in the chameleon oil.

The amounts of all the other constituents were determined with as much exactness as is possible with such a mixture, and the following formula was arrived at:

Essential oil of mustard	0.75	part by measure
Essential oil of spearmint	0.45	,, ,,
Essential oil of pimento	1.5	parts by measure
Essential oil of cassia	1.5	,, ,,
Essential oil of camphor	15.0	,, ,,
Oil of turpentine	15.0	,, ,,
Alcohol (90 per cent.)	7.3	,, ,,
Strong solution of ammonia	8.0	,, ,,
Resins (as above)	1.6	,, ,,
Water, to	100.0	,, ,,

A mixture prepared by this formula agreed in physical and chemical properties with the original, except in regard to some minor characters of the resins.

Assuming the resins to be of the nature indicated, the estimated cost of the ingredients for 3 fluid ounces is $3\frac{1}{10}$ pence if rectified spirit were used, and about $2\frac{1}{2}$d. if non-mineralised methylated spirit were used.

LEVASCO.

The address given on the package of this article is merely "Levasco Depôt, Dover"; it is described as "The Great Indian Gout and Rheumatic Cure."

The following extracts are from a pamphlet contained in the package:

Levasco.—This wonderful preparation is the discovery of a Hindu Doctor in the Himalayan Mountains, and if you but give it a trial you will find yourself Quickly freed from pain and anguish.

Levasco is for outward application only, is not an oil, and requires no rubbing, it can be conveniently used at any time. Two or three applications daily Cures the most Chronic cases. . . .

Levasco is not being advertised altogether as a business venture, but partly from extreme gratitude of one who for many years was a great sufferer.

Levasco has an exhilarating effect on every nerve and muscle similar to a soothing electric current, which diffuses a gentle warmth, goes direct to the pain centres, and gives immediate relief.

Levasco penetrates the skin, breaks up the Uric Acid, causing the blood to flow freely, the pain then ceases.

Levasco will effect a permanent Cure after years of suffering if the directions are followed and persevered with. . . .

Levasco has a pleasant and invigorating odour, the relief is marvellous. Sufferers will sometimes resort to ordinary remedies, and the continual pouring of drugs into an already weakened system will snap the vitality, and cause their lives to become a misery, which brings habitual users to an early grave.

Gout cured in a few hours.—Apply Levasco upon the affected parts. . . . The first application will give immediate relief. After a few hours' treatment—during which time Levasco should be applied as often as possible—your Gout will have entirely disappeared.

Levasco applied freely will cure Lumbago or Sciatica in one night.

Neuritis.—Levasco rubbed upon the affected part gives immediate relief, and after three or four applications the pain will be gone, but do not cease using to effect the cure. You must continue to use for a week or two—two or three times daily, or when the pain is felt. This is a most difficult complaint to cure, and some great authorities say it is incurable, but we have evidence where perseverance and regular use of Levasco has effected the cure.

No athlete should be without a bottle of Levasco. A little rubbed on the limbs previous to and after any extra exertion ensures your fitness for the next event.

Headache Cured in a few minutes.

Earache Cured in 2 minutes.

Toothache Cured in 2 minutes.

Great care should be taken that Levasco is not applied to wounds, cuts, or embrasures (*sic*).

A 1s. $1\frac{1}{2}$d. bottle was found to hold rather less than 1 fluid ounce. Analysis showed the presence of oleo-resin of capsicum, oils of rosemary and lavender, camphor, alcohol, and what appeared to be a trace of soap. The quantities of the different ingredients were determined as exactly as possible, and the results indicated the following formula, and a mixture prepared in accordance with it was practically indistinguishable from the original:

Oleo-resin of capsicum	3 grains
Camphor	6 ,,
Oil of lavender	3 minims
Oil of rosemary	4 ,,
Soap	$\frac{1}{8}$ grain
Alcohol (90 per cent.) to	1 fluid ounce

Estimated cost of ingredients, $\frac{1}{2}$d. if methylated spirit were used; about $2\frac{1}{2}$d. if made with rectified spirit.

DYXOL.

This preparation is supplied by a firm in a small town near London. It is stated on the package that:

Dyxol cures Neuralgia, Toothache, Cold in the Head, Headache, Stiff-neck, Lumbago, Rheumatism, etc., etc.

Further particulars are given in a circular enclosed with the bottle, from which the following extracts are taken:

This is a simple Preparation of great value for the removal of all kinds

of Pains. Most of these are caused by Congestion of the Blood in certain parts of the body. Relieve this Congestion and you drive away the Pain.

Dyxol has the power, above all other known preparations, of almost instantly dispersing congested blood. Its efficacy in this direction can be easily demonstrated. Rub one drop of Dyxol on the face, when, in less than one minute, the spot will temporarily redden through the flow of blood to the surface.

In another advertisement the following statements occur:

Simply rub on or inhale Dyxol according to directions, and neuralgia vanishes like magic. Muscular Rheumatism is speedily relieved by rubbing in a little Dyxol. Dyxol quickly removes the most obstinate cold in the head and on the chest, and it is an excellent remedy for Headache, Toothache, and Earache. Dyxol inhaled prevents influenza.

A 1s. 1½d. bottle contained 2 fluid drachms. The general directions are:

No rubbing is necessary. Apply one or two drops to the part affected. When using, fan away the vapour which arises. This will prevent discomfort to the eyes. To produce a milder action add a small quantity of Dyxol to an equal quantity of pure Olive Oil.

Analysis showed the principal constituent to be volatile oil of mustard, others being oils of pimento and nutmeg, liquid paraffin (heavy and light), and a fixed oil; the latter appeared to be cottonseed oil, but the quantity was too small for positive identification. The results of quantitative analysis indicated the following formula, and a mixture prepared in accordance with it was practically indistinguishable from the original:

Essential oil of mustard	20	per cent. by volume.
Essential oil of nutmeg	20	,, ,,
Essential oil of pimento	4	,, ,,
Cottonseed oil	6	,, ,,
Liquid paraffin, yellow	17	,, ,,
Kerosene	33	,, ,,

Estimated cost of ingredients for ¼ oz., 2d.

POND'S ARTHRITICUS.

This preparation is supplied by a firm in London. It is stated on the label that it

cures Gout, Rheumatism, Rheumatic Gout, Lumbago, Sciatica, and all Rheumatic Affections. . . . It contains no drugs, no colchicum. Arthriticus neutralises all Gouty and Rheumatic Acidity in the Stomach, Liver and Bowels; removes the offending matter from the System, the Blood is purified, the Liver and Kidneys are relieved, the Joints become supple, and there is a general freedom from pain. The Skin, participating in the improvement, loses any Gouty Eczema which may exist, and assumes a healthy appearance.

A pamphlet enclosed in the package bears the title:

Gout and Goutiness. Their cause, treatment, cure, and prevention. By Geo. P. Pond, M.P.S., Surgeon-Chiropodist. In practice since 1857.

The degree of enlightenment to be obtained from this treatise may be judged from the following extracts:

No food or drink is gouty; yet, no alcoholic drink can be said to be good for gout; that is, anti-gout; it is the quantity and quality which are so. . . .

No one can reasonably deny an instinctive knowledge and a physical power exerted in the stomach by a conscious principle which selects and rejects, and which in its natural purity may be ranked as a nerve of sense. . . .

Air, again, is as necessary with every mouthful in the process of digestion as the gastric juice itself; it mixes with the saliva which pours out of four different glands of different kinds and forms a powerful solvent for the food. . . .

Water, like air, is nourishing. . . .

Cold is death, warmth is life. Cold is, perhaps, the greatest cause of disease. . . . Of all supposed remedies to strengthen the body, cold baths in cold weather are the most dangerous.

Several other preparations from the same maker are recommended in the pamphlet.

The price of "Arthriticus" is 2s. 6d. per package; this was found to contain a bottle holding nearly 13 fluid ounces of liquid and 16 powders. The directions are:

One of the Powders to be taken with every dose, mixed thus: In a tumbler pour a wineglassful of water, mix with it a sixteenth part of the Arthriticus, then add one of the Powders and drink immediately, while effervescing.

It is ordered to be taken night and morning for gravel and affections of the kidneys and bladder, and all abnormal conditions of the urine; twice or thrice daily for rheumatism, sciatica, lumbago, etc.; and similarly in other cases.

The powders varied in weight from 10.9 grains to 17.4 grains, the average being 14.2 grains; they consisted of tartaric acid. Analysis showed the mixture to have the following composition:

		In one dose, approximately.
Lithium citrate	1.4 parts	5.0 grains
Potassium citrate	0.9 part	3.0 ,,
Sodium citrate	0.2 ,,	0.7 grain
Sodium salicylate	1.5 parts	5.3 grains
Potassium bromide	1.6 ,,	5.6 ,,
Potassium bicarbonate	8.0 ,,	28.0 ,,
Glycerine	5.1 ,,	18.0 ,,
Chloroform water, about	10 ,,	by measure
Water, to	100 ,,	,,

On mixing a dose of the liquid with one powder, the resulting draught would be alkaline even with the heaviest powder; the alkalinity would of course be greater when the lighter powders were used.

Estimated cost of ingredients for mixture and powders, 2½d.

MAGIC FOOT DRAFTS.

This is the name by which plasters, to be applied to the soles of the feet for the cure of rheumatism, are supplied by the Magic Foot Draft Company, London, the price being 4s. 6d. per pair. In addition to the numerous advertisements of the article by name, others have appeared recently, offering in the name of R. A. Oliver to send "my Celebrated External Treatment [for Rheumatism] . . . to try free" to anyone sending his name and address. On sending a name and address a pair of the "Foot Drafts" was received (differing from those sold in the ordinary way by bearing no revenue stamp), together with a long letter and a printed sheet of testimonials. The letter states:

the Drafts cannot be purchased for less than 4s. 6d. per pair anywhere, and you can see that we could not afford to send them on approval if they did not really cure.

To introduce our great discovery most favourably to you, and through you to your friends, we are going to make this extraordinary inducement: Give this pair of Drafts a careful trial; if the results give you faith in our wonderful absorption method, as they must, we shall be pleased to send you three more pairs of our Foot Drafts on receipt of 11s., and as we make no charge for the first pair to all those who accept this offer, this will make four pairs (18s. worth) of Magic Foot Drafts for only 11s. . . . We have found by careful study of this disease, based on years of experience, that this number of Drafts will effect a cure in nine out of ten patients, because it nearly always takes all the power of the first two pairs to open up the clogged pores and start the removal of all poisonous acid urates. It is the third and fourth pair that invariably bring that sense of relief and freedom from pain that every poor sufferer is looking for.

This was followed at short intervals by other letters pressing for money to be sent. In the second it is stated:

We take a sincere interest in your case [no case had been even mentioned in sending for the "cure"], and we are going to cure you. Now that the cure has been started, every day's delay makes it more difficult for the Drafts to do their work, and we trust that we shall hear from you by return post.

From the third letter:

We prefer to think that the promise you made us two weeks ago has escaped your memory.

[Of course no sort of promise had been made.]

From the fourth:

We think that we are justified in asking to hear from you, for we have spent some considerable time and money in your case; frankly, because we were interested in it. . . According to our terms, which you accepted when writing for the first pair of Drafts, we must have by return either 4s. 6d. (for which another pair of drafts will be sent) or your statement on honour that you received no benefit. . . . We guarantee to cure you.

The letters quoted freely from alleged testimonials, and further printed sheets of these were also sent. On one of these is printed in large capitals: "We guarantee Magic Foot Drafts to cure any case of rheumatism!"

Curious discrepancies are shown by some of the testimonials. Thus in the advertisement, referred to above, in which the name "Foot Drafts" is carefully avoided, we read:

A marvellous cure has been effected in the case of Mr. James Bodman, 8, The Mount, Frome. Mr. Bodman writes: "I have suffered from Rheumatism for the past seven years, and was almost a hopeless wreck. I tried all sorts of remedies and doctors, but to no avail, and was sinking fast when I tried your treatment. I am glad to say that it has cured all my sufferings, and I have had no aches or pains since. I may add that I am 72 years old, and feel as supple in my joints as a young man.

The following is printed on one of the sheets mentioned above:

8, The Mount, Frome,
1st Feb., /09.

The Magic Foot Draft Co.,
Shoe Lane, E.C.

Dear Sir,—I received your letter of recent date, and am pleased to give you the following account of my case of Rheumatism. I have suffered from this complaint for the past seven years, and was almost a hopeless wreck. I could neither dress nor undress without help. I could get no rest in bed or up, and my life was a perfect misery. I tried all sorts of remedies, too numerous to mention, which did not give me the least comfort. I also saw a doctor, who stated that he could not cure me. He, however, gave me something to relieve the pain for a couple of nights, but then I became even worse than before. At last I gave up all hopes of ever getting better; in fact, I felt I was fast sinking, until a kind friend called to inquire after me. She said it grieved her to see me walk about such a pitiful sight, and asked if I would try Magic Foot Drafts, as she had received such good results from them. I consented, and she wrote to you for me. I only used three pairs, which cured me of all my sufferings, and I have had no aches or pains or any other complaint since. I may add that I am in my 72nd year, and feel as lissom in all my joints as a

young man. I cannot estimate the value of your Magic Foot Drafts to sufferers from Rheumatism. I have highly recommended them to several sufferers since my cure. I scarcely ever go out without someone asking me how I got so well. It makes me feel almost like an agent of the Magic Foot Draft Co. Please send me another of your books, so that I may bring your treatment more directly before my friends and acquaintances. Again thanking you,

I remain, yours faithfully,

JAMES BODMAN.

Yet again, in one of the letters from the Magic Foot Draft Co., already quoted from, dated "June 2nd/10," it is stated that:

Mr. James Bodman, of 8, The Mount, Frome, Somerset, has just written us regarding the result of three pairs of Drafts. "I have suffered from Rheumatism for the past seven years, and was almost a hopeless wreck, as I could not rest in bed nor when I was up, so that my life was a perfect misery. I tried various remedies, and also saw a doctor, who, while he could not cure me, gave me something to relieve the pain for a couple of nights, but I became worse after this. I had given up all hope when a friend who called to see me, stated that she had received wonderful results from Magic Foot Drafts, and asked for permission to send for a pair for me. I am now delighted to tell you that after wearing three pairs of Drafts, I have not an ache or pain, and I am completely cured of all my sufferings. I am in my 72nd year, and I feel as supple now in all my joints as a young man. I cannot estimate the value of your Magic Foot Drafts, and I can never thank you enough for the benefit they have given me."

This had been "just received" on June 2nd, 1910. The phraseology has not changed much in the interval of sixteen months; but as the gentleman is still in his 72nd year, evidently time stands still with him; curiously, though, in the letter first quoted, which appeared in a newspaper advertisement on May 18th, 1910, he is already 72 years old.

One wonders how Mr. Bodman was induced to send three variants of his letter, one of them obligingly omitting any reference to Foot Drafts by name and substituting "your treatment."

The same differences are shown in other letters; in one place is a letter over the name of J. W. Ludell, ascribing two cures to Magic Foot Drafts, while in the advertisement in which the latter name is not used he is represented as saying that one cure was due to "your Antiseptic Plasters" and the other to "your treatment"; two variants are given in different places of a letter from Mr. J. Bull, in one of which he says: "I am thankful to think I tried the Foot Drafts, for they are worth double what you charge for them," and in the other: "I am thankful that I tried your Foot Drafts, for they are worth a good many times the money that I paid." All this appears to

suggest either that the writers of the testimonials are very obliging in supplying varying readings of them, or else that the advertiser alters them according to his fancy; unless indeed, they are entirely manufactured.

A booklet which is also sent, entitled "Rheumatism, Its Cause and Cure," contains various plain and coloured pictures professing to represent nerves, arteries, etc., of the leg and foot, and gives an account of how the "Drafts" are supposed to act; the following extract will suffice:

The rheumatic sufferer faces this situation:—His or her system has become more or less clogged with rheumatic poisons—lithic acid, uric acid, lactic acid, or any other toxin, as the case may be. This poison may be either driven out or drawn out. Certain agents—salicylic acid, for example—will sometimes accomplish the former result; but the system will then contain a poison worse than the rheumatism. In fact, remedies which are strong enough to be effective against rheumatism almost invariably ruin the digestive organs. Magic Foot Drafts, as the name implies, draws the poisons out through the pores of the tender skin on the bottom of the feet. The Drafts absorb this poison. A pair should be worn only six days, as they become filled with the waste matter from the body and need renewing in that length of time, if the case is a bad one. . . . Physicians are already using them in their regular practice, and recommending them.

The "drafts" consisted of plasters spread on a sort of jaconet backing, of oblong shape and measuring about 5 in. by $3\frac{1}{2}$ in.; the darker central portion measured about $3\frac{3}{4}$ in. by $2\frac{1}{2}$ in. The margin was coated with about 10 grains of sticky material, which had the physical and chemical characters of "Venice turpentine"; the darker portion, or the plaster itself, weighed about 80 grains, and was found to be a mixture of Stockholm tar and the powdered rhizome of white hellebore (*Veratrum album*); determination of their proportions showed the formula to be, approximately:

Powdered white hellebore	40 per cent.
Stockholm tar	60 ,,

No other ingredients could be detected.

Estimated cost of ingredients for one pair $\frac{1}{8}$d.

CELMO.

This preparation is supplied by the Celmo Company, London. It is in the form of tablets, of which a 2s. 9d. bottle contained

thirty-six. In a booklet contained in the package the tablets are described as:

Specific for all uric acid ailments, viz.: Gout, Rheumatism, Rheumatic Gout, Lumbago, Gouty Dyspepsia, Sciatica, Eczema, Neuritis, Gouty Eczema, Suppressed Gout, etc.

Other extracts are:

In order to effect a cure the first requisite is to remove the cause. This can only be accomplished by administering a remedy which has the power of dissolving uric acid, and which will also restore the normal alkalinity of the blood so as to prevent fresh depositions. This remedy we present in "Celmo" Tablets. It is the One remedy that achieves a complete and permanent cure, and is the only medicine in the world that has a direct and combined action on the Kidneys, Liver, Stomach, Bladder, Bowels, and Digestive Organs. . . .

We find, in the large majority of cases, from five to eight bottles, 4s. 6d. size, sufficient. The tablets must be taken with absolute regularity, and there should be no interval whatever between the bottles. It is always advisable to state your ailment and order of us direct. We then can change the dose as and when required to expedite a cure.

A so-called "analysis" is published, which is as follows:

I have made a careful Chemical examination of the above-described sample of Compressed Tablets known as "Celmo," and from my results I am able to certify that they are absolutely free from Arsenic, Mercury, Opium, Digitalis, and Colchicum.

I find that these tablets have been prepared from pure drugs of the best possible quality, and contain nothing of an injurious nature whatsoever. The formula from which they are made has been submitted to me, and I am of opinion that it is an excellent one in every way, and one which is not capable of improvement.

After reading in the booklet quoted from that Celmo is "the One remedy," and "the only medicine in the world that," etc., it is somewhat surprising to read, in another circular also enclosed in the package, that:

Every intelligent person is aware it is impossible to prepare any one medicine for Rheumatism, Gout, etc., to suit every system. We overcome this difficulty by supplying "Celmo" Tablets in two forms, both for Uric Acid ailments.

It further appears that there is also a "Celmo No. 2" for indigestion, etc. (described in Chapter V.), "Celmo Laxative," "Celmo Ointment," and "Celmo Liniment."

The directions are:

In commencing treatment, take two tablets with half an ordinary glass of water just before or after each of the three meals, making six tablets per day. In very severe cases three tablets can be taken at a dose until pain is relieved, then two as above. A child's dose, one-half to one tablet at times stated.

The tablets had an average weight of 5½ grains. They had a slight smell of oil of juniper, but the amount present was far too small to be determined, and can only be described as a trace. Analysis showed the presence of acetyl-salicylic acid (commonly known as aspirin), powdered charcoal, maltose, glucose, and dextrin (these three being evidently present as malt extract, used for binding the powders together), magnesium silicate, alkaloid, extractive, and the mineral constituents commonly found in vegetable extracts; a slight trace of a pungent substance resembling capsicum oleo-resin was also present. Ordinary talc is magnesium silicate, but the mineral of that composition here present did not have the physical properties of ordinary talc; it is, of course, quite inert, talc being commonly added to tablets as a lubricant to facilitate their production by a machine. The alkaloid and extractive did not show any characters by which they could be certainly identified; the alkaloid did not agree, in its behaviour to various tests, with any of the alkaloids in ordinary medicinal use.

The proportions of the various constituents were determined as accurately as practicable, and indicated the following formula:

Acetyl-salicylic acid	35.5 per cent.
Powdered charcoal, about	8.0 ,,
Malt extract, dry	18.0 ,,
Magnesium silicate	14.5 ,,
Other mineral constituents	2.8 ,,
Water	12.3 ,,
Alkaloid	0.5 ,,
Extractive, about	8.0 ,,
Oleo-resin of capsicum	trace.
Oil of juniper	,,

DR. BENGUÉ'S BALSAM.

This preparation, made by a firm giving addresses in Paris and London, differs from most of those dealt with here in the important respect that the principal constituents are stated on

the label, and it is, therefore, not altogether a "secret remedy." It is included in this series, since it is advertised to the public as

"A wonderful Remedy for Rheumatism, Gout, Neuralgia."

In a circular enclosed in the package it is stated that:

The following is an enumeration of the different diseases in which Dr. Bengué's Balsam has proved to be the most effective scientific remedy.

Acute or Chronic Rheumatism;
Gout;
Various forms of Neuralgia, Facial, Intercostal, Lumbar Ovarian, Sciatical;
Locomotor Ataxy;
Various forms of Hyperæsthesia;
Saturnine Colics;
Nephritic Colics;
Peritonitis
Gastralgia;
Torticollis; Zona.

Spread the Balsam on the affected part and cover up carefully with cotton wool. After two or three applications the parts affected should be cleansed with warm water so as to facilitate the absorption of the Balsam when the next dressing of the Balsam is applied.

The "Balsam" is supplied in collapsible tubes; a 2s. package contained 1⅕ oz. On the label, following the name, are the words "Menthol, Methyl-Salicylate, Lanolin," and these three substances were found to be present. Analysis showed the composition to be:

Menthol	18	per cent.
Methyl salicylate	20	,,
Lanoline, anhydrous	54	,,
A fat, apparently lard	8	,,

Estimated cost of ingredients, 1¼d.

BOX'S PILLS AND GOLDEN FIRE.

These preparations are supplied from an address in a south-coast town. The "Golden Fire" is more especially recommended for rheumatism, but it is stated that "in severe cases of Rheumatism, etc., Box's Pills should be taken in conjunction with the 'Golden Fire,'" and the two are associated in many of the statements made. The following specimen extracts are from circulars enclosed in the packages, and other advertisements:

Box's Golden Fire is a New Discovery for the removal of diseases, being an Electric Fluid of Intense Power in rapidly attenuating, dissolving, and removing obstructions in any part of the system.

Box's Golden Fire, which is used internally and externally, is a subtle extract from the vegetable kingdom, the hidden fire or life of plants and flowers, the "Quint-essence of Life!" Call it, if you please, "Bottled Fire!" "Bottled Health!" "Bottled Life!"

This Great Remedy and its accompaniment are sure cures for rheumatism, diphtheria, etc.

In some advertisements the medicines are described as "The Giant Remedy," and it is explained that

The Giants have declared war against unbelief, and are determined to push the battle to the gate. The Giants ask for no quarter nor will they show any, therefore one of the contending parties must be wiped out. The Giants in fight are a noble race and are of ancient origin. Their fathers lived in Eden, and their seed, rising upon the wings of the wind, ultimately spread over the whole earth.

They have lived since the days of creation in the fields, without a covering, sipping the dew and drinking in the sunshine and the rain. When in their prime they were translated to ——— ——— ——— where they sleep. And when the proprietor of the Giant Remedy calls them they awake, and, springing upon the foe, they quickly overwhelm and annihilate him, and joyfully hand back the captive to his friends in perfect health. Their origin is Divine. As you now see them so they came from the hands of their Creator, filled with the nectar of health and life from root to leaf.

In a circular dealing more especially with the pills directions are given for their use for costiveness, bad taste in the mouth, heart disease, corpulency, sick headache, wind and swelling after meals, toothache, influenza, inflammation of brain, stomach, bowels, lungs, kidneys, etc., fevers, sore throats, diphtheria, and tumours. One of the "testimonials" is headed, in large letters, "Cancer Cured." The full directions in the case of influenza will serve as a sample:

Take as directed on the label. Also make a strong tea of Elder Blossom and Peppermint Herb, and drink a pint at bedtime. Repeat the tea at bedtime for two or three nights, if necessary. It seldom requires repeating. This will save when on the brink of death.

The thrilling nature of some of the testimonials may be judged by an extract:

My brother-in-law had his leg jammed in South Africa between rocks, just above the ankle. He came home, and feared he would be a cripple for life. I advised him to get your Pills and "Golden Fire," which he did, and after 6 days a spot came out under the heel as Black As Your Hat. He has since left for America Quite Cured.

Another circular states:

As certain medical men have done their best by tongue and pen to persuade the public that Box's Golden Fire is poisonous, the said Golden Fire in consequence has been submitted to a rigid Chemical Analysis. The following Report from the Eminent Analyst will effectually sew up the lying lips.

Then follows the report, which is in the usual style of such "analyses," and states that the "Golden Fire" was found to consist of "certain carefully selected and powerful, but perfectly innocent, ingredients, which combined (as in the mixture) may be taken internally or applied externally without fear or hesitation."

The circular continues:

Those who raise the cry of "Poison" are wholesale traffickers in the same—it is their stock-in-trade: Poisons bring grist to their mills, while the poor victims who swallow them perish by thousands.

The directions for use are:

For Rheumatism, Lumbago, Gout, Neuralgia, Sprains, Chest Affections, Asthma, Bronchitis, Swellings, Tumours, Enlarged Joints, etc., the Golden Fire should be rubbed in briskly three or four times a day; and in extreme cases a piece of flannel should be saturated with the Golden Fire and applied after each application.

For Sore Throat, Quinsy, and Diphtheria, rub in several times a day; and to one tablespoonful of Golden Fire add one tablespoonful of water and gargle every two hours.

For the above, Golden Fire should be taken internally three times a day, in a little water, beginning with six drops and increasing a few drops each dose until a teaspoonful is reached, and continue until well.

For toothache, apply Golden Fire to the Tooth and rub it well into the gums. For Neuralgia, Bruises, Sprains, etc., rub it briskly over the seat of pain. For Polypus, apply with a camel-hair brush, and rub in on the outside twice a day.

A 1s. 1½d. bottle of the "Golden Fire" contained nearly 2½ fluid ounces of liquid. Analysis showed this to contain acetic acid, sodium chloride, volatile oils, a little alcohol, starch, dextrin, extractive, and the pungent principle of capsicum. The mixture of essential oils appeared to consist of oils of camphor, eucalyptus, rosemary, and amber. After determining the quantities of the other ingredients, the amount left to be described as starch, dextrin, and extractive was about 7 per cent. of the liquid; this part possessed no characters by which its source could be determined, but the liquid contained solid particles which appeared to be due to defective straining, and microscopical examination of these showed them unmistakably to consist of barley, lobelia, and capsicum, and the liquid appears, therefore, to be a decoction of these, with the addition of the other ingredients named. The pungency was just similar to that of an aqueous decoction of capsicum; the proportions of barley and lobelia could not be determined; the

amounts of the other substances found are given in the following formula:

Oil of amber	0.16	per cent.
Oil of rosemary	0.16	,,
Oil of eucalyptus	0.32	,,
Oil of camphor (essential)	1.3	,,
Sodium chloride	6.4	,,
Glacial acetic acid	6.4	,,
Alcohol	1.0	,,
Decoction of capsicum.		
Decoction of barley.		
Decoction of lobelia.		

It is hardly necessary to point out that lobelia is a dangerous drug to be administered and taken by ignorant people.

A 1s. 1½d. box of the pills contained fifty-three of various sizes and shapes, roughly coated with talc, and having an average weight of 2½ grains each. The directions on the label are, "Dose—Two pills morning and evening, after meals." Analysis showed the presence of powdered capsicum in considerable quantity, this drug forming, in fact, so large a proportion of the pill, that the recognition of other ingredients was a difficult matter; microscopic examination showed also powdered gentian, and a flour which did not agree perfectly in character with any ordinary flour, though having a considerable resemblance to barley flour; small quantities of soap and aloes appeared to be present, and a trace of an essential oil or other aromatic substance which was not identified. The following formula gave a pill substantially agreeing in characters with the pill under examination:

Powdered capsicum	35	parts.
Powdered gentian	15	,,
Flour	15	,,
Aloes	20	,,
Soap	5	,,
Water	to 100	,,

BOWDEN'S INDIAN BALM.

This article is supplied by a firm in the West of England at prices from 7½d. to 10s. A tin priced 2s. 9d. was found to contain about 4 oz.

It is described on the package as

For all Inflammations, Muscular Complaints, Skin Diseases, etc., as Inflamed Eyes, Neuralgia, Face-ache, Bronchitis, Rheumatism, Eczema, Ringworm, Cuts, Stings, Wounds, Scalds, Burns, Strains, Piles, Chilblains, Chaps, etc.

Circulars enclosed in the package also contained recommendations of the use of the Balm for colds, congested nostrils, catarrh, whooping-cough and croup, lumbago, stiff-neck, erysipelas, bedsores, irritation after fever or vaccination, eruptions, abscesses, boils, ulcers, itching at the anus, sores, sprains, bruises, mumps, abrasions, stings of mosquitos and other insects, sunburn, sore and tender feet, inflammation of the bowels, cancerous sores, asthma, coughs and chest complaints, sore throats, whitlow, corns and warts.

It is further stated that:

This Preparation contains no less than seventeen ingredients, including Valuable Balsams, Extracts, Essences, Indian Oils, etc., and so is a veritable little Medicine Chest in itself. Few other remedies will be required where it is kept at hand and used habitually.

The most delicate Lady or Child, as well as the strongest Athlete, will find the Indian Balm to be a treasure. It can be used with perfect safety upon an open wound, be placed upon the Eyeball for Inflammation, or be used internally for Complaints of Throat and Chest. It will draw out every particle of injurious matter before healing any Ulcer or Sore, thus preventing a return of the trouble. Prompt application to Wound, Scald, or Burn is the best preventive of Blood Poisoning.

Lengthy directions are given for its use in a variety of cases; the following will suffice as examples:

Ophthalmia and Inflammation of the Eye.—Rub the Indian Balm round the Eyes two or three times a day. In acute cases apply inside the lids.

Inflammation of the Gums, Toothache, and Faceache.—Well rub the Balm on the Gums and Face. When the Tooth is hollow the Balm can be inserted on cotton wadding.

Inflammation of the Bowels and Pain in the Small of the Back.—Foment the parts with hot water, and briskly rub with Balm (10 to 15 minutes at a time) till relieved.

It would appear to be equally efficacious when administered internally, for we read:

Sufferers from Asthma, Croup, Bronchitis, and all Throat or Chest Complaints find the soothing and healing effects of Indian Balm, when taken internally on lump sugar, to be immediate and remarkable. It also enables patients to get rid of injurious phlegm. Public Speakers and Singers should use it. The Balm is pleasant to use and effectual in operation.

The "Balm" consisted of a brownish-yellow ointment. Analysis showed the presence of about 7 per cent. of volatile oil, in which oil of eucalyptus predominated, and a fatty basis. The oil did not contain as much cineol as an ordinary good specimen of eucalyptus oil, and some evidence was obtained of

the presence of essential oil of camphor, terebene, and oil of lemon. The solid basis contained, besides fatty constituents, a very small amount of ammonia, and a little of a resinous substance; the latter was not ordinary resin, but showed no distinctive characters sufficing for its identification. It may have been derived from balsam of Peru, or some similar ingredient, but comparison of its properties pointed to the probability of a mixture of balsamic substances. The statement that seventeen ingredients are present may be true, for the essential ingredients are a fatty basis, a mixture of volatile oils, and resinous material, and each one of these can easily be made of an almost unlimited number of ingredients mixed together; no other active substance was found. An ointment prepared from the following formula, which is based on the analytical results obtained with the "balm," strongly resembled the latter, and only differed from it in minor points:

Lard	35	per cent.
Cocoanut oil	35	,,
Tallow	10	,,
Rape oil	5	,,
Lanoline, anhydrous	4.5	,,
Balsam of Peru	1	,,
Oil of eucalyptus	5	,,
Terebene	1.5	,,
Essential oil of camphor	1.5	,,
Essential oil of lemon	0.5	,,
Solution of ammonia	1	,,
Annatto colouring	a sufficiency.	

BATH SALTS FOR RHEUMATISM.

Recently certain "bath salts" have been largely advertised for the treatment of complaints of this kind by means of baths. We give here the results of analysis of some of the principal articles of this kind.

OZONIA.

This is supplied by a firm in Dublin, in a packet, price 1s., containing about 13 oz. The package contained a descriptive leaflet, from which the following extracts are taken:

The introduction of Ozonia marks a new era in the treatment of Rheumatism, Gout, and allied complaints. This remarkable preparation is used in the bathing water, where it reaches the source of the trouble through

the pores of the skin. The whole body is treated at once, and not the least trouble is entailed to the sufferer. The system is thoroughly cleansed—the poisonous uric acid is neutralised, and the patient is reinvigorated. The method is new, but it has hundreds of wonderful cures to its credit already—so try one packet, and judge by results. . . .

The Bath Cure. Bathe in it—that's all.

There are many complaints which are acknowledged to have one root cause. The cause of Rheumatism, Sciatica, Lumbago, and Gout is the presence of too much uric acid in the blood. The problem of how to remove this poison has hitherto proved unsolvable, but now Ozonia has been proved to be the proper means. The worst cases of uric acid troubles yield to the soothing medicated waters of Ozonia. . . .

"Ozone," the health-giving principle of Fresh Sea Breezes, is liberated in the "Ozonia" bath, and has a marvellous exhilarating effect on the patient; this, combined with the stimulating effect of the other constituents of the bath, induces a feeling of bodily well-being which is most gratifying.

How to use "Ozonia."

Dissolve one packet in an ordinary bath of hot water, and immerse the body in it, keeping the face and back of the neck sponged.

Remain in the bath at least 15 or 20 minutes, even longer if desired.

The best time for taking the Bath is before going to bed, but this is not imperative.

Number of Baths to be taken. In severe cases a bath every second night is advised, but when the acute symptoms have disappeared, a bath once or twice a week is sufficient; in most cases, a series of 12 baths will be found to effect a perfect cure.

If total immersion is not feasible, stuping with a hot solution (a tablespoonful of "Ozonia"' to a gallon of water) is very beneficial, but complete immersion gives best results.

Analysis showed the composition of the salt to be:

Sodium carbonate, reckoned as anhydrous	77.00 per cent.
Water	22·30 per cent.
Chloride, reckoned as sodium chloride	0.46 per cent.
Potassium salt	a trace.

In view of the statement, quoted above, that ozone is liberated in the bath, special search was made for any ingredient, such as percarbonate, perborate, or peroxide, which could yield oxygen, but no trace was found of any such substance. Commercial sodium carbonate commonly contains a little chloride, such as the quantity found.

ANTURIC BATH SALTS.

This preparation is supplied by a limited company in London. A tin, price 1s. 6d., contained about 4½ oz. It is described on the package as:

For Gout, Rheumatism, Sciatica.

Directions. Dissolve the contents of one tin in a bath full of hot water. Take two baths weekly for six weeks. The water should be as hot as can be comfortably borne. In severe cases the contents of two tins may be used for one bath.

If it is inconvenient to use a full bath, or for local affections fomentations may be used; for this purpose dissolve a tablespoonful of the Anturic Salts in a gallon of hot water, and bathe the part affected.

After the cure an occasional bath is desirable.

Analysis showed the salt to consist of:

Sodium carbonate, reckoned as anhydrous	96.86 per cent.
Water	2.70 ,,
Chloride	trace
Potassium salt	,,
Perfume	,,

RHEUMSOL BATH SALTS.

This is supplied from an address near London. A tin, price 1s., contained about 5 oz. It is described on the tin as:

Uric Acid Solvent. For Rheumatism, Gout, etc.

Directions for use. Add the contents of this tin to a full-sized bath of hot water. For a smaller bath less in proportion. A bath should be taken every third night for a month.

Analysis showed the salt to consist of:

Sodium carbonate, reckoned as anhydrous	87.96 per cent.
Water	11.18 ,,
Chloride	considerable trace
Potassium salt	trace

Exsiccated sodium carbonate (*B.P.*) is practically anhydrous, and is priced in a wholesale druggist's list at 7d. per lb. One pound of anhydrous sodium carbonate of commercial quality represents about 2¾ lb. of common washing soda crystals.

SOME GERMAN NOSTRUMS.

Dr. F. Zernik, of Berlin, has continued the publication in the *Deutsche Medicinische Wochenschrift* of the results of his examination of various German nostrums. The following notes refer to preparations advertised for rheumatism.

Dr. Richter's Orudon Essence preparation has been introduced at the "Hof-Apotheke" (a pharmacy holding the right of using the affix "Court") in Elbing as a remedy for rheumatic and analogous affections.

The directions for use are that the essence should be taken in doses of from 4 to 6 teaspoonfuls according to the severity of the case, diluted in a tumblerful of sugar water. It is claimed that it contains a new chemical substance—namely, *ammonium iodatum salicyl. solubl.*—as well as other ingredients which the medical profession has found to be most useful during the past decades. Among these is mentioned "*diaethyl-diamin,*" aromatic extract and brandy (cognac). It is sold in bottles, containing 135 c.cm., at 6s. the bottle. The fluid, which is dark brown and bitter, was found to contain ammonium salicylate and iodide, but not a trace of the "new" chemical substance, which Zernik points out has long been recognised in chemistry, piperazin, which is diaethylen-diamin and not diaethyl-diamin, as well as alcohol and some extractives and perfumes, the nature of which could not be identified. *Orudon Salt* is supposed to act well in the same conditions as the essence. A bottle of this powder costs 5s. 6d., and is stated by the manufacturers to contain basic citrate of urea (an imaginary chemical substance!), magnesium, sodium, lithium carbonate, citric acid, sodium sulphate, and extract of almonds. The analysis proved it to be a mixture of about 10 per cent. theobromine-sodio-salicylate, 10 per cent. sodium sulphate, 4 per cent. urea, 16 per cent. magnesium citrate, 4 per cent. sodium citrate, 2 per cent. lithium citrate, and fully 40 per cent. citric acid, together with a bitter extract. No trace of a substance which could correspond to the alleged basic citrate of urea was found.

J. Völlner's World-renowned Rheumatism Cotton-wool is, it is stated, manufactured by W. Völlner, Hamburg, London, and New York. It is claimed by the manufacturers that it produces five times as much warmth as ordinary cotton-wool, being impregnated with the finest kinds of resins. The packet costs 1s. and contains 86 grams of a cotton-wool sheet, measuring 1 cm. in thickness, 36 cm. in width, and 80 cm. in length. On analysis Zernik found that the cotton-wool was ordinary raw cotton-wool, which had been superficially singed on one side and which was not even fat-freed. There was nothing else in the wonderful rheumatic wool.

Limosan is vaunted as a certain cure for rheumatism, gout, and "stone." In one of the booklets accompanying the preparation testimonials galore were reproduced. It consists of white limosan tablets and greyish-green laxative tablets; 30 of the former tablets contained in a tube cost 6s., while 15 of the latter cost 6d. Several tubes are required for a course, since the patient is told to take 10 of the white and 4 or 5 of the laxative tablets daily. The composition is given as follows: Aethylenimin, 1 gram; glycocol-para-phenyledin (basic), 4.5 grams; lithium carbonate, 0.1 gram; salicylic salt, 1 gram; and acetic salt, 0.4 gram. The first-named ingredient is merely a synonym for piperazin, the second name on the list is used instead of phenocoll, while the salicylic salt has the same form as the substance usually known as salocoll. The laxative tablets are stated to contain Tinavelly senna, rhamnus purshianus, and frangula, of each 20 parts; liquorice root, rhizoma root, of each 10 parts; peppermint, marigold, and poplar tree leaf, of each 5 parts. The action, therefore, would depend on the senna, cascara sagrada, and frangula. The manufacturers have, it is stated, repeatedly been punished in courts of law for the puffing nature of the advertisements of these limosan preparations.

Professor Tissander's cure for rheumatism, gout, and sciatica is stated by Zernik to be sent for 4s. 6d. by "The Sabalek Syndicate," of London. Quoting from a letter received from this firm, the "cure" is said to be composed of a number of reagents which act against uric acid. These reagents, together with a kidney stimulant and a blood purifier, are combined by "Professor" Tissander in a very concentrated form. It is pleasant to take, and does not produce any deleterious effects of any kind. The examination revealed that the tablets contained sulphur, salts (chiefly alkali phosphates), and an emodin-containing vegetable powder (rhubarb, senna). Zernik concludes by saying: "This composition indicates sufficiently in how far the preparation can possess the action ascribed to it."

CHAPTER II.

PREPARATIONS FOR ECZEMA AND OTHER SKIN AFFECTIONS.

A selection from the numerous proprietary articles advertised for the cure of skin diseases, including ointments, lotions, dusting powders, and medicines to be taken internally, is described in this chapter. It will be seen from the extracts from advertisements which are given that the claims made for the respective preparations are to a large extent contradictory and mutually destructive, as, for example, "sulpholine lotion is the only external skin remedy," "eczema and all skin ailments are completely cured by sulpholine lotion," and, on the other hand, "the potent ingredients of a remedy, which are necessary to the successful cure of eczema, cannot be contained in the form of a liquid. Lotions, besides containing mercury, must necessarily contain some alcohol or water, which are irritants and should be rigidly avoided." (The apparent implication that all lotions contain mercury is novel and surprising.) It is not always even necessary to take statements from rival makers in order to find contradictions; statements made by one firm in different parts of their advertisements are sometimes quite inconsistent, as in the case described below where on one page it is stated that "there is not one among the many healing extracts used which is not highly lauded by skin specialists the world over," and on the next page of the same pamphlet "several of the medicaments used in the ointments and blood tablets are very rare and not in use in Great Britain, and do not form any part of the British doctor's

medical outfit." One of the commonest inconsistencies, of course, is that between the extravagant prospects of speedy cure held out to attract in the first place, and the far more guarded statements made when the patient has paid for the article and is beginning to find out for himself what its curative powers amount to. The first preparation mentioned below furnishes an example of this; in a Press advertisement readers are assured that "just a drop or two of D.D.D., the Guaranteed cure for Eczema and all Skin Diseases, applied to the burning skin, and that torturing, endless, nerve-racking itching is at an end"; "not only does D.D.D. stop all irritation and pain immediately—we guarantee it—but the cures that invariably follow are permanent," while in a pamphlet supplied with this very article it is stated that "the person fortunate enough to become familiar with D.D.D. Prescription in the early stages of his disease may commit the error of being impatient of cure. . . . . The eruption may have appeared only on a few spots of his body, but this is evidence that the disease germ is lodged in his skin. The germs will grow and multiply and spread; . . . it may take some time to dislodge the germs from his skin. . . . Is it not worth careful study, a few months' patience, to be rid of that horrible malady?"

A limited company, which uses the name of "Dr. Cassell," sends a list of questions to be answered and endeavours to persuade sufferers that it deals with them just as a qualified practitioner would do: "When you consult a doctor, he first inquires into the causes leading up to your trouble, then carefully examines all the symptoms and indications. Upon the results he forms his diagnosis, which in turn suggests the treatment. We do exactly the same when you return the examination form filled up." The trifling omissions of the years of study, training, and experience requisite for a medical qualification, and of personal examination of the patient, are treated as of no consequence; naturally, some illuminating diagnoses may be looked for under such

circumstances, as in the case described, where having received the answer "Eczema" to the question "What are you suffering from?" and after "carefully studying" the answers to this and other questions, the company gravely informs the patient "You are suffering from a severe and disagreeable form of eczema."

D.D.D.

The preparation sold under this name is supplied by a firm in London at 2s. 3d. and 4s. 6d. per bottle; a 2s. 3d. bottle was found to contain 2.1 fluid ounces.

A Press advertisement is headed:

Psoriasis, Dry and Wet ECZEMA, and all skin diseases cured by D.D.D., the new liquid remedy, which gives instant relief, and a positive cure when everything else has failed.

and the following claims are made:

Just a drop or two of D.D.D., the Guaranteed Cure for Eczema and all Skin Diseases, applied to the burning skin, and that torturing, endless, nerve-racking itching is at an end. . . . Not only does D.D.D. stop all irritation and pain immediately—we guarantee it—but the cures that invariably follow are permanent—the disease never returns.

The following are extracts from a pamphlet enclosed in the package, entitled "Cause and Cure of Skin Diseases":

D.D.D. is no ordinary patent medicine, but the prescription of the skin specialist, Dr. D. D. Dennis, who used the compound now known as D.D.D. successfully for years on all patients suffering with skin diseases. On urgent advice of his patients, Dr. Dennis was prevailed upon to have the compound put up as a proprietary article for sale through drug stores. . . .

In spite of the "guarantee" quoted above that D.D.D. stops all irritation and pain immediately, a caution is given against discouragement:

Occasionally in bringing the disease to the surface, D.D.D. will spread the eruption temporarily over a much larger area. THIS IS NOT A SIGN THAT THE MALADY IS GROWING MORE SERIOUS, BUT ON THE CONTRARY IT SHOWS THAT THE DISEASE IS BEING UPROOTED.

It appears that more patience may be required, even when the sufferer is only "in the early stages," than the advertisement quoted might have led him to suppose:

The person fortunate enough to become familiar with D.D.D. Prescription in the early stages of his disease may commit the error of being

impatient of cure. . . . The eruption may have appeared only on a few spots of his body, but this is evidence that the disease germ is lodged in his skin. The germs will grow and multiply and spread; . . . it may take some time to dislodge the germs from his skin. . . . Is it not worth careful study, a few months' patience, to be rid of that horrible malady?

"The germs" are, of course, freely utilized to give an air of scientific knowledge:

The reader familiar with the deeper questions of medical science knows that there is still some dispute among the best authorities on the germ theories, but it is pretty well understood now, largely as a result of Dr. Dennis's discoveries, that eczema is purely and simply a germ disease caused by germs that lodge in the skin. According to the germ theory, there must be several species of eczema germs, causing the several diseases known as eczema, psoriasis, ringworm, dandruff, etc. The germs are all of the same type, and produce ailments with varying symptoms, all eczematous. The germs live only in the skin, feeding on the oily ingredients of the epidermis.

It might be interesting to know where "Dr. Dennis' discoveries" were published.

D.D.D. is put up in two forms, called "D.D.D. Ordinary" and "D.D.D. Strong"; the "Ordinary" was taken for analysis. The directions for this are:

The remedy may be applied in various ways; it is best, however, to rub the skin as little as possible while making the application; hence we recommend it to be applied by saturating a piece of absorbent cotton with D.D.D. and dabbing this gently on the parts affected, or applying it with a small camel hair brush, so that the pores will absorb the remedy.

Analysis showed the liquid to be composed as follows:

Salicylic acid	0.75 part
Phenol	1.18 parts
Methyl salicylate (oil of wintergreen)	1.00 part
Glycerin	9.28 parts
Alcohol	65.10 parts by measure
Water, to	100 parts by measure

It had a slight yellow colour, which may have been due to a trace of colouring matter, or may have been developed from the oil of wintergreen.

The alcohol is by far the most costly ingredient, and the estimated cost of ingredients for 2.1 fluid ounces is $3\frac{3}{4}$d.

HOMOCEA.

This preparation is made by a limited company in London. A 1s. 1½d. tin contained about ¾ ounce, and a 2s. 9d. tin about 2½ ounces. It is recommended for a very large number of disorders, as is shown by the following extracts from a circular enclosed in the package:

Homocea . . . Ointment . . . is far and away the best remedy known for Open Wounds, Sores, Cuts, Ulcers, Bad Legs, Burns, Scalds, Chaps, Wasp, Bee, and Insect Stings, Earache, Inflamed Spots, Skin or Flesh Troubles of all sorts, Broken Chilblains, etc. In treating any of the above lay Homocea lightly with the finger, or spread some on clean rags or lint and apply to the parts affected. For Bruises, Blotches, Chaps, Chilblains (unbroken), Eruptions, Swellings, Mumps, Croup, Sore Eyes, Rashes, Ringworm, Jelly Fish Stings, Sunburns, etc., etc., smear or gently rub in Homocea where required.

For Piles (bleeding or blind) Homocea stands alone amongst remedies. It affords immediate relief at all times, and in many cases absolutely cures.

For Internal Piles the insertion of Homocea Suppositories is recommended.

Cold in the Head is cured by putting Homocea up the nostrils and rubbing the bridge of the nose well with the Ointment at night.

Soft Corns and Bunions are cured by applying Homocea as a pad, to be kept on day and night.

Eczema (in many forms), Hay Fever, Prickly Heat Jigger, and Veldt Sores, Warts, etc., cured by Homocea.

Homocea will cure the Bites and Stings of Mosquito, Gnats, Sand Flies, and, better still, will prevent these pests from attacking you, if the face, neck, hands, and other exposed parts of the body are smeared with the Ointment.

It is impossible to bring within the compass of a short circular all that Homocea in its various forms will do, but we claim, without fear of contradiction, that there are few of the ordinary everyday ailments incidental to the human frame that Homocea, if promptly and properly applied, will not immediately alleviate and cure.

The efficacy of Homocea is easily and unanswerably explained. It kills inflammation immediately it comes in contact with it, and you can readily understand why pain vanishes and wounds heal so quickly.

Analysis showed the presence of eucalyptus oil in considerable proportion, with beeswax, a soft fat, and a very small quantity of ammonia; evidence was also obtained of a small proportion of another essential oil, apparently oil of lemon, though, as essential oils are complex in composition, it is not possible to speak positively on this point. Other medicinal ingredients were found to be absent. The quantities of the

ingredients found were determined as accurately as possible, and the results gave the following formula:

Oil of eucalyptus	25	per cent.
Oil of lemon	0.2	,,
Beeswax	25	,,
Fat	49	,,
Solution of ammonia	0.8	,,

The characters of the fat agreed with those of a mixture of lard and cocoanut oil in about equal parts. An ointment prepared according to this formula was practically indistinguishable from the original.

Estimated cost of ingredients for 2½ ounces (2s. 9d. tin), 2½d.

ECZOLINE TREATMENT.

This "treatment" is supplied by a firm at Swindon, and consists of ointment, tablets, and soap; the two former were taken for examination.

An advertisement contains the following somewhat disconnected expressions:

A wonderful Remedy. Eczema, Rashes, Pimples, Spots, Sores, Ringworm, Chaps, Chilblains, Rough Skin, Bad Legs. Stops all irritation at once. Cured by the Eczoline Treatment. Worth its weight in gold.

Eczoline Ointment.—A 1s. 1½d. box contained about 1 ounce. On the box it is described as

A positive cure for Eczema, and good for all skin diseases.

Analysis showed the presence of zinc oxide, sulphur (flowers), glycerin, a little water, and a fat which agreed well in its characters with lard, with a trace of oil of lemon; no other constituents were found. The quantities of the respective ingredients were determined, and the results gave the following formula:

Flowers of sulphur	39	per cent.
Zinc oxide	3.7	,,
Glycerin	13.5	,,
Lard	39.8	,,
Water	4	,,
Oil of lemon	a trace	

Estimated cost of ingredients for 1 ounce, ½d.

Eczoline Tablets.—A 1s. 1½d. box contained 43 sugar-coated tablets, having an average weight, without the coating, of 5·2 grains each. These are described on the label as

For Cooling, Purifying, and Strengthening the Blood. Dose—One or two Tablets three times a day after meals.

Analysis showed the tablets, from which the coating had been removed to consist of

Ferrous sulphate	16.5	per cent.
Sulphur (precipitated)	56	,,
Talc	3.4	,,
Starch	7.3	,,
Extractive	16.8	,,

The extractive was bitter, and showed the reactions of extract of cascara sagrada, but it was not bitter enough or dark enough to consist only of this extract, and appeared to be a mixture of cascara sagrada, and an inert extract, the former constituting about 5 per cent. of the substance of the tablets.

Taking the whole of the extract as being of the same price as extract of cascara sagrada, the estimated cost of the ingredients for 43 tablets is ½d.

DR. CASSELL'S MEDICINES.

These are supplied by a limited company in a town in Lancashire. This firm is described on its notepaper as "Sole Agents for Great Britain, India, Africa, Australia, and all European Countries for Dr. Cassell's Specialities," and the "Specialities" appear to be really of American origin. The form of advertisement which appears to be most in favour is a small announcement of

An indispensable illustrated book written by an expert, dealing in a clear, common-sense way with a safe and speedy home cure of Skin Diseases of all kinds, with special chapters on Diseased Blood, Ulcers, Bad Legs, and "The Woman Beautiful,"

to be sent free on application. A request for a copy of this brought a pamphlet of 31 pages, together with a "self-examination form," and a letter urging that the form should be filled up and returned. In a further circular the following statement is made with regard to the mode of procedure:

When you consult a doctor he first inquires into the causes leading up to your trouble, then carefully examines all the symptoms and indications. Upon the results he forms his diagnosis, which in turn suggests the treatment.

We do exactly the same when you return the examination form filled up; we carefully examine it, and from the answers you give to the questions we are able at once to select for you, from the numerous Ointments, Powders, Mixtures, and Medicated Tablets manufactured for this Company from the formulas of that world-famed specialist, Dr. Cassell, a treatment perfect in every detail with the requirements of your case.

It is further stated that:

There is not one among the many healing extracts used which is not highly lauded by skin specialists the world over.

Which seems rather inconsistent with the statement on the next page that:

Several of the medicaments used in the Ointments and Blood Tablets are very rare and not in use in Great Britain, and do not form any part of the British doctors' medical outfit, yet are of such incalculable value as to constitute the basic strength and great healing virtue of the treatment.

The "self-examination form" was as follows; the words in italics are the answers which were filled in:

QUESTIONS.

Date 19

Name in full.....
Address in full.....
Age. *37.* Sex *Male.*
Occupation. *Groom-Gardener.* Stout or thin? *Medium.*
Married or single? *Single.* How long suffered? *About two years.*
Are you able to work? *Yes.* If not, how long have you been disabled.
What are you suffering from? *Eczema.*
What was your previous health? *Good.*
Where are you affected? *Arms worst; also neck and shoulders.*
What do doctors call your trouble? *I don't know.*
Have you been treated for it? *Not by doctors.* If so, how? *I have used some lotions.*
Have you attended any hospital? *No.*
Is your general health good? *Yes.*
Are you constipated? *No.*
Have you indigestion? *No.*
Do you stand much? *Yes.*
Are you in contact with much heat? *No.*
Do you perspire freely? *Yes.*
Are your hands much in soap and water? *No.*
Do you use much soda? *No.*
Does your employment entail contact with gritty or irritating material, and if so, what? *No.*
Have you much itching? *Yes.*
Have you a scaly eruption? *No.*
Is the part red or inflamed? *Yes.*
Is there any discharge? *Sometimes.* If so, what colour is it, and does it smell? *Like water.*
Have you any bleeding from the part? *No.*
Have you any pain? *Yes.*
Is your trouble inclined to spread? *Yes.*
Do you suffer from varicose veins? *No.*

Do little blisters form? *No.*
Did the trouble start with a pimple? *No.*
Have you any rash? *No.* If so, where? *No.*
Have you a sore throat? *No.*
Have you recently had measles or any fever? *No.*
Have you ever suffered from any specific blood disease? *No.* If so, what?
What is your usual diet? *Porridge, bread and butter, coffee, meat and potatoes, beer, cheese.*
Do you eat much oatmeal, shellfish, or tinned food? *A good deal of oatmeal porridge.*
Are you a teetotaler? *No, but very moderate.*
Are you worse more at one season than another? *No.*
What is your own opinion as to the cause? *I don't know.*
Here fill in any other details you may think of use.

As the question, "What are you suffering from?" was answered by the word "eczema," it was not altogether surprising to be told in the letter which was received in reply:

Your Examination Form has been duly received and carefully studied. You are suffering from a severe and disagreeable form of eczema.

The letter proceeds with a warning that it is

inadvisable to use ordinary salves, lotions, etc., indiscriminately, as you will readily realise that what will suit one person will not necessarily suit another, and many doctors don't appear to reconise [*sic*] the fact that the complaint should be treated both locally and constitutionally, therefore their treatment often proves ineffective. We make a special point of treating every case entirely upon its merits, and yours is one in which Dr. Cassell's combined treatment will produce speediest and most brilliant results.

It appears, however, that even these "speediest and most brilliant results" are not very speedy, as a further paragraph states:

Although it may take a few months to effect a permanent cure, we are quite confident, if you make up your mind to have yourself properly treated now, it will save much suffering and expense in the future.

The letter further intimated that the treatment would consist of a dusting powder, tablets to be taken internally, and an ointment, and that the charge would be 12s. 6d.

As no reply was sent at once, this was followed about a week later with another letter, offering to send the medicines for 9s. 6d., and containing the statement:

We are quite safe in guaranteeing a cure in your case provided you make up your mind to persevere for a reasonable length of time.

The sum required was then sent, and the articles named were received. The powder, in a pill-box, weighed a little less than 1 ounce; the bottle of tablets contained 90, of average weight 6 grains; and the pot of ointment contained just over 1 ounce. They were accompanied by an intimation that a further supply would cost 9s. 6d., and the following directions:

Ointment. Wash the hands thoroughly clean in hot water and apply a little of the Ointment to the affected parts every night on retiring. It is not necessary to use a great quantity, the chief thing being to have it evenly distributed on the parts requiring treatment.

Powder. A small portion should be dusted on with a piece of clean lint every morning on arising.

Tablets. One to be swallowed whole in water three times daily, between meals.

Cassell's Dusting Powder.—This was labelled "Antiseptic Dusting Powder No. 2." Analysis showed it to contain boric acid, talc, maize starch, and powdered slippery elm bark. The proportions of the first two ingredients were determined and the other two estimated as accurately as possible, and the formula given below was obtained. A powder prepared in accordance with this formula agreed in all respects with the original, except that the latter had a faint perfume and a creamy tint; the traces of colouring matter and perfume were far too minute to be identified.

Powdered talc	60	per cent.
Powdered boric acid	20	,,
Powdered maize starch	17	,,
Powdered slippery elm bark	3	,,

Estimated cost of ingredients for 1 ounce, ⅓d.

Cassell's Blood Cleansing Tablets.—The label was marked "Price 4s. 6d. a bottle," and, as stated above, the bottle contained 90 tablets of about 6 grains each.

Analysis showed the tablets to contain:

Phenolphthalein	0.75	per cent.
Potassium iodide	1.25	,,
Sugar	81	,,
Talc, approximately	11	,,
Calcium carbonate and sulphate, approximately	2	,,
Water	1	,,
Extractive	3	,,

The extractive showed no distinctive characters by which it could be identified. The tablets had a faint anise-like odour;

no alkaloid or other active principle was found. The dose of phenolphthalein in one tablet is 0.045 grain, the usual dose being 1 to 8 grains; the dose of potassium iodide in one tablet is 0.075 grain, the official dose being 5 to 20 grains.

If the extract present is taken as being of the same price as extract of taraxacum, the estimated cost of the ingredients for 90 tablets is ½d.

Cassell's Ointment.—This was labelled "Ointment No. 2," and the pot contained just over 1 ounce. Analysis showed it to contain oils of wintergreen and eucalyptus, lanoline, a fat or oil, soft paraffin, boric acid, a small quantity of alkali, and a powdered vegetable tissue. The latter appeared to consist chiefly of a bark; it was carefully compared with a number of powdered drugs, but was not found to agree with any drug in ordinary use; it showed a good deal of resemblance to powdered krameria root, and agreed exactly with it in the colour changes caused by various reagents, and while not identical with either of the species of krameria compared with it, the resemblance suggested that it might be from a nearly related plant. The proportions of the different constituents were determined as closely as possible, and the following formula was arrived at:

Boric acid	8 per cent.
Borax	2 ,,
Oil of eucalyptus	2 ,,
Oil of wintergreen	3 ,,
Anhydrous lanoline	4 ,,
Oil (? olive)	8 ,,
Soft paraffin	63 ,,
Powdered drug	7 ,,
Water	3 ,,

An ointment prepared in accordance with this formula, with krameria root as the drug, closely resembled the original.

SULPHOLINE LOTION.

This lotion is prepared by a limited company in London. A 1s. bottle contained 2 fluid ounces. This preparation is advertised in the following terms:

Eczema and all skin ailments are completely cured by Sulpholine Lotion, which directly attacks all forms of Eczema, Eruptions, Pimples, Acne, Spots, Blackheads, or Disfiguring Rashes, leaving the skin in the soft, clear, supple, attractive condition designed by Nature.

And in a pamphlet enclosed in the package it is further stated that

Sulpholine Lotion is the only external skin remedy.

There is no phase of Eczema, chronic or acute, red, dry, scaly, or pustular (moist), psoriasis, pityriasis, impetigo, prickly heat, tetter, salt-rheum, or even superficial scorbutic ulcerations, but Sulpholine will grapple with, and in most cases completely eradicate, leaving the skin its natural, clear, smooth, pliable surface.

The directions on the label are:

To be damped on with a handkerchief or piece of cotton wool, and allowed to dry. One application of the Lotion should be at bedtime.

Analysis showed it to contain:

Sulphur, precipitated	3 parts
Zinc oxide	2.1 ,,
Calcium sulphate	0.6 part.
Glycerin	9 parts.
Strong rose water, to	100 parts by measure.

The rose water is by far the most expensive ingredient, and the estimated cost of ingredients for 2 fluid ounces is 1¼d.

CADUM.

Supplied by Omega, Limited. A 1s. 1½d. tin contained just over 1 oz.

This is described in a circular enclosed in the package as:

The New Medical Discovery for the Treatment of Eczema, Psoriasis, Ringworm, Acne, Pimples, Blackheads, Itch, Facial Eruptions, Salt Rheum, Shingles, Herpes, Hives, Prickly Heat, Boils, Rash, Itching Piles, Cuts, Sores, Burns, Chafing, Sunburn, Scabies and other Skin Troubles.

Its origin is thus described:

The discovery of Cadum, the wonderful new skin remedy, was not the result of mere chance or accident, but of patient, painstaking investigations, extending over a long period, by an eminent chemist who became possessed of the conviction that the old method of taking internal remedies to cure external diseases was erroneous. After a careful study of all the best-known products, it was discovered that an extract from a particular part of a well-known tree possessed superior antiseptic and curative properties, and exerted a powerful, beneficial effect on the skin tissues. It was, however, found that this valuable vegetable extract possessing such desirable qualities was difficult to compound with other ingredients necessary to present it in a form convenient to use. After further investigations and experiments, a method of special treatment was devised by which

this seemingly insurmountable difficulty was overcome, resulting in a unique combination of ingredients, possessing to a marked degree valuable therapeutic properties, the like of which has never before been produced.

Directions are given for the use of this preparation in some thirty affections of the skin.

Analysis showed the presence of zinc oxide, sulphur, boric and salicylic acids, oil of cade, and a paraffin basis. The proportions of the several ingredients were determined as accurately as possible; since oil of cade is variable in composition, and there is no direct means of determining its quantity in such a mixture, this was estimated from a number of comparisons with known mixtures, and the figure given is certainly not far from exact. The formula arrived at is:

Zinc oxide	11.3	per cent.
Flowers of sulphur	8.0	,,
Boric Acid	3·1	,,
Salicylic acid	0.8	,,
Oil of cade	7	,,
Hard paraffin	10	,,
Soft paraffin	60	,,

Estimated cost of ingredients for 1 ounce, ⅓d.

POSLAM.

This is supplied by the Emergency Laboratories, New York. A 2s. 3d. tin contained ⅔ ounce.

It is described in a circular enclosed in the package as

The Newest Medical Discovery for the treatment of Eczema and all other skin affections.

Some further extracts from this circular are as follows:

It is a singular fact that, notwithstanding the great strides that have been made in medicine for the past decade or two, skin diseases, and particularly eczema—the worst of them—are about as little understood by the medical profession to-day as they were a generation back.

Eczema is one of the most prevalent diseases, and statistics shows that at least 50 *per cent. of humanity have it in some form or other.* It may be that physicians have failed to give this trouble the proper amount of study because, not being a fatal disease, they have considered it unimportant enough to wilfully neglect its thorough diagnosis.

Another reason may be that the *advertised preparations for eczema have been so exploited as to convey wrong impressions about the disease,* ascribing it to causes most ridiculous, and harping on the erroneous idea

that it is a blood trouble, only curable by internal remedies. Doctors, in the absence of any recognised specific for the disease, have given either internal remedies or ordered the use of special soaps, both of which courses show that the average medical man is helpless to combat the growing trouble of skin diseases. . . .

LOTIONS AND INEFFECTUAL "REMEDIES."—*The potent ingredients of a remedy, which are necessary to the successful cure of eczema, cannot be contained in the form of a liquid. Lotions, besides containing mercury, must necessarily contain some alcohol or water, which are irritants and should be rigidly avoided.* . . .

There is no need of an extended course of treatment in the cure of eczema. If the remedy is the right one, its effects will be apparent immediately, and the progress of its work may be noted daily. . . .

POSLAM, THE CURE.—*The success of Poslam in the cure of eczema and all kindred skin diseases, has been absolute since its first introduction to the public and the medical profession. It is entirely different from anything yet used, and as a remedial agent in skin diseases, may be said to be positively infallible in its action.* Hitherto there has been a common base to all ointments and salves that were supposed to be "remedies" for eczema. *Poslam has a base of its own, and contains no grease, poisons, mercury, or any other harmful constituent.*

The general directions are:

Apply Poslam twice daily, night and morning, directly to the parts affected.

Do not rub or irritate, but apply gently.

Analysis showed the presence of zinc oxide, sulphur, starch, salicylic acid, oil of birch tar, oil of cade, lanoline, and soft paraffin. Since oil of birch tar and oil of cade are both very complex bodies of variable composition, it is not possible to determine exactly the quantities present in such a mixture; it is even possible that some samples of oil of birch tar might possess the properties observed, without the presence of oil of cade, and the latter is given in the formula with this reservation. The various ingredients were determined or estimated as exactly as possible, and the following formula was arrived at:

Zinc oxide	12	per cent.
Flowers of sulphur	8	,,
Maize starch	18	,,
Salicylic acid	1.5	,,
Oil of cade	1.5	,,
Oil of birch tar	8	,,
Anhydrous lanoline	25.5	,,
Soft paraffin	25.5	,,

Estimated cost of ingredients of ⅔ ounce, ½d.

CHAPTER III.

NERVE TONICS AND "ELIXIRS OF LIFE."

A very large class of proprietary medicines consists of those advertised as nerve tonics and restoratives of lost vitality, and a number of these are described in the present chapter. Some of them are conspicuously advertised in the newspapers, and are sold through retailers in the ordinary way; while in other cases the interest of those likely to become purchasers is usually aroused by a small advertisement with a bold headline to catch the eye—such as "Lost Manhood Restored"—in which a free book is offered, to be sent by post on application. The applicant is not only urged by the contents of the book which is sent to place himself at once under the advertiser's treatment, but this advice is further pressed on him by letters at intervals. Medicines of this kind are not usually sold through retailers, but only direct from the advertiser to the consumer. The latter is often supplied with a list of questions to be answered, and —to judge from the examples described—when he has answered them, and paid the one or two guineas demanded, he is likely to be told that his is a complicated case requiring additional treatment, for which, of course, further payment is to be made. In some cases references occur to "our consulting physician," or "our specialist," etc. In regard to specialists of this anonymous kind, some facts elicited at a coroner's inquest, mentioned in chapter XIX., throw some light on the probable value of such references. Obviously, no real expert would consent to work under such conditions as those indicated; but even if that difficulty could be got

over, no satisfactory diagnosis could be made in the manner pretended, and the paying of a fee for advice in such circumstances is a very different thing from paying for the attention and skill of an expert who really investigates his cases.

In regard to the nerve tonics supplied through retailers, it will be seen that some of these consist of a few simple and commonplace drugs, the cost of which is almost negligible compared to the price charged. Others, which have only recently appeared on the market, appear to be based—at least in regard to the wording of the advertisements—on the orchitic fluid suggested by the late Dr. Brown-Séquard, and a good deal of play is made with a few terms having a scientific appearance, but serving—as, for example, "the red corpuscles or phagocytes," and "a vital extract ($C_2H_5N_1$)"—only to display to anyone understanding them the ignorance of the advertiser. The last of the articles dealt with has been very extensively advertised as a "brain and nerve food"; our advertisement shows that the daily dose of this preparation, costing ninepence, represents about a teaspoonful of beaten-up egg and a wineglassful of skim milk.

PHOSFERINE.

This widely-advertised preparation is supplied at 1s. 1½d. and 2s. 9d. by a limited company in London. A 1s. 1½d. bottle was found to contain 2 fluid drachms, and a 2s. 9d. bottle just over 1 fluid ounce.

Phosferine is described in an advertisement as

The Greatest of all Tonics.

A Proven Remedy for

Nervous Debility, Influenza, Indigestion, Sleeplessness, Exhaustion, Neuralgia, Maternity Weakness, Premature Decay, Mental Exhaustion, Loss of Appetite, Lassitude, Neuritis, Faintness, Brain Fag, Anæmia, Backache, Rheumatism, Headache, Hysteria, Sciatica, and disorders consequent upon a reduced state of the nervous system.

In a circular enclosed in the package it is stated that

Phosferine is a potent strengthening medicine, withal gentle in its action and perfectly harmless; being akin to gastric juice, it rests and restores the digestive organs and regulates the bowels to normal action.

The public cannot be too strongly warned against the many purging medicines advertised for indigestion, etc., which are not only a fruitful source of piles, but injure the coating of the stomach and sap the very gastric juice Nature is straining herself to supply.

Unlike other tonic medicines, Phosferine does not injure the teeth or upset the stomach and cause constipation; on the contrary, it will be found beneficial in these conditions.

Phosferine may be taken at all times with benefit; there is no possible objection to its continued use either as an appetiser or a general strengthening and nerve remedy.

Somewhat varying directions are given as to the quantity to be taken for different ailments, the dose being stated as from five to ten drops, to be taken from twice to four times a day.

Analysis showed the presence of alcohol, quinine, phosphoric acid, and a little sulphuric acid; a trace of sodium salt was found, but this was probably an accidental impurity in the phosphoric acid; no other ingredient could be detected. Expressing the acids as the dilute acids of the *British Pharmacopœia*, and the quinine as the ordinary official sulphate, the formula arrived at is

Quinine sulphate	0.67	part
Diluted sulphuric acid	2.5	parts by measure
Diluted phosphoric acid	54.6	,, ,,
Alcohol	8.1	,, ,,
Water, to	100	,, ,,

The estimated cost of the ingredients for 1 fluid ounce (2s. 9d. bottle) is ½d.

GUY'S TONIC.

This is a liquid prepared by a London firm; a bottle priced 1s. 1½d. contained 6 fluid ounces. In a circular enclosed in the package it is stated that:

Guy's Tonic is a rich Cordial prepared from Vegetable Tinctures and other curative agents found in the British Pharmacopœia. . . . Guy's Tonic is not put forward as a Remedy for "all the ills to which flesh is heir," for no such thing as a "Cure-all" exists. It is, however, confidently recommended for the specific Ailments enumerated. . . . The use of Guy's Tonic will be attended with the happiest results in :—

1. Disorders of the Digestive System: Dyspepsia, Heartburn, Loss of Appetite, Pain after Food, Flatulence or Wind, a sensation of Nausea (Sickness), Furred or white-coated Tongue, unpleasant Breath, disagreeable Taste in the Mouth, Drowsiness after Eating, a feeling of weight or discomfort in the Chest, palpitation of the Heart, shortness of Breath, and Acidity of the Stomach.

2. Functional Derangements of the Liver: Sluggishness, Congestion, Constipation, Biliousness, Despondency, Dizziness, Sallowness of the Complexion, Blotches on the Skin, dull pains between the Shoulders, variable Appetite, Headache, disturbed Sleep, Lassitude, and Irritability.

3. Disorders of the Blood: Anæmia, Emaciation, Paleness, Weariness, and Disorders dependent upon a Vitiated or Impoverished condition of the Vital Fluid.

4. Nervous Maladies: Neuralgia, Nervousness, Hysteria, Giddiness, Alcoholism, disturbed Sleep, unpleasant Dreams, confused Thoughts, lack of Confidence, Loss of Memory, Depression, Melancholy, Exhaustion, Languor, and affections due to Malnutrition of the Brain and Spinal Cord.

5. General Diseases: Gout, Rheumatism, Rheumatic Gout, Lumbago, and Disorders characterised by Perverted Nutrition and Lack of Vital Force.

6. Convalescence from Acute Diseases: also in cases of recovery from Influenza, Fevers, Bronchitis, and other exhausting Diseases, and in General Debility and Prostration from whatever cause arising.

The dose is stated on the label to be:

For adults, one tablespoonful. Under 9 years, one dessertspoonful. Under 2 years, one teaspoonful.

Analysis showed it to contain small quantities of hydrochloric and phosphoric acids, alcohol, bitter and aromatic substances and colouring matter, and a trace of chloroform. No alkaloid was present; the bitter and aromatic substances present in very small amount agreed well with those of the official compound infusion of gentian; the behaviour of the colouring matter indicated that it was cochineal. The quantities of the two acids and the alcohol were determined, and the amounts of the other ingredients estimated by methods of comparison. The following formula gives an exactly similar mixture:

Diluted hydrochloric acid	0.59	parts by measure
Diluted phosphoric acid	0.52	,, ,,
Alcohol	2.27	,, ,,
Compound infusion of gentian	40	,, ,,
Chloroform water	50	,, ,,
Cochineal colouring	a sufficiency	
Water, to	100	parts by measure

The estimated cost of the ingredients of 6 fluid ounces is ½d.

VITAE ORE.

The article sold under this name is supplied by a limited company in London, price 4s. 6d. per package.

An offer to send a package, containing sufficient for one month, to be paid for only if benefit is received, is largely advertised. The advertisement usually includes an illustration of a man's head, said to represent "Prof. Theo. Noel," described as "the well-known geologist." The following are extracts from one of these advertisements:

I discovered by accident the dried residue of the greatest curative spring in the world. It seemed worth while to try whether this, when redissolved, would have mineral spring virtues. The results astonished me and those who experienced them. The spring was a marvel—far exceeding anything that Homburg, Harrogate, Aix, Bath, or any other spa can show. Some untraceable element defying the chemist's analysis—is it Radium?—enters into the rock. Whatever the element may be, its effect can be distinctly felt when the drink made from this deposit, which I call Vitae Ore, or "life-rock," is taken as a beverage. Those who use it say that it gives a degree of buoyant, cheerful energy, which they never, perhaps, experienced before.

Everyone knows a few people with health and vigour to spare—the men whose breezy personality carries all before it, so that no one can resist them; the women whose warm bloom and feminine grace capture all hearts. Well, Vitae Ore will give these things to ALL, if used as I will tell you how to use it. No artificial drug enters into it. No artificial drug can rival its effects.

Whether you are well or ill—strong or weak—Vitae Ore will give you new life. Under its influence Nature herself cures

Rheumatism	*Dropsy*	*Constipation*
Sciatica	*Catarrh*	*Nervous*
Gout	*Indigestion*	*Exhaustion*
Anæmia		

and all Liver, Blood, and Stomach Diseases. . . .

Its effect in giving new vigour and nerve-force to people of mere ordinary health, turning them into noticeably and radiantly strong men and women, makes it worth using in every case. . . .

How to use Vitae Ore.

Vitae Ore comes to you as a box of powder. You simply dissolve it in a pint of cold water, and of this mixture drink a teaspoonful in a half-tumbler of water three times a day, and at bedtime, for a month. In a few days, a week, or later, according to your present condition, you will begin to notice greater strength, better digestion, higher spirits, a clearer complexion, a healthier appetite. These are the effects of the new vitality in Vitae Ore.

A 4s. 6d. package contained 137 grains of the substance; analysis showed it to contain a slightly basic but soluble iron sulphate, magnesium sulphate, and combined water; the quantity of each constituent was determined and found to be as follows:

Ferric oxysulphate, calculated as anhydrous.....	47.57	per cent.
Magnesium sulphate, calculated as anhydrous ...	15.89	,,
Water, in combination	36.54	,,

No other substance was detected. The iron, magnesium, sulphate, and water were all determined separately, and, as the figures add up to 100.00 per cent., not much is left for "some untraceable element defying the chemist's analysis." If the directions, quoted above, are followed, each dose would contain:

Iron oxysulphate, anhydrous	0.47	grain.
Magnesium sulphate, anhydrous	0.15	,,

The estimated cost of the ingredients contained in one package is about one-eighth of a penny.

COCAPHOS.

This preparation is supplied by a firm in London. A box priced 4s. 6d. contained 94 tablets.

The following extracts are from an advertisement in a magazine:

Gavin's "Cocaphos" Puts New Life Into You. . . . You cannot do your work if you are in a nervous state; the worry and stress of modern life tells on the best of constitutions. Many fly to stimulants and find temporary relief, but as there is always reaction, they find it necessary to continue taking them, and thus a bad habit is formed. When you feel run down and need energy and go the finest thing to take to brace you up and allow you to make the most of your opportunities, to remove that tired feeling, and to build up your nervous system is "COCAPHOS." This is composed of the finest ingredients for the purpose, acknowledged by the Medical Profession to be a fine recuperative tonic.

The dose is given on the label as "One tablet after each meal."

2.8 grains. Analysis showed the presence of asafœtida, ferrous carbonate, zinc phosphide, strychnine, brucine, and sugar of milk. The alkaloids were probably added in the form of extract of nux vomica, and the amount of this is calculated from the proportion of alkaloids found; the asafœtida was estimated from the proportion of resin found. The results of tests for the zinc phosphide were somewhat obscured by the other substances present; the amount was calculated from the proportion of zinc found. The ferrous carbonate is calculated as the official saccharated carbonate. The formula so arrived at is:

		In One Tablet.
Extract of nux vomica	1.0 per cent. ...	0.028 grain.
Zinc phosphide	2.4 ,, ...	0.067 ,,
Saccharated carbonate of iron ...	18.0 ,, ...	0.50 ,,
Asafœtida	9.0 ,, ...	0.25 ,,
Sugar of milk.		

The package was not labelled "Poison," although it would appear to come within the schedule of the Poisons and Pharmacy Act.

The estimated cost of the ingredients for fifty-four tablets is ½d.

DR. MORGAN'S RADIO-VIMETTES.

This preparation is supplied by a limited company in London at 2s. 9d. per box, containing 20 pills. They are advertised in the following terms:

Proved by thousands to be unsurpassed in restoring lost vitality and strength in all cases of Debility, Nervous Exhaustion, Lost Vitality, Varicocele, and all Diseases of the Blood, Nerves, and Brain. Not a quack remedy, but compounded from the Private prescription of a celebrated Doctor.

A supply was obtained by post, and a few days later a letter was received from the makers as follows:

Dear Sir,

We sent you a week ago a course of Dr. Morgan's "Radio-Vimettes," and as in every case in which these are sent, we take, not merely an interest to sell the Vimettes, but a genuine interest in your ailment and its cure, we are writing now to know just what benefit has accrued from the course of treatment you have had.

If your case is a mild one we have no doubt that by this time your nerves are strengthened, your energy restored and your general vitality and health renewed, and it only remains for us to say how glad we are that the Vimettes have once more vindicated their claim to supremacy.

If, on the other hand, you had not regarded the first signs of disease and wrote us only when nature positively demanded relief from suffering we know that you cannot possibly be ENTIRELY CURED, and if such is your ailment, our interest in its eradication still continues firm. For all such ailments our primary desire is to relieve, and should you still be suffering we beg you to let us know AT ONCE, not merely saying "I am not cured," but by writing a quiet, friendly letter saying just how you feel, giving particulars of your case,—the cause—and the result. Direct this to "The Specialist" marked "Private," and it will then be read only by him, regarded by him as most strictly confidential and, if desired, returned to you. Enclose a stamp for return postage and you will then obtain full advice on your case FREE OF ALL CHARGE, and we sincerely trust that by so writing health, strength, and vitality may be yours again.

A leaflet was enclosed on "Special Courses of Radio-Vimette Treatment," from which it appears that there are three such courses, referred to as: "No. 1. Neurasthenic; No. 2. Urinary; No. 3. Impotence."

The Courses of Treatment in each case enumerated above are put up in two forms, the supply being sufficient approximately for one month's treatment.

No. 1. SPECIAL STRENGTH for mild cases, 11s. per Course, Carriage Paid.

No. 2. CONCENTRATED for severe cases and cases of long standing, 21s. per Course, Carriage Paid.

The best advice of the Specialist is at the services of every Patient free of all charge, and in every case correspondence is treated in the strictest confidence.

A list of questions to be answered was also sent.

The dose is given, in a circular of "General Directions," as follows:

The Ordinary Strength Radio-Vimettes will be found sufficiently powerful for all mild cases of Nerve trouble, such as NERVOUS DYSPEPSIA, HEADACHES, etc.

For these troubles One Radio-Vimette should be taken night and morning after meals.

The pills were ovoid in shape, sugar-coated, and coloured purple externally. After removal of the coating they had an average weight of 3.7 grains. Analysis showed the presence of free phosphorus, reduced iron, quinine sulphate, and excipient. The amounts found were:

		In One Pill.
Reduced iron	70 per cent. ...	2.6 grains.
Quinine sulphate	11.8 ,, ...	0.44 grain.
Phosphorus	0.13 ,, ...	0.005 ,,

The estimated cost of the ingredients for twenty pills is ½d.

GORDON'S VITAL SEXUALINE RESTORATIVE.

This preparation and a number of others are supplied by a firm in a Yorkshire town. The price of this "restorative" is 22s. per bottle, holding 21 fluid ounces.

The usual advertisement is of a pamphlet called "Strength, How Lost, How Regained," which is thus referred to:

Interesting and instructive remarks to young and middle-aged men on "How to Preserve Strength and Retain the Powers." A Brief Treatise on Nervous Exhaustion, Loss of Strength, and Debiltiy in Men. This book not only contains valuable remarks on how to preserve Strength and retain the Powers to an advanced age, but points out the best means of restoring Exhausted Vitality, Poverty of Nerve Force, Mental Depression, and will especially interest those who wish to create Vitality, increase Nerve Stamina, renew the Vital Forces, or fit themselves for business, study, or marriage.

The pamphlet is further entitled:

"A Confidential Treatise on Nervous Exhaustion, Spermatorrhoea, Varicocele, Generative Weakness, Debility, Special Diseases and Urinary Derangements in Men, THEIR CAUSE AND CURE, By Concentrated Herbal Remedies. A Popular, Practical, and Moral Exposition of Some of the Fundamental Problems of Sociology. By Charles Gordon, P.M.B."

"P.M.B.," it may be noted, does not represent any known medical qualification, but is of unknown signification, and is probably intended to suggest to the ignorant some sort of medical degree.

It is a booklet of 43 pages, with sections on Onanism, Spermatorrhœa, Marriage, Varicocele, Impotence, Gonorrhœa, Gleet, Syphilis, etc. An "advice form" was also sent, containing a list of questions to be answered by those desiring medicine.

A price list gives the prices of the following: Vital Sexualine Restorative (described as "for Onanism, Night Emissions, Seminal Losses, Waste of Vitality, Brain Fag, Depression, General Weakness, Loss of Energy, Nervous Debility, Spermatorrhœa, and Varicocele"), Viro-Erectile Elixir, Anti-Syphilitic Mixture, Bubo Compound, Gleet Compound, Gonorrhœal Mixture, and Gravolene, all at 22s. per bottle, and Gentiana Tonic and Varixolene Liniment, at 11s. per bottle.

On the label of the "Vital Sexualine" it is called:

The Great Nerve Restorative, Brain Fertilizer, and Vital Tonic. Feeds, Strengthens, and Sustains the Nerves, prevents Losses and waste of

Vitality, Creates Nervous Fluid, Brain Matter and Nerve Force. Brightens the intellect, improves the memory and mental faculties, restores strength, and promotes a renewal of life in the entire system. A proven remedy for all weakened conditions of the system dependent upon the deficiency of the vital forces.

Permanently Cures—Neurasthenia, Nervous Breakdown, Brain Fag, Depression, Loss of Energy, Sleeplessness, Nervous Headache, Melancholia, Trembling, Poverty of Nerve Force, Nervous Prostration, General Weakness, Loss of Strength, Exhausted Vitality, Premature Decay, Brain Wreckage, Neuralgia, Nerve Tire, etc.

Dose.—One small teaspoonful in a wineglassful of cold water three times a day, immediately after meals.

The liquid was reddish-brown in colour, and syrupy. Analysis showed it to contain:

		In One Dose.
Iron hypophosphite	0.50 part	... 0.27 grains.
Calcium hypophosphite	0.50 ,,	... 0.27 ,,
Sodium hypophosphite	0.60 ,,	... 0.32 ,,
Potassium hypophosphite	0.14 ,,	... 0.07 ,,
Quinine sulphate	0.50 ,,	... 0.27 ,,
Citric acid	0.90 ,,	... 0.48 ,,
Sugar (approx.)	51 parts	
Glycerine ,,	36 parts by measure	
Colouring matter		
Water to 100	,, ,, ,,	

Metallic hypophosphites are not generally considered to be "concentrated herbal remedies."

The estimated cost of the ingredients for 21 fluid ounces is 10½d.

THE MARSTON TREATMENT.

This is supplied by a firm in London, and is advertised as follows:

EVERY MAN

Suffering from GENERAL and PHYSICAL DEBILITY should send for a Valuable Pamphlet explaining how all Nervous and Organic Derangement may be successfully treated without stomach medication. The method is easy and pleasant, and will effect a perfect and permanent cure. Sent in a plain sealed envelope post free 2 stamps.

Application to the address given brought a paper-covered book of seventy-two pages, entitled *A Treatise on the Modern Treatment of Nervous Diseases and Exhaustion in Men by*

Local Absorption, the scope of which is indicated by the following extracts:

The object of this treatise is to describe, in as clear and simple a manner as possible, for the non-professional reader, the various diseases and affections resulting in the nervous and sexual systems from the indulgence of early pernicious habits, excessive venery, fast living, and other irregularities, the product of our modern civilisation. . . .

In issuing this edition of our treatise on NERVOUS DISEASES, we desire especially to point out that ours is not an empirical or secret treatment, nor do we use merely one single preparation and designate it a cure-all and panacea for every variety of disease. On the contrary, the Remedies used are varied, and such as long experience in the treatment of Nervous and Sexual ailments have proved to be the most valuable in their cure. Our object is to prescribe the course necessary to be taken to ensure the result expected or hoped for; we claim no new or occult discoveries in the domain of Medicine or Pharmacy, but we do claim that our method of combining medicinal drugs, in the form of a suppository and applying them directly to the immediate locality of the diseases described in this treatise, is not only more successful in its results but is more effectual and rational than purely stomach drugging for nervous Diseases allied with sexual troubles.

The book was accompanied by various other papers, and a letter from which the following extracts are taken:

If for any reason after a perusal of our book you are unable to select the course of treatment necessary, you may give us a full and as clear a statement as possible of your symptoms, and we will submit it to the consulting physician, when such course as will meet the requirements of your case will be prescribed. The treatment can be sent to you by post, together with the necessary medical and hygienic advice suitable for your case.

Should you still have any doubt as to the advantages of rectal treatment in your case, possibly owing to some complication that does not enter within the scope of our treatise, we shall be glad to hear from you, and any letters will be treated in the fullest confidence. Consultation personally or by letter free of charge.

In a subsequent letter the following occurs:

We are well aware that there are firms in existence which treat nervous debility on similar lines to our own, but we again emphatically claim and challenge all rivals to contradict the fact, viz., that we are the oldest established advertising medical business, and that we were the first to originate the Rectal Method for the cure of Nervous and Sexual Diseases.

From the papers sent it appears that five kinds of treatment are supplied, as follows:

Graded Course for the cure of Seminal Losses, Spermatorrhœa, etc.

Impotence Course for the cure of Impotence, Loss of Sexual Vigour, Erectile Power, etc.

Urinary and Prostatic Course for all troubles of the Prostate Gland, Bladder, Kidneys, etc.

Developing Course for Atrophy or Wasting and Shrinkage of the Organs, etc.

Neurasthenic or Nervine Tonic Course for General Weakness, Debility, Loss of Memory, Sleeplessness, Melancholy, Despondency, Depression, Neuralgia, Brain Exhaustion, and all those conditions arising from Debility asociated with Nervous Diseases.

The price of the treatment is the same in all cases, namely, £1 1s. for one month's treatment, and £2 2s. for three months' treatment, of any course.

In a third letter it was stated that—

To convince you of our confidence in our Treatment to effect your cure, we will send you a three months' course of treatment upon receipt of One-Half the Regular Price, namely, 21s., and you need not pay the balance of 21s. unless you are perfectly satisfied with the results.

A guinea was accordingly sent for a three months' supply of the Nervine Tonic Course; this elicited a request for answers to the printed questions that were sent, and a sample of urine, for "our Consulting Physician." The question paper was therefore filled in with particulars of an imaginary case of nocturnal emissions, and sent with a sample of normal healthy urine to which some glycerine and water had been added. Three boxes of suppositories were received, with a letter, of which the principal parts were as follows:

We have your favour with answers to questions and sample of urine enclosed, and our Consulting Physician has submitted the latter to a careful examination, and we are pleased to inform you that it was found to be of normal specific gravity, and showed no evidence of any organic kidney disease, but an examination of the urinary débris, together with the statements made in the diagnosis form discloses sufficient evidence to convince us that your nerve and sexual system is very much below par, and in order to bring about your complete restoration to sexual health and strength it will be necessary for you to undergo the treatment our Consulting Physician has prescribed in your case. . . .

You will therefore see that it is absolutely necessary in your case for you to undergo, in addition to the Tonic Course which you ordered in your previous letter, a three months' treatment of the Graded Course to permanently check all losses either at stool, in your urine, or by nightly emissions, and by this means a reinvigoration of the exhausted seminal secreting organs will be gradually effected. This course could be used every night whilst you are using the Tonic Course every morning . . .

we forward you herewith a three months' treatment of the Tonic Course. . . . Use from box No. 1 the first month, box No. 2 the second month, and box No. 3 the third month. . . . If you would like to follow our advice and use the Graded Course at night and will remit the reduced fee of 21s. for the same, the further remedy will be at once prepared and sent you. . . .

Each box contained 29 suppositories, or 87 in all, having an average weight of 16½ grains. All three kinds were found to be similar in composition; they differed a little in the proportions of the ingredients, but, as the drugs are not soluble in the fat, suppositories of such a composition, if prepared by melting and pouring into moulds, would show such differences in strength as those found, unless prepared in very small quantities and with extreme care. The composition shown by analysis was:

—	No. 1.		No. 2.		No. 3.	
	Per Cent.	Grains in One.	Per Cent.	Grains in One.	Per Cent.	Grains in One.
Calcium hypophosphite	0·4	0·07	0·3	0·05	0·3	0·05
Powdered gentian and powdered cinchona bark	2·1	0·35	3·7	0·61	2·7	0·45
Oil of theobroma.....	97·5	—	96·0	—	97·0	—

The two vegetable drugs could not, of course, be determined separately; they appeared to be present in something like equal quantities.

The estimated cost of the ingredients for the eighty-seven suppositories (ordinary charge 42s.) is 5d.

MURRAY'S COMBINED TREATMENT.

This "treatment," which has so great a resemblance in many respects to the preceding as to suggest that it can hardly be merely accidental, is supplied by another London firm.

It is advertised as follows:

BOON TO MAN.

All Men suffering from Nervous Exhaustion, Physical Debility, and all Allied Troubles, should send for my Illustrated Book, fully describing Symptoms, together with most modern scientific method of cure, including hundreds of testimonials of complete cures. No Trusses. No Electricity. Sent sealed Post free two stamps.

On application to the address given two paper books and a small pamphlet were sent. The first entitled *The Combined Stomach and Rectal Treatment for the Permanent Cure of Nervous Debility and Sexual Diseases, including Spermatorrhœa, Impotence, and other Disorders, resulting from these Conditions*, is a booklet of eighty-four pages, from which some extracts are given below; the second is a booklet of forty pages, entitled *Varicocele: Its Symptoms and Cure;* and the pamphlet, of eight pages, is entitled *A Treatise on Venereal Diseases Gonorrhœa, Gleet, Stricture, etc.*

The "Treatment" is thus explained:

The present therapeutic methods of treating Nervous Debility may be described as three distinct systems, viz.:—Treatment by the Stomach alone, Treatment by Local Absorption, through the means of the Rectum or opening of the lower bowel, and the Murray system of combined Rectal and Stomach Treatment.

The two former methods used separately have proved of considerable advantage in removing some of the distressing symptoms of this disease, but the successful cure of Nervous Debility, needless to say, depends upon the cure and removal of every symptom associated with the disease. . . . This result is effected by "Murray's Treatment," which has received the appellation "Combined" from its peculiar means of administration. It comprises two forms of treatment. The first consisting of prescribed remedies taken by means of the stomach. . . . The second form . . . . is that of a Rectal Suppository.

The books were accompanied by various papers and a letter of the usual type, which was followed at intervals by others, in one of which it was stated that:

It is always the earnest endeavour of my Consulting Physician to carry out to a successful issue the many cases that come under our care, and I am glad to say that the results have in no way contradicted my claims as to this satisfactory issue.

In all cases that are submitted to my opinion, it is honestly given after consulting with my Physician, and in no case do we encourage or give hopes of a successful cure in those chronic cases which sometimes do not yield to treatment.

From the book it appears that five "courses" are supplied—namely:

The Nervine Tonic and Brain Food Course.
The Seminal Course.
The Impotence Course.
The Genito-Urinary Course.
The Atrophy Course.

From a long and varied experience in the treatment of Nervous Debility my Physician and myself find it very requisite that three months' treatment should be prescribed in order to bring about a thorough and complete cure.

The fee for a three months' Treatment is £2 2s.

The fee for a month's Treatment is £1 1s.

No order having been sent, a further letter was received, containing the following offer:

. . . . I shall be most happy to make such reduction in the cost of the treatment as I hope will adapt itself to your means; and to show you the confidence I have in the value and benefits of my method of cure, I am willing to meet you in the matter of payment, and would suggest your paying me, say, 20s. for a three months' course, and the balance of 22s. I shall only expect or look for, provided that you are perfectly satisfied with the results obtained from its use.

Twenty shillings was then sent for the "Nervine Course," and brought a request for answers to the questions on a sheet forwarded, and a sample of urine. The questions were answered in the same way as for the Marston Treatment (above), and a sample of the same mixture of urine, glycerine, and water was sent. Not only was the result the same, that is, a discovery that an additional course—at an additional fee—was necessary, but it was conveyed in very similar words:

It is evident that your case is more complicated than your first letter indicated, and from the full particulars to hand, together with result of examination of urine, your case needs in addition to the Nervine Tonic Course a Special Seminal Course to permanently check all seminal losses, whether at stool, in the urine, nightly or otherwise, and it will strengthen the now weakened seminal secreting ducts. This extra Course would have to be used in the morning, and in conjunction with the night Course they will act in harmony with each other and attack every symptom of your case. . . . I shall be pleased to let you have this extra Course on the same reduced terms, viz., 20s., and upon receipt of this amount it will immediately be prepared and sent you with full directions, and I trust you will see your way clear to order the same at once so that they may be used conjointly.

The preparations sent consisted of three boxes of gelatine perles (called "gelatinoids") marked "No. 1," "No. 2," and "No. 3," each box containing 10, and three boxes of suppositories, similarly marked, each containing 30. It was explained that:

I am only sending you the first month's gelatinoids, as it may be necessary to modify these next month.

The general directions were to use a suppository

from box No. 1 first day, box No. 2 second day, and box No. 3 third day, recommencing with box No. 1 again on fourth day, and so on in this order day after day. The Stomach Gelatinoids are to be swallowed and in same alternative order as Rectal Treatment.

The directions on the gelatinoids were "Take one every morning after breakfast."

Gelatinoids No. 1.

Each contained 0.75 grain of quinine sulphate, partly dehydrated, equivalent to 0.84 grain of the *B.P.* salt. No other substance was present.

Gelatinoids No. 2.

The contents of one had an average weight of 1.35 grains, and contained:

Ferrous phosphate ($Fe_3 2PO_4, 8H_2O$)	26 per cent.
Quinine phosphate ($Q_2H_3PO_4, 8H_2O$)	35 ,,
Strychnine.	
Talc	11 ,,
Milk-sugar.	

The strychnine was only a small proportion of the alkaloid, and the amount of material available did not suffice for its separate determination.

Gelatinoids No. 3.

The contents of one had an average weight of 1.66 grains, and consisted of a brown extract agreeing in most characters and tests with extract of damiana. No other ingredient could be detected, but some other extract *might* have been present, as a mixture of some vegetable extracts could not be separated with such a small quantity as was available.

The estimated cost of the ingredients of the 30 gelatinoids is 1¼d.

The Suppositories.

All the three kinds of suppositories had the same constituents, only showing such small variations in the amounts as would be inevitable in making a large quantity in the usual way; the average weight was 16 grains. Analysis showed the presence of:

—	No. 1.		No. 2.		No. 3.	
	Per cent.	Grains in One.	Per cent.	Grains in One.	Per cent.	Grains in One.
Calcium hypophosphite	4·05	0·7	3·54	0·6	3·70	0·6
Powdered gentian and powdered cinchona bark.....	3·90	0·6	4·30	0·7	5·30	0·9
Oil of theobroma	92·05	—	92·16	—	91·00	—

In the mixture of powdered gentian and cinchona, the former appeared to constitute more than half.

The estimated cost of the ingredients for 90 suppositories is 5½d., and therefore of the entire "combined treatment" 6¾d.

SEQUARINE.

Sequarine is supplied by a firm in London, at the price of 8s. a bottle, holding 1 fluid ounce. It is advertised as "The New Serum Cure," and both newspaper advertisements and the descriptive pamphlet sent on application include what is stated to be a portrait of "The Discoverer, Dr. Brown-Sequard, F.R.S." It is stated in the pamphlet that:

Since the discovery of blood circulation by Harvey there has been no greater addition to the forces of medical science than the strength producing element discovered by Professor Brown-Sequard, F.R.C.P. (London), L.L.D. (Cambridge). This element, which is the Serum-Sequarine, has already become an indispensable aid to physicians. . . . The new serum has been given various names, such as "Sequard Fluid" and "Spermine," etc., but the registered and generally recognised name of Professor Brown-Sequard's discovery is "Sequarine"—a name derived from that of the discoverer himself, thus: Sequar—ine.

Since the general nature of the preparation is thus indicated, it is not altogether a "secret" remedy; but from the way in which it is advertised to the public, and the attempt to identify Brown-Séquard's orchitic fluid (which, of course, is *not* a serum) with the preparation supplied by this particular firm under a registered trade name, it is fairly to be classed among nostrums.

The following is an extract from a newspaper advertisement:

Nature and Action of the Serum.

According to leading physicians the nature of Sequarine and the manner of action on the human organism in curing disease may be briefly summarised as follows:

Within every animal body there exists a "power of disease resistance," the principle of "natural immunity"; this power resists the entrance of any disease into the body, and if it is of normal strength readily repels the disease even after it has gained entrance. In treating disease doctors are aided greatly by the principle of "natural immunity." The homœopaths rely on it almost entirely—and in a great many instances drugs get the credit for a cure when vital resistance has really effected it. The greatest scientists have always been baffled in their endeavours to discover the element or force which is the basis of this peculiar power. In his search for this element Professor Brown-Sequard discovered that there exists in the blood infinitesimal quantities of a fluid which subsequently proved to be the *basis of the power of natural immunity from disease*.

This fluid is the serum which has been named Sequarine in his honour.

What Sequarine Cures.

Sequarine is a cure for any ailment or weakness brought about by lack of nerve power or an accumulation of impurities in any part of the body.

The attempt to secure the prestige of the name of the late Dr. Brown-Séquard, without stating precisely that he was in any way responsible for the article now sold as Sequarine, is very obvious in a circular letter sent with the pamphlet referred to above, from which the following is an extract:

Since the introduction of Sequarine into England an ever-increasing number of sufferers have taken this treatment with remarkable success. The name of Dr. Brown-Sequard, L.L.D. (Cambridge), Fellow of the Royal Society and Fellow of the Royal College of Physicians (London), is a sufficient guarantee of its efficacy.

The directions on the label are:

Dose.—Adults, 20-30 drops; children, 5-15 drops in half-a-glass of water (soda-water or water which has been previously boiled preferred).

To be taken three times daily, half-an-hour before meals.

The liquid contained 35.8 per cent. by volume of alcohol, and a sufficient trace of oil of peppermint to give a flavour; on evaporation it left 1.9 per cent. of solid residue, of which 0.6 was ash—principally sodium and potassium phosphates. The nitrogen present was 0.22 per cent., equivalent to 1.4 per cent. of protein, but a small portion of it was present as ammonia, perhaps formed by decomposition of nitrogenous organic matter. The liquid was thus shown to be of the nature of an animal extract, with alcohol; definite constituents could not, of course, be isolated.

NEUROVRIL.

The preparation known as Neurovril is supplied by the Neurovril Company, London. The price is 21s. per bottle, "sufficient for one month," or 7s. 6d. for a smaller bottle, "sufficient for one week." The smaller bottle was found to contain nearly 3 fluid ounces. An advertisement occupying the space of a column in a London daily paper, is headed, in large letters,

HAS THE ELIXIR OF LIFE BEEN DISCOVERED?

Amazing Results of Great Health Discovery announced To-day.

And the first paragraphs are as follows:

There is announced to-day a mysterious serum, which, whilst according relief in cases of severe illnesses, apparently, from the statements made, actually introduces into the body not a mere stimulating force, but life itself. Although the discovery has been made by a Continental scientist, he has already sent particulars to his confrères all over the world, and so important do British scientists consider this matter, that they are making every effort to place the information at once in the hands of those who are ailing.

The amazing successes that have attended the application of this wonderful new health discovery have aroused on all hands the question: "Has the Elixir of Life at last been discovered?"

After much more of the same sort, it continues:

The new serum is a new food for use in cases of

Loss of Memory,	Melancholia,
Headache,	Irritability,
Exhaustion,	Slackness,
Nervous Weakness,	Nervous Prostration,
Brain Fag,	Partial Paralysis.

It is a blood food for use in cases of

Anæmia,	Impoverished Blood,
Rheumatism,	Kidney Troubles,
Sciatica,	Disordered Liver.

It is a physical food for use in cases of

Wasting Tissue,	Thinness,
Lack of Muscular Vigour,	Aged Appearance,
Weak Back,	Premature Decline.

The wonderful result after even the first dose will be a delightful sensation to those who have long lost the vigour of full manhood or womanhood.

A booklet is sent on application, from which the following passages are quoted:

When it is said that old men and women are made young, that the decrepit take on a new virility, that the yellow-hued cheeks assume the roses of youth, and the worn out brain gains new power to think and control action—these are facts beyond all disputing.

The great new basic serum makes it possible to defy the approach of age, and, better still, enables men and women to come back from the realms of senile decay and continuous illness to the vigour of perfect man and womanhood. Tissue by tissue, new flesh, new energy-creating cells are formed, and as the basic serum is absorbed into the system, throughout the whole body is carried on a work of rejuvenation. . . .

Realising the inutility of conducting investigation on stereotyped lines, elaborate search was made for a new idea, and in a most singular manner the secret that proved the keynote of our scientist's success was found. His work involved ceaseless laboratory experiments through the realms of organic chemistry and physiological science, and demanded abnormal patience. . . .

Further experiments proved that the new basic serum not only supplied vitality and strength to the body, but could be prepared in such a way as to prove an anti-toxin, a means of resisting and curing illness . . . .

To say that Neurovril contains protoplasmic life is no rash assertion; it is a perfectly true statement proven by exhaustive laboratory tests.

Teeming with millions of life centres, every drop of Neurovril introduced into the body effects a wonderful change. The life centres develop and give up their energy to the body. . . . .

The following appears on the label:

Analysis of Active Principle:

75 per cent.	phosphates, immediately assimilable.	
20 ,,	albumen, remarkable for creating virility.	
2 ,,	carbonate calcic.	
3 ,,	water.	Total=100 per cent.

The directions are:

Take of this Tonic, regularly, half of a Neurovril glass (supplied with this bottle) night and morning directly after meals.

"Half of a neurovril glass" is about 5 fluid drachms. Analysis showed that 100 parts (by measure) of "neurovril" contained 18.9 parts (by measure) of alcohol, and gave 19.1 parts of residue on evaporation, of which 18.1 parts consisted of sugar. A trace of oil of cloves was present, giving a slight clove odour, and a faint odour like that of an animal extract in a state of incipient decomposition could also be detected.

The liquid was slightly turbid, and a trace of fatty substance was present. No appreciable amount of "serum" or other animal substance was present; only the slightest indication of a trace of nitrogenous matter could be detected, this being of the nature of an organic base, and the amount of phosphate was so small that it was doubtful, even with a very delicate test, whether any at all were present. The total ash was 0.03 per cent., and it contained a little lime. The 1 part per 100 fluid parts which was not sugar was probably chiefly glycerine, but a small quantity of glycerine in presence of a large quantity of sugar can hardly be positively identified by examining a reasonable quantity of the material.

If the "active principle" contains, as stated on the label, 75 per cent. of phosphate and 20 per cent. of albumen, it follows from the analysis that only a minute trace of it is present in the liquid, which is practically a mixture of simple syrup and diluted alcohol.

OSOGEN.

Osogen is supplied by a firm in London at 2s. 9d., 7s. 9d., and 11s. a bottle. A bottle price 2s. 9d. was found to contain 1 fluid ounce, and a bottle price 11s. 5 fluid ounces.

An advertisement, occupying the space of a column in a London daily paper, is headed:

MYSTERIOUS SERU-PHOS.—Amazing Elemental Combination Startles Scientists. More Effective than the most powerful Serum.

Some extracts from it are:

Scientific discussion is at present rife anent a mysterious new combination of organic elements. Some time ago Professor Brown-Sequard, F.R.S., F.R.C.P. (formerly head of Queen Square Hospital, London), discovered a serum (Sequard Fluid) which was used with success in treating various ailments. Another eminent scientist has now discovered that by combining this serum with organic reconstituent elements its curative value is more than doubled. After Professor Brown-Sequard announced his discovery to the Paris Biological Society, Professor Prince Tarkanhov (St. Petersburg) and other scientists began experiments with the serum, and hence the new remedy is a direct product of the labour and learning of some of the greatest scientific men of their age. This seru-phos combination (called Osogen) has been pronounced absolutely certain in curative effect and more swift in action than the most powerful serum used alone. Scientists who investigated it were amazed by its wonderful potency, and Physicians, both in London and on the Continent, predict that Osogen will supersede many other forms of treatment. . . . .

Osogen is not a secret remedy. It is a vital extract ($C_2H_5N_1$), combined with organic reconstituent elements (glycerophosphates), all of which are now recognised by the Medical Profession, and appear in Pharmacopœias throughout the world. One of the ingredients has been called by famous scientists "More powerful than the interchange of blood." The whole is almost an exact replica of the elements which combine to form the human economy. The vital extract increases disease-fighting corpuscles, another constituent forms nerve cells (especially cells of the Spinal Nerves), another forms tissue cells, etc. Its action is restorative in every part of the body, and its use is especially recommended in cases where the serum alone has not effected a thorough cure.

In a small pamphlet enclosed in the package, "Osogen" is described as

Serum and Glycerophosphates. A Natural Remedy for Neurasthenia, Nervous Disorders, Brain Fag, General Debility, Anæmia, Bright's Disease, Influenza, Sciatica, Functional Weakness, Loss of Vital Power, Indigestion, Dyspepsia, Rheumatism, Kidney Disease, Dropsy, Diabetes. Asthma, Consumption, Locomotor Ataxy, and Paralysis.

The directions on the label are:

20 to 30 drops in a wineglass of water after meals three times daily. Children over six: 5 to 15 drops as above.

Analysis showed the liquid to contain glycerophosphates of iron, magnesium, sodium and quinine, a little alcohol and a trace of chloroform, with glycerine in large quantity. Not more than a trace of nitrogenous matter was present in addition to the quinine, showing that if the mixture contained any of Brown-Sequard's Orchitic Fluid, the amount was very small. Determination of the quantities of the various ingredients gave the following formula:

Quinine glycerophosphate	0.75	part
Iron glycerophosphate	2.14	parts
Magnesium glycerophosphate	0.77	part
Sodium glycerophosphate	0.90	,,
Spirit of chloroform	3.8	parts by measure
Glycerine	73	,, ,,
Water to	100	,, ,,

DR. LECOY'S VIGOROIDS.

These consisted of sugar-coated tablets, coloured blue externally. After removing the coating, the tablets had an average weight of 2.2 grains. The dose is stated to be two, three times daily.

Analysis showed them to contain:

Ferrous phosphate.
Quinine.
Strychnine.
A vegetable extract.
Sugar.
Starch.
Talc.

The ferrous phosphate, calculated as $Fe_3(PO_4)_2\,8H_2O$, from the iron found, was 8.7 per cent., or 0.19 grain in each tablet. The quinine and strychnine together amounted to 4.35 per cent., or 0.09 grain in one tablet; the strychnine was clearly not more than one-twentieth of the total alkaloid (= 0.005 grain in one tablet), but it was not possible to determine the amount exactly on the quantity available. The vegetable extract showed no well-marked properties by which it could be identified; the amount was small, the sugar constituting the largest part of the tablet.

ANTINEURASTHIN, A BRAIN AND NERVE FOOD.

Readers of daily or weekly papers or magazines who allow their eyes occasionally to travel over the advertisement pages of these journals can hardly fail to have seen somewhat frequently a lengthy advertisement of a preparation called Dr. Hartmann's Antineurasthin. The advertisement is usually headed "The Twentieth Century Disease." This, it appears, is neurasthenia, and the various stages of its manifestations are set out in a sort of table, beginning with "Sensitiveness" and ending with "Suicidal Tendency." Antineurasthin, referred to as "this marvellous twentieth century brain and nerve food discovery," is put forward as a specific for the cure of neurasthenia:

Dr. Hartmann's discovery is one that should personally and very deeply interest brain-workers in all walks of life. Every day are heard and seen all too serious evidences of the undue strain of their intense work on the vital power of the body. And now, on the highest possible authority, it is heralded that science has proved equal to the stern necessity which demanded the discovery of "Antineurasthin," the brain and nerve food.

For greater convenience "Antineurasthin" is compressed into small tablets, and although its beneficial effect on the brain and senses is so immediate, yet there is none of the depressing reaction that follows the administration of artificial drug stimulants, "Antineurasthin" being a special brain and nerve nutrient, and not a brain and nerve drug-irritant. No longer need the brain-worker struggle on under the cloud of fear of failing powers of brain and body. He or she may, by including "Antineurasthin" as an article vitally necessary in the daily dietary, build up and maintain that perfect balance of mental and physical power which alone can uphold health and happiness.

It appears that this article was sold in Germany before being introduced here, and it was included in the series of proprietary preparations analysed by Dr. Zernik. According to Zernik's analysis, it consists of dry yolk of egg, milk sugar, a small quantity of starch, dextrin, and an aromatic substance.

A detailed quantitative analysis of "Antineurasthin" as sold in this country gave the results described below. A 4s. 6d. box contained twenty-four tablets, having an average weight of 30½ grains each. The directions are:

To be taken when and as required, particularly before or after great exertions (bodily and mental); in all cases of nervous disorders and mental affections, general debility, etc

Usual dose 3-4 tablets a day between meals. Antineurasthin contains no injurious ingredients, and is therefore absolutely harmless to the most delicate, even if taken in large quantities.

Analysis showed the presence of:

Protein	26.4 per cent.
Fat	2.5 per cent.
Sugar of milk	32.8 per cent.
Ash	5.7 per cent.
Water	8.3 per cent.
Gum ....about	2.0 per cent.
Aromatic substances	traces.
Potato starch (by difference) ....about	22.0 per cent.

The material of the tablets is nearly white, with yellow particles like dried egg-yolk distributed through it; extraction with appropriate solvents proved a fair trace of lecithin to be present; if the whole of the fat present were derived from egg-yolk it would represent 3.8 per cent. of dried yolk, equivalent to 7.7 per cent. of fresh liquid yolk in the tablets; this accounts for 1.3 out of the 26.4 per cent. of protein. Sulphur in organic combination was found to be present to the extent of 0.09 per cent.; sulphur is practically absent from the yolk, but occurs in the white of eggs, and the amount found corresponds to 5.4 per cent. of dried, or about 38.6 per cent. of liquid, egg-albumen in the tablet; a further 5.1 out of the 26.4 per cent. of protein is thus accounted for. This leaves 20 per cent. of protein, and this stands in about the same ratio to 32.8 per cent. of milk sugar, and about 5 per cent. of ash (deducting the ash of the egg and gum), as corresponds to the composition of a dried separated milk. The ash consisted principally of calcium phosphate, like the ash of milk. The aromatic substances appeared to include a trace of vanilla and of some other substance that could not be identified; these are probably added to serve at the same time as flavouring agents and preservatives.

The starch was seen by the microscope to be very abundant, corresponding in appearance to the amount required by difference. On the above assumptions the composition of the tablets would be approximately:—

Dry yolk of egg	3.8 per cent.
Dry white of egg	5.4 per cent.
Dry separated milk	57.8 per cent.
Gum	2.0 per cent.
Potato starch	22.7 per cent
Moisture	8.3 per cent.
Aromatic substances	traces.

The daily dose of four tablets, or 122 grains, would, according to this formula, contain the equivalent of 10 grains of yolk

and 43 grains of white of egg (not dried); the ratio between these is about the same as exists in an average egg, and the two may be put together and regarded as about a teaspoonful of fresh egg; in addition, the daily dose would represent about 2 oz., or a quarter of a tumblerful, of separated milk, and a little starch.

A GERMAN NOSTRUM.

According to Dr. Zernik:

Dr. J. Schäfert's physiological nutrient (nerve) salts for neurasthenia is a preparation made in Barmen. The prospectus states that it is composed of glycerine phosphate compound with certain physiological salts, which act on the formation of the red blood corpuscles and improve the circulation generally; 100 grams of the salts put up in a glass vessel costs 4s. It consists of 40 parts of glycerine phosphate of calcium, 30 parts of glycerine phosphate of sodium, and 20 parts of sodium chloride with a trace of iron.

CHAPTER IV.

MEDICINES FOR COUGHS, CONSUMPTION, CATARRH, ETC.

The medicines described in this chapter include both old and new nostrums, and vary from simple pills and lozenges to more or less complex "treatments." The claims advanced for them also vary considerably, but are in most cases very wide. A pill containing ipecacuanha only is put forward, not merely as sometimes useful for coughs, but as "The Best Remedy to Cure all Coughs, Colds, Asthmas, etc." A lozenge containing cubeb and liquorice is similarly described as "the best article before the public for Coughs, Colds, Bronchitis, Asthma, Catarrh, the Hacking Cough in Consumption, and numerous affections of the throat." These, however, are modest claims compared to some of the others. A lozenge, in which the only medicinal agent found in any considerable quantity was extract of liquorice, is not only put forward for most of the above disorders and others allied to them, but also for "many cases of Headache, Flatulence, and Indigestion." A liquid which is said to be "the best-known remedy for Colds, Influenza, Sore Throat, etc.," is also described as a valuable remedy for, among other things, diarrhœa, disordered stomach, bad circulation of the blood, and quinsy. The "treatments" are more especially put forward for catarrh, but here, too, the net is cast rather wide; in one case, asthma, whooping cough, croup and consumption are among the diseases for which it is put forward as a cure, while in another the comprehensive, if awkward, description of those to whom it is recommended is "all who wish to quickly cure Catarrh, Asthma, Adenoids, Polypi, or other Nose-breathing, Chest or Lung, and Voice or Hearing or Throat Bronchial Trouble." Needless to say, their

claims are mutually exclusive; one of them, an inhalation "treatment," claims to be "the only treatment through which the diseased parts of the head, throat, and lungs can be reached"; while the proprietor of another modestly says: "I assert, without fear of contradiction, that mine is the only apparatus which sends the medicated vapour over every membrane that air can reach, and I also assert with equal firmness that there are no preparations for similar object which can compare in effectiveness with those supplied by me." Two of the treatments are supplied at somewhat high prices; and, although no exact estimate is given of the cost of the ingredients, it is evident that it is quite out of proportion to the amounts charged for them.

FENNINGS' LUNG-HEALERS.

The article advertised under this name is in the form of small pills, and is supplied by a firm in the Isle of Wight at 1s. 1½d. a box, containing thirty pills.

The pills are advertised as "The Best Remedy to Cure all Coughs, Colds, Asthmas, etc." The following quotations are from a circular enclosed in the package:

Directions for taking Fennings' Lung-Healers. The Certain Remedy to cure all Colds, Coughs, Bronchitis, Influenza, Incipient Consumption, The Coughs of Measles and Scarlet Fever, Asthmas, and other complaints of the Lungs.

The Dose is the same for all ages.

These Lung-Healers, although so beneficial in curing Inflammation, quelling Fevers, and eradicating the *virus* of disease, are perfectly harmless and innocent, and can with equal safety be given to the most tender infant as well as to the fullgrown person.

To Cure Colds, Coughs, or Asthma.—One of these Lung-Healers should be given to the infant, or person, in jam, or by itself, every morning or evening.

For Bronchitis, Influenza, Incipient Consumption, the Cough of Measles, of Scarlatina, or Scarlet Fever, give one of the Lung-Healers, in jam, or by itself, three times a day. . . . If, when freely taking of these Lung-Healers, the child or person should perchance become sick, it need not be heeded, or reckoned as a bad symptom, for sickness often proves of great benefit in a complaint, and advantageously assists in lessening all Fevers and Inflammations.

The average weight of one pill was 0.22 grain. Chemical analysis and microscopical examination showed that practically the whole of the material consisted of ipecacuanha; the amount of alkaloid present was 1.8 per cent., which is a little below the average for ipecacuanha, and the alkaloid extracted possessed the characters of ipecacuanha alkaloid. Careful search for other ingredients, and comparison with powdered ipecacuanha, showed nothing else to be present but the trace of excipient used to bind the powder into pills. Estimated cost of ingredients for thirty pills is ¼d.

PEPS.

These much-advertised lozenges are supplied by a firm in a Yorkshire town in boxes at 1s. 1½d. and 2s. 9d. per box. A 2s. 9d. box was found to contain ninety-eight lozenges. The name of the article appears to be derived from the initial letters of "Pine extract pastilles." The nature of the claims made is shown by the following extracts from a booklet issued by the makers:—

In the course of scientific research singular freedom from bronchial disease was noticed among the dwellers amidst the rich pine forests of Europe. The great healing power of the odours and balsams of the pine tree was also observed; and at last a striking connection between the two facts made itself apparent. . . .

A study of the peculiar property of pine balsams led to their great medicinal value becoming more fully recognised, and the idea was evolved of capturing and storing up these rich essences in some form convenient for the great masses who are not able to spend winter in the far-famed forest resorts. It was practically a matter of finding how to transfer to our crowded homes all the real benefits of the pine woods, so that those victims of bronchitis, consumption, asthma, colds and other throat and chest affections, who could not go to pine woods, should have the pine woods and the rich pine air brought to them—into the very rooms in which they dwell.

A novel tablet, containing the richest pine extracts—that is, with all the best pine essences and odours held captive in them—was eventually perfected; and these tablets, or Peps, as they are called, undoubtedly supply a long-felt want in the family medicine cupboard. The need is one that has never yet been properly met by any of the cough mixtures, lozenges, jujubes, and gums, which no medical attendant can conscientiously recommend, chiefly through the pernicious drug habits they encourage and their sheer inability to grant real, lasting relief. "A Pine Forest in every Home" aptly and pithily describes this new remedy. . .

As a Household Medicine they are of unequalled service in cases of Colds, Coughs, Bronchitis, Sore or Relaxed Throat, Huskiness, Loss of Voice, Asthma, Influenza, Pneumonia, Pleurisy, the Hacking Cough of

Consumption, Lung Weakness, Children's Colds, Whooping Cough, Croup, Chill or Tightness of the Chest, that old Breathing Difficulty, as well as for many cases of Headache, Flatulence and Indigestion. For Clergymen, Lawyers, Teachers, and all Public Speakers, they are an invaluable boon.

The lozenges had an average weight of 21 grains. The taste and odour did not suggest pine oil, but peppermint with a trace of anise, and on distilling out the oils it was evident that the principal one present was oil of peppermint, but the quantity was far too small to be determined quantitatively. Resinous matter was only present to the extent of 0.7 per cent., and this did not show the characters of pine resin. No alkaloid was found, showing the absence of preparations of both opium and ipecacuanha. Extract of liquorice was present in rather considerable quantity, as was proved by extraction of the glycyrrhizin. Sugars constituted about 75 per cent. of the tablet, but a little of this would be derived from the extract of liquorice; probably 70 per cent. would about represent the sugar added as such. Talc was present to the extent of about 4 per cent., and was doubtless added as a lubricant to aid in making the lozenges by compression. No other ingredient was found beyond those named; some sort of pine extract might have been present if it were free from resin or oil, but in that case it could not be expected to possess much medicinal value.

The results of the analysis may be thus summarised:

Sugar	about	70 per cent.
Extract of liquorice	about	25 ,,
Resinous matter		0.7 ,,
Oil of peppermint		trace.
Oil of anise		,,
Talc	about	4 ,,

BROWN'S BRONCHIAL TROCHES.

These are supplied by a firm in Boston, U.S.A. A 1s. 1½d. box was found to contain forty-eight lozenges.

In a circular enclosed in the package it is stated that:

"*Brown's Bronchial Troches*" or Cough Lozenges, allay irritation which induces coughing, giving instant relief in Consumptive, Bronchial, and Asthmatic complaints.

"Brown's Bronchial Troches" were first introduced in the year 1850. *It has been proved that they are the best article before the public* for Coughs, Colds, Bronchitis, Asthma, Catarrh, the *Hacking Cough* of Consumption, and numerous affections of the Throat, giving *immediate relief*. . . .

The Troches are efficacious for children with Whooping Cough, or other affections of the chest, having a soothing influence, assisting expectoration, and preventing the accumulation of phlegm, which causes the sense of suffocation so common with this disorder.

There are no particular directions to be observed in the use of the Bronchial Troches. One or two should be allowed to dissolve slowly in the mouth, repeating when necessary. We have seen instances of their good effects in cases of inflammation of the Bronchial Tubes and the hoarseness of children.

The lozenges had an average weight of 11.3 grains. Chemical analysis and microscopical examination showed the presence of powdered cubeb (about 6 per cent.), extract of liquorice in small quantity, gum, and sugar (about 70 per cent.). No other substance was found; if a little extract of cubeb were present as well as the powdered drug, it could not have been detected with certainty.

DR. WHITE'S KOMPO.

This is supplied by a firm in Yorkshire in bottles at 1s. 1½d. and 2s. 9d. A 2s. 9d. bottle was found to contain 11½ fluid ounces.

It is stated in an advertisement that:

Dr. White's "Kompo" is the best-known remedy for Colds, Influenza, Sore Throats, etc.

with other similar statements. But a wider application is claimed on the label, in the following words:

A Valuable Remedy for Colds, Influenza, Diarrhœa, Pains in the Stomach and Bowels, Disordered Stomach, Headache, Cold Feet, Cold Sweats, Bad Circulation of the Blood, Sore Throat, Quinsy, etc.

As a Pure Stimulant it is far better than Brandy, or any other Intoxicating Drink.

The dose is given as

One or two teaspoonfuls in a cupful of warm water, well sweetened, several times a day.

The bottle contained a brown, somewhat turbid liquid, smelling of cloves and cinnamon. Analysis showed it to contain 6.42 per cent. by volume of alcohol, and only 2.4 per cent. of solid matter; this consisted largely of a tannic acid resembling that of red gum. No alkaloid was present, but constituents of capsicum, cinnamon, and cloves were recognised, and a small proportion (0.07 per cent.) of salicylic acid was found. The

following formula gave a mixture scarcely distinguishable from the original by either physical or chemical means:

Eucalyptus gum (red gum)	1.5 part.
Caustic soda	0.08 ,,
Oil of cinnamon (or cassia)	0.25 ,,
Oil of cloves	0.25 ,,
Tincture of capsicum	7.5 parts.
Salicylic acid	0.07 part.
Rectified spirit	1.5 ,,

Decoction of cinnamon and cloves to 100 parts by measure.

The decoction was made by boiling 5 parts each of cloves and cinnamon with 200 of water until the volume was reduced by half, straining and adjusting the volume to 100 by measure.

The caustic soda in the above formula was used to darken the colour of the red gum. A similar result may be obtained by adding a very little burnt sugar, and there were some indications of the presence of this in the original.

The estimated cost of the ingredients for 11½ fluid ounces is about 6d.

GLYKALINE.

This is a liquid supplied by a London firm of homœopathic chemists. A 1s. 1½d. bottle was found to contain about 1½ fluid drachms. It is described in an advertisement as:

A Sure Cure for all Coughs, Colds, Catarrhs, Hay Fever, Influenza, Asthma, Bronchitis, etc. Rapid and reliable in its effects. Checks a slight cold with one dose. Cures a severe cold in 24 hours.

And in a circular enclosed in the package it is stated that:

There is no medicine to equal it for promptly relieving those distressing colds where there is a constant flow of a thin watery discharge from the nose, accompanied by continual sneezing, throbbing of the head, and smarting pains in the eyes, etc.—a few hours sufficing to overcome all these unpleasant systems.

The dose is given on the label as:

Three drops every hour in a tablespoonful of water until relieved, then every two or three hours until quite well. Children under five years, a third of the above quantity.

Analysis showed the liquid to contain 35 per cent. by volume of alcohol, but only 0.15 per cent. of solid matter. This consisted partly of potassium iodide and partly of organic matter. Not the slightest trace of any alkaloid could be found.

Each dose would contain approximately 1-350 grain of potassium iodide, with a trace of organic matter, which *may* be derived from some drug.

The cost of the preparation is practically that of the alcohol which it contains, or about ⅙d. for the contents of the bottle.

LIQUFRUTA MEDICA.

The preparation sold under this name is supplied from "The Liqufruta Laboratory." There appear to be two varieties of the medicine, the one being called simply "Liqufruta," and described on the label as "cure for consumption cough, whooping and every other cough," while the other is called "Liqufruta Medica," and is described on the label as "The Great Consumption Cure." The price of the latter is 2s. 9d., and the bottle was found to contain 12½ fluid ounces.

Other particulars given on the label are as follows:

Liqufruta Medica the Only Safe Cure for Pulmonary Consumption, Chronic Asthma, Bronchitis, Catarrh.

Certain of the germicidal constituents contained in this remedy are otherwise unobtainable throughout the world.

Guaranteed free of poison, laudanum, copper solution, cocaine, morphia, opium, chloral, calomel, paregoric, narcotics, or preservatives. . . .

Liqufruta Medica heals the chest, lungs, and throat, arrests the inflammation, loosens the phlegm, and effectually destroys the bacilli of consumption, etc., which no other medicine can reach. Whilst the cough will be eased at once, the expectoration will be more profuse for a short time.

Directions. One dessertspoonful every two hours; in severe cases every hour, and also during the night whenever cough is troublesome; take a dose when getting into bed and the moment of awakening in the morning. When symptoms moderate and pronounced benefit has been obtained the doses may be administered with one and a-half to two hours' interval if desired.

The mixture was found to be a dark brown, rather thick liquid, smelling like a mixture of garlic or onion and peppermint. On distilling, a trace of volatile oil was obtained, the distillate closely resembling the liquid obtained by distilling onion and a trace of oil of peppermint with water; 100 parts by measure of the mixture contained 10.05 parts of solids; of these, 2.05 parts were of mucilaginous or pectinous nature, 3.44 parts were glucose, and 2.28 parts were cane sugar. A decoction of onion was found to contain a mucilaginous substance somewhat similar to that obtained from the mixture.

The liquid was acid, and on evaporation and ignition yielded an ash which was alkaline, the acidity before and the alkalinity after ignition being approximately equivalent. This is characteristic of acid salts containing an alkali-metal and an organic acid, such as potassium bitartrate. The ash contained a considerable proportion of potassium, but in the presence of the sugars and vegetable extractive the small quantity of tartaric acid could not be identified; the acidity and alkalinity indicated 0.4 part (in 100 fluid parts) of potassium bitartrate, accounting for 0.16 part of ash; the total ash was 0.4 part, and the other constituents were such as are found in the ash of most vegetable extracts.

Alkaloidal matter was present in very small quantity, the amount being about 0.01 per cent.; this consisted of two (or more) alkaloids, neither of which gave the reactions of any of the ordinary medicinal alkaloids. The other constituents consisted of tannin, a trace of resin, and extractive. The original liquid had a very slightly pungent taste, such as would be given by a trace of a preparation of capsicum or ginger.

The results of the analysis thus showed:

Oil of peppermint	traces
Oil of onion, or garlic	traces
Alkaloids	traces
Potassium bitartrate	0.4 part
Glucose	3.44 parts
Cane sugar	2.28 ,,
Mucilaginous matter	2.05 ,,
Tannin	together 1.9 ,,
Extractive	together 1.9 ,,
Resin	together 1.9 ,,
Water	to 100 parts by measure

No alcohol was present, and no metallic salts beyond the traces ordinarily accompanying plant extracts.

Examination of the plain Liqufruta (for cough) did not show any important differences between it and "Liqufruta Medica."

HYOMEI.

The preparation sold under the name Hyomei is supplied by a firm in London. The price of an "outfit" is 2s. 6d., and this consists of an inhaler (consisting of a vulcanite tube), ½ fluid

ounce of inhalant, with pieces of gauze and a dropper; a 3s. 9d. "refill" of the inhalant alone was found to contain 2 fluid ounces.

Hyomei has been widely advertised in the Press for some time past, advertisements in the daily newspapers usually occupying a column or so. The following is the first paragraph of one of these:

Mr. R. T. Booth, who issues the following announcement, is the world-famous temperance orator, who some years ago, in co-operation with such friends and co-workers as the late Rev. C. H. Spurgeon, Rev. F. B. Meyer, and the late Rev. Newman Hall, Archdeacon Wilberforce, Lord Mount Temple, and others, founded the Blue Ribbon Army, which ultimately led a million to temperance. This glorious work was cut short by acute catarrh and threatened consumption, which sent him, by the order of the late Sir Andrew Clark, health-seeking to Australia. There he made his great discovery of Hyomei (pronounced Hi-o-me), which not only cured him, but has since cured multitudes of other sufferers. Hyomei is an inhalant which, being a powerful germicide, cures by just breathing it.

In a booklet enclosed in the package it is thus described:

Hyomei, the new Australian Dry-Air Treatment for the Cure of Asthma, Bronchitis, Catarrh, Catarrhal Deafness, Coughs, Rose Colds, Whooping Cough, Colds, Croup and Consumption.

The only Natural Method of Cure.

The First and only Treatment for all Diseases of the Air Passages and Lungs ever Endorsed by the Medical Profession. . . .

What "Hyomei" Is.

Hyomei is a vegetable compound the result of recent scientific research. It is a powerful germicide, and absolute destroyer of the germs which cause diseases of the respiratory organs.

Hyomei is a cure given by a new method—the only treatment through which the diseased parts of the head, throat, and lungs can be reached.

What "Hyomei" Does.

Hyomei cures all diseases of the air passages. Cures them by just breathing; cures them through the air you breathe, impregnated with Nature's own antiseptic. No douches, sprays, atomizers, or stomach medicines are used. It at once kills the bacilli of catarrh, bronchitis, consumption, asthma, and hay fever, bringing a complete cure that can be obtained in no other way.

Another circular enclosed in the package is in the form of a letter, beginning "Dear Friend." From the heading of the paper it appears that the company are the proprietors of "Hyomei," "Hyomei Balm, the wonderful ointment," "Hyomei Skin Soap, a medicated toilet soap," and "Hyomei

Catarmel, for catarrh and catarrhal deafness." The letter invites correspondence, as follows:

. . . if you are a sufferer from any breathing trouble or from any form of skin trouble I can help you. That is why I here invite you to write me personally a letter telling me of your ailment, how long you have had it, and what you have done so far to cure it. Then I will consider your case from the particulars you give me, and if suitable for my treatment, will, without charging you any fee, send you a letter telling you what you must do to get your cure, and at the same time will send you sufficient of what I recommend to give you a trial treatment, free.

"Hyomei" is a liquid smelling strongly of eucalyptus oil. Analysis showed the presence of eucalyptol, which is the chief constituent of this oil, together with alcohol and liquid paraffin. Since many essential oils possess common constituents, and for the separation of the constituents of one oil, and still more of a mixture, it is necessary to work on a large quantity of the material, a full and precise analysis of the mixture in question was not practicable. It was submitted to fractional distillation *in vacuo*, and the various fractions were tested and compared with the corresponding fractions of mixtures made up to imitate the original. It was concluded that the alcohol and liquid paraffin formed each about 10 per cent. of the whole, and a determination of the amount of eucalyptol showed nearly all the remaining 80 per cent. to be oil of eucalyptus. A small quantity (under 0.2 per cent.) of solid matter, not resinous, was obtained on distilling the Hyomei, and this could not be identified, but agreed in some respects with the solid obtained in a corresponding way from a mixture containing a little wood tar. A small proportion of creosote was also indicated.

THE RHYCOL TREATMENT.

This is supplied by a firm in London. The price of an "outfit" is 17s. 6d. The advertisements of the preparations sold under this name are mostly very lengthy, and application to the address given led to the receipt of several circular letters and a good deal of printed matter. A few extracts will sufficiently indicate the nature of the statements made:

Free Information how to cure Catarrh and Nose-Breathing Difficulty. Patient and Physician tell of how they found a cure. It is the hearty desire of the discoverers of the new cure that all who suffer from the above complaints should write for a gratis copy of the book they have just published, under the title of "Rhycol Respiratory Re-Education: The Physiological Cure for Catarrh, Adenoids, Polypi, and other Nose-Breathing Difficulties, Catarrhal Deafness and Head Noises, Loss of Sense of Smell or Taste, Coated Tongue, Bad Breath, Asthma, Bronchitis, and Weak Chest and Lungs."

The cure is remarkable, inasmuch as it calls for no sprays or injections, no powders to be snuffed—no lozenges or tablets to suck—no operations, and no painful cauterizing (burning) of the inflamed mucous membrane. . . .

The joint authors of the discovery—as the result of a fruitless quest for relief and cure—were led to experiment along the line of the "First Cause"—the nose and its respiratory functions.

The layman it was who made the first enlightening discovery. A singer, he discovered How *the nose could be* freed. . . .

Upon this first-step discovery has been built the new "Rhycol" cure, the details of which are given fully (and illustrated) in the book. . . .

In the book is explained how to stop

Nasty Dropping in the Throat,
Head Stuffiness,
Nose Stuffiness,
Throat Dryness,
Loss of Smell,
Spitting of Thick Phlegm,
Discharge from the Nose,
Loss of Taste, or Offensive Taste in Mouth
Catarrhal (Coated) Tongue,
Catarrhal Deafness,
Gurgling in Ears,
Bad Breath,
Snapping Noise in Ears,
Voice Troubles,
Hay-Fever,
Physical and Mental Dulness arising from Respiratory Inefficiency.

. . . all who wish to quickly cure Catarrh, Asthma, Adenoids, Polypi, or other Nose-Breathing, Chest or Lung, and Voice or Hearing, or Throat Bronchial Trouble should send for a copy.

The "outfit" consisted of two "inspirators," 56 tampons, a collapsible tube of lubricant, and a bottle of "Rhycol Antiseptic Solution."

The "inspirators" were small celluloid shells, open at both ends and along one side, to be placed in the nostrils to form a lining. They were marked "R" and "L" respectively, and the sides intended to lie against the septum and the outer wall respectively were shaped rather differently; it was not easy, however, to feel quite such enthusiasm about their beauty, as is shown in the description which accompanied the outfit:

The Inspirators . . . are hand-modelled and made by one of the most skilful Anatomical Instrument Makers in the world. They are constructed on perfect anatomical principles, and from a material that is not only completely Aseptic in itself, but which cannot be in any way contaminated or infected by noxious or morbific matters, and is entirely

unaffected by oxidation. The inner side—that part inclined to the middle septum of the nose—is exquisitely modelled, so as to adapt itself perfectly to all the sinuosities and flexuations of the central cartilages and, by a most skilful conformation, the current of air on each inspiration is most favourably directed through the spongy nasal passages to the air-openings (nares) at the upper and back of the pharynx.

Since the "inspirators" are supplied to fit (or otherwise) a strange pair of nostrils, the "exquisite hand-modelling" of one of the most skilful anatomical instrument makers in the world appears to be rather wasted. Possibly it is referred to as some justification of the price of 7s. 6d., which is charged for these without the remainder of the outfit, but to a disinterested eye they appear likely to have cost at most a few pence per pair. It may be remarked that each of the articles constituting the outfit, even including the box, is elaborately described in a similar laudatory strain.

The tampons were small cylinders of cotton-wool, medicated with a substance having a fragrant and rather terebinthinate odour. The instructions are to place an "inspirator" in each nostril and a tampon in each "inspirator," so that air is drawn into the nose through the tampons. They are to be kept in position for about a quarter of an hour the first time, gradually increasing the time until they can be worn all night. On extraction with a suitable solvent the tampons yielded a small quantity of a volatile oil, the average quantity being $\frac{1}{10}$ minim. This had the odour of a mixture of oil of eucalyptus and essential oil of camphor with a little terebene and a trace of oil of wintergreen, but the total quantity was far too small for analysis. The price of the tampons alone is 8s.

The tube of Rhycol lubricant, which is priced 1s., contained one-third of an ounce of soft paraffin with the addition of a very small quantity of carbolic acid. It is directed to be applied to the inspirators to facilitate their introduction into the nostrils.

The Rhycol Antiseptic is to be added in small quantity to water, to make a liquid in which the inspirators are to be laid, after washing, when not in use. The bottle contained $1\frac{1}{2}$ fluid drachms of the antiseptic, which was a solution of formaldehyde. Thus the actual medicament supplied for the 17s. 6d. consists of some 6 drops or so of essential oils, distributed on a number of small wads of cotton wool, the other articles being merely accessories to facilitate the inhalation of this oil.

THE COLMAN METHOD.

Under the name "The Colman Method" various medicaments and apparatus are supplied by Erasmus Colman, London.

The following are extracts from an advertisement headed:

Dangerous Catarrh! or, Chronic Cold in the Head.

It is a fearful mistake to neglect catarrh. It is quite certain to develop into something worse. It will not cure itself.

I, Erasmus Colman, declare that I have a perfect and speedy cure for nasal and throat catarrh. It is a system of vapourised medication, complemented by other highly effective therapeutic aids. It is a home treatment, occupying but a moment or two of one's time daily. The benefit becomes obvious from the first hour. The healing of the diseased condition is gradual, yet speedy and certain. There is nothing complex about it. Anybody can easily understand it. It is a pleasant form of cure. It is permanent.

I offer a perfectly genuine system of treatment. You cannot obtain it anywhere else, because it is the result of years of study and active experience, coupled with extraordinary ability in this particular line of ailment.

Any sufferer, regardless of his or her position, can obtain my treatment upon simple and easy terms by confiding in me. I know that I have the complete cure for catarrh and its consequent ills, including asthma, deafness, etc. I want to cure every man, woman, and child that suffers.

In a booklet which is sent to inquirers, entitled *Book of Information concerning My System*, etc., many statements are made in which the modesty of the above claims of "extraordinary ability" and "the complete cure" are quite equalled:

I assert, without fear of contradiction, that mine is the only apparatus which sends the medicated vapour over every membrane that air can reach, and I also assert with equal firmness that there are no preparations for a similar object which can compare in effectiveness with those supplied by me. . . . It is seldom that a sufferer who applies to me for treatment does not mention that he has paid out a considerable sum to doctors, and has never succeeded in getting more than temporary relief. After treating a sufferer until a patient's patience (excuse pun) is exhausted, he, the medical man, usually advises a change of climate or method of living. This is sometimes practically impossible, and can only be adopted at serious and, perhaps, total sacrifice of one's opportunity for supporting his family. He is, therefore, a true martyr—remains where he is, and bears the distress of his asthmatic attacks. I want all such persons to come or write to me. I assert, upon my word of honour, that I have the true cure, and being the genuine—it is the most inexpensive that money can buy.

Such statements about the medical profession are, of course, commonly met with in the utterances of nostrum vendors. It

is not always, however, that contempt for "ethics" is so plainly expressed as in the following:

Because of a narrow-minded custom, which, like other relics of barbarism, will ultimately be swept away by modern ideas, the practitioners of medicine are bound together by a sort of mysterious girdle, outside of which they dare not step. If they do—they are boycotted by their fellows. One of the rules of the medical fraternity is that they may not advertise in the newspapers. They must keep their light hidden under a bushel, and, no matter how skilful they are, they are almost hopelessly smothered by that large, heavy blanket called "ethics." . . . It is a cruel and erstwhile stupid form of "protection"—medical ethics. If a registered medical man dares to advertise, his name is soon struck from the register. My nature is independent—I am frank, straightforward, outspoken, and honest. I may be considered as outclassed by medical men, who choose to remain fettered by the barbaric bonds of so-called etiquette; but I know that I am near to the hearts of my patients, whose shower of letters by every post represents an unparalleled outpouring of sincere gratitude. This is the reason why I stand aloof from medical societies and their old-fashioned rules of etiquette. I advertise—I cure—and the world is the better for it.

Since medical societies consist of qualified medical practitioners, it is just possible that the fact of his not possessing a qualification may be another reason for this gentleman "standing aloof."

"Patient's Report Forms," with a long list of questions to be answered, were sent to be filled up and returned. One of these has a space headed:

Particulars of Previous Treatment.

(Patients should here state what doctors have said about case, and give particulars of treatment previously followed.)

However, on applying for a "treatment" and sending the money, without any particulars of any case, the articles described below were supplied. The price charged was 14s. 6d., but it appears that a larger amount is usually asked at first.

The "outfit" sent comprised:

An atomiser, for producing a spray, with indiarubber ball.

A "nasal irrigator," consisting of a bent glass cylinder for pouring liquid into the nostrils.

Two boxes of "Nebular Tablets," together containing 41.

A box of "Gargle Tablets," containing 21.

A bottle of "Atomising Fluid," containing 1 fluid ounce.

A box of pearl-coated pills, containing 21.

Lengthy directions were enclosed, which may be summarised as follows:—Every morning: One Nebular Tablet is to be dissolved in two tablespoonfuls of warm water and the liquid passed into the nose through one nostril by means of the nasal irrigator until the nasal cavity is full, retained for two minutes, and run out; this is then repeated through the other nostril; then, after gently blowing the nose, the atomising fluid is applied through each nostril by means of the atomiser. Every evening: Repeat the above treatment, then dissolve one Gargle Tablet in two tablespoonfuls of cold water and gargle the throat with the solution. Take one of the pills daily, after the midday meal.

The nebular tablets had an average weight of 20 grains. Analysis showed them to consist of

Sodium chloride	28.3 per cent.
Borax, slightly dehydrated, equivalent to crystalline borax	28.7 ,, ,,
Sodium bicarbonate	29.5 ,, ,,
Sugar	12.3 ,, ,,
Talc	3.1 ,, ,,
Oil of wintergreen—sufficient to impart a fairly strong smell.	

The atomising liquid was shown by analysis to consist of liquid paraffin, with small quantities of menthol and oil of cinnamon (far too small to be determined quantitatively). Traces of other essential oils may have been present.

The gargle tablets had an average weight of 20 grains. Analysis showed them to contain:

Borax, equivalent to crystalline borax	4.6 per cent.
Sodium bicarbonate	87.0 ,, ,,
Sugar	4.0 ,, ,,
Talc	2.1 ,, ,,
Powdered vegetable drug ..... about	1.5 ,, ,,

They had a faint terebinthinate odour, such as might be given by a trace of turpentine. The histological characters of the powdered drug, and the properties and behaviour of the trace of alkaloid extracted from it, agreed with those of powdered hydrastis rhizome.

The pills, being only subsidiary to the other articles, were not fully analysed. They had an average weight of about ⅔ grain, and contained aloin; indications of the presence of jalap resin and podophyllin were also obtained.

The following extracts from "Truth Cautionary List for 1912," with reference to the advertiser of the "treatment" just described, require no comment:

"Colman, Erasmus, Gray's Inn Road, London, W.C.—Under this name Edward Marr poses as a 'catarrh specialist,' and sells an appliance for spraying the nostrils. Asks 15s. at first, but in 'follow-up letters' gradually reduces the price to 7s. 6d. for a three weeks' trial."

"Aural Remedies Co., Craven-house, Kingsway, London, W.C.—One of the numerous aliases of the aural quack Edward Marr, who also exploits the deaf as 'Professor Keith Harvey.' This concern is run on the lines of the late Drouet Institute. It had for 'consulting specialist' the notorious H. H. Crippen, who was executed in November, 1910, for the murder of his wife. Testimonials given to the Aural Remedies Co. have been used for advertising purposes by E. Colman and by Elmer Shirley."

A GERMAN NOSTRUM.

According to Dr. Zernik:

Victoria Asthma Drops are put up by the "Victoria Apotheke" in Berlin, and are supposed to be taken in doses of from 25 to 30 drops during an attack every half-hour, and 25 drops regularly three times a day as a preventive. The bottle contains a brownish-yellow fluid, which was found to consist of tincture of lobelia, tincture of opium, liquor ammonii anisatus, acetic ether, and potassium iodate.

CHAPTER V.

MEDICINES FOR INDIGESTION, CONSTIPATION, ETC.

The present chapter includes the results obtained on examining a number of the most widely advertised pills and other proprietary preparations put forward as remedies for indigestion or as general aperients. The majority of these are in the form of pills, which show much similarity in their composition; aloes or aloin is a constituent of all of them, and is accompanied by one or more of a small series of drugs in regular use, comprising colocynth, jalap, rhubarb, podophyllin, ginger, capsicum, cardamoms, soap, and oils of peppermint, and cinnamon. The secrecy of the formula in these cases does not apparently conceal any facts which would be damaging to the sale of the articles if revealed; but this is, of course, no argument in favour of secrecy. Two others of the articles here described, both in the form of tablets, and put forward especially for indigestion, were found to contain pepsin and diastase, with a small dose of a vegetable bitter aperient; the dose of both the digestive ferments was small, the diastatic action of the tablets being so slight as to be practically negligible. The lengths of mendacity to which advertisers may go when the real composition of their wares is unknown is well illustrated by another nostrum dealt with in this chapter, which is stated to be composed of the active principles of rare herbs growing on the Himalaya mountains, and to have the magical property, when swallowed, of seeking out any organ or portion of the body which is in an unhealthy state and proceeding to cure it. It is further asserted, with the emphasis of

italics, that "it *cures in one dose.*" The booklet in which this pretended treasure is puffed shows the most gross ignorance on the part of the writer, who gravely asserts that 'beetles, spider's web, crab's eyes, tiger's tongue, rhinoceros's horn, and other repulsive objects form part of the materia medica now in vogue with the medical profession," and that "all organic substances defy detection by any means known to chemical science," with much more preposterous nonsense of the same sort. Analysis, however, showed the powder to consist of potato flour, and no other substance could be detected in it.

In the examination of pills or tablets containing mixtures of such substances as aloes or extract of aloes, extract of colocynth, resins of jalap, scammony, or podophyllin, oils of peppermint, clove, or cinnamon, with powdered drugs like ginger, capsicum, cardamoms, colocynth, rhubarb (all yielding extracts as soon as the pills are treated with solvents), and the whole probably massed with the aid of syrup, glucose, liquorice powder, etc., the difficulties to be encountered by the analyst are far greater than in many of the combinations that are dealt with in other chapters; and it is not possible as the result of any reasonable and practicable amount of investigation to assign a quantitative formula for any such combination of articles which are themselves variable, and it may easily happen that some constituents will escape detection, or will be impossible of identification. It is, therefore, better to avoid naming any quantities of the different ingredients found, even when the quantitative determinations (which have been made in every case) have left very little doubt as to the amount of some particular substance present in a given combination. And it must be remembered that with several of the pills other ingredients than those named may have been present in small quantity and escaped detection, though it may fairly be said that this does not apply to powerful or very important ingredients.

MER-SYREN.

This consists of powders which are supplied at 2s. 9d. per box of twenty by Mer-Syren, Ltd., London. There are several indications that the claims made for this article have undergone progressive evolution. The earliest advertisement of it which is before us is a handbill apparently issued three or four years ago, which commences thus:

"They that go down to the sea in ships" and Suffer from the distressing Malady of Sea-sickness will find a Safe and Sure Preventive and Antidote in Mersyren.

Mersyren is a never-failing Rapid Remedy.

Mersyren is not a Drug.

The name at the foot being:

The Mersyren Syndicate,——London, E.C., and Singapore Dispensary, ——Singapore.

A little later a lengthy advertisement in a weekly paper is headed:

Try this "quick cure" for Biliousness and Indigestion—Free of Cost.

The following extracts are from what follows the heading:

Digestive troubles are the curse of the present generation. And drug remedies for digestive ailments are almost a bigger curse still. . . .

Here is a way (and a free way) by which you can absolutely cure your Digestive trouble by a remedy which is neither a drug nor a purgative.

Here is a way by which you can absolutely cure:—

Biliousness,	Indigestion,
Sick Headache,	Liver Trouble,
Dyspepsia,	and other
Gastritis,	Digestive Disorders.

Free of Charge.

Here is a perfect natural remedy which will be freely sent to every reader who writes for it, and which will quickly, almost instantaneously, cure your trouble and enable you to regain that good health, those unburdened spirits, to which, perhaps, you have been a stranger for so very long.

You have heard of "Mer-Syren," of course!

You have heard of it as a non-drug, non-purging remedy for Stomach and Liver Trouble.

But perhaps you have not as yet quite realised what a wonderful remedy it is. . . .

"Mer-Syren" is a *tasteless powder.* It is pleasant to take, and swift and sure in action. It is neither a drug nor an aperient. And it *cures in one dose.*

A little later again appears a whole-page advertisement in a London daily; the heading of the first two columns is—

"Remarkable New Book on Health
by Dr. Pearson.
'How the Body Cures Itself.'"

and the remainder is headed:

"The '10 Minute Mer-Syren Health Lessons.'"

The first part is devoted to a description of the book, and a summary of its twenty so-called chapters. The following extracts will suffice as a specimen:

Originally published at 2s. 6d., a popular Second Edition is now being given free to all who will put to the practical test of personal trial the Author's "10 Minute Health Lessons." . . .

The book tells what every good Doctor knows, but is, for many reasons, unable to tell his patients.

The whole book is written in straightforwardly candid appreciation of the fact that the Layman Needs—and Desires—Health Knowledge of this vital kind. . . .

"Mer-Syren" is the name of a tasteless powder derived from a herb which powerfully aids the health-reparative power of the body.

It is not a pill—not a purgative—not weakening—not stomach-upsetting—but just a "Mer-Syren 10-Minute Health-Lesson" to that part of your body which needs it. . . .

. . . . first of all, get and read Dr. Pearson's book, *How the Body Cures Itself* (by means of the "Mer-Syren 10-Minute Health-Lessons"). . . .

The book itself is free.

You have only to get a 2s. 9d. packet of 20 "Mer-Syren 10-Minute Health-Lesson" Powders.

The "book" is unquestionably the *pièce de résistance* of all this advertising. It is a paper-covered pamphlet of 63 pages, each of the "chapters" referred to in the advertisement occupying an average space of less than three pages. It is described as—

By Dr. Pearson, Author of
"The Liver in Health and Disease,"
"What to Eat and What to Avoid,"
"The Abuse of Phosphorus,"
"The Etiology of Cholera,"
etc., etc.
(Late Principal Medical Officer, North Bhangulpore, India).

Reference to the volume of maps in the *Encyclopædia Britannica* failed to discover any place named Bhangulpore or North Bhangulpore in India.

The knowledge possessed by this "Late Principal Medical Officer," who curiously omits to give his initials, or his degrees or qualifications justifying the prefix "Dr.," may be judged from the following extracts:

This pamphlet has been compiled for the benefit of the myriads of afflicted in every part of the globe, who, after trying the ordinary means of cure at present obtaining to no purpose, are casting about to discover a method of treatment for disease which shall cure their ailments and restore them to their former healthy condition. . . .

This remedy—Mer-Syren—the direct outcome of many years' careful and painstaking study on the part of a few men who may be said to have devoted their whole lives to investigations as to the Cause and Cure of Disease—is assuredly one of the greatest boons ever conferred upon suffering humanity.

The plain fact is that, as regards the nature of disease, the Medical Profession is pretty much where Harvey left it nearly three centuries ago, whilst the means of cure are little better than those employed by Celsus or Galen, and diseases are arranged in a few haphazard groups, as motley and incongruous in their composition and disposition as the various sections of, say, a political party.

We are, therefore, driven to accept the dictum of Hippocrates: "*All diseases spring from one cause, and the types of all diseases are the same.*" This common origin of all diseases is to be found in that condition, which, for want of a better definition, we shall call "*Debility of the Cells,*" either *partial or general.* Systems and theories may follow each other like the waves of the sea, but the trend of medical opinion is setting in this direction, and, to the opinion expressed by the Father of Medicine, all Schools of Medicine must come at last. . . .

The Mineral Acids, Nitric, Hydrochloric and Sulphuric, and Mineral Oils (Petroleum) are in everyday use as remedies, whilst many of the Earths are diverted from the uses for which they were intended by the Creator, and forced into the human stomach. Animal substances, many of the most repulsive nature and origin, are almost universally used by Medical Men the world over . . . . beetles, spider's web, crab's eyes, tiger's tongue, rhinoceros' horn, and other repulsive objects form part of the Materia Medica now in vogue with the Medical Profession. . . .

The old Blue Pill and Black Draught of our forefathers has given place to various Salines and the waters of many Spas in the treatment of Bilious affections, but all to no purpose, the discovery of Mer-Syren ushered in a new era in the History of Medicine; not only so far as the Liver was concerned, but also in the case of many other affections regarding the treatment of which medical men of every school confessed themselves to be nonplussed. . . . Under its specific and benign—yet effective—operation the powers of Nature have been reinforced and strengthened so that she has been enabled to quickly relieve herself from the incubus of disease, and, phœnix-like, arise from her ashes renewed, invigorated, and endowed with all her pristine vitality.

This is the sober opinion gleaned from an experience of one versed in medicine for a period of nearly forty years. . . .

Mer-Syren is composed of the active principles of certain rare plants which flourish in the valleys situated on the southern slopes of the Himalaya, between the immense gorge separating Nepaul from Bhutan on the East, and Almorah on the North-West—the very names of which are unknown to Western Science, and are therefore not included in any Pharmacopœia extant. Mer-Syren, therefore, cannot be imitated either in Europe or the two Americas. Nevertheless, purchasers should protect themselves by observing that the name of the Mer-Syren Company appears on every box, and that the place of origin is clearly stated thereon. The alkaloids upon which its extraordinary and startling effects depend cannot be determined by analysis, as *all organic substances defy detection by any means known to chemical science.* . . .

There are, in fact, no diseased states or conditions in which the use of Mer-Syren does not produce beneficial results.

Thus the "powder derived from a herb" of the newspaper advertisement has become the "active principles of certain rare plants" in the book, just as the syndicate has become the limited company, and the remedy for sea-sickness has become the cure-all:

for Mer-Syren possesses the wonderful property of permeating every part of the organism with the same good influences. Moreover, although its gentle stimulating and strengthening powers are felt throughout the entire organism, yet its specific healing actions are principally directed to any part labouring under diseased or disordered action. By virtue of its unique and specific properties, Mer-Syren immediately operates upon any organ or tissue whose functions may be in any way deranged, or whose structures may be breaking down in consequence of disease. And all structures in either of the two just-named abnormal conditions will instantly respond to the gentle action of Mer-Syren, when every other form of treatment produces no effect whatever.

The directions supplied with the powders were as follows:

For Indigestion and Dyspepsia: Upon rising place two Powders dry upon the tongue and wash down with a draught of hot water. For Bilious Headaches: Take one Powder, or two if the attack be very severe, and wash down with cold water.

In chronic cases it is obvious that in order to effect a complete recovery the Powders should be taken regularly until cured.

The powders had an average weight of 25½ grains. Analysis showed the material to consist principally of starch, with a little broken vegetable tissue. Microscopical examination showed the starch to be that of the potato, while the histological elements of the tissue also agreed exactly with those of the potato. Some raw potato was therefore dried without heat and powdered, and the two powders compared in their behaviour to

a large number of tests, qualitative and quantitative, and also by means of the microscope. The potato which was prepared as described became greyish in colour during the drying, whereas the Mer-Syren powder was of a creamy colour; no other difference was found between them, and no other substance but potato could be detected.

CICFA.

This medicine, which has had four different names, but appears to be called Cicfa at present, is supplied at 1s. 1½d. and 2s. 9d. per package by a London limited company. A 1s. 1½d. package was found to contain 21 tablets, and a 2s. 9d. package 63.

The original name of these tablets appears to have been "Tablones," but in consequence of legal action taken by another firm, whose trade mark this word was considered to resemble too closely, it was changed to "Cicfa." The derivation of this word is supplied by the phrase which occurs freely in the advertisements, "Cures Indigestion, Constipation, Flatulence, Acidity." Later, however, this word was dropped, and the medicine advertised as "Mother's Advice"; more recently still it was advertised as "Tablenes," while now the former name of Cicfa seems to have been re-adopted.

The preparation is advertised in the following terms:

You may eat what you please when you please as your Indigestion, Flatulence and Constipation are not merely Relieved but permanently cured by "Mother's Advice" (Formerly called "Cicfa"). Purgatives often relieve Indigestion and make you feel better for a few days. "Mother's Advice" cures absolutely and permanently, because while purgatives simply remove the undigested food, "Mother's Advice" completely digests everything you eat.

WHY "CICFA" MUST CURE EVERY CASE.

All the tortures of Indigestion, the Acidity and Heartburn, with Teeth on Edge, the Burning Spot behind the Left Shoulder Blade, with pains shooting through towards the Heart, the Heart Palpitation, with Cold Hands and Feet and General Weakness, the Flatulence and Pressure and Discomfort, the rumbling and often excruciating Bowel pain, are all due to your failure to digest your food, and three-quarters of it is due to Failure To Digest Starchy Food Like Bread, Potatoes, Bananas, etc.; but you like to eat those, and you need them, and if you could digest them you would have none of this pain, discomfort, and misery, and you would have all the nourishment which comes from such food when well digested.

You do not digest the food because you have not enough digestive juices in the Stomach and Bowels. "Cicfa" contains just enough digestive material to make sure that the albuminous food like meat, eggs, etc., will be digested in your stomach, and just enough of that wonderful digestive material Which Is Not Found In Any Other Proprietary Medicine which digests all starchy food like bread, potatoes, bananas, etc.

DOSE.—One with the early part of each meal three times daily. Severe cases may take two with each meal for a short time, and then reduce the dose as the cure proceeds.

The tablets had a chocolate-coloured sugar coating; after removal of this they had an average weight of 1.85 grains. Analysis showed the presence of pepsin, diastase, reducing sugar (apparently maltose), a bitter extract agreeing in characters with extract of cascara sagrada, a small quantity of a pungent substance which appeared to be oleo-resin of capsicum, together with talc and a little starch, the last being probably derived from the coating. The digestive power on egg-albumen and on starch was determined; the former corresponded to about $\frac{2}{3}$ grain of pepsin of B.P. strength in each tablet; the material digested about 1.4 times its own weight of starch in half an hour at 40°, which corresponds to a very small proportion of diastase, but as commercial diastase varies much in strength, no quantity can be specified as equivalent; from a comparison of the bitterness and pungency of a mixture made up to imitate the tablets the amount of extract of cascara appeared to be about $\frac{1}{4}$ grain in each, and of oleo-resin of capsicum about $\frac{1}{300}$th grain.

CELMO NO. 2.

This is supplied by the same makers as Celmo, reported on in Chapter I. It is recommended for "indigestion, gouty dyspepsia, flatulence, etc., etc."

A bottle, price 2s. 9d., contained 30 tablets, of average weight 5.8 grains. The principal ingredients were found to be pepsin and diastase. The amount of pepsin was found, by its digestive action on albumen, to be equivalent to about 3 grains of pepsin (*B.P.*) in each tablet. The amount of diastase could only be inferred from the diastatic power of the mixture, but, as commercial diastase is very variable in strength, no exact quantity can be stated as the amount present; the diastatic power was such that a tablet digested 1.9 times its weight of starch in half an hour under the conditions of the test of the *British Pharmaceutical Codex*, so that about 100 tablets would be required to have as much effect in the digestion of starch as an average teaspoonful of a good active malt extract. Maltose was also present, suggesting that the diastase may have been added in the form of malt extract.

A small quantity of a bitter substance was present, which agreed in its characters with Socotrine aloes, the amount being about $\frac{1}{2}$ grain in each tablet. Stearic acid and starch were present in small quantity; these materials are commonly employed as accessories in tablet making. No evidence was found of any other ingredients.

WHELPTON'S PURIFYING PILLS.

Whelpton's Purifying Pills are supplied by a firm in London at 1s. $1\frac{1}{2}$d. per box containing 60 pills.

They are advertised in the following terms:

Indigestion is the primary cause of most of the ills to which we are subject. Hence a medicine that stimulates the digestive organs will relieve quite a number of complaints. Whelpton's Vegetable Purifying Pills arouse the stomach to action, promote the flow of gastric juice, and give tone to the whole system. Headache flies away. Biliousness, Kidney Disorders, and Skin Complaints disappear, while cheerful spirits and clear complexions follow in due course. . . . The occasional or regular use of Whelpton's Pills, by assisting Nature to get rid of superfluous matter, relieves the congested condition of skin and kidneys, and speedily restores the natural functions of these important organs. Whelpton's Purifying Pills are thus a direct purifier of the blood. . . . Daily doses of Whelpton's Purifying Pills will arouse the Liver to proper action, and, by removing the cause of obstruction, speedily restore the general health of the body.

These Pills may be taken at any time, but it is generally found most convenient to take them at bed-time. In ordinary cases two will be a sufficient dose, but three or four may sometimes be necessary according to the age and strength of the patient or obstinacy of the complaint.

The pills had an average weight of $2\frac{1}{2}$ grains. Chemical and microscopical examination showed the presence of aloes (apparently Socotrine), powdered colocynth, ginger, and gentian, the last-named ingredient being less positively indicated than the others. No evidence of the presence of mercury or calomel was obtained.

CHAS. FORDE'S BILE BEANS.

These "beans," which consist of ovoid, coated pills, are supplied by a firm in London. A box, price 1s. 1½d., was found to contain 30 pills, and a 2s. 9d. box 90.

In a circular enclosed in the package they are described as "absolutely unequalled" for biliousness and other complaints, of which thirty-eight are named, including anæmia, piles, influenza, despondency, blackheads, rheumatism, etc. It is further stated that:

Chas. Forde's also cure Fatty and Waxy Degeneration of the Liver, "Hob-nailed" or "Gin-drinker's" Liver (Cirrhosis), and the host of ailments having a common origin in impaired digestion, assimilation, and secretion, and in defective working of the excretory organs. Chas. Forde's are likewise of inestimable service in all the disorders peculiar to women, while as a general aperient and tonic remedy they are unsurpassed.

Chas. Forde's bile beans do not contain a single particle of Mercury, Bismuth, or other poisonous mineral substance, and are also devoid of Aloes. . . .

As a General Aperient.—Two to four beans as occasion may require.

As a Tonic.—One bean after the midday meal, and one upon going to bed.

The pills were coated with gelatine, the coating being coloured black. The average weight after removal of the coating was 2.3 grains.

The statement that they are devoid of aloes appears to be true only if it is taken to refer to aloes itself and not to preparations of aloes, as tests showed very clear evidence of the presence of aloin; other constituents shown by chemical and microscopical examination were powdered cardamoms, oil of peppermint, and wheat flour; some evidence was obtained of extract of colocynth, but not sufficiently conclusive for its presence to be definitely asserted. No evidence of the presence of mercury or calomel was obtained.

CARTER'S LITTLE LIVER PILLS.

These are supplied by a New York firm; they are largely advertised and sold in Great Britain. A package, price 1s. 1½d., was found to contain 42.

They are described on the package as:

Purely Vegetable. For Headache. For Dizziness. For Biliousness. For Torpid Liver. For Constipation. For Sallow Skin. For the Complexion,

and in a circular contained in the package as:

designed to act upon the Liver and Bile in such a manner as to secure all the benefits of a prompt and active medicine, without any of the unpleasant effects which usually attend the use of ordinary liver remedies.

The pills were sugar-coated, and after removing the coating had an average weight of ⅓ grain. Chemical and microscopical examination gave evidence of the presence of aloes (Barbados) or a preparation of aloes, podophyllin, powdered liquorice root, and wheat starch, the last probably from the coating. No other ingredient could be detected.

HOLLOWAY'S PILLS.

These are supplied by Thomas Holloway, London. A box, price 1s. 1½d., was found to contain 49 pills.

It is stated in the advertisement that:

They have positively no equal for thoroughly cleansing the system and putting the liver and kidneys in functional order, without pain or griping.

A pamphlet which was wrapped round the box is entitled:

A Key to Health!!! The Hollowayian System of Medicine and its adaptation for the treatment of many Diseases incident to the human frame.

It appears from the pamphlet that "the Hollowayian System of Medicine" might be summoned up in the words: Take Holloway's Pills; apply Holloway's Ointment. Among the complaints for which this "system" is prescribed are gout, rheumatism, sciatica, paralysis, liver complaints, asthma, inflammation of the kidneys, bronchitis, quinsy, bad legs, bad breasts, ulcers, wounds, sores, tumours, piles and fistulas, the turn of life, floodings and the whites, obstruction of the menses, dropsies, jaundice, youthful indiscretion, impotency, palpitation of the heart, debility, indigestion, constipation, gravel, stone, venereal diseases, influenza, erysipelas, lepra blotches, scald heads and ringworms, scrofula, ague, diarrhœa, etc. The dose recommended in different cases varies from two pills a day to seven pills night and morning.

The pills had an average weight of 1.4 grain. Chemical and microscopical examination showed the presence of aloes (Barbados), or a preparation of aloes, powdered ginger, and soap. There was no evidence of the presence of mercury or calomel.

PAGE WOODCOCK'S WIND PILLS.

These pills are supplied by Page Woodcock, Limited. The price of a box containing 32 pills was 1s. 1½d.

They are thus described in a circular enclosed in the package:

The Most Effectual Medicine Yet Discovered for the Prevention and Cure of Disease. . . .

In all cases of Indigestion, Liver Complaints, Biliousness, Constipation, Palpitation, Debility, Anæmia, Irregularities, Bad Assimilation, Wind in the Stomach and Bowels, Spasms, Heartburn, Giddiness, Disturbed Slumbers, Piles, Toothache, Neuralgia, etc., they will, if taken in accordance with the following directions, effect a positive and permanent cure in the most stubborn and deep-rooted cases.

The directions in various cases are from three to nine pills to be taken daily.

The pills were pearl-coated, and after removal of the coating had an average weight of 1.6 grain. Chemical and microscopical examination showed the presence of aloes (Barbados) or a preparation of aloes, a little ginger, a little soap, a trace of capsicum, and oils of peppermint and cinnamon; some other vegetable tissue was also present, but it did not possess any characters by which it could be identified. No mercury or calomel was present.

SCOTT'S PILLS.

Scott's Pills are supplied by W. Lambert, London, in boxes, price 1s. 1½d., containing 24 pills. A circular sent with the pills is headed:

Bilious and Liver Complaints, Indigestion, Costiveness, Loss of Appetite, Worms, Gout, Inflammations, Rheumatism, Lumbago, etc., effectually removed by the use of Dr. Scott's Bilious and Liver Pills. . . Prepared from the Recipe of Dr. Scott, of Bromley, Kent.

The recommendations for their employment include the following:—

The evil effects arising from intemperance will be prevented if recourse is had to them after excess of eating or drinking. Preparatory to Sea or Cold Bathing they are particularly necessary; by taking a Pill or two for a few nights previous the bowels will be cleansed from any crudities that may adhere to them, and the body rendered in a proper state for the prevention of many uncomfortable complaints. They are also the most excellent alterative and cleanser of sallow complexions, caused by obstructions of the Liver. To seafaring persons they are particularly recommended, as the use of them will prevent many disorders incident to such a life, which

frequently prove fatal. Pregnant women will find them a most efficacious medicine in preventing Bilious Vomitings, Nervous Headaches, and other complaints peculiar to their situation. . . .

Mr. Lambert wishes to impress on parents the necessity of administering these Pills to their children; they will find them a most efficacious Medicine for eradicating Worms, Fevers, Coughs, Inflammations, and all disorders of the Stomach and Bowels; the child will be strengthened, saved from all sickness, and the parents themselves much trouble and uneasiness.

The pills had an average weight of 2.4 grains. Chemical and microscopical examination indicated the presence of aloes (Socotrine) in rather small quantity, ginger, rhubarb, and soap. No mercury or calomel was present.

KER-NAK.

Ker-Nak, or Ker-Nak Pills, are supplied by a company in Leeds at 1s. 1½d. per package, containing 41 pills. They are thus described in a circular accompanying the package:

Ker-Nak is a natural and valuable remedy which marks an important step in advance of old-fashioned purges and drastic mineral pills. These latter, with their mercury, bismuth, and other crude ingredients, only irritate, inflame, and, in the end, seriously injure, the delicate linings of the stomach and bowels. All such mineral drugs, doubtful in their physiological action and paralysing and harmful in their eventual effect, do not in any way, directly or indirectly, enter into the composition of Ker-Nak, which, on the contrary, contains certain essences and oils, the valuable constituents of fresh ripe fruit, together with valuable vegetable extracts and internal disinfectants reputed for their purity and medicinal worth. . . . The unapproachable excellence of Ker-Nak from a medicinal or healing standpoint, as well as its greater suitability for sickness contracted under present-day conditions . . . renders this *natural* treatment, so invaluable in cases of: Constipation, Headache, Indigestion . . . Sleeplessness, Neuralgia, Palpitation . . . Anæmia, and most Female Ailments (in youth, motherhood, middle-age, and declining years), Piles . . . Hysterics, Shortness of Breath . . . Rheumatic Affections, Influenza, and its after-effects. . . .

The lengthy circular concludes with a paragraph headed:

FREE ADVICE.

Any reader in need of sound advice upon his or her own ailment can have, Free of Cost, the assistance of our fully qualified Medical Staff.

Describe in detail all the symptoms of your illness, say how long the illness has lasted, and what you have been doing for it in the past; and have no hesitation in stating fully any matter which troubles you. The medical staff will tell you frankly and in confidence what is the best treatment for you to adopt.

The directions on the package are:

Dose—1 to 3, or in severe cases, two doses of 2 each, one dose at night and repeat after the next mid-day meal.

The pills were coated with orange-coloured pearl-coating; after removing it they had an average weight of 1½ grain. Chemical and microscopical examination indicated the presence of aloes (Barbados) or a preparation of aloes, a little soap, a very little oleo-resin of capsicum, and a little vegetable tissue which appeared to be marshmallow root (used as an excipient). There was no evidence of the presence of mercury or calomel.

COCKLE'S PILLS.

The present maker's name of these is not given, but they are described in the circulars which accompany them as being "Prepared by the late James Cockle, Surgeon and Apothecary, 4, Great Ormond Street, London." A box, price 1s. 1½d., was found to contain 16 pills. It was also stated that:

These pills consist of a careful and peculiar admixture of the best and mildest vegetable aperients, with the pure extract of the flowers of the camomile. They will be found a most efficacious remedy for derangement of the digestive organs, and for obstructions and torpid action of the liver and bowels, which produce Indigestion and the several varieties of Bilious and Liver Complaints . . . these Pills are not recommended as containing any new or dangerously active ingredients; on the contrary, they are characterised by a remarkable simplicity of combination, and whatever merit they may be found to possess depends as much upon the selection of pure drugs and the unusual labour and attention bestowed upon their subsequent preparation, as upon the acknowledged peculiarity of their composition. They are not recommended as a panacea, nor are they adapted to all complaints; but as a mild and efficacious *aperient* and *tonic* in the various forms of Indigestion, with intestinal irregularity admitting their use, it will not, perhaps, be an exaggeration to state that they have been resorted to under all systems of diet, changes of climate, or atmospheric alternations, with an extraordinary degree of success, for a period extending over more than half a century.

The directions vary from "One Pill to be taken an hour before dinner" to "Two or three at any time."

The pills had an average weight of 4 grains. Chemical and microscopical examination indicated the presence of aloes (Socotrine), a little soap, powdered colocynth, powdered jalap, and another vegetable tissue which did not agree in characters with any drug now in ordinary use, and which could not be identified. No evidence of the presence of mercury or calomel was detected.

BURGESS' LION PILLS.

The first volume of this book contained the results of analysis of Burgess' Lion Ointment, and the Pills are a companion medicine. A box, price 1s. 1½d., was found to contain 24 pills. In a circular enclosed in the package it is stated that:

The Pills act beneficially by imparting a healthy action to the Liver and Digestive Organs, removing Obstructions and purifying the Blood, completely renovating the health by expelling and preventing the recurrence of disease. When suffering from Headache, Giddiness, Pains in the Back or Loins, Loss of Appetite, or a feeling of General Debility, these Pills will be found most invaluable.

The directions on the label are "Two to be taken at bedtime."

The pills were pearl-coated; after removal of the coating they had an average weight of 4¼ grains. Chemical and microscopical examination indicated the presence of ipecacuanha, rhubarb, a little jalap, probably aloes (Socotrine), and oil of peppermint, and soap. There was no evidence of the presence of mercury or calomel.

HOOD'S VEGETABLE PILLS.

These are supplied by a limited company in London, in bottles, price 1s. 1½d., containing 34 pills.

They are described on the package as:

The great Liver Invigorator. A mild, efficient carthartic, purely vegetable, unequalled as a family physic and after-dinner pill. A valuable remedy for Liver Complaint, Constipation, Nausea, Billiousness, Headache, Indigestion, Sour Stomach, Distress after Eating, Jaundice.

The directions, given in a circular enclosed in the package, are:

For Biliousness Jaundice, Sick Headache, Constipation, Flatulence, Dizziness, Nausea, and all Liver Troubles, and to Relieve or Prevent Malaria and Influenza. For laxative effect, the usual dose is one, two, or three pills taken at bedtime in a draught of water; for purgative effect, from three to six pills, taken in the same way. . . .

For Indigestion, Heartburn, Distress in the Stomach, Fulness after Eating: The usual dose is one pill taken immediately after eating, in a draught of water.

The pills were sugar-coated, and, after removal of the coating, they had an average weight of ½ grain. Chemical and microscopical examination showed the presence of aloes (Barbados) or a preparation of aloes—probably aloin, ginger, capsicum, colocynth, soap, and probably a little jalap. There was no evidence of the presence of mercury or calomel.

CHAPTER VI.

KIDNEY MEDICINES.

The secret remedies dealt with in this chapter comprise a further selection from those advertised for the cure of backache and kidney disorders. Several of those which were described in the previous report on nostrums of this class (*Secret Remedies*, p. 66) were pills, nearly all containing potassium nitrate and oil of juniper. Of the four pills now reported on, only one contains these ingredients; two consist chiefly of soap and sodium carbonate, and the fourth contains copaiba as the only active substance found; this, although advertised for backache and kidney troubles, appears to be principally put forward for gonorrhœa, gleet, and similar disorders. Neither of the two liquids described in the report appears to contain any very active substance; one of these, of American origin, and stated to contain more effectual doses and more medicine in each dose than any other remedy at the same price, proved to contain 10.5 per cent. of alcohol and 46.5 per cent. of sugars, with only 2.4 per cent. of vegetable extractive, which appeared to be partly derived from cascara sagrada, a trace of oil of wintergreen giving an aromatic flavour to the whole. Needless to say, the claims advanced for this combination do not show more modesty than is displayed in other cases, including as they do the assertions that it cures Bright's disease, expels gall stones, cures impotence, drives malarial poison out of the system, is the best remedy for liver complaint, torpid

liver, and biliousness, and possesses the rarest electric and therapeutic properties in a very concentrated form. The other liquid preparation appears to depend chiefly on magnesium sulphate and potassium citrate, with a very little sweet spirit of nitre and some vegetable extractive in which no active substances were recognised. The extraordinary carelessness with which the ingredients of nostrums may be thrown together is shown by comparing the contents of different bottles; one contained five times as much magnesium sulphate as the other. This preparation is foisted upon the public as an ingredient in a "prescription" which is published in various papers in the guise of an item of information; readers are advised to take it only to "chemists of well-known standing," in order to avoid some other ingredient being substituted for one of those named; probably chemists of well-known standing who received such a "prescription" would take good care to inform the purchaser that one of the ingredients was a secret nostrum and not a recognised preparation of known composition like the others, and our analysis may allow of a little further information being now given. One of the pills reported on is one member of a series called "The Home Doctor Remedies," which furnishes a good illustration of the advantage to the proprietor of a nostrum in supplying directly to the public. In this case the proprietor is a limited company—though using the name of an individual—claiming to be "Specialists in the Treatment and Cure of Rupture," and inviting every one suffering from rupture to submit particulars and measurements, etc., in order to be supplied with an appliance and the application, shown in a previous report to be a tincture of capsicum with certain essential oils, which is to "cure" the rupture. In this way large numbers of names and addresses are doubtless obtained, and the persons applying are not only furnished with particulars of the rupture "treatment," but also—in due course—with the par-

ticulars of "The Home Doctor Remedies" for various disorders, remedies said to have been evolved for the treatment of complications interfering with the cure of rupture; they no doubt provide a remunerative subsidiary business. The pamphlet describing them contains the statement "we have no large advertising expenses, and are thus in a position to exclude all but the very best quality of articles used in their manufacture, and still supply the articles at a reasonable price"; how reasonable the price is may be seen by comparing the estimated cost of the ingredients (about ½d.) with the price charged for the pills (1s. 9d.).

HOLDROYD'S GRAVEL PILLS.

These are supplied by a firm in the north of England in boxes at 1s. 1½d., containing twenty-five.

They are advertised as:

A positive cure for Gravel, Pains in the Back, Dropsy, Diseases of the Kidneys, Gout, Sciatica.

Some extracts from circulars enclosed in the package are:

Have you Pains in the Back, Between the Shoulders, In the Joints? If so, don't go on suffering day after day when you can be quickly and permanently cured by Holdroyd's Gravel Pills, which are guaranteed to give Immediate Relief in all cases of Gravel, Lumbago, Pains in Back, Dropsy, Wind and Water Complaints, Rheumatism, Gleet, Kidney Disease, Gout, Sciatica, etc.

They have never been known to fail and never can. They have cured diseases after long years of suffering, when various remedies, hospitals, and medical men have tried in vain. A steady perseverance with these marvellous Pills has effected wonderful cures.

The directions are:

Two Pills three times a day, morning, afternoon, and night.

The pills were not regularly coated, but had a thick covering of loosely adhering magnesia, more or less impregnated with oil of anise and colouring matter from the pill. After removal of this layer their average weight was 4.3 grains. Analysis showed the presence of oil of anise, soap, sodium carbonate, and powdered rhubarb. The proportions of the different ingredients

were determined as nearly as possible, and the following formula was arrived at:

Soap	40 per cent.
Dried sodium carbonate	20 ,,
Powdered rhubarb	20 ,,
Oil of anise	10 ,,
Syrup	10 ,,

Estimated cost of ingredients for twenty-five pills ⅓d.

DR. DE ROOS' COMPOUND RENAL PILLS.

These pills are supplied by a firm in London at 1s. 1½d. per box, containing fifteen pills.

They are advertised as follows:

Dr. De Roos' Compound Renal Pills have over Fifty years' reputation as the most safe and speedy remedy for Pains in the Back, Gravel, Lumbago, Gout, Rheumatism, Weakness across the Loins, Sandy or other deposits, Stone, Stricture, and Diseases of Kidneys and Urinary Organs generally.

And in a pamphlet enclosed in the package it is stated that:

By their use alone many thousands are annually restored to health, and the agonies of gout and rheumatism may now be considered a voluntary affliction, as no one need suffer these excruciating torments if they will only have recourse to these Pills, which are confidently recommended by the proprietor as the only real specific, and being entirely free from colchicum, mercury, and other injurious ingredients, may be taken with perfect safety by sufferers of either sex. For weakness across the loins, sandy or other deposits, discharges, and diseases of the urinary organs generally, they are altogether unrivalled. They correct acidity of the stomach, promote the functions of the kidneys, thereby preventing stone in the bladder, and many other serious disorders to which these important organs are liable. Many complaints, long supposed to be nervous, often arise solely from contamination of the blood with certain impurities which should have been carried off by the kidneys. Several unsightly eruptions of the skin and face also arise from the same cause, and may be as readily removed by these Pills.

Varying directions are given for different cases, the dose varying from "one or two" to "two or more" to be taken either every night, or every morning, or both night and morning.

The pills were not regularly coated, but had a thick covering of powdered liquorice. After removing this, their average weight was 4.5 grains. Analysis showed the presence of soap (34.2 per cent., calculated as anhydrous), sodium carbonate (19.7 per cent. of the dried salt), a resin (3.3 per cent.), and a

small quantity of vegetable tissue with moisture and extractive. The resin did not contain colophony, and did not show the characteristic behaviour of galbanum, but may have been derived from ammoniacum. It possessed no characters by which its source could be determined. The vegetable tissue appeared to be derived from a leaf, but could not be identified with any drug in ordinary use. No other active ingredient was found.

RED CROSS PILLS.

Red Cross Pills are supplied by a limited company in Liverpool. A 2s. 9d. box was found to contain sixty-one pills.

An advertisement of the pills is as follows:

Red Cross Pills are the Wonder of the Day. Cure for Kidney, Bladder, Backache, Gravel, and all discharge from any cause. 30 years' Reputation. Thousands of Testimonials. Send 2s. 9d. postal order.

A box of the pills was sent for, no reference being made to the purpose for which they were required. They were received by post with the following letter (the punctuation is unaltered):

Dear Sir,

We thank you for your letter, Pills herewith. You will make better progress if you do not touch any intoxicants drink Soda and Lime Juice or a little Claret instead; at home plenty of Barley Water, if can help you in any way, please write to us, and we will do our best for you in the way of advice. With our best wishes for a speedy cure. Yours truly.

The following is an extract from a pamphlet enclosed in the package:

If you suffer from pains in the back and Lumbago, take the Red Cross Pills; thousands have been cured by their use.

If you suffer from Gravel, the Kidneys, and Inflamation of the Bladder, take Red Cross Pills; thousands have been cured by their use.

If you suffer from old standing ailments which are the curse of manhood, and which bring premature decay of Nervous and Physical Strength, such as Strictures, Spermatorrhoe, Nocturnal Emissions, Prostate Affections, etc., etc., take the Red Cross Pills; thousands have been cured by their use.

If you suffer from what is generally known to be red sand deposit in the urine, or urine unclear and cloudy, take the Red Cross Pills; thousands are relieved every day by their use for the same complaints.

If you suffer from want of energy caused by old standing ailments and impurity of the Blood, take the Red Cross Pills; thousands have been cured by their use.

If you suffer from Gonorrhœa, Gleet, or discharges of any description, accidental, recent, or chronic cases, arising from any causes, take the Red Cross Pills; thousands have been cured by their use.

The Red Cross Pills are warranted to be purely vegetable and not to contain a particle of mercury.

Directions are given in which the dose varies from two pills twice a day to three pills three times a day. The pills were sugar-coated, and coloured pink externally. After removal of the coating they had an average weight of 2.6 grains. Analysis showed the presence of a resin (24.3 per cent.) which appeared to be copaiba resin, a much smaller quantity of oil of copaiba, magnesia (about 8 per cent.), with liquorice and starch; no other active ingredients were found. The principal constituent thus appears to be copaiba, from which most of the oil has been removed to facilitate its preparation as a pill, the remainder being apparently of the nature of excipient. Such pills sugar-coated, can be obtained wholesale at less than 1s. per gross.

THE HOME DOCTOR BACKACHE AND KIDNEY PILLS.

These pills belong to a series called "The Home Doctor Remedies," supplied by a limited company in London, which advertises largely a "treatment for rupture." In a previous report (*Secret Remedies*, pp. 158-160) is published the result of analysis of their "Developing Lymphol," supplied as part of the treatment; the connection of this side of the business with "The Home Doctor Remedies" is thus described in a pamphlet sent to a person who had previously purchased an appliance for rupture:

In successfully treating rupture it is necessary to take into consideration the other physical disabilities of the patient as well as devoting attention to the rupture, and as there are some diseases which directly, and others indirectly, affect the cure of rupture, we have found it necessary to give special attention to those which are most likely to delay a cure.

We are not general Patent Medicine dealers, but we are Specialists in the Treatment and Cure of Rupture, and it is to the fact that we give the closest attention to all the various conditions connected with each individual case that we have been able to attain such remarkable success in curing rupture. Whenever we find any complication that has any tendency to delay the cure, we endeavour to overcome this complication, so that the cure of the rupture may proceed without interruption. To that end we have gradually evolved a series of medicines for these complications, accepting none that had not been thoroughly tested and recommended by the best authorities, or that could in any way be harmful to the patient.

The ingredients of each of our formulas are practically all vegetable products, and the formulas themselves are recommended and used by medical men of high standing.

We, ourselves, can strongly recommend these remedies, and patients can use them with confidence, knowing that in them they have the very best that actual experience can produce.

We supply these remedies at Prices which cannot be equalled where results are considered.

There are six other "Home Doctor Remedies" besides the Backache and Kidney Pills. The latter are thus referred to:

Our remedy for backache cannot be surpassed. In nearly every other remedy used it is necessary to gradually increase the size of the dose, as well as the frequency of it. With our remedy the same dose is taken at all times and will give exactly the same results. It is absolutely harmless and will at once relieve all disagreeable symptoms, and induce the kidneys to perform their proper functions.

The price is 1s. 9d. per bottle, post paid; a bottle was found to contain fifty-three pills, ovoid in shape, and coated with gelatine coloured black. After removal of the coating the pills had an average weight of 3.3 grains. Analysis showed the presence of potassium nitrate, powdered capsicum, a very little oil of juniper, with soap, sugar, magnesia, starch, and gum. There was no evidence that the extractive present came from anything besides the capsicum, but a small quantity of some other extract possessing no distinctive characters might have been present. The quantities of the different ingredients were determined as nearly as possible, and the formula was found to be, approximately:

Oil of juniper	3	per cent.
Potassium nitrate	26	,,
Magnesia	8	,,
Powdered capsicum	20	,,
Sugar	17	,,
Soap	1	,,
Starch, gum, moisture, etc., to 100.		

Estimated cost of ingredients for fifty-three pills about ½d.

DR. KILMER'S SWAMP-ROOT.

This preparation is stated to be prepared only by a firm giving a London address; the package, however, bears the words, "made in U.S.A." The price of the small-size bottle is 1s. 1½d., and this was found to contain just over 3 fluid ounces.

An advertisement in an English periodical is headed:

Are your kidneys weak? Thousands of Men and Women have Kidney Trouble and Never Suspect It.

And other statements which follow include:

Most people do not realise the alarming increase and remarkable prevalence of kidney disease. While kidney disorders are the most common diseases that prevail, they are almost the last recognised by patients and physicians, *who content themselves with doctoring the effects*, while the *original disease* undermines the system. . . . In taking Swamp-Root, you afford natural help to Nature, for it is the most perfect healer and gentle aid to the kidneys that has ever been discovered.

On the front page of a pamphlet enclosed in the package appears the following:

How To Find Out.

Fill a bottle or common glass with urine and let it stand twenty-four hours; a sediment or settling indicates an unhealthy condition of the kidneys. When urine stains linen it is evidence of kidney trouble. Too frequent desire to urinate, scanty supply, pain or dull ache in the back, is also convincing proof that the kidneys or bladder are out of order.

What To Do.

There is comfort in the knowledge so often expressed, that Dr. Kilmer's Swamp-Root, the great kidney, liver, and bladder remedy, fulfils every wish in quickly relieving pain in the back, kidneys, liver, bladder, and every part of the urinary passage.

And on the package it is stated that:

This great specific cures Acute and Chronic Diseases of the Kidneys, Liver, Bladder, or Urinary Organs, Kidney Complaint, and all Uric Acid Troubles. Cures Bright's Disease. Dissolves, expels Gravel, Stone in Bladder. It heals and cures Irritation, Inflammation, Ulceration, or Catarrh of Bladder, Blood or Mucus in Urine, Retention of Urine, Pain in Urinating, Frequent Calls, Highly Coloured Urine, Brick Dust in Urine, Stoppage of Urine, Thick, Sluggish, Scanty Urine. Builds up a run down Constitution, and is the *Best Remedy* and most reliable for Liver Complaint, Torpid Liver and Biliousness, Expels Gall Stones, Diabetes, Dropsy. It cures Enlargement of Prostate Gland, Seminal Weakness, Spermatorrhœa, Impotence, Generative Debility, and General Languor. Drives Malarial Poison out of system. Gravel. It removes the causes producing Nervousness, Sleeplessness, Headache, Neuralgia, Slime Fever, Inward Heat and Thirst, and cures when all other remedies have failed. It purifies the blood!

The contents of this bottle is a PURE MEDICINE, and contains *more effectual doses*, and each dose contains MORE MEDICINE than any other remedy at the same price.

Contains the active medicinal properties of Swamp Roots, Field Herbs, Sea Weeds, Native Balms and Balsams, possessing the rarest Electric and Therapeutic properties in a very concentrated form.

The directions on the label are:

May Take one, two, or three teaspoonfuls before or after meals, and at bedtime. Children less according to age. May commence with small doses and increase to full dose or more, as the case would seem to require.

The liquid was brown in colour and turbid, giving a small deposit on standing. Analysis showed that 100 parts by measure contained 48.9 parts by weight of solid matter, of which 46.5 parts consisted of sugars; 10.5 per cent. of alcohol (by measure) was present, with a trace of oil of wintergreen. The mineral constituents only amounted to 0.05 per cent., and consisted of the elements usually found in vegetable drugs; no alkaloid was present. The extractive was bitter, and contained emodin, agreeing in these respects with extract of cascara sagrada. A liquid containing 2 parts of extract of cascara sagrada and 0.5 parts of oil of wintergreen in 100 parts by measure, together with sugar and alcohol in the proportions found in the original, agreed well with it in regard to degree of bitterness and the strength of the wintergreen flavour; but small quantities of extractives of "swamp roots, field herbs, sea weeds," etc., if present, could not have been detected in presence of so large a proportion of sugar and the bitter substance. Definite active constituents could, of course, have been found. The sediment of the original mixture, when examined with the microscope, showed traces of vegetable tissue in considerable variety.

KAROX COMPOUND.

This is supplied by the Karox Manufacturing Company from an address in the north of England, in bottles containing one fluid ounce, price 1s. 1½d.

The method of advertising chiefly employed in this case is the insertion in newspapers of small paragraphs having the appearance of news paragraphs, and so worded as to appear to be disinterested information supplied by the paper to its readers. The following is an example of such a paragraph:

We have recently published a prescription for the relief and cure of Kidney and Liver Diseases, Rheumatism, etc. We regret to learn from some of our readers that in some cases the prescription has not been accurately dispensed, one of the ingredients being apparently substituted by other cheaper drugs for the sake of extra profit. As it is essential

that the prescription should be dispensed accurately if the remedy is to be beneficial, we desire to warn the readers of this paper against such substitution, and would advise them to have the prescription dispensed only by chemists of well-known standing, or purchase the ingredients separately and mix them at home by shaking well in a bottle. The correct prescription is Tincture of Buchu, 1 oz.; Karox Compound, 1 oz.; Syrup of Lemons, 2 oz. Dose: One teaspoonful in a wineglass of water three times daily after meals, and at bedtime.

On the wrapper of the package "Karox Compound" is described as:

A Natural Remedy invaluable for promoting the regular action of the Liver, Kidneys, Bowels, and Kindred Organs, purifying the blood and building up the whole body.

Karox Compound is not a cure-all.

A large proportion of disease is the direct result of Sluggishness of the Liver and Kidneys. and by gently stimulating these important organs it cures Biliousness, Headaches, Constipation, Indigestion, Jaundice, Offensive Breath, Skin Eruptions, Pains in the Back, Female Ailments, etc.

The contents of several bottles of this preparation were examined, and were found to differ very considerably in composition. The ingredients found were magnesium sulphate, potassium citrate, alcohol, spirit of nitrous ether, sugars, vegetable extractive, and faint traces of alkaloid and formaldehyde. The magnesium sulphate varied from 1.45 to 6.87 parts per 100 parts by measure, and the potassium citrate from 4.76 to 6.55; the sugars were about 8 per cent., and the alcohol in one specimen was found to be 6 per cent. by volume. The liquid smelt strongly of spirit of nitrous ether and gave qualitative evidence of the presence of nitrite, but the amount was not sufficient to give any nitric oxide when tested in a nitrometer. The vegetable extractive was between 1 and 2 per cent., but showed no characters indicative of its source. There was a trace of sediment in the liquid, and microscopical examination of this showed the presence of yeast or yeast-like cells and the minute plants known as desmids.

CHAPTER VII.

OBESITY CURES, AND A "FLESH PRODUCER."

A good many nostrums advertised for the treatment of obesity were dealt with in the previous volume of this book, and some of those described which were formerly advertised extensively are now but little in evidence, if, indeed, they have not disappeared altogether; how far this may be due to the exposure which was there made, we are unable to say. But others have appeared on the market, and the extent to which such preparations are advertised suggests either that obesity is on the increase, or that people are becoming more conscious of its disadvantages and, therefore, more ready to lay out money on medicines promising to restore them to normal weight. Somewhat curiously, while advertisements of "cures" for obesity have increased, there have recently appeared numerous and lengthy advertisements of an article intended to cure the opposite condition, that of excessive leanness. In the present chapter we give an account of some nostrums for obesity not previously dealt with, and also of the "flesh producer" just referred to.

It was shown by the analyses published in the former volume that extract of bladderwrack was the basis of several of the medicines described, and the same substance appears in nearly all those now dealt with. Bladderwrack (*Fucus vesiculosus*) is a common seaweed found on and around our shores, and, in common with other seaweeds, it contains considerable quantities of the salts occurring in sea-water, including a small quantity of a compound of iodine; the extract was at one time credited with having some effect in reducing

superfluous fat, but it does not appear to be used at all in legitimate medicine now, and there is no official process for preparing it. Since it contains no definite active constituent and is likely to be very variable in composition, it is not possible to determine exactly the amount that is present in a mixture with other substances. Another drug which has been given for obesity is thyroid extract, or some other preparation of the thyroid gland; this appears to have been present in one or two of the articles examined, but there is the same difficulty in regard to determining the quantity of it present in a mixture, or even identifying it beyond the possibility of question, as that just referred to in connection with extract of bladderwrack.

It is not only in the composition of their wares that the makers of these preparations show similarity of practice; even the devices used in advertising and selling them have a strong family likeness. The plan of giving away a free sample and accompanying it with statements as to the importance of following it up with a "full treatment" are characteristic of nearly all the advertisers dealt with. It is, moreover, quite in keeping with what we are accustomed to find that each should advance the claim that his own preparation, though found on examination to contain the same drug as those of his rivals, is totally different from all others, and that each should claim to be the discoverer of this wonderful substance. The absurdity of the claims becomes more striking when they are brought together. The first of the nostrums described is put forward with the assertions, "I know I have found a cure at last," "My method is unlike any other." The next maker says that his pills "in any case will do more to reduce corpulency than any other remedy extant," and they "present a striking contrast to many so-called remedies so freely offered at extravagant prices to the public, some of which are useless and others dangerous." A third calls his "the only safe and certain remedy," "the most remarkable scientific discovery of the present age," and

guarantees to cure; and so on. Such vague titles as "specialist" and "certified chemist" are so used as to imply that they are qualifications; and the usual feature, exorbitant price—the mainspring of the whole business—is, of course, conspicuous, drugs costing a few pence being supplied for various sums up to £2 1s. 1d. One advertiser appears to have hit on a little novelty with the claim that "my remedy is a woman's cure for women only. Nobody but a woman could have discovered it, and it is offered to women only," while a certain amount of originality must be allowed to the statement, emanating from the same source, that, "what happens in these cases" (of heart failure) "is fatty penetration of the heart, which leads of syncope."

A. GORDON WALLACE'S "TREATMENT."

This is advertised by A. Gordon Wallace, London. It is priced at one guinea for a month's "treatment," but as the first fortnight's medicine is supplied free, the actual amount to be paid for it is 10s. 6d. The following extracts from advertisements will show the nature of the claims advanced :—

ARE YOU TOO STOUT?

Famous Obesity Specialist tells how everyone can lose Superfluous Flesh and Improve their General Health. . . .

If you are one of the thousands of much-enduring men and women who are unhealthily stout, or growing too stout, this article will bring new hope to you. If your appearance is marred by a double chin, or an ungainly bust, or a protruding abdomen, or any other disagreeable evidence of Obesity, here is an offer that will help you to remove the ugly defects in your physical appearance. If your health is threatened—as it must be—by superfluous flesh, which generally carries in its train gout, or rheumatism, or palpitation, or "fatty" heart, or some other serious ailment, read and profit by this advice from a famous Obesity Specialist. . . .

I do guarantee to reduce your weight safely and scientifically, and strictly according to well-defined and recognised physiological laws, if you will conscientiously follow out my directions while you are taking a course of my Treatment.

Medical men have, on their own admission, been so far baffled for A Real and Effective Cure that will bring in its train no other injury to the patient's system. I know I have found a cure at last. I know

what it has done for thousands of others and I know it will do the same for you. All you need do is to write to me to-day, and you will receive my book, which will be of invaluable service to you, by return post, free of charge. . . . I will send securely and privately packed, to any reader who forwards me 3d. for postage, a full-size fortnight's package of my remedy free of charge. . . . You will not have to wait for weeks, or even days, before deriving benefit. You will experience at once a wonderful feeling of lightness and brightness; you will be able to walk longer distances without being fagged; your heart will beat more regularly; and your breathing will be better.

The "fortnight's package" was accompanied by a letter, of which the following is a part:

As a rule, One Month's Treatment is sufficient, though, of course, I need scarcely say that in some cases the Treatment must extend to two or even three months, in order to secure complete and permanent results. My usual fee for an ordinary month's course is One Guinea (credit, of course, being given for the cost of the free fortnight's trial treatment enclosed), and on receipt therefore of P.O. for 10s. 6d., together with the accompanying Consultation Form, fully filled up, I will at once formulate and send you the directions and various preparations suited to your requirements, thus enabling you to complete the full month's course at half price without any interruption.

The second fortnight's treatment really begins the actual flesh-reducing portion of my system following upon the elimination of the impurities that are robbing you of your vital Nerve Force, and I would emphasise the importance of this continuity of treatment to ensure a satisfactory reduction of your superfluous flesh, and also generally improved health.

The "book" referred to was also sent; it is a small paper booklet of about fifty pages, entitled "Obesity: Cause and Treatment. By A. Gordon Wallace, Specialist." This curious qualification is the only one that is mentioned on the title page; but on page 33 the following appears under the heading

In Plain Language.

It is apropos for me to here mention that I am a physician holding diplomas by examination, and I have made the cause and treatment of Obesity a special study. My methods of treatment are based on sound physiological grounds, and not merely tentative or empirical.

This little treatise is not an essay such as I would deliver before a medical society, but is a talk to the laity, therefore I purposely avoid the use of technical language. I am to discuss the subject here in as simple a manner as I possibly can so that everything will be clearly understood. I am confident that this method of stating the facts will be appreciated.

On other pages it is stated that

My method is unlike any other. I give my patients a true physiological treatment that restores lost Nerve-Force, and Nature does the rest.

My Treatment allows you to eat what you like and drink what you like.

The "fortnight's package" contained 54 sugar-coated tablets. The directions on the label were "Two Tablets to be taken three times daily between food." At this rate the "fortnight's" supply would last nine days.

After removal of the coating, the tablets had an average weight of 2.9 grains. Analysis showed them to consist of an extract and a vegetable powder; the extract agreed in characters with extract of bladderwrack (*Fucus vesiculosus*) which is the basis of a great many of the nostrums for obesity; although this extract is not known to contain any definite active principle which can be isolated and identified, its mineral constituents differ so much from those of most vegetable extracts that a careful examination of these, together with the characters of the extract itself, enable it to be identified with practical, though not absolute, certainty. The vegetable powder was found by microscopic examination to consist of liquorice root, together with a large proportion of the cells characteristic of powdered nutshells, olive stones, etc.; the cheapest liquorice powders in the market are largely adulterated with powdered nutshells and olive-stones, and this fact may perhaps account for the presence of the tissues in question. The quantity of extract in each tablet was about 2 grains. Similar tablets can be obtained wholesale at about 1s. a thousand.

Some further information with regard to this "famous obesity specialist" appears in Chapter XIX.

DR. VINCENT'S ANTI-STOUT PILLS.

These pills are supplied by Dr. Vincent's Medicine Co., London, at 2s., 4s. 6d., and 10s. per box. A 2s. box was found to contain 38 pills.

In an advertisement of these pills it is stated that

One 2s. Box of Dr. Vincent's Anti-Stout Pills has in hundreds of instances completely cured, and in any case will do more to reduce corpulency than any other remedy extant.

Dr. Vincent's Anti-Stout Pills are small, harmless, pleasant to take, and without change of diet will reduce superabundant flesh as much as 10 lbs. in a week.

A printed circular and a circular letter were sent with the pills, and the following are extracts from these:

Dr. Vincent's famous and most successful method for the elimination of superabundant flesh is now well known throughout the English speaking

world. . . . Where a fair trial has been given it has never been known to fail. . . . The pills are purely vegetable, and present a striking contrast to many so-called remedies so freely offered at extravagant prices to the public, some of which are useless and others dangerous.

Every case is amenable to my treatment if two simple rules are followed. First, the treatment must be carried on with regularity, and second, without interruption. . . . Naturally you want to complete your cure and I have a special offer to make you. The Ten Shilling Box of Dr. Vincent's Treatment is usually sufficient for a complete and lasting cure, and so as to encourage you to continue the process of reducing your weight, I shall be pleased to send a Regulation Full Size 10s. box for a remittance of 8s. In other words, I allow you the 2s. you have paid for the Trial box sent herewith off the price of the 10s. Treatment, if you apply within 21 days of the date of this letter.

(The letter, however, was undated.)

The directions on the box are: "Dose—Two Pills every night, also One Pill every morning."

The pills were coated with talc; after removal of the coating they had an average weight of 2.6 grains. Nearly half the mass consisted of "extract"—apparently a mixture, about 15 per cent. was resinous in nature, and the remainder consisted chiefly of the tissues and cell contents of powdered vegetable substances. The nature of these was investigated with the aid of the microscope, and from the histological characters of the powder, together with the results of tests applied to the pill, evidence was obtained of the presence of

Jalap
Colocynth
Cloves
Aloes, or extract of aloes
Extract of *Fucus vesiculosus*

The last named could not be identified as fully as in the preceding case, owing to its being present in not very large proportion in admixture with the other drugs named, but the evidence for its presence appeared adequate.

It is not possible in such a mixture to give with any certain near approximation the proportions in which the different ingredients were present.

PHATOLENE TABLETS.

"Phatolene" Tablets are sold by the Phatolene Co., Ltd., London, at 6d., 4s., and 10s. per box.

An advertisement of these tablets is in the following terms:

Don't be fat when Phatolene Tablets will cure you absolutely. The only safe and certain remedy. Registered by Government. Thousands of Testimonials. Phatolene Tablets are guaranteed to cure you of stoutness without starvation, aperients, or interference with your ordinary method of living. Phatolene Tablets are the most remarkable scientific discovery of the present age. Phatolene Tablets are an aid to health, make you look younger, and produce a charming figure. We are so confident that Phatolene Tablets will reduce your weight daily that we offer to send you a large trial box in return for a sixpenny postal order only.

The box which was sent bore no patent medicine stamps, and so presumably "registered by Government" refers to the name being registered as a trade-mark; it is clearly intended to suggest much more than this. A letter sent with the "trial box" was headed:

The Phatolene Co., Ltd.
(Sole Agents for the Discoverer of the "Phatolene" Remedy),
F. Lawrence, Manager and Certified Chemist.

It should be observed that "certified chemist" is not a legal qualification, and may mean anything or nothing; it is not to be confused with "registered chemist and druggist" or "pharmaceutical chemist." Some extracts from the letter are:

As a chemist of over 20 years' practice I have often been personally consulted by my clients of both sexes in regard to obesity and local overfatness. But it is even more pleasure to me to come in touch with those who prefer to do so under the Government-guarded secret service of His Majesty's Post Office. . . . As a matter of fact I have to charge more if people use up my time as well as their own in personal consultations. And there is no necessity for this time-wasting or money-wasting, as I know that my Phatolene discovery will succeed in your case as it has done in others. . . . My One Week's Trial Supply is not sufficient, of course, to overcome a bodily condition that may have been developing for nearly a year. My Phatolene reduces all fat within the body at a steady and safe rate, and one, two, or three months' supply is sufficient to restore all but the unusually fat to their proper size, weight, and appearance.

What quantity may I send you? For your guidance I may point out that my experience enables me to inform you that you will require the following quantities according to these conditions.

If you have been fat or growing fat less than one year, you will require one month's supply for 4s., post free. If fat or growing fat one year, and not two years, you will require three months' supply for 10s., post free.

From a second letter:

To cure any ordinary case takes about 12 weeks, for if the reduction is forced in a more violent way the stoutness is sure to return and thus you gain only a temporary relief, and you should therefore take advantage of our 12 weeks' treatment, which will cost you 10s. only. . . .

You are aware I have made a study of obesity, and you can naturally understand I am interested in your case and shall be only too pleased at all times to answer any questions on the subject, but please enclose stamped directed envelope.

In a leaflet enclosed with the package occurs the following impudent attempt to make it appear that the nostrum has the support of medical practitioners and of the British Medical Journal:

The Treatment of obesity should not be quick, but slow. To attempt to reduce superfluous fat by violent or sudden means is dangerous, especially if the heart is at all weak, and this is why medical men invariably recommend Phatolene Tablets. . . . Doctors cannot dispute the fact that this preparation has for a long time had the reputation of reducing corpulence.

The Practitioner says: "Taken three times a day reduced the fat of a lad who had suddenly become corpulent."

The British Medical Journal: "Given to lessen fat with good results."

Again, the same Journal says: "Given with good results and does not produce dyspepsia or diarrhœa. A lady lost 20 lbs. in 9 weeks when taking this, and a gentleman 8 lbs. in 3 weeks without bad results."

It is scarcely necessary to say that neither the nostrum in question nor any other has ever been referred to in the British Medical Journal in the terms quoted.

The directions on the package are:

Dose.—For the first week take one tablet three times a day, and afterwards increase the dose to three Tablets three times a day, one hour before meals. Can be swallowed whole or allowed to dissolve in the mouth.

The "tablets" were really ovoid pills, coated with talc and coloured brown externally. The "6d. trial box" contained twenty-one. After removal of the coating the pills had an average weight of 2.7 grains. Analysis showed them to consist of an extract agreeing in all respects with extract of bladderwrack (*Fucus vesiculosus*), together with about 10 per cent. of powdered liquorice root. No other ingredient was found.

KELLOGG'S SAFE FAT REDUCER.

Kellogg's "Safe Fat Reducer" is an American preparation, supplied by F. J. Kellogg, Michigan, U.S.A. It is also advertised in Great Britain, and the following extracts are from an advertisement appearing here:

4/- Box of my Safe Fat Reducer Free.

I Want To Prove To You Before Your Own Eyes and At My Expense That I Can Reduce You to Normal Weight Safely, Without Starvation Diet or Tiresome Exercises.

It Doesn't Matter What You Have Tried, Send for This Free 4/- Box of my Safe Fat Reducer To-day.

My treatment is prepared scientifically. It does not stop or hinder digestion; on the contrary, it promotes proper digestion and assimilation of food, which 99 fat people in a hundred haven't got, and that's why they are fat.

On applying for a sample, it was sent accompanied by a circular letter, and this was followed by others at intervals. Some extracts from these are here given:

Of course, I do not promise that this 4s. treatment alone is going to cure you of all your fat, but I want to start you on the treatment without any expense to you so that during the next few days it will put your system in such a condition that the next treatment may produce results without any waste of time.

You have a right to feel sure that Kellogg's Safe Fat Reducer is safe. You can depend upon it that it is positively safe, and you need never fear that it will reduce you too much.

Kellog's Safe Fat Reducer builds up the entire system from one of fatty weakness to muscular strength, and the results have been that it makes patients grow remarkably healthy as they continue the treatment.

Excess fat, I found, is the result of mal-assimilation of food. My Kellogg Safe Fat Reducer stops this defect; it prevents the stomach from its unnatural tendency to produce fat; it makes the stomach "mill out" the food into muscle fibre, bone, nerve tissues, brain pigment, and rich blood instead of fat; it resolves the unnatural fat you have and expels it naturally and harmlessly through Nature's channels.

As a result there is no other treatment in the world like Kellogg's Safe Fat Reducer. It does not interfere in the least with your business. You don't have to diet yourself, but you can eat all you want. You don't have to go through any tiresome exercise at all. All you have to do is to be faithful to the treatment, take it according to directions and go about your work as usual; then you should be happy in feeling that the reduction will be sure to come in a few days, that you will be healthier than ever before, and more muscular, energetic, and athletic. A loss of a pound a day is nothing unusual, and will by no means hurt you. . .

Now that I have started you on the treatment, I want you to continue. I will send you a full treatment of my Kellogg's Safe Fat Reducer for only £2 1s. 1d. There is positively no doubt of the result. And I know you will appreciate it when after a few days you will be able to note a distinct relief from the heavy burden you are now carrying, and the terrible dangers of apoplexy and paralysis, which threaten all fat people, are lifted from your mind forever.

From the second letter:

I make each case an individual case, thus I have to have the enclosed blank filled out, so that I may understand exactly the conditions, and thus employ the means that will most rapidly, and at the same time safely reduce your fat and make strong, healthy tissue and muscle. . . .

The price of the treatment is but £2 1s. 1d. Order it to-day, and be free from your heavy weight in a few weeks. Don't stop to figure or argue with yourself. I hope to receive your order by return mail, but if you cannot order write me frankly what stands in your way of securing a reduction.

From the third:

I really cannot understand why you do not order my wonderful treatment, and begin at once to reduce your fat that has so long been a bother and annoyance to you. . . . I have given much thought to your case [no case had been even mentioned in sending for the sample] and I feel sure if you still had any doubts of the splendid power of my remedy to reduce you of fatness, you would have written me fully at once. As I have not received any letter from you, I have concluded that you do not feel that you can afford to take the treatment at present. I believe so positively that I can reduce you, and I feel so sure that you would appreciate fully the splendid reduction I will give you, that I am going to make you a strictly confidential proposition, by which you can secure the treatment you so much desire, and at the same time do me some good.

You certainly know a number of people in your vicinity who are annoyed by fat, and who would be glad to know of my treatment, so if you will send me £1 8d. and the names of six fat people I will send you a regular full month's treatment. Remember I do not ask you to become my agent, and I shall not refer to you in any way when I write to your friends or acquaintances whose names you send me . . . . if you have not got the money by you, it seems to me that it would be no more than right to go to some dear friend and ask a favour for a short time. Surely no one could refuse you when it means your health and happiness.

The "trial box" sent contained 16 tablets and 6 "casca beans," recommended as an aperient; the latter were not examined. The directions are "Eat one tablet before each meal and one at bed-time, thoroughly masticating them before swallowing." The tablets had an average weight of 70 grains each; analysis showed them to contain starch, dextrin, a sugar (glucose or maltose), protein, mineral salts, vegetable tissue, and a small quantity of an organic compound containing iodine. The proportions of the different constituents were determined as far as practicable, and the figures obtained, together with microscopical examination of the tissue, showed that the tablets consisted principally of wheat flour from which much of the starch had been removed, made into a coherent mass by means of malt extract or glucose; traces of the germ or embryo of the wheat were found. All this is, of course, a vehicle for the organic substance containing iodine; both thyroid gland (or its extract) and extract of bladderwrack are characterised by containing iodine in combination in small quantity, and many tests were employed to ascertain which was present; no other evidence of extract of bladderwrack was obtained, but there

was a good deal of evidence, not quite amounting to positive proof, of the presence of a preparation of the thyroid gland. It is impossible to state the quantity present in each tablet, and it would convey no real information if it could be given, as preparations of thyroid may differ so widely in their activity and no standardisation has as yet been attempted.

"NORMAL" PILLS.

These are supplied by the Normal Powder Company, Beauty Specialists, at 10s. 6d., a "trial box" being priced 6d. They are advertised in the following terms:

Too Stout!

Simply follow our instructions and we will guarantee a perfect cure. Our treatment is in every way as scientific and complete as that for which a London Specialist charges £21.

FREE OFFER!

To prove the great value of our remedy we will send you a large trial box —14 days' supply—Free on receipt of 6d. P.O. to cover cost of packing and postage, etc.

The 6d. box was accompanied by a "chart, to be carefully filled up," for particulars as to weight, measures, etc., and the following to be signed by the purchaser:

I duly received your "free" sample of the "Normal" Pills quite safely, and since using them I have lost —— lbs. in weight. I quite understand that the cure cannot be completed without continuing the treatment for some time, and in conjunction with the London Specialist's diet instructions, which I promise to faithfully follow out. Please send me per return, carriage paid, in plain wrapper, a large box of the Pills and the instructions which cost you £21. I enclose you cheque or P.O. for 10s. 6d. as requested.

The box, which bore no label, contained 83 pills, which were coated with talc. After removal of the coating their average weight was found to be 1.28 grains; analysis showed them to consist of a mixture of extracts with vegetable powder. The powder consisted partly of liquorice root, with a large proportion of the tissues characteristic of ground nutshell, which, as mentioned above, is a regular adulterant of the lowest grade of liquorice powder; the microscope also gave indications of traces bladderwrack (*Fucus vesiculosos*), such as are contained in extract of this substance. Various tests indicated that the

extracts present in the pill were those of cascara sagrada and bladderwrack the proportions being approximately as follows:

Extract of cascara sagrada	¼ grain
Extract of *Fucus vesiculosus*	½ ,,
Powdered liquorice (adulterated)	¼ ,,
Talc and moisture	¼ ,,

in one pill.

MRS. SEYMOUR'S TREATMENT.

This is supplied by Mrs. M. Seymour (London), at 15s.

An advertisement of this preparation is headed "A woman's offer to over-fat women"; some extracts from it are as follows:

I invite other ladies to participate in a discovery which reduced me 4 st. 8 lbs. and got rid of my ugly double chin. . . . My remedy is a woman's cure for women only. Nobody but a woman could have discovered it, and it is offered to women only. . . . I am presenting 5,000 free boxes of my cure and copies of my book, *Obesity in Women*. I ask you to post the coupon below to me now and accept one of these free packages. . . .

The passages which follow are from the "book" in question:

Every one of the cures I have made is a proof of the all-important fact that obesity in women is a different ailment from corpulence in men. It has an absolutely different origin. . . . There is no case of obesity in which heart trouble has not been reckoned with. . . . It is heart failure that is responsible for 75 per cent. of cases which end fatally. What happens in these cases is fatty penetration of the heart, which leads of syncope. . . .

Obesity is always due to imperfect nutrition. The food which is eaten makes fat instead of healthy tissue, muscle, bone, and nerve. Up to a certain point the process of nutrition (whereby the food is transformed into the constituents which make up the various parts of the body) is practically the same in women as in men. Beyond that point it is obviously an entirely different process, for the generative organs then become involved.

Now the all-important secret which governs the whole subject of obesity in women is this: Obesity is caused as the result of a species of mal-elimination in those stages of the nutritive processes wherein the organs peculiar to the sex are involved. In other words, the unhealthy, fat-forming process is set up because of the imperfect disposal of those nutrient elements with which the menstruous organs are concerned.

You are certain to have noticed how any marked stage or change in the functions of the menses will influence fat formation. For instance, girls who from childhood are inclined to fatness invariably become of normal proportions on attaining puberty, while at least 70 per cent. of the cases of obesity in women occur at the menopause, between the ages of 40 and 50.

Now there are changes connected with the organs under consideration which occur without any outward or visible signs—changes which induce obesity. These are changes which result in the fat-loading of the blood, and the depositing of fat in the different parts of the body as the blood circulates. . . . Please remember that I treat women only. I have no cure for corpulence in men.

The free sample which was sent with the book consisted of nine capsules containing a dark extract of bitter taste. The quantity in the sample was not sufficient for analysis. A "symptom form" was received with the sample; on sending for a further supply, a letter was received asking for certain particulars, and the symptom form was accordingly filled up as follows (the words in italics are the answers given):

Age.—*38.* Weight.—*13 st. 13.* Height.—*5 ft. 7½ in.* Waist.—*33 in.* Bust.—*42 in.* Hips.—*50 in.*

How long have you been about this weight?—*Gradually increasing for a year or two.* What parts are fattest?—*Abdomen and bust.* Constipated?—*No.* Have you backache or any kidney trouble?—*No.* Palpitation?—*No.* If married, how long?—*14 years.* How many children?—*3.* Age of youngest?—*5.* Any sediment or peculiarity about the urine, etc.?—*No.* Had miscarriage?—*No.* What is your general health and condition now?—*Fair.*

The medicine which was sent in reply was not capsules, but sugar-coated tablets, 169 in number. Directions were given as follows:

There are sufficient tablets for you to take four each day, one just before each meal. If you only take three meals—and I strongly advise you to—take two tablets before the heaviest meal.

I want to impress upon you the great importance of keeping the bowels perfectly free all the time you are taking this treatment. For a day or two the treatment itself may keep the bowels open, but afterwards most ladies require an aperient. I have made many experiments, and I find there is only one way to keep the system clear without hindering the process of reduction. Pills, Epsom salts, cascara, etc., are quite useless. You must have genuine Vichy and Kissingen salines. You can get them in powder form of any good-class chemist, but they must be guaranteed full strength, be saccharine-sweetened, and contain no sugar.

Take them, dissolved in water, half an hour before breakfast, as follows:—A Vichy powder the first morning, none the second morning; a Kissingen powder the third morning, none the fourth morning; a Vichy powder the fifth morning, and so on. If you prefer to purchase the powders from me I can supply you with sufficient to last the six weeks' treatment for 3s. 6d., post free. I can guarantee these to be full strength, and exactly suited to the purpose.

Get into the habit of breathing deeply. Take at least a hundred deep breaths in front of the open window every morning on rising. Breathe deeply whenever you think of it. It will soon become habitual. For exercise take a gentle walk every day.

I have just one other suggestion to make in your case, and that is in regard to food. You will find on page 15 of my booklet particulars of the foods and beverages I avoided during the first month of my cure, and I strongly advise you to do as I did in this matter. I also advise you to eat only bread, cakes, etc., made from gluten flour; that is, flour from which the starch has been removed. Masticate your food thoroughly. Always stop eating just before you feel you have had enough, and wait until you have finished eating before you take anything to drink. Drink as much hot water as you can between meals.

The tablets were sugar-coated, and of a bluish colour externally. After removal of the coating their average weight was found to be 4 grains. Examination showed that they consisted, wholly or in part, of roughly ground up sugar-coated tablets or pills, the coating of which was coloured pink; since the coating of these had been ground in with the tablets, it was not possible to separate it, and the mass accordingly contained a good deal of sugar and starch; besides these, an extract was found agreeing, as far as its characters could be ascertained, with extract of bladderwrack; a trace of iodine in combination was present, such as is found in preparations of bladderwrack and of thyroid gland; also a very small quantity of boric acid, and a little vegetable powder. Part of the last-named showed the characters of the débris of a seaweed, though it could not be definitely indentified with *Fucus vesiculosus*; a further small portion, amounting to an extremely small proportion of the whole, consisted of woody tissue which did not agree in characters with any drug in common use. The boric acid points to the probable presence of an animal gland or a preparation of such, and some collateral evidence was obtained of the presence of thyroid in small quantity, but definite proof of the latter is impossible in such a mixture.

A "FLESH PRODUCER."

SARGOL.

A preparation named Sargol has been very widely advertised of late for the increase of flesh and development of the figure of persons who are too thin; the advertisements often include pictures intended to represent the results to be attained. One of these advertisements is headed:

We invite every thin man, woman, and child here. Every Person in the British Isles to Eat With Us at Our Expense.

Other extracts are:

This is an invitation that no thin man or woman can afford to ignore. We'll tell you why. We are going to give you a food that helps digest the other foods—a food that puts good solid flesh on people who are thin and underweight, no matter what the cause may be. A food that makes brain in five hours and blood in four—a food that puts the red corpuscles in the blood which every thin man or woman so sadly needs. . . .

Chew one up with every meal, and in five minutes after you take the first concentrated tablet of this precious food it will commence to unfold its virtues, and it will by actual demonstration often increase the weight at the rate of one pound a day.

Application to the Sargol Co. at the address given brought a small package of the tablets, with a circular letter, which was followed at intervals by others. We subjoin a few sentences from these lengthy documents:

Whether your lack of bodily weight comes to you by inheritance, by overwork, by indoor occupation, or no matter what you have done or how many ineffectual preparations you have tried, Sargol will be a revelation to you. . . .

Remember; until the discovery of Sargol, nothing has ever been known which could be depended upon to put 10, 15, and even 30 pounds of permanent, healthy tissue on a thin person's body.

As we receive so many letters from people who say they have been disappointed and deceived by so-called fatteners we think it is best to take you into our confidence and give you some of the inside facts relative to Sargol. By a recent discovery it is now possible to reproduce chemically a very important natural fatty substance which is found in the yolk of eggs, in the roe of fishes, in the blood, also in the brain and nerve tissue of human beings. This substance can now be obtained in a highly concentrated form in combination with other valuable vitalising and tissue building agents. . . .

Each dose of Sargol contains a generous amount of this newly discovered substance, the very element which thin folks lack. Each time you take a Sargol tablet you are introducing directly into your system in concentrated form the actual fat forming substance which you so sadly need, and yet this is but one of the component parts of Sargol. Five other strength giving, fat producing elements of known and acknowledged merit and great potency are carefully combined to form this peerless preparation.

A box of Sargol, price 4s. 6d., was found to contain 30 tablets; it is strongly recommended that a six weeks' supply, equal to six 4s. 6d. boxes, should be obtained, the price of this being 21s. The directions are:

1. Take one tablet with each meal and one at bed-time. 2. Be reasonable as regards diet.

The tablets were sugar coated and coloured pink. After removal of the coating they had an average weight of 5.3 grains. Analysis showed them to contain lecithin, hypophosphites of calcium, sodium, and potassium, zinc phosphide, sugar, albumen, and insoluble protein, with talc and kaolin or similar mineral matter, evidently added as excipient. In the course of the analysis it was necessary to obtain more than one supply of the tablets, and the different specimens showed a large variation in the proportions of some of the ingredients. The amounts actually found were:

Zinc phosphide	0.7 per cent.
Lecithin	1.9 ,,
Calcium hypophosphite	12.9 ,,
Sodium and potassium hypophosphites	7.7 ,,
Albumen (soluble)	4.2 ,,
Insoluble protein (? coagulated albumen)	10.8 ,,
Sugar	18.0 ,,
Talc, kaolin, moisture, etc.	

Estimated cost of materials for thirty tablets, about 1¼d.

CHAPTER VIII.

MEDICINES FOR ALCOHOLISM AND FOR THE TOBACCO HABIT.

The "treatments" for the drink habit described in this chapter include some which have only recently been advertised in this country; two of them are of American origin. With these we include an account of a "cure" for the tobacco habit, supplied by the same limited company as one of the drink cures. It will be seen that with the three first described the claims advanced are a good deal alike, but the drugs used are almost entirely different. Each of the preparations is supplied in two forms, the one to be taken voluntarily by patients desirous of being cured, and the other to be administered without the patient's knowledge; obviously, if a cure can be effected in the latter way, there can be less hesitation in ascribing the result to the drugs than when the patient has exercised his will in the same direction, and the preparation for secret administration was therefore selected for analysis in each case. The first of the articles examined was found to consist merely of powdered cinchona bark, diluted with milk-sugar and magnesium carbonate; of this it is asserted that "it does not contain any drugs, poison, or minerals of any description," although cinchona is generally regarded as a drug and magnesia as a mineral; since the dose of cinchona which is given is only 6 grains a day, containing about $\frac{1}{8}$ grain of alkaloids, it is scarcely to be expected that any great result will be obtained from the administration of this preparation. In the next article described, which appears to be of American origin,

tartar emetic is the only active ingredient found in the powders and tablets. What is evidently aimed at is to produce nausea or vomiting, and to lead the patient to associate these symptoms with the consumption of alcoholic liquors. Much is said about the "treatment" being capable of curing any case in three days, and it purports to be made and sold by an individual who was cured by it in three days, after having been a heavy drinker for sixteen years. If the statements are carefully read, it does not appear to be definitely asserted that the "B treatment," that is, the remedy which is administered secretly, will effect a cure in that time, although the impression might easily be received that three days will suffice, "between Friday night and Monday night, or any other 72 hours," whether the patient is treated with or without his own knowledge and co-operation; but when the money has been paid and the medicine is sent, the purchaser is urged to have patience and not to be discouraged if months should be necessary for the accomplishment of a cure. In the advertisements, letters and circulars, the first person singular is largely used, and they are ostensibly issued by the individual by whose name the preparation is called, and who is said to have been cured by it; but it appears that the vendor is really a limited company, which deals also in a large number of other nostrums having nothing to do with alcoholism, such as "anti-deafness tablets," "asthma tablets," "rheumatism remedy," etc. The third article reported on is made in America, but it is advertised in this country. In this case strychnine in small doses and caffeine are the principal medicaments, tartar emetic being also employed, in the hope, no doubt, of causing a feeling of nausea to be associated with alcoholic drink. The lowest price charged for any of the three preparations is a sovereign, while each of the other two is priced at two guineas; in every case the prime cost of the ingredients is shown to be so small as to be practically negligible.

The fourth of the medicines described was not purchased for analysis, but formed part of what was supplied to a patient who ultimately decided not to take it; it appears that it constituted the second part of the course, and we did not receive any of the medicines forming the first part. In this case a very small quantity of a neutral bitter substance was found, the amount of which did not suffice for its full identification, but which resembled picrotoxin; the principal other substance present was a tincture of nux vomica.

The medicines for the cure of tobacco habit are apparently only intended to play a subsidiary part; the directions as to the way in which they are to be taken and for the frequent practice of breathing exercises, bathing, the use of an enema, etc., are evidently intended to keep the patient's mind constantly turned to the breaking off of the habit; some of the medicines, containing asafetida and methylene blue, appear to be given for the sake of their subjective effect, while the others consist principally of bitter tonics and laxatives. In this case, as in the others, the price charged is such that the prime cost of the ingredients forms only an insignificant fraction of it.

THE TEMPERANCIA ASSOCIATION TREATMENT.

The medicines sold under this name are supplied from an address in London; the price charged for a supply (price stated as two guineas) was 21s., for which sixty capsules were sent.

Some extracts from an advertisement of this "treatment" are as follows:

The "Temperancia" Assn. organised in 1895 by Dr. Alexr. G. Edison, M.D., L.F.P.S., etc., and the Revd. Henry Martin Janeway, D.D., B.A., L.H.D., are accepting Free and paying patients for the Treatment of Alcoholism (Drunkenness in any form).

With the methods adopted by this Association all desire for alcoholic stimulants is permanently destroyed, a distaste for alcohol created, and the nervous and diseased system restored to a healthy and natural condition at your own home, hotel, or while at work, without publicity or inconvenience.

The treatment can be taken either voluntarily, or those who, through "the grasp of drink," fail to realise their peril, and will not listen to reason, can be cured SECRETLY, against their own free will, and without their co-operation, by any member of the family, with the special course prepared for this purpose. Either course is perfectly harmless, adapted for both sexes, of any age, even of the most delicate health, and is endorsed by the Medical profession, the Press, the Clergy, and thousands of cured patients.

Application to the address given brought a booklet on the "treatment," various leaflets, and a list of questions to be answered. The following extracts are from the booklet:

The treatment is prepared in Two distinct forms, viz. :—

LIQUID { to be used in all cases when a patient treats himself voluntarily, with his own free will

and

CAPSULES { To be used in all cases where a patient is to be treated secretly, without his knowledge.

The treatment in CAPSULE form is absolutely tasteless and odourless, and is placed in coffee, tea, soup, or any other convenient food. . . . To do good by stealth is enjoined upon us by the teachings of the highest authorities, and is in strict accordance with the highest morality.

It does not matter whether a patient is treated secretly or voluntarily, the results are the same. Almost from the very first day of its use the appetite improves, he eats and sleeps better, he becomes less restless than usual, his eyes become bright, his hands steady, the brain clear, and the spirit buoyant. . . .

The "Temperancia" Treatment, both the Liquid or Capsule, can be given with utmost *safety*. As already explained, it does *not* contain any drugs, poison, or minerals of any description, but it is entirely of a vegetable preparation. An overdose is perfectly harmless; it will not injure a man, woman, or child even of the most delicate health. . . .

Both our Liquid and Capsule treatment are prepared in courses. Each course of the Liquid treatment contains Two (2) full-sized bottles, and each course of the Capsules Two (2) full-sized packages. The cost per course, either the Liquid or Capsules, is Two Guineas (£2/2/0), or Two courses, if ordered at one time, Three Pounds Ten Shillings (£3/10/0).

It is impossible to estimate the time required to effect a permanent cure in any individual case . . . the "Temperancia" Treatment often effects a complete cure in but a few days.

After the lapse of an interval, in which no order was sent, a circular letter was received, from which the following extracts are quoted:

We are indeed surprised not having received from you an order for the treatment prepared by this Association. . . . There is only one conclusion we can arrive at, namely, that financial circumstances make the cost of a treatment prohibitive to you. Should this be the case we would

like to say, that this Association being at all times willing to extend a helping hand to everybody, is prepared to treat your patient for a fee of only 21s. per course.

One guinea was then sent for a supply of capsules, together with answers to the list of questions. These questions were as follows, the answer given being here printed in italics:

Name or initials of patient.
Age? *34.*
Sex. *M.*
Married? *Yes.*
How long? *7 years.*
Any children? *2.*
Height? *5ft. 11.*
Weight? *12 stone.*
Complexion? *Fair.*
Occupation? *Clerk.*
Works hard? *Yes.*
Is the patient to be treated secretly or voluntarily? *Secretly.*
How long since he commenced drinking? *Four years.*
Nature of liquor used? *Whisky; and other spirits.*
Quantity per day, or as near as possible? *Varies from 2 glasses to a bottle or more.*
Does he drink during the night? *No.*
Before breakfast? *Sometimes.*
Does he ever become drunk? *Yes.*
Does he drink daily or periodically? *Daily; but to excess only periodically.*
If periodically, how often? and how long does each bout last? *Sometimes every week, sometimes once in several weeks. One or two days.*
When did he have his last bout? *A week ago.*
What mental effect does he suffer with from drink? *Excitement; sometimes delusions.*
How is his appetite, sleep, and digestion, both when drunk or sober? *Good when sober; not bad when drinking.*
Is he nervous, irritable, or phlegmatic? *Rather irritable.*
Is he getting thinner or stouter? *Not changing.*
Constipated? *No.*
Does he ever complain of heart trouble? *No.*
Any disease he was or is suffering with? *No.*
If so, what was the doctor's advice?
Taking any medicine at present, and for what purpose? *No.*
Any of the parents or grandparents addicted to drink? (state which, and if not alive, give cause of death) *No.*
Did the patient ever have delirium tremens? How often, and when? *Two or three times last year.*
Does he use Tobacco (state what form, quantity, and if he inhales)? *Pipe and cigars; about 3 oz. and 6 or 8 cigars a week. Does not inhale.*
Does he use any Narcotic Drugs (state which, quantity per day, and how long used)? *No.*

Has he ever been treated for the liquor habit (state when, what treatment, if voluntarily, how long treated, cost of same and results)? *No.*
P.S.—Write fully on the other side any additional information regarding the patient's past and present condition that the physician should know of.

Two boxes of capsules were received, each containing thirty, with no labels. A written letter was received separately, in which the following directions were given:—

For the first two days take three capsules daily, four the third day, five the fourth, and then six every day until the course is finished.

(The sixty would thus last eleven days, and leave three capsules over.)

The way to take them is in either hot tea, coffee, or soup. Empty the contents into the cup, not put the whole capsule, and thoroughly stir until dissolved. Eat plain, wholesome food, good fruit, and keep the bowels well open.

The best time for taking the powders is on rising in the morning, mid-day, and before retiring at night. Should you find it difficult to give the six daily, two may be taken at one time, but not more, as they might taste, and they must be well stirred and dissolved.

(They were previously described as "absolutely tasteless.")

The contents of the capsules consisted of a light brown powder, the average amount in one being 8 grains. Determination of the weight of the contents of several capsules singly, taken without selection, showed them to vary from 5 grains to 9.4 grains. Analysis showed the powder to consist of powdered cinchona, sugar of milk, and magnesium carbonate. The amount of cinchona was ascertained by weighing the fibre after removing other ingredients with solvents and comparing it with the fibre left by powdered cinchona when similarly treated; and also independently by determining the amount of alkaloid present. Both results showed the cinchona to form about 13 per cent. of the powder; milk-sugar was found to amount to 55 per cent., and the magnesium carbonate to about 32 per cent. Each capsule would thus contain about 1 grain of cinchona. The estimated cost of the powders for sixty capsules is 1d.

EDWARD J. WOODS TREATMENT.

The medicines sold under this name are supplied by Edward J. Woods, Ltd. The price charged is 2 guineas, for which 60 powders and 68 tablets were sent.

Advertisements are usually accompanied with a picture of a man's head, purporting to represent the advertiser. The following extracts from such an advertisement show their general tenor:

I was a Heavy Drinker.
Consumed quart of whisky every 24 hours.
Cured in 3 days.

If you know anyone who drinks alcohol in any form, regularly or periodically, let me send my Free Book, "Confessions of an Alcohol Slave."

I drank beer at first, then gradually developed into a drinker of strong liquors. When drinking heavily I did not hesitate to pawn my coat or break a public-house window to get spirits. For long periods I drank over a quart of whisky, rum or gin daily. And some mixed drinks and beer additionally! . . . .

For 16 years I kept it up, and I was regarded as a hopeless case. Various "cures" did me no good. But now I have a joyful message for drinkers and MOTHERS, WIVES, SISTERS.

While drifting from bad to worse, as all slaves of King Alcohol do, I unexpectedly found a true cure. It was (and is) genuine. It saved my life. My health was quickly restored, I became and am a respectable man, enjoying every benefit of freedom from the accursed alcohol. I speedily and naturally lost all desire for drink. I took less and less. I began to prefer tea, coffee, and other non-alcoholic liquids; the craving for liquor ceased, I could sleep perfectly, my stomach became well, and I recovered from other ailments which I now know were due to my indulgence in strong drink.

WONDERFUL.

My cure took 3 days; if I had relied upon will power or faith I should still be a drunkard, because an alcohol slave has no will power while drinking. I rejoiced so greatly at having found a true cure that I decided to devote my life to removing the curse from others. My success has been marvellous. . . .

What I promise is absolutely guaranteed. My remedy is for either steady or periodical drinkers. Think of it, a complete and permanent home cure between Friday night and Monday night—or any other 72 hours!

Men, or Women, Any Age, Quickly Cured. . . .

On application to the address given, the "Confession" referred to above and various other papers were sent. From these it appears that the "Treatment" is of American origin, and the business seems to have attained considerable dimensions in America before being established in England Two sets of remedies are supplied—"the A Set of Remedies, to be given with the knowledge and consent of the person," and "the B Set, for conquering his drink habit secretly, so that he will gradually form a disgust for alcoholic drinks of all kinds and will never

know what saved him unless you chose to tell him." One of the papers was an "Information Form No. A 4," which was as follows—the answers given to the various questions are printed in italics:

Sex? *M.*
Age? *34* years.
Married? *Yes.*
Approximate weight? *12* stone lbs.
Height about? *5* ft. *11* in.
Steady drinker, or does he (or she) drink in a bout (spree) after keeping sober for some time? *Steady drinker in slight excess; bout occasionally.*
What kind of alcoholic drink mostly taken? *Whiskey and other spirits.*
About how much every 24 hours? *Varies from 2 or 3 glasses to 2 bottles.*
Has person ever had delusions? *Yes.*
Fits? *No.*
Delirium tremens? *3 times.*
Insanity? *No.*
Apoplexy? *No.*
Will remedies be given with or without person's knowledge? *Without.*
Do bowels move freely, or are they constipated? *Alright.*
About how many years has person been accustomed to use of alcoholic drinks? *All his life; only to excess about 4 years.*
Does person sleep soundly through the night? *Usually.*
Does person need to drink alcohol during the night? *Not as a rule.*
Is person drinking at present? *Yes.*
What is occupation (or nature of same) and how much outdoor exercise usually taken? *Clerk. Does fair amount of walking and little cycling.*
Does person prefer to drink with company, or quietly, alone? *Both.*
Are any medicines or drugs being taken for any purpose? *No.*
Here please give further details of case.

The preparations sent (B set) consisted of 60 powders and 68 tablets. They were accompanied by a circular letter, in which the following directions were given:

The chief rule is that you are to give three No. 777 Powders and three No. 1010 Tablets every day, if you can, and that these are to be given at different times, not all together. If you miss doses, you are not to make them up.

If the dose should seem to be too strong, it can be reduced by giving a half or quarter Powder or Tablet. But do not increase the doses until you have sent me the report, which should come at the end of your having given 42 each of the Powders and Tablets, i.e., about two weeks. If it takes a longer period to give these, then your report can be delayed accordingly.

Be cheerful and optimistic. Maintain your perseverance and kindly temper. Watch and wait! Success may come slowly, but it will come surely.

This is somewhat different from "a complete and permanent home cure between Friday night and Monday night, or any other 72 hours"! An extract from a pamphlet of general directions sent with the medicines is:

Even if six months are required to accomplish the desired purpose, it is a highly satisfactory reward for the expense, time, and effort used.

I beg of you, therefore, to treat this matter with calmness. Do not write me that you are utterly disappointed, that you feel as if nothing can ever do any good, and other similar remarks, but keep perseveringly on.

From another leaflet it appears that Edward J. Woods, Ltd., does business in other articles as well. A list is given of twenty-six medicines supplied by the company, which includes such varied ones as:

No. 444.—Blood Purifier, Liver Regulator, and Stomach Improver.
No. 555.—Aphrodisiac tablets.
No. 1111.—Tablets for the kidneys.
No. 1616.—Rheumatism, gout, lumbago, neuralgia, and sciatica remedy.
No. 2020.—Tablets to prevent incontinence of urine.
No. 2222.—Anti-deafness tablets.
No. 4444.—Asthma tablets.
No. 5555.—Preparation for darkening grey or white hair to natural black or dark brown.
No. 1212.—Special method for reduction of superfluous fat.
No. 3333.—Anti-nicotine Tablets.
No. 1515.—Female Remedy.
No. 44.—Flesh Developing Cream.

The powders had an average weight of 9.9 grains, single ones varying from 7.2 to 11.9 grains. Analysis showed them to contain:

Tartar emetic	3.6	per cent.
Sugar of milk	96.4	,,

No trace of any other substance was found. A powder of average weight would thus contain 0.35 grain of tartar emetic.

The tablets had an average weight of 1.6 grains. Analysis showed them to contain

Tartar emetic	13.2	per cent.
Boric acid	10.7	,,
Sugar of milk	76.1	,,

No trace of any other substance was found. One tablet would thus contain 0.2 grain of tartar emetic, and the daily dose of three powders and three tablets would contain 1.65 grains.

The estimated cost of materials for 60 powders and 68 tablets is about 1d.

ALCOLA.

Alcola is supplied by "Physicians Co-operative Association," Chicago, and the price charged for it is £1.

The method of advertising which appears to be adopted in this case is for a Mrs. Anderson, of New York, to advertise offering to send, without charge, information about a medicine which cured her husband of the drink habit. On writing to the address given, a lithographed letter was received purporting to be from Mrs. Anderson; its nature is shown by the following extracts:

My dear friend

I have just read your letter asking me how I cured my husband of drinking, and I will answer it at once as I am sure that you are anxious to drive drunkenness from your home just as soon as you possibly can.

Mr. Anderson was a hard drinker for over 20 years and the disease had got such a firm hold that it was impossible for him to shake it off and it continued to grow worse and worse with no sign of ever stopping.

Just about this time I received a letter from a lady telling me about a remedy called Alcola which she said had never been known to fail and she urged me to send for it at once as she knew it would certainly cure.

I had already tried about every remedy that I had seen advertised for the cure of drunkenness but none of them did any good whatever and I was tired of spending my money for nothing but you know a person especially a woman will do anything to save her family and home and I made up my mind to make one more effort to cure Mr. Anderson if it was possible so I managed after some trouble to get the money and took her advice and sent for it and gave it as directed and in a very short time he lost all the terrible craving for liquor that he had had for so long. His health improved in every way too. This was about eight years ago and he has never drank since. . . . The Physicians Co-operative Association. . . . are the only ones who prepare and sell Alcola and I will write them to-day and ask them to send you full information. . . .

A little later a long circular letter was received from the "Physicians Co-operative Association," together with a booklet in which it was stated that:

Alcola is the very best treatment for drunkenness that you can possibly obtain. . . .

It cures all stages of the disease, from the beginner to the one who has drank for years, and is thought beyond hope. It makes no difference whether the disease was inherited or acquired, nor what kind of liquor the patient uses. Alcola is absolutely harmless. . . . Alcola does not contain even a trace of opium, morphine, cocaine, chloral, cannabis indica, or any other dangerous narcotic or habit-producing drug. . . .

Alcola is prepared either to be taken with the patient's knowledge or to be given secretly. When you send your order state which treatment you wish.

A short list of questions, as follows, was also sent; the answers given are printed in italics:

Information Regarding Patient.

Age. *34.*
Occupation. *Clerk.*
How long has patient drank? *Five years.*
Does he keep liquor in the house? *Yes.*
Has he any chronic disease that you know of? *No.*
How is his general health? *Fair otherwise.*
Will the treatment be given secretly? *Yes.*
Are you yourself to give treatment to the patient? *Yes.*
What relation is patient to you? *None; we live together.*

IMPORTANT.

Will tablet be given twice a day or three times? *Twice.*
Will you begin treatment at once? *Yes.*

The medicines sent consisted of three boxes of tablets, labelled respectively No. 1, No. 2, and No. 3. They were accompanied by a long printed paper of directions, a long circular letter, a "Report Blank," and other papers giving particulars of "our Co-operative Plan," by which the purchaser obtains a commission on sales to others resulting from his introduction of "Alcola." The chief parts of the directions are:

Tablets Nos. 1 and 2 are to be given as follows: One tablet three times a day at meal time. Give alternately, that is, tablet of No. 1 at one meal, No. 2 at the next meal, No. 1 the next, No. 2 the next, and so on.

They can be given in almost any liquid except water, but strong tea, coffee, highly seasoned soups, etc., are preferred. . . . Tablet No. 3. This tablet is to be used only when the patient has been drinking to a noticeable degree, or if the patient is a moderate daily drinker, give every third day. This tablet should be given as soon after the patient has been drinking as is possible, that is, if the patient comes home under the influence of Drink give No. 3 at once, if you can. If patient does not drink, do not use No. 3.

After you have been using the treatment three weeks fill out the enclosed report blank carefully and fully, and send it to us. This is a most important point, for in this way we can judge how your patient is getting along, and if necessary can give you further advice that we are sure will be of great assistance and value to you.

It is absolutely impossible for any physician to tell the length of time or the amount of medicine it will require to cure any particular case. . . .

The length of time it requires to effect a cure depends entirely upon the patient's susceptibility to the action of the medicine. . . .

. . . . we even find cases where but little improvement is noticed with the use of the first package . . . . when these cases are found it will be necessary to continue the use of Alcola longer than the average amount of time in order to effect a complete cure.

No. 1 Tablets.—The box contained 62 tablets of a pale yellow colour; the average weight of one was 5.7 grains. Analysis showed the presence of—

Strychnine	0.12	per cent.
Caffeine	4.72	,,
Sugar of milk	86.9	,,
Talc	4.1	,,

With starch, a little gum or dextrin, and a trace of colouring matter.

Each tablet would thus contain 0.007 grain of strychnine and 0.26 grain of caffeine.

No. 2 Tablets.—The box contained 63 tablets of a light chocolate colour; the average weight of one was 5.7 grains. Analysis showed the presence of—

Strychnine ..... approximately	0.2	per cent.
Boric acid	4.4	,,
Sugar of milk	82.8	,,
Talc	3.0	,,

With starch and colouring matter.

A trace of vegetable débris was present, perhaps from a small quantity of some vegetable extract showing no distinctive characters. The colouring matter was basic in nature and could not be separated from the strychnine; hence the figure for the latter is approximate only.

Each tablet would thus contain about 0.011 grain of strychnine.

No. 3 Tablets.—The box contained 29 tablets, which were greyish with a pink tinge; the average weight of one was 2.9 grains. Analysis showed the presence of—

Tartar emetic	16.7	per cent.
Calcium sulphate	61.4	per cent.
Talc	3.1	,,

With starch and colouring matter.

A trace of a pungent substance was present resembling the pungent principle of pepper, and a trace of vegetable débris, which may have been from a small quantity of a vegetable extract showing no distinctive characters.

Each tablet would thus contain 0.48 grain of tartar emetic. The estimated cost of the ingredients for all the tablets in the three boxes is about 1¾d.

THE "NORMYL" CURE FOR ALCOHOL AND DRUG ADDICTIONS.

The specimen of this medicine described in the following paragraph was sent for examination by the medical adviser of a patient who did not continue the "cure." It appears from the printed matter on the package that the full course consists of twenty-four days' medicine, supplied in twenty-four bottles; the package sent by our correspondent was marked "second treatment"; it had contained twelve bottles, but one had been removed before it reached us, and the eleven sent were marked respectively "14th day," "15th day," etc., to "24th day." Each bottle had the cork and neck covered with tinfoil, over which was the label indicating the day on which the contents were to be taken, showing that they had not been opened or tampered with. On the outside of the box was a proprietary medicine stamp for 3s., this being the duty payable on proprietary medicines of selling price of 20s. to 30s. (exclusive of stamp); an article bearing a 3s. stamp is usually sold at 33s.

Each bottle contained about 150 minims of a light reddish-brown liquid. The directions for use are:

Secure from your chemist what is known as a flat eight ounce bottle for pocket use and a dose glass. Mix the contents of vial marked "1st day" in eight ounces of water and take half-an-ounce (one tablespoonful) of the mixture every hour while awake. When any of the mixture remains from the previous day, throw it away, as it loses its virtue after 24 hours. Mix a fresh bottle every day. Keep the bowels regular, and in case of constipation take some gentle aperient as often as may be necessary, and use no intoxicating liquor. Eat of any food you like.

It is further stated that:

As this preparation contains a small medicinal dose of Nux Vomica, it must, in order to comply with the Pharmacy Act, be labelled poison, but its composition remains unaltered.

And:

N.B.—Although a cure will apparently be effected in a few days, it is absolutely necessary in order to ensure a Permanent Cure that a full course of 24 days' medicine (24 bottles) shall be taken without a break, so that the alcoholic or drug poison may be thoroughly eliminated from the system and thus prevent a return of the crave.

Qualitative examination of the contents of some of the bottles did not indicate any differences of composition, and as the quantity in one bottle was far too small for quantitative

analysis, the contents of several were mixed for analysis. The mixed liquid was found to contain:

Alcohol	75.5 per cent. by volume
Alkaloid	0.09 per cent. (weight in volume
A soft resin	1.5 ,, ,, ,,
A non-alkaloidal bitter principle	A fair trace
Ash	0.1 per cent. (weight in volume)
Extractive, including colouring matter	2.3 ,, ,, ,,

The alkaloid consisted principally of strychnine, with a little brucine; the amount present corresponds to about 25 per cent. (by volume) of tincture of nux vomica, or 38 minims in one bottle (one day's medicine). The resin did not agree in character with jalap or scammony resin, and the quantity available was too small for its identification. The non-alkaloidal bitter principle was extracted from acid solution by chloroform, like the principles of several common bitter drugs. It agreed in its behaviour to various colour tests with picrotoxin, and a small quantity of the latter was accordingly prepared in an impure state from a tincture of *Cocculus indicus*, for special comparison with it; they agreed very closely, though not perfectly, in their behaviour with various tests—perfect agreement between necessarily impure substances was not to be expected—and there appears a high probability that the substance extracted from the "Normyl" medicine was picrotoxin, though it was impossible to prove its identity conclusively with the minute quantity available. The ash, extractive, and colouring matter did not give any evidence as to the drug from which they were derived; there was an aromatic flavour in the mixture resembling that of orange.

WOODS' CURE FOR TOBACCO HABIT.

This series of tablets and pills is supplied by E. J. Woods, Limited, the company whose "cure" for alcoholism is described above. Recently advertisements have been appearing in newspapers and magazines over the name of E. J. Woods (the "Ltd." does not appear) offering a three-day cure for tobacco habit. One of these is worded thus:

TOBACCO HABIT

Conquered in 3 Days.

I offer a genuine guaranteed Remedy for tobacco or snuff habit, in 72 hours. It is mild, pleasant, strengthening. Overcomes that peculiar

nervousness and craving for cigarettes, cigars, pipe, chewing tobacco, or snuff; they are poisonous and seriously injurious to health, causing such disorders as nervous dyspepsia, sleeplessness, gas, belching, gnawing, or other uncomfortable sensation in stomach; constipation, headache, weak eyes, loss of vigour, red spots on skin, throat irritation, asthma, bronchitis, heart failure, lung trouble, catarrh, melancholy, neurasthenia, impotency, loss of memory and will-power, impure (poisoned) blood, rheumatism, lumbago, sciatica, neuritis, heartburn, torpid liver, loss of appetite, bad teeth, foul breath, enervation, lassitude, lack of ambition, falling out of hair, baldness, and many other disorders. It is unsafe and torturing to attempt to cure yourself of tobacco or snuff habit by merely stopping—don't do it. The gentle, safe, agreeable way is to eliminate the nicotine poison from the system, strengthen the weakened irritated membranes and nerves, and genuinely overcome the craving. You can give up Tobacco and enjoy yourself a thousand times better, while feeling always in robust health. My Free book tells all about the wonderful 3 days' method. Inexpensive, reliable.

The "Free book" is entitled "How to Speedily and Perfectly Conquer the Tobacco Smoking and Chewing Habits, also the Snuff Habit"; it is a pamphlet of thirteen pages, chiefly devoted to describing the awful effects of the use of tobacco, and evidently intended to impress the reader and enlist his terrors to aid the "cure."

A few extracts will suffice as samples:

Nicotine is one of the most intense of all poisons, approaching in its strength the highly powerful prussic acid.

The other important element is an oil called *nicotianin;* probably this is Shakespeare's "juice of the cursed henbane," mentioned in "Hamlet." This is also an intense poison. . . .

There are several kinds of cigarettes that are prepared with opium, cannabis indica (hasheesh), or cocaine. Thus, another very insidious and killing poison is taken into the system.

The muscles as well as the nerves become poisoned by nicotine.

The effect of tobacco upon the nerves and muscles of the eyes is a reason why oculists and opticians flourish.

Tobacco causes enfeebling of the mind and too often it leads to insanity. . . . . tobacco is a frequent cause of heart failure and premature death.

I have been told by medical men that there is a belief, becoming better founded from year to year, that tobacco is a cause of appendicitis.

Falling of the hair, followed by baldness, also the turning of dark hair to grey shade, is due very often to the poisoning of the blood nerves by nicotine.

The nicotine must be removed from the blood, muscles, nerves, membranes and all other parts of your body. Do not waste time in trying to accomplish this by the power of the will. No doubt you can make a gallant fight, but the poison will remain and will continue to do its mischief, like the uric acid of the rheumatic.

Thus far, over two hundred cases of leprosy in the United States have been traced to cigarette smoking.

A paragraph headed "A Deadly Weed" gives a list of rather more than a hundred disorders of various kinds, with the statement that "no tobacco user can escape one or more of the harmful consequences mentioned in the list." They are of very miscellaneous nature, "anxiety" and "softening of the brain" standing together, and "cowardice" coming between "amaurosis" and "apoplexy."

There are two forms of the treatment, at the same price:

The cost of the Woods C Treatment is one guinea. The result is absolutely guaranteed. All craving for tobacco in any form should be completely eradicated and in most cases this result will be accomplished in only seventy-two hours.

My C Treatment (regularly) for the Tobacco Habit is to be taken by the person who desires to be cured. Obviously, he knows that he is taking it.

I am asked sometimes if I can provide a Treatment which can be given without the tobacco user's knowledge. Yes, I can. This is my C Secret Treatment. It can be given secretly in any kind of food or drink. It is tasteless. The person finds that he is losing his desire for tobacco and soon abandons its use altogether. The price of this C Secret Treatment is one guinea, the same as the regular C Treatment.

The "treatment" obtained was the "regular," to be taken knowingly by a person desiring to be cured. It was accompanied by a letter, in which it was stated that "the preparations are very potential," and a postscript runs thus:

I would appreciate a testimonial from you, to add to the great collection that I am compiling. I hope you will see your way clear to send this.

The materials sent consisted of seven different kinds of tablets and one lot of pills; these bore various numbers as follows:

No. 301 : 7 small pink-coated tablets.
No. 302 : 64 small brown tablets, not coated.
No. 303 : 15 small pink-coated pills.
No. 304 : 6 chocolate-coated tablets.
No. 305 : 4 small grey tablets, not coated.
No. 306 : 10 grey tablets, not coated.
No. 307 : 2 small black-coated tablets.
No. 308 : 17 chocolate-coated tablets.

Since in every case one is directed to be taken for a dose, the total includes 125 doses for the 72 hours requisite for the cure; the elaborate 3-day time table sent, however, only provides for one to be taken at every hour from 7 a.m. to 10 p.m., and one on awaking in the morning and one at bedtime, and "if awake in the night or early morning, a No. 302 tablet may be taken

each two hours. To induce sleep, if necessary, take one No. 304, followed by another in half an hour"; so that if five are taken during the night, just seventy-two doses are directed. For the first twenty-four hours the order of taking, beginning at 7 p.m., is 301, 302, 303, 302, 303, then the night interval, 303, 308, 301, 302, 303, 302, 305, 302, 306, 302, 301, 302, 305, and is different for the second and again for the third twenty-four hours.

Every dose is to be followed by a medium size glass of hot or cold water (to be sipped), Vichy or soda with milk, or buttermilk. Take Nos. 303, 304, 306, 307, and 308 whole. Chew No. 301 before swallowing. Dissolve Nos. 302 and 305 in a small glass of water.

Nos. 302, 303, 306, and 308, of which the supply was the largest, were analysed as fully as possible; for the others, the small quantity available did not permit of much more than a qualitative analysis. The results obtained were as follows:

No. 301 (to be chewed before swallowing).—The average weight of one tablet after removal of the coating was 1.28 grains; the principal ingredient was phenol-phthalein, and a resin which appeared to be podophyllin; no other active substance was found.

According to the directions, three of these are to be taken in the first twenty-four hours, two in the second, and four in the third: this makes a total of nine, but only seven were sent.

No. 302 (to be dissolved in water before taking).—The average weight of one tablet was 1.28 grains. Analysis showed the presence of sugar of milk 63 per cent., a brown dye, and a very bitter non-alkaloidal extract resembling extract of quassia, which it probably was. No other substance was found except a little talc; it was not possible to determine the amount of the bitter extract or of the dye.

According to the directions, seven are taken during the day-time in the first twenty-four hours, seven in the second, and four in the third, and three during each night if awake. There is, therefore, a large surplus of these in the supply sent.

No. 303 (pills).—The average weight of one pill after removal of the coating was 0.9 grain. Analysis showed the principal constituent to be aloin, with a small proportion of strychnine. According to the directions, four of these are to be taken in the first twenty-four hours, three in the second, and one in the third.

No. 304 (to be swallowed whole).—The average weight of one after removal of the coating was 4.4 grains. Analysis showed the principal constituent to be asafœtida; in addition, a minute trace of an alkaloidal substance, which was far too small in amount to be examined, but which was not strychnine, was present, and no other medicinal substance was found.

These are the tablets to be taken during the night, if necessary, to induce sleep:—

No. 305 (to be dissolved in water before taking).—The average weight of one was 2.5 grains. Analysis showed that the principal ingredient was reduced iron, with a trace of a bitter alkaloid which appeared to be strychnine. The greater part of the tablet being insoluble in water, the direction to "dissolve" it before taking cannot well be carried out.

According to the directions, two of these are to be taken in the first twenty-four hours and one each in the second and third.

No. 306 (to be swallowed whole).—The average weight of one was 3.7 grains; analysis showed the presence of ferrous carbonate, potassium sulphate, strychnine, and brucine, with dextrin, glucose, and starch; it was thus a form of Blaud's pill with extract of nux vomica. The alkaloids amounted to 0.16 per cent., representing about 2 per cent. of extract of nux vomica, or about $\frac{1}{15}$ grain in one tablet; the iron was 9.7 per cent., representing 20 per cent. of ferrous carbonate, or about $\frac{3}{4}$ grain in one tablet.

According to the directions, one of these is to be taken in the first twenty-four hours, four in the second, and five in the third.

No. 307 (to be swallowed whole).—One tablet weighed 2 grains, including the thin coating. Analysis showed the principal constituent to be a blue dye which agreed in its general characters with methylene blue. The only other substance found was a little starch.

According to the directions, one of these is to be taken about the middle of the period of seventy-two hours and the other just before its close.

No. 308 (to be swallowed whole).—The average weight of one, after removal of the coating, was 3.7 grains. Analysis showed the tablets to contain chalk 36 per cent., charcoal 20 per cent., sugar 26 per cent., and a trace of methyl salicylate (oil of wintergreen); the only other constituents found were small quantities of gum and talc, used, no doubt, as excipients.

According to the directions, one of these is to be taken in the first twenty-four hours, none in the second, and three in the third.

It appears very evident that suggestion is intended to play a considerable part in the treatment. The booklet is written in such a way as to strike an impressionable reader with a strong conviction of the terrible results to be expected if the tobacco habit is continued, and the emphatic guaranteeing of a cure in a very short time would, no doubt, assist the patient's determination to give it up. The medicines having to be taken every hour, sometimes chewed, sometimes swallowed whole, and sometimes dissolved, would ensure the mind being kept well occupied with the cure; and the full directions include the use of an enema daily, dieting, breathing exercises, bathing, etc. The medicines themselves appear to be of three classes—aperients, tonics, and those intended to produce a subjective effect, like asafœtida and methylene blue, the colouring effect of which on the urine might perhaps lead the patient to ask an explanation or to guess for himself that the colour "shows the nicotine being driven out of the system."

A further set of remedies, the "E set," price £2 2s., is recommended to be taken immediately after the C set, and is "intended to assist the natural recuperative powers so that the full benefit of having taken the other treatments shall be more speedily manifested."

As the small amount of material available prevented the analysis of some of the products being made quantitatively, it is not possible to estimate exactly the cost price of the ingredients, but it is evident that a few pence would fully cover it.

Although three of the different kinds of products contained strychnine, none of the packages bore any intimation of the fact, or the word "Poison."

CHAPTER IX.

SOOTHING SYRUPS FOR INFANTS.

In the previous volume the results of the analysis of various "soothing powders" for infants were given. "Soothing syrups" also are very largely used, and are probably usually purchased as "syrup of aniseed," etc., or sometimes compounded in accordance with some domestic recipe. There are, however, a certain number of proprietary preparations of this class which have a large sale, and in this chapter we give the results of the analysis of some of the chief of these. The principal constituent of three out of the four is shown to be anethol or carvone, added in the form of one or more of the oils of anise, dill, and caraway. Two of the three syrups are alkaline, sodium bicarbonate being used in one case, and a mixture of potassium bicarbonate and magnesium carbonate in the other. The third contains potassium bromide. The other syrup examined is directed to be rubbed on the gums, after which it is of course swallowed gradually by the child; this is a preparation of hydrochloric acid, common salt, saffron, and honey. Perhaps the most noteworthy point in connection with these preparations is that one of them, claiming to have had a large sale for sixty years, is not now of the same composition as formerly. At one time this preparation contained morphine, as was proved in courts of law on several occasions when proceedings under the Pharmacy Acts were taken against unqualified persons for selling it, and in fact the presence of morphine was admitted by a statement on the package. Now, however, as our analysis shows, it contains no morphine, but potassium

bromide. Which of these two is the more unsuitable for giving to infants of a few weeks old is, for the moment, not the question; the alteration of the composition of a medicine which continues to be sold under the old name and with statements as to its having been made for sixty years, shows how utterly the public is at the mercy of the proprietors of such preparations, who are at liberty to omit or add ingredients, or to alter the composition as they please.

MRS. WINSLOW'S SOOTHING SYRUP.

This much-advertised preparation is supplied by a firm having addresses in New York and London, at 1s. 1½d. per bottle, containing 1½ fluid ounces.

In a circular enclosed in the package it is stated that:

Mrs. Winslow's Soothing Syrup, for children teething, greatly facilitates the process of teething, by softening the gums, reducing all inflammation —will allay ALL PAIN and spasmodic action, and is SURE TO REGULATE THE BOWELS. Depend upon it, mothers, it will give rest to yourselves, and RELIEF AND HEALTH TO YOUR INFANTS.

We have put up and sold this article for over sixty years, and *can say in confidence and truth*, of it, what we have never been able to say of any other medicine—NEVER HAS IT FAILED, IN A SINGLE INSTANCE, TO EFFECT A CURE, when timely used. Never did we know an instance of dissatisfaction by anyone who used it. On the contrary, all are delighted with its operations, and speak in terms of highest commendation of its magical effects and medical virtues. . . .

This valuable preparation is the prescription of one of the MOST EXPERIENCED and SKILFUL NURSES in America, and has been used with *never failing success* in THOUSANDS OF CASES.

The following statement appears on the label:

This Preparation contains no Poisonous Ingredient and may be used with Perfect Safety.

A few years ago, however, the package used to bear a statement that "this preparation contains, among other valuable ingredients, a small amount of morphine," and the presence of morphine to the extent of about 0.08 grain per bottle was proved in court in cases where unqualified persons were prosecuted for selling the syrup. The labels now in use do not contain any such statement, and the analysis shows that morphine is not now present. But the extracts quoted above, as to the

article having been sold for sixty years, and to the prescription of a nurse, are such as would lead any one to suppose that its composition is now what it has always been.

The directions on the label are:

For a child under one month old, 6 to 10 drops; three months old, half a teaspoonful; six months old and upwards, a teaspoonful three or four times a day. For Dysentery, repeat the above dose every two hours, until the character of the discharges is changed for the better.

The syrup was of a straw colour, and flavoured with aniseed. Analysis showed it to contain, in 100 parts by measure:

Potassium bromide	2.0 parts
Alcohol	4.3 parts by measure
Essential oil (anise), about	0.1 part
Sugar	56.5 parts

Emodin was present in small quantity. This substance may be derived from several drugs—for example, senna, rhubarb, cascara sagrada, etc. The evidence which was obtainable pointed to senna as the drug from which it was derived in the present case. A syrup containing 1.2 per cent. (by measure) of the syrup of senna of the *British Pharmacopœia* was of the same depth of colour and showed about the same proportion of emodin, and agreed in other respects also. No alkaloid was present. The essential oil may have contained a little oil of dill or caraway, the quantity being far too small to be separated. There was some evidence of about 2 per cent. of glycerine, but in presence of so much sugar this could not be positively proved.

WOODWARD'S GRIPE WATER.

This preparation is supplied by a limited company in Nottingham, at 1s. 1½d. per bottle, containing 5 fluid ounces. It is thus described on the label:

Woodward's Celebrated Gripe Water, or Infant's Preservative, without Laudanum, for all disorders of children, viz.: Convulsions, Gripes, Acidity, Flatulency, Whooping-Cough, and the distressing complaints incidental to Infants at the period of Cutting their Teeth, allaying the pain, giving instant relief, and rendering this crisis perfectly mild and free from danger.

The directions are:

For an infant, half a teaspoonful; two months old, one or two teaspoonfuls. The dose may be gradually increased.

Analysis showed it to contain, in 100 parts by measure:

Sodium bicarbonate		1.08	part
Essential oil	about	0.03	,,
Alcohol		3.8	parts by measure
Sugar		20.5	parts

No alkaloid was present. The essential oil appeared to be chiefly oil of caraway, with a little oil of dill, and possibly also of anise.

ATKINSON AND BARKER'S ROYAL INFANTS' PRESERVATIVE.

This mixture is supplied by a Manchester firm, at 1s. 1½d. per bottle, containing 1½ fluid ounces.

In a circular wrapped round the bottle, this medicine

Is recommended to all Parents, Nurses, and others, who are entrusted with the management of Children, as a Medicine of real and approved efficacy, in preventing and removing those disorders to which Children in their early infancy are most liable, principally proceeding from a redundancy of acidity in the first passages, as Wind, the Watery and Dry Gripes, Convulsions, the Frog, etc., to which so many children fall victims, but which may in general be prevented by the use of this Medicine. It is also happily calculated for allaying those excruciating pains which Children suffer in Cutting their Teeth, and will, by being judiciously used, render this operation of nature perfectly mild and free from danger. It is also equally efficacious in many other disorders to which Children are liable, as the Rickets, Whooping Cough, Measles, etc. . . .

The directions as to dose are:

Children up to a month	5 to 10	drops in warm water
,, 1 to 3 months	10 to 20	,,
,, 3 to 6 months	20 to 30	,,
,, 6 to 12 months	60	drops, or small teaspoonful
,, 12 months to 3 years	100	,, or moderate-sized teaspoonful

Analysis showed it to contain, in 100 parts by measure:

Potassium bicarbonate		1.75	parts
Magnesium carbonate		5.45	,,
Essential oil	about	0.06	,,
Alcohol		7.0	parts by measure
Sugar		9.9	,,
Colouring matter		trace.	

No alkaloid was present. The essential oil appeared to contain oils of caraway, dill, anise, and almond. The colouring matter did not appear to be of vegetable origin, but showed a yellow colour in alkaline and a pinkish in acid solution, thus agreeing with certain coal-tar dyes.

MRS. JOHNSON'S AMERICAN SOOTHING SYRUP.

This syrup is now supplied by a limited company of dealers in proprietary medicines in London; according to statements in a circular accompanying the bottle, it was formerly made by a Mrs. Jane Johnson. A 1s. 1½d. bottle contained about 70 minims.

It is stated in the circular that:

This remedy has given relief to thousands of children when suffering from the pains of teething. As soon as the Syrup is rubbed on the gums the child will recover, being as innocent as efficacious, and so pleasant that no child will refuse to let its gums be rubbed with it. When infants are at the age of four months, though there is no appearance of teeth, one bottle of the Syrup should be rubbed on the gums to open the pores. Parents should never be without the Syrup in the nursery where there are young children; for if a child wakes in the night with pain in the gums, the Syrup immediately gives ease, by opening the pores and healing the gums, thereby preventing Convulsions, Fevers, etc.

The directions on the label are:

Rub the gums with the Syrup two or three times daily for several minutes.

The syrup was of a deep reddish-yellow colour, and had a strong flavour of saffron. Analysis showed it to contain in 100 parts by measure:

Sodium chloride		5.66	parts.
Hydrochloric acid (*B.P.*)		2.33	parts by measure.
Reducing sugars, calculated as glucose		66.6	,,
Extractive, colouring, etc.	about	5.0	,,

A little alcohol was present, but the amount was not determined. The reducing sugars appeared to be present in the form of honey, representing about 85 parts of this; the extractive was partly derived from saffron, and would include the non-saccharine constituents of the honey.

CHAPTER X.

MEDICINES FOR EPILEPSY.

The present chapter gives the results of analyses of three much-advertised medicines for the cure of epilepsy, which show the principal ingredient in all of them, as in five out of the six dealt with in the previous volume, to be bromide. It is not uncommon to find that nostrums for any complaint having well-marked symptoms, such as epilepsy, contain the drugs most commonly used by the medical profession in treating it; but this does not at all deter the proprietors from making scornful references to the usual medical treatment, and intimating that their own preparation owes its marvellous virtues to some new or different substance. In the present instances the usual claims are made of the cure of "frightful cases of long standing, which had been pronounced hopeless by eminent physicians and hospitals, and after everything which had been tried had utterly failed," and so forth, but analysis does not show the presence of anything but drugs in everyday use; two of the preparations examined consisting of ammonium bromide and potassium iodide, and the third of these substances and potassium bromide, with, in all three, colouring and flavouring agents. The first two bear on the label the words, "Guaranteed free from Bromide of Potassium and Poison," and a great deal is made, in the pamphlets in which they are recommended, of the absence of this salt, without, of course, any hint that the very similar ammonium bromide is substituted for it. In one of these pamphlets it is stated that "any person who knows anything about epilepsy and fits knows something of the harm done in many cases by Bromide of

Potassium. Almost every patient I have had during a long and extensive practice has taken this drug (and in some cases it has been taken for many years), so that I find it necessary to eliminate the ill effects of Bromide of Potassium from the system." In the case of the third, which is shown to contain 15.6 grains of potassium bromide and 4.2 grains of ammonium bromide in each fluid drachm, perhaps even more effrontery is shown in the statement, "the treatment of Epilepsy and Fits is carried on under some difficulty, as nearly all the great Physicians prescribe the same remedy —Bromide—Bromide—nothing much except Bromide, and so the unhappy sufferer consults many doctors without being cured." The similarity in composition of the first two of these preparations is not reflected in the prices, 4s. 6d. being charged in the first case for an 8 oz. bottle (without a "patent medicine" stamp) and 2s. 9d. in the second for the same sized bottle, stamped; even at the lower price, as the figures show, the rate of profit is very generous, and, as the article is sold direct to the consumer through the post, there are no intermediate charges to be deducted from what the maker actually receives, except the cost of postage. These two medicines show not only a great similarity of composition, but the pamphlet issued to puff the one of them would seem to have been adapted or paraphrased from that issued in support of the other. A similarity among some of the published "testimonials" is striking, and shows to what great length the arm of coincidence may grow when circumstances are favourable.

J. GILBERT DALE'S TREATMENT, "IMPERATINE."

This preparation is supplied by J. Gilbert Dale from an address in London. The price was formerly 4s. 6d. per bottle, but it appears, as shown below, that the method of charging for the medicine by the bottle has been abandoned in favour of charging a monthly fee for the "treatment," supplying the

medicine "free." Apparently the principal difference is that in this way a higher price is obtained.

This preparation is one of those that are not supplied through retailers, but direct from the proprietor through the post. The first three communications received in the case here dealt with are dated 1908, and, like so many of such "letters," are circulars in imitation of typewriting, with the name and address, the date, and "Dear Sir or Madam" typed in. In the first letter it is stated that:

My remedy contains no Bromide of Potassium, and no Poison, and is perfectly safe for both delicate adults and young children.

It has cured completely and permanently, frightful cases of long standing, which had been pronounced hopeless by eminent physicians and hospitals, and after everything which had been tried had utterly failed.

And in the third that:

If it is simply a case of mony (*sic*) which deters you, I am prepared to send you the remedy at the following reduced price,

TWO 4s. 6d. BOTTLES FOR THE PRICE OF ONE.

This will give you a month in which to demonstrate the merits of the cure. Of course it must be understood that the subsequent supplies must be paid for at the ordinary price. . . .

I will keep this offer open for one week from this date. Since you first wrote me I have received several striking testimonials from people who applied to me at the same time as yourself, and who commenced to take my remedy at once.

This last paragraph, in a circular, points to the remarkable coincidence that whenever an inquiry about the medicine is not followed up by purchase, several other people apply at the same time, commence to take the remedy at once, and send striking testimonials within a few weeks. An alternative explanation, of course, is that the statement is simply not true.

The notepaper used for these communications was headed "Specialist in Epilepsy and Nervous Diseases. Dale's Remedy for Epilepsy. Trade-mark 'Imperatine' (Reg.)," and also bore the words, "Advice by Post Free. Personal consultations by appointment, One Guinea; including one month's treatment Free."

Various pamphlets were sent at one time or another. In one of these, entitled "*Epilepsy and its Cure.* A few facts. J. Gilbert Dale, Specialist in Epilepsy and Fits," it is stated:

I have no degree, having never sat for any medical examination. My name does not, therefore, appear on the Medical Register, and I cannot legally call myself a Doctor; but my long and varied experience of this dread disease qualifies me to treat Epilepsy and nervous diseases, of which I have made a special study. . . . I always advise my patients to send for their family doctor when they are suffering from any other ailments than those I treat. . . . During the nine or ten years that I have been treating cases in all parts of the United Kingdom and abroad, I have had to deal with every form of this terrible disease. There is no form of the complaint which I have not had the opportunity of studying very closely, and my experience of these cases (particulars of which have been supplied to me in detail) has been most valuable, and gives me qualifications for treating Epilepsy that I could not have obtained in any other way.

The method appears to be: Do not sit for a medical examination (requiring long and expensive training), but set up as a Specialist in Something and advertise. You will then get cases from all parts of the country, and particulars will be supplied. From the experience obtained in treating them you will become qualified to treat others. It certainly seems simple.

Another of the pamphlets was entitled *Epilepsy and its Treatment.* The similarity between this and the pamphlet sent out by another firm and referred to below is remarkably close, as a few extracts will show:

Of the very many diseases which afflict humanity, few, if any, are more dreadful than Epilepsy, or Falling Fits. This disease has existed for centuries, for we read in St. Matthew's Gospel, chapter 17 (revised version), verse 15, "Lord, have mercy on my son: for he is epileptic, and suffereth grievously: for oft times he falleth into the fire, and oft times into the water." Also in St. Matthew's Gospel, chapter 4, verse 24, we read, "And they brought unto Him all that were sick, holden with divers diseases and torments, possessed with devils, and epileptic, and palsied, and He healed them."

Epilepsy has claimed for its subjects persons of the highest rank, as well as of the lowest. Some of the greatest of the earth have been afflicted by it. Cæsar, Henry IV. of England, Napoleon, Peter the Great, Mohammed, Byron, Sheridan, the great Duke of Wellington, and others whose names are written on the pages of the world's history, are said to have been afflicted by this terrible disease. . . .

I honestly believe it to be the finest treatment in the world for epilepsy. It is not a Cure-all. It cures epilepsy and some kindred diseases, but this is all I claim for it. . . .

"Imperatine" is a Nerve Food. It is as much a food and as necessary to epileptics as ordinary food. Some medicines ARE foods, and are found in the foods we eat. . . . As we do not get these nerve foods in correct proportions in the food we eat, they have to be supplied in the form of medicine. . . .

Other medicines recommended in this pamphlet are "Dale's Imperatone Pills" and "Dale's Powerones."

A considerable interval elapsed between the receipt of these pamphlets, etc., and the next step. When finally an order for a bottle of "Imperatine" was sent, together with 4s. 6d., a letter was received in reply, signed "W. Bunn, Secretary," stating that:

We do not, however, charge for medicine, but Mr. Gilbert Dale charges a fee for treating the case, as each case is treated individually, and medicine is prescribed separately for each patient.

We shall be glad if you will fill in and return the enclosed form and your case will then be carefully gone into, and a fee for treatment will be quoted.

In reply to this a leaf was sent from one of the pamphlets quoting "Imperatine" at 4s. 6d. per bottle, three bottles 13s., etc., with a letter pointing out the inconsistency, and demanding a bottle of the medicine or the return of the money. The following was then received:

Dear Sir,

Mr. Gilbert Dale has requested me to acknowledge receipt of your letter. As you can easily understand, epilepsy is a disease that is best treated by specially varied medicines for each case, therefore it has been found desirable, rather than to sell the bottle for each person, to take each case under the Treatment at so much per month, all medicines being supplied free. This is done so that the medicines may be prepared at our own laboratory, and patients may not be tempted to make the medicine last a longer period.

Under the circumstances if you would send the enclosed form filled in so that the medicine may be prepared we are willing to send a special bottle at the 4s. 6d. I should strongly advise you to take the Treatment at say 10s. 6d. for a month, this would include all medicines required for Epilepsy.

Yours faithfully,

W. Bunn, Secretary.

According to an earlier letter, quoted above, two 4s. 6d. bottles would last a month, therefore a monthly fee of 10s. 6d. represents an increased charge. But the use of the expression, "say 10s. 6d.," and the general tone of the letter seem to suggest that if it had not been for the dispute referred to a higher fee might have been charged. Another reason for the fiction that all medicine is supplied free may be a desire to avoid paying stamp duty, which would amount to 6d. on each bottle.

The "consultation form" was then filled up and sent; the questions asked, with the replies given (in italics), were as follows:

Consultation Form.

The information supplied on this form will be treated as of a *strictly private* character. It is generally better for a relative or friend of the sufferer to fill up this form.

Date.....

Name of patient (in full).....

Address (in full).....

1 Age?—*28.*
2 Married or single?—*Single.*
3 Occupation?—*Clerk.*
4 Pale, ruddy, blotchy or sallow complexion?—*Pale.*
5 Thin or stout?—*Medium.*
6 Weak or strong?—*Fairly strong.*
7 Height?—*5 ft. 8.*
8 Weight?—*10 st. 7.*
9 Is patient of weak intellect?—*No.*
10 How long suffered with fits?—*Occasionally for about 12 years: fits have only been frequent for a year.*
11 Do you know the cause? If so, what was it?—*No.*
12 How often do attacks occur?—*From once a week to once in 4 or 5 weeks.*
13 During night or day?—*Usually evening.*
14 Do the fits generally occur at a certain time? If so, about what hour usually?—*Usually between 6 and 8 in the evening.*
15 How long unconscious in attacks?—*3 to 5 minutes.*
16 Is there any warning? If so, what?—*None, except often a severe headache.*
17 Do the bowels act regularly without opening medicine?—*Yes.*
18 Is appetite normal?—*Yes.*
19 Is digestion good?—*Yes.*
20 Does the patient pass a normal quantity of urine?—*Yes.*
21 Is it natural in colour and free from sediment?—*Yes.*
22 Is monthly health normal (females)?
23 Does the patient sleep well?—*Fairly.*
24 Is the patient languid during daytime?—*No.*
25 Is the patient nervous? If so, in what way?—*Not generally, but rather apprehensive in regard to attacks.*
26 Has the patient any other disease?—*No.*
27 Does the patient suffer pain at times? If so, when and in what part?—*No.*
28 Is the patient usually despondent or of a cheerful disposition?—*Fairly cheerful.*
29 Does the patient worry?—*Not particularly.*
30 Has the patient had any other serious illness? If so, give particulars.—*No.*

31 Does the patient take intoxicants? If so, to what extent? *One glass of beer with mid-day meal.*

32 Does the patient smoke? If so, how much per week?—*Yes, about* 1½ *oz.*

33 Give date of last attack?—*April 26th.*

34 What doctors and remedies have been tried, and for how long?—*None.*

35 What results from them? Please answer fully.

Give any further particulars which you think necessary. If you have a recent photograph, please send it. I will return it with the medicine. If you have not a photograph, it does not matter. Answer these questions as well as you can, and describe as far as possible the character of the patient's fits, according to the statements of those who witnessed the attacks. It will help me if you will also say what is the patient's mode of life; such as, what time meals are taken, and what they consist of; what time the patient goes to bed, and the time of getting up; and so forth:

> *Rises 7.30. Breakfast, bacon or eggs, or fish, etc., bread and butter, tea. 1.0: Dinner, meat, vegetables, cheese, ½ pint beer. 6.30: Plain tea. 9.30 to 10.30: Bread and cheese and (in winter only) cocoa. Bed about 11 to 12.*

The medicine was then received, with a little book of "*General instructions to patients, and diet tables,*" and two copies of "*Report of Progress Form,*" with a request that one of these should be filled up and sent in after 12 days. The directions on the label were:

> Two small teaspoonfuls (exactly two drachms) to a wineglassful of cold water on rising each morning and on retiring each evening.

The bottle contained eight fluid ounces. Analysis showed the presence of ammonium bromide, potassium iodide, a little sugar and alcohol, and a small quantity of iron. After determining the amounts of the various ingredients, about 1 per cent. of matter was unaccounted for; the liquid was of a very dark brown colour, and no active ingredient was found possessing such colour; the appearance was best matched by means of burnt sugar, and this would account for the additional solid matter, but it is not possible to say positively that some "extractive" other than caramel was not present, and a minute trace of basic substance, possibly alkaloidal, was found. The alcohol may have been due to some tincture having been added, or it may have been employed to dissolve a little oil of sassafras, the mixture having a sassafras-like aroma. Sulphate was present, and the iron may have been added as ferrous sulphate,

but there was no direct evidence as to the form in which it was used. The formula arrived at was:

		In one dose (2 drachms)
Potassium iodide	1·55 parts	1·7 grains
Ammonium bromide	15·78 ,, ...	17·4 grains
Iron, calculated as ferrous sulphate	1·0 part	1·1 grain
Alcohol	4·15 parts by measure	5 minims
Sugars.....	6 parts	
Burnt sugar		
Oil of sassafras.....	trace	
Water to.....	100 parts by measure	

The estimated cost of the ingredients for eight fluid ounces of this mixture is 4d.

FITZKURE.

"Fitzkure" is supplied by "The London Medicine Co."; the price of a bottle containing eight fluid ounces was 2s. 9d.

An undated circular sent out by this firm commences:

> Believing you to be specially interested in the treatment and cure of Epilepsy, Fits, etc., we have taken the liberty of sending you particulars of "Fitzkure," which cures Fits, Falling Sickness, Hysteria, and kindred Nervous Diseases. May we request that you give the enclosed booklet your careful consideration.

The reason for supposing the recipient of this circular to be specially interested in the treatment of epilepsy is not at first apparent; but the fact that the London Medicine Co.'s booklet and the composition of their medicine are so similar to those of J. Gilbert Dale, described above, and that this circular was sent to a person who had previously written to Mr. Dale for particulars of his "Imperatine," suggest that the one business may be the offspring (legitimate or otherwise) of the other. There is also a curious resemblance between some of the "testimonials" published; for example, in one of Dale's pamphlets there is one marked "Mrs. W.," from which the following are extracts:

> I am now in perfect health, and am only too pleased to speak for "Imperatine." . . . When I went to sleep I never expected to wake again. But the *fits stopped with the first dose* of your medicine, and I was soon able to get up, and am now able to go anywhere by myself with comfort. . . .

Three weeks before I commenced your medicine, when I took to my bed, I was in fits day and night, first screaming, and then laughing, and got so strange that my friends dared not leave me a minute.

And the London Medicine Co.'s circular gives one marked "Mrs. F. W.," from which the following are extracts:

I am in perfect health, thanks to your wonderful cure. . . . . When I went to sleep I never expected to wake again. . . . I can go anywhere now with comfort. About 3 weeks before I started with Fitzkure I had to take to my bed, and was in fits day and night, first screaming and then laughing, and I got so strange that my friends dared not leave me a minute. The last I had was on the Friday morning that I got your medicine. I took a dose straight away, and it seems too wonderful to be true that I have not had one fit since.

Thus there are two women, both having surnames beginning with W., one taking "Imperatine" and the other "Fitzkure," both taking to bed "in fits day and night, first screaming and then laughing," both taking the respective medicines just three weeks after taking to bed, both cured by the first dose, and both using the same phrases in writing about it. Is it merely an extraordinary coincidence? or is one woman writing a testimonial about the same case, with a few verbal alterations, on behalf of two different medicines? or has the one advertiser "lifted" the testimonial from the other, altering the name of the medicine? or, finally, is the whole thing a fabrication and imposture?

The similarity in the pamphlets, already alluded to, will be seen on comparing the following extracts from *Epilepsy and its Cure* (The London Medicine Co.) with those given above from Dale's pamphlet:

Epilepsy is generally acknowledged to be one of the most dreadful diseases which humanity suffers from. For centuries it has existed, and has baffled the skill of the greatest physicians. The medical profession are scarcely any nearer being able to cure it than in the time of our Lord, when, as we read in the Gospel of S. Matthew, *Chap. IV. verse 24 (revised version)*, they brought unto Jesus all that were sick, holden with divers diseases and torments, possessed with devils, and epileptic and palsied, and He healed them. No race is free from this appalling disease, and it is no respector of persons, for many of the great of the earth have suffered with fits among whom may be mentioned Cæsar, Napoleon, Peter the Great, Mohammed, Byron, Henry IV. of England, the great Duke of Wellington, all of whom, among others, are said to have been so afflicted. . . .

Fitzkure is not a Cure-all for every disease, but it does and will cure epilepsy, fits, falling sickness, if steadily persevered with from 18 months to 2 years. . . . It is not so much a medicine as a Nerve Food, and is as much a food and as necessary to epileptics as ordinary food. Some medicines *are* foods and are found in the foods we eat . . . . when we do not get the medicines that we need from the foods we eat, these have to be supplied in the form of medicine. . . .

Fitzkure . . . . is guaranteed absolutely free from Bromide of Potassium and Poison.

There appears to be some humour in the next paragraph—

The history of the remarkable way in which Fitzkure was invented and developed is indeed a romance which would take too long to describe in these pages. The inventor is not a Doctor. . . . Our experience in treating these cases has been most valuable, extending over many years.

Other medicines recommended are "Fitzkure Laxative Pills" and "Fitzkure Tonic."

No "Consultation Form" was sent to be filled up, but in the original circular certain particulars are asked for:

When sending for "Fitzkure" please say what the patient has been taking, and with what result.

Be sure to give the full name and address, also state the age of the patient.

A 2s. 9d. bottle of the medicine was sent for, "for a young woman of 24 years." It was sent with a circular of directions and diet table, extracts from which are as follows:

The dose which is two small teaspoonfuls or two drachms, must be . . . . taken in a wine glass of water on waking in the morning, and retiring at night. Persons over 65, and weak delicate persons will need to take a smaller dose, from one to one-and-a-half teaspoonfuls for some weeks till quite used to the medicine. There is a wide difference in the susceptibility of patients to medicines, the ordinary dose being too small for some patients, and too large for others. If therefore the above dose makes you feel poorly or giddy, you must reduce it till these symptoms have passed away. But, on the other hand, if you are feeling well in yourself, and the fits have not ceased, you must increase the dose. . . .

Analysis showed the liquid to contain ammonium bromide, potassium iodide, potassium citrate, a little alcohol and reducing sugar, and a very small quantity of iron; it was flavoured with aniseed, and coloured deep brown, approaching black. The colour appeared to be given by burnt sugar, as in the previous

case. The various ingredients were determined quantitatively, and the formula indicated is:

		In one dose (2 drachms).
Potassium iodide	1.11 parts	1.22 grains
Ammonium bromide	26.63 ,,	29.3 ,,
Potassium citrate	1.0 part	1.1 ,,
Iron, calculated as ferrous sulphate	0.5 ,,	0.55 grain
Alcohol	1.7 parts by measure	2 minims
Oil of aniseed	trace	
Burnt sugar		
Water to	100 parts by measure	

The estimated cost of the ingredients for eight fluid ounces is 4½d.

DR. NIBLETT'S VITAL RENEWER.

This is supplied by C. P. Niblett, London; a bottle, price 4s. 6d., was found to contain four fluid ounces.

In a Press advertisement it is stated that

Dr. Niblett's Vital Renewer is the result of the most exhaustive research by a London Physician, who for upwards of 35 years made epilepsy his especial study. *Confidence* can be placed in this remedy, which for years has been used with the *greatest success* in all parts of the world. The One Remedy that cures.

A pamphlet is also offered free, entitled *A Practical Treatise on Epilepsy, its treatment and cure*, by S. B. Niblett, M.D., L.R.C.P.Edi.[1]

On the title page of the pamphlet, however, no "M.D." appears, but it is represented to be by "S. Berry Niblett, Licentiate Royal College of Physicians, Ed., Licentiate Faculty of Physicians and Surgeons, Glas., Licentiate Society of Apothecaries, Lond." The "practical" nature of the treatise is, to say the least, rather diluted by such paragraphs as:

This disease is called by the German physicians, Fallsucht; by the French, l'Epilepsie; by the Italian professors, mal caduco, or falling sickness.

Epilepsy was termed by the ancient Greeks "the sacred disease," on account of the magnitude of the evil, or because persons labouring under it have been thought possessed by demons. It was said that Hercules was

[1] The name does not occur in the *Medical Register* for 1912.

subject to it, therefore it was denominated the Herculean disease; but Galen says it was on account of its form or magnitude.

The Romans termed this affection "morbus comitialis," because it frequently occurred in crowded assemblies in which the passions of the people were often much excited, and it was customary to dissolve the comitia if during the sitting any person should be affected by it.

Many sufferers from epilepsy are possessed of high intellectual power; the classical cases of Julius Cæsar, Mahomet, and the first Napoleon, each of whom suffered from the disease, may be cited as examples. . . . Epilepsy is a disease which specially attracted the attention of the ancient physicians; it was termed by the Greeks "the sacred disease." Plato ascribes the use of the term "sacred" to the circumstances of the head or brain being the part of the body affected in epilepsy. Hippocrates pointed out, . . .

And so on. The section on "Treatment and Cure of Epilepsy" commences:

Few higher duties can devolve on the medical man than to make obscure diseases his special study. It should always be the aim of the physician to cure the disease as rapidly and effectually as possible. . . . The general tendency of epilepsy, if left to Nature, is certainly to proceed from bad to worse. . . . Efficient treatment is the very foundation of our art, the alpha as well as the omega.

Suddenly we come to the "treatment":

My Vital Renewer is a real vital antidote, really stopping the development of the attacks and absolutely curing the disease. . . . Under the use of my Vital Renewer the fits will immediately become less severe and less frequent. . . . Patients taking my Vital Renewer will receive explicit directions as to the nature of the food desirable to be taken at each meal. . . . I am prepared to prove, beyond all fear of contradiction, that my Vital Renewer has cured the most inveterate cases of epilepsy. . . . The success which has attended the administration of my Vital Renewer I believe to be due not only to the peculiar form in which it is prepared, but also to the unremitting care taken in the skilful manipulation which is required.

In a circular letter sent with the "*Practical Treatise*" it is stated that:

The treatment of Epilepsy or Fits is carried on under some difficulty, as nearly all the great Physicians prescribe the same remedy, Bromide—Bromide—nothing much except Bromide, and so the unhappy sufferer consults many doctors without being cured.

After prolonged study and extensive experimental research, varying over a considerable number of years, Dr. S. Berry Niblett, of London, discovered a certain remedy for all forms of Epilepsy and Fits. . . . This medicine is certainly the most valuable contribution that modern science has made to the treatment of Epilepsy.

The directions on the label are as follows:

Shake the bottle previous to use.

Adults: 1 teaspoonful in a wineglassful of water.
Children: 6 to 10 years, 20 drops in 1½ teaspoonfuls of water.
Children: 10 to 12 years, 30 drops in two teaspoonfuls of water.
Children: 12 to 18 years, ½ teaspoonful in 3 teaspoonfuls of water.
About the age of 18 the full dose should be taken.

The medicine must be taken three times a day, two hours after meals until a period of six months has elapsed since the last fit has occurred. At the end of that time it may be taken twice a day only, at 11 in the morning and again at bedtime, for another six months.

If no further attack occurs during that time the medicine may then be taken at bedtime only.

N.B.—If the attacks occur at night, one dose of the medicine should be taken at bedtime and twice during the day.

Analysis showed the liquid to contain potassium iodide, potassium bromide, ammonium bromide, a little alcohol, and a very little reducing sugar. It contained sufficient traces of oil of aniseed and chloroform to be recognizable by their odour, and was coloured a dark brown. After the ingredients named had been determined quantitatively, 0.4 per cent. remained to be accounted for by the colouring matter, which appeared to be burnt sugar. A minute trace of a basic substance was present, which might have been alkaloidal, but the quantity was negligible. The alcohol may have been added as spirit of aniseed or spirit of chloroform. The formula indicated by the results is:

		In one dose (1 drachm).
Potassium iodide	3.75 parts ...	2.07 grains.
Potassium bromide	30.88 ,, ...	15.6 ,,
Ammonium bromide	7.66 ,, ...	4.2 ,,
Chloroform	trace	
Oil of aniseed	,,	
Alcohol	2.6 parts by measure.	
Burnt Sugar		
Water to	100 parts by measure.	

Estimated cost of ingredients for four fluid ounces, 3d.

BROMOCARPINE.

A French preparation called Bromocarpine is said to be fairly extensively used in some districts as a remedy for nervous disorders, more especially epilepsy. A circular accompanying the

preparation has the title "The Treatment of Nervous Affections by Bromocarpine"; and it is stated that "the attacks are diminished in number to the extent of 80 per cent.," and that a "complete disappearance is extremely common. Petit Mal (vertigo) is abolished, and there is a very marked improvement in the mental state during the intervals." It is further stated that "The nervous system can be quieted by the methodical use of Bromocarpine, continued for many months if necessary. This preparation, of which Pilocarpine is one of the principal factors, determines copious diuresis, free perspiration, and an abundant secretion of saliva. In this form the intensive bromide treatment is well borne."

The bottle (price 6 francs) contained 16.7 fluid ounces. The liquid was found to contain:

Potassium bromide	8.9	per cent
Alkaloid	0.0035	,,
Sugar	54.0	,,
Glycerine	10.0	,,

It was orange-flavoured, and contained a little alcohol, in all probability added in the form of tincture of orange; a trace of some other colouring matter was also present.

The alkaloid agreed in some respects with pilocarpine, or the mixed alkaloids of jaborandi; it did not give the characteristic colour-test for pilocarpine, but this may have been due to some decomposition during the treatment it had undergone, the separation of such a small quantity of alkaloid from a large quantity of sugar and glycerine being a rather troublesome operation.

If the alkaloid is calculated as pilocarpine, the quantity is equivalent to 0.0049 per cent. of pilocarpine hydrobromide. On a small label on the bottle the liquid is stated to contain 10 per cent. of potassium bromide and 0.005 per cent. of pilocarpine "hydrodom," presumably a mistake for "hydrobrom." In a circular wrapped round the bottle it is stated that each teaspoonful contains nearly 10 grains of potassium bromide, and a two-hundredth of a grain of pilocarpine; comparing this with the formula on the label it appears that a teaspoonful is reckoned as nearly 100 grains, and the same proportion is given for pilocarpine in the one case and pilocarpine hydrobromide in the other. Actually, 1 fluid drachm of the liquid is 76.9 grains.

Various other substances were tested for, but nothing was found besides those mentioned above, and water.

A GERMAN NOSTRUM.

According to Dr. Zernik,

Roller's powder for epilepsy is supposed to be a remedy for epilepsy, chorea, hysterical attacks, cramp of the stomach, and of the chest, etc., and is sold by the Dresden "Diakonissenanstalt" for M 3.40 the box. The package contains three 5-grams powders wrapped up in sealed paper capsules. The powder is black, and has the odour of a rancid animal oil. Analysis proved that it consisted of partially carbonized animal substance, which yielded 20 per cent. of brown substances soluble in ether. The preparation is said to be made by burning magpies shot on twelve nights following Christmas. This use of incompletely carbonized animal substance for epilepsy is an ancient superstition.

CHAPTER XI.

THE "TREMOL TREATMENT" FOR BAD LEGS.

Under the general name of the "Tremol Treatment," medicines for the cure of "bad legs" are supplied by the limited company trading as "The National College of Health, Limited, Eye, Ear, Throat, and Skin Institute, and Infirmary for Bad Legs" at an address in Manchester, and an account is here given of the analysis of some of these. We also give some account of the methods used to attract patients, and if any further proof were needed of the necessity for further legal control of medical companies, this alone should furnish everything that could be required. The institution has been in existence for several years, but has recently become very active, and claims to have treated some thousands of cases. The methods used to attract patients are open to serious criticism. It is stated that every patient is under the direct supervision of a "fully qualified medical man." Several attempts have been made to find out the name and qualifications of any such medical man, but without success, and it is to be noted that he is called "fully qualified," not "duly registered," and at any rate no duly registered practitioner is known to have anything to do with the place. It would appear that comparatively few of the patients receive any personal examination, and that the great majority are never even seen by the "doctor" or by any of the staff, and anything approaching diagnosis is made simply from perusal of letters sent by patients. On turning up the *Truth* Cautionary List the following note is found:

"National College of Health, Great Clowes Street, Higher

Broughton, Manchester.—Proprietors of a cure for bad legs called 'Tremol.' The first price for a course of treatment is two guineas, which is reduced to one guinea if the bait is not swallowed. Also endeavours to obtain advertisements on the payment-by-results system, offering 5s. for every patient caught through an advertisement."

We may add that if a patient once applies for information he may expect to be dunned for months until he orders the remedies. This is well shown in letters sent to a person who, after receiving the budget of testimonials, had decided not to order the remedies. The following are typical extracts of the letters he received. "I am truly sorry and much disappointed that you have not yet participated in the benefits of the Tremol treatment. I am personally anxious that you should become a patient of mine, as I know positively that you would derive the greatest of benefits. . . . Is it scepticism? Is it doubt? Is it your financial position that stands in the way? Tell me plainly your reason for not ordering the treatment and let me help you as it is my earnest desire to do so. I am anxiously awaiting your reply." This letter of entreaty seems to have had no result, and accordingly in a few weeks another was sent, saying: "I am specially interested in your case and having brought it to the notice of the Board of Directors I am instructed by them to make the following concession to you." The concession was that the full two-guinea course of treatment would be sent for 31s. 6d. on the condition that "when you are cured you will tell all your friends and neighbours that it was the Tremol treatment that cured you and that you do not divulge that the Board has made this concession." One of the letters contains the words, "I am personally anxious that you should become a patient of mine," and it might naturally be inferred that the signature was that of the "fully qualified medical man," but we cannot trace the name in the *Medical Register* as that of a person residing in or near Manchester. A further letter, imploring the recipient "as a friend" to continue the treatment, is printed in Chapter XVII.

Not long ago the periodical *John Bull* sent to the institute a special investigator, who came away perfectly satisfied "that the Tremol treatment is an honest one and ably applied," and that "it distinctly merits the praise of *John Bull*." The investigation seems to have consisted in "roaming over the whole of the carefully kept records of the thousands of cases treated" and apparently accepting everything that was told—not a very scientific method of investigating a treatment on which the health of thousands of patients may depend. The investigator was told, among other things, that the treatment is applied to five classes of diseases of the leg—(1) ulcers of every description; (2) eczema and skin diseases; (3) varicose veins: (4) tuberculous disease (diseased bone); and (5) swollen and painful legs (phlebitis, etc.); and we are told that "the treatment is able to cure all the diseases included in the classes (1) and (2); but of the classes (3), (4), (5), those only are selected which the medical history and circumstances of the particular case convince the doctor are at least curable." Speaking of the remedies used, *John Bull* says they are secret, but "the composition was freely disclosed to us . . . and the ingredients are not of a harmful nature; indeed, some of the most valuable and beneficial drugs known to the medical faculty are included in them, but this particular combination has never before been used in medicine, and some of them are quite new." One would like to know which of the ingredients revealed by analysis *John Bull* considers quite new; it cannot be the chloride of calcium or the chloride of iron, or the infusion of rhubarb, or the prepared chalk, or the zinc oxide, or the lead carbonate—perhaps it is the peppermint water. As far as our analysis reveals, the combination is a heterogeneous mixture of anything that might possibly be of use, regardless of chemical combinations that may re-

sult, and we fail to detect any trace of any new drug. We have only found the very commonest drugs in ordinary use. There can be little doubt that in the interests of the public health it is necessary that there should be a full investigation of the National College of Health and Hospital for Bad Legs. If there is a registered medical man connected with the place, he is certainly acting in a way that makes him liable to be arraigned before the General Medical Council; and, if there is no registered practitioner, then the use of the term "fully qualified medical man" is most misleading to the public.

An attempt to purchase the remedies through one of the usual channels for proprietary medicines only elicited an intimation that they were not sold in that way, but were supplied in accordance with particulars to be furnished of the case for which they were intended. An application to "The National College of Health" brought a "Diagnosis Form" to be filled up, with a letter stating that the fee for the full course of Tremol treatment is £2 2s. A publication was also sent, entitled *Good News about Bad Legs; or "Cures by the Cured,"* consisting of twelve pages of the size of an ordinary newspaper page, containing portraits of patients and letters, etc., about cases, as well as much printed matter about Tremol treatment and "Views of the National College of Health, Limited." Attached to the front page of this was a conspicuous separate slip, worded thus:

Important. The Board of Directors wish it to be distinctly understood that every Patient who undergoes the Tremol Treatment is under the direct supervision of a fully qualified Medical Man.

A few extracts from this publication will serve to indicate the methods of the National College of Health, Limited. The opening paragraphs have a curiously familiar ring, and might be paraphrased from the pamphlets of almost any quack-medicine maker; they are as follows:

For centuries Bad Legs have ranked with Cancer and Consumption as one of the diseases over which the power of man could not prevail. For generations thousands of sufferers have lived lives of misery, become thoroughly worn out, and have gone down to their graves before their time through sheer exhaustion: all human skill being powerless to save. Their resources exhausted, ignorant of any agent in Medicine or Nature competent to cure, it came to pass that the Medical Faculty were reduced to the expedient of ordering sufferers long periods of rest in bed. This in itself was a confession of failure and of no avail.

It has been computed that Bad Legs have caused more misery and suffering than all the wars ever undertaken by the world's rulers. And why? War is but an incident in a nation's history, but the evil of Bad Legs is ever present, ever constant, ever taking its toll of suffering humanity. In the face of all this, Medical Science fell back, helpless, baffled, and beaten.

At last, after years of scientific research, after thousands of painstaking experiments, the Tremol Method of Treatment was discovered, and the cure of Bad Legs, once for all, established and placed on a sure and scientific basis.

What modern Astronomy is to the old discredited Astrology, what Scientific Chemistry is to the Alchemy of olden times, even that and more is Tremol System of Treatment to all other so called treatments for Bad Legs. Other treatments are empirical, this Treatment is scientific; other treatments end in failure, this System cures to stay cured. Once again has Mother Nature yielded to patient scientific investigation one of her greatest secrets, the secret of how, by means of the Tremol System, to cure Bad Legs with certainty, with rapidity, scientifically, and with no possibility of failure.

Other extracts are:

Universally accepted as the one and only cure for Bad Legs, the Tremol System stands to-day before the world unchallenged and unrivalled. Men of science accept it. Medical men recommend it. The thinking public endorse it, and the thousands of happy men and women cured by it hail it with a delight words fail to express. . . .

As sure as day follows night, so certain is it that this new and great discovery will cure every case of Bad Leg to which it is applied.

Remember, in all our cases, this System of Treatment has had to begin where others have left off. Sufferers who apply to us for relief and cure are only those whom doctors have finished with, or on whom ointments have proved useless, lotions abortive, pills impotent, and blood mixtures futile.

These last two extracts scarcely seem to be in harmony with the announcement which is made rather conspicuously: "Incurable cases not accepted." On the back page appears in large letters:

There is no Guess-work. No Pain. No Experimenting. No Lying Up. No Operation. No Relapse. NO FAILURE. No matter how Difficult the Case may be. No matter what form it may have Assumed. No matter how many Doctors, Specialists, or Hospitals may have failed to help you. The Tremol Treatment, the New Therapeutic Discovery for Bad Legs, IS CERTAIN TO CURE YOU, AND MAY SAVE YOUR LIFE. No claim or statement is made that is not borne out by Facts and Living Witnesses.

A document was sent with the medicines, marked "Legal Guarantee to Cure." It is worded as follows:

We, the National College of Health, Limited, hereby Agree and Undertake to refund on demand to you the whole of the money paid by you to us for our Treatment, if we fail to cure you after we have applied the Tremol Treatment for a reasonable length of time. This Guarantee is subject to the Conditions set forth on the back hereof.

Then follows a facsimile of the signature of the Governing Director; it is not decipherable with certainty, but might be "E. F. Guest."

The conditions set forth—in quite small type—on the back are as follows:

The Tremol Treatment is only devised to cure bad legs—but if a case is accepted by us for personal treatment, then unless otherwise agreed at the time, this guarantee holds good. To ensure the bona-fides of the patient it is necessary that within seven days of starting the Treatment you give notice in writing to us that you accept the offer contained in this guarantee, and in this respect time shall be of the essence of the contract. This guarantee only applies where the Treatment is personally applied by us. It will be readily understood that we cannot guarantee cures when we have no guarantee that our Treatment is properly applied. We must be the judges of what is a reasonable time. We give no warranties. Warranties may mean anything or nothing. We simply return the money paid to us while we are personally treating you as aforesaid, and this is the limit of our liability. Any dispute between you and us as to any claim under or upon this agreement or as to any question arising hereunder shall be determined by arbitration in accordance with the Arbitration Act, 1889.

Since this "Legal Guarantee to Cure" is sent with the medicines, the person receiving it would naturally suppose that it would apply to his case; and it is only on careful examination that it is discovered that (1) it only applies to cases where the treatment is "personally applied" by the company, and therefore not to a case where the medicine is sent out; (2) even in "personally" treated cases, it does not apply unless the patient gives notice in writing within seven days of *beginning* the treatment that he intends to insist on it; and (3) since the company is the sole judge of what is a "reasonable time" within which the cure is to be obtained they can insist on continuing the treatment (as long as the patient will pay for it) in any case in which a claim is made. Not even the most ignorant person could regard such a "guarantee" as of the slightest value if he understood the conditions. It would appear that it is not the "bona fides of the *patient*" that needs to be ensured.

The "Diagnosis Form" sent was as follows; the words in italics are the particulars of an imaginary case that were supplied:

1. Date.
2. Christian name.
3. Surname.
4. Male or Female. *F.*
5. Married or Single. *Widow.*
6. Full Address.

* 7. What is your age? 53.

8. What is your weight? *About* 12 *stone.*
9. What is your Occupation? *Housekeeper.*

* 10. Is it your right leg, your left leg, or both your legs that are affected? *Right.*

11. How long has your Leg troubled you? *About a year.*
12. Does your Leg pain you? *Yes.*
13. Does the pain of your Leg keep you awake at night, or in any way interfere with your comfort. If so, fully explain in what way. (Describe the pain.) *There is a constant acute pain from the open wounds, and a great deal of itching as well; the irritation, in addition to the pain, often causes sleeplessness.*

* 14. Is the portion of your Leg affected Itchy or Scaly? *Very itchy.*

15. Have you consulted any person? If so, who, how many, and what did each tell you and what did they advise? *No.*
16. Have you attended any hospital? If so, state which. *No.*
17. Have you ever received an injury to your leg? *It was broken* 20 *years ago.*
18. Is the pain worse when standing up or lying down? *Pain worse when standing; itching worse when lying.*
19. How did you first hear of the Tremol Treatment? *Thro' an acquaintance in Yorkshire.*
20. Name the various remedies you have tried, and the methods you have adopted to effect a cure and the effect each has had upon your leg? *At first cold water bandaging; recently zinc ointment. Practically no effect.*

* 21. Are there any ulcers, wounds, or holes in your Right Leg, or is it a red, itchy or scaly patch only? *Three open wounds and a big, red itching patch.*

* 22. Are there any ulcers, wounds, or holes in your left leg, or is it a red itchy, or scaly patch only? *No.*

Don't fail to reply to this.

*23. If there are ulcers, wounds, or holes, state how many, and the position and size of each, cut out on pieces of paper and send to us the sizes of the wounds or ulcers on each leg (N.B.—Be careful to distinguish the size of the wound or ulcer from the size of the surrounding redness or inflammation. *The three open wounds are each about* $\frac{3}{4}$ *inch across; they are about* $2\frac{1}{2}$ *inches apart in an irregular triangle; they are in a red itching patch about* 4 *inches across, on the outer side of the leg, about half-way down.*

24. Is there now, or has there ever been proud flesh in the wound? *No.*

* 25. Are your bowels habitually costive or free? *Free.*

26. Have you ever suffered from a white leg? *No.*

27. Did your Leg first begin to trouble you through a hurt, after confinement, or how? *It came on gradually without apparent cause, at first as a small itching red spot.*

28. Has your Doctor advised Rest? *Have not had a doctor.*

29. Have you rested, if so, has it done you any good? *Have rested a good deal, but it doesn't seem to make much difference.*

30. Have you spent much idle time trying to obtain a cure? *No.*

31. Has your leg ever been healed, if so, was it with Skin or with Scab? *Not since the wounds became raw.*

* 32. At what portion of the leg is the breaking out? *On the outer side, about half-way down.*

33. Have you been growing worse lately? *Yes.*

* 34. Is there much inflammation or fiery redness round the wound? *Yes.*

35. Have you Varicose Veins? If so, state extent, of how long standing, and what caused them. *No.*

* 36. Please to give the names and addresses of any persons in your district or elsewhere, whom you may know to be suffering from Bad Leg. This information will be treated as strictly confidential and exclusively private.

Remarks.—Write on a separate piece of paper any facts relating to your case or conditions that have not been indicated by the above questions. Describe your case fully in your own words and all you have suffered and gone through; in short, give us a general history of your case.

This was sent with two guineas to "The National College of Health, Ltd." The medicines sent in return consisted of a bottle of "Tremol Blood Mixture," a bottle of "Tremol Lotion," a box of "Tremol Ointment," and a box of "Ointment No. 2," with two bandages. Two typed sheets of directions accompanied these, headed "Instructions for applying No. 14 course of Tremol Treatment." Each of the four preparations is priced separately at 11s., by post 11s. 4d.

TREMOL BLOOD MIXTURE.

The bottle contained 8 fl. oz. It bore a printed label, and there was nothing on the label to suggest that it was in any way modified for the particular case for which it was intended. The directions on the label were the same as those given in the paragraph on the typed sheet, which was as follows:

How to Take Your Medicine.—It is absolutely necessary for you to take this Blood Mixture prescribed specially for your case, all the time your leg is being dressed with the other preparations. To obtain permanent results it is imperative to continue taking this medicine for your blood, for some time after your leg is well.

Directions.—Take one drachm (one small teaspoonful) morning and evening after your meals, in a wineglassful of water sweetened to taste with one or two lumps of sugar. We strongly advise you to use a Medicine measure instead of an ordinary teaspoon, so that the dose will accurately measure one drachm.

Analysis showed the mixture to contain calcium chloride, ferric chloride, small quantities of free hydrochloric acid and alcohol, peppermint water, and a preparation of a vegetable drug; the latter had a slight flavour of rhubarb, but showed no definite active principle and no characters by which it could be positively identified. The proportions of the definite ingredients were determined, and found to be as given in the following formula. A mixture prepared according to this formula agreed very well in regard to the vegetable drug, and perfectly in other respects.

Calcium chloride	224 grains
Solution of ferric chloride	300 minims
Dilute hydrochloric acid	200 ,,
Concentrated infusion of rhubarb (1-7)	100 ,,
Peppermint water	2 fl. oz.
Water ... to	8 ,,

A deposit slowly falls, from which the clear liquid is decanted.

Estimated cost of the ingredients, 1¼d.

TREMOL LOTION.

The bottle contained 8¼ fl. oz.; it bore a printed label, and there was nothing on the label to suggest that it was in any way modified for the particular case for which it was intended. The directions on the typed sheet were the same as those on the label, as follows:

Dilute the Lotion with an equal quantity of water. Cut out a piece of Lint slightly larger than your Ulcer, so that the Lint will cover the surface of the Ulcer as completely as half-a-crown covers a shilling. After a thorough cleansing (see directions for so doing) well soak the Lint in the dilute Lotion for two or three minutes, and then apply to the Ulcer. You are not to apply the Lint containing the Lotion too wet, that is dripping, neither are you to squeeze it out too dry, just thoroughly moistened and on the wet side.

Analysis showed the liquid to consist of solution of chlorinated soda containing 2.9 per cent. of available chlorine (which is slightly above the minimum strength of the official solution) with the traces of impurities usually found in it.

Estimated cost of the liquid, 2d.

TREMOL OINTMENT.

This was in a wooden box containing 14½ oz.; it bore a typewritten label:." The Tremol Ointment. To be used as directed."

The directions on the typed sheet were as follows:

How You are to Apply Tremol Ointment. Cut out a piece of soft lint slightly larger in circumference (about ¼ in. larger all round) than the Lint on which the Tremol Lotion is applied. Spread the Ointment thickly on the plain surface, then place it on top of the Lint on which No. 2 Ointment is spread, but over the Ulcer, and therefore covering the Lint which is soaked in the Lotion. You will therefore have over the Ulcer three layers of Lint. First, two layers of Lint containing Lotion. Second, the layer of Lint on which the Ointment No. 2 is spread, and covering the red and inflamed part. Third, the layer of Lint on which Tremol Ointment is spread and covering the portion where the Ulcer is situated. Therefore over the red inflamed part there is one layer only, that on which No. 2 Ointment is spread, but over the Ulcer there are three. When you are dressing your leg do not remove Ointment No. 2 that adheres to the skin. Apply fresh dressing on the top of the adherent ointment.

Analysis showed the ointment to contain:

Prepared chalk	70.3 parts.
Soft paraffin	29.0 ,,
Yellowish-brown colouring matter	traces.

The colouring matter appeared to be one of the coal-tar dyes, but was not present in sufficient quantity for exact identification; the chalk contained the small quantities of impurities usually occurring in it. No other ingredient was found.

Estimated cost of the ingredients, 2½d.

OINTMENT NO. 2.

This was in a wooden box containing 10½ oz.; it bore a typewritten label, " Ointment No. 2. To be used as directed." The directions on the typed sheet were as follows:

How You are to Apply Ointment No. 2.—Cut out a piece of Lint large enough to cover the red and inflamed portion of your leg. On this spread pretty thickly the special Ointment labelled No. 2, and apply it; at the same time covering the Lint which is soaked in the Lotion.

Analysis showed the ointment to contain zinc oxide, a lead compound which appeared to be the carbonate, sodium benzoate, sodium acetate, water, lard, and a pink colouring matter which

was evidently a coal-tar dye. No other substance was found. The quantities of the different ingredients were determined, and the results agreed with the following formula:

Zinc oxide	19.8 parts.
Lead carbonate	3.5 ,,
Sodium benzoate	0.3 ,,
Sodium acetate	0.7 ,,
Water	9.6 ,,
Colouring matter	traces.
Lard	to 100 parts.

Estimated cost of the ingredients, 7d.

CHAPTER XII.

THE "CRIMSON CROSS REMEDIES."

The series of preparations dealt with in this chapter afford a good example of the way in which secret remedies, even when composed of simple and harmless drugs, may be a source of serious danger through the exaggerated claims made for them. The emphatic assurances of curative power given in most cases may easily lead people, even when not unusually credulous, to take the medicine in question and trust to it for a cure, and therefore omit to obtain proper advice until the disease from which they are suffering may have reached an advanced stage. In the present case, however, the danger is not only to the person employing the nostrums, but to others as well; for the claims advanced are not merely that the articles offered will cure a number of very serious diseases, but also that in small-pox, scarlet fever, measles, etc., they *render the patient non-infectious*, and anyone trusting to this preposterous assertion might therefore easily become an active agent in spreading infectious disease. Heart disease, cancer, typhoid, pneumonia, diphtheria, and consumption are among the other trifles for which the "Crimson Cross Remedies" are recommended. It is hardly necessary to add that ludicrous ignorance is shown in the assertions made; the ointment, which is one of the principal articles of the series, is stated to have been introduced fifty years ago for diseased bones, joints, and abscesses, but "it now includes 'Infectious' as well as most other diseases. There is no foothold for microbes where the ointment is applied"—presumably the feet of the microbes are not adapted to the greasy surface which

it presents. In typhoid, "if the head is not well soaked with the ointment, an abscess is liable to form on the brain"! Analysis showed the principal ingredient of this marvellous salve to be about 1 per cent. of copper oleate, while the "special ointment" to be used for cancers, chronic stiff joints, sprains, heart disease, etc., contained between 4 and 5 per cent. of the same substance, with a trace of acetic acid. It appears from the statements made that the individual whose name is attached to these preparations has also been in the habit of visiting patients in their own homes.

An advertisement in the *Vaccination Inquirer*, headed "A simple solution of the vaccination question," states that:

> The Crimson Cross Remedies for fevers, measles, small-pox, influenza, pneumonia, pleurisy, etc., render the patient non-infectious.

The extracts which follow are from circulars sent out with the remedies.

> The first of the Crimson Cross Remedies used with unprecedented success was our No. 1 Ointment. This was introduced fifty years ago for Diseased Bones, Joints, and Abscesses. It cures without cutting, scraping, bed, or splints. It has saved hundreds from being hopeless cripples, and thousands of lives and limbs.
>
> As time went on this valuable remedy was found to be a POWERFUL GERM KILLER, so that its usefulness as a household remedy has been considerably extended, and it now includes "Infectious" as well as most other diseases. There is no foothold for microbes where the Ointment is applied.
>
> One of its best works is the
>
> CURE OF CONSUMPTION.
>
> This much dreaded "White Scourge" can be cured in its incipient or first stage, and even when the mischief is deeper rooted it always gives relief.
>
> It has been stated that Small-Pox is now extinct in England, but of course may be imported at any time. However that may be, there need be no fear of it if Crimson Cross Remedies are applied.
>
> The Remedies (No. 1 Ointment and Fever Powder) are equally efficacious for Scarlet Fever, which is easily cured in from one to three days, if applied as soon as the patient sickens. If peeling has commenced before the Remedies are applied, it takes a fortnight to complete the cure, but there is no fear of infection.
>
> Typhoid or Enteric Fever treated by the Crimson Cross Remedies in the first stage is easily cured in a few days. . . .

Internal Diseases of Women can be cured without Operation or Examination by our SPECIAL TREATMENT. Full particulars on application.

In a "Brief Treatise on Diagnosis and Treatment" directions are given for the employment of these remedies in a variety of illnesses. The chief feature is a liberal application of the ointment, accompanied by internal administration of one or more of the other preparations. The following quotations will serve as examples:

COLDS. On the first appearance of a cold, rub the forehead, chest, and back with Crimson Cross No. 1 Ointment contained in the Fever, etc., packet; take the medicine made from the Powder according to directions.

FOR PNEUMONIA, CONGESTION, AND PLEURISY.—Poultice the chest, sides, and back every two hours with hot linseed meal. Spread warm No. 1 Ointment on the face of the poultice until the acute symptoms are gone, then rub the chest, sides, and round the shoulders with the Ointment once or twice a day until quite well. Take the medicine made from the Fever Powder according to directions.

TYPHOID OR ENTERIC FEVER. . . . Acute Bright's disease of the kidneys and inflammation of the lungs frequently accompany or follow typhoid; for the former give CRIMSON CROSS KIDNEY CURE, and poultice the lower part of the back with hot linseed meal and Ointment; for the latter see directions given. If the head is not well soaked with Ointment, an abscess is liable to form on the brain. The FEVER MIXTURE and KIDNEY CURE may both be taken alternately three times a day, if necessary; let two hours elapse between each dose.

DIPHTHERIA. Spread No. 1 Ointment on hot linseed poultices, apply one every hour. As Diphtheria patients are liable to unexpected syncope, it is advisable to have a doctor.

From the following paragraph in one of the circulars, it would appear that "Captain Feilden" does not confine his activities to the *selling* of these preparations:

Please note—All communications should be addressed
Crimson Cross Dispensary.
_____, _____.

Stamped envelope enclosed for reply.

Although we do not now treat cases personally at the Dispensary, we continue to give advice "Free" by letter. Full particulars of the case should be given, and, where possible, Captain Feilden will call and see patients in their own homes.

A list is given of ten preparations, varying in price from 7½d. to 2s. 9d. The following were obtained for examination: Fever and Influenza Powder, No. 1 Ointment, Special Ointment, and Kidney Cure.

The first two of these were supplied together for 1s. 3d., post free.

CRIMSON CROSS FEVER AND INFLUENZA POWDER.

This consisted of about 100 grains of a purplish-coloured powder, and was contained in a "chip" ointment box. The directions on the label were:

Add to one pint of cold water, and take—Adults, one tablespoonful three times a day. Children, one to two teaspoonfuls, according to age.

The powder contained 99.4 per cent of ammonium chloride, and nothing else was found except the colouring matter, which agreed with the reactions given by tincture of cochineal.

Estimated cost, about ⅛d.

CRIMSON CROSS NO. 1 OINTMENT (CAPTAIN FEILDEN'S).

This was also in a "chip" box, and the quantity was about 2¼ oz.

Analysis showed it to contain:

Copper oleate	1.1 per cent.
Anhydrous sodium sulphate	0.4 ,,
Beeswax	6.5 ,,
Resin (colophony)	29.6 ,,
Linseed oil	62.4 ,,

The sodium sulphate may be due to the copper oleate having been made by double decomposition of copper sulphate and soap, without washing away the sodium sulphate formed, although the amount of the latter found is more than the equivalent of the copper.

Estimated cost of ingredients, ⅘d.

CRIMSON CROSS SPECIAL OINTMENT.

The price of a jar, containing about 3½ oz., was 2s. 9d. A special circular is devoted to this preparation, and the statements made include the following:

This Ointment is prepared from a Special Formula for the Treatment of unbroken substances such as Cancers, Tumours, Bunyons, or Enlarged Toe Joints, Chronic Stiff Joints, Sprains, Heart Disease, etc.

By the blessing of God it has been successful in the treatment of many such cases, and it is hoped that many more may benefit. . . .

An irritable rash may appear, and this is a good sign, though some patients give up using the Ointment because of this irritation. This should not be done—the irritation will die away, though the rash may remain. To relieve the irritation discontinue the Special Ointment for a day or two—bathe with warm water, and apply a little Olive Oil. . . .

CANCERS AND TUMOURS.—Steam the affected part once a day, gently rub a little Special Ointment in, night and morning. Spread Ointment on clean linen, and wear as a plaister during the night and day. If the appetite is not good, take Crimson Cross Liver Mixture, and Crimson Cross Kidney Cure occasionally, to keep the Kidneys in good order. . . .

HEART DISEASE.—Rub the Ointment gently in across the stomach, round the Heart and Shoulder Blades, night and morning. Great care should be taken to keep the Stomach and Kidneys in good order, and to be on the safe side in this matter, we advise all those suffering from Heart troubles to occasionally take a bottle or two of Crimson Cross Liver Mixture, alternately with Crimson Cross Kidney Cure.

Analysis showed this to contain:

Copper oleate	4.6 per cent.
Anhydrous sodium sulphate	1.3 ,,
Acetic acid (glacial strength)	0.8 ,,
Beeswax	3.5 ,,
Resin (colophony)	46.8 ,,
Oily base, chiefly or entirely linseed oil	43.0 ,,

Estimated cost of ingredients 1½d.

CRIMSON CROSS KIDNEY CURE.

The price of a bottle, containing 6½ fluid ounces, was 1s. 1½d.

It is stated on the package that:

This Mixture contains powerful Medicinal Properties for the cure of Kidney, Bladder, Gravel, and all Urinary Disorders, Dropsy, etc.

Dose. Adults.—One tablespoonful every four hours.

Children.—One teaspoonful to one dessertspoonful, according to age, every four hours.

It is thus described in an accompanying circular:

This is a remedy really worthy of the name. It is natural in its composition, it is natural in its action, it does not coerce nature as in the case of poisonous drugs and drastic metallic medicines. It assists and stimulates the recuperative energies of nature in the system, thus enabling her to throw off the effects of this insidious and alarming disease. Every reader of these lines who is troubled with backache, nervousness, dimness of sight, lassitude, or any symptoms of Kidney trouble, should immediately take this remedy, and obtain that relief and cure which seems possible by no other known means at the present time. . . .

The Crimson Cross Kidney Cure may be confidently taken by young and old alike, in full assurance that whatever the trouble, a course of the Crimson Cross Kidney Cure will gently but surely remedy the mischief, and coax the organs back to a natural and healthy action.

NOTE:—Whilst taking the Crimson Cross Kidney Cure it will greatly facilitate the cure if the lower part of the back and bowels are gently rubbed with Crimson Cross No. 1 Ointment once a day. The Ointment should be well rubbed in for about five minutes, then wipe down with an old rough dry towel, to prevent the linen from getting greasy.

Analysis showed that this fluid contained glycerine about 5 per cent., alcohol 4 per cent. by volume, methyl salicylate (oil of wintergreen) about 0.05 per cent., and a small proportion of vegetable extractive giving a slight colour to the liquid, but having no characteristic taste or any property by which it could be identified; no alkaloid or other active principle was present, and the ash (0.25 per cent.) contained only the constituents usually found in any vegetable extract.

CHAPTER XIII.

MEDICINES FOR AMENORRHŒA, ETC.

One of the largest classes of proprietary nostrums, and one in which most of the evils connected with secret medicines may be seen at their worst, is that consisting of so-called "female medicines." The reasons for the abundance of proprietary articles of this kind are not far to seek. In the first place, the gross profit of the trade is very large; as our analyses show, the prime cost of all these medicines is very low, and the selling price of many of them is very high. In the second place, the expenses are low; while many other nostrums require large and expensive advertisements in the newspapers, and on hoardings, etc., these are almost without exception given small advertisements, often of only a few lines, with perhaps some one word, such as "Ladies," in large type to catch the eye. A third attractive feature is that, as a rule, the business is done directly with the consumer through the post, and there are, therefore, no intermediate profits to be deducted; payment is made in advance, and only the postage has to be reckoned off the full retail price. Fourthly, purchasers are in the nature of the case often persons more than usually susceptible to the plausible promises of cure that are sent out; failure to effect what is promised, far from causing the purchaser to stop wasting her money on the nostrum, is turned to account by offering a "specially strong" variety at a higher price, and behind this is usually a third, or "extra special" at a still higher price, and sometimes ever a fourth. Finally, in a very large number of cases, the sale

of a nostrum of this class provides an opening for a steady business in other articles of a kind usually bought more or less surreptitiously, and which bear a very high rate of profit.

So much for the gain to the vendor. The harm to the purchaser is similarly of a manifold nature. Perhaps the least important is that the price charged is in very many cases quite exorbitant, pills or mixtures, etc. sold at from ten shillings to a guinea costing only a few pence or less. Much more serious is the fact that the purchaser is induced to take medicines of little value, if any, for a functional derangement which it is always dangerous to treat too lightly. It cannot be too widely known that cessation of the normal period may be a sign of phthisis or other serious illness, and good medical advice ought to be obtained. Further, a large number of these nostrums are the subject of more or less thinly veiled recommendations that they should be used for cutting short an unwelcome pregnancy, and although some of them would be but little likely to be efficacious for this purpose, some contain irritants which are highly dangerous. When cessation of the menses is due to pregnancy, there is no drug or medicine known which will re-establish them and stop the pregnancy without putting the woman's life in grave danger.

It would be tedious to give detailed extracts from the advertisements of all the articles here described, as is done in other chapters. A few of them are the products of old-established businesses, and are sold through retailers like other proprietary medicines; these are, as a rule, the ones for which the least extravagant claims are made, and they appear almost respectable by comparison with some of the others. In the majority of cases, however, a usual plan is to advertise a "certain cure" at a low price, sometimes 1s. 1½d., or to offer a "free sample" on application. When the low-priced article or the free sample is sent for, the

applicant is informed of a "special" kind which is strongly recommended, and the price of which is higher; and this, as already noted, usually leads on to another at a still higher price.

Since pills, such as many of these "remedies" consist of, can be bought wholesale at very low rates, the capital outlay which is necessary for engaging in this kind of business is extremely small. An address is necessary to conduct operations from, but it does not matter if it is that of a garret in a slum—practically none of the purchasers will be any wiser. There is nothing whatever to prevent any ignorant person possessed of a few pounds from buying from a firm of pill-makers at a few pence per gross "female pills" in bulk, or ready boxed, with coatings of three different colours to represent "ordinary," "strong," and "extra strong," putting small advertisements in a few weekly or other newspapers, and after laying out some small further sum on printed copies of fabricated testimonials and circular letters, "signed" by Nurse So-and-So, at once establishing a trade, the profits of which are many hundreds per cent. There is good reason to believe that some of the articles referred to below are the output of just such businesses.

It will suffice to give a few extracts from some advertisements.

Adeline Dumas's pills are thus advertised:

"To Married Ladies.
Try the French Remedy.
Not a Dangerous Drug, but a wonderful Secret Invention.
Never Fails. Particulars Free to all Applicants.
Address,
M.D., ———, ———, London, N.E."

"M.D." may, of course, stand for Madame Dumas, but it can hardly be doubted that it is intended to suggest that the "secret invention" is supplied by a Doctor of Medicine.

In a circular referring to the pills and giving testimonials, etc., they are described as follows:

"Dumas' Paris Pills.
The Combination Remedy (Protected).
WHAT IS MEANT BY A COMBINATION REMEDY?

Dumas's Combination Remedy, The Paris Pill (Pilule de Paris) is in reality a carefully selected combination of the most powerful drugs known to Medical and Botanical Sciences, whereby a maximum certainty of producing the desired effect is absolutely assured, the explanation of this remarkable result being as follows: If any specific drug contained in the Paris Pill be not actively suitable for a particular female organization, there are other active ingredients present, which, from their varied and searching nature, are in every way calculated to at once grapple with and overcome the most obstinate case. In the face, therefore, of such a remedy as here described, it can be well understood that there need be no fear of a failure of effect.

Dumas's Paris Pills, secret, and powerful ingredients (protected by Government stamp) act with instant certainty, in all cases of Irregularities and Suppression of the Menses, incidental to females.

The clause "protected by Government stamp" is to be noted: the Government stamp is merely a means of collecting the tax on proprietary nostrums, and has not the slightest reference to the real value of their contents. The reference to it here is obviously intended to suggest some sort of official guarantee of value.

"Nurse Powell's Remedies" illustrate the ascending scale of charges. They are thus advertised:

FREE OFFER TO LADIES.

Our recent offer of a Free Sample of Nurse Powell's Popular Pellets met with such striking success that we have decided to repeat the offer. Ladies should write for free box, enclosing stamp for postage. Delay is dangerous; write at once and obtain relief.—Nurse F. Powell Remedy Co., ———, ———, London.

An application for a free box as advertised brought a small box containing three white-coated pills, together with a letter, from which the following extracts are taken:

Owing to their proved superiority they have now come to be looked upon as THE LEADING WOMAN'S MEDICINE—a proof of which is that in thousands of homes to-day a box is *always* to be found, ready for any emergency which may arise. They are composed of ingredients which are PERFECTLY HARMLESS, and will not injure the most delicate constitution, nor disturb one's usual occupations, yet they FULLY CARRY OUT ALL that is claimed for them. We shall be glad if you will try this sample at once,

and let us know the result. In many cases this small quantity has brought about relief and health. We would ask you NOT TO EXPECT TOO MUCH from it, however, but to obtain more and take them regularly EACH DAY until you obtain a beneficial result. They have cured thousands of suffering women who have been on the verge of despair, and we are confident that if you will only persevere with them, and give them a thorough trial, THEY WILL RELIEVE YOU.

The pills were stated to be 1s. 1½d. per box, and this amount was sent with a request for a box. This brought a box containing twenty-four white-coated pills, bearing on the label the words "Nurse Powell's Popular Pellets cure Anæmia, Debility, Constipation, Headache, and all Female Ailments"; the words "Poplets, Registered," were printed across the label in red ink. A circular was enclosed on which it was stated—

It should be particularly noted that the pellets are prepared in Two Forms to meet the requirements of the case. The Ordinary Pellets (Price 1s. 1½d. and 2s. 9d.) are prepared as a remedy for Nervousness, Headache, Constipation, Anæmia, Debility, Sleeplesness, Hysteria, Lack of Energy, Wind, Biliousness, Indigestion, Sick Headache, and a general run-down state of the system, and Menstrual Troubles of a slight nature. The Special Pellets (Price 4s. 6d. per box) are expressly compounded for use in all Severe Menstrual Troubles, and should be ordered for Suppression of the Menses, Irregular and Painful Menstruation, Painful Urination, Change of Life, Dragging or Bearing Down Pains, Leucorrhœa (whites), Excessive Flow of the Menses, and all kindred ailments.

A box of the "special pellets" was therefore obtained: these were compressed tablets with a bright purple coating, and were labelled "Nurse Powell's Popular Pellets for all Female Ailments (Special)," and also bore the words "Poplets, Registered," in red ink across the label.

Another circular was now enclosed, from which the following extracts are taken:

Special notice!

There are many cases of female irregularities which require special treatment, and which cannot be met by the remedies which cure more ordinary ailments. This fact is well known to the Physician who has made a special study of the female system, and has his own special prescriptions which he applies to the various stages of the ailments as occasion demands.

Whilst it is quite true that Nurse Powell's Popular Pellets cure all but the more obstinate cases, we find it occasionally necessary that a stronger treatment is required. For this purpose, we supply two preparations prepared from the prescriptions of a celebrated physician, and which he relied upon to cure where every other means had been unavailing.

These remedies are prepared in the form of a pill and a mixture, either of which will be found effective, but in order to obtain the very best results, by far the best method is to take the pills and mixture in alternate doses.

These exceedingly valuable preparations we recommend with the utmost confidence. They are prepared by fully qualified chemists from the purest ingredients obtainable, and most beneficial results are obtained after a few doses.

The price of these remedies is necessarily higher than the ordinary preparations, but compared with the results the cost is small.

Prices

Corrective Pills, 11s. per box;
Corrective Mixture, 13s. per bot.;
or the two preparations, 21s.

Supplies of both these were obtained.

In a little book sent with the earlier supply, entitled *Woman's Home Doctor*, appears the following:

ADVICE TO SUFFERERS FREE.

Many women are in doubt as to the nature of their ailment and the best means to obtain a cure. To all such, we offer our EXPERIENCED ADVICE FREE if full particulars are given to us in a letter. If Nurse Powell's Popular Pellets will be of no use in your particular case you will be at once told so. Address all letters asking for advice to the Manageress, and mark them "Private" in the top left-hand corner. They will then receive immediate attention and will be treated in the strictest confidence.

In sending for each of these preparations nothing was said with regard to the case for which they were supposed to be intended, but after a short interval a typed letter was received, from which the following extracts are taken:

Dear Madam,—In reply to your communication of a few days ago, we looked carefully into your case, and advised you to persevere with our remedy. It seemed to us that your ailment was similar in almost all respects to many other cases which we have had, and in practically ALL OF THESE the treatment we advise has been taken with ENTIRE SUCCESS, as the grateful letters we have received plainly show. . . . With all good wishes, and again assuring you of our sympathy and aid, we remain, dear Madam, yours faithfully, The Nurse Powell Remedy Co.

Another advertiser is very frank on the subject of quacks:

"IRRISTUM" *never fails, that is the marvel of it.* On "Irristum" is stamped the seal of unequivocal success. To it women may turn with the *brightest confidence and hope*, assured of health and happiness, instead of that wretched depression of animal spirits, and possibly *life-long misery*, which accrue from a blind confidence in the *nostrums of unscrupulous quacks.* . . .

Nothing conceivable can be worse or more contemptible than for confiding and suffering women to be the dupes of plausible and unscrupulous adventurers. Not merely is it the pocket, but the paramount question of life-long health which may be imperilled; and here it is that the *never-failing efficacy, the privacy, the simplicity, and the rapidity of action characteristic of the "Irristum" medicine, come as a challenge to the world in this most important branch of the healing art.* . . .

It is modestly added that:

We do not profess to work wonderful miracles; we only state, with *absolute confidence*, that if *you*, who read this, feel the need of such a preparation, you will never do better than send to us *at once*. It would of course be untrue to say a second bottle is *never* required. It sometimes happens that a lady has to send for another supply, but in 19 cases out of 20 the *whole* of the second one is not required. . . .

"IRRISTUM" *is unquestionably one of the most priceless blessings of the nineteenth century.* . . .

In the case of a medicine which is advertised as "A Woman's Cure for Women's Ills," an account is given of the evolution of the remedy, in the course of which it is stated that:

It is seldom necessary for a woman, if she know where best she may look for help from a sister woman, to consult medical men in these troubles. . . . . One woman, Mrs. Lydia E. Pinkham, was often called to help her neighbours and friends who suffered from the diseases and ailments of women. . . . .

So, after a time, she learned to select the most potent roots and herbs, and to steep and compound from them a simple medicine, but one which almost always relieved and cured even when physicians failed. . . . .

It is rather surprising therefore to read that

in those rare cases involving some knotty point which she could not answer as she wished, she consulted a good physician and kept notes of what he said.

Surely if this lady could relieve and cure when physicians failed, the consultation should have been the other way round!

Sometimes a French or American origin is claimed, with a suggestion that the preparation is therefore better, as in the following:

"To Ladies.

Do you want a guaranteed remedy for all irregularities?

Do you want something far superior to steel and pennyroyal, bitter apple and all English preparations?

If you do, send for Nurse Grey's Renowned American Compound Tablets. A truly wonderful discovery, affording surprising results even in the most obstinate cases.

Prices 1s. 3d. and 2s. 9d. (treble quantity) in plain wrapper."

It is thus clearly conveyed that the marvellous superiority to all English preparations is in the tablets; but in reality they are made to open the way for a more expensive preparation not mentioned in the advertisement. The tablets were sent with a circular letter, from which the following are extracts:

The tablets are certain to do good, and they frequently afford complete relief, though this supply may be insufficient to test their real worth . . .

Mixtures are MUCH more effective than pills, because they commence to act upon the system IMMEDIATELY, whereas pills have to dissolve before any benefit can be obtained. The Tablets, therefore, cannot ALWAYS be supposed to accomplish what a 4s. 9d. bottle of medicine will, and who would regret so small an outlay, which may be the means of saving pounds. . . . You are anxious for a certain cure, and this is JUST the medicine you require. It has cured thousands and will cure you. There are only the two prices, namely, 4s. 9d., and Special Compound 10s., post free, securely packed from observation.

The way in which "guarantees" are given and then ignored is shown by "Nurse Mann's Remedy," advertised thus:

Free to Ladies.

A Sample of the Most Reliable Remedy ever discovered for irregularities and suppressions can be had, post free. Thousands of letters of thanks testifying to their speedy efficacy after all other things have been tried in vain. Each purchaser sends back testimonials, as they afford relief in every instance. Or write for our Extra Special Treatment at 4s. 6d., which we guarantee to cure every case from any cause whatever (genuine). Guaranteed effective in a few hours. Impossible to fail. Delay is dangerous. Send at once.

Apparently this emphatic "guarantee" was intended to be forgotten as soon as a first transaction had occurred, since, on sending for a 4s. 6d. box of "Extra Special," a box of pills was sent accompanied by a hectographed letter as follows:

Dear Madam,

If the pills should not prove strong enough to correct the irregularity I should strongly advise you to send at once for my special No. 3 treatment at 21s., which takes effect in a few hours and saves all further worry and expense.

It is perfectly harmless.

Yours faithfully,

NURSE MANN.

With regard to the analyses which follow, it is to be noted that many of these preparations are pills, which always contain some excipient, or binding material, and this is often of the

nature of a vegetable extract or a mixture of sugar, gum, etc., such as cannot be resolved exactly into its constituents when dealing with only small quantities. Others, again, are mixtures containing decoction of aloes with other vegetable drugs; many also contain quite small quantities of volatile oils, usually oil of pennyroyal, but sometimes with other oils also present. In all such cases it is only possible to give an approximate formula; in many cases some other constituent besides those named may be present in small quantity, but if this is so, in any case it is practically certain that such unnamed constituents are of an ill-defined and usually inert character, since definite *active* substances can almost always be detected.

DUMAS'S PARIS PILLS.

These are sold at 4s. 6d. per box.

The box contained forty-six pills; these were coated with French chalk, and after removal of the coating had an average weight of 2.9 grains. Examination showed the presence of sulphate of iron, aloes, canella, liquorice, jalap, ginger, wheat-flour, and a trace of oil of pennyroyal. Estimation of the amounts of these ingredients indicated the following formula:

Dried sulphate of iron	38 grains
Powdered canella	22 ,,
Powdered liquorice	22 ,,
Powdered jalap	12 ,,
Powdered ginger	6 ,,
Barbadoes aloes	46 ,,
Flour	12 ,,
Oil of pennyroyal	2 minims
Excipient	

In 100 pills.

Estimated cost of ingredients for forty-six pills, $^1/_5$d.

NURSE POWELL'S POPULAR PELLETS (SPECIAL).

These are sold at 4s. 6d. per box, containing forty-five tablets. The tablets were coated with sugar, dyed externally to a bright purple; the average weight after removing the coating was 2.8 grains. Analysis showed the presence of sulphate of iron, aloes, canella, ginger, oil of pennyroyal, with starch and kaolin.

Estimation of the various ingredients indicated the following formula:

Dried sulphate of iron	40 grains
Socotrine aloes	67 ,,
Powdered canella	56 ,,
Powdered ginger	8 ,,
Oil of pennyroyal	12 minims
Maize starch	16 grains
Kaolin	50 ,,
Excipient	

In 100 tablets.

Estimated cost of ingredients for forty-five tablets, ½d.

NURSE POWELL'S CORRECTIVE PILLS.

These are sold at 11s. per box, containing forty-two pills.

The pills were greyish-black, and proved to be coated with French chalk and graphite; after removal of the coating the average weight was 4.6 grains. Analysis showed the presence of sulphate of iron, aloes, oil of pennyroyal, jalap, starch, and powdered liquorice; another vegetable substance was present, which agreed in its histological characters with powdered olive stones, a material largely employed in adulterating the cheaper grades of powdered liquorice. Estimation of the various ingredients indicated the following formula:

Dried sulphate of ron	100 grains
Socotrine aloes	140 ,,
Powdered jalap	14 ,,
Powdered liquorice (adulterated)	80 ,,
Oil of pennyroyal	10 minims
Starch	10 grains
Excipient	

In 100 pills.

Estimated cost of ingredients for forty-two pills, ⅓d.

NURSE POWELL'S CORRECTIVE MIXTURE.

The price of this is 13s. per bottle, containing eight fluid ounces.

Examination of the liquid showed it to be of the nature of compound decoction of aloes, without saffron, with a trace of

chloroform; it was, however, much darker than the official decoction of corresponding strength; no additional drug, however, could be detected, and by adding burnt sugar to the decoction made without saffron a very similar liquid was obtained. Only 4.7 per cent. (by volume) of alcohol was present, instead of the 18 per cent. of the official decoction.

Estimated cost of ingredients of eight fluid ounces, 3d.

IRRISTUM.

The "extra strong" preparation was obtained for analysis. The 10s. bottle of medicine contained six and three-quarters ounces.

Analysis showed it to be an acid syrup of phosphate of iron with quinine; it also contained 5 per cent. by volume of alcohol, which may have been added in the form of a colouring tincture; the colouring matter appeared to be cudbear. Determination of the quantities of the various ingredients gave the following formula:

Quinine sulphate	9 grains
Ferrous phosphate	10 ,,
Dilute phosphoric acid	6 fl. drachms
Sugar	3 oz.
Rectified spirit	220 minims.
Cudbear	
Water to	6.75 fl. oz.

Estimated cost of ingredients, 2d.

MRS. LYDIA E. PINKHAM'S VEGETABLE COMPOUND.

The price of this is 2s. 9d. and 4s. 6d. per bottle; the package is marked, "Made in U.S.A." A bottle was found to contain nearly seven fluid ounces.

Analysis showed it to contain 19.3 per cent. by volume of alcohol, and only 0.6 per cent of solid substances; the ash was 0.06 per cent., and consisted of the constituents usual in vegetable preparations; traces of tannin and ammonia were present, and a small quantity of a reducing sugar; no alkaloid was present, and no evidence was obtained of any active principle except a trace of a bitter substance soluble in ether; the remainder (0.3 or 0.4 per cent.) was vegetable extractive, possessing no distinctive characters.

NURSE GREY'S AMERICAN COMPOUND TABLETS.

These "tablets," or more properly ovoid pills, are supplied at 1s. 3d. and 2s. 9d. per box. A 1s. 3d. box contained twenty-six ovoid pills.

The pills were thinly coated with gelatine coloured black, and had an average weight of 2.5 grains. Analysis showed the principal constituent to be ferrous carbonate, of which they contained 20 per cent. (like the official form of Blaud pill); talc was present to the extent of 19 per cent., with glucose and starch; all the constituents besides the carbonate of iron appeared to be of the nature of excipient, and no other medicinal substance could be detected.

The wholesale price of 5-grain Blaud pills coated is about 3d. per gross.

NURSE MANN'S REMEDY.

The price of this is 4s. 6d. per box for the "Extra Special"; this contained 48 pills.

The pills were coated with talc; after removal of the coating they had an average weight of 3.2 grains. Analysis showed them to contain sulphate of iron, Barbadoes aloes, soap, powdered ginger, cardamom, and cinnamon. The amount of iron in this case corresponded to 88 per cent. of the official aloes and iron pill; there was some ground for suspecting traces of oil of rue and apiol, but without positive evidence of either.

TOWLE'S PENNYROYAL AND STEEL PILLS.

The price of these is 1s. 1½d. per box, and upwards; a 1s. 1½d. box was found to contain 26 pills.

The pills were coated with French chalk and sugar; after removal of the coating the average weight was slightly over 2 grains. Enough oil of pennyroyal was present to give a not very marked odour of the drug, and estimation of the quantity showed about 0.02 grain in each pill; iron sulphate was present, in amount corresponding to 6.7 per cent. of the official exsiccated salt. About 43 per cent. of the pill consisted of powdered

capsicum, and no other active ingredient was found, the remainder being excipient and moisture. The formula is thus, approximately:

Dried sulphate of iron	14 grains
Powdered capsicum	86 ,,
Oil of pennyroyal	3 minims
Excipient	

In 100 pills.

Estimated cost of the drugs, for twenty-six pills, $\frac{1}{8}$d.

DR. JOHN HOOPER'S FEMALE PILLS.

These pills are stated to be prepared under letters patent granted to Dr. John Hooper in 1743.

Examination of the letters patent granted in 1743 showed that a patent for pills was taken out in that year by a Dr. John Hooper; in those days, however, so-called "specifications" appear to have been accepted which specified practically nothing, and no hint is given as to the composition of the pills, except that they are composed of "the best purging stomatick and antihysterical ingredients." The results of examination of the pills showed them to have an average weight of 1.2 grains, and to contain sulphate of iron (equivalent to 8.4 per cent. of the exsiccated salt), aloes, powdered senna, jalap, and canella bark, with a trace of oil of pennyroyal. A similar pill is given by the following formula:

Dried sulphate of iron	10 grains
Powdered senna	48 ,,
Powdered canella	27 ,,
Powdered jalap	17 ,,
Aloes	13 ,,
Oil of pennyroyal	2 drops
Excipient	

In 100 pills.

Estimated cost of the drugs, for forty-one pills, $\frac{1}{5}$d.

KEARSLEY'S ORIGINAL WIDOW WELCH'S FEMALE PILLS.

The price of these is 1s. $1\frac{1}{2}$d. per box containing twenty pills. The pills had an average weight of 3.8 grains, and were found

to contain sulphate of iron (equal to 29 per cent. of the exsiccated salt), sulphur (2.7 per cent.), with powdered liquorice, powdered turmeric, maize starch, and excipient. The vegetable powders were estimated to be present in the amounts given in the following formula:

Dried sulphate of iron	120 grains
Precipitated sulphur	12 ,,
Powdered liquorice	65 ,,
Powdered turmeric	34 ,,
Excipient	

In 100 pills.

Estimated cost of drugs, for twenty pills, $\frac{1}{20}$d.

DR. DAVIS'S FAMOUS FEMALE PILLS.

The price of these pills is 1s. $1\frac{1}{2}$d. per box, containing twenty-three.

The pills were found to be coated with French chalk; after removal of the coating the average weight was 2.7 grains. Examination showed the presence of sulphate of iron (equal to 16 per cent. of exsiccated salt), powdered savin (about 57 per cent.), and a bitter substance; it was not possible to determine whether a bitter extract, such as extract of gentian, had been used as excipient, or whether a small quantity of extract of colocynth was contained in the pill. If the latter, the formula is approximately

Dried sulphate of iron	46 grains
Powdered savin	154 ,,
Extract of colocynth	3 ,,
Excipient	

In 100 pills.

Estimated cost of drugs, in twenty-three pills, $\frac{1}{6}$d.

DR. DAVIS'S FAMOUS FEMALE MIXTURE.

The price of this is 2s. 9d. per bottle, containing two fluid ounces.

The principal ingredient found was oil of pennyroyal, of which about 0.8 per cent. was present, with 9 per cent. of alcohol (by volume), and about 4 per cent. of glycerine. The mixture also contained 0.8 per cent. of undissolved substance;

this contained a trace of magnesia (no doubt employed in mixing in the oil of pennyroyal); the insoluble and dissolved substances gave evidence of the presence of extract of gossypium, but as this contains no definite active principle, and there is no standard method for preparing it, the quantity could not be determined. The whole of the drug extractive present did not appear to be derived from gossypium, but the other ingredient could not be identified with any ordinary drug, after comparison with a considerable number. A trace of some alkaloidal substance (under 0.01 per cent.) was also present.

JEFFERSON DODD'S CORRECTIVE.

This mixture is sold at 2s. 9d. per bottle, containing 4 fluid ounces.

Analysis showed the presence of the constituents of decoction of aloes, except saffron, together with a small quantity of chloroform; the alcohol, however, only amounted to 5.3 per cent. (by volume). A "concentrated decoction of aloes, without saffron," is largely sold as a cheaper substitute for the official preparation; the latter, however, whether with or without the saffron, cannot properly be prepared of the concentration commonly employed (1 = 4) on account of the amount of tincture of cardamoms, and the alcohol is therefore diminished in the concentrated preparation, and may consequently vary in the preparations of different makers. The following formula:

Concentrated decoction of aloes without saffron (1 to 3), 1 part
Chloroform water, 2 parts
Water to 8 parts (all by measure),

gave a mixture agreeing in all respects, except the amount of alcohol present, with the one under examination.

Estimated cost of ingredients of 4 ounces, $\frac{9}{10}$d.

JEFFERSON DODD'S FEMALE PILLS.

The price of these pills is 1s. 1½d. per box, containing thirty-six.

The pills were found to be coated with French chalk, and after removal of the coating had an average weight of 3.4 grains.

Analysis showed sulphate of iron to be present (equal to 8.9 per cent. of exsiccated salt), with aloes and powdered liquorice, the remainder being excipient and moisture. The following formula gave a similar pill:—

Dried sulphate of iron	34	grains
Powdered liquorice	72	,,
Barbadoes aloes	142	,,
Excipient		

In 100 pills.

Estimated cost of drugs for thirty-six pills, ⅛d.

MARTIN'S APIOL AND STEEL PILLS.

These are sold at 4s. 6d. per bottle, containing forty-nine pills.

The pills were coated with French chalk, coloured pink with eosin; after removal of the coating the average weight was 3.8 grains. Iron was found to be present in the metallic state to the extent of 2 per cent.; powdered cinnamon, powdered cardamom, and aloes were also found, and about 3 per cent. of apiol; estimation of the amounts of the drugs and comparison with pill-masses prepared for the purpose indicated the following formula:

Reduced iron	10	grains
Barbadoes aloes	150	,,
Apiol	12	,,
Powdered cinnamon	75	,,
Powdered cardamom	55	,,
Excipient		

In 100 pills.

Estimated cost of ingredients, for forty-nine pills, ¾d.

FOURNIER'S HYGENIQUE MIXTURE FOR FEMALES (EXTRA STRONG).

The price of this is 11s. 0d. per bottle holding twenty fluid ounces.

Examination showed the mixture to consist of compound decoction of aloes, with the addition of a very small quantity

of iron; the amount of the latter corresponded to 0.45 per cent. of the crystalline ferrous sulphate, or two grains in a dose. A further difference between this mixture and the official decoction of aloes was that this only contained 3.9 per cent. of alcohol, against 18 per cent. in the preparation of the *British Pharmacopœia*.

Estimated cost of ingredients for twenty fluid ounces, 1s. 1d.

MONAID TABLETS.

The price of these is 2s. 9d. per box containing fifty-nine tablets.

The tablets are described as "chocolate coated"; in reality they were coated with sugar coloured to a chocolate-brown with iron oxide. After removal of the coating, the average weight of one was 2.2 grains. They contained neither iron, aloes, pennyroyal, or any powdered vegetable drug, and no alkaloid. Oleo-resin of capsicum was present to a rather considerable extent, and almost the whole of the remaining material of the tablets consisted of a substance agreeing in all respects with caulophyllin; the two were compared by various tests, but as there are no definite reactions for caulophyllin, and it possesses no characteristic smell, taste, etc., it cannot be quite positively asserted that this was the substance present. Enough oil of caraway was present to give a slight odour, and small quantities of flour and kaolin; there was some indication of another substance, but nothing further could be identified.

SANOL CONES.

Two varieties of these were examined, viz.:

Sanol Cones (Ordinary). Price 4s. 6d. per box, containing sixteen cones. These "cones" were small suppositories rounded at one end and tapering towards the other; they were of an average weight of 13.2 grains. They contained sulphate of iron corresponding to 1.5 per cent. of the exsiccated salt, quinine corresponding to 6.6 per cent. of the ordinary sulphate, and about 2 per cent. of a vegetable powder, which proved to be

gentian root; the remainder consisted of oil of theobroma. The formula is thus:

Dried sulphate of iron	22	grains
Sulphate of quinine	87	,,
Powdered gentian	26	,,
Oil of theobroma	1,200	,,

In 100 cones.

Estimated cost of ingredients of sixteen cones, under 1½d.

Sanol Cones (Special). Price 11s. per box, containing thirty-six cones. These were similar in size and shape to the preceding, but differed in being of a green colour. Analysis showed the presence of quinine sulphate, 5.5 per cent., and powdered gentian about 4 per cent.; the base was oil of theobroma. No other medicament could be detected; the green colouring matter was small in quantity and dissolved in fat, a similar product being obtained by colouring oil of theobroma with commercial chlorophyll. The formula is thus:

Sulphate of quinine	72	grains
Powdered gentian	52	,,
Oil of theobroma (tinted green)	1,200	,,

In 100 cones.

Estimated cost of ingredients in thirty-six cones, 3d.

I.R.S. COMPOUND GOLDEN TABLETS.

The price of these is 1s. 1½d. per box, containing twenty-four.

The "tablets" were ovoid pills coated with French chalk, "gilded" on the surface; the "gilding" showed the composition of so-called gold paint, containing copper but no gold. After removal of the coating the average weight of the pills was 2 grains; analysis showed them to contain sulphate of iron equivalent to 48 per cent. of the exsiccated salt, and sodium carbonate, producing ferrous carbonate on addition of water; the other ingredients were starch, gum, and moisture. The amounts of ferrous sulphate and sodium carbonate were not properly adjusted for converting the whole of the former to ferrous carbonate, but the composition was variable. One specimen showed 48 per cent. of dried ferrous sulphate, one-fourth of which was converted to ferrous carbonate on treatment with water; another gave only 37 per cent. of dried ferrous sulphate,

two fifths of which formed ferrous carbonate. The formula is thus approximately:

Dried sulphate of iron	86 grains
Dried sodium carbonate	25 grains
Excipient	

In 100 pills.

Estimated cost of ingredients of twenty-four pills, $\frac{1}{15}$ d.

MRS. SHAFFER-BENNYON'S REMEDY.

This is supplied at 4s. 8d. per box, containing fourteen suppositories for rectal use.

On the wrapper of the box it was stated that:

These cones are composed of Theobrama, Cerum, Fer Lac. Sol. Quinæ, Sulph, Ol, Rutae, Crab, Etc.

(the stops being as here given).

The fourteen suppositories had an average weight of 14.2 grains each. Analysis showed them to contain

Quinine sulphate	5.1 per cent.
Boric acid	4.9 ,,
Oil of theobroma	2.75 fl. oz.

They had a slight green tint, and a faint odour which may have been due to a trace of oil of rue. No iron was present (Fer Lac. being presumably some form of iron), and no "crab" was found. Each suppository thus contains quinine sulphate 0.73 grain, boric acid 0.70 grain. The estimated cost of the materials for fourteen suppositories is 1d.

MRS. STAFFORD-BROOKES' PELLOIDS.

These are supplied at 4s. 6d. per box, containing sixteen pessaries.

The resemblances between this preparation and the former one are far too numerous to be accidental. The name of the proprietor, the nature of the claims made, the wording of the advertisements, the general appearance of the package supplied, and the style and wording of all the circulars, are very similar in the two cases. The chief difference is that the cones are placed in the rectum in the one case and in the vagina in the other, but it can make no practical difference where the ones about to be described are placed.

On the package appears the statement:

These Pelloids are Guaranteed Harmless, and contain Sulph. Quinae., Ol. Theobroma, Rad. Anchusae, Myrrh, A. Bor, etc., etc.

The "Pelloids" consisted of suppositories, or pessaries, of an average weight of 14.2 grains, coloured pink with a preparation of alkanet (Rad. Anchusae); analysis showed them to contain 2.3 per cent. of boric acid, with oil of theobroma, and a minute trace of quinine, not sufficient to give the slightest perceptible bitter taste; no myrrh or any other ingredient could be detected.

Each "Pelloid" thus contains: Boric acid, 0.37 grain.

The estimated cost of the materials for the sixteen pessaries is 1d.

NURSE HAMMOND'S IMPROVED REMEDIES.

These are supplied in three forms, known as "Treatment No. 1," price 5s. 6d.; "Treatment No. 2," price 10s. 6d.; and "Treatment No. 3," price 21s.

"Treatment No. 2" was selected; this consisted of an 8-oz. bottle of liquid, 16 tablets, and 16 pills.

The Mixture.—The bottle contained 8 fluid ozs. Analysis showed the liquid to contain 2.8 per cent. by volume of alcohol, between 2 and 3 per cent. of glycerine, and a very little extractive; the latter possessed no characters by which it could be identified, but its vinous smell and taste, slight acidity, and alkaline ash, and the presence of a reducing sugar in moderate amount, all suggested the presence of a small quantity of wine. No active principle of any sort could be detected beyond a minute trace of an alkaloid, and there was no evidence of any other medicinal substance.

The Pills.—Sixteen pills were sent. They were coated with talc, and after removal of the coating had an average weight of 2.9 grains. Analysis showed the principal ingredient to be ferrous carbonate, which formed 17 per cent. of the pill; other ingredients were soap (1 per cent.), powdered liquorice root, wheat starch, sodium sulphate (formed in the production of the ferrous carbonate), and excipients. No alkaloid or other active principle was found. The pills were thus a form of Blaud's pill, somewhat weaker than the official iron pill.

The Tablets.—Sixteen tablets were sent. They were coated with a mixture of talc, carbonate of magnesia, sugar and starch, and coloured pink externally. After removal of the coating they had an average weight of 4.1 grains. Analysis showed the presence of aloin, powdered tansy herb, powdered liquorice in considerable quantity, and talc. No alkaloid was present, and no other constituent was detected.

GAUTIEUR'S FEMALE PILLS.

The price of these is 7½d. and 2s. 3d. per box; a 7½d. box contained twelve pills.

The pills were ovoid in shape, coated with talc coloured pink; after removal of the coating they had an average weight of 3.8 grains. Analysis showed the presence of a very small quantity of an aromatic essential oil, which appeared to consist of oils of pennyroyal and rue, and possibly tansy; the quantity was far too small for its components to be separated and identified positively. A small quantity of apiol appeared to be present, but this substance possesses no characters by which it can be positively identified in such a mixture; the principal constituents were exsiccated sulphate of iron—forming 10 per cent. of the pill—and soap—present to the extent of 11 per cent., and probably added to assist in incorporating the apiol and essential oils; powdered liquorice was present to the extent of about 30 per cent., and a little powdered ginger; traces of other vegetable tissue were to be seen, but in such small quantity that it was probably only accidental; a bitter substance was present in small quantity, which was apparently (but not quite certainly) Socotrine aloes.

DR. PATTERSON'S FEMALE PILLS.

These are supplied in boxes at 2s. 9d.; "special extra strong," 4s. 6d. A 2s. 9d. box contained twenty-seven pills.

The pills were coated with talc, and coloured pink. After removal of the coating, they had an average weight of 3.2 grains. Analysis showed them to contain sulphate of iron, Barbadoes aloes, soap, powdered ginger, cardamom, and cinnamon. All these ingredients except the soap occur in the official aloes and iron pill; the amount of iron found corresponded to about 70 per cent. of the latter mass in the pills under examination. A slight aroma other than that from the constituents named may have been due to a trace of oil of rue, and a small quantity of apiol may have been present, but no positive evidence of its presence was obtained.

HORTON'S BENEDICT PILLS.

The price of these is 1s. 1½d. and 2s. 9d. per box. A 1s. 1½d. box contained forty-nine pills.

The pills had an average weight of 4 grains; analysis showed them to contain sulphate of iron, Socotrine aloes, powdered ginger in considerable quantity, and a small amount of another vegetable powder which appeared to be gentian. The amount of iron corresponded to 10 per cent. of the exsiccated sulphate.

BLANCHARD'S APIOL AND STEEL PILLS.

Blanchard's Pills are supplied at 1s. 1½d. per box, containing twenty-four.

The pills were coated with talc, and after removal of the coating had an average weight of 1.9 grains. Analysis showed the presence of sulphate of iron, soap, Barbadoes aloes, powdered ginger, cardamom, and cinnamon; evidence was also obtained of the presence of a little apiol, but the characters of this substance are not sufficiently well defined for the amount to be determined quantitatively. The soap was 3 per cent. of the pill, and was no doubt added to assist in incorporating the apiol; the other ingredients represent the official aloes and iron pill, present to the extent of about 80 per cent.

NURSE LILLY'S FEMALE PILLS.

These pills are supplied at 1s. 1½d. and 2s. 9d. per box; a 1s. 1½d. box contained thirty-three pills.

The pills were coated with talc, and after removal of the coating had an average weight of 1.9 grains. Analysis showed the presence of sulphate of iron (12 per cent. of the exsiccated salt), Socotrine aloes, cinchonine sulphate (3.3 per cent.), powdered capsicum (about 30 per cent.), and a little powdered ginger and oil of pennyroyal; a small quantity of a powdered beetle was also present, probably due to the capsicum having been beetle-infested (so-called "worm-eaten").

BLAK THYROL FEMALE PILLS.

These pills are supplied at the following prices: No. 2, 2s. 6d.; No. 3x (strong), 3s. 6d.; No. 4 (extra), 5s.; No. 5x (special), 7s. 6d. per box. The variety analysed was No. 3x, a 3s. 6d. box of which contained 48 pills.

The pills are advertised in the following terms:

Blak Thyrol is a moon plant originally discovered in South Virginia, and its compound was found to have the most specific control over all the Blood Vessels of the body. By building up the system to its utmost capacity, it cannot fail to remove all obstructions and irregularities, which chiefly lie between the Fallopian Tubes, Broad Ligaments, and the Overies (*sic*)—these organs always needing assistance and are entirely under the influence of the moon. Blak Thyrol being a moon plant, is in complete sympathy with all the affected organs, and puts them in an excellent condition to do their work, provided they are taken exactly as directed. Send for a box at once; time is precious.

The pills were coated with talc, coloured black. After removal of the coating they had an average weight of 5.1 grains. They contained sufficient oil of pennyroyal to give them a fairly strong odour of the drug. Analysis showed them to contain reduced iron, arsenic in small quantity, a trace of alkaloid, powdered ginger, a little powdered liquorice, and another vegetable powder. The reduced iron amounted to 14 per cent. of the pill, or 0.7 grain in each; the arsenic, calculated as arsenious acid, was 0.06 per cent., or about $\frac{1}{300}$ grain in each; this proportion of arsenic might be present as an impurity in a bad sample of reduced iron. The trace of alkaloid which was present was neither strychnine nor a solanaceous alkaloid, showing the absence of extracts of nux vomica, belladonna, and henbane, and it was probably derived from the unnamed vegetable powder. The microscopical characters of the latter did not agree with those of any drug usually employed as an emmenagogue or a purgative, and after careful comparisons it could not be identified; presumably it is the "moon plant originally discovered in South Virginia." No aloes, soap, or powdered colocynth was present. The extractive and resinous matter present possessed no distinctive characters, and probably represented only the constituents of the powdered drugs dissolved by the solvents employed in the analysis, together with the excipient used for making up the pill.

A MEDICINE FOR ENSURING EASY CONFINEMENTS.

The remaining nostrum here described is for a different purpose from the preceding, as the extracts from advertisements given below show.

MATROZONE.

This is a preparation supplied by a firm in a northern seaport at 5s. 6d. per package containing two bottles marked A and B, each holding one fluid ounce.

The purpose for which it is intended is indicated by the statement on the first page of the booklet which is sent with it:—

Matrozone Promotes Natural, Rapid, and Easy Confinement. Ensures Healthy, Beautiful, and Bright Children

The booklet proceeds to give an account of the origin of the medicine. In a copy of the pamphlet sent out in 1908 it is stated that:—

This treatment is the result of the patient investigation of a Minister of Religion . . . When a young man pursuing his studies with a view to qualifying for the Medical Profession he was profoundly impressed by the death of a young wife, closely associated with his family, in her first confinement.

Realising vividly both the pain and peril involved in child-bearing he turned to see if any possible help could be given to the mother by appropriate drugs—if her system could be gently and scientifically prepared for the great strain to be brought upon it. While turning from the medical profession to enter the Christian Ministry, he did not for a moment relinquish his scientific and medical studies, or abandon his quest.

Through one pastorate extending over thirty-three years, he kept his purpose in view.

But in a copy of the booklet sent out in 1911 the statement appears thus—

Matrozone (pronounced "Maytrozone") is the result of the prolonged and patient investigation of a Scientist. When a young man, pursuing his studies with a view to qualifying for the Medical Profession, he was profoundly impressed by the death of a young wife, closely associated with his family, in her first confinement, etc.

And the references to his "turning from the medical profession," and to the pastorate of thirty-three years are omitted. In the following extracts there is no difference of importance between the two pamphlets:—

Drug after drug was examined, studied, and carefully experimented with, until several gave proof, when accurately and proportionately combined, of their power to render incalculable help in every case experimented upon.

His first impulse was to make widely public the result of his observations and experiments, but riper consideration showed him that this was quite impracticable. Such a publicity could not possibly be obtained. The great majority of the people would certainly never hear of it.

Then the preparations were most delicate. They had to be made not only with skill, but with extreme conscientiousness, and they had to be administered in a carefully ascertained order. Only trained pharmacists could prepare them, and without oversight or check, they might be prepared carelessly, and so rendered abortive. . . .

The first great function of "Matrozone" in its two forms is to facilitate parturition; or, in other words, to ensure natural, speedy, and easy childbirth. . . . In all the cases in which it has already been tried, and of which notes have been carefully kept, it has proved itself of inestimable service. In many cases the child has been healthily born Before the Doctor Has Arrived, the mother has made a quick and spontaneous recovery, and the babe has proved sound, bright, and thriving. . . . It powerfully but naturally regulates the health of the mother during the later months of gestation. It corrects the tendency to hysteria, and to hysteric headaches. It has a specific and remarkable power to obviate false presentations. . . . A second great function of "Matrozone" is to induce vigour, buoyancy, physical beauty, and intellectual brightness in the child. This is one of its most remarkable and beneficent achievements. . . .

Length of Treatment.

To obtain its best effects in the hour of labour it should be used daily for at least a month before the accouchement is expected. It would be much safer, however, to commence its use six weeks before, especially where difficulties are anticipated, and in first confinements.

Dose.

"Matrozone" may be better described as an elegant and scientific treatment than as a single preparation. Its ingredients are so subtle, and have such a distinct and delicate action, that it is prepared in two forms—A and B. Ten drops of the preparation A should be taken in a little tepid water every morning, half an hour before breakfast, and ten drops of the preparation B should be taken in a little tepid water every evening half-an-hour before food.

Anaylsis of the liquid in the bottle marked A showed it to contain 68.9 per cent. (by volume) of alcohol, and water. The total solid matter was too small in amount to be weighed (unless by working on a large amount of the liquid), and might easily be accounted for by tap water having been used to dilute the alcohol. No trace of alkaloid was shown by the most delicate test. The residue showed a minute trace of organic matter, but it was, of course, impossible to say whether this was due to an infinitesimal quantity of some plant extract, etc., or to dust and other chance contamination of the liquid.

The liquid in the bottle marked B contained only 60.3 per cent. by volume of alcohol, but in other respects resembled that in the other bottle.

The cost of the alcohol in the two bottles together would be about 3½d.

A GERMAN NOSTRUM.

Dr Zernik states that:—

Dr. med. R. Kleinertz's Quidestin is advertised in a most catchy manner. The advertisement includes the following passages: "What is it? It is a comfort to those about to become mothers." The directions for use are as follows: A tablespoonful of the extract is to be placed in a thick walled small cup or other similar vessel, and this is placed in a pail. The fluid is then lighted, and the patient is to allow the fumes to play around her abdomen and legs, until they are thoroughly warmed. This is to be repeated twice a day for the last six weeks of pregnancy. The composition is given as blackthorn, camomile, eucalyptus, hoarhound, shepherd's pouch, and cheese rennet extracted in alcohol. The analysis showed that quidestin is a weak extract of various indifferent vegetables, including eucalyptus and camomile in 90 per cent. spirit. Apart from the impossibility of the fumes being of therapeutic value, Zernik points out the highness of the price, 5s. per litre bottle, sufficient for three weeks.

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CHAPTER XIV.

WALLACE'S SPECIFIC REMEDIES—"AN ABSOLUTE SYSTEM OF MEDICINE."

A study of the advertising matter, pamphlets, "treatises," etc., published by the makers of proprietary medicines, even if not supplemented by analytical investigation of the medicines themselves, might well induce the belief that human gullibility is unlimited. So many of such publications reveal at once to an intelligent reader the ignorance, and often also the knavishness, of the persons making the statements contained in them that it seems almost incredible that moderately educated people can be duped by them; but it seems quite clear that they are so duped. Probably most people, by a few judicious inquiries among their friends, will come across cases of individuals of fair education and acumen in other matters accepting unquestioningly quite absurd statements widely advertised about some nostrum, or the diseases which it is asserted to cure. The particulars given in this chapter of a set of so-called "specifics for the eradication of all organic and functional diseases incidental to the present generation during infant and adult life" well illustrate the power of nonsense to get itself believed and accepted. These medicines appear to be put forward by two persons of the name of Wallace, one of whom professes to be their "discoverer," and the discoverer of the "Origin and Unity of Disease in Man and Animals." Such statements as that the white corpuscles of the blood are yeast cells, and that phlegm consists simply of masses of them, or that acetic acid is an absolute poison, surely

cannot impress many readers with respect for the knowledge of the author; while the grouping together as diseases for which one and the same preparation—an aconite tincture containing no alkaloid—is an "absolute specific," of dropsy, insanity, consumption, mumps, vermin under the skin, pleurisy, and many others, shows a degree of ignorance that a cheap-jack pill-vendor in a country market-place might hesitate to display. The results of analysis complete the exposure of the worthlessness of the statements made; thus, it is professed that all alkaloidal substances are absent from all the preparations, but three out of the six tested were found to contain one or more of the alkaloids caffeine, hydrastine, and berberine, while one of those not examined is stated by the "discoverer" himself to be tincture of hydrastis, which, of course, contains the two alkaloids last named. Another of the preparations, which is a tincture of the same drug, is put forward as an "absolute specific" for cancer of all kinds, for syphilis, and all venereal diseases, and a host of other disorders. Two others were found to be tinctures of coffee, one was a tincture of nutmegs, and another showed no active constituent of any character by which it could be recognized as a medicinal substance. Possibly if these facts come to the knowledge of some of the adherents of this "absolute system of medicine" they may be more inclined to give it the slightly altered name of "an absolute system of quackery."

The modest claim advanced for "Wallace's Twelve Specific Remedies," which form the subject of the present chapter, is that:

> These Specifics are for the Eradication of all Organic and Functional Diseases incidental to the present generation during infant and adult life,

and the prescribing of the "specifics" is regarded as a complete system of medicine. These preparations are supplied from the offices of *The Herald of Health*, London; their authors appear to be Mr. Joseph Wallace and Mrs. C. Leigh Hunt Wallace. The medicines are supplied at the uniform price of

2s. 9d. per bottle, containing one fluid ounce, but it appears that the proprietors do not confine themselves to merely selling these preparations. In a list of "Terms for Medical and Hygienic Consultation with Mrs. C. Leigh Hunt Wallace (The Wallace Specifics only prescribed)" fees are named ranging from half a guinea as "reduced terms for domestic, railway, and other servants," to two guineas for ordinary "consultation by appointment"; and from the same list it appears that Mr. Wallace's terms are three guineas for a consultation and five guineas for "visits to patients' own residences, within three miles of Russell Square." It is not necessary to express any opinion as to whether the "system" is one of deliberate and conscious fraud and imposture, or whether the persons concerned are protected by the completeness of their ignorance from full realisation of the true nature of their practices. The extracts given below from their publications are sufficient evidence of that ignorance.

The principal account of the "system" is given in a book of about 170 pages, entitled "*Physianthropy, or, The Home Cure and Eradication of Disease.* By Joseph Wallace (Lex et Lux) and C. Leigh Hunt Wallace," which is sold at 6d. and 1s. The date of the eighth edition of this, now being sold, appears to be 1901 or 1902; this is supplemented by a pamphlet dealing only with the specifics, dated 1906, and described as

SECOND EDITION. By which "Physianthropy" may be corrected and revised up-to-date.

The book is divided into several parts, all characterised by a display of great ignorance and great assurance; the part with which we are now concerned is entitled,

AN ABSOLUTE SCIENCE OF MEDICINE, IN OPPOSITION TO STATE-PROTECTED EXPERIMENTAL QUACKERY,

its claim to being "absolute" apparently depending on its being unrelated to facts, at least in any such way as the sort of science which is stigmatised as "experimental." In the introduction to this part an account is given of how Mrs. Wallace first became acquainted with these remedies from their "discoverer," Mr. Wallace; but it is not stated whether he discovered them in a dream, or in some other manner equally free from the charge of being experimental. But we are told that

This invaluable system he has only divulged to clergymen and doctors, who each gladly paid him a hundred guineas, and bound themselves, legally, not to reveal the names or the method of preparation of his

medicines, till after he had published his complete medical work, which would give to the world the free and full benefits of his discoveries.

Certain possible criticism is thus dealt with in advance:—

It is evident that those who say this book is written for the purpose of advertising the sale of *quack* medicines utter a false and slanderous assertion upon one whose desires and works are ever devoted to the best interests of humanity.

The "Specifics" are thus referred to collectively:

The Medicines, here introduced to the public for home use and private purchase for the first time, consist of

Twelve Absolute Specifics.

They are scientifically curative of the various diseases and conditions of the body, which are here carefully enumerated, as indicating their requirement.

At present these Medicines are merely distinguished by numbers, as "No. I.," "No. II.," "No. III.," etc.

It must be explained that they are prepared in an alcohol denuded of fusel oil, and are treble the concentration of those of a similar kind prepared by the usual homœopathic or allopathic mode, but, as explained elsewhere, the whole of what may be called the accumulative, alkaloidal, or poisonous principles of the plants have been removed, and thus their curative powers, when combined with a truly curative regimen, are enhanced in a marvellous degree.

Although it may be considered almost hopeless to expect any of these Specifics to be improved upon, or superseded, yet should others be subsequently discovered which are more prompt in palliative action under any conditions, non-cumulative in the human system, and permanently curative, they will be described in a future edition of this work.

A footnote states that this was written in 1883; since only twelve specifics are still described, it appears that the faint hope suggested of anything else being discovered worthy to rank with them has not been fulfilled in the twenty-nine years that have since elapsed, in spite of the many advances and new discoveries in that time in mere ordinary "experimental" medicine; but progress is, of course, incompatible with "an absolute system" of anything.

No. 1.—This is stated to be made from *Aconitum napellus*, but to be non-poisonous. It is stated in the preface that:

This was the subject, in 1891, of a prosecution, as Mr. Wallace desired to send it out without the label "POISON" being put upon the bottle containing it. But it is, *technically*, a poison, because it is prepared from the poisonous plant *Aconitum napellus*. Mr. Wallace has taken a patent out for his method of producing from it a non-poisonous tincture. . . . When the law was made that all preparations of that plant were to be

labelled "Poison," it was not contemplated that a non-poisonous preparation could be made. The law is behind the times, and needs repealing.

In regard to its mode of action, we are informed that:

The chief action of "No I." is over the whole circulatory and nervous systems, controlling them when diseased, in a most marvellous manner, without causing any unnatural suppression of the vitality. It has a wonderful power of paralysing the white, or yeast corpuscles in the blood, and thus staying their power of reproduction, or growth, and multiplication; reducing the fermentative abnormal heat of the blood in a corresponding degree, thus relieving congested and inflammatory states, and so causing the skin pores to become more elastic, open, and free, as the capillaries get rid of their congestive blockings. The mucous membranes are also enabled to allow free exit to the phlegm, or yeasty excretions from the blood, which the microscope reveals to be one mass of white corpuscles. It is by virtue of this wonderful power of clearing out this effete matter that the normal circulation becomes rapidly established, and the yeasty impurities of the blood, or death force, which was locked up in the brain, or upper parts of the body, has to descend *outwards*, and *downwards* (according to Nature's law of cure), thus cooling the head, and, by balancing the circulation, warming the feet at the same time. "No. I." also possesses the curative property of encouraging and assisting Nature in her expulsion of iron and other mineral drugs, hence its wonderful control over neuralgia and lung bleedings, which are drug (*iron*) created diseases, or conditions. Thus it is that all abnormal hæmorrhages, and discharges are specially benefited by it, diseased matter rapidly expelled, and healthy fluids conserved, while the healthy normal action of the organism is restored in the least possible time.

A pretty specimen of "absolute" nonsense!

The names of diseases for which this "non-poisonous tincture" of aconite is to be taken, and the list of their symptoms, occupy several pages. A few specimens will show the catholic nature of this "specific":

Dropsy. Insanity. Tubercular diseases. Consumption. Bronchitis. Asthma. Heart, stomach, and liver diseases. Inflammatory and painful diseases of the spleen, pancreas, womb, kidneys, bladder, and bowels. Mumps. Abscesses. Scrofula . . . Hydrocephalus. . . . Measles. . . . Small-pox. Fevers of all kinds. . . . Organic debility. Angina pectoris. . . . Diphtheria . . . Whooping cough. . . . Bleeding of the nose, eyes, or ears. . . . Polypus of the nose, etc. . . . . Vermin under the skin. . . . Poisoning by bad or putrid fish. . . . Erysipelas. . . . Boils. . . . Piles. Hysteria. Tooth, jaw, and face-ache. Sciatica. Neuralgia. Lumbago. . . . Pleurisy. . . . Epilepsy. . . . Painful, prolonged, and difficult parturition . . . Difficult, deficient, painful, or suppressed menstruation. . . . Leucorrhoea. . . . Squinting. Sunstroke. . . . Sore throat. Cold in the head. . . . Bright's disease. Diabetes. . . . Cataract. Amaurosis Short-sightedness. . . .

Can anything be left for the other eleven specifics to do?

With regard to the non-poisonous nature of this tincture, it is explained that:

The plant from which "No. I." is made is a poisonous one; but this tincture is not prepared from, and does not contain, that portion of the plant known to be poisonous and consequently cumulative in the human organism. The alkaloid of the plant has to be almost, if not wholly, eliminated by the peculiar mode of preparation and preservation in a non-poisonous alcohol, which has been previously deprived of its fusel oil and other poisonous properties. So much so is this the case, that this preparation of "No. I." has been taken by mistake by several patients with delicate organisms, and by people who mistook it for brandy, *in quantities* equal to *two large wineglassfuls or more at one time*, without the least permanent injurious after-effects, beyond being very much frightened by the peculiar electrical effects produced on the nervous system.

"Two large wineglassfuls" would be from 4 oz. to 10 oz. or more, according to the meaning of "large." The draught would therefore cost from 11s. to 27s. or so, enough to make the patients "very much frightened."

The dose for adults is stated to be "20 drops to 40 drops, according to temperament."

It is somewhat surprising, in view of its non-poisonous nature, to read that the antidote to overdoses of "No. I." for adults is "No. III." in 30-drop doses. It is added that "the poisonous aconite sold at the chemist's needs port wine as an antidote."

It did not appear to be worth while to analyse every one of the twelve "specifics," and "No. I." was not examined.

No. II.—The action of this is described as follows:

The great power of "No. II." consists in antidoting, or neutralizing, the virulence of the corrosive action of the matter of bad, offensive, painful, burning or eating ulcers, whereby all pain is allayed and completely averted, when it can be applied as directed. Coming directly in contact with the excreted and excreting yeast corpuscles, it at once so neutralizes their ammoniacal and putrefactive surroundings, however degraded their source, that nature can immediately set up, and keep healthy, granulations of the part, until all offending matter which nature has to expel by that outlet, has oozed out, or been discharged, and thus if "No. II." is taken at the beginning, it is able to avert skin scars where they would unavoidably be produced without it. Hence it is specially curative for all broken, open, raw, or ulcerated surfaces, either internally or externally.

It has another wonderful power, as an extension of the above, in rooting out hereditary and acquired diseases from inoculation, and subsequent allopathic or other unscientific treatment. It will root out these old diseases, and mineral drugs, even when lodged in the bones, throwing to

the surface the rotten bone with other offending matter; thus enabling nature to recuperate, and restore the lost parts. With seemingly latent, or internal abnormal growths, or growing ulcers, such as cancer and ovarian dropsy, when taken internally, "No. II." not only stops their slow growth, but, by neutralizing the virulence of the corrosive or putrefactive ichor excreted from the degraded yeast or other germs in the affected parts, enables nature to disperse gradually and surely, as a foreign but inoffensive substance, the effete matter without injury to the vitality, and with but comparatively little general disturbance.

In burns, scalds, and corrosions from cauteries, and corrosive minerals, and mineral acids, externally applied, it is all powerful in allaying the pain, preventing suppuration, and healing the part.

The list of diseases "*for which it is the absolute specific for all or some of their phases*" includes such trifles as:

Syphilis, and every form of venereal disease. Cancer in every form, whether situated in the stomach, womb, bowels, kidneys, liver, lungs, breast, brain, throat, tongue, mouth, nose, or any other part of the body. Ovarian dropsy. Whitlow. Fistula. . . . Diphtheria. . . . Itching, soreness, or eruption of the reproductive organs, from whatever cause, in male or female. . . . Deafness, with suppuration of the ears. . . . Necrosis, or rotting of bones. Hernia. . . . Varicose veins. Aneurisms. . . . Confluent small-pox. Itch. Psoriasis. Eczema. . . . Tendency to miscarriage. . . . Diabetes. . . . Cystitis and Bright's diseases in syphilitized persons. Effects of poisoning by corrosive minerals and mineral acids.

Under "administration" it is stated that:

This specific can be taken in almost any quantity, without organic or functional disturbance being created, but when large doses are persisted in for a considerable length of time, its power and purpose, as already described, become *too* evident, by the general disturbance created in the digestive organs, owing to the *extra* wave of pent-up latent matter being poured into the stomach, through the uprooting power of the medicine, creating for the time acidity, heartburn, and other fermentations in the stomach and bowels, but which symptoms cease if the medicine is discontinued or lessened in quantity for a few days.

The adult dose is given as "from *seven* to *ten* drops three times daily"; it is also to be used externally as a lotion—"*twenty drops* to one half-pint of water (preferably hot)," and a medicated oil—"*twenty* to *fifty* drops of the tincture to each fluid ounce of pure Lucca oil."

The statement already quoted, that "the whole of what may be called the accumulative, alkaloidal, or poisonous principles of the plants have been removed," applies to this as to the others. Nevertheless, analysis of "No. II" showed the presence of the alkaloids berberine and hydrastine, the proportions being

Berberine	0.05	per cent.
Hydrastine	0.11	,,
Alcohol	32.3	per cent. by volume
Extractive	2.7	,,
Ash	0.3	,,

The ash showed the usual composition of the ash of vegetable extracts. The extractive agreed in its properties with the extractive of tincture of hydrastis (which also contains hydrastine and berberine); this, however, is usually made of about twice or four times (*U.S.P.*) the strength of "No. II" in regard to hydrastine. Careful search gave no indication of any other ingredient.

Tincture of hydrastis, *B.P.*, is not standardised, but an average sample with an equal quantity of water would contain about the same proportions of hydrastine and alcohol as the liquid under consideration. This gives about 2½d. as the cost of the contents of a 2s. 9d. bottle.

No. III.—It would scarcely be of interest to quote what is said about each of the "specifics" as freely as in the preceding cases, and a few extracts will serve. No. III is introduced with much verbosity, in which "the yeast animalculae, or white corpuscles," again figure; alcohol is referred to as "this singular product . . . (which no chemist that we are aware of has been able to *absolutely* analyse)"; a "Wallace improved distilling apparatus" is referred to, which separates alcohol and oenanthic ether from

their poisonous associates, acetic acid and fusel oil, which from their being absolutely poisonous, less volatile, and therefore cumulative, as this apparatus demonstrates, they form the chief factor in producing those evils commonly attributed to alcohol alone.

The diseases for which No. III is to be taken include

Seasickness, biliousness, and bilious vomiting, morning vomiting of drunkards, morning sickness during pregnancy, asthmatic breathing from alcoholic indulgence. . . . Fatty degeneration of the heart. Acne. Diabetes. Diarrhoea. . . . Megrim. Short-sightedness. . . . Dipsomania. . . . . Delirium tremens. . . . Poisoning by deleterious chemical products and herbs.

Among the symptoms "*which indicate the requirement of* No. III are:

Excessive selfishness. . . . Kleptomania. Excessive meanness. . . . Intense pain, as if a nail were driven into the brain. . . . Parched tongue. . . . Weak action of heart. . . . Rumbling in stomach and bowels, with sickening pain. . . .

The dose for adults is stated to be *ten* drops three times daily in chronic cases, and in acute cases every five or ten minutes till all painful or acute symptoms are dispelled; but in the more recent pamphlet the dose is stated to be twenty drops in both kinds of cases.

Analysis showed it to contain

Caffeine	0.25	per cent.
Cane sugar	1.7	,,
Glucose or invert sugar ...	0.6	,,
Ash	0.52	,,
Alcohol	47.25	per cent. by volume
Extractive	3.12	,,

The ash had the composition common to the ash of plant extracts; the extractive showed the peculiar character of the extractive of coffee. Unroasted coffee contains cane sugar, which is mostly changed to invert sugar and caramel in roasted coffee; both contain caffeine. Tinctures of raw and roasted coffee were prepared, and it was found that a mixture of the two agreed almost perfectly with "No. III." in its characters and behaviour to tests; a tincture of a pale-roasted coffee would have the same composition as the mixture of tinctures of raw and roasted, and it is probable that that is what was actually employed. The proportion of caffeine indicates about 1 part of coffee to produce 5 parts of the tincture. The cost of the contents of a 2s. 9d. bottle would be about 1½d.

No. IV is stated to be a specific for warts, to be applied by touching the parts affected several times daily. Very little is said about it, and it was not analysed.

No. V and No. VI are stated to be worm specifics, No. V being for small threadworms and long round worms, and No. VI for tapeworms. No. V alone was examined. The dose is stated to be seven to ten drops in a wineglass of water three times daily. Analysis showed it to contain:

Alcohol	30.5	per cent. by volume
Ash	0.2	,,
Reducing sugars	2.9	,,
Extractive	1.7	,,

The tincture was slightly acid. No active principle of any sort could be detected, and the extractive and ash showed no distinctive characters by which the plant from which they are

derived could be identified. The liquid was compared with tinctures of drugs that are or have been used for worms, but with only negative results.

No. VII.—It is stated in the book that:

"No. VII" is the Specific for gout (*and is a tincture of Nux Moschata [Nutmegs], prepared according to a special formula and from specially selected fruits*).

In the more recent pamphlet no information is given as to what it is prepared from. The dose is given as twenty to thirty drops in water, three times daily.

Analysis showed it to contain:

Alcohol	51.05	per cent. by volume
Ash	0.22	,,
Reducing sugar	1.0	,,
Fat and extractive	2.1	,,

A tincture of nutmeg was prepared (not, however, "according to a special formula") and compared with it, and the two were found to agree in all respects. No indication was obtained of any other ingredient; the proportion of nutmegs appeared to be about 1 part to make 5 parts of the tincture.

The cost of the contents of a 2s. 9d. bottle would be about 2d.

No. VIII is for whooping-cough; but little is said about it in the book, and it was not examined.

No. IX is described as:

The specific for mechanical hæmorrhages (*and is aloes, prepared according to a special formula*).

It was not analysed.

No. X is described as the specific for bruises, to which is added in the book ("*and is 'Wallace's Formula' of Arnica Montana*"), but in the later pamphlet nothing is said about the drug from which it is made. It is stated that

it does not produce the slightest erysipelatous swelling or other irritation of the skin, which is so frequently experienced with the ordinary homœopathic mother tincture of *arnica*. For this reason the curative action or healing power can be pushed to such a demonstration as to surpass ordinary credibility.

The "diseases, symptoms, conditions, and mechanical injuries for which 'No. X' is the specific remedy" include

bruises, strains, sprains, shocks (electric or otherwise) . . . Effects of tight-lacing . . . Corns resulting from mechanical pressure. Painful effects of straining with constipated movements of the bowels. . . . Effects of violent fits; of miscarriages,

etc.

The dose for adults in chronic cases is *seven* to *ten* drops three times daily in a wineglass of water, and in acute cases the same every three hours. It is also to be applied externally.

Analysis showed it to contain:

Alcohol	26.6	per cent. by volume
Ash	0.38	,,
Reducing sugars	0.55	,,
Extractive	1.27	,,

It did not possess the characteristic odour of arnica, but had a vinous odour resembling that of sherry; in other respects it agreed with a weak tincture of arnica in characters and behaviour to tests. The official tincture of arnica contains nearly three times as much alcohol as this; the cost of a weak tincture, which would be scarcely affected by adding enough sherry to give the vinous odour, would be about 1½d. for the quantity in a 2s. 9d. bottle.

No. XI. is described as the specific for cholera, and a long extract is given in the book from "a Pamphlet, entitled 'Cholera, its Cause and Cure,' by Joseph Wallace." In this it is stated that the specific remedy is "*Coffœa Cruda*, or Tincture of Raw Mocha Coffee," the adult dose being *three* to *ten* drops in a teaspoonful to a tablespoonful of water every five minutes, prolonging the intervals gradually as amelioration sets in.

It is stated that:

In the early stages of Cholera, when purging, or purging and vomiting has commenced for a short time, three or four doses at five-minute intervals I have always found sufficient to restore the bowels and stomach to as perfectly natural a state as if there had not been the slightest derangement. Such cases with me have never exceeded twenty minutes. . . .

If the patient has been allowed to pass into the state of collapse, and when every energy of the body and mind has been prostrated, the same course of treatment will produce a like result, but I would advise the dose of *ten* drops to be repeated every five minutes till amelioration takes place, *three* to *five* drops after. I would add hot applications to extremities and sides, hand-rubbing as before, and in addition, where practicable, *prolonged breathing through a handkerchief over the region of the heart*; this last will restore the vital spark when apparently fled.

The formula is given as follows:

Steep one pound weight (avoirdupois) of well-dried and pulverised raw MOCHA coffee in three and one-third pints (imperial measure) of strong alcohol for two weeks. Shake it well occasionally: filter through blotting paper, and it is ready for use.

Analysis of "No. XI." showed it to contain:

Caffeine	0.1	per cent.
Sugars (chiefly cane sugar)	0.7	,,
Ash	0.26	,,
Alcohol	51.05	per cent. by volume
Extractive	2.1	,,

The tincture was darker in colour than a tincture of raw coffee, and appeared rather to be made like "No. III.," from pale roasted coffee, the proportion of the latter in this case being only about one part for twelve parts of tincture. No indication was obtained of any other ingredient. The cost would be about 1½d. for the quantity in a 2s. 9d. bottle.

No. XII. is described as the specific for ringworm, for which it is to be taken internally, in the dose (for adults) of twenty drops in a little water every eight hours, and also applied externally, though nothing is said about external application in the book, where the dose is said to be one to three minims in a little water every three to eight hours. This "specific" is stated in the book to be a tincture of Hydrastis Canadensis; it was not analysed.

CHAPTER XV.

PREPARATIONS FOR THE HAIR.

The number of proprietary preparations for the hair which are advertised widely is very considerable. They include preparations for increasing the growth of the hair or curing baldness, and preparations for altering the colouring of the hair. The line of division, however, is not a sharp one; of the articles sold for altering the colour of the hair some are plainly called dyes, but others are stated to restore the colour of hair that is turning grey without dyeing it, and for some of these it is also claimed that they increase the growth of the hair. It is, therefore, more convenient to arrange hair preparations in three groups—namely, hair growers, hair "restorers," and hair dyes. In this chapter the results obtained by analysing a small number of preparations selected from each of these groups are given, together with some extracts from the statements made in regard to them by the proprietors, either on the labels or in circulars, letters, or newspaper advertisements.

A.—HAIR GROWERS.

TATCHO.

(THE "GEORGE R. SIMS" HAIR RESTORER.)

It appears from the label that there are three varieties of this much-advertised preparation, known as "Tatcho" oily, "Tatcho" non-oily, and "Tatcho" (concentrated). The non-oily, described as "A brilliant spirituous tonic, free from all

grease," was taken for analysis. A bottle of this, containing 5¼ fluid ounces, was priced 2s. 9d. It is thus described:

The certain, trusty, genuine, right, honest Hair-Grower. There is no other.

Without "Tatcho" loss of hair is inevitable, but Mr. Geo. R. Sims has altered all that.

If your hair has become scanty or grey, get "Tatcho" to-day. It will bring back the hair of your youth, make a new being of you, and give you a new grip upon life.

The label and wrapper bear the following:

Certificate.

I guarantee that this Preparation is made according to the Formulæ recommended by me.

Geo. R. Sims.

The directions are:

Sprinkle a few drops on the head each morning, and brush the hair thoroughly after application.

Analysis showed the composition to be:

Borax	2.7 parts
Glycerine	2.5 ,,
Quinine	0.006 part
Formaldehyde solution (40 per cent.)	0.38 part
Colouring matter (brownish-yellow), and perfume	traces
Alcohol	2.4 parts by measure
Water, sufficient to produce 100 parts by measure	

The estimated cost of the ingredients for 5¼ fluid ounces is ½d.

EDWARDS' HARLENE.

Some of the most conspicuous and recent advertisements of this have been largely devoted to a method of treating the hair called "Harlene Hair-drill." The preparation is supplied by a firm in London.

The package contained a booklet on "Harlene Hair Drill," from which the following extracts are taken:

Among all the scores of preparations for the Hair which are offered to the public (and it may be taken for granted that the proprietors of "Harlene" have analysed them all very carefully) many prove to be so wide of the mark as to be actually injurious in a very high degree, while a few may do no particular harm, but certainly no good; for, as we have said, Nature's requirements must be met in the precise measure—neither in a greater nor a less

"Harlene" alone answers all requirements; it has the property of penetrating direct to the roots of the hair, stimulating them to renewed vigour, cleansing the cells which line the way; and, above all, it conveys to the hair-bulbs the peculiar food which they require—the only food Nature has ordained can act as nourishment for them, the food they otherwise obtain from the blood. No other preparation contains this ingredient, and therefore no other preparation can be successful. . . .

The proprietors of "Harlene" recognising that users of their specific have an undoubted right to look to them for the best information obtainable on this subject have, over a considerable period, conducted experiments to test thoroughly every method of "drill" not requiring the use of instruments.

Elaborate details follow of the method of carrying out the "drill," of which a sample may suffice:

The manner in which a cat moves among shrubbery is a good illustration as to the way the fingers should be moved through the hair; the manner in which a cat kneads its bed before laying on it, placing its paws on the material on which it will sleep, and pressing it down in a kneading manner until suitable, the paws never being lifted and brought down, but only relaxed before the pressure is applied, is exactly how this movement in the "drill" should be carried out.

Analysis showed the liquid to contain:

Borax	0.5 part
Additional alkali, equivalent to anhydrous sodium carbonate	0.04 ,,
Solution of ammonia (10 per cent.)	0.12 ,,
Glycerine	0.4 ,,
Brown colouring matter and perfume	traces
Alcohol	5.7 parts by measure
Water, sufficient to produce 100 parts by measure.	

The small quantity of alkali, in excess of what was present as borax, may have been in combination with the colouring matter.

The estimated cost of ingredients for 6 fluid ounces is 1d.

KOKO.

This preparation is sold by a limited company in London. A 4s. 6d. bottle contained 12¼ fluid ounces.

The following extracts are from a circular accompanying the bottle:

Eradicates Scurf. Promotes Growth. Prevents Hair Falling. Contains No Dye. Will positively Stop Hair from Falling Out, and prevent it turning Prematurely Grey. Will certainly Increase the Growth of the Hair, and if consistently used will make it Bright, Soft, and Wavy. . . . . The strong assertions of interested sellers of preparations cannot be relied

on, and testimonials, as a rule, cannot be safely taken as genuine unless the position of the writer places him or her above suspicion. We often think that the public must be sick of seeing the eternal "This is the best" attached to every conceivable article which is offered for sale; and for this reason we usually refrain from saying much about Koko, leaving it to our illustrious patrons to speak of its good qualities.

The directions for use are:

The best plan is to apply Koko freely, and brush the scalp until a warm glow is produced. This treatment should be practised once or twice a day, or at intervals of a few days, according to the state of the scalp.

Analysis showed it to contain:

Borax	1.4 parts.
Glycerine	1.7 ,,
Formaldehyde solution (40 per cent.)	0.1 part.
Perfume	a trace.
Alcohol	3 parts by measure.
Water, sufficient to produce 100 parts by measure.	

The estimated cost of the ingredients for 12¼ fluid ounces is 1d.

B.—HAIR RESTORERS.

LOCKYER'S SULPHUR HAIR RESTORER.

This article is supplied by a limited company in London, who also sell other proprietary articles. The price of a bottle containing 12 fluid ounces is 1s. 6d. It is described as:

The Best. The Safest. The Cheapest.

Restores the colour to Grey Hair. Instantly stops the Hair from fading. Occasionally used, Greyness is impossible. If the Hair is actually Grey the Sulphur Restorer in six or seven days effects a great alteration. By a gradual action, scarcely perceptible even to watchful observers, several darker shades will be attained. In a period of three weeks a complete change occurs, and a colour exactly resembling that lost will become manifest.

Where the Sulphur Restorer is applied scurf cannot exist, and a sense of cleanliness, coolness, etc., prevails.

Directions:

Well shake the bottle, and immediately apply the Restorer to the roots of the Hair. A very small sponge is convenient for this purpose. At first it should be used daily, but when the required shade is obtained, two or three times a week will suffice.

Analysis showed it to contain:

Precipitated sulphur	1.3 parts
Lead acetate	1.6 ,,
Lead sulphate	0.4 ,,
Glycerine	9.6 ,,

Rose water sufficient to produce 100 parts by measure.

The lead sulphate was probably due to some reaction having occurred between the lead acetate and sulphur, with oxidation; assuming this to be so, the amount of lead acetate originally present would be 2.1 parts.

The estimated cost of ingredients for 12 fluid ounces is 2d.

MEXICAN HAIR RENEWER.

A bottle of this preparation, which is sold by another limited company, contained 7¾ fluid ounces; the price was 3s. 6d.

It is described as:

For restoring grey hair to its original colour without dyeing it.
For renewing or causing hair to grow on bald spots.
For preventing dandriff and the hair from falling out.
For making the hair soft, glossy, pliant, and luxuriant.

Daily application of this preparation for a week or two will surely restore Faded, Grey, or White Hair to its natural colour and richness. If properly applied, it never fails; but it should be well shaken before using. It is not a dye, nor does it contain any colouring matter or offensive substance whatever. Hence it does not soil the hands, the scalp, or even white linen, but produces the colour within the substance of the hair. In many cases it has been successful in causing new hair to grow on bald spots, and it can be confidently recommended in all cases, unless the hair-glands are decayed; for if the glands are decayed and gone, no stimulant can restore them; but if, as is often the case, the glands are only torpid, "The Mexican Hair Renewer" will renew their vitality, and a new growth of hair will follow.

Directions for use:

First.—Turn the bottle cork downwards and shake it thoroughly. Turn a little into a saucer, apply it briskly to the bald spots, and thoroughly wet all the grey hair every morning for a few weeks, and, unless the hair glands are decayed, new hair will grow, and the grey hair turn to its original colour, then an occasional use is sufficient.

Analysis showed it to contain:

Precipitated sulphur	1.4 parts
Lead acetate	0.13 ,,
Glycerine	19.0 ,,

Rose water sufficient to produce 100 parts by measure.

A second bottle, however, contained 0.97 part of lead acetate in 100 parts by measure, or about eight times as much as the first bottle.

The estimated cost of the ingredients for 7¾ fluid ounces is 2d.

VILIXIR.

A preparation called "Vilixir" is sold by a limited company whose address is given as a "Hydro" in Kent. A 12s. 6d. bottle contained 5½ fluid ounces. This preparation has been largely advertised of late, the advertisement in some cases taking the form of a half-page display in a newspaper so worded as to convey the impression that it was published as news. The following extracts are from such an advertisement:

Great interest has been aroused by the recent announcement in this paper of a unique and useful discovery made at the . . . Hydro, near London, of a method of actually restoring the natural colour to faded, grey, or white hair.

So much curiosity has been aroused, indeed, that the authorities have been compelled to publish in pamphlet form the full particulars of this discovery (a copy of this interesting publication may be obtained on application to the person and address given later in this second review of the discovery and its possibilities of usefulness to the Public). . . .

No actual colouring agent is employed in the new dye-less and stainless method. Instead, the hair's sleeping pigmentary process is reawakened. . . .

The new way of making people's hair show true colours is, happily, an inexpensive one.

The following extracts are from letters received from the Vilixir Company, after application for the pamphlet mentioned above:

The "Vilixir" Treatment differs from all other ways and means of colouring the hair. It does not put on an artificial colour—it will bring out the natural colour of your hair. . . .

At this Hydro we have assistants who have become expert in the obtaining of the best possible results from the Treatment, and if you would like to have us do all that is necessary for you, I shall be happy to quote you terms to include a short stay at this Hydro. . . . It is not necessary to the success of the Treatment, however, that you carry it out at this address. I can send the 'Vilixir" and full directions to enable you to restore the natural colour of your hair in the privacy of your own home.

. . . the "Vilixir" Treatment is absolutely non-injurious either to the skin or to the hair; its action is wholly beneficial in every way. It promotes growth on the bald patches (unless the roots are absolutely perished); it thickens and lengthens the growth over the whole of the head; it stops falling out, and, most important of all, its effects are comparatively permanent.

The directions on the label are:

Shake the bottle and apply the liquid night and morning to the scalp with a small brush, rubbing in for two or three minutes, and finally brush the hair for a few seconds with the brush moistened with "Vilixir."

The bottle of liquid that was sent in return for 12s. 6d. was accompanied by about ¼ ounce of shampoo powder, for shampooing the head before the first use of "Vilixir." This powder was found to consist of

Borax	4.6 per cent.
Powdered soap	24.4 ,,
Partly exsiccated sodium carbonate	71.0 ,,

Analysis showed the liquid to contain:

Precipitated Sulphur	3.2 parts.
Lead acetate	1.8 ,,
Glycerine	5.7 ,,
Rose water, sufficient to produce 100 parts by measure.	

The estimated cost of the ingredients for 5½ fluid ounces of the liquid and ¼ ounce of the powder is 1d.

C.—HAIR DYES.

W. SEEGER'S HAIR DYE.

This preparation bears a copy of signature "W. Seeger," and the words "made in Germany" on the package, but no address.

A bottle, price 2s., contained 1⅓ fluid ounces.

Directions for use:

Before applying Seeger's, wash the hair in lukewarm water in which you have melted a piece of ordinary household soda of the size of a walnut to each quart of water you use. Then, when the hair is perfectly dry, pour a little of the dye into a clean saucer, dip the teeth of a perfectly clean fine tooth comb into the dye in the saucer, and pass the comb several times through the hair where it is required to be dyed. Now allow the dye to dry on the hair. While the hair is drying, comb it now and then, so that the dye, which does not become visible for some hours, may come in contact with the air and an equal shade be obtained. The day following, the dye which has not dried in can be washed out with clean water without soda.

The dye is prepared in three shades, for blonde, brown, and black; the "brown" was taken for examination.

Analysis showed it to contain, in 100 parts by measure:

Pyrogallic acid	3.8 parts.
Cupric chloride (anhydrous)	1.8 ,,
Hydrochloric acid (*B.P.* strength)	0.75 part
Sulphuric acid	0.07 ,,

The liquid was much darker than a solution freshly prepared according to this formula; but the dyeing effect of the two was

practically identical, and the difference in appearance appeared to be due to decomposition of a part of the pyrogallic acid having taken place in the original.

The estimated cost of the ingredients for 1⅓ fluid ounces is ½d.

SHADEINE.

This preparation, sold from an address in London, was in a bottle which contained 3½ fluid ounces, and was priced 3s. 6d.

It is thus described:

Shadeine is a new and important chemical discovery which regenerates and develops the original colour of grey and faded hair, at the same time tinting it a perfectly natural colour. . . . It contains neither lead, silver, mercury, sulphur, nor any objectionable stain.

Directions for use:

Wash the hair, if in the least greasy, with soda and warm water. When dry, pour a little Shadeine into a saucer, and with a small brush apply evenly over the parts to be coloured, then allow it to dry. A small quantity only should be used at a time, and the colour allowed to develop during the day. As soon as the shade is satisfactory, wash or brush off superfluous stain.

This preparation is made in seven colours. The one that was taken for examination was labelled "Brown."

Analysis showed it to contain in 100 parts by measure:

Pyrogallic acid	2.1 parts.
Cupric chloride (anhydrous)	1.3 ,,
Hydrochloric acid (*B.P.* strength)	0.3 part

The estimated cost of the ingredients for 3½ fluid ounces is ¾d.

JUVENIA.

The hair dye called "Juvenia" is made in Paris, and supplied by a firm having addresses in London and Birmingham. A package, price 4s., contained two bottles, Nos. 1 and 2, each containing about 2⅓ fluid ounces; the liquids to be mixed at the time of using.

It is thus described:

This marvellous dye is guaranteed not to contain mercurial salts, it is altogether of a vegetable nature and harmless.

"Juvenia" instantly restores white hair and grey beard to their original colour, from auburn to the most jet black tints.

We specially recommend persons who wish to dye their hair or beard to follow our advice word for word.

It is well known that subjects suffering from arthritis, herpes, or eczema ought to abstain from eating sea-fish, shell-fish, sorrel, strawberries, etc., under penalty of provoking eruptions or eczema spots. Accordingly, generally speaking, such persons ought to entirely give up the use of all instantaneous dye, and make use of nothing else than our progressive regenerators alone, the use of which we advise for them, in preference to any other.

If, in spite of our advice, those persons subject to the above-mentioned affections persist in dyeing their hair, they ought at any rate to consult their doctor.

It is necessary, in fact, to have oneself thoroughly examined as far as the scalp is concerned before the application of a dye, and this recommendation may especially be given to ladies. At times they may prick themselves with their combs, their hat or hair-pins, the result being small sores which ought not to be irritated or skinned. The scalp ought to be absolutely intact, and if need be, one must wait till all flaying is well healed.

Analysis showed the "liquid No. 1" to be a solution of hydrogen peroxide containing 2 per cent. of real peroxide, or two-thirds the strength of the ordinary "10 volume" solution. Liquid No. 2, or "Juvenia" itself, was found to contain:

Paraphenylene-diamine	0.9 per cent.
Solution of ammonia	0.6 ,,

with a trace of fixed alkali, probably dissolved out of the glass of the bottle.

A solution prepared in accordance with this formula gave an exactly similar result in dyeing hair. The estimated cost of the ingredients for the contents of the two bottles is 1½d.

The danger of using paraphenylene-diamine as a hair-dye has often been pointed out, and is well known. When used in this way symptoms of poisoning are sometimes quickly produced, but in other cases they do not occur until after it has been used for weeks or even months. In addition to urticaria and eczema produced locally, general symptoms of poisoning may result, and in some cases deaths have occurred from this cause.

CHAPTER XVI.

SOME MISCELLANEOUS MEDICINES.

TWO PREPARATIONS FOR SEA-SICKNESS.

Many proprietary and other medicines for sea-sickness have been put forward from time to time, both as preventives and cures, but usually without attaining to any very wide adoption. The first of the two preparations here described has been very widely advertised in the last few years; the second one, which is shown by analysis to be very similar in composition, appears to be of Canadian origin.

ZOTOS.

This is supplied by Zotos, Limited, London; the price is 2s. 9d. per box containing twelve capsules.

It is described on the outside of the package as "the infallible remedy against sea sickness"; on the inner package it is stated that

Zotos is an infallible remedy against sea sickness, train sickness, etc.
Zotos not only prevents sickness but stimulates the appetite.
Zotos contains no injurious drug and produces no bad after-effects.

A circular contained in the package gives a so-called "analytical report" on the preparation, in which it is stated that the capsules are "free from any noxious ingredient," and that the contents "consist of compounds of high therapeutic activity."

Somewhat lengthy directions are given, the principal part being as follows:

The capsules to be swallowed whole and to be taken before, not after, a meal.

Take a capsule half an hour before the steamer sails, another just as the steamer leaves, and a third (though this is rarely required) half an hour later. Afterwards, if any uneasiness be caused by the movement of the vessel, capsules may be taken from time to time up to 6 per day. If travelling by night, take a capsule on going to bed and another half an hour before getting up.

The capsules were found to contain a pink powder, the average weight of the contents of one being 6.3 grains. Analysis showed the powder to consist of a mixture of sugar of milk and chlorbutol, with traces of colouring and flavouring matters. Chlorbutol, or trichlor-tertiary butyl alcohol, is better known under the trade name, Chloretone. It is described in the *British Pharmaceutical Codex* as "a local anæsthetic, analgesic, and antiseptic." "Its anæsthetic properties are specially exerted upon the stomach, small repeated doses being used to allay post-operative vomiting and sea sickness."

The proportions of the ingredients were found to be:

Chlorbutol	76.9 per cent.
Lactose	23.0 ,,

No other substance was found, except the traces of colouring and flavouring matters already mentioned.

The estimated cost of the ingredients for twelve capsules is 5d.

MOTHERSILL'S SEASICK REMEDY.

This preparation is supplied by a limited company giving addresses in London and Montreal. The package bears the words "Made in Canada."

It is stated on the label that it—

Stops and Prevents any case of Seasickness, Trainsickness, and all nausea caused by motion, climbing, etc. Guaranteed not to contain cocaine, opium, morphine, or chloral. It does not affect the heart or liver, or cause unpleasant symptoms.

A 2s. 3d. package contained six capsules, three containing pink powder and three brown. The dose is given as one of each kind, taken together, so that the package contained three doses.

The average weight of the contents of each capsule was 11¼ grains. Analysis showed the powders to have the following composition:

Pink Powder.

Sugar of milk	33.3 per cent.
Caffeine	8.2 ,,
Stearic acid	18.0 ,,
Chlorbutol	40.1 ,,
Colouring matter	a trace.

Brown Powder.

Powdered cinnamon	29.4 per cent.
Caffeine	8.4 ,,
Stearic acid	17.4 ,,
Chlorbutol	44.5 ,,

The stearic acid is probably added as a lubricant, to facilitate the filling of the powder into the capsules, although the amount is large for the purpose.

The estimated cost of the ingredients for the six capsules is 2½d.

A CURE-ALL.—KORPUSDOON.

In addition to the many proprietary medicines which are widely and generally advertised, a very large number are advertised only or principally in some particular locality, and such preparations sometimes attain a very considerable local sale. The claims made for these medicines do not show any more modest pretensions than those more widely advertised, while the ignorance of the makers is sometimes even more evident.

A medicine of this class, made in a Lancashire town, is called "Korpusdoon." It is stated on the label to be "Prepared only by Mrs. Ann Briggs, Health Specialist (for the Korpusdoon Medicine and Health Food Co.)." The price is 2s. 3d. per bottle, and the bottle bought for examination contained 25½ fl. oz. The dose is given as, for an adult one teacupful every other morning; for children, half dose every other morning.

The nature of the claims made for it is shown by the following extracts, the first of which is from a newspaper advertisement, and the second from the label on the bottle:

Why suffer from Influenza when Korpusdoon puts a check on all poisonous acid from which all diseases originate, and cleanses from the system all bad germs.

The Virtues of this Famous Medicine "Korpusdoon."

It kills and clears away from the Stomach and Nasal Passages all the accumulation of poisonous acids—which, after 20 years of keen and careful observation, I find to be the cause of all the ailments the body is liable to, such as Catarrh of the Stomach, Nasal Catarrh, Fermentation of the Stomach, Influenza, Hay Fever, Eczema, Gall Stones, Gout, Goitre, Rheumatism, Lumbago, Neuralgia, Appendicitis, Consumption, Irregularities of the Heart, Loss of Memory and Nerve trouble, Paralysis, Bright's Disease, Whooping Cough, Measles, Scarlet Fever, Typhoid, Diphtheria, and Small-pox. A sure preventative of Tumour and Cancer.

It is a great beautifier of the Skin and Hair.

In the newspaper advertisement the maker's name and address are followed by the words "At Home Mondays and Saturdays," which is presumably an intimation that she can be consulted professionally at those times.

Analysis showed the mixture to contain magnesium sulphate and an extract of liquorice, flavoured with aniseed and sassafras, and further sweetened with a little chloroform. Careful search did not afford any indication of any other constituent. The colour was much darker than the colour which results if the ordinary liquid extract of liquorice is employed, and the latter contains alcohol, which was absent from the mixture; but it was found that by taking ordinary "stick liquorice," and boiling it with the Epsom salts, a dark liquor was obtained agreeing closely with the original. Possibly the flavour of aniseed and sassafras is got by boiling these drugs with the Epsom salts and liquorice, but a mixture in which they were added respectively as the water and the essential oil was practically indistinguishable from "Korpusdoon." The quantities of the different ingredients found were as follows:

Magnesium sulphate	624 grains.
Extract of liquorice (from "stick liquorice")	550 ,,
Chloroform (= chloroform water 4 fl. oz.).....	5 minims.
Oil of sassafras	3 ,,
Aniseed water	5 fl. oz.
Water ..... to	25 ,,

Estimated cost of ingredients, 2¼d.

A RADIUM SALVE.

Long advertisements have appeared recently in the daily papers of a radium salve stated to have been discovered by Dr. S. Saubermann, who gives an address in Berlin. The salve is sold in this country by a company which describes itself as

"manufacturing chemists to the medical profession." We are told in a pamphlet issued by this company that Dr. Saubermann's formula has been embodied and improved upon in the radium salve they sell. It is stated further that the salve is impregnated with the "radium salt in the proportion of 1 in 500,000," a quantity which "must not be exceeded, as otherwise the absorption by the skin and the well-known action of the strong and penetrating rays will do more harm than good." It is described as a remedy for lupus, cancer, and all diseases of the skin, with a bountiful "etc."

The company also sells various other preparations: A medical soap, a blood purifier, and an elixir of life. A certificate purporting to have been given by Dr. Saubermann in December, 1907, states that the ore which the company has acquired was "uranium refuse concentrated from the mines at Joachimsthal." In the advertisement a list is given of "leading scientists on radium," but the advertisers do not go so far as to say that any of them have anything to do with the radium salve. There is also a quotation from *The British Medical Journal*, which we need hardly say had no reference whatever to the salve or its manufacturers.

The salve is "sold at 2s. 9d., 5s., 10s., 20s., and 30s., according to radioactivity." Mr. Frederick Soddy, M.A., Lecturer on Physical Chemistry and Radioactivity in the University of Glasgow, has been good enough to examine the salve for us, and the following is his report:—

"I received the two pots of radium salve you sent me, and have examined the radioactivity of the stronger preparation—namely, that marked 'Strong, 5s.' The alpha radioactivity of the preparation is just detectable, and is about one-hundredth part of that of uranium. The beta radiation is too feeble to be detected by a sensitive electroscope. For comparison I might mention that the residues from the uranium ore of Joachimsthal, which forms the initial raw material from which radium is extracted, have an alpha radioactivity about four times that of uranium."

A RINGWORM CURE.—"DETHBLO."

"Dethblo," or Wilson's Patent Ringworm Cure, is supplied by an individual in a small town in the home counties, a 1s. 1½d. package contained a bottle holding rather less than 2 fluid drachms of the preparation, and a brush for applying it.

It is advertised in the following terms:—

THIS PREPARATION has been used by the Proprietor for many years in the treatment of Hundreds of Cases, and has never once failed to Cure . . . .

An improvement is visible after one application. Two or three dressings in any but exceptionally severe cases are sufficient to effect a Cure.

No necessity for Cutting the Hair or Shaving the Head.

It Cures when all other remedies have been tried and failed. Obstinate cases, after eighteen months of other treatment, have yielded to a few applications of "Dethblo."

It is Harmless to Hair or Scalp of even the youngest children; infants in arms have been successfully treated on many occasions.

The directions on the label are:—

Apply with brush enclosed, well penetrating the infected parts with "DETHBLO." Treatment should be given every other day, for a few days, and the infected part should not be washed until satisfactory improvement is noticed.

Analysis showed the liquid to contain ferrous sulphate and acetic acid; a trace of coloured organic matter was also present, such as would be due to a small portion of the acetic acid having been added in the form of vinegar, and the odour of the liquid resembled that of vinegar rather than that of acetic acid only. The quantities found were, in 100 parts by measure:—

Ferrous sulphate	33.7 parts
Acetic acid (calculated as glacial)	11.9 ,, by measure

Careful search did not reveal the presence of any other ingredient.

Estimated cost of ingredients of 2 fluid drachms, $\frac{1}{50}$d.

MISCELLANEOUS GERMAN NOSTRUMS.

Reports published by Dr. F. Zernik on various proprietary medicines sold in Germany include the following:—

Sprengel's herbal juice, is a preparation which Bernhard Sprengel of Hanover claims to be harmless, and as it consists of blood purifying herbs and roots, and not a secret remedy, he recommends it for all sorts of diseases, especially for diphtheria, trichinosis, whooping-cough, etc. The bottle (which costs M.1.25, about 1s. 3d.) contains about 30 c.cm. of a turbid brown fluid of acid reaction. It contains powdered jalap bulbs, suspended in a watery extract of frangula (or some similar drug), to which alcohol and liquorice have been added. Its jalap content renders the free sale of this preparation unlawful in Germany.

Dealin Powder, a Berlin preparation, is described as an antiseptic medicament for wounds containing "a highly active oxygen combined with a dry fatty substance." On examination no dry fatty substance was found, and the "highly active oxygen" was represented by sodium perborate. The chief constituents of this preparation were: 20 parts of sodium perborate, 10 parts of boric acid, 10 parts of zinc oxide, and 60 parts of a mixture of talc with traces of starch and magnesium carbonate.

Hochfelder Pitch Plaster is advertised by the manufacturers as a porous plaster prepared with gum elastic, and as the best external medicament for the treatment of painful affections which follow cold, blows, over-exertion or other disturbances of the nervous or muscular activity. The examination showed that the preparation did not contain any pitch at all, and that its composition was similar to that of "*Collemplastrum capsicum*," a plaster, which according to an Imperial Order dated November 22nd, 1901, must not be offered for sale in drug shops. As pitch plaster is not included in this Order, the manufacturers considered that they would be safe in applying this description to the plaster.

Franz Lammersdorf's universal chilblain cream, a Hanover preparation, to be applied thinly on the chilblain and covered with wool and a bandage, and renewed every twenty-four hours, was found to consist of about 25 grams of extract of malt. Dr. Zernik points out that this is a curiously original medicament for chilblains.

Jehnol is advertised as differing from all other preparations in its power of allaying all forms of toothache, including the most severe. It is a fluid, and three or four drops are to be applied on a piece of cotton-wool to the cavity of the tooth. A small bottle containing about 3 c.cm. of an alcoholic solution of oil of cloves and other ethereal oils, and possibly also cajeput and camphor, and coloured green with chlorophyll, costs 30 pfennigs, that is, about 3¾d.

Epocol is advertised by a Vienna firm, as a "new, absolutely non poisonous cresote preparation, possessing extraordinary disinfecting properties." The dose mentioned is from 1 to 10 grams a day, according to the age of the patient. No details are given with regard to the composition of the preparation, and Zernik concludes from the results of his analysis that this "new" preparation is a mixture of 45 per cent. sodium benzoate, 30 per cent. ammonium sulpho-guaiacolate, and 25 per cent. potassium sulpho-guaiacolate. The ammonium salt of sulpho-guaiacolic acid is not used in medicine, the potassium salt is used under the name of *thiocol*, while the calcium salt and the sodium salt are also used. The action of the sulpho-guaiacolates is sufficiently well known, and the claim of novelty cannot, therefore, be sustained. Zernik does not consider the preparation worth further criticism.

Bauch's Busennährcreme (bosom nutrient cream) is sold at 4s. 6d. for two boxes, which are said to be necessary for the production of full breasts. The actual value of the boxes and their contents is between 4d. and 5d., the cream consisting of mineral fat perfumed with oil of rose. The Karlsruhe authority has issued a warning on the ground that the substance cannot possibly produce the effect claimed in view of its composition.

Ninetta is a similar preparation. It is described as an Oriental strengthening and nutrient powder. It consists of a powdered leguminous flour with sugar and lecithin.

Büsteria (made by D. F. Steiner, of Berlin) is another "Oriental strength-giving powder," which is sold at an absurdly high price. The Berlin police have issued a public warning against it. It consists of bean and pea flour.

Oxygar is supposed to be a vegetable preparation saturated with hydrogen peroxide. The vegetable substance is agar-agar. It is supposed to contain about 10 per cent. H_2O_2, but the manufacturers call attention to the fact that the preparation loses in strength after a time. Frerichs found that fresh oxygar contained hydrogen peroxide varying in amount from 0.6 to 14.4 per cent., that the amount decreased within a short time, and after a few weeks even sank to *nil*. In cold water all the hydrogen peroxide was liberated within a few minutes. It thus appears very doubtful whether the peroxide would not be liberated in the stomach, in spite of the fact that the manufacturers claim as an advantage of the preparation that the H_2O_2 is not liberated until the intestine is reached, and then only slowly.

Spiritol is supposed to be an ideal substitute for spirit and to have nearly all the physical qualities of spirit, to be free from acid and alkali, to be miscible in all proportions with water or spirit, and to volatilize without residue. It is introduced for the preparation of cosmetic and pharmaceutic preparations, etc. The analysis revealed that it consisted chiefly of methyl alcohol, which was not even pure.

Verophen mouth water is advertised as a protective against all infectious diseases. It consists of a 0.2 per cent. solution of chinosol in water. A bottle containing 100 c.cm. of the fluid costs 1s. 6d. "Verophen" for mouth washes is also sold at 1s. 6d., while Verophen for the telephone costs 3s.

According to the law in Germany, chemical combinations of antipyrin may be sold to the public, but simple mixtures of antipyrin and other known substances may not be sold, save on a medical practitioner's prescription. *Sulfopyrin* is one of these mixtures which was offered for sale as a sulphanilate of antipyrin. Another is *Meligrin*, which is described as a condensation of dimethyloxychinicin and methylacetamide. These terms are technical but rarely used names for antipyrin and exalgin. The analysis revealed that the preparation was a mixture of 86 parts of the former and 14 parts of the latter. Exalgin has been practically withdrawn from the market in favour of the more active and better acetanilide.

A chemist named Taubert produces a "pleasant tasting headache powder (ammon. spiric. puriss.)," which is supposed to act rapidly in migraine, influenza, neuralgia, rheumatism, colds, etc. It appears that ammonium salicylate has an obscure synonym, "ammonium spiricum." Since the ammonium salt is scarcely ever used in medicine, the law does not mention it as well as the sodium salt among those medicaments which may not be sold without medical prescription. The chemist therefore sells it without fear. The weight of the single powders varied between 0.39 and 0.6 gram.

In dealing with false description, Zernik mentions *Mergandol*, which is recommended by its producers as an antisyphilitic remedy for intramuscular injection and for external application. It is described as a solution of sodium mercury glycerate in glycerine; 1 c.cm. of the solution is said to contain 0.0035 gram of mercury. Sodium glycerate is recognised as an unstable compound, but neither a mercury glycerate nor a sodium mercury glycerate is known. The analysis showed that mergandol is a mixture of perchloride of mercury and sodium chloride (0.5 of the former and 0.1 of the latter) dissolved in 100 parts of diluted glycerine. Each cubic centimetre would therefore contain 0.0044 gram of Hg. The bottle, containing 50 c.cm., costs 2s. 2½d., which is at least twice as much as any chemist is allowed to charge for making up a similar prescription.

Eulatin is a white, almost odourless, mildly acid-tasting powder. It is supposed to be an amido-bromine-benzoate of dimethyl-phenyl-pyrazolon. Dr. Friedmann has described this preparation as a useful remedy for whooping-cough when given in doses of 0.1 to 0.5 gram every three or four hours. Dimethyl-phenyl-pyrazolon or antipyrin was found to be present, but the analysis failed to reveal a trace of amido-bromine benzoic acid, a compound which has definite chemical characteristics. The rest of the substance was found to consist of parabromine benzoic acid and orthoamido-benzoic acid; two parts of the former with antipyrin in molecular proportions were present to each one part of the latter, also with antipyrin in molecular proportions. The mixture thus differs very materially from the supposititious chemical compound described by the manufacturers. Dr. Zernik considers that Dr. Friedmann should have been more careful in expressing himself with regard to the composition. The value of antipyrin in pertussis is well recognised.

Barkowski's *Irrigal* tablets are advertised as containing all the active components of wood vinegar in dry form, delicately perfumed and being easily soluble in water. One or two tablets are supposed to be dissolved in a glass or cup of hot water, and added to warm water in an irrigator. A glass containing 40 1-gram tablets costs 3s. The solid form of wood vinegar possesses an alkaline reaction! On analysis it was found to consist mainly of dehydrated sodium acetate with traces of tar and creosote. This is very different from wood vinegar, which contains tarry substances, free acetic acid, and some empyreumatic substances.

Vilja cream is now described correctly. Its constituents are diluted aqueous extracts of indifferent vegetable substances, wool fat, ceresin, and vaselin, and some ethereal oils, which smell like the oil of rosemary.

Automors is a widely advertised disinfectant, prepared by Heyl Brothers and Co., Charlottenburg. The advertisements claim that it is a new, strong, and harmless disinfectant, acting five times as strongly as carbolic acid. The analysis showed it to consist of about 3 per cent. phenols and carbohydrates, about 16 per cent. phenol sulphate, with 15 per cent. of free sulphuric acid. It would appear that this is an old preparation under a new name; formerly it was known as sanatol. The free sulphuric acid content renders it not harmless but actually highly poisonous. Its disinfecting power is far weaker than that of carbolic acid, save in a very exceptional circumstance, while its claims to act against flies are also false.

John P. Haig's "Cure" for Goitre.

Some information with regard to Haig's goitre cure is given in a paper by J. Kochs in the *Apotheker-Zeitung*, abstracted in the *Pharmaceutical Journal* for April 14th, 1906, p. 447. According to this the "cure" comprises: Powders, consisting of sodium bicarbonate, coloured pale red; ointment, consisting of a sodium soap with yellow soft paraffin; pastilles, consisting of sodium bicarbonate, aloes, and a little oil of caraway; pastilles, consisting of extract of hydrastis.

CHAPTER XVII.

UNQUALIFIED PRACTICE THROUGH THE POST.

It will have been observed that the various articles described in the preceding chapters and in the earlier volume show considerable variations in regard to the procedure by which they are placed in the hands of the public. They may be roughly divided into three classes; the first, and probably largest class, consists of those which are supplied to the public through the ordinary retail channels, such as chemists, stores, etc. The second class consists of similar articles, also sold under the proprietary medicine stamp, but supplied only, or chiefly, direct from the maker or proprietor to the consumer through the post, and not through retailers; in this case the proprietor reaps the full retail price, and having the names and addresses of consumers, is able to plant advertising matter or letters where they are most likely to take effect, and to apply later for "unsolicited" testimonials. In the third class also the medicine is supplied direct to the consumer, but before it is sent, a list of questions, or "symptom form," is submitted for answers to the questions to be filled in by the patient, on the pretext that the medicines will be "modified" or "selected," according to the nature of the case; here, again, the full retail price goes to the proprietor, and with the particulars supplied by the patient, future letters—urging continuance of the "treatment," or the taking of some stronger or additional article—can be made more effective; no doubt,

also, such particulars are of use in working up an account of the case which shall be of the nature of a testimonial, when the purchaser has been persuaded that he is cured, or has really been cured by or in spite of the medicine.

In some advertisements the departure from the mere recommendation of a particular nostrum goes further, and the advertiser claims to be a "specialist" in some particular kind of disease, and to treat each case individually, according to the particulars furnished by post, or sometimes to treat any and every disease on the information supplied in the same way. The border line between these and the preceding class is very indistinct. In this chapter some further particulars are given of advertisers of these two classes.

The nostrums already reported on have included one or more in which a "symptom form" has figured in each of the following groups: "female medicines," medicines for obesity, sexual weakness, skin affections, "bad legs," alcoholism, rheumatism, and deafness. In most cases the first supply of medicine was followed up by letters insisting on the great importance of taking it uninterruptedly, or asking for particulars of the results attained. In the case of medicines for amenorrhœa, in every instance the article first supplied was accompanied or followed by recommendations of a stronger one, said to be certain to succeed if the first failed, and, of course, sold at a higher price. In many cases where the original communication was not an order for medicine but merely an inquiry, the letter sent in reply was followed at intervals by a number of others, emphasising in a sensational manner the terrible seriousness of delay in obtaining the "cure," and frequently offering the latter at a gradually diminishing price, as at a cheap-jack's "Dutch auction." This offer of reduced price is sometimes made conditionally on the purchaser supplying six names of other persons known by him to be suffering from the complaint in

question; so that if the terms were accepted the vendor would be kept supplied with a list of names and addresses, ever increasing on the "snowball" principle, of persons likely to be susceptible to his letters. The letters sent usually appear on casual inspection to be type-written communications written to the individual, who is frequently addressed by name as "Dear Mr. (or Mrs.) —," or as "Dear Friend"; but closer examination has almost always shown that they are really circulars produced by one of the multiple copy processes with a typewriter, the individual's name being inserted afterwards. These circulars usually contain expressions of strong or special interest in "your case," even when no case has been mentioned and the "symptom form" has not been filled up. In fact, there is every reason to suppose, in regard to most nostrums sold in this way, that the composition of the medicine sent is in no way modified in consequence of the details supplied.

Extracts from one or two typical letters may be given as examples.

The National College of Health, Ltd.

In Chapter XI. we gave some account of certain medicines supplied by the "National College of Health, Ltd." After an interval the person who had ordered the medicines analysed received the following:—

Dear Mrs. ——,

We are extremely sorry that you have not allowed us to see your case through to a successful termination. We are taking a special interest in your case, and as you have gone to some expense, and as we want to be of real help to you, it is a pity for you to throw away this opportunity of being permanently cured.

Let us implore you as a friend not to neglect the advice we gave you in our last letter, for if you do we fear you will not get well, or if so will not remain permanently cured. If you neglect the simple precaution of purifying your blood and keeping it pure for a reasonable period, it will be your own fault if you do not get well and remain so, which is what we earnestly desire.

To effect a permanent and lasting cure, it is absolutely necessary that you should take the Blood mixture for a reasonable period. Neglecting this is not fair either to yourself or to the Tremol Treatment, which has done so much good for those who carry it out conscientiously.

The date, name and address, and the words "Dear Mrs. ——" are seen on careful examination to have been added with a typewriter to a circular letter. From this it would appear that the number of those who purchase the "Tremol Treatment" but do not feel sufficiently encouraged by the results to "carry it out conscientiously" is large enough to make it worth while to have a circular ready to send to them; also that it is a routine matter to assure them that "we are taking a special interest in your case." It appears impossible to doubt that large numbers of people are lured by such assurances into sending their money for such "treatment." But there are two considerations affecting this kind of practice which are so obvious that it might have been supposed that they would occur to anyone. The first is that the absentee prescriber is an anonymous and unknown person—for example, the letter quoted above is signed (with a stamp) "J. S. Chatterton, Doctor's Secretary"; the "doctor" does not appear. In other cases it is "our consulting physician," our "specialist," or "our medical staff," etc., never anyone whose qualifications and experience can be ascertained. In the second place, it can hardly be supposed that writing down a few answers to questions can supply a prescriber with an adequate knowledge of a given case such as can be obtained by personal consultation and examination. The meagreness of the information which will satisfy these anonymous prescribers is remarkable.

THE SUTTON MEDICAL COMPANY.

Another circular in imitation of typewriting which is before us, headed "The Sutton Medical Co.," looks like an attempt to imitate the Kidd Company's methods, though on a more restricted scale. It is dated from Clerkenwell, London, and commences:

Dear Friend,

Do you or any of your friends stand in need of medical treatment? We make a speciality of kidney and bladder trouble and rheumatism, in fact all complaints arising from uric acid poisoning. . . .

To introduce these remedies we are going to give away 10,000 Proof Sample Treatments They will be sent post-paid and absolutely free. You are one of the ten thousand selected to receive a Proof Sample Treatment, because we believe that if they cure you your influence in your neighbourhood will secure other patients. . . . We will also send you entirely free a copy of "Sutton's Talk on the Kidneys." . . . Answer the questions on the printed form and post it to-day.

The printed form was filled up with the details of an imaginary case; but whether, in the interval that had elapsed between receiving the circular and sending for the medicine, the Sutton Medical Company had concluded that they were mistaken in the belief that "your influence in your neighbourhood will secure other patients," or whether the giving away "10,000 treatments" had caused them to collapse, or from some other reason, no medicine or answer of any sort was received.

THE J. W. KIDD COMPANY.

One of the most extensive businesses of the kind we are considering is that run by the J. W. Kidd Company, of Fort Wayne, U.S.A., some particulars of which have previously been given (*Secret Remedies*, Vol. I., p. 177). Although the letters are ostensibly signed "Dr. James W. Kidd," the remarks made above as to the real anonymity of the prescriber apply no less, as the business is run by a company and, on the evidence submitted, is far too large for any one individual to attend to the cases. The letters contain the usual sort of references, such as "With my staff of skilled specialists, I have successfully treated more serious chronic cases than any other doctor." This company, although established in America, sedulously cultivates business in this country. Besides newspaper advertising, it appears to obtain the names and addresses of persons to whom it seems worth while to write. It has been asserted, and so far as we know without any contradiction, that in America, at least, there is a regular trade in old letters, orders, etc., from purchasers of nostrums, and that a firm desiring to push a preparation for any particular disease can purchase from a broker thousands of letters from people who have bought some other preparation for that ailment, in order to bombard them with letters recommending the new nostrum. Perhaps that is how the Kidd Company gets names and addresses; one of the letters sent by the company states that "I have decided to favour you because I am informed that you need expert medical attention, and because I believe you will tell your friends about my successful treatment after I have cured you." Of course, modesty in advancing the company's claims would be absurd, as diffidence in disparaging legitimate practitioners would be out of place. A single extract may serve as a specimen:

My Treatment: Do not waste your time and money on worthless patent medicines, on incompetent doctors, or on One remedy—no one remedy

can possibly cure all cases or all diseases. The free treatment I will send you will consist of as many kinds of medicine as I have found advisable in cases like yours—remedies pure, effective, and successful—the kind I have used in curing thousands of others. The fact that my patients receive treatments especially prepared to suit their individual cases is also largely responsible for my great success. Simply mail me the enclosed Symptom Blank soon, and with your free remedies I will send you one of my Books—not an advertising pamphlet, but a valuable medical book entitled "The Ills of Humanity."

The "symptom blank" contains only a few questions, including, "If other doctors have tried to cure you, what did they call your disease or diseases?" and a general invitation to "write me freely, in your own words, about your diseases, symptoms, or pains"; and the following aid to diagnosis is added:

I am specially successful with the following diseases—simply make a mark (X) side of any one of them you have :—

Rheumatism	Piles	Lumbago	Lung Trouble
Constipation	Dropsy	Neuralgia	Chronic Cough
Diarrhœa	Pimples	Headache	Heart Disease
Indigestion	Malaria	Dizziness	Female Trouble
Nervousness	Eczema	Epilepsy	Kidney Trouble
Torpid Liver	Asthma	Scrofula	Bladder Trouble
Impure Blood	Catarrh	Prostatitis	Partial Paralysis

The "diagnosis" and medicine sent in a given case are described in Vol. I of *Secret Remedies*. In *Truth Cautionary List*, under "Kidd, 'Dr.' James William," appears the following:

Advertises profusely all over the world, offering to cure all diseases, and to send a sample of his treatment "free." The remedies appear to be absolute humbug, and are supplied in quantities at extravagant prices, as much as £4 having been obtained from victims in some cases.

These exposures, however, have not yet sufficed to drive the company out of the field, as shown by the recent receipt of its circulars.

AN "EYE AND EAR SPECIALIST."

An advertisement which is to be found in very many newspapers is that of "Mr. Thomas Ison, oculist and aurist, Ison's Eye and Ear Dispensary, Limited," inviting consultations by post for all diseases of eye and ear, which are stated to be cured without operation. From one of the circulars sent it appears that the advertiser also attends at certain times at given hotels

in many of the northern towns, twenty of which are named, to be consulted. An application for advice in a case of failing sight brought a printed circular enclosing

Printed form of questions to be answered appertaining to your case, which please fill up and return to me by early post, together with cheque or postal order for my fee, when suitable remedies will be at once forwarded to you with full directions for their use.

A written postscript stated:

The charge is 10s. 6d. for special remedies and advice. My treatment is very successful and there is no pain and no inconvenience attending the use of the remedies.

The promise of no pain and no inconvenience, before any information had been sent as to the nature of the trouble, seems to imply an intention not to undertake any very serious treatment, whatever the case might prove to be. The printed form was as follows, the answers that were given being here printed in italics :—

Established 1871.
Ison's
Eye and Ear Dispensary, Limited,
————,
Mr. Thomas Ison,
Oculist and Aurist.
A new method of treatment for the
Rapid Cure of Diseases of the Eye and Ear
without Operation.
Attendance at Leeds every
Tuesday and alternate Saturdays.
Hours : 10 to 7
Other days by appointment only.

By this new system of treatment nine cases out of ten can be cured without a personal interview or the patient leaving home or business, thus saving time and expense. The postal arrangements are now such that persons may be treated in the most distant parts without delay.

The special remedies applicable to each case are forwarded in a portable compass to any part of the world, with full directions.

Each patient is requested to fill in, as correctly as possible, answers to the following questions, and return the same by post :—

1. State name, age, and full postal address.— —— ——, *34*, —— ——.
2. State profession, business, or occupation.—*Clerk.*
3. Is the constitution strong or weak?—*Strong.*
4. How is the general health? Are the functions of the body performed regularly? If not, state particulars.—*Good. Yes.*
5. State whether the right or left eye, or both, are affected.—*Right eye only.*

6. How long have the eyes or eye been affected?—*It has been steadily coming on for about 3 months.*

7. Do you feel any pain? If so, where? At the back of the eyes, across the forehead, in the temples, or over the eyebrows?—*Yes, at the back of the eye.*

8. Do the pains occur in the daytime, or in the night?—*All the time, but worse at night.*

9. Are the eyelids affected? If so, describe the symptoms.—*No.*

10. What part of the eye is affected? Is the white of the eye bloodshot wholly or in part, greyish, or of any other unnatural colour? Are there any spots on the eye, or discharge? If so, state particulars.—*The white of the eye is greyish. No spots or discharge.*

11. Is the iris (the coloured ring which surrounds the pupil of the eye, light or dark, or has its natural colour otherwise changed? If so, state particulars.—*Light naturally, unchanged.*

12. Has the pupil of either eye increased or diminished in size, and has it changed from its natural round form? If so, state particulars.—*No.*

13. Are you naturally near sighted or far sighted, or do you squint? Do you use spectacles? If so, state whether with flat glasses, and of what colour, and of what number, if you know.—*No.*

14. What treatment (if any) has been employed up to the present time, and with what result? State, as near as possible, what has been done or used. Send any prescription that may have been given or used; it will be returned.—*None.*

15. Is your mother or father subject to any affection of the eyes?—*No.*

Any other observations which may suggest themselves, please write on the other side.

Note: It being our desire to bring each case to a successful issue as early as possible, it is highly important that we should have the co-operation of our patients in every particular, in order to assist us to this end.

This was sent with the 10s. 6d. required, and the package received in return contained a 2-drachm bottle of "Drops" and a 1-ounce bottle of "Lotion," and a dropping-tube of the kind supplied wholesale at about 1s. 9d. per dozen, accompanied by a letter which stated:—

I send herewith remedies to be used according to the printed instructions. Please persevere and you will do well. Write me a day or two before the remedies are finished, and I hope to have a good report.

A printed sheet of instructions for use was sent, giving directions for "The Drops," "The Lotion," "The Embrocation" (for forehead and temples), and "The Ointment" (for edges of eyelids). The two latter were crossed out; the others were:—

The Drops.—Two Drops to be dropped in the inner corner of the affected eye (the eye to be well open) by the aid of the Drop Tube two or three times a day.

The Lotion.—Linen cloths wet with the Lotion to be applied to the Eyelids for a few minutes night and morning.

Note.—Add the contents of the bottle to a bottle containing a half-pint of cold water before use.

Analysis showed the drops to consist of:—

Boric acid	2½	grains
Glycerine	2	,,
Water, to	2	fluid drachms

The lotion was found to consist of the Liquor Hamamelidis of the *British Pharmacopœia*. In both cases careful search was made for small quantities of other substances, but nothing else was found. The cost of both together would be about one penny; the bottles, dropper, and postage would amount to a few pence more. It is not necessary to comment on the value of such "treatment"; it is sufficient to contrast it with such statements from the circulars sent as:—

Many hopeless cases, given up by the medical profession as incurable, have been brought under his special treatment, and, to the surprise of their friends, they have recovered their sense of hearing or seeing after having been deaf or blind for many years. . . . This is not accomplished by means of painful operations, poisonous drugs, or compounds, but by means of a special treatment he has introduced, as the result of thirty years' practice and the experience of his fore-elders.

A "HERBAL SPECIALIST."

An advertisement which may be met with in many papers is that of a Mr. J. George, medical herbalist, usually beginning with a reference to "Lost strength restored," offering a free book which should be read by all men suffering from loss of nerve power, etc., and concluding: "No Drugs or Minerals used. Nature's Remedies only. 30 years' success. The Treatment that Cures." Application to the address given brought a circular resembling a typewritten letter with the name and date typed in, a "consultation form," and two pamphlets. These were both entitled *The Treatment that Cures Lost Health and Strength*, one being marked "18th edition" and the other "26th edition." Both contain a number of testimonials, and the one marked "18th edition" contains several dated 1911, including one of March 2nd, 1911. As the pamphlets were obtained in April, 1911, the interval between the 18th and 26th editions would appear to have been a short one, but it seems to have sufficed for a marvellous extension of the powers of the Herbal Remedy. In the "18th edition" the following appears:

Special Notice.

In asking you to read carefully the following testimonials (which are taken from some hundreds that I have received during the last five years) I am convinced that no greater proof can be produced of the Wonder-working qualities of the Herbal Remedy in all cases of Lost Manhood and Vitality, Nervous Debility, Spermatorrhœa, Premature Decay, all disorders of the Nervous System, Urinary Organs, etc., etc. It is an undeniable fact that the Herbal Remedy has given health and strength to large numbers of men and women who have become old and debilitated long before their time. If space would permit, I could print such statements from men that have suffered (but whom I have cured), that would convince the greatest doubter. Therefore, I ask you to read these testimonials which are from living persons, daily in communication with me, and think, if you are a sufferer from any of the symptoms mentioned give the Herbal Remedy a trial, and avail yourself of a Safe, Sure, and Speedy Cure.

In the "26th edition" appears a similar paragraph, but the list of disorders following the words "in all cases of" has been changed to

Asthma, Bronchitis, or any Chest or Lung Disease, Indigestion, Loss of Appetite, Liver Trouble, Kidney or Water Complaint, Backache, Weakness, Lassitude, Piles, Costiveness, Impurities of the Blood, Eruptions, Blotches or Itching of the Skin, Anæmia, Dyspepsia, Female Irregularities, or any complaint incidental to the Human System.

It then continues: "It is an undeniable," etc., as above.

In the "18th edition" it is stated that:

In placing your case under the treatment of Mr. J. George, the Herbal Expert, you are placing yourself into the care of a Practitioner that has had upwards of 40 years' experience in diseases of the urinary and generative organs.

In the 26th, however, we read that

In placing your case under the treatment of Mr. J. George, the Herbal Expert, you are placing yourself into the care of a Practitioner that has had upwards of 40 years' experience in all diseases and ailments incidental to the human system.

As the advertisement referred to above, which appeared this year, speaks of "30 years' success," it would appear that the first ten out of the forty years were given to failure. But a further inconsistency is supplied by the letter, in which it is said that

The Remedy is one that I have used with the greatest success during the past 20 years, previous to which it was used by a near relative (a well-known Herbalist in the South of England with over 50 years' extensive practice).

The price of the Herbal Remedy is, one month's treatment, 8s. 6d.; two months', 15s. 6d.; three months', 21s.

The "consultation form" was filled up with particulars of an imaginary case, and sent with 8s. 6d. A box of 29 powders was received in return; these had an average weight of 57 grains, but single powders varied from 47 to 69 grains. The material had a bitter taste; it contained about 25 per cent. of maize flour, and the remainder consisted of vegetable tissue which appeared to be derived from a bark, but did not agree in characters with any drug in ordinary use. It showed no alkaloidal or other principles by which it could be identified, and no other substance was found to be present.

CHAPTER XVIII.

THE ADVERTISING OF PROPRIETARY MEDICINES.

The methods of advertising adopted by the proprietors of secret medicines are many and various. Some employ big posters on hoardings, others—an increasing number—have fringed the chief railway lines of the country with great boards bearing the names of their nostrums; almost all agree in making large use of newspapers, magazines, and other periodicals, and of copious distribution, through various agencies, of circulars and pamphlets. It is impossible to read any of the popular newspapers or magazines without seeing that the extent of such advertising is very great. As a particular example, there lies before us a letter recently sent to retailers by the makers of certain proprietary medicines, in which it is stated that

> We have already largely increased our advertising, and over 800 newspapers and magazines, embracing the whole of Great Britain, are regularly carrying very effective advts.
>
> Ten million leaflets have been ordered to be insetted in all the principal periodicals and magazines during the next three months.
>
> Booklets will be distributed from house to house throughout the Country during the whole summer.

In the case of another nostrum, a single article, which was before the courts a few years ago, it was proved in evidence that in five years 83 million pamphlets had been issued, and that, in the words of the judge, "they had flooded the English-speaking world with their advertisements."

While the undifferentiated "man (and woman) in the street" represents the millions of potential customers to whom the nostrum maker wishes to appeal, both the number

and nature of the advertisements of proprietary medicines in any given periodical do not by any means depend only on its circulation, and the operation of certain general rules may easily be traced. There is an obvious relation between the intelligence and education of the readers on the one hand, and the extent to which they can be appealed to by such advertisements as we are considering on the other, these varying in inverse ratio. A striking illustration of this may be seen by comparing the established reviews and the monthly magazines, or the *Times* and some of the halfpenny dailies. A reference to the current issues of the *Fortnightly Review*, the *Quarterly Review*, and *Blackwood's Magazine* shows one advertisement of a proprietary medicine in each of the first two, and none in the last; while a single one of the illustrated magazines—the *Strand Magazine*—provides twenty-six, and a Christmas number of the same contained sixty-three. Similarly, on an arbitrarily chosen day, the *Times* contained one such advertisement occupying one column, while the *Daily News* contained eight occupying four columns, the *Daily Mail* four occupying three columns, the *Daily Express* eleven occupying three and a-quarter columns, the *Evening News* four occupying two-thirds of a column, and the *Star* five occupying two columns. A close connection may easily be traced, also, between the number of advertisements of patent medicines and the character of the other advertisements, the fact that a large amount of credulity on the part of the readers can be counted on being as evident from the one as the other. For example, advertisements of clairvoyants, palmists, "astrologers" who offer to foretell a person's future from the date and hour of his birth, preparations for removing superfluous hair, preventing blushing, or developing the bust are frequent in those publications most favoured by the proprietary medicine maker.

Some of the Sunday papers which have very large circulations show a very full share of advertisements of nostrums;

an unselected copy of one of these which is before us contains no less than forty-one such advertisements, occupying nearly seven columns. Some of these papers have gained a good deal of notoriety for the large amount of space which they devote to reports of divorce suits and sensational crimes, and it is not surprising therefore to find the majority of proprietary nostrums advertised in them belonging to the most undesirable classes. For example, out of the forty-one just referred to, seventeen are of medicines for "female complaints," five for "lost manhood," and two for diseases of the urinary organs. Such advertisements are also abundant in the low-class "comics"; one of these taken at hazard contained eleven of female remedies, along with advertisements of "rubber preventives," "chic female pictures," and the like.

"Religious" papers appear to be a fairly good hunting-ground for the advertisers of nostrums. In one of these—a weekly—we find eighteen advertisements of such preparations, along with "galvanic rings for rheumatism," "1s. for £1," "£2 weekly made by selling remnants," "blushing cured," "superfluous hair removed," etc.; and on another page the announcement, "The prayers of the readers of this journal are requested for the blessing of God upon those who conduct it, and also upon the sermons and narratives which are printed in it." The smaller provincial papers are in a good deal of favour for advertisements of secret medicines; as a rule a few local products of this kind are advertised as well as those of wider sale. A feature which is often to be noticed in such papers is that advertisements are accepted which from their headings and general appearance look like news paragraphs, and they are sometimes so worded that an ordinary reader might never suspect their real significance, and no warning "[Advt.]" or other indication appears at the end.

The feelings of disgust and annoyance which are aroused when advertisements of this kind are met with in such abundance in newspapers are of very little importance in comparison with the far greater evil of the power over the press which thus passes into the hands of the owners of the various quack medicines. Certainly one of the most effective ways of preventing people being imposed on by such articles is to publish as widely as possible authentic information as to their composition and real value; but in this task little assistance is to be obtained from the lay press, on account of the large pecuniary interest which such advertisements give it in supporting the trade. The great concentration of the ownership of newspapers, magazines, etc., in the hands of a comparatively small number of companies, is not without influence in the matter; for a newspaper which does not obtain enough advertisements of medical nostrums to give it an interest in supporting them is effectually prevented from printing anything adverse to their interests if it is the property of a firm or company owning other papers which do receive such advertisements largely. The importance of this consideration can be at once seen in connexion with any proposals for legislation; if there should appear any likelihood of an Act of Parliament being passed which would interfere with the liberty to fleece the public by means of secret remedies, the proprietors of such things can practically order the greater part of the press of the country to misrepresent what is proposed, and in every way to stir up hostility to such a measure. This consideration should not be lost sight of in judging of the proceedings or the findings of the Parliamentary Committee of Inquiry into the subject of "patent" medicines.

CHAPTER XIX.

THE "EXPERT" BEHIND THE PROPRIETARY MEDICINE.

The reports which appear in the preceding pages and the first volume of this book, contrasting the composition of various proprietary medicines with the claims made for them, show that a favourite feature in the advertising of many of those of most recent origin is a pretence of personal attention to the details of each case by an expert. It is sometimes professed that this attention is given by a qualified medical practitioner, but whether alleged to be qualified or not, the "expert" is usually said to have made a life-long study of the particular complaint to be treated, and to know far more about it than any doctor practising his profession in the ordinary way. We have shown in many cases the hollowness of the pretence of personal attention to individual cases, and some of the evidence given at a recent inquest at the Hammersmith Coroner's Court throws light on the kind of "expert" knowledge placed at the disposal of those deluded by such advertisements. The case was one in which the deceased had been taking the "Nelson Lloyd Obesity Cure," the results of the analysis of which were published in *Secret Remedies*, Vol. I., p. 100. As will be seen from the extracts from advertisements which are there given, the appeal to sufferers from obesity is in the form of a promise of personal treatment by "J. Nelson Lloyd," who says, "I am myself a member of a family many of whom died prematurely after much mental and physical suffering, arising from corpulence"; and "not only do I

offer every client the full benefit of practically a life study of the whole subject of corpulence, but that I *guarantee* to effect a cure of every case I take up." The value of this "guarantee," and the real facts as to the proprietor's knowledge of the disease he guarantees to cure, are shown by his own evidence at the inquest referred to. The following is from a report of the proceedings in the *West London Observer*:—"Mr. Frank Derry, the proprietor of Nelson Lloyd's Obesity Cure, recalled by the coroner, said his medical knowledge was confined to what he had learnt twenty years ago as secretary to a medical man. He had not been in the present business very long. The Coroner: Since the last hearing I have had the advantage of reading your book. Did you write it? It is signed 'Nelson Lloyd.' —Witness: Of course, Nelson Lloyd is an imaginary person. The book was written for me. In your book you say, 'While studying for my degree?'—That represents the man who wrote the prescription. He assisted in the business. But you are said to be Nelson Lloyd?—Yes, it is a joint effort. When was the book first published?—In the spring of last year. In the book you say, 'After I had succeeded in curing myself I decided to take up the cure of obesity instead of that of medical practitioner'?—That represents the medical man who assisted me. Obesity, you say, should only be treated by a specialist?—Yes. You also say that you have made a life-study of it. Is that correct? —As for me, no, but as for the medical man, yes. Do you undertake the diagnosis of a case?—With the assistance of a medical man. John Holmes, of Herne Hill, said he was a qualified medical man in America, but not in this country. As an employee of Mr. Derry he went over the consultation forms and ordered the treatment." The statement of the proprietor, who is responsible for the letters and pamphlets sent out concluding, "I am, yours truly, J. Nelson Lloyd" (the signature being a facsimile of writing), and for the personal form of the advertisements, that "*of course*,

Nelson Lloyd is an imaginary person," appears to show a correct appreciation of the degree of truthfulness usually pervading such a business.

In connection with the above and with another nostrum for obesity—A. Gordon Wallace's "Treatment"—dealt with in Chapter VII. of this volume, the following extract from "'Truth' Cautionary List for 1912" is of interest :—

"Wallace, A. Gordon.—A mythical 'specialist' in fat-producing and fat-removing, originally the joint creation of a Mr. Alfred John Warner and a Dr. J. H. Hart. Warner was a medical student and chemist's assistant, employed by Nelson Lloyd. Dr. Hart, who was struck off the register in 1898, was in the same employment. They produced Wallace as a fat-remover, and transferred him to the Rational Remedies Co., Limited. The company went into liquidation, and the 'specialist' passed into possession of the International Remedies Co., Limited, which also went into liquidation. Warner became bankrupt, and Gordon Wallace then became a fat-dispeller."

CHAPTER. XX.

SOME ECHOES OF VOLUME I.

The first volume of this book, published in 1908, aroused a very large amount of public interest. Its reception by those primarily concerned was of varying character; two or three incidents in this connection appear worth recording here.

SEIGEL'S SYRUP AND "SECRET REMEDIES."

We have received from a correspondent particulars of letters which have passed between the proprietors of Seigel's Syrup and himself. They are characterised by a direct terseness on his side, and the opposite qualities on the other, that make them somewhat entertaining reading. The correspondence opens with a letter from the makers of this nostrum, which is self-explanatory:

Dear Sir,

We received to-day by post a wrapper which had enclosed one of our Mother Seigel pamphlets addressed to you, and on which the sender had copied the stupid so-called analysis of our Syrup from the publication of the British Medical Association. You also copy the still more silly averment, "cost of 3 fluid ounces ½ of 1d.," and your own comment on the whole is, "Nice profit at 2/6! What humbug"!!

As you seem to be inclined to believe whatever you read, we desire to say: That the pretended analysis is positively absurd; That it does not remotely resemble the actual formula of our medicine, which really contains over a dozen vegetable or herbal extracts; That it costs much more than ½ of 1d. for 3 fluid ounces; That it is actually worth more than it sells for as an effective curative remedy; That it is not a "humbug"; That humbugs do not last forty years and still continue as business successes in all parts of the world as our preparation does.

From your penmanship we think it not unlikely that you are a medical practitioner, in which event your animus becomes quite intelligible. If

you are a layman, please consider fairly our assurance that the published analysis (?) is merely an effort of the "Doctors' Trust," or "Medical Practitioners' Trade Union," to injure successful rivals. Don't let them humbug You!

It is of course quite possible that the preparation in question "really contains over a dozen vegetable or herbal extracts," even though the statement follows the phrase "as you seem to be inclined to believe whatever you read." There is nothing in the report of the analysis, as set forth in *Secret Remedies*, to the contrary; but in that case the dozen extracts must have been present in too small quantity to be recognizable by chemical or physical tests, which reveal most active drugs even in traces. In the introduction to that volume it is pointed out that vegetable extracts which contain no active principle cannot always be recognized by analysis, and a similar caution is repeated several times; but to any one acquainted with the nature of drugs it is obvious that such limitation of the powers of analysis is of little moment, since active drugs can almost always be recognized with certainty.

The reply to the above letter was the remark that:

The sole question is whether the public is more likely to be humbugged by the British Medical Association, which is certainly a responsible body of experts, or by the unknown vendors of a quack medicine;

And the writer adds:

Most of these abominations hail from America. Did yours originate there?

The makers reply to this in a long letter containing various assertions about their article in nine numbered paragraphs, although they commence by saying:

We have no desire to continue a correspondence which would probably not be accepted in a fair and reasonable spirit on your side.

And they omit to answer the one question that was asked as to the country of origin of the syrup. In acknowledging this letter, the recipient says:

As regards your letter generally, if the British Medical Association have issued false statements damaging to you and to your concoction, your remedy is patent.

If you, and all the other quack medicine dealers, specified in the 184 pages of *Secret Remedies*, and in the pages of *Truth Cautionary List*, choose to "take it lying down," the fair presumption is that the statements are true.

The makers do not appear to have found a further reply, and so the correspondence closes.

THE VARIABLE COMPOSITION OF SECRET REMEDIES.

A correspondent of the *Pharmaceutical Journal*, in a letter in the issue of January 8th, 1910, draws attention to the differences between the formulae of certain proprietary medicines published in *Secret Remedies*, Vol. I., as the results of analysis, and those printed on the labels of the medicines when these are imported into France or Italy. The first instance taken is "Dr. Williams's Pink Pills"; the formula for these given in *Secret Remedies* is:

Exsiccated sulphate of iron	0.75 grain
Potassium carbonate, anhydrous	0.66 ,,
Magnesia	0.09 ,,
Powdered liquorice	1.4 grains
Sugar	0.2 grain

In one pill.

while according to the writer of the letter it is given on the label as:

Pot. carb.	0.07
Ferri sulph.	0.80
Mangan. oxid. puriss.	0.02
Nuraemin	0.05
Sacchar	0.03
Ext. gentian	0.025
Aloes	0.009

[The quantities apparently do not indicate grains, but the fractional parts of the various ingredients in 1 part of the pill.]

The *Pharmaceutical Journal's* correspondent proceeds to assume, without further evidence, that the formula published in *Secret Remedies* is wrong. A little familiarity with the composition of proprietary remedies and the ways of their makers would, however, have taught him that a particular composition in one country or at one time gives not the slightest guarantee of the same composition at another time or in another country. When the two formulae above are compared, it is at once clear that no competent analyst could have obtained from pills having the composition of the second formula results pointing to the first. To begin with, the potassium carbonate of the second is only a fraction of what was found by our analyst, who converted it into sulphate in the usual way, after removal of all other ingredients, and weighed the pure potassium sulphate; there is no loophole for error here. Again, powdered liquorice was

found to constitute nearly half the pill, but none is shown in the other formula; it can hardly have been omitted as being unimportant excipient, since it is thought worth while to mention sugar present in only one-thirtieth of the quantity; the fibre of liquorice makes it one of the easiest drugs to recognise with certainty, and none of the ingredients mentioned in the other formula contains any fibre or vegetable tissue at all. These two instances suffice to show that the formulae refer to pills having very different composition, and the other differences are equally incapable of explanation in any other way. The comparison serves to emphasise the obvious fact that the only formula that is of value for showing what is being sold under a given name in a particular country is that obtained by expert examination of the article purchased there in the ordinary way. The second instance which is referred to in the letter in question is that of Laville's Antigout Remedies. In *Secret Remedies*, Vol. I., the results of qualitative analyses of these by Dr. Zernik are quoted, and the composition thus given is now shown to differ from what is printed on the label. The statement in *Secret Remedies* is given on the authority of Dr. Zernik, and we are, of course, unable to answer for his methods of work; but it appears almost certain that remarks similar to the above would apply here also. Thus, Zernik found the pilules to contain guaiacum resin, whereas this is not one of the admitted constituents; it is well known that guaiacum resin can be identified with much greater certainty than most resins, and it is extremely unlikely that any mistake was made about it by so experienced an analyst as Dr. Zernik. The correspondent of the *Pharmaceutical Journal* adds that "the natural conclusion is a strong doubt as to the accuracy of the other formulae given in the book. Its pages form very interesting reading, but with errors such as these, which could easily have been avoided, the book hardly reflects credit on its authors or any pharmacist who uses it as a book of reference." If pharmacists are as little able to criticise the claims of the makers of proprietary articles as the writer of this letter appears to be, it is perhaps not surprising that they are often willing to play the part they do in distributing them. Fortunately, evidence is not lacking that many of them regard the quack medicine evil in a very different manner, and welcome such exposures as we have given of many of these preparations. The facts adduced in the letter show very plainly how desirable it is that in this country, as in France and Italy, the law should require the composition

of such medicines to be stated on the label. The public could then judge to some extent whether they were receiving fair value for money, and the proprietors could be brought to book if analysis proved that they had departed from the declared formula.

THE VARIABLE DOSAGE OF SECRET REMEDIES.

Among the proprietary medicines the composition of which, as revealed by analysis, has been published in the first volume are various powders, cachets, pills, and tablets, and in these cases the individual weights of different doses have usually been recorded; great variation in the quantity to be taken in one dose has sometimes been shown. Thus in the case of powders sold for the cure of drunkenness powders having an average weight of $1\frac{1}{2}$ grains varied individually from $\frac{1}{3}$ grain to 3 grains, and in another inebriety "cure," variations from 2.9 to 6 grains were found among ten powders of average weight 4.2 grains. It would appear from such cases that the quantity put into each was merely "a little," and could not have been either weighed or measured. One of these powders contained acetanilide and bromide, and such variations might be far from negligible in their consequences. In the case of headache powders, most of which consisted chiefly of acetanilide, some of the variations were very serious, the heaviest and lightest powders in a packet of ten differing in one preparation by as much as 6 grains; the average weight of these was $10\frac{1}{2}$ grains, and acetanilide formed 50 per cent. of the constituents. Some ingenuity is shown by one of the makers of headache powders whose article was among those examined, in an advertisement which has appeared rather prominently in some of the pharmaceutical papers. In this advertisement attention is drawn to the "fact" that our analyses showed smaller variations in the weights of the powders in question than in any other; since, however, the lightest and heaviest powders in a packet of ten of average weight 6 grains differed by 0.7 grain (practically 12 per cent.) there seems to be no very good grounds for this self-congratulation on accuracy. And the "fact" itself belongs to the class described by Josh Billings as "facts which are not so," as in one of the powders analysed—the only other one which consisted of acetanilide only—the extreme variation found was only 0.2 grain; this appears to be referred to in the advertisement as a variation of 2.0 grains.

The advertisement states "it is not possible in the ordinary course of dispensing business to weigh powders more accurately than 'Daisy' powders are dispensed," and, as to this, a pharmaceutical correspondent remarks that the statement "is an insult to the pharmacists to whom it is addressed. A dispenser who could not weigh to within 0.7 grain would not remain long in any good pharmacy." It is not unimportant to recollect, moreover, that it was shown in evidence at an inquest some years ago that extremely wide variations existed in the weights of specimens taken from one and the same packet of the very powders in question, and whatever greater accuracy may exist in the weighing of these powders to-day would seem therefore only to have been secured after attention had been drawn in this forcible way to the dangerous manner in which variable quantities of acetanilide were being distributed as doses.

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