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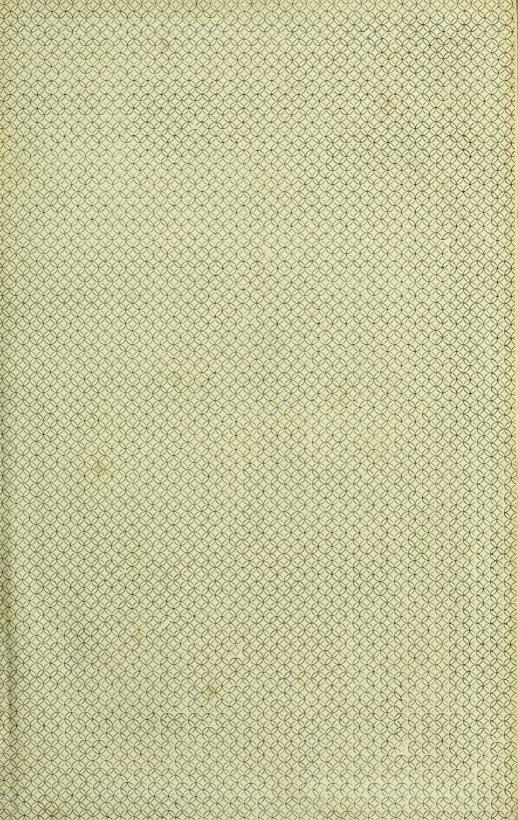
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PRACTICAL TREATISE

ON

THE THERAPEUTIC USES

OP

TEREBINTHINE MEDICINES;

WITH OBSERVATIONS

ON

TUBERCULAR CONSUMPTION, GOUT,
MINERAL WATERS,

ETC.

BY THOMAS SMITH, M.D.

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Author of "A Treatise on Acute Hydrocephalus."

Omnis hupiana cognitio pendet ac dependet ab experientia, sine qua nihil veri, กักที่ salton certi habemus."—Fr. SILVII DELEBOE; PRAX. MEDIC.



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JAMES COPLAND, ESQ., M.D.,

F.R.S., ETC.

MY DEAR SIR,

Admiration of your laborious and successful researches in every department of practical medicine, whence you have selected materials to erect a structure that cannot fail to be of immense advantage to every cultivator and practitioner of the healing art,—is the primary motive which has induced me to dedicate this treatise to you. The subject of it has frequently engaged your active pen. Under your auspices, therefore, I beg to offer the profession the result of my own observations. The greater portion of the following sheets, has already appeared in a leading Medical Periodical. The Appendix has since been added; and, in its present form, I hope the work will not prove unacceptable to my professional brethren.

Accept my warmest wishes for your health, and that you may long continue to benefit and adorn the profession of which you are so distinguished an ornament, is the sincere desire of

Your obliged and faithful Servant,

THOMAS SMITH.

PORTLAND HOUSE, CHELTENHAM.

July 1st, 1850.

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CONTENTS.

PREFACE .						PAGE
PRELIMINARY OBSERVAT	'IONS					1
HISTORY OF TURPENTIN		•	•	•	•	2
PHYSICAL AND CHEMICA		TEC AND MC	• DE OF DDE	DAD AMION	1	4
		ES, AND MC	DE OF PRE	PARATION	•	_
PHYSIOLOGICAL EFFECT	S	•	•	•	•	7
THERAPEUTICAL EFFECT	rs	•		•	•	9
TURPENTINE A SAFE CO	UNTER-IRRI	FANT				11
TURPENTINE AS A VERM	1FUGE		•			12
TURPENTINE AS A PURG	ATIVE					12
TURPENTINE AS AN AST	RINGENT					15
THE EXTERNAL USE OF	TURPENTIN	E		•		16
MALADIES FOR WHICH T	TURPENTINE	HAS BEEN	RECOMMEN	DED		18
ILLUSTRATIVE CASES						19
HÆMATEMESIS						19
EPISTAXIS .						27
CAPILLARY HÆMORRHA	GE.					31
PURPURA HÆMORRHAGI	CA					33
HÆMOPTYSIS.		,				35
PARASITIC WORMS						43
GRUBS IN THE URETHR.	Λ					47
RHEUMATISM AND LUMI	BAGO					48
GOUT .						5 l
BILIARY CALCULI						51

CONTENTS.

DIARRHŒA .						55
DROPSY .						57
PUERPERAL CO	NVULSION	S AND PER	ITONITS			57
DISEASES OF T	HE EYE					59
DISEASES OF T	HE NERVO	US SYSTEM				59
SPINAL IRRITA	TION					60
INJURIES OCCU	RRING FR	OM BURNS	OR SCALDS			62
PERTUSSIS .						63
CONCLUDING R	EMARKS					65
APPENDIX A.	ON SPECI	FICS				67
", В.	ON THE	INJURIOUS	EFFECTS O	F LEAD		71
,, с.	ON PULM	ONARY CON	SUMPTION			77
" D. (ON DISEA	SES OF TH	E HEART			82
,, E. C	ON UNFEI	RMENTED I	BREAD			84
,, F. 1	LETTER F	ROM DR. 1	HORNER			88
,, Ğ.	ON DIURI	ETICS				90
,, н.	ON DAND	ELION BEE	R			91
		ADDITIONAL	L OBSERVA	rions.		
ON MINERAL V	WATERS		•	•		92
on Hooping of	cough .					93
ON THE LOCAL	L ABSTRA	CTION OF	BLOOD BY	LEECHES		94

PREFACE.

In this treatise there is no attempt to broach new theories, nor to advocate new doctrines, much less to recommend any untried remedy. Should any one then ask "Cui bono?" I would say, it is published with the hope that good may result from a plain statement of facts, relative to the beneficial effects produced by an extensive use of Terebinthine medicines. With the exception of scattered notices of Turpentine and its properties, in the various medical periodicals, I have not met with one connected treatise on the subject. Even Dr. Copland's excellent essay has, I believe, never been reprinted from the pages of the journal in which it originally appeared. This is my apology for adding another monograph, to our already enlarged and copious stock, on subjects connected with medicine.

To those individuals who imagine that I am deeply prejudiced in favour of the Terebinthinate medicines, it may be right to remark, that my prejudice (if such it may be called), has arisen from their intrinsic utility, demonstrated from clinical experience. Like all other medicines, they will be found to suit some patients, and will disagree with others; but, if in the majority they prove useful, that is sufficient.

Because an individual who enters a druggist's shop is seized with sneezing or vomiting, from the particles of ipecacuanha which are floating imperceptibly in the atmosphere,—or because another person is attacked with hay asthma, difficult breathing, or a sensation of suffocation, on entering a newly-mown meadow, these instances constitute no argument against the general use of ipecacuanha, or the healthy employment of labouring in the harvest field.

Satisfied that every page bears the impress of truth, I commit my tiny bark to the wave, in the confident expectation that it will aid the disciple of medicine in piloting his suffering patient over the ever-changing or stormy sea to a peaceful haven, where he may enjoy the blessings of renovated health.

THE

THERAPEUTIC PROPERTIES

OF

TEREBINTHINATE MEDICINES.

It has often occurred to me, and I have no doubt even to the most cursory observers, how few of the medicines, out of our long catalogue, are really found to answer our expectation in the hour of need. The ills to which flesh is heir, are sufficiently numerous and oftentimes puzzling enough; but the means of combating them, are neither so ample nor so decisive, as the catalogue of our materia medica would induce us to believe. It may fairly be questioned, if the present generation has discovered, with the exception of chloroform, a single specific, or invented any new remedy, however much it may have extended the use and improved the knowledge of the properties of those already known. Chemical science, it is true, has succeeded in isolating the active principles of some of our more potent remedies; but in accomplishing this, it has not, in every instance, rendered the concentrated preparation equally efficacious with the old. Quinine cannot always be considered as a substitute for bark; neither can morphine at all times be prescribed for the same cases, and with the same beneficial results, as opium. Notwithstanding these drawbacks, chemistry has been of essential service to the medical practitioner.

7

It is an excellent habit to review, at stated periods, our past practice; to compare the various epidemics and disorders which have occurred in our times, with those of past ages - to investigate their causes, the means which have proved most efficient in their treatment, and the reasons of the success or failure of our remedial efforts. On looking over my notes, I have been both pleased and gratified to find one class of medicaments which have rarely failed to answer the object for which they were prescribed. The Terebinthinate drugs have, from time immemorial, enjoyed a high reputation as valuable auxiliaries in allaying, arresting, or removing disease. In private as well as in public practice, I have prescribed them extensively, internally and externally, in the forms of potion, liniment and lavement, with the happiest results. Hence I naturally feel a strong partiality for their employment. I have had sufficient opportunity for testing their utility, in upwards of seven hundred cases; and I do not recollect an instance of any unfavourable symptom supervening on their exhibition, except in the following case: An aged female, who had repeatedly taken large doses of turpentine for the expulsion of tapeworm without effect, applied to me for advice. I prescribed the following; R Olei terebinthinæ zi; olei ricini zss;—fiat haustus. taken directly, and repeated in three hours. Shortly after the second dose, she complained of vertigo, and vomited profusely; violent hypercatharsis followed, with intense pain in the region of the kidneys; and the worm was voided two hours after the second dose. In forty-eight hours, she had completely recovered from these unpleasant symptoms; nor had she ever, to my knowledge, occasion to regret the severity of the means adopted for her relief.

The silence of writers on forensic medicine on the injurious consequences, resulting from an overdose of the oil of turpentine, may be considered as a strong corroborative testimony in its favour. Christison

HISTORY. 3

has never heard of a fatal case. Mr. John Headman, however, mentions the case of a woman sixty-one years of age, whose death was occasioned by this drug in twenty-five days—dose not stated. Dr. Duprés is supposed to have fallen a sacrifice to inflammation of the urinary organs, occasioned by too large a dose of this drug, continued for too long a period.

HISTORY.

The Terebinthinate drugs have, for centuries, had a high and distinguished place in the *materia medica*. They belong to a family of which it has been justly observed by a writer in the *Dictionnaire de Matière Médicale*, "C'est une des plus importantes du règne végétal sous le rapport de ses produits, tous doués de beaucoup d'activité."

In the works of Hippocrates, Celsus, Dioscorides, Aretæus, Avicenna, Rhases, Galen, Serapion, Boerhaave, Van Swieten, etc., we find frequent allusions to the Turpentines. The name, derived from the Greek τερέω, (I bore or perforate), in reference to the way in which it was obtained from the tree, evidently implies a knowledge of the liquid species. In that state, I believe it to have been generally used as an internal remedy. Aretæus distinctly alludes to the liquid form, and recommends it as useful in enemata: he prescribed the Turpentines largely in various maladies, and like the Roman Physician, Celsus, considered them especially valuable in pectoral disorders. Pliny, like Dioscorides, divides the Turpentines into two species, "Gummæ species duæ, sicca et liquida." In the polypharmacy of the middle ages, the Terebinthinates and balsams constituted some of the most active ingredients of which their multitudinous formulæ consisted.

Towards the close of the seventeenth century, the Turpentines, like many other medicines of intrinsic value, lost their ground in public estimation; nor was it until the dawn of the nineteenth century, that physicians deemed them of sufficient importance to be employed as internal remedies in the treatment of other diseases than those of the urinary organs. Younge, and subsequently the celebrated Hunter, were amongst the first to revive their use as styptics. The Dublin physicians were not long in making trial of them in some of the most severe affections to which the human frame is obnoxious. In America, they have been proved to be of eminent service in many febrile diseases. In France, they soon attained a high position as remedies in neuralgic and rheumatic disorders. Amongst the Hungarians, they are considered a sovereign remedy against all kinds of coughs and bronchial affections. Some of the most eminent medical practitioners of Great Britain have, within the last thirty years, strongly insisted upon their use in almost every malady for which they had previously been regarded by the ancients as most efficacious. Without disparaging the labours of others, the meed of praise is justly due to Dr. Copland for the high reputation which the Terebinthinate preparations have now attained.

PHYSICAL AND CHEMICAL PROPERTIES, AND MODE OF PREPARATION.

In the market, there are several kinds of drugs known by the name of Turpentine; and, though differing in many distinctive peculiarities from each other, they nevertheless, in essential properties, are dependent upon the same principles—a volatile oil and a resinous residuum. The true Turpentines are distinguished from the balsams, with which they are

not infrequently confounded, by the former containing succinic acid, the latter benzoic. In distilling these Turpentines over caustic lime, a very pure spirit is obtained, of low specific gravity, to which the name of camphine has been applied, and which is now pretty extensively used for the purpose of giving light in private dwellings, in lieu of oil. The greater portion of the common Turpentine which is met with in this country, is imported from America, and is chiefly procured from the pinus palustris, in the following manner. A portion of the tree is scooped out, a short distance from the ground, and the bark is removed for several inches above. During the summer months, the Turpentine flows into the hollows thus formed, and it is then collected for exportation. It has a warm, acrid, bitterish taste, a peculiar aromatic odour; it is of a soft consistency, and of a yellowish white appearance. Oil of Turpentine is obtained from this substance, by distilling it with water in an ordinary common still. Oil or spirit of Turpentine, as it is frequently called, when prepared according to the directions of the London Pharmacopaia, - that is, by adding four parts of water to one of oil of Turpentine, and carefully distilling, ought to have a specific gravity 0.86 at 60 Fah., to boil at 314, to have a slightly acid reaction, and to be completely soluble in six parts of sulphuric ether. This oil is quickly dissolved by hot alcohol, but readily separated in drops as the spirit cools. Oil of turpentine is considered by Blanchett and Sell, to consist of two isomeric oils, dadyl and peucyl; but as the boiling point of oil of Turpentine is less than the boiling point of those two oils, Pereira treats them as educts, not An artificial camphor may also be obtained from highly rectified oil of Turpentine, by passing a stream of oxygen gas through it. The analogy between camphor and oil of Turpentine is very strong, the leading characters of the former being those of a concrete volatile oil.

Pure oil of Turpentine for medical purposes ought always to be distilled over caustic potash, lime, or soda. A specimen of the oil thus prepared by Mr. Bullock, operative chemist, Conduit Street, which is now lying before me, is perfectly pure, neutral, has rather a sweetish taste, and a peculiar aromatic odour; and when its flavour is disguised by a small quantity of the essential oil of bitter almonds, it is not particularly disagreeable to the palate. This oil of Turpentine, as prepared by Mr. Bullock, is very different from the camphine of commerce, which, though neutral and of very low specific gravity 0.60 (Price's), has a disagreeable saponaceous taste. As an external counter-irritant, it is much more rapid in its action than oil of Turpentine, and I always prefer it where it can be obtained, where it is important to produce severe or immediate counter-irritation. Perhaps one of the objections against the daily employment of the oil of Turpentine in cases specially adapted for its use, may have arisen from its nauseous flavour, and its tendency to impart its odour to the eructations, which it not unfrequently occasions. To obviate these inconveniences, Dr. Nimmo of Glasgow, proposed a method of freeing oil of Turpentine from all unpleasant taste and smell, by a very simple process, without sacrificing any of its essential properties. There can be no doubt that oil of Turpentine, prepared according to this plan, may be kept for several months. I lately possessed a specimen of the oil, devoid of all unpleasant odour, of which it had been deprived more than six months previously. Oil of this description, when exposed to light and air, very soon re-acquires the peculiar Terebinthinaceous character; it ought, therefore, to be preserved in small bottles, well-corked, containing not more than half an ounce each, and only used for extemporaneous prescription. When flavoured with any essential oil, such as lemon, cinnamon, verbena, or prussic acid, it may be taken, without creating the slightest inconvenience, or disgusting the most fastidious palate. To render this medicine free from smell or taste, take eight parts of purified oil of Turpentine and one part of the strongest alcohol; agitate briskly, and then let it stand some time; pour off the alcohol, then add a fresh quantity to the Turpentine; proceed as before, and repeat the process until it has lost its peculiar taste and smell. Turpentine, when thus prepared, leaves no residuum on evaporation.

According to Pereira, the ultimate composition of the purified oil of Turpentine, is

Nitric acid resinifies oil of Turpentine; and the resin, after long boiling, is converted into crystals of Turpentine acid.

Chian or Cyprus Turpentine is very often prescribed by some practitioners where the Terebinthinates are indicated, because it does not possess the same unpleasant taste, and can be easily given in the form of pills. Though I have prescribed it frequently, I have never found it so useful as the essential oil. In some states of the bladder and urinary organs, this kind of Turpentine, the Canadian balsam or Venice Turpentine, may have advantages; but, as a general rule, when the medicine is deemed requisite, the purified oil ought to be given.

PHYSIOLOGICAL EFFECTS.

Turpentine, when taken internally, exerts a peculiar action on the mucous surfaces, and the tissues superimposed upon them: it increases

the peristaltic motion of the bowels, inducing purgation, and, in very large doses, hypercatharsis: it promotes the flow of urine, impregnating it with a violet odour; and if its action be specially directed to the kidneys, may produce strangury and bloody micturition. It determines to the skin, producing copious and free diaphoresis, sometimes attended with an itchy eruption. It also taints the pulmonary exhalation with its characteristic smell. In the experiment that Dr. Copland instituted upon himself, a large dose was taken internally, and failed to produce action of the bowels or kidneys, and the vapour of the Turpentine was then discharged through the skin and pulmonary organs. I once gave half an ounce to a boy of sixteen years of age, which occasioned no other unpleasant symptoms, than an increase of the respiratory movements, and acceleration of the circulation, with a tendency to somnolency, followed by a profuse discharge from the urinary organs. The breath and perspiration were tainted with a Turpentine odour for upwards of a week; the bowels remained inactive until he had taken eight ounces of the compound infusion of senna, with ten grains of calomel: the evacuations when passed were extremely feetid, black, and slimy, but giving off no smell of Turpentine. Hertwig injected two drachms into the veins of a horse: trembling, reeling, with inclination to pass stools, and frequent micturition ensued. Fever and bronchitis were set up, and the animal died in nine days. Schubert found that two drachms given to a dog caused tetanus and death in three minutes. I once saw half a drachm administered to a young cat: the poor creature mewed piteously, was extremely restless for several hours, and had constant micturition, unaccompanied with diarrhea; after some hours, it fell into a profound lethargy, from which it awoke perfectly well. Its eyes remained injected for several days.

Turpentine seems peculiarly destructive to vegetable existence, and

small insects are speedily destroyed by it; indeed, no other drug appears to exert so fatal an influence over the majority of parasites which infest animal and vegetable life.

When taken internally, it has been detected in the various secretions of the human body. Todd and Johnson have met with it in the kidneys of a patient who died from hæmorrhage; it has also been detected in the chyle of a dog and horse, to which it had previously been administered, by Tiedemann and Gmelin.

THERAPEUTICAL EFFECTS.

The diseases for which Turpentine has been prescribed, and which have been materially relieved by it, are extremely numerous. If the testimony of some of the first practitioners of the age is to be credited, there is scarcely one disease, whether acute or chronic, sthenic or asthenic, which has not been successfully treated by the medicine under consideration. It would be a useless task to cite all the cases and all the maladies, in which the admirers of this drug have found it advantageous. Suffice it to say, that in every instance, where prejudice has not interfered, and where ignorance has not prescribed, this drug has obtained favour and proved itself a faithful friend.

In passing in review the numerous disorders for which it has been ordered, as I wish this treatise to have a practical bearing, I shall dwell as briefly as possible upon all those which have not come under my own immediate observation. Those who desire a more extensive acquaintance with the nature, properties, and uses of this drug than is to be met with in these sketches, will do well to consult the pages of our monthly and

weekly periodicals, which, for the last thirty years, have occupied a prominent place in the medical literature of Europe and America. The writings of Dr. Copland, Paris, Pereira, Eberle, Thompson, Brande, etc., the Dictionnaire de la Matière Médicale, and the records of ancient medicine, contain a great amount of valuable information regarding the properties of Turpentine. In common with other medicines, its therapeutic effects are liable to be modified by numerous circumstances: viz., the seasons of the year, the idiosyncrasies, age, or sex, of the individual, the special or general cause of the malady, or its occurrence before, or subsequent to, any general or universal epidemic. From a neglect of these precautions, many really valuable remedies have undeservedly fallen into disrepute.

¹ It is a remarkable fact, that after any severe visitation, such as epidemic cholera, the human frame undergoes an extraordinary change. Many will, I have no doubt, recollect how general was the custom to abstract large quantities of blood in fevers and inflammatory disorders previous to 1831. Venesection was the practice of the day. On the advent of the epidemic influenza of 1833, general bleeding, even in maladies of a high phlogistic character, could not be adopted with safety; numerous lives were doubtless sacrificed, ere this change in the human constitution, -its inaptitude to bear excessive depletory measures, was fully appreciated and understood. We are now approaching an epoch (if we have not already entered it), in which the vital phenomena of the animal organism will manifest themselves differently under the influence of remedial agents. If my observation does not deceive me, I am inclined to believe that this great climacteric change, on the completion of the cycle of the late formidable and universal epidemic, will mainly develop itself, by inducing a lax condition of the intestinal tube. I have noticed, that patients who have been accustomed to take large quantities of aperient medicine, now rarely require it; and when it is needed, a smaller portion is found sufficient. This is not confined to the aged, for even in children I have witnessed a similar alteration in their former habits.

TURPENTINE A SAFE COUNTER-IRRITANT.

As a rapid and safe counter-irritant, there is no drug more efficacious than warm oil of Turpentine or camphine. I have never known an instance of its acting injuriously when thus applied; it never produces strangury or any uneasiness of the urinary organs, like preparations of cantharides; and here I fully coincide with the opinion expressed by the late Dr. Ryan, that when counter-irritation is deemed imperatively necessary in severe acute diseases, as cerebritis, hydrocephalus, pneumonia, enteritis, peritonitis, or hepatitis, it is an extremely inert and unjustifiable practice, to wait for twenty-four hours for the irritating effects of a blister, when the same may be produced in as many minutes by epithems of warm oil of Turpentine.

Veterinary surgeons have condemned the external use of Turpentine as an epispastic; it has been asserted that, when applied to the horse, it prevents the hair from growing. I do not think this correct. Some years ago, I had a grey mare, which was seriously injured about the head and fore legs by an accident. Contrary to the recommendation of my veterinary surgeon, who insisted upon the application of tincture of myrrh, and greasy unguents containing gunpowder, I determined for once to try the experiment, if an injury to a horse might not be remedied by the same means as one in a human subject. I had the wounds carefully fomented and poulticed, and afterwards applied an ointment, consisting of resin ointment, and oil of Turpentine. The animal recovered without any material disfigurement. Last year I had a black horse consigned to me by a friend in Yorkshire, which met with a severe accident in its transit on the railway. The horse was treated in the same way as the one above, and in a few months was perfectly restored, without any observable blemish.

The liniment, by means of which the celebrated quack St. John Long was supposed to have performed miraculous cures, was a mixture of the oil of Turpentine, pyroligneous acid, and yolk of egg.¹

TURPENTINE A VERMIFUGE.

As a vermifuge, turpentine has been given in the form of Chabert's oil. This is made by mixing one part of the empyreumatic oil of hartshorn, with three of oil of Turpentine, allowing them to stand for three days, and afterwards distilling off three-fourths of the mixture by the aid of a sand bath. It very soon becomes blackened, by exposure to the air, and therefore ought to be kept well corked, and excluded from the light. It is extremely nauseous; and, on that account, is not likely to come into general use.

TURPENTINE, AS A PURGATIVE, NOT TO BE USED ALONE.

As a purgative, Turpentine ought never to be administered alone, in large doses, during the winter, or in cold damp weather: because, under these circumstances, it tends, in common with other hydrocarbons, to supply fuel to the body for the evolution of animal heat, rather than exert any therapeutic property. Indeed, I very much question the propriety of giving it alone, as a purgative, under any circumstances

¹ See Appendix A.

whatever. There are some writers who do not hesitate to recommend it in doses which I consider unjustifiable.¹ In winter, cerebral congestion may supervene; in summer, intractable diarrhea, from over-excitement of the mucous membrane of the bowels. The case of Dr. Copland furnishes an instructive example on this head: ten drachms of the oil of Turpentine were swallowed, and failed to induce action of the bowels or kidneys; the consequence was, high cerebral excitement, followed by a train of unpleasant symptoms, which it would be dangerous, in some constitutions, to excite.

Turpentine is, however, often a valuable addition to other purgatives, as it possesses the faculty of increasing their activity in a remarkable degree. I have known a lady, who, for forty years, was unable to procure an evacuation without the most drastic purgatives, to succeed in obtaining daily action, by the simple combination of a teaspoonful of castor oil with ten drops of oil of Turpentine. I have had another case under my care, where the same combination enabled me to relieve the augmented suffering occasioned by obstruction of the bowels from chronic meningo-myelitis of several years duration.

Whatever may be the object for which Turpentine is exhibited as a purgative, whether for the expulsion of parasites infesting the human body, or as a revulsive in cerebral affections, the dose should never exceed half an ounce at one time; and to ensure its purgative action, it ought to be united with some other aperient, as castor oil, compound infusion of senna, sulphate of magnesia, or the decoction of the bark of the pomegranate root. If prescribed in the above dose, in conjunction with any other active purgative, we run little risk of inducing

^{1 &}quot;Four ounces", says Férussac, "are in general sufficient for the expulsion of a tænia, though M. Pommer has given as much as six ounces without any subsequent ill result."—Bull. des Sc. Med.

strangury, or any other unpleasant symptom. It may be repeated at intervals of four hours, with perfect safety. Though some authors have stated that the dose of the oil of Turpentine may be from half an ounce to two, or even four ounces, he must be a very bold practitioner, who would take this suggestion for his guide. If the first-named quantity will not suffice for the destruction and consequent expulsion of a tænia, a larger amount given at one time, will equally fail; for it is not by the aperient properties alone of the medicine, as I shall hereafter shew, that the death of the worm is effected.\(^1\) As a diuretic, the dose may be from five to thirty drops, taken in any aromatic water, or mineral I have rarely found patients object to its use, when exhibited with the salines of either Cheltenham or Harrowgate; and the numerous cases, in which I have prescribed it, in conjunction with the waters from these mineral springs, have convinced me, that this union is especially indicated, where we are anxious to direct its influence to the renal organs.

¹ There may be special cases, but they will be extremely few, in which an extraordinary dose of any particular medicine may be peremptorily called for by the
condition of the patient. For instance, I once gave to a man labouring under
delirium tremens, seven grains of the acetate of morphia, in divided doses, within
two hours, ere I could allay the inordinate and convulsive movements, and restrain
the shricks of the wretched sufferer. Again, at another time, I exhibited to a
female, in the presence of Dr. Logan, twelve ounces of sulphuric ether, when the
principles of etherization were first introduced, and kept this woman in a state of
insensibility for upwards of six hours. Although both these cases did well, they
are exceptional ones, and ought never to be imitated, except in emergencies of
the most urgent description.

TURPENTINE AN ASTRINGENT.

As an astringent, in doses varying from 20 minims to a drachm, according to the urgency of the symptoms, and repeated every three or four hours, Turpentine is one of the most efficacious remedies which we possess. The best vehicle for its administration, in the first place, is water, flavoured with syrup of orange, or any other agreeable aromatic. It may afterwards be advantageously combined with any other therapeutic agents, which the special nature of the case may require: thus, in epistaxis depending upon rupture of one or more small vessels, and wheremuch arterial blood has been lost, muriated tincture of iron will form a valuable adjunct. In hæmatemesis and other sanguineous discharges from the bowels, it may be united with compound infusion of roses, sulphate of magnesia, iced-water, solutions of tannic or gallic acid, mineral waters, etc. In some forms of hæmoptysis, it may usefully be added to infusions of matico: in hæmaturia, to the decoctions of uva ursi, chimaphila, pyrola, etc.; or to tincture of sesquichloride of iron, etc. In purpura hæmorrhagica, the decoctions or infusions of the barks, Cheltenham or other mineral salines, form with it an excellent adju-In hæmoptysis, it has speedily and effectually arrested the hæmorrhage; and it is a much safer remedy than lead.1

In my experience, there is no single medicine in the materia medica, that can be compared with it as a *styptic*, either as to certainty of action, or to the safety of its effects. It is compatible alike with acids and alkalies.

¹ See Appendix B.

EXTERNAL USE OF TURPENTINE.

The external use of Turpentine has been very general for a great number of years, alone or combined with other rubefacients, such as mustard, strong liquor ammoniæ, pyroligneous acid, cajeput oil, wine of hellebore, colchicum or opium, tartar emetic, croton oil, etc. It has very frequently been found of permanent utility, when applied as a warm epithem to the skin in pulmonary affections. Its action is twofold; first, it induces rapid though often transient counter-irritation; secondly, its vapour is inhaled into the lungs; and by its constringent operation on the extreme capillaries of the pulmonary texture, it is not infrequently productive of great relief in some affections of these organs. For the purpose of inhalation, I am in the habit of dispersing its vapour through the room by evaporating water containing a portion of it, by the aid of a spirit lamp. When thus diffused through the atmosphere, it may be breathed for two or three hours in the course of the day, by the most delicate-chested person, and often with the most marked and striking amelioration of their pectoral symptoms.

Long after the patient has left the room, he is conscious of the taste and smell of the turpentine. I have often detected its presence some hours after he had been submitted to its penetrating influence. I have also employed camphine in the form of a bath, mixed with common soda; two pounds of the latter and a quarter of a pint to half a pint of camphine, and half an ounce of oil of rosemary, will form an excellent bath. In delicate skinned patients, females and children, 3ii of camphine will be sufficient. I may remark, in limine, that the alkaline camphine bath possesses virtues peculiarly its own. In the coldest day in winter, as I have verified, in more than one instance, that it may be employed with the most perfect safety. Whilst the individual is in the

bath, he experiences, to my knowledge, no disagreeable annoyance from the disengaged vapour; on the contrary, if we except the taste of the Turpentine, which for some time remains in the mouth, a sense of calmness and tranquillity very often follows a previously disturbed, irregular, or excited condition of the respiratory or sanguiferous systems. After five minutes recumbency in the bath, the pulse is found to become fuller, softer, and slower; I have seen it fall from 100 to 80. The respiration also becomes freer, deeper, and less laboured. On coming out of the bath, the whole skin has a peculiar velvety, soft, and agreeable feeling; the breath is strongly tainted with the terebinthinaceous odour. If it have not been too hot, a pleasurable tingling warmth is experienced throughout the whole cutaneous surface; and this, with the preceding symptoms, may continue twenty-four hours. One great advantage of this bath will be found in the circumstance, that it may be employed at a heat from 10 to 15 degrees below the temperature of the ordinary warm one, without inducing that sensation of chill to which some delicate constitutions are so peculiarly obnoxious: ten or fifteen minutes is the length of time a patient ought to remain in a bath of this descrip-In the first instance, it is well for patients to commence with a smaller quantity of the Turpentine and soda, say a pound of the latter with two or three ounces of the former, and gradually increase its strength on each repetition of the bath, to the first mentioned propor-This bath may be taken every second or third day, according to the urgency of the symptoms and the nature of the affection for which it is prescribed.

MALADIES FOR WHICH TURPENTINE HAS BEEN RECOMMENDED.

I come now to a more particular enumeration of the maladies for which Turpentine and its preparations have been chiefly recommended. They are—sanguineous exhalations from the mucous surfaces, epistaxis, hæmoptysis, melæna, purpura hæmorrhagica;¹ consumption, chronic bronchitis, mucous or purulent discharges from the urethra;² grubs infesting the urethra, tænia, ascarides;³ typhoid, yellow and puerperal fevers, plague;⁴ abdominal obstructions, strangulated hernia, tympanitis, colica pictonum, biliary concretions;⁵ traumatic tetanus, trismus;⁶ apoplexy, hydrocephalus, acute and chronic, epilepsy;ⁿ neuralgia, sciatica, rheumatism;⁶ diabetes, dropsy;⁰ inflammations of the eye;¹⁰ cholera, renal hydatids, suppression of urine;¹¹¹ burns, wounds, poisoning by prussic acid or opium, salivation,¹²

¹ Adair, Brooke, Cheyne, Clutterbuck, Copland, Elliotson, Hunter, Magée, Nelligan, Nichol (W.), Thompson, Vincent, Younge.

² Aretæus, Celsus, Dioscorides, Van Swieten.

³ Birkbeck, Cross, Fenwick, Fothergill, Gomés, Hancock, Hartle, Kennedy, Knox, Laird, Lettsom, Maldon, Mello, Ozanam, Pereira, Saner, Winstone.

⁴ Atkinson, Blundell, Brenan, Chapman, Copland, Cullen, Douglas, Farre, Faulkner (Sir A. Brooke), Fernandez, Gooch, Hamilton, Holst, Johnson, Kinneir, Moran, Payne, Physick, Pritchard, Wood.

⁵ Boerhaave, Durand, Gibbon, Green, Guyton de Morveau, Hall (Marshall), Hamilton (C. B.), Kinglake, Mac Williams, Odier, Paris, Ramsbotham, Sewell, Sprengel.

⁶ Gibbon, Hutchinson, Mott, Phillips.

⁷ Latham, Lithgow, Money, Moran, Percival, Pritchard, Young.

⁸ Bonnet, Cheyne, Ducros, Dufour, England, Hild, Home, La Roque, Lenton, Martinet, Maton, Pitcairn, Recamier, Thilenius.

⁹ Darwin, Werlhoff,

¹⁰ Burke, Carmichael, Foote, Guthrie, Hynam, Langier, Middlemore, Wright.

¹¹ Bayle, Copland, Neale, Pereira.

¹² Emmert, Geddings, Hanold, Heister, Jenkins, Kentish, King, Orfila, Paré (Ambroise), Percy, Pott.

cases. 19

ILLUSTRATIVE CASES.

My first observations will illustrate its efficacy in the Hæmorrhagic Diathesis. I do not coincide with the notion, that hæmorrhage, whether vicarious, or occasioned by a congestive condition of an overburthened viscus, is a salutary effort of nature, and that, therefore, caution is necessary in interfering with it. It has been my invariable aim to arrest a hæmorrhagic effusion as quickly as possible. We can in some measure calculate the worst consequences likely to arise from a general or local abstraction of blood; but we can never foretell what irreparable lesions nature may occasion by prolonged sanguineous ex udation through an unnatural channel.

HÆMATEMESIS.

This is a very common disorder, that often, when improperly managed, lays the foundation for a train of symptoms which not infrequently terminate in dropsical effusion. It has happened to me to have several such cases, principally among females, in which the usual treatment, by acetate of lead, mineral and gallic acids, etc., had been adopted. Since, however, I have given the Terebinthinates in this class of diseases, I have not had a single dropsical case supervening on the original malady.

20 Cases.

CASE I.

Captain —, 82nd foot, aged 64, was engaged in active service in India, and in the Peninsula, prior to the year 1812. He was of stout athletic constitution, six feet two inches high, and rarely if ever was known to complain, previous to an attack of fever, which he experienced at the close of the Peninsular war, and which led to his retirement from active military service. From that period to 1843, he was a martyr to anomalous and painful sensations in the præcordial region. The more prominent symptoms were—a short hacking cough, without expectoration; an occasional momentary pain darting from under the left nipple to the right shoulder, easily brought on by mental excitement; his temper, which had formerly been under control, now became irritable, fretful, and peevish. The functions of the bowels were performed with regularity; the appetite in general was good; his sleep short and disturbed. For a very long period, these symptoms continued without any material alteration, though he had tried a variety of remedies for upwards of twenty years, and had had issues of one kind or another in different parts of the body. About the year 1831, he parted with a small quantity of blood, which greatly alarmed him, and for some weeks this continued with scarcely a day's intermission. On recovering from this attack, he found great difficulty in remaining quiet in a sitting posture. When in the house, he was constantly rocking himself in his chair. A see-saw motion seemed to be essential to respiration: if perfectly still, he complained of a feeling of suffocation. In 1837, he experienced a second attack of Hæmatemesis, of a more serious character. The hæmorrhage continued for several days, unrestrained by the remedies used. He was very much altered; convalescence was extremely slow, and he never regained his former status. CASES. 21

It was a few months after this attack that I first saw him. His appearance was exsanguineous, lips livid, pulse 100, irregular and intermitting, respiration short and laboured. He was in constant motion, rocking himself to and fro in his chair, which he always had placed in a diagonal line between the fire-place and the open door. Even at meals, he continued the same to-and-fro motion, eating whilst rocking himself. His tongue was large, thick, indented, and compressed, palish, and mostly covered with a yellowish fur; the abdomen was exceedingly painful to the touch, more especially in the right hypogastric region. The bowels were easily acted upon by aperients. The evacuations were bilious, often dark and fætid. The urine was high-coloured and scanty, frequently throwing down a lateritious sediment, sometimes attended with a pinkish deposit; sp. gr. 1.030. He had also swelling of the ankles; constant teasing cough, with mucous expectoration; occasional severe pain in the forehead; pain in the region of the heart. The physical signs were—chest sonorous; occasional mucous râle; extended dulness over the precordial region; bruit de rape most distinct on the right side, in a line upwards towards the sternum. Intensely severe paroxysms of dyspnæa now occurred at frequent intervals; these were relieved by local depletion and antispasmodics. There was cedema of the lower extremities; the urine was passed in small quantities. Towards the close of 1840, hæmorrhage from the stomach and bowels again recurred, with great increase of pain in the abdomen. In his debilitated condition, general bleeding was inadmissible; and even local depletion was not altogether unattended with risk. I prescribed ten leeches to relieve the abdominal inflammation, and ordered warm epithems of Turpentine to be subsequently applied. Turpentine enemata were also ordered to be administered twice daily, and the following mixture to be taken, in doses of two table-spoonfuls, every four hours: R Infusi rosæ comp. 22 cases.

zviis; magnesiæ sulphatis zviii; mannæ optimæ ziv; olei Terebinthinæ purificati ziss. M. On the following morning, I found him much better; the bowels had been freely relieved, the pain had considerably abated, and there had been no return of the hæmorrhage. He expressed himself as feeling decidedly better, and had never experienced so much relief in so short a time from any medicine as from the Turpentine. He rallied from this attack rapidly; the swelling of the ankles decreased; the urine became light-coloured, of lower specific gravity, and more abundant in quantity; his complexion improved, and his spirits became more cheerful. He continued the Turpentine, in conjunction with the saline waters of Harrogate, for a considerable time, with marked amelioration of his more painful symptoms.

About three years after this, domestic troubles increased the disturbance of the heart. Peritonitis supervened, from which he sank in a few days.

The autopsy revealed a very large amount of disease. The heart was of an unusually large size; the walls of the right ventricle were much dilated and thinned; the mitral and tricuspid valves were extensively ossified. A small quantity of serosity was found in the pericardium. The lungs were healthy in texture, but slightly congested; the peritoneal covering of the bowels was extensively inflamed. The transverse arch of the colon was firmly attached to the lower surface of the stomach, and bands of adhesion, evidently of long standing, passed from it to several portions of the small intestines. In the stomach, were two small ulcerations near its pyloric orifice, and it exhibited small puckered places in several parts, evidently the result of some previous ulceration; there were also distinct patches of inflammation. The liver was a completely soft, pultaceous, mass, easily breaking down under the finger; it was of a bright yellow colour, and contained small pieces

CASES. 23

of a white friable calcareous matter. The kidneys appeared larger than natural, and much congested.

CASE II.

Mr. M., aged 36, of florid complexion, stout conformation, five feet ten inches in height, was seized on the 30th April, 1843, whilst superintending his men, who were removing some machinery in a mill, with a sensation of sickness and oppression in the præcordial region. Feeling himself very ill, he immediately desired to be taken home; but before this could be accomplished, he vomited a large quantity of blood. On my arrival at his house, whither he had been removed, I found him still complaining of considerable nausea. I immediately gave him ten grains of the acetate of lead, to be repeated every three hours, if the bleeding continued; infusion of roses with sulphate of magnesia and tiucture of digitalis were also prescribed; and bladders of ice were ordered to be applied to the pit of the stomach. In the evening, I found him considerably worse; the tongue was very much coated, the pulse quick and thrilling, and he had severe pain over the colon, much increased on pressure. To be cupped to twelve ounces; to continue the medicine, with the addition of a quarter of a grain of acetate of morphia to each dose.

May 1. Passed more blood during the night, and was extremely restless. Tongue very much coated with a brown yellowish fur; great thirst; pulsestill quick and thrilling; bowels freely acted upon; evacuations dark, pitchy, and fætid; urine high coloured. Whilst I was in the room with him, he became very sick, and again ejected a considerable quantity of blood. Before leaving the room, I gave one drachm of the spirits of Turpentine

24 Cases.

in a little water. I ordered him to discontinue the other medicines, and to take, instead, three tablespoonfuls of the following mixture every three hours. Re Infusi rosæ comp. zviiss; tincturæ digitalis ziss; magnesiæ sulphatis zviij; olei Terebinthinæ purificati ziss. M. In the evening, there had been no return of the bleeding; there was still severe pain in the head: the bowels had acted five times; the pulse was softer; the tongue much the same; thirst very great. To drink iced water, and to have ice applied to the head. To continue the mixture, and to have hot Turpentine applied to the bowels.

May 2. Better in every respect; no return of the hæmorrhage. From this day he continued to improve.

May 24. As there was some tenderness in the epigastrium, a seton was ordered. He was subsequently sent to Harrogate; and, under a course of the Cheltenham salines of that place, with small doses of Turpentine, he rapidly regained his health, and has continued well ever since.

CASE III.

F. H., aged 40, residing in St. Mary's Row, was admitted into the Leeds Public Dispensary, October 19, 1842. The following were her symptoms: pain in the forehead; swelling of the abdomen, without any particular pain; nausea, attended with sanguineous vomiting, small in quantity, occurring every two or three days, and which had already lasted a fortnight before she came under my care. Pulse soft; tongue clean; catamenia irregular, generally very scanty, but, at the time she applied to the dispensary, very profuse; bowels costive, I was at first inclined to suspect uterine disease; but, on a careful examination with

the speculum, I could detect no evidence of it. She was ordered to take, every four hours, the following pill: R: Plumbi acetatis gr. iij; morphiæ acetatis gr. \(\frac{1}{4}\). M. Two tablespoonfuls of the following mixture were also ordered, every four hours. R: Acidi sulphurici diluti 3ij; magnesiæ sulphatis \(\frac{3}{2}\)j; misturæ camphoræ \(\frac{3}{2}\)vijss. M.

Oct. 20. Much the same. Hæmorrhage from the uterus very profuse; the vomiting of blood appeared to have ceased: the bowels were freely opened; she complained of uneasy sensation round the navel, increased on pressure. To continue the medicine; and to have eight leeches applied to the abdomen, and a blister to the same region at bed-time.

Oct. 21. Not nearly so well; tongue very much furred; gums appeared sore; breath offensive; pulse sharp and vibratory; pain in the head and bowels much increased; had vomited a considerable quantity of blood; slight strangury. To discontinue the lead. B. Olei Terebinthinæ 3 iss; pulveris tragacanthæ comp. 3 ij; extracti conii 9 ss; tincturæ digitalis 3 j; misturæ camphoræ 3 viiss. M. Three tablespoonfuls every four hours. Warm turpentine to be applied to the loins. B. Pulveris ipecacuanhæ compos. gr. x; hydrargyri chloridi gr. ij; fiant pilulæ iij. To be taken at bed time.

Oct. 22. Passed a better night; pain in the head much relieved; the catamenia have ceased; she threw up a small quantity of blood after breakfast; bowels inactive; micturition still scanty, but not painful; had perspired freely during the night. B. Olei ricini Svj; olei Terebinthinæ 3ss. M. To be taken directly. To continue the last mixture.

Oct. 23. Still improving; no return of the bleeding, complains of great weakness; is very much blanched from the loss of blood. Re Potassii iodidi gr. i; pulveris opii gr. ss; extracti lactucæ gr. ij; fiat pilula. To be taken at bed time.

26 Cases.

Oct. 24. Much better. To continue the pill. R. Olei Terebinthinæ 3j; tincturæ gentianæ comp. 3ss; sodæ sesquicarbon. Diij; pulveris rhei 3ss; decocti aloes comp. ad 3xx. M. Two tablespoonfuls twice a day. From this date she continued to mend; and was discharged cured, Dec. 7, 1842.

CASE IV.

M. H., aged 60, residing at Holbeck, was received into the Leeds Public Dispensary, December 14, 1842. She had been ailing for a long time, and latterly had become jaundiced; she had been much troubled with pyrosis for some weeks, and informed me, that she had noticed the abdomen to be considerably swelled, before she went to bed. On the day of her admission, she was seized with sickness, and vomited about a pint of blood; this, she stated, gave her great relief. was considerable tenderness over the stomach; the liver was painful to the touch, hard, and apparently very much enlarged. The bowels were lax, and had been so for some time. The urine was dark; she had a bitterish taste in her mouth; the tongue was coated with a yellowish white fur; the conjunctivæ were yellow; the pulse small, irritable, and quick; the skin dry. She was ordered to have eight leeches applied to the right side, and to take the following pills immediately. B. Pilulæ hydrargyri gr. iij; calomelanos gr. i; pulveris ipecac. compositi gr. viij. M. Fiant pilulæ ij. B. Spiritûs Terebinthinæ 5i; infusi juniperi comp. zviiss; sodæ sesquicarbonatis zi. M. Two tablespoonfuls every four hours.

Oct. 15. She had headache, occasioned by the opium; had parted with more blood during the night; bowels not relieved since yesterday.

R. Olei ricini ziv; tincturæ rhei compositæ zij; olei Terebinthinæ m. xx. M. To be taken directly. R. Unguenti hydrargyri fortioris zij; camphoræ 3ij. A small portion to be rubbed over the region of the liver every night.

Oct. 16. Very much jaundiced; feels better; bleeding checked. To continue the mixture. B. Pilulæ hydrargyri gr. v; extracti colocynthidis compositi gr. iv. Fiant pilulæ ij. To be taken every night.

Oct. 20. Mouth tender; has had no return of the hæmorrhage; symptoms improving; still troubled with waterbrash. B. Extracti taraxaci 3j; pulveris rhei 3j; olei Terebinthinæ 3j; potassæ tartratis 3i; aquæ ad 3viij. M. Two tablespoonfuls every six hours. R. Bismuthi trisnitratis gr. iij.; extracti taraxaci gr. ij. M. To be taken twice daily. This patient was discharged cured, January 4, 1843.

EPISTAXIS.

Since I have prescribed Turpentine in this affection, I have rarely seen the bleeding continue more than two or three days. In these cases, I mostly combine the Turpentine with muriated tincture of iron.

CASE V.

A lady, considerably advanced in years, and who had from infancy been subject to hæmorrhage from the nostrils, consulted me about two years ago, when labouring under one of her periodical attacks. She informed me, that she had rarely of late had the bleeding arrested without plugging, and even then the hæmorrhage was liable to recur on the 28 cases.

most trifling excitement, or extra exertion. At her request, I plugged the nostril; and gave her the infusion of matico, with pills of acetate of lead. The complaint proved troublesome, and it was three weeks before the hæmorrhage had completely ceased. This, she told me, was about the length of time that these attacks generally lasted; they always left her very much enfeebled. About fourteen months after this, I was suddenly summoned in the middle of the night to the same lady, who had a recurrence of her complaint. After plugging the nostril, I gave her a drachm of the oil of Turpentine, with ten minims of the muriated tincture of iron, in a little water, and ordered half the quantity of the same medicine every two hours, if the bleeding continued. At my morning visit, I found that the hæmorrhage had been successfully arrested. In three days the plug was removed; and, up to the present time, she has had no return of the bleeding.

My confidence in this remedy, for arresting atonic epistaxis, is unbounded. I have frequently trusted to it alone, without resorting either to plugging, or to the employment of any other astringent.

CASE VI.

A poor man (a bookbinder, residing in Union Street,) called at my house, a short time age, bleeding profusely from the nose; a drachm of oil of Turpentine was immediately given to him in water; as he had a little distance to go, and it being a very cold night, I plugged the nostril. In removing the plug on retiring to bed, he brought on a return of the bleeding. Another drachm of Turpentine was administered. In three days he was perfectly well.

HÆMATURIA.

The propriety of prescribing oil of Turpentine in Hæmaturia has been doubted by many. It has been reported to have produced the very disease which it was intended to alleviate. I have never seen any ill effects from its use in this disorder: but, on the contrary, I regard the judicious administration of Turpentine calculated to arrest its course. There may be cases of organic change in the structure of some parts of the urinary organs, which might render its employment objectionable; but, hitherto, I have not met with any such.

CASE VII.

W. W., aged 19, of spare habit, slight stature, pale and sallow complexion; works in a flax mill. His symptoms had lasted three days prior to his appearance at the Leeds Dispensary, June 4, 1842. They were dull, deep-seated, aching pain in the lumbar region, tenesmus with frequent bloody micturition, anorexia and fever. He had been subject to these attacks for the last two years, and latterly they had recurred at shorter intervals. Re Pulveris uvæ ursi gr. x. To be taken three times a day. Re Pulveris jalapæ comp. gr. xv; calomelanos gr. ij. To be taken at bed time.

June 6. Hæmorrhage still continues. Re Pulveris uvæ ursi 3j; olei menthæ piperitæm. ij; olei Terebinthinæ 3ij; pulveris tragacanthæ comp. 3j; aquæ ad 3viij. M. Two tablespoonfuls every four hours. Re Antimonii potassio-tartratis 3j; olei tiglii 3j; liquoris ammoniæ fortioris 3iv; spiritûs Terebinthinæ 3i. M. Liniment to be rubbed into the loins at bed time every night.

30 Cases.

June 8. Much improved; liniment has produced a copious crop of pustules; urine clear; no blood.

June 15. Discharged cured. Two years after, this patient informed me, that he had not had any relapse.

CASE VIII.

A. W., aged 68, a dispensary patient, admitted August 10, 1842. She had been ill about a week, and had had considerable pain in the left side and shoulder, also diarrhæa, and blood in the urine. R. Misturæ cretæ comp. §vij; confectionis aromaticæ §j; pulveris uvæ ursi §iss.; tinct. opii §ss. M. Two table-spoonfuls every four hours.

Aug. 14. Bowels more comfortable; still parts with blood in the urine.
To repeat mixture, with a drachm of oil of Turpentine.

Sept. 6. Had a slight relapse attended with nausea. By Acidi nitrici dil. 3ij; olei Terebinthinæ 3i; acidi hydrocyanici dil. (P.L. 1836) 3ss; aquæ ad 3viii. M. Two tablespoonfuls twice or thrice daily. This patient was discharged cured, on the 19th. She died about a year after, under the care of one of my colleagues, of another affection. An autopsy was not allowed.

CASE IX.

M. S., aged 26, married, a collier, was admitted January 12, 1843, as an out-patient to the Leeds Dispensary. He had been ill for several days, with fever, attended with great thirst, headache, foul tongue, and severe lancinating pain in the lumbar region, extending to

the left knee. Urine in small quantity, bloody. Bowels constipated. He was sounded for stone, but nothing was detected. He attributed his ailment to cold. Re Pilulæ hydrarg. gr. iij; calomelanos gr. i; pilulæ aloes cum myrrhâ gr. vj. M. ut fiant pil. ij. To be taken at bed time. Ung. antimonii potassio-tart. \(\frac{1}{3} \)i, to be rubbed into the loins every night. Re Magnesiæ sulphatis \(\frac{1}{3} \)i; olei Terebinthinæ \(\frac{1}{3} \)i; pulveris uvæ ursi \(\frac{1}{3} \)i; misturæ camphoræ \(\frac{1}{3} \)viij. Two tablespoonfuls every four hours. This patient was discharged cured, January 20.

CAPILLARY HÆMORRHAGE.

I have not witnessed many instances of this disorder, but the following case may, I think, be fairly considered as an example.

CASE X.

J. C., residing at Burmandtofts, Leeds, consulted me on the 19th of October, 1842. He was of a spare make, aged thirty-two, and followed the occupation of a town missionary. He was frequently attacked with ephemeral fever, arising, no doubt, from the daily exposure to miasmatic influence, whilst administering religious consolation to the indigent sick. It was immediately subsequent to one of these attacks, that he was seized with jaundice, attended with an exacerbation of all the febrile symptoms. The alvine evacuations were clay-coloured and scanty, the urine in small quantity, and of a deep red tinge, and the skin moist. As this patient was peculiarly sensitive to the influence of mercury, I was cautious in prescribing it. He was

32 Cases.

ordered to take the following pills at bed time:—R Pilulæ hydrargyri gr. iij; pulveris ipecac. gr. ss. M. The following mixture was also prescribed. R Infusi sennæ zviij; antimonii potassio-tartratis gr. i; magnesiæ sulphatis zi. M. Two table-spoonfuls every six hours.

Oct. 21. On this day I was urgently sent for to Mr. C., who was reported to have burst a blood-vessel. Not being able to leave a female patient, whom I was then visiting, I requested the messenger to call in some other medical man. At eleven o'clock the same evening, the messenger informed me that they had called in the nearest neighbouring practitioner, but the hæmorrhage still continued. When I arrived, I found that the doses of blue pill, which Mr. C. had taken the two previous nights, had brought on ptyalism. The saliva was mingled with blood, which oozed from the upper surface of the tongue. examining the mouth, I found the tongue enormously swollen and distended. The patient seemed much exhausted and frightened, as the bloody saliva, every now and then, gushed from his mouth in large quantities. He had taken acetate of lead and nitric acid. I immediately gave him a drachm of the oil of Turpentine in water, and applied creasote all over the upper surface of the tongue. In an hour, the hæmorrhagic secretion appeared less profuse; another dose of the Turpentine was administered. At two o'clock in the morning I left him, the bleeding having ceased. I ordered the Turpentine to be given in half-drachm doses every hour.

Oct. 22. The patient was considerably better at my morning visit; there had been no return of the hæmorrhage, and the salivation was materially lessened. The jaundice, however, still continued. Re Olei Terebinthinæ purif. 3j; extracti taraxaci 3ss; sodæ sulphatis 3j; aquæ ad 3vj. M. Two tablespoonfuls twice daily. In a short time Mr. C. was convalescent. I advised him, however, to continue the

Turpentine, in combination with muriated tineture of iron and infusion of quassia. He subsequently enjoyed much better health than he had for years previously.

During my house-surgeoncy at the Charing Cross Hospital, in 1836 and 1837, a little boy was admitted, under the care of the late Mr. Howship, suffering from necrosis of the tibia. This child belonged to a family in which the hæmorrhagic diathesis was strongly developed. One, if not two (I quote from memory), of the child's relatives had died from sanguineous exudation after slight injuries. It was decided, on a careful consideration of the case, to remove the dead portion of bone; to effect which, it was necessary to make an incision of about an inch long, through the integuments covering the tibia. The operation, which was skilfully performed by Mr. Howship, did not occupy many minutes. The boy was removed to his bed in high spirits, but, in a few hours, a remarkable change occurred; the bleeding from the cutaneous vessels continued, notwithstanding the application of powerful styptics, and the child, who had now become pale and blanched, from loss of blood, sank in a few hours after the operation. I have often deeply regretted that Turpentine was not administered in this instance. I have alluded to it, in order, that should a similar one occur, this remedy may not be lost sight of.

PURPURA HÆMORRHAGICA.

Until the year 1846, I had very few opportunities of testing the therapeutic properties of Turpentine in this affection; but in the severe epidemic of this disorder, which took place among the poor, from the deficiency of the potatoe crop, and scarcity of vegetable food,

34 eases.

in the winters of 1846 and 1847, I generally found Turpentine, in combination with bark and full purgative doses of Cheltenham saline waters, a very effectual remedy.

CASE XI.

R. H., aged forty-seven, a cook, unmarried, who for twelve months had been out of a situation, applied to me for advice, September 22, 1847. The following were her symptoms:—Bilious retching; pain in the left side; pain darting from the left kidney to the brim of the pelvis; great dyspnœa, pulse 96, small and weak; respiration 26, rapid and short; bowels constipated; catamonia ceased three years; complexion pale and sallow; tongue furred and indented; breath feetid; gums spongy; urine high coloured, loaded with lithates; purplish petichiæ, most extensive on the left side of the body; ankles swollen; often much annoyed with flatulency. This woman had eaten sparingly of vegetables the previous winter; her diet had chiefly consisted of boiled rice, a diminished quantity of bacon, salted fish, fresh meat, bread, and tea. R Pilulæ hydrar. gr. iij; extracti colocynthidis compositi gr. vj. To be taken at bed time. Fiant pilulæ ij. R Acidi nitrici diluti zi; tincturæ cinchonæ ziv; infusi cinchonæ ad zviij. M. Two tablespoonfuls morning and evening. To eat freely of cooked vegetables, and have cider or perry for dinner.

Sept. 26. Much about the same—nights disturbed. To take two tablespoonfuls of the following mixture twice daily:—R. Acidi nitrici diluti 3i; tincturæ cinchonæ 3iv; olei Terebinthinæ, tincturæ hyoscyami aa. 3ii; infusi cinchonæ ad 3viij. M. The pills to be omitted.

Oct. 2. Eruption declining-bowels costive. To have a nitro-hydro-

cases. 35

chloric acid bath. R. Pilulæ hydrargyri Əi; extracti colocynth. compos. 3i; pilulæ galbani comp. Эij. M. et divide in pilulas xxx. Two to be taken twice a week. To take \(\frac{2}{3}\xivij \) of the sulphuretted saline water every morning.

Oct. 10. Decidedly improved. To repeat the warm bath; to continue the saline aperient, adding to each morning dose a teaspoonful of the following drops. R. Tincturæ cinchonæ \(\frac{1}{2}i\); olei Terebinthinæ \(\frac{1}{2}ss.\) M. This woman was perfectly well by the end of the month.

HÆMOPTYSIS.

This affection is generally associated with pulmonary phthisis, so that I shall treat of it in connexion with that disorder. As the use of Turpentine is not new in the treatment of pulmonary consumption, I shall condense my remarks as much as possible. I am not aware that the inhalation of the vapour has ever been recommended in pectoral disorders. I have not only found it useful in allaying the cough in acute and chronic bronchitis, but I have also seen a very great amendment follow its use in tubercular phthisis. The success which attended the inhalation of tar vapour, first recommended by Bishop Berkely, and so highly extolled by Sir A. Crichton, was, no doubt, owing to its volatile principles, analogous, in some respects, to those of Turpentine, from which it differs in containing a larger amount of carbon and empyreumatic oil, and less of the essential oil. "Out of fifty-four cases treated by Drs. Hufeland and Neumann, at the Hospital of La Charité, Berlin, four were cured; six were greatly improved; sixteen

¹ See Appendix C.

were unaffected by it; twelve became worse; and sixteen died." I have frequently resorted to the use of medicated vapours, containing Turpentine, conium, opium, and hydrocyanic acid, in every stage of this disorder. In the active form of pulmonary hæmorrhage, as well as in the distressing paroxysms of the morning cough, I have seen them produce a very tranquillizing effect. From the inquiries which I have made at the different Camphine and Turpentine manufactories, I have learnt, that the individuals engaged in the distillation of these ingredients are rarely on the sick list. Turpentine is considered by the men generally, to possess very healing properties. Applied to the lungs, in the form of vapour, or taken internally, I conceive that it exerts a benign influence in an ulcerated condition of these organs; and by inducing a healthy condition of the ulcerated surfaces, tends to produce cicatrization, after the morbid contents have been evacuated from the vomicæ, and the system improved by tonic or other remedies. It is known to exercise a salutary influence in chronic ulcers, indolent sores, and recent abrasions: cateris paribus, it will have the same effect on internal ulcerations when cautiously inhaled or judiciously prescribed. following observations, in lieu of enumerating a variety of physical phenomena as elucidatory of incipient or confirmed phthisis, I shall confine myself to what is usually considered as the most unequivocal symptom of this disorder. The physical phenomena deduced by exploration of the pulmonary parietes, do not always furnish criteria on which we can depend with unbiassed confidence; but there is no sign so strongly confirmatory of serious thoracic mischief, as pulmonary hæmorrhage; and whether it be occasioned by a plethoric condition of the heart of great vessels, or a congestive state of any of the cerebral or abdominal viscera, or by disease inherent in the texture of the lungs, the sequence too often proves its connexion with pulmonary consumption.

I do not profess to have cured phthisis in any of the instances which I am about to narrate. All that I wish to imply is, that Turpentine has been more successful in restraining the hæmorrhagic tendency, and preserving the patients in a condition of apparent health, and for a much longer period, than any other remedy of which I have made trial. I have purposely abstained from the narration of any case of very recent date, knowing, that in a disorder of so deceptive a nature as phthisis, we ought to be especially guarded as to our prognosis, and not be too rash in forming our judgment of the future.

CASE XII.

Mr. W., aged 36, cabinet-maker, consulted me on the 14th of May, 1839, for a pain in his chest, attended with considerable dyspnœa. The physical signs denoted incipient phthisis; and this diagnosis was confirmed a few weeks after, by the occurrence of hæmoptysis. Leeching, blistering, and counter-irritants were ordered, and a mixture containing Turpentine and infusion of roses. He improved under this treatment; and after a residence of some months in the Isle of Man, he returned home, and pursued his usual avocation. Four years afterwards, he was attacked with inflammation of the bowels, from exposure to cold and damp, which proved fatal. On examination of the body, the right lung contained a small cavity, which had a very healthy appearance; it contained a little yellowish matter; its lower edges were crossed and united by bands easily rent asunder. There was a considerable amount of miliary deposit in the apex of the same lung, but none in the other.

CASE XIII.

A. S., aged 30, married, without family, a gardener, was admitted to the Leeds Dispensary, July 6, 1842, suffering from profuse hæmorrhage of the lungs. There was considerable dulness in the upper portion of both lungs; gurgling rhonchi. This case proved intractable for some time, but the hæmoptysis was finally subdued, and the man resumed his usual employment, continuing, by my advice, to take daily a few drops of Turpentine with infusion of quassia. When last I heard of him, he seemed to be in tolerable health.

CASE XIV.

A married lady consulted me in 1841, for supposed tubercular disease. On examining the chest, there was slight depression to the extent of about a quarter of an inch in the right infra-clavicular region. The nipple on the breast of the same side, was the eighth of an inch nearer the sternum than the one on the left. The respiration was masked, and percussion elicited a damp sound. The left side was clear on percussion, and respiration was puerile. The appetite was extremely capricious, the bowels irregular, catamenia regular, nights restless, urine turbid, yellow with deposit; there was constant teasing cough, with slight hæmoptysis. She had also a gnawing sensation in the pit of the stomach, with a tendency to retching. To have six leeches applied to the chest. Colei jecoris aselli ziss; liquoris ammoniæ fortis zss; linim. saponis compos. ad ziij. M. To be rubbed on the chest night and morning. To take two tablespoonfuls of the following mixture three times a day. Infusi rosæ compos. zvj; magnesiæ sulphatis zvj; olei Terebin

thinæ zij. M. R. Extracti colocynth. comp. gr. vj; morphiæ acet. gr. ss; pilulæ hydrarg. gr. iij. Fiant pilulæ ij. To be taken at bed time.

The following day this patient passed several portions of tape-worm. She recovered, and by perseverance in the following mixtures for some time, together with a temporary residence at the sea side, she ultimately regained her former health, and the last account I had was highly favour able; she has had no appearance of tape-worm since. B. Mist. ferricomp. 3vijss; olei Terebinthinæ 3ij; tincturæ camphoræ comp. 3ij. M. Two tablespoonfuls twice a day.

CASE XV.

A. O., washerwoman, complained of severe eough, with mucous expectoration, which, a few days previously, had been mixed with blood; there was great pain in the left side, with inability to lie on it; pulse 100, sharp and thrilling; respiration 28, short; bowels regular; catamenia regular; urine scanty, high coloured; tongue pale and dry; there was feverishness and restlessness. Both infra-clavicular regions were slightly depressed; in the upper third of the left lung the expiratory murmur was harsh and prolonged, with small crepitating râle; there was also slight dulness on percussion, anteriorly and posteriorly. On the right side, there was increased expiratory murmur, and clear percussion-sound. There was also bronchophony. The action of the heart was more distinct than natural under the right claviele; posteriorly it was diffused. She was ordered to take the following pills at bed-time. R. Calomelanos gr. iij; extr. coloeynth. comp. gr.vi. M. R. Potassæ nitrat. 3ss.; tineturæ digitalis 3i; syrupi seillæ 3iv; aquæ ad zviij. M. A fourth part every four hours.

Nov. 19, 1843. Had rather a sharp attack of dyspnea, with return of pulmonary hæmorrhage. A blister was ordered to be applied to the chest, and two table-spoonfuls of the following mixture to be taken every four hours: R. Olei Terebinthinæ 3ij; tincturæ digitalis 3i; decocti aloes comp. 3viij. M. Under this treatment, this patient continued to improve. She took occasionally linseed oil, cod-liver oil, and sarsaparilla, with Turpentine and lime-water; and in the following summer had become convalescent.

CASE XVI.

Mrs. W., a married lady, aged 26, without children, had for several years been in a declining state of health. I first saw her in 1848; she was extremely pale and emaciated, and had for some time previous parted with small quantities of florid blood. These attacks of hæmorrhage mostly occurred in the morning. Her nights were very much disturbed; she had paroxysms of flushing, succeeded by profuse perspiration. Exploration of the thoracic viscera impressed me most unfavourably with this patient's condition. Nearly fifteen months she was confined to her room, and used Turpentine inhalations, infusions of matico with Turpentine, infusions of the water hemlock, occasionally replaced by cod-liver oil and emulsions of almond oil and hydrocyanic acid. Her chest was assiduously bathed with spirits of Turpentine, and, in addition, she had two galvanic issues established under each clavicle. In the autumn of 1848, while improving in health, she had an attack of scarlet fever, which confined her for some months longer to her room. In the following summer, she rallied sufficiently to take a trip to the sea-side, and after a residence there of some time, she was enabled once more to join the ordinary duties of the domestic circle.

CASES, 41

CASE XVII.

A. B., aged 21, a spinner in a flax-mill, was admitted, under my care, into the Leeds Dispensary. The catamenia were suppressed, the skin moist, the bowels relaxed; pulse 100, sharp, small; respiration 30, irregular; severe pain in the right side; constant cough; puriform expectoration; profuse hæmoptysis; papular eruption on the right leg, with ædema of the ankles. She was cupped and blistered; and, after the first febrile symptoms had subsided, she took ferruginous preparations, with decoction of aloes, and Turpentine. In a few months, this patient recovered sufficiently to return to her work.

CASE XVIII.

M. C., aged 22, had the following symptoms: constant teasing cough; greenish expectoration; severe pain in the heart and chest; bowels loose; tongue clean; night-sweats, and hectic fever.

May 3, 1843. She was ordered to take naphtha, with ling-liver oil, and to have a blister applied to the chest.

May 10. Much worse; great dulness on the right side, with absence of respiratory murmur; crumpling sound in the right infrascapular region; left side normal, with increased respiratory murmur. She had hæmoptysis, and the bowels were still loose. R. Pil. saponis cum opio gr. iv; to be taken at bed-time. R. Olei olivæ §i; spiritûs Terebinthinæ §i; tincturæ digitalis §i; liquoris potassæ §i; liquoris opii sedativi §ss; aquæ ad §viij. M. Two table-spoonfuls every two hours. She improved under this treatment; and the following medicine was ordered. R. Quinæ disulphatis gr. vj; acidi sulphurici diluti §ss; olei

42 Cases.

Terebinthinæ 3i; tincturæ camphoræ comp. 3ij; infusi quassiæ ad 3viij. M. Two tablespoonfuls three times a day. In a few months, convalescence was established.

CASE XIX.

S. R., aged 19, dressmaker, was admitted, under my care, into the Cheltenham General Hospital and Dispensary, in October 1846. She had been, for some time, frequently seized with chills, alternately with flushing; great pain and tenderness on the left side; cough with mucous expectoration, accompanied sometimes with a small quantity of blood of a bright florid colour; small weak pulse, 92; respiration laboured, 28; obstinate constipation; urine scanty, opalescent, specific gravity 1026. She was treated with liniments of pyroligneous acid and oil of Turpentine; blisters; cathartics; and Terebinthinous medicines. The bleeding was arrested, and convalescence established. She took a course of the Pitville saline, with Turpentine, with great advantage, and has hitherto had no relapse.

CASE XX.

A youth, aged 18, apprentice to a grocer, was seized with hæmoptysis on the 6th March, 1842. He had previously been, for some time, under my care, and had manifested indications of incipient phthisis. After subduing the more prominent affection, the pulmonary hæmorrhage, by means of Turpentine mixtures, counter-irritation, and local bleeding, I advised an early removal to the Isle of Man. The

youth inhaled freely the Turpentine vapour, and I daily tested the vital capacity of the chest by means of the pulmometer. This, I think, tended considerably to his recovery. The habit of cautious prolonged inspiration often acts beneficially on the system of phthisical patients; emphysema may also occasionally be induced, and when this has resulted, tubercular phthisis has been known to be arrested. Two years after, when I examined this youth's chest, I could detect a marked difference in the respiratory movements of the right and left side. He could, however, with ease displace \mathfrak{F} c of water in the pneumatic trough. When first I saw him it required a very forcible expiration to effect the dislodgement of \mathfrak{F} lxx. When I recently heard of him, he was alive, and enjoying a tolerable share of health.

It is extremely difficult to lay down any plan for guidance in the treatment of phthisis. I have tried several remedies with apparent benefit. But though I have related the preceding cases, which vary in their dates from ten to two years ago, I should hesitate ere I asserted that I had cured one case of pulmonary consumption. Nevertheless, I believe the disease capable of being favourably influenced by treatment, and even of being often brought to a successful termination, as I have no doubt some of the cases I have related will hereafter testify.

PARASITIC WORMS.

I know of no remedy comparable to the oil of Turpentine for the expulsion of parasitical animals. To accomplish this object, I place little reliance on the purgative action induced by the medicine, but I depend chiefly on the dissemination of the Terebinthinous principles throughout the animal tissues. The only way effectually to destroy

these animals, is to render the aliment on which they subsist unfit for them. In fevers of a low or putrid character, in scarlatina and some of the exanthemata, worms are frequently expelled, per vias naturales, prior to death, by the noxious emanations which often exist in these affections, and which are destructive to parasitical life. It ought to be our aim to imitate nature; and where it can safely be done, to taint the food on which the different species of the entozoa feed, with such noxious ingredients as are known to be inimical to them. Thus Dippel's animal oil, Chabert's oil, and similar nostrums, are valuable only so far as they carry out this important object. Turpentine will effect the entire destruction of any of the entozoa and their ova, provided it be given in small doses, and continued for a sufficient length of time to saturate the system with its odour. Purgative doses of Turpentine, or enemata containing the same, decoctions of the bark of the root of the pomegranate, and many of our most esteemed vermifuges, will often suffice for the removal or destruction of lumbrici or ascarides. In tapeworm, in many instances, a different treatment is required. We may frequently succeed with the preceding remedies, but we occasionally fail. This is owing to the habits of the animal. It forms a nidus of gelatinous matter, into which it protrudes its head and neck after it has separated itself from the remaining joints of the body, and then, on the first intimation of danger, attaches itself to the intestine by means of its four suckers so firmly, as to defy any reasonable force to detach it. The tail of the animal is occasionally met with high up in the bowels, and even in the stomach, whilst the head occupies a position in the intestinal tract considerably lower. This may be a provision of nature to warn it of the presence of any noxious or irritating ingredient in the stomach, and thus to enable the animal to preserve its vitality. From the fluted manner in which it sometimes lies along the intestine, it must

be extremely difficult to effect its expulsion, except by medicines which exert a poisonous action on it through its food. Vermifuges, when taken by the mouth, have frequently occasioned yards to be brought away by vomiting; but the animal remains secure in his retreat. If, however, we give small doses of Turpentine, or any empyreumatic oil, the secretions will at length become so tainted, that we cause its death and subsequent expulsion or absorption: and though we may never see it expelled, we may be pretty confident that we have occasioned its death, by the subsidence of all those symptoms and distressing sensations, which it produces whilst alive.

CASE XXI.

A female, who for upwards of twenty years had repeatedly expelled considerable portions of tape-worm, applied to me, in 1843. She had taken Turpentine in full doses, and had generally been much relieved by it; but the parasite still remained. I ordered half an ounce of oil of Turpentine, half an ounce of castor oil, and an ounce of the decoction of the bark of the pomegranate root, to be taken every morning. She parted with several yards of worm; but as I could not detect the head amongst any portion, I advised her to take two table-spoonfuls of the following mixture daily for three months. R Infusi quassiæ zviij; olei Terebinthinæ zij; tincturæ ferri sesquichloridi zi. M. She attended to my advice; and, two years after, she told me that she had felt no return of any of her uneasy sensations.

CASE XXII.

A cook, in my employ, had for years been the subject of tape-worm, and had taken Turpentine repeatedly, without deriving any other than temporary benefit from it. I put her on a plan similar to the former; and in a few months she found her health perfectly re-established, and has hitherto had no return of the affection.

CASE XXIII.

On the sixth day after she had commenced taking the preceding medicine, she was seized with violent retching, and vomited up three worms. After this she experienced great relief. She continued the mixture for the period of a month. In two subsequent pregnancies, I was glad to learn that she had been free from her former distressing ailments. It is worthy of remark, that two of her children, one five, the other nearly seven years of age, had frequently voided the same

species of worms. Ferruginous preparations, with small doses of Turpentine, and occasional laxatives, were effectual in destroying these parasites.

CASE XXIV.

GRUBS IN THE URETHRA.

I have seen two instances in which grubs have occasioned much annoyance and distress, by depositing their ova in the urethra.

CASE XXV.

A young gentleman, about 22 years of age, had intolerable itching at the end of the urethra, which generally occurred every four or five weeks, lasted for three days, and subsided as soon as the larvæ (small white-bodied animalcules with black heads) appeared. I advised him

to inject a few drops of Turpentine in mucilage, two or three times a day, into the urethra; and to take ten drops of the same in infusion of quassia twice daily. This plan succeeded, and he recovered.

RHEUMATISM AND LUMBAGO.

In these affections I have frequently found, that the Oil of Turpentine, combined with bark or guaiacum, has given considerable relief. I have also seen the alkaline camphine bath of very great service, in some long standing cases of this disorder. I have tried it in lumbago, sciatica, and gout, and can speak most favourably of it in all these affections. Many of the parties who have tried it, have derived so much benefit from it, in the alleviation of their aches and pains, that I have known them to resort to it oftener than I had advised.

CASE XXVI.

In the winter of 1842, Mr. W., after long continued exposure to wet, was seized with violent rheumatic fever, which confined him to his room for upwards of two months. He had been twice bled during that period, and had applied frequent relays of leeches to the swollen joints of the lower extremities. Antiphlogistic remedies were prescribed, calomel and opium, diaphoretics, colchicum, and iodide of potash. When I first saw him he supported himself on crutches, the right ankle and instep were considerably swollen, and extremely painful. He was very sensitive to the changes of temperature. His perspiration, which was copious, and very acid, smelt sour and offensive; the tongue was coated with a yellow fur; pulse full 80; respiration normal; heart's action tumultuous, frémissement cataire and bruit de soufflé very distinct; bowels open daily;

urine in diminished quantity, depositing brick-dust sediments; appetite indifferent; had passed better nights latterly; joints not so painful when warm in bed as they had been. To have a blister applied to the region of the heart, and the same to be dressed with savine ointment. The swollen extremity to be encased in flannel wrung out of hot water and carbonate of potash. Be Decoct. cinchonæ 3viii; olei Terebinthinæ 3i; tincturæ digitalis 3i. M. Three tablespoonfuls twice daily. Be Hydrarg. chloridi gr. i; extracti acet. colchici gr. i. M. ut flat pilula. To be taken every other night. This plan was persevered in, for three weeks; the hot flannels were then exchanged for the cold douche. He continued the Turpentine mixture; and, after a short time, he was able to pursue his ordinary avocations, which involved incessant labour on foot.

CASE XXVII.

On the 16th of December, 1843, my advice was asked respecting the case of Mr. J., residing a few miles from Leeds, who had, within the last three years, been twice laid up with rheumatic fever. In my first interview, I learnt from his medical attendant, that this attack had been more severe than either of the previous ones. He was very much reduced in flesh. Owing to the painful state of the limbs, locomotion was impossible. The heart was seriously and permanently injured. He had evidently suffered from severe pericarditis with endocarditis. There was friction sound with persistent bruit de rape; respiration was quick; tongue foul; nights restless; urine scanty. To swathe the lower extremities in flannel, wrung out of a hot alkaline solution. By Hydrarg. chloridi gr. ii; morphiæ acetatis gr. i; pulveris Jacobi ver. gr. iii; M. ut flat pil. To be taken every night. By Decoct. aloes com-

50 cases.

posit. \mathfrak{Z} viiss; potassæ tartratis \mathfrak{Z} vj; olei Terebinthinæ \mathfrak{Z} i. M. Two tablespoonfuls twice daily. Apply acet. cantharidis to the præcordial region. 29th. Slight salivation ensued. The calomel and morphine, etc., to be discontinued. Three tablespoonfuls of the following mixture to be taken twice daily. R. Misturæ guaiaci compositæ \mathfrak{Z} iv; decoct. cinchonæ \mathfrak{Z} iiiss; olei Terebinthinæ \mathfrak{Z} i. M. The knees and ankles to be rubbed every night with the following liniment: R. Extracti belladonnæ \mathfrak{Z} i; sodæ sesquicarbonatis \mathfrak{Z} ii; olei Terebinthinæ, olei lini, aa \mathfrak{Z} ii. M. This gentleman rapidly regained his strength and power of locomotion.

I had an opportunity of examining this patient, when I was in Yorkshire, a short time ago. He informed me, that, ever since I attended him, six years previously, he had been free from rheumatism; and were it not for the palpitation with which he was troubled, on any extra exertion, or after an indigestible meal, he should possess as good health as ever he had in his life.

CASE XXVIII.

J. F., aged 66, was admitted an out-patient to the Cheltenham General Hospital and Dispensary, Oct. 1846. For twelve months, he had been crippled from rheumatism, principally affecting the right hip and knee; progression was difficult and painful; his skin was soft and clammy; alvine secretions dark and offensive; urine high coloured, sp. gr. 1·026, small in quantity; pulse 84, irregular, weak, and feeble. This case, for a long period, proved tedious and intractable. His health, however, was improved and his sufferings assuaged by the following mode of treatment:—Slight electric shocks to be passed through the lower extremities; the limbs to be well rubbed with a liniment com-

GOUT. 51

posed of belladonna, oil of Turpentine, and liquor of ammonia. To take two tablespoonfuls of this mixture twice daily:— Re Olei jecoris morrhuæ zviiss; liquoris potassæ zii; olei Terebinthinæ ziss; spiritûs juniperi compos. ziv. M. This patient was ultimately discharged, considerably relieved.

CASE XX1X.

W. A., a painter, aged 28, had an attack of lumbago in the autumn of 1849. The pain in the fleshy part of the loins was extremely severe; his gait was perfectly erect; the slightest movement increased his sufferings. I advised a trial of the alkaline camphine bath, and ordered him to take two tablespoonfuls of the following mixture:—R. Decoct. cinchonæ zviiss; magn. sulphat. ziss; tincturæ jalapæ ziii; olei Terebinthinæ ziss. This man recovered in a few days.

GOUT.

Flatulent distension of the abdomen is a distressing symptom, which often accompanies a dyspeptic state of the system, especially in gouty patients. It is sometimes attended with nervous excitement of the heart, sometimes accompanied by spasm of the bowels, and dyspnæa. For the relief of this symptom, whether originating from mal-assimilation of the food, or supervening on obstruction of the bowels, or occurring after an operation for strangulated hernia, I have found no medicine so

¹ Vide Appendix D.

52 cases.

efficacious in quickly dispelling the flatus, as Oil of Turpentine. In gouty subjects who freely secrete lithic acid, and who are much troubled with this kind of flatulency, I have rarely ever experienced that small doses of the oil of Turpentine, with or without colchicum, have failed to afford very great relief, more particularly when accompanied by a mild diuretic course of our Cheltenham salines. It is of great importance to avoid active purgation in this state of the system.

CASE XXX.

An elderly gentleman, of a gouty diathesis, who had never had a regular fit, consulted me for the following symptoms, which occasioned him great annoyance and anxiety. He had constant twitchings in the muscles of the thumbs and great toes; if he unconsciously touched anything very hot or cold, it produced an involuntary shudder, which induced a distressing tremor over the whole body; his appetite was good; he suffered much from flatulency; urine bright, of a deep red colour, depositing lithic acid; bowels free, sometimes the evacuations were very copious and slimy; he slept well, but frequently complained of headache; skin dry. Daily exercise in the open air was strictly enjoined; diet to consist principally of animal food, with unfermented bread 1 or ship biscuit; to avoid all vinous potations, but in lieu thereof, to drink lime or magnesia water, with a small portion of brandy or whisky; dry friction to the skin; twice a week to have an alkaline bath at 98°; to take \(\frac{1}{2}\)xvi of the Pittville saline every morning. Half the above quantity to be taken with a teaspoonful of the following drops, and after an interval of twenty minutes, spent in walking, the remaining portion of the saline to be drank. R Vin. rad. colchici ziv; olei Tere-

¹ See Appendix E.

binthinæ §i; spiritûs pimento §ss. M. In six weeks this gentleman lost his unpleasant symptoms; he left Cheltenham, and I have since heard that he now enjoys a degree of comfort, to which he had long been a stranger.

CASE XXXI.

A lady, considerably advanced in years, had latterly been teazed with a constant dragging sensation in the lumbar region. When in bed, she often experienced a sharp lancinating pain, darting from the calf of the right leg into the ball of the great toe, which was hot and painful when touched. Her nights were wearisome and sleepless; her appetite capricious; bowels constipated and distended; micturition frequent, in diminished quantity, and loaded with the urates. A small portion examined under the microscope, developed crystals of lithic and oxalic acid. There were present, excessive disturbance of the nervous system, dyspnæa, and palpitation of the heart. A similar regimen was recommended as in the preceding case. To drink cider or perry, with a little brandy; to eat unfermented bread, with plain roast or boiled meat; to avoid vegetables, saccharine foods, tea, and coffee; friction with a coarse towel, more especially along the spine; alkaline baths every third day. R. Extracti colocynth compost. Hi, aloes (Barbad.) gr. xii; morphiæ hydrochloratis gr. vi. M. ut fiat pil. xii. One to be taken every night. Two zvi doses of the Pittville saline, with five drops of the oil of Turpentine, and one of the oil of juniper in each dose every morning. This patient soon experienced a great amendment. Large quantities of lithic acid were daily evacuated; urine increased in quantity; she lost her uneasy and painful sensations; the flatulent distension of the abdomen subsided; and, in a short time, she was convalescent.

BILIARY CALCULI.

Some authors have considered Turpentine capable of effecting the solution of Biliary Calculi. I do not believe it possible, that this medicine can exert any such influence on them.

The following is a very interesting case of the removal of a large biliary calculus, which for several days assumed a very serious aspect, threatening the life of my patient.

CASE XXXII.

An elderly lady was seized with sudden sickness and pain in the præcordial region, followed by obstruction of the bowels. Large doses of calomel, croton oil, and other drastic purgatives, were given to relieve the latter; creasote and hydrocyanic acid, for the former. Local bleeding was employed, and stimulating applications and bladders containing ice, were applied in turns to the abdomen. Enemata of Turpentine and rue were also administered, without producing any favourable change. On the contrary, the sickness became so distressing, that on the sixth day of the attack, it was decided in consultation, to abandon all remedies by the mouth, and trust entirely to Turpentine clysters and the local application of ice and of epithems containing cajeput oil, Turpentine, opium, croton oil, liquor ammoniæ, etc. On the seventh day, the abdomen became enormously distended with flatus, a considerable quantity of which was withdrawn from the bowels several times in the day, by means of the tube of a stomach-pump introduced into the rectum. After the gas was pumped out, upwards of a gallon of iced water was thrown into the bowels; and as soon as this was evacuated, about a quart of warm water, containing Turpentine, was immediately injected. This plan was persevered in until the eleventh day; and notwithstanding the supervention of hiccup, and several other unfavourable indications, the patient at last obtained relief. A hard substance seemed suddenly to be disengaged from a portion of the small intestines. Shortly after one of these operations, a regular action of the bowels ensued; and on the fourteenth day she passed a biliary calculus, of the size of a walnut, and weighing 3ii, gr. xi. Its upper surface was perfectly smooth and concave, and appeared to have been attached to a smooth substance, such as the lining membrane of the gall-bladder. For twenty years, this lady had complained of pain in the pit of the stomach after eating, and had never had an action of the bowels without strong drastic purgatives. A tea-spoonful of castor oil, with ten drops of Turpentine, were ordered to be taken every morning; and in a few days she became perfectly convalescent, and has continued well from that day.

DIARRHŒA.

As the late severe epidemic of Asiatic choleral was fortunately not witnessed in Cheltenham, I had no opportunity afforded me of trying Turpentine in that extraordinary malady. I noticed in the previous visitation of that disorder in London, in 1832, that warm epithems of Turpentine were extremely grateful to the patient, and productive of much comfort. I have prescribed Turpentine both externally and internally in some very severe cases of Diarrhea. I have always directed the oil of Turpentine to be applied as hot as possible to the abdomen,

¹ See Appendix F.

and in severe cases, to be preceded by a mustard poultice. This plan has proved so effectual, that, since I have resorted to it, I have not had to record one fatal case from the last-named disorder.

CASE XXXIII.

One Sunday evening, Mr. B. was seized with violent retching and profuse diarrhœa, accompanied with most excruciating pain in the abdomen and cramps in the extremities. At times, his agony was so intense, that he gave vent to the most distressing cries. He was unable to remain still in any one posture, and the perspiration rolled from his face; his expression pourtrayed intense suffering; the pulse was almost imperceptible at the wrist; the beats of the heart were faint and oppressed; and the extremities felt cold and clammy. The renal secretion appeared suppressed, for on introducing a catheter into the bladder only a few drams of water were withdrawn. He had partaken freely of cucumber at dinner the day before, and to this cause he attributed his present sufferings. He was ordered to have a large mustard poultice applied One of the following powders to be taken every to the bowels. hour, with three tablespoonfuls of the mixture half an hour after each powder. R Hydrarg. chloridi gr. i; pulveris cretæ compost. gr. vii; M. ut fiat pulvis. R. Spiritûs ætheris sulphur. comp. 3ii; liquoris opii sedat. 3iss; olei Terebinthinæ 3ss; acid. hydrocyanici dil. 3i (P.L. 1836); spiritûs menthæ virid. Ziv; confectionis aromaticæ Ziv; aquæ menthæ virid. ad zvii. M. ut fiat mistura. As there was no marked improvement in the patient's condition, after the expiration of two hours, I recommended flannels dipped in hot oil of Turpentine, to be assiduously applied to the abdomen. For awhile, this was borne with perfect indifference, and without any mitigation of the internal pain, but when vesication was fairly established, he expressed himself as being decidedly relieved, and refused to allow a re-application of the flannels. Shortly afterwards, a copious flow of urine occurred. His cramps and abdominal pains left him, and from this moment, the disorder took a favourable turn. I have no doubt, in my own mind, that the rapid absorption of the Turpentine, after the removal of the cuticle, was mainly accessory to the sudden amendment which succeeded its use.

DROPSY.

I have frequently seen small diuretic doses of Turpentine alone, or in combination with broom tea, juniper tea, decoction of dandelion, etc., of very great utility in promoting the absorption and removal of dropsical accumulations, depending on cardiac or hepatic disease. A case of this description is now under my care. There has been general anasarca with ascites. Broom tea, with occasional small doses of Turpentine, has completely effected the removal of the aqueous effusion. Though the prognosis is still gloomy, it is, nevertheless, a great consolation to behold my patient exchanging her bed, to which she had been confined for several months, for a seat at the family table.

PUERPERAL CONVULSIONS AND PERITONITIS.

Those who see an analogy between puerperal fever, puerperal convulsions and peritonitis, will be inclined to regard Turpentine as likely to prove extremely valuable in the first-named disorder. Repeatedly

See Appendix G.

have I treated puerperal convulsions, and puerperal peritonitis, as well as peritonitis independent of the parturient state, with this medicine, and have attributed the rapid subsidence of the more prominent symptoms to its influence.

CASE XXXIV.

A. C., aged seventeen years and a half, residing at New Town, Leeds, was seized with convulsions of a most formidable character, a few hours after she had given birth to a male child. The gentleman who attended her in the confinement, requested my advice in the case. Detrahatur sanguis è brachio ad 3xx. Calomelanos gr. vj. To be taken directly. R. Ol. Terebinthinæ 3iv; magn. sulphat. 3i; aquæ ad 3viij. Two tablespoonfuls every two hours. Enema of Turpentine and gruel. In six hours, this patient recovered consciousness, and, from that period, progressed favourably.

CASE XXXV.

M. C., aged twenty-nine, was seized, on the 5th of February, 1843, with intense pain in the head; great prostration of the vital powers; small, weak, fluttering pulse; abdominal tenderness; retraction of the lower extremities; constipation, and pyrexia. She had been confined two days previously of a male child. Bladders of ice to be applied to the shaven head; warm Turpentine to the bowels; Turpentine enema. V. S. ad deliquium animi. Twenty-four ounces of blood were lost, before fainting ensued. R. Calomelanos gr. iij; pulv. opii gr. ss. Fiat pilula. To be taken every three hours. R. Olei Terebinthinæ 5ss; mist. sennæ comp. 3viiss. M. Two tablespoonfuls an hour after each dose of the pills. This patient's mouth soon became affected, and she speedily recovered.

CASE XXXVI.

A female servant, residing with a patient of mine, was taken ill a short time ago, with symptoms of diffused peritonitis. The bowels were extremely obstinate, and the retching incessant. She was copiously bled, both locally and generally; mixtures containing Turpentine, and pills of calomel and colocynth, were freely administered; clysters and Turpentine epithems were also resorted to. Towards the termination of the fourth day, the bowels regained their propulsive power. Large quantities of fæcal matter were evacuated; and by persistence in small doses of castor oil and Turpentine, with vegetable tonics, she soon recovered her former health.

DISEASES OF THE EYE.

The testimony of several celebrated oculists has been adduced in favour of this drug, in the treatment of many inflammatory affections of the eye. I am not able to say anything, either for or against its use. As yet, I have never made trial of it in disorders of that organ.

DISEASES OF THE NERVOUS SYSTEM.

Turpentine has been considered to be of eminent service in apoplexy, hydrocephalus, and epilepsy. One case of hydrocephalus, a little boy, seven years of age, seemed to be very much benefited after the administration of a few enemata containing this drug, and the child eventually recovered. In apoplexy, I have witnessed a like result; but I do not con-

sider this, and similar instances, sufficiently decisive to warrant me in concluding that Turpentine exercised a controlling power over the disease, otherwise than by its purgative action. In *epilepsy*, depending upon intestinal irritation, such as worms, purgative doses of Turpentine, or enemata containing it, will generally be found efficacious. Nevertheless, the majority of epileptic patients will not derive any very great advantage from it. In such examples, we must ascertain the cause of the malady, which may often be of a character over which medicine possesses but little anti-convulsive influence.

SPINAL IRRITATION.

This disorder is frequently associated with an anæmic state of the system. It should be carefully distinguished from inflammation of the spinal marrow, a disease with which it is not unfrequently confounded. Turpentine embrocations, perseveringly applied along the spinal tract until they have induced smart rubefacient action, are oftentimes effectual in subduing this affection. When the urine is thick and scanty, and the deposit of a light fawn colour, with a greasy pellicle floating on the surface of the water, I have noticed a rapid improvement to occur in the aspect and sensations of the patient so soon as the renal secretion had assumed its normal character. Small doses of Turpentine, with chalybeate salines and aloetic purgatives, have usually been found sufficient to effect a healthy restoration.

CASE XXXVII.

M. B., aged 20, a delicate-looking female, exhibited the following symptoms:—Pale complexion; slender conformation; exsanguineous

CASES. 61

eye-lids; lips bloodless, fissured and dry; broad, pale tongue, tremulous when protruded, and covered with a dirty yellow fur; appetite variable; frequent nausea; troubled with flatulency; catamenia regular as to time, deficient in quantity, of a pale colour; leucorrhea; bowels constipated; urine in small quantity with thick sediment; respiration 24. short and panting, easily accelerated on motion; short, hacking, teazing cough; no expectoration; frequent deep sighing; respiratory murmur rough, otherwise healthy; heart's action weak, 90; blowing sound with first beat; musical cooing very distinct in the right jugular region; cedema of the ankles; tenderness, with a sensation of nausea and sickness, on pressing the third and fourth dorsal vertebræ. Ordered to avoid tea, coffee, and butter; breakfast to consist of milk and cocoa, with cold meat, eggs, and unfermented bread; to avoid vegetables and eat moderately of animal food, light, farinaceous puddings; beverage, pale ale, dandelion beer, spruce beer; passive exercise in the open air. The back and spine to be well rubbed with this embrocation:—R Liquoris ammoniæ fort. 3ss; olei Terebinthinæ 3ii; olei tiglii 3i; spiritûs rosamarini ziii. M. To take one of these pills three times a day. R. Extracti aloes (Barb.) 3ss; ferri sulphat. 9i; extracti hyosciami 9i; olei sabinæ mvi. M. ut fiant pil. xx. The daily application of the liniment produced considerable redness of the back, attended with small pustules. She lost the nausea and tendency to sighing, and could now bear pressure on the spine without inducing discomfort. Urine still turbid and scanty. To continue the pills, one twice a day, and to take eight ounces of the Harrowgate chalybeate water, with ten drops of the oil of Turpentine, every morning. This treatment sufficed for her perfect

¹ See Appendix H.

restoration. She subsequently married, and is now the mother of a healthy offspring.

CASE XXXVIII.

C. S., had been in a declining state of health for some time. Belonging to a consumptive family, her friends were naturally anxious about her. She had a pale leucophlegmatic aspect; catamenia very irregular; breathing short and hurried; frequent palpitation; bowels open; urine in diminished quantity, of high specific gravity; digestive functions impaired; hiccup after meals; occasional fits of sneezing and sighing; great tenderness in the upper portion of the dorsal vertebræ; sensation of cold water running down the back; skin dry. Ordered, light and nourishing diet; nitro-hydrochloric acid bath 98° twice a week; back to be rubbed with a Turpentine liniment every night; to take two pills every evening, and a teaspoonful of the drops in \(\)x of chalybeate saline, the following day at 10 o'clock. R. Pulveris rhei; extracti aloes (Barbad.) aa. 3ss; extracti lactucæ 9ii. M. ut divide in pil. xxiv. B. Olei Terebinthinæ zii; tincturæ valerianæ compositæ ziss; extracti chiraytæ zi; aquæ flor-aurantii ziii. M. This patient was convalescent in about six weeks. The pain and tenderness in the back subsided in a short time after the rubefacient action of the liniment was developed.

INJURIES OCCURRING FROM BURNS OR SCALDS.

I have often seen these much benefited by the Terebinthinous unguents, or liniments, which I have recommended to be applied.

CASE XXXIX.

A young female was dreadfully scorched by the sudden ignition of some foul air, pent up in a water cistern. She had inadvertently placed a lighted candle on the edge of the cistern whilst she removed the lid—an instantaneous explosion followed this act. She was thrown down; and on examination, was found to be considerably burnt about the hands, face, neck, and right arm. The following liniment was applied to the denuded surfaces, and other appropriate treatment enjoined. Re Pulveris opii gr. viii; liquoris calcis \(\frac{1}{3}i \); olei Terebinthinæ \(\frac{1}{3}iv \); olei lini \(\frac{1}{3}ss \). M. ut fiat linimentum. She soon recovered from these injuries.

PERTUSSIS.

In the second and third stages of this affection, I have frequently found liniments of Turpentine, with opium, rubbed on the spine and chest, of considerable value in mitigating the severity of the paroxysms. The inhalation of the vapour has also appeared to me to exert a calming influence on the convulsive character of the cough.

CASE XL.

Master C., aged 4 years, a stout, healthy-looking child, was the subject of hooping-cough, in the spring of 1845. The paroxysms were extremely violent, and of frequent recurrence; as he had already lost two brothers by the same affection, the case caused considerable anxiety. I requested that he might be confined in a room, the tem-

64 CASE.

perature of which should not be less than 65° Fahr., by night as well as by day. To attain tranquillity of mind (a necessary item in the treatment of this malady), I desired that all scenes of excitement should be avoided; for I have known this to prolong the disorder, and even to be the cause of a fatal termination. A bath at 100°, containing half an ounce of the carbonate of potash to six gallons of water, was used three times a week; and the back and chest were rubbed every night with the following liniment. R. Olei Terebinthinæ parif. ziv; liquoris opii sedativi zij; olei succini ziss; linimenti saponis comp. ad ziss. M. The bowels were relieved by gentle laxatives, and the child was allowed to drink, ad libitum, of the following potion. Bicarbonate of potash, two drachms; extract of liquorice, half an ounce; honey, two ounces; boiling water, one quart. The effect of this treatment was very apparent in the altered and less suffocative character of the cough, which, after the first fortnight, rarely occasioned much uneasiness, except after a very long sleep. Change of air, with decoction of bark and small doses of Turpentine, and the occasional exhibition of the compound kino powder at bed-time, completed the cure.

I have recently witnessed very great improvement follow the immersion of the lower part of the body, as far as the chest, in an alkaline camphine bath. The proportion of camphine ought not to exceed, (for children under six years of age), from two to three drachms with three or four ounces of soda. The vapour of the bath, diffused through the sleeping apartment, and inhaled into the lungs, has seemed to have a very beneficial and tranquillizing tendency in this disorder. There can be no doubt also, that the absorption of the alkali, by rendering the pituitous secretion from the pulmonary organs less adhesive and tenacious, has contributed in no small degree to the relief obtained.

I have now concluded my remarks upon the medicinal properties of this drug. In the evidence which I have adduced, I have endeavoured to guard myself from an over-weening confidence in its virtues. In the treatment of any case, however simple, much must be left to the judgment of the practitioner under whose care it has come. Like many other medicines, Turpentine may fail in producing the effects desired, if all the circumstances which may modify its action be not duly taken into account; but, when judiciously administered, I believe it to be one of the most valuable remedial agents which we possess.



APPENDIX A.

It is astonishing how easily charlatanry, in all ages, has imposed upon mankind, and how readily the generality of mortals have subscribed to the merits of any particular medicine, so long as it has remained a secret. Once inform them of what it is composed, and then, as if by magic, confidence is lost in its utility. Such was the case with the liniment of St. John Long; a composition which in the hands of professional men has been found of considerable efficacy in the treatment of epidemic cholera, and pulmonary phthisis. Though modern practitioners may despise the farrago of ancient prescriptions, it is by no means certain that, in our aim to adopt simplicity, we may not be erring in the opposite extreme. I have known patients derive great benefit from mithridate, or the confection of Damocratis, the balsam of Locatelli, &c. which, like the famous Dutch drops, Whitehead's essence of Mustard, Chabert's Oil, "cum multis aliis", have each contained Turpentine in some form, and have no doubt been indebted to it for their medicinal virtues.

Dr. Fothergill was a great enemy to the Turpentines, as well as the Balsams; all of which he considered extremely injurious in pectoral disorders. His opinion was, no doubt, formed from the injudicious

manner in which they were prescribed. No medicine, be its virtues what they may, will ever be able to support its reputation for any long period, when recommended indiscriminately. Thus it has fared with Turpentine, colchicum, and many other valuable medicines: so it will also happen with cod liver oil; which will inevitably soon be consigned to oblivion, unless greater caution be adopted than is generally practised when any medicine obtains momentary favour. The injudicious exhibition of any drug, whether in heroic or homeopathic doses, has sooner or later brought it into disuse, if not contempt. He who prescribes any particular medicine, and expects that it will produce the same salutary changes in the human organism, at all times, and under all circumstances, disregarding the seasons of the year, the idiosyncrasies, age, or sex of the patient, the special or general cause of the malady, will surely be disappointed in the sequel At different periods of the year, medicines will act differently upon the animal economy. It not unfrequently happens, that cod-liver oil administered in the dogdays to a phthisical patient, will nauseate and disgust, if not positively injure him. The same medicine, given in winter or spring, will not only be easily retained on the stomach, but will sometimes prove of essential value.

My faith in the anti-phthisical properties of this drug is considerably diminished. I formerly prescribed it extensively in pulmonary consumption, and was pleased with the improvement which, in numerous instances, it induced in the condition of my patients. I have latterly had reason to deplore, that the amendment had not been so permanent as to justify my previous anticipations.

I have noticed, in some patients, whose phthisical symptoms had apparently been successfully combated by this remedy, that they have been suddenly cut off by pulmonary hæmorrhage, some two or three years after they had ceased taking the medicine, when all danger seemed to have passed away, and the improved looks, the increased weight, and the subsidence of all general phthisical symptoms, were sufficient to warrant the medical man, as well as the friends, in anticipating a very different termination. Though I regard cod-liver oil as a remedy, under certain limitations, capable of effecting a great deal, in some forms of tubercular disease, I believe that the cases in which its administration is likely to prove beneficial, are not as yet correctly ascertained; and, therefore our recommendation of it is, in some measure, empirical. Upon the accurate discrimination of the cases, in which its use is specially indicated, and the symptoms by which they are to be distinguished from others of a similar character, where it acts deleteriously, will mainly depend the future reputation of the drug. In some constitutions, and in some patients, it has induced a plethoric condition of the lungs, which has rapidly assumed a fatal aspect.

The following cases are illustrative of these views.

In the autumn of 1846, I was consulted by a young man, who had all the symptoms of incipient phthisis. On measuring the anteroposterior diameter of the chest with the callipers, I discovered a difference of three-eighths of an inch between the right side and the left, which latter was comparatively healthy. There was also considerable dulness, with masked respiration for about the space of three inches, around this portion of the chest. He had never had hæmoptysis. After a short preliminary treatment, he commenced a course of codliver oil, and took several gallons of this medicine. His appearance was greatly improved by it: he gained considerably in flesh, and was able, in a few months, to resume his ordinary avocations. The case, so far, presented a favourable aspect. About two years subsequent to this, while dressing for church, he was suddenly seized with profuse

hæmoptysis; the bleeding was restrained on the second day, but he sank from its effects on the following morning.

In the winter of 1846, my advice was asked about a patient who had exhibited manifest symptoms of pulmonary phthisis. The physical signs indicated considerable mischief in the upper lobe of the left lung. Conjoined with an appropriate regimen, cod-liver oil was prescribed.

This female, after some months, seemingly recovered; she regained her former healthy, ruddy looks, increased in flesh, and was able to undergo a great amount of fatigue, without any visible ill consequences. After enjoying this state of apparent security for upwards of two years, this patient was unexpectedly, and suddenly, cut off by pulmonary hæmorrhage.

APPENDIX B.

IT appears to me unphilosophical, as well as inconsistent, to prescribe the preparations of lead in a cachectic condition of the system. It cannot fail to re-act injuriously upon the animal economy; for, when the vital energies are already depressed to the lowest minimum, how is it possible that the vis medicatrix naturæ can restore a body thus additionally enfeebled! It is no argument in favor of lead, that because many other mineral preparations, in large doses, are known to exert a poisonous influence on the animal frame, they have, nevertheless, a benign and salutary effect when judiciously prescribed. Compare, for instance, the different results produced by mercury and by lead; the former increases all the secretions, and passes out of the system through the portals which it has unlocked. The tendency of the latter is to paralyse the nervous system, to suppress and fasten up the secretions, by which means it remains imprisoned in the body, and its deleterious action is kept up. I must say, I regard its administration in hæmoptysis, or tubercular consumption, with considerable dread. We may, it is true, arrest the hæmorrhage by its use, but nature may receive a shock from which she can never recover. With such valuable astringents as we possess, in the equally, if not more efficient preparations drawn from

the vegetable kingdom, viz:—Turpentine, gallic or tamnic acid, to say nothing of the mineral acids, alum, &c. it does appear to me somewhat inconsistent to consider lead (the most objectionable astringent), as our sheet-anchor, in the hæmorrhagic diathesis. Every medical practitioner, I presume, is well acquainted with the writings of Christison, Orfila, Taylor, Beck, &c.; it may seem, therefore, needless to insist further upon the injurious effects likely to result from the occasional exhibition of lead; but the following observations I consider so important, and have such an extensive bearing upon the well-being of society at large, that I cannot refrain from giving them publicity in this place.

There are numbers of patients continually presenting themselves to the notice of the medical man practising in large towns, whose symptoms are materially ameliorated by a removal to any rural locality, in which well-water alone is used for the ordinary purposes of life, and indeed, many such patients often derive similar benefit by a change from one house to another, even in the same town, where pump-water is used.

The following symptoms characterize this class of patients. There is a dull heavy expression of the countenance, which is often sallow and sickly looking; the lips are thick and dry, the gums have a purplish tint, recede from the teeth, which latter are often covered with a yellow slimy fur; the breath is generally offensive, the tongue tremulous, swollen and indented, mostly covered with a thick creamy coat, except at the tip, which is usually pale. The beating of the heart is feeble. The gait of such patients is sluggish; the bowels generally much constiputed; although there are occasional partial perspirations, the skin has a dry, cool feel, and often exhibits eruptions of different forms, which are extremely intractable, and difficult to cure. In general, all the se cretions appear to be considerably diminished in quantity; the alvine

evacuations are scanty, and strong cathartic medicines are usually necessary to effect daily action.

These patients rarely complain of any positive pain, or local uneasiness; they express themselves, as "being ill all over"; are obnoxious to palpitations, which they call nervous; have little appetite, and what they eat must be of the most relishing description. Such patients are to be found amongst all classes of society. Since I have seen them to improve by substituting rain-water, or boiled pump-water, for what they have been ordinarily accustomed to drink, I have been inclined to suspect, on pondering over these cases, that the cause of the malady is, in some way, connected with the gradual and daily introduction of some poisonous element into the system. The violet tinge, noticed on the gums of such patients, I consider a modified form of the blue line, which lead is known to produce, when taken medicinally, or otherwise, in doses sufficient to exert a decidedly poisonous effect.

I am, therefore, led to the belief, that the infinitesimal quantity of this mineral poison, which we are in the daily habit of taking in our ordinary beverage, may be the true cause of the preceding unpleasant train of symptoms. Nor is it surprising that such should be the case. How powerful must be the galvanic action constantly in operation through the union of the three metals, iron, lead, and copper, which form the principal conductors of water into our dwellings.

That lead is found in this fluid, and that galvanism exerts its influence on the metals, may be proved by a very simple experiment.

Under the receiver of an air pump, place a couple of glasses nearly filled with water, and another with a small portion of lime water; connect the two containing the water, with a strip of lead, to the one end of which is attached a piece of iron, to the other end a piece of copper. The copper and iron, with part of the lead to which they are fastened,

should be immersed in the water. On exhausting the air, the following phenomena will manifest themselves in from twenty-four to forty-eight hours. The lime water will be quite turbid from the evolution of carbonic acid gas; the iron will be oxidized, the copper a shade darker in colour, and the lead, in immediate contact with it, will be much blackened. A similar alteration in the appearance, though in a less degree, will show itself on that portion of the lead out of the water. There will be a deposit of carbonate of lead and sulphate of lead in the water, and crystals of the former will adhere to the edges of the glass, and be seen on the metal.

The Romans were certainly far advanced before us in some matters connected with the sanitary condition of the people. Though heathers, their practice, in many respects, evidently proved, that they considered the health of the inhabitants to constitute the true wealth of the state.

Water was conveyed to their dwellings, not through lead, but in earthenware tubes. It remained for a christian legislature to impose, and a christian people to submit to, that iniquitous imposition which now disgraces the annals of modern legislation.

Lead being mingled with the blood "which is the life", and light excluded from their dwellings, unless paid for at a heavy price, can we wonder to see the denizens of our opulent cities etiolated, enfeebled, and short-lived! It is distressing to see such evident disregard of the beneficent intentions of the omnipotent Ruler of the universe, who, without any reservation, has pronounced the fiat,—"Let there be light, and there was light." Though the croakings of medical men may be despised, and have little influence on the deliberations of our rulers, the poisonous effects of lead upon an ex-royal family, and also on the hounds belonging to a prince of the blood, are likely to produce that salutary change, which all the sanitary reformers have been hitherto unable to accomplish.

Independently of the poisonous property of the metal, the constant bursting of the pipes in our dwellings, together with the exhalations consequent thereupon, is a continual source of disease.

Notwithstanding the general healthiness of many of our first watering places, the servants, in such towns, suffer more from anæmia than domestics in less favoured localities. I consider this to arise from the circumstance, that during six months out of the twelve, the upper apartments being occupied by visitors, they are compelled to pass their nights, as well as days, underground; where, excluded from the light, and breathing an atmosphere tainted with humidity from the damp walls occasioned by the bursting of the water-pipes in frosty weather, they soon exchange the blooming countenance of health, for the pale wan looks of disease. Nor is this all, disease and crime go hand in hand.

Without expecting to realize any utopian ideas of seeing an elysium on earth, I am still convinced, from the history of the past, that disease may, in a great measure, be prevented, and consequently crime diminished, by judicious sanitary regulations. Two-thirds at least of those females, who are nightly to be found in the purlieus of debauchery, and to be seen nocturnally perambulating our streets, owe their degradation and misfortune, to physical weakness; it may be anæmia, it may be scrofula, which has rendered them more easy victims to the other sex. Here is a wide field open for the labours of the philanthropist who mourns the lot of his fellow-creatures; to the minister of religion, who is sincerely bent upon carrying out his divine Master's commands; and to the magistrate, who is more anxious to repress and prevent, than punish vice,—to aid the medical man in his efforts to improve the physical, and consequently the moral condition of his fellow-beings. Instead of spending thousands uselessly in attempting to renovate the thoroughly abandoned and

worthless, let us lay the axe to the root of the evil, and try to improve the health of the species, which will, in the end, be the most effectual preventive of misery and crime.

Turn to the ancient Germans; though rude and barbarous, no nation was more hospitable and chaste; and their honour was dearer to them than life. The body was nurtured in the principles of health, and consequently the mind was, in a great measure, fortified against the inroads of vice.

A very simple expedient would suffice to remedy some of the evils to which allusion has been made.

For the conveyance of water, I would make use of one metal only, viz. iron. I would dispense with all copper balls, leaden cisterns, &c. I would insist upon an uninterrupted supply of water to every house, which, ultimately, will be found the most economical, as well as most salubrious.

To carry out this arrangement, there should be an iron pipe of an inch and an half in diameter connected with the main in the street, and passing from the bottom of the building to the top. This should be so placed in the house, as to be protected from the sudden alternations of temperature in the external atmosphere; to this might be attached gutta percha tubing, through which water might be conveyed into every apartment or room in the dwelling or building. The main tap should be placed at the lower part of the pipe, where it enters the building, so that the option may be left to the inmates to turn off the water or not, during the night, or in frosty weather.

I need not enlarge upon the importance and advantage of this plan in the event of fire; every house would then have its own fire engine.

APPENDIX C.

In the treatment of pulmonary consumption, I have tried a variety of plans, with variable success. Sometimes one has appeared to answer, sometimes another. I do not believe that we shall ever obtain a specific for this disease. There are some forms of the malady in which medicated inhalations are specially indicated, and found to be of great advantage. There are others in which they are positively injurious, and do much mischief. The same may be said of anodynes, morphine, water hemlock, conium, hydrocianic acid, counter-irritation, te., which are often useful, but not unfrequently the reverse.

Issues, formed by galvanic agency, are a useful species of counter-irritation.

¹ Counter-irritation is, in various ways, relied upon in the prophylactic and subsequent treatment of pulmonary consumption.

It is by no means so harmless or so efficacious as is generally believed. I have frequently seen blisters, tartar emetic-ointment, &c., increase the general disturbance, and add to the anguish of the patient. On the other hand, I have known them to have a calming and beneficial tendency. Blisters ought never to be applied to a hot skin in any disorder. In hectic fever, they should be put on immediately after the hot stage has passed, whilst the skin is moist.

The preparations which produce vesication the most rapidly ought to be preferred. The acetum cantharidis is the best; by it a blister may be raised before the accession of the next paroxysm, and the distress and anguish from increased febrile suffering, will then be prevented, which a disregard of this rule is likely to entail.

I have given cod-liver oil, ling-liver oil, almond oil, olive oil, and linseed oil; and I have occasionally seen amendment follow the use of each, whilst I have as frequently deplored a contrary effect.

The use of animal fats in pulmonary consumption is by no means new. It was an old recommendation of Celsus to give mutton suet, boiled in milk, in this affection. In many parts of Yorkshire, at the present time, it is the custom to advise phthisical patients to eat freely

They are well borne, in some instances of this malady, as in case sixteen. The following is my mode of making them.

A piece of perforated zinc is fastened, or riveted to a piece of platinized silver, or what will do equally well, and which I generally use, a sixpence, shilling, or half-crown, according to the size required. The apparatus, thus prepared, is to be applied with the zinc surface next to the body, and the silver uppermost. this I place a piece of spongio-piline, previously moistened in salt and water, and retain the whole in close apposition to the skin by means of a few strips of adhesive plaster. At the expiration of every twelve hours, the battery should be removed and washed in salt and water, and then re-applied as before. At the end of twelve days, a deep white eschar is formed, from the action of the chloride of zinc. This may easily be detached, or allowed to slough out of itself, which generally happens about the fifteenth day, leaving a healthy-looking sore. By reversing the galvanic apparatus, that is, applying the silvered surface to the wound, it will be found to heal up quickly; or it may be made to keep up a continuous discharge, by introducing split peas into the opening, or by dressing, night and morning, with savine serate. Where, however, time is an object, and it is desirable quickly to induce counter-irritation, this may be easily and speedily effected, by first removing the cuticle, either by means of liquor ammonia fortissimus, or of acetum cantharidis, and then applying the battery to the denuded surface, and afterwards proceeding as in the former case. In this manner, the same effects are produced in from four to six days, as would require twelve days by the other method. If the latter plan be adopted, it is not uncommon for the patient to complain of a gnawing pain in the part, towards the evening of the third day, which, if not relieved, makes him restless and uncomfortable. A mild opiate, administered at bed time, has generally had the effect of soothing the irritation and preventing its future occurrence. For a more detailed account, see the London Medical Journal, or Mr. Donovan's paper on galvanism.

of boiled bacon; and, where the latter can be taken, and is found to agree, I have seen as great an alteration take place in the general appearance of the patient, as from any medicine I have ever prescribed.

If the opinion of that celebrated chemist Liebig, be correct, that empyreumatic oils, oil of Turpentine, &c., have the power of preventing eremacausis, or decay of animal substances, the exhibition of a larger amount of aliment, containing carbon, will, no doubt, have a tendency to prevent the emaciation so general in consumptive patients, and consequently preserve their general appearance. They may not possess, however, any medicinal virtue, either in arresting the tubercular deposit, or in retarding the fatal progress of the disorder. I am convinced, from autopsies which I have inspected, and from others, which, like the case of Sir Astley Cooper, I have perused in the Medical Journals, that pulmonary consumption is a disease (its primary cause being properly understood), equally as amenable to treatment as any other chronic malady with which the medical practitioner has to contend. The reason, therefore, why we are usually so unsuccessful in our curative efforts, in this disorder, arises, I am inclined to think, in a great measure, from regarding the pulmonary lesion as the principal and primary cause of the affection, and directing all our curative measures to the local manifestation of mischief, which is found in the pulmonary tissue.

A patient, suspected of consumption, is at once placed under that system of treatment, which is usually regarded by the profession at large, for the time being, as most suitable for this malady; little attention being often paid to the primary cause, which may have induced tubercular cachexia, and whose removal will often suffice for the complete eradication of the disorder.

There is one suggestion I would venture to offer, (with diffidence I

submit it), that in order to obtain more accurate information touching the nature of the affection, and its special causes, small consumptive hospitals should be established, more especially in our watering places, for the reception of all classes of patients, suffering from consumption.

These hospitals, or institutions, ought not to contain more than twenty or thirty beds. To each establishment should be attached two medical men, who should hold the office only for five years, with a fair remunerative salary. They should be appointed, after undergoing a special examination instituted for that purpose. These establishments I would divide into two distinct classes: the one for the rich, the other for the poor.¹ The former should be required to pay according to the attendance and accommodation which they received. The surplus profits, after deducting a liberal allowance for the medical attendants, I would devote to the maintenance of a similar institution for the poor; the medical men attached to which should be paid in the same proportion,

¹ A similar method ought to be adopted with regard to establishments for lunatics. Private asylums should be abolished in toto. If the report of recent investigations can be trusted, these have occasioned more ill will to and suspicion of the medical profession, than all their good acts and works of mercy have been able to remove.

If men could take their property with them when they die, the state would be a little more anxious about the welfare of their bodies. Whilst the property of the lunatic is specially cared for by the Lord Chancellor, his body may be racking in unseen torture, without redress, from the treatment he is receiving in a private lunatic asylum. All the inducement to make gain out of these poor creatures, ought at once to be interdicted by the law of the land. Every man declared, on competent authority, to be a lunatic, should at once be consigned to the custody of officers of the state appointed for that purpose. Separate establishments should be erected for the rich and the poor. The profits accruing from the former, to be devoted to the support of the latter.

Privacy might be maintained, as at present, by allowing none but the officers, or those immediately connected with the patient, to visit the apartments or wards of these establishments.

and at the same rate, as those connected with the establishment for the rich. I would then have all the patients so classified, that reference could at once be made to the occupation and previous mode of life of the individual, &c., from which information might hereafter be deduced respecting the probable cause of the malady, and more systematic means devised for its prevention. That the treatment might be conducted upon correct principles, notes and observations ought to be made upon every case, Where any medicine, or regimen, was found to agree, the same should be tried in analogous cases in other institutions; so that by the joint co-operation of all the medical men attached to these establishments, the different varieties of phthisis might be more accurately discriminated, and the treatment most appropriate to each more definitely laid down.

I have not a shadow of a doubt, in my own mind, that there are several forms of pulmonary consumption, each of which requires a different line of treatment, both medicinally and dietetically. All these varieties are too frequently regarded as mere modifications of the same disorder, and subjected to the same method of cure.

APPENDIX D.

DISEASES of the heart, from our improved method of diagnosis, are now discovered to be extremely common.

When first they were detected, the knowledge that the heart, the principal organ of the sanguiferous system, was the seat of inflammation, ossification, hypertrophy, or atrophy, foreboded all manner of ills, if not sudden death to the afflicted sufferer. Fortunately we have now entered the dawn of better days, and the intelligence that the patient has a heart affection, need not sound like ringing the death knell, and be received as a delicate hint to prepare for a final and speedy change.

Though heart-diseases may occasionally have a sudden termination, it must be borne in mind that, in the majority of these cases, the brain, the lungs, or the liver, have been frequently seriously damaged. A great proportion of patients, after the age of fifty, usually termed nervous, suffer from one form of heart-disease, or another, yet such patients may, and often do, attain the good old age of three score years and ten, if not four score, and die from other causes than those affecting the principal organ in the circulating system.

Whilst gouty and rheumatic patients are specially prone to pericarditis and endocarditis, and consequently, after a second attack, rarely escape some permanent lesion affecting the heart; still gouty patients, notwithstanding their dyspeptic condition which so frequently exasperates the heart affection, manage, on the whole, to spin out their years to a goodly term. Of all the forms of disease of the heart, I am inclined to regard the effects of pericarditis and endocarditis, adhesion of the pericardium, and valvular disease, as the least likely to shorten life, though they frequently interfere seriously with the individual's comfort; and dilatation, and hypertrophy with dilatation, and softening, as amongst the most dangerous and formidable.

Ossification of the coronary arteries, like hypertrophy, is a provision of nature to enable the heart to perform its functions in a diseased condition of the system; though angina pectoris may occasionally accompany the one, and apoplexy result from the other, yet both these lesions of the heart may exist without creating any very serious or unpleasant disturbance. I do not know whether the coincidence has been remarked by any other author, but I have never met with a case of rupture in an adult, in which I have not detected some morbid alteration in the structure of the heart.

My observations would induce me to consider the former state consequent on the latter.

APPENDIX E.

I have now made trial of unfermented bread, in various chronic maladies, for upwards of eight years.

I am convinced of its superiority over the ordinary fermented bread, both in health and disease; and I am satisfied it would have been, ere this, in general consumption, had not the cupidity of the druggists, in their exorbitant charges for the alkalies and acids, disgusted the public. One individual actually charged a patient of mine 2s. 8d. a pound for the sesqui-carbonate of soda, and 2s. a pound for hydrochloric acid, the former of which is worth about three pence, and the latter two pence.

About seven years ago I published in the local papers in Yorkshire the following method of making this bread.

Take 5 lbs. of flour.

- $\frac{1}{2}$ oz. (Apothecaries' weight) of sesqui-carbonate of soda.
- ½ drachm of sesqui-carbonate of ammonia.
- $4\ \mathrm{drachms}$ or tea-spoonfuls of salt.

Mix these intimately together, and then add the following solution:-

- 50 oz. or $2\frac{1}{2}$ pints imperial of cold water.
 - 5 drachms of hydrochloric acid.

Immediately on adding the acid solution to the flour and alkaline

ingredients, the whole mass must be thoroughly mixed, by constantly stirring with a strong wooden spoon, until the dough has assumed a proper consistence, when it is to be put into proper baking utensils and placed in a very hot oven.

The cautions requisite in making this kind of bread are—

- 1. To mix the soda, ammonia, and salt, intimately with the flour, and the water with the acid. The acidulous mixture is then to be added to the flour, &c., and the whole quickly incorporated. Should any portion of the soda escape the action of the acid, it will cause a yellow spot in the bread. This is not of much moment, being more offensive to the eye than prejudicial.
- 2. The acid should be of the strength ordered by the pharmacopæia: specific gravity, 1-16; 100 grains of which ought to saturate 132 grains of the crystals of carbonate of soda.
- 3. Unfermented bread requires longer time to bake, and a hotter oven than bread made with yeast.
- 4. No kneading is required in making bread by this process, and the quicker it is transferred from the mixing bowl to the oven the lighter will be the bread. By standing the gas escapes, and the bread becomes doughy and sad; it cannot, therefore, be too quickly heated.
- 5. The water to be employed should be as cold as possible. Distilled water, or water which has been previously boiled, ought always to be used, when the bread is intended for invalids.
- 6. It is better not to mix a larger quantity than 51bs. of flour at one time.

This bread is easily made, requires little labour, no kneading, or time for the dough to rise. It costs a trifle more (say 1d. per stone), than bread made with yeast, but has the advantage of keeping longer without becoming mouldy or sour, and is entirely free from any bitter or unpleasant taste, which not unfrequently occurs in bread made according to the ordinary method.

Its dietetic properties are, however, of the utmost importance. Bread which has undergone the panary fermentation is exceedingly liable, in weak stomachs, to turn sour and produce heartburn and flatulency, thus deranging, and in some measure destroying, the perfect assimilation of nutritive aliments. But bread made by the unfermented process is free from these baneful effects. Its daily use in health prevents these symptoms, and it is capable in many instances of correcting that morbid condition of the stomach and intestines on which these symptoms depend. It is also extremely beneficial in assisting to restore the biliary but more especially the renal secretions to a healthy condition, as well as in the treatment of various cutaneous eruptions originating in disorder of the digestive functions.

To remove any doubts which might naturally arise respecting the employment of ingredients so corrosive and powerful as hydrochloric acid in one of our principal articles of diet, the following explanation will probably suffice. When leaven, or yeast, is combined with flour and water, fermentation takes place, the sugar of the wheat is decomposed, whereby carbonic acid gas, acetic acid and alcohol are evolved. The latter is dissipated in the oven, but the tenacity of the dough prevents the escape of the gas, which inflating its substance produces the honeycomb appearance, or the eyes, as they are generally termed, of the bread, and on which depend its lightness and porosity. Now if the same results, viz., sponginess and lightness, can be obtained without the decomposition of any of the constituents of the flour, especially a nutritive one like sugar or starch, it follows that bread made on this principle must be more wholesome and nutritious than that made by the aid of fermentation.

In order to accomplish this object, of rendering bread light and spongy without the aid of fermentation, numerous experiments have been Dr. Whiting was, I believe, amongst the first who Since then Mr. succeeded; he took out a patent for his plan in 1836. Deane, pharmaceutical chemist, Clapham Common, Dr. Pereira, and The same others, have been engaged in investigating the subject. principle, however, pervades the whole, viz., to cause the disengagement of carbonic acid gas during the process of panification, in order to give lightness to the bread, by the chemical union of such substances as shall accomplish that object without vitiating or destroying the quality of the This object is effected by synbread, or rendering it unpalatable. thetically producing common salt in the dough whilst baking, by the admixture of hydro-chloric acid with sesqui-carbonate of soda, whereby carbonic acid gas, water, and chloride of sodium, or common salt, are formed.

The salt produced in this manner is not sufficient to flavour the bread, therefore an additional quantity is ordered. This, however, must in some measure be regulated by individual taste.

I have repeatedly tried the different formulæ for making unfermented bread, and have satisfied myself from numerous experiments, that the one I now recommend will be found to answer every purpose in producing a cheap, palatable, and wholesome article of diet. And so convinced am I of its superiority over fermented bread as food for children, as well as healthy adults, that I have banished every other kind from my table.

APPENDIX F.

Since the first part of this was in type, I have received several communications from medical men, expressive of their high opinion of the terebinthinate medicines. The following is an important one, as embracing many of the subjects discussed in the previous pages;—

" Hull, 13 April, 1850.

"Dear Sir,—Your letters to —— have both been placed in my hands by those gentlemen; and I beg truly to apologize for the inadvertency which has caused this long delay in my reply to you. Neither Mr. —— nor Mr. —— could give me any specific information respecting the non-liability to pulmonic disease in their men; but both said that they did not call to mind any case of consumption having occurred, nor were the men afflicted with asthma, or any affection of the lungs. If they burnt, or hurt themselves, they always rubbed the parts with camphine.

"I am well pleased at your taking up this subject; for, in truth, it had often presented itself to my own mind. Having used camphine very extensively internally, so that, at our infirmary, I have an official recipe (mistura camphinæ), I found it especially beneficial in morbid

irritation of the stomach, and efficacious, when prussic acid, laudanum, and bismuth, have wholly failed in relieving pain. In diarrhea, I consider it a specific, and have never known it fail to arrest Asiatic Cholera in the premonitory stage of diarrhea. This was so striking a fact, that, in the hurry and alarm of Cholera at Hull last autumn, when there were no Cholera dispensaries open, and the poor then resorted in numbers to the druggists, I thought it a public duty to make a recipe known, consisting of camphine, which was afterwards given in many hundreds, or rather thousands, of cases. Its efficacy was so decided, that most of our steamers and other vessels took a supply of this medicine with them. It was also kept at many of our large mercantile establishments, where many labourers were employed. But I need not enlarge on this point further; its sure efficacy was acknowledged by all who used it. Most of the inhabitants had the recipe or the medicine by them in case of need.

"I have found it of decided advantage in amenorrhoa, and a valuable remedy in some cases of asthma. In fact, it has a powerful action on the mucous membranes. I have not used it in phthisis. I have found it very efficacious also in dysentery, after the inflammatory stage; the dose I used was from five to eight minims; generally the latter, suspending it with tragacanth, and covering its flavour with a drop of the oleum menthæ or oleum limonis, and often conjoining with it from five to ten drops of laudanum. I need not say that I shall watch with interest your observations on this very valuable remedy.

" I am, dear Sir,

" Yours faithfully,

"F. R. HORNER."

Senior Physician to the Hull Infirmary and Dispensary.

APPENDIX G.

When the kidneys are sound, and we are anxious to increase the secreting power of these emunctories, to rid the system of any morbid accumulation, whether it be lithic acid, dropsical effusions, or tuberculous matter, ¹ the best diuretics are decoctions or infusions of broom, or juniper berries, either alone or in combination with oil of Turpentine, acetate of potash, tincture of digitalis, squills, &c.

It appears to be a useless practice to prescribe these infusions in the form of a mixture, and I generally recommend my patients to procure such medicines themselves, and make their own decoctions. By flavouring them with syrup of orange peel, they may be drunk as their ordinary beverage. Thus a pint or a pint and a half of the simple infusion, may be consumed daily with manifest advantage.

An ounce of broom tops, or half an ounce of juniper berries, to a quart of water, is the proportion I generally advise.

¹ Most of the medicines which have been deemed valuable in the treatment of pulmonary consumption, have usually belonged to the class of diuretics. So long as the kidneys remain intact, the condition of the patient is hopeful; but disease once attacking these organs, whatever form it may take, if it result in structural change, renders a fatal doom inevitable. From this I infer, that nature points to these emunctories as the organs through which tubercular matter is to be eliminated.

APPENDIX H.

I have known patients suffering from hepatic disease derive great benefit from dandelion beer. The following is my receipt for making it. To a quarter of a bushel of malt, thirty pounds of bruised dandelion roots, three-quarters of a pound of hops, add nine gallons of filtered rain water. Brew in the usual way; and when the liquor has done working, put it into a barrel when cool. In three days add a few more hops, and bung up. Let it stand in a cool place. It should be bottled at the end of six weeks.

This beer possesses purgative, diuretic, and tonic properties. Its purgative action may be increased by substituting for half the quantity of the rain water, an equal quantity of aperient saline, such as those of Cheltenham or Leamington. Its diuretic power may be augmented by adding a wine glass full of the Cheltenham saline, to a pint of the beer. Professor Simon has shown, that very minute doses of the mineral waters, in which the saline matter is less than the amount of salts in the blood, speedily promote a copious flow of urine.

Gouty patients are often much improved by taking small doses of mineral waters diluted with four or six times their bulk of rain, or distilled water.

ADDITIONAL OBSERVATIONS.

MINERAL WATERS.

I HAVE made frequent allusions to the mineral waters.

It is much to be regretted that medical men are in the habit of sending patients to foreign countries, in the pursuit of health, when our watering places offer advantages, in domestic comfort, which must, in many instances, counterbalance any benefit which the mineral spas of the continent are supposed to possess over those of our native land. I am certain, from what I have seen both at Harrowgate and Cheltenham, that these chemical compounds, obtained from nature's laboratory, are capable of effecting salutary changes in many very serious maladies. I have seen our chalybeate preparations extremely useful in that form of pulmonary consumption in which anæmia is a prominent symptom. In the lithic diathesis, and in gout, their diuretic action has been attended with every improvement which I could desire.

Gouty patients, in general, do not bear the exhibition of saline purgatives well; it is, therefore, of the utmost importance, in these cases, to warn them against resorting to purgative doses of mineral salines.

When the bowels are sluggish, or aperients are needed, warm muscular laxatives are more suited to their case.

By attending to the preceding observations, I have known the lithic

acid entirely disappear from the system, and the gouty symptoms completely subside. With rheumatic patients, on the other hand, purgative doses of the salines are found to be beneficial. In these cases, the lactic acid has a tendency to pass out of the system through the skin. By increasing the watery alvine secretions, we are often enabled to remedy this abnormal state.

HOOPING COUGH.

If there be one class of diseases, more than another, which ought to teach us the great importance of studying each case by itself, and paying every attention to the modifying circumstances of season, temperature and age, it is certainly those disorders which are generally termed epidemic. Routine practice, and servile imitation, will never enable us successfully to combat with affections of this character. No disease can possibly demand an essentially different mode of treatment, more than one epidemic of the same disorder, may from that of another.

In the present epidemic of hooping-cough, I have found alum and conium of little avail, whilst tartar-emetic, prussic acid, belladonna, leeches, and Turpentine frictions, have been productive of considerable advantage.

I have frequently predicted the insidious approach of both pneumonia and bronchitis, during the course of hooping-cough, before any conclusions could be drawn from the physical signs, by observing the altered character of the renal secretion. This is diminished in quantity and muddy looking, without deposit, very different from the clear pale urine of uncomplicated hooping-cough. The duration of these cases in an aggravated form is generally about three weeks; and they usually assume an intermittent type. The urine daily becomes less and less until not more than §iii to §iv are passed in the twenty-four hours.

It varies in colour; sometimes it is of a deep red, at others, has a palish sediment, with a greasy looking pellicle; its specific gravity is high; rarely under 1-030. It has an acid reaction, and coagulates on the addition of nitric or acetic acid; this coagulum is immediately redissolved by heat. The bowels are constipated, the tongue covered with a yellowish fur, red and often dry at the tip. There is anorexia with a great feeling of thirst; but the child rarely drinks any quantity of fluid, moistening only his lips. The skin is dry and harsh. Towards evening it becomes burning hot. In the middle of the night partial perspirations occur about the head and joints: but the abdomen conveys a painful sensation of heat to the hand. Emaciation rapidly ensues. The respiration is extremely quick, sometimes 60 in a minute, and the pulse sharp and full, 120 to 140. lips are livid and dry. There is constant moaning, during sleep, but when awake, the intellect appears clear and collected, notwithstanding the diminished secretion of urine.

Diuretics are positively injurious in this affection; warm-baths every other night, or flannels wrung out of hot water, applied to the loins, are often of service. The daily action of the bowels must be encouraged by laxatives. Depletion requires caution. Tartar emetic, in doses of one-sixteenth to a quarter of a grain, is the most effectual remedy I have met with. It must be perseveringly administered; and, after a while, the urine will gradually increase in quantity, and appear cloudy, the harbinger of a speedy restoration.

LOCAL BLEEDING BY LEECHES.

It is an important rule to avoid wearying either a child or an adult, suffering from any serious malady, by encouraging the oozing of blood from leech-bites. I admire the advice of Dr. Marshall Hall, where

general depletion is requisite, to order the patient to look up to the ceiling, so that fainting may be induced with the least possible expenditure of the vital fluid. We ought to be regulated by the same principle in the local abstraction of blood, especially in infants. With two leeches I can, by the following process, take as much blood in less than one quarter of the time, from either a child or an adult, than ten or twelve would remove in the ordinary way. I can also calculate the amount of blood I wish to be extracted, an important consideration.

When the leeches have fallen off, I use a wine-glass, if it be a child, or a tumbler-glass, if it be an adult, containing a little spirits of wine. Having set fire to the spirit, to exhaust the air, I immediately place the glass over the leech-bites. This process may be repeated until the proper quantity of blood has been obtained.

THE END.

LONDON: RICHARDS, 100, ST. MARTIN'S LANE.

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Schleiden's Botany, by Dr. Lankester 12	Medicine 7
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Esdaile On Mesmerism in India	the Body 10 On the Use of the Body in re-
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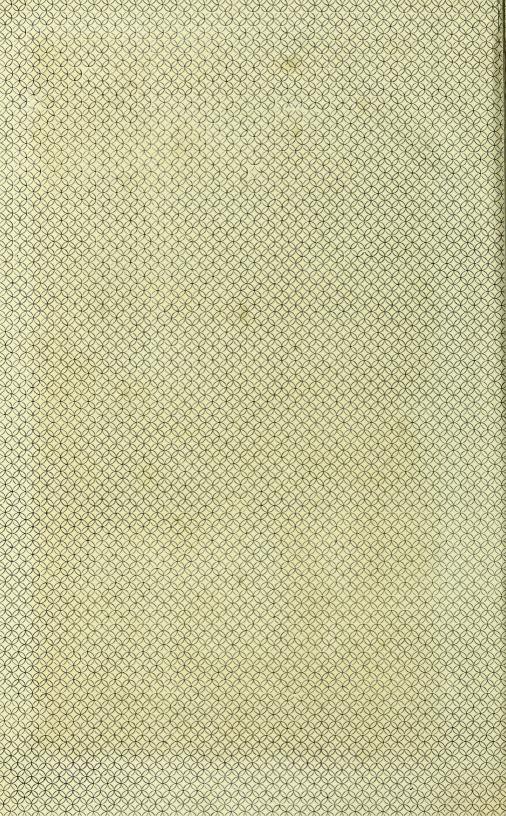
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