

Psychotherapeutics, or, Treatment by hypnotism and suggestion / by C. Lloyd Tuckey.

Contributors

Tuckey, C. Lloyd

Publication/Creation

London : Ballière, Tindall and Cox, 1890.

Persistent URL

<https://wellcomecollection.org/works/ujjg7tgx>

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

PSYCHO-THERAPEUTICS

TUCKEY

M19140

EX BIBLIOTHECA



CAR. I. TABORIS.



22101832754





Digitized by the Internet Archive
in 2014

<https://archive.org/details/b20408031>

PSYCHO-THERAPEUTICS;

OR,

TREATMENT BY HYPNOTISM AND SUGGESTION.

BY

C. LLOYD TUCKEY, M.D.

Second Edition, Revised and Enlarged.



LONDON :
BAILLIÈRE, TINDALL, AND COX,

20 & 21, KING WILLIAM STREET, STRAND.

1890.

0399

17519875

119140

WELLCOME INSTITUTE LIBRARY	
Coll.	we!MOmec
Call	
No.	W/M 415
	1890
	T 89 p

Asper Hickman

TO
DR. LIÉBEAULT,
OF NANCY,
IN ADMIRATION OF HIS GENIUS,
THIS SMALL BOOK
IS
Gratefully Dedicated.

1891

PREFACE TO THE SECOND EDITION.

IN bringing before the profession a second edition of 'Psycho-Therapeutics,' I must thank my critics for the kindly manner in which they received the book a few months ago. It professed merely to be an introduction to the subject, and it seems to have fairly well fulfilled its purpose.

The present edition, while claiming only the modest position of its predecessor, is considerably enlarged, and contains additional chapters on the physiology and psychology of hypnotism, on simulation, and on my personal experience, which will, I hope, render it a useful handbook for practitioners who have not the time to devote to more elaborate and systematic works.

Dr. William Habgood has kindly assisted me by revising the proofs.

C. L. T.

January, 1890.

THE HISTORY OF THE CITY OF BOSTON

The city of Boston, situated on a neck of land between the harbor and the bay, has been the seat of government since the first settlement. It was founded in 1630 by a group of Puritan settlers, and has since grown into one of the most important cities in the United States. The city is known for its rich history, its beautiful harbor, and its many famous landmarks. It has been the site of many important events, including the Boston Tea Party and the signing of the Declaration of Independence. The city is also home to many famous people, including John F. Kennedy and Martin Luther King Jr. The city's history is a testament to the resilience and spirit of the American people.

PREFACE.

IN bringing forward this little book on Treatment by Suggestion, I feel that, though I must crave indulgence for the shortcomings of the writer, no apology is necessary for introducing so important a subject.

The Nancy treatment has during the last few years attracted so much interest among men of science and members of the medical profession on the Continent, that it seems strange the knowledge of it in this country is almost entirely theoretical. The system of psycho-therapeutics has so far attained its fullest development in Holland, where in every large town it is followed by at least one well-qualified practitioner; while in Germany, Russia, Sweden, and indeed every European country, its position is secured by the support of leading physicians, and by the success attending their practice. In every country, I believe, the introduction of the system was at first opposed by persons who feared the popularization of so potent an agent; but as the beneficial results of the treatment became manifest opposition decreased, and has now almost died out. This is doubtless due chiefly to the fact that the treatment has not been allowed to fall into the hands of ignorant and unqualified practitioners, but has been accepted by men of high character and professional repute. The dangers of hypnotism have been proved chimerical; in proper hands no undesirable medical results can occur through its practice, and there is, I believe, hardly one authenticated case of its being used for a criminal purpose in the countries where it is

most frequently employed by medical men. More than this can hardly be said for any system of medical treatment.

But while maintaining that hypnotism has been very little used for criminal purposes, we should be foolish to blink the fact that it *might* conceivably, under certain circumstances, be a dangerous weapon in unprincipled hands, and that its injudicious use *might* lead to physical and mental ills; but such evil results are in a very great measure preventible. Wherever hypnotism has been largely adopted as a valuable aid in the treatment of disease, its importance has been formally recognised, and its employment by charlatans, either as a toy at public exhibitions, or in unauthorized medical practice, has been prohibited by law.

Medical electricity is only now emerging from the limbo of quackery, because for years the medical profession allowed it to be exploited by 'professors,' who used it as a universal remedy in all cases, suitable and unsuitable. The Nancy system has been successful on the Continent because it is practised there by qualified physicians and surgeons, whose knowledge and experience has taught them where the treatment would be likely to succeed, and where it would prove ineffectual. I here advocate its use not as a universal remedy or as a supplanter of ordinary medical treatment, but as a powerful auxiliary in combating many forms of disease not readily reached by other means.

My best thanks are due to Dr. Donald Baynes for his kindness in correcting proofs.

C. L. T.

GREEN STREET,
GROSVENOR SQUARE,
Jan. 1st, 1889.

CONTENTS.

CHAPTER I.

INTRODUCTION.

	PAGE
History and Bibliography of Psycho-Therapeutics	13

CHAPTER II.

Examples showing the Power of the Mind over the Body.— Anæsthesia produced by the Imagination without Chloro- form.—Cures effected by the Imagination and by Mental Emotions.—Illness and Functional Disorders induced by Morbid Direction of Thought.—Organic Changes possible from the same Cause.—Illness, and perhaps Death, caused by Suggestion of Symptoms.—Auto-Suggestion.—Simulated Death.—Cures at Shrines and Holy Places.—Touching for King's Evil.—Modern Instance of Efficacy of Royal Touch	17
---	----

CHAPTER III.

Power of Mind and Body increased by Concentration of Atten- tion and Energy.—Suppression of one Faculty tends to increase the Development of others.—Concentration of Mind on one Idea in Somnambulism, and Performance of Tasks impossible when awake.—Some Tragical Results of Natural Somnambulism.—Artificial or Hypnotic Somnambulism may be turned to Therapeutic Purposes.—Natural Sleep may pass into Hypnotic Sleep and <i>vice versâ</i> .—The Faculties may be aroused and intensified in Hypnotic Somnambulism	31
--	----

CHAPTER IV.

Dr. Liébeault of Nancy.—Description of his Treatment.—System free from Mysticism.—Curative Suggestions.—Explanation of the Phenomena.—Definition of Hypnotism.—Absolute Sleep or Unconsciousness unnecessary for Curative Treatment.—Theory of Professor Charcot not accepted by the School of Nancy.—Proportion of Persons hypnotizable and Degrees of Hypnotic Influence.—Phenomena of Somnambulism outside the Sphere of Psycho-Therapeutics	PAGE 40
---	------------

CHAPTER V.

Psycho-Therapeutics not an exclusive System of Treatment.—Some Diseases found to benefit from it.—Organic Processes affected by Hypnotic Suggestion.—Blisters and <i>Stigmata</i> so caused.—Treatment especially useful in Neurotic Diseases.—Hysteria, Hypochondriasis, Dipsomania, and the Opium Habit.—Moral Depravity.—Double Consciousness.—Permanence of Cures.—Hypnotism distinct from Magnetism. Possible abuse of Hypnotism not a Bar to its Use in Medical Treatment.—Restrictions and Precautions necessary	53
---	----

CHAPTER VI.

Some Points in the Physiology and Psychology of Hypnotism.—Authorities and their Theories.—Expectant Attention, Suggestion, and Inhibition.—Induction of Functional Aphasia, and what it teaches.—Exaggeration or Suppression of certain Senses and Functions in the Hypnotic State.—Automatism in Hypnotism and in Pathological State.—Amnesia.—Hypnotism compared with the Action of Poisons.—The Double Brain, its Single Action in Health and possible Dual Action in Disease and in the Hypnotic State.—Cases illustrating this.—The Induction of Automatism without Hypnotism	86
---	----

CHAPTER VII.

	PAGE
Reality of Hypnotic Phenomena.—Simulation Tests.—Practical Directions for Medical Hypnotism.—Absence of Personal Element in the Nancy Treatment.—Method of Fascination.—Voisin's success in Lunacy.—Forel's Opinion of the Treatment.—Hypnotism best applied by the Family Physician.—Some diseased Conditions benefited by Hypnotism.—Medical Education essential for its successful Practice.—Aids to Hypnotism - - - - -	101

CHAPTER VIII.

Part I.—Some cases successfully treated by Hypnotism and Suggestion by Foreign Authors : 1. Aggravated Hysteria ; 2. Hysterical Aphonia ; 3. Chorea ; 4. Hysteria ; 5. Pseudo-paralysis ; 6. Writer's Cramp ; 7. Rheumatism ; 8. Articular Rheumatism ; 9. Neuralgia of Fifth Nerve ; 10. Sciatica ; 11. Nocturnal Enuresis ; 12. Amenorrhœa ; 13. Menorrhagia ; 14. Partial Hemiplegia ; 15. Hypochondriasis ; 16. Puerperal Mania ; 17. Hysteria and the Chloral Habit ; 18. Moral Depravity ; 19. Neuralgia and Hemiplegia ; 20. Headache and Dyspepsia ; 21. Chronic Alcoholism ; 22. Neurasthenia and Deficiency of Saliva ; 23. Confinement ; 24. Loss of Speech for Eight Years - - -	120
Part II.—Some cases treated by the Author : 1. Insomnia ; 2. Neurasthenia ; 3. Writer's Cramp ; 4. Tabes Dorsalis ; 5. Torticollis ; 6. Traumatic Headache ; 7. Chronic Diarrhœa ; 8. Paroxysmal Sneezing ; 9. Chronic Constipation ; 10. Supra-orbital Neuralgia ; 11. Spinal Irritation ; 12. Functional Heart-trouble ; 13. Symptoms dependent on Organic Heart Disease ; 14. Enuresis Nocturna ; 15. Gouty Sciatica ; 16. Chronic Rheumatism ; 17. Nervous Dyspepsia ; 18. Amenorrhœa ; 19. Functional Dysmenorrhœa ; 20. Post-Parturition Troubles ; 21. Dipsomania ; 22. Moral Case ; 23. Incipient Melancholia - - - - -	142
Appendix: Notes.—Dr. Yung's Experiment with 'Magnetized Cards.'—James Braid of Manchester.—Duration of Hypnotic	

	PAGE
Sleep.—Dr. Luys' Rotating Mirror, and Dr. Ochorowicz's Hypnoscope.—Theory of Professor Delbœuf.—Some Phenomena of Hypnotic Somnambulism.—Dr. Liébeault's Classification of Hypnotic Sleep.—Dr. Grazzini's Case of Somnambulism.—Method of Public Performers.—Resolutions adopted at the Paris Congress.—International Statistics of Hypnotism.—Experiments in Auto-Suggestion. Hypnotization of Animals.—Hypnotism and Thought Transference.—Christian Science Healing - - -	162

ERRATA.

Page 14, line 30, *for* 'Schrenck-Notzing, of Leipsic,' *read* 'of Munich.'

Page 77, the reference in foot-note is to page 50.

Page 89, in diagram, the line from G. S. to I. D. should be a dotted one.

Page 139, line 20, *for* 'sphinctus' *read* 'sphincters.'

Page 160, line 27, *for* 'habitude' *read* 'hebetude.'

Page 162, line 4 from bottom, *for* '*privat docet*' *read* '*privat docent*.'

TREATMENT BY SUGGESTION.



CHAPTER I.

INTRODUCTION.

IT is desirable to clearly set forth the genesis of *psychotherapeutics*, lest, as sometimes happens, unassuming merit be deprived even of the honour of discovery, and other claims arise to obscure those of the real founders of the system.

Perhaps the most unfounded claim is that of the magnetizers, who assert that they have kept the subject before the public by their experiments and entertainments. This contention is easily answered, for, in the first place, the method practised by Dr. Liébeault, and described in these pages, differs in nearly every respect from that employed by such persons; and secondly, their performances have never done anything else but degrade this branch of medical science, and turn the medical profession against it. Their method is unchanged since the beginning of the century, and they have hardly even added a new trick to their stock-in-trade.

So low had the estimate of the scientific value of induced-sleep fallen, that in 1874 the French medical dictionaries threw doubts on its existence, except as a pathological curiosity, and the English encyclopædists followed much the same line.

Since the year 1875—when Dr. Charles Richet

began to write on the subject of hypnotism—there has been no lack of scientific investigators on the Continent. Among the most distinguished of these are Charcot in Paris, and Heidenhain at Breslau, and they have demonstrated beyond the possibility of doubt the genuineness of the phenomena of induced somnambulism. But long ere this—in 1860—Dr. Liébeault had opened his public dispensary at Nancy, and had elaborated his system, which he caused to be known as *Treatment by Suggestion*.

In 1866 he published a book on the subject, in which he gave to the world a full description of the means used by him, and an account of cases successfully treated.* But little notice was taken of it at the time, and even in Nancy, where Dr. Liébeault lived a retired life, devoted to the poor among whom he practised, he was regarded as, at the best, an amiable but mistaken enthusiast. In 1882, Professor Bernheim, of the Faculty of Medicine at Nancy, began to investigate the system, quite as a sceptic, so he tells us, and, being soon convinced of its value, introduced it into his hospital *clinique*. In 1884 he brought out his classical work on suggestion.†

Dr. Bernheim was well known in the medical world, and his book attracted general attention on the Continent. His example was soon followed by other physicians and writers of eminence, among them Professors Beaunis‡ and Liégeois,§ of Nancy, Delbœuf,|| of Liège, Burot and Bourru, of Rochefort, Fontain and Sigard, of Bordeaux,¶ Forel, of Zurich, and Drs. Despine, of Marseilles, Van Renterghem and Van Eeden, of Amsterdam, Wetterstrand, of Stockholm, Schrenck-Notzing, of Leipsic, etc. The literature of the subject published in French alone during the last five years would make a fair-sized library; and

* 'Du Sommeil et des Etats Analogues, considérés surtout au point de vue de l'action du Morale sur le Physique,' Paris, 1866.

† 'De la Suggestion, et de ses Applications à la Thérapeutique,' Paris (second edition). 1887.

‡ 'Du Somnambulisme provoqué,' Paris, 1886.

§ 'De la Suggestion et du Somnambulisme dans leur Rapports avec la Jurisprudence et la Médecine légale,' Paris, 1888.

|| 'De l'Origine des Effets curatifs de l'Hypnotisme,' Paris, 1887.

¶ 'Eléments de Médecine Suggestive,' Paris, 1887.

almost every large town on the Continent has its practitioners of the system, who nearly all have written about it more or less extensively. Also, a journal* is published monthly in Paris, in which its latest developments are fully described and discussed. Two valuable books have appeared, in 1889, in German, 'Der Hypnotismus,' by Dr. Albert Moll, of Berlin, and a smaller work by Dr. Forel.† They form an admirable complement to the French writings, as they approach the subject in a characteristically thorough and Teutonic manner.

So far as I know, there is in English no literature on hypnotism treated therapeutically. From time to time articles have appeared in the medical and scientific journals, especially in *Brain*, the journal of the Neurological Society, and the *Journal of Mental Science*, the organ of the Medico-Psychological Society, and in *Mind*, alluding to its progress abroad, and giving reviews of some of the foreign books relating to it. The Society for Psychical Research has in this branch of science, as in the elucidation of so many other psychical phenomena, done most valuable work, which has so far received very much less attention than is its due. The writings on hypnotism by Mr. F. Myers and the late Mr. Gurney, in the *Proceedings* of the Society, are models of scientific and literary ability. In 1888 the present writer contributed a paper on the subject to the *Nineteenth Century*. But Dr. Hack-Tuke was its first English medical exponent, I believe, and in his deeply interesting work, 'Illustrations of the Influence of the Mind upon the Body,' he led up to the very threshold of its therapeutical application.

To James Braid, the Manchester surgeon, is due the credit of having seen the germs of truth which lay hidden and obscured in the writings of Mesmer and the animal magnetizers. He attempted to explain by physical laws

* *Revue de l'Hypnotisme*, Paris, 170, Rue S. Antoine.

† 'Der Hypnotismus seine Handhabung und seine Bedeutung,' Stuttgart, 1889.

the effects produced by mesmerizers,* and he ridiculed the notion of there being any such thing as a magnetic fluid or current. His disgust for the mysticism of mesmerism drove him, perhaps, too far towards the other extreme, and made him more rationalistic than the facts warranted him in being. Although he publicly demonstrated his system of healing—which he practised with much success—and wrote several works upon the subject, it appears to have died with him, and it remained for Dr. Liébeault to arrive at the truth of psycho-therapeutics.

I believe that all great discoveries are led up to by previous half-discoveries; and it does not detract from Dr. Liébeault's credit that he started with a large amount of evidence on the subject collected by earlier observers, any more than Darwin's claim to be the first evolutionist is weakened by his having drawn on the material supplied by Lyell, Hooker, and a multitude of others. Liébeault's genius taught him to arrange and systematize the facts collected by his predecessors, and to find the true explanation of phenomena which they had misunderstood. And his patience and steadfast courage led him to persevere in his work, undeterred by opposition or neglect, until now we find him the founder of a school which, as I have said, has its representatives all over the Continent—acute and clear-sighted men of science, of a class quite unlikely to entertain the fanciful theories of mesmerism, on the one hand, or those of 'faith healing,' on the other.

I need hardly say that medical hypnotism has nothing in common with spiritualism, and it is a curious thing that in this country some persons seem to think them associated.

There is no more connection between hypnotism and spiritualism than there is between china and metaphysics, and all the foreign physicians who practise hypnotism give, as far as I know, thoroughly rational and material explanations of its phenomena, and refuse to connect the treatment in any way with any one sect or line of thought.

* 'Neurypnology,' London, 1843; 'The Power of the Mind over the Body,' London, 1846.

CHAPTER II.

Examples showing the Power of the Mind over the Body.—Anæsthesia produced by the Imagination without Chloroform.—Cures effected by the Imagination and by Mental Emotions.—Illness and Functional Disorders induced by Morbid Direction of Thought.—Organic Changes possible from the same Cause.—Illness, and perhaps Death, caused by Suggestion of Symptoms.—Auto-Suggestion.—Simulated Death.—Cures at Shrines and Holy Places.—Touching for the King's Evil.—Modern Instance of Efficacy of Royal Touch.

ALL who have given any attention to the subject acknowledge what immense power the mind—acting in conjunction with or apart from the will—has over the body, forcing it at times to unusual or even extraordinary effort. This power is exercised both in health and disease, but is peculiarly evident—perhaps because it is more closely observed—in the latter condition. Everyone, physicians and psychologists especially, knows some curious instances illustrative of its effects : such as the story of the hospital patient to whom the consulting physician gave a prescription, with the remark, ‘Take this, it will do you good.’ At the man’s next visit, he, being asked for the prescription, replied that he had swallowed it as directed, and it had, according to promise, done him ‘a power of good.’ Dr. Hack Tuke (*op. cit.*) gives a number of cases in which drugs have acted not according to their proved properties, but according to the expectation of the patient. For instance, a student having asked for an aperient pill, the dispenser by mistake gave him one composed of opium and antimony, which, instead of producing the usual effect of inducing perspiration and drowsiness, acted in the way the student expected. Every medical man can quote examples of this sort from his own practice, and

if sometimes he is wrongfully accused of having produced baneful effects, he is indemnified at others by having marvellously good results ascribed to very simple measures.

There are few cases of this kind more remarkable than one related by Mr. Woodhouse Braine, the well-known chloroformist. Having to administer ether to an hysterical girl who was about to be operated on for the removal of two sebaceous tumours from the scalp, he found that the ether bottle was empty, and that the inhaling-bag was free from even the odour of any anæsthetic. While a fresh supply was being obtained, he thought to familiarize the patient with the process by putting the inhaling-bag over her mouth and nose, and telling her to breathe quietly and deeply. After a few inspirations she cried, 'Oh, I feel it; I am going off!' and a moment after her eyes turned up, and she became unconscious. As she was found to be perfectly insensible, and the ether had not yet come, Mr. Braine proposed that the surgeon should proceed with the operation. One tumour was removed without in the least disturbing her, and then, in order to test her condition, a bystander said that she was coming to. Upon this she began to show signs of waking, so the bag was once more applied, with the remark, 'She'll soon be off again,' when she immediately lost sensation, and the operation was successfully and painlessly completed. This girl had taken ether three years before, so that expectation and the use of the apparatus were sufficient to excite her recollection, and call back the effects of the drug as then experienced.

It is told that when Sir Humphry Davy was investigating the properties of laughing-gas—as nitrous oxide was then called—he proposed to administer it to a man who was suffering from tic dolooureux, but before doing so he tried his temperature by putting a thermometer into his mouth. The man took this instrument for some new and subtle remedy, and in a few minutes exclaimed that the pain was cured. The same belief in the efficacy of

the thermometer remains to this day among the uneducated, as a friend of mine found to his cost when he was hospital-clerk to a well-known physician. It was his duty to take each morning the temperature of every patient ; but on one occasion, being pressed for time, and knowing by experience that a certain patient's temperature was always normal, he saved a few minutes by leaving it untried. Later in the day, when the physician asked this man how he felt, he replied that he was much worse, as might be expected considering the way in which he was neglected. On inquiry it came out that the potent charm of having the glass tube in his mouth for three minutes had been omitted, and my friend got a reprimand.

While in Jamaica, I knew a young lady who had for months been confined to her bed or couch, unable to walk a step, from apparent paralysis of the lower extremities, which entirely defied the treatment used. One morning news was brought to her that her brother, to whom she was devotedly attached, had fallen from his horse, and was lying in a critical condition some miles away in the mountains. She immediately got up, herself helped to saddle a horse, rode to the scene of the accident, and nursed her brother night and day for a week. She was completely and permanently cured of the paralysis, which of course was merely functional and hysterical, by the nervous shock which had brought her will into operation.

A somewhat similar case came under my observation some years ago. A clergyman in whose house I was staying had long been a sufferer from chronic rheumatism, through which he was so disabled that he could only walk very slowly and with great inconvenience. On this occasion he was lying on a sofa, from which he could see through an open door and across a hall into another room, where his wife happened to be. By some careless movement she upset a table there, and, as if by magic, he sprang to his feet and walked rapidly and with a perfectly even step into the opposite room, exclaiming, ' There goes all the

ink that was in the house, and I have to write my sermon!' In this instance, however, the cure was as ephemeral as the emotion which had caused it; but it is not improbable that a continued excitement might have prolonged the power of easy motion, and so have broken down and caused absorption of the adhesions and exudations which produce the pain.

At a water-picnic some months ago, a young lady complained of terrible neuralgia. From some cause the boat began to rock violently, and she became extremely nervous. Her fear of being upset completely drove away the neuralgia, which did not return, at least on that occasion. It is known that sufferers from sea-sickness almost invariably become quite well in moments of danger; and we can often lose the sense of pain by occupying our mind with some affair of great interest.

A rudimentary knowledge of electricity is sufficient to assure us that the vast majority of popular electrical appliances—such as belts and pads—are absolutely inert, and that the good they undoubtedly achieve in some cases is due to their stimulating effect on the imagination.* Cholera-belts, camphor-bags, and such-like 'preventives,' probably act in a similar way. Therefore, though these and kindred contrivances do not operate in the expected manner, I should be sorry to say that they do not serve a useful purpose; by inspiring confidence and keeping alive hope, they often enable their possessor to go unharmed in the midst of contagion, or help him to overcome disease; for there is no more effectual depressant, no surer harbinger of disease, than fear. Much of the immunity from infection enjoyed by physicians and nurses is due partly to the pre-occupation of their minds, which leaves no room for selfish terror, and partly to the confidence begotten by long familiarity with danger.

The plan of substituting a harmless draught for the narcotic mixture without which a nervous patient thinks

* *Vide* letter by Dr. Steavenson in *Lancet* and *British Medical Journal*, Oct. 16, 1889.

himself unable to sleep, is, as we all know, continually resorted to, and is an instance of the beneficial employment of the imagination.

On the other hand, it is possible for an apparently quite healthy person to develop, by pure imagination, the symptoms of serious illness. Laymen who dabble in medical science, and medical students at the beginning of their course, are apt to imagine that they have one or other of the diseases they have been studying—heart-complaint being perhaps the most usual; and of this they do frequently develop some of the subjective symptoms.

A friend of mine tells me that once only in his life has he suffered from laryngitis and loss of voice. This was while attending Dr. Semon's lectures on diseases of the throat. It may have been a mere coincidence, but that hardly explains the frequent instances of medical men who have succumbed to the disease which they have made their special study, *e.g.*, Professor Trousseau from cancer of the stomach. It is probable that the mind being continuously fixed on one special organ, predisposes to disease of that organ.

Hypochondriasis is, as we know, a condition in which the patient feels the working of his internal organs, and is morbidly conscious of them. It tends to grow worse, because his attention becomes more and more fixed upon functions which ought to be performed automatically, and unless some powerful mental stimulant is applied, organic disease is sometimes actually set up. Dr. Russell Reynolds* has collected and classified several cases of paralysis dependent on functional causes, which were cured by careful treatment directed chiefly to the *morale* of the patients. He points out the difficulties attending the ordinary treatment, and shows how necessary it is to counteract the morbid ideas which are often at the root of the mischief. Most of the cases to which he refers were cured, but some resisted all forms of treatment.

* *British Medical Journal*, vol. ii., 483, 1869.

Dr. James Reynolds* relates a case of a woman who died in the Birmingham General Hospital from the effects of hysterical paraplegia; the necropsy showed that there was no organic disease. He thus summarizes the dangers of this condition: 'If the nature of the malady be mistaken, and the stimulus of the will be habitually withheld from the inactive muscles, the nutrition of that part of the nerve centre which presides over those muscles becomes impaired, and what was at the beginning a mere perversion of function is finally converted into real organic disease.' Dr. Russell Reynolds thus concludes his paper: 'I believe and know that many cases of apparently grave disorders of the nervous centres may be removed entirely; and that in other instances, when the ideal affection is grafted upon organic lesion, much may be done to remove the former, and afford so much of the stimulus of hope, that the cure of yet graver symptoms is brought within the range, not only of possibility, but of probability and of actual fact.' There are many people, of both sexes, who never hear of a disease without fancying they have it. The illness of a royal or distinguished sufferer, the progress of which is daily recorded in the newspapers, will sometimes become almost epidemic; thus throat specialists can tell some curious stories of the increase of imaginary and real throat affections during the illness of the late Emperor Frederick; and a short time ago, it will be remembered, measles became for awhile a fashionable malady. That fear will promote disease has been abundantly proved during outbreaks of cholera, small-pox, the plague, and other epidemics. Pseudo-hydrophobia is a recognised malady, and no doubt many supposed cures of hydrophobia have in fact been cures of this fear-induced imitation.

We sometimes come across people who tell us they 'have no time to be ill;' and certainly reports of longevity show that rust destroys more than use, and that hale old

* 'Paralysis and other Diseases of Motion dependent on Idea,' *ibid.*, p. 632.

age is more frequently attained by those who have led busy lives than by idlers. Idleness is a well-known factor in producing all kinds of ailments, real and imaginary, of mind and body, perhaps because the idle man, from sheer lack of interest in life, devotes too much attention to his own organism.

Imagination, combined with 'direction of consciousness' (Sir H. Holland) to a part, will produce results which have been noticed by many pathologists. John Hunter said he was confident of producing a sensation in any part of his body simply by concentrating his attention on it. Sir H. Holland observes*: 'In hypochondriasis, the patient, by fixing his attention on internal organs, creates not merely disordered sensations, but disordered action in them.' And again: 'When there is liability to irregular pulsation (of the heart), this is brought on and increased by a simple effort of attention.'

A medical friend of mine, who is affected with insufficiency of the mitral valves, tells me that he is hardly ever inconvenienced by it, except when he has to examine a patient with heart-disease. His attention is then drawn to his own weakened organ, and he suffers from palpitation.

Dr. Forbes Winslow, speaking on this subject, says†: 'It is a well-established fact that alterations of tissue have been the result of a morbid concentration of the attention to particular organic structures. Certain feelings of uneasiness or even pain originate in the mind a suspicion of disease existing in particular parts of the body, it may be in the lungs, stomach, heart, brain, liver, or kidneys. Some slight irregularities and functional disturbances in the action of these organs being noticed, are at once suggestive (to the hypochondriac) of serious and fatal disease being established in the part to which the attention is directed. This deviation from a normal state of certain functions frequently lapses into actual

* 'Medical Notes and Reflections,' London, 1839.

† 'Obscure Diseases of the Brain and Mind,' London, 1860.

structural disease, as the effect of the faculty of attention being for a lengthened period concentrated on this action. The continuous direction of the mind to vital tissues *imagined* to be in an unhealthy state undoubtedly causes an exaltation of their special functions, and an increase of susceptibility, by (it may be presumed) concentrating to them an abnormal quantity of blood, this being followed successively by (1) undue vascular action, (2) capillary congestion, (3) an excess in the evolution of nerve force, and (4) appreciable *structural* alterations.' Dr. Hack Tuke says:* 'If twenty persons fix their attention on their little finger for ten minutes, the result will be that most of them will feel decided sensations there, amounting in some to a mere sense of weight or throbbing, and in others to actual pain.' He endeavours to explain this by supposing that the act of attention excites an increased flow of blood to the part, and consequent increased vascularity of the sensory nerve-ganglia, so leading to subjective sensation; or that the sympathetic nerve-centres become excited, and the vaso-motor nerves influenced thereby so as to cause in the finger temporary vascular changes which invoke sensation. He puts forward also a third hypothesis, which is interesting from the relation it bears to that given by Professor Delbœuf, of Liège (see page 166)—that fixing the attention on a part of the body for some time renders us conscious of the working of functions which are usually performed automatically and unconsciously. Sir James Paget thinks that by nervous excitement the temperature may be raised to at least 101 (from the normal 98.5); and Professor Wunderlich says on the same subject†: 'In hysterical neurosis elevations of the temperature even to excessive heights may occur without any motive at all.' Dr. Wilkes relates cases of extreme anæmia caused by depressing emotions; and this agrees with the experience of all medical men, as does also the opposite observation, that pleasant emotions

* *Op. cit.*

† 'Medical Thermometry,' New Sydenham Society, 1871.

bring about a good state of the blood and secretions, and improve the health. Instances in which the hair has rapidly, even in a few days, suffered atrophic changes, leading to its becoming white and falling out from excessive depressing emotions, are common; and under similar circumstances the teeth will sometimes rapidly decay.

Dr. de Watteville says*: 'One of the most striking properties of the nervous system is that by which the activity of one portion may be arrested or prevented—"inhibited"—by the activity of another . . . when we attend closely to a sensory impression or to a train of thought, the excitability of every part of the brain, except that actually engaged in the act, is diminished by an inhibitory action of the working portion. Thus when we say that anger or fear paralyzes, we allude in very accurate language to the inhibitory influence which powerful emotion exercises on the cerebral functions.' That emotion and fancy have power to modify the secretions is shown by the well-known fact that the mouth becomes dry and parched through fear or anger, while on the other hand it 'waters' at the idea of savoury food; the mental impression paralyzing or stimulating the secretory apparatus of the salivary glands. Violent emotion, again, will so modify the secretion of gastric juice as to cause indigestion in subjects at all predisposed to it. An attack of jaundice may be induced by anger—as the popular saying, 'Green with rage,' implies—from an accumulation of bile in the blood through nervous excitement causing 'inhibition' of the healthy function of the liver.

Disease, then, as we have seen, may, in hypochondriasis and kindred states, be induced by *auto-suggestion*, and there is no doubt that it may likewise be induced by suggestion from without. Let a man be told repeatedly by his friends that he is looking ill, that he does not seem fit to go about, that he must take care of himself, or he will have this or that complaint—and unless he has a very

* 'Sleep and its Counterfeits,' *Fortnightly Review*, May, 1887.

cheerful and well-balanced mind, he is pretty sure, for a time at least, to deteriorate in health. There is a story of such suggestions being made, for a practical joke, at the expense of a stalwart farmer, who, having been assured by several persons that he seemed in a bad way, did really take to his bed and go through an unmistakable attack of illness. This, of course, was a cruel and unwarrantable jest—yet a somewhat similar effect is occasionally produced by well-meaning persons, who are in the habit of commiserating their acquaintance for not looking well.

Dr. Hack Tuke gives an instance of death itself being produced by suggestion. A Frenchman of rank was condemned to death for some crime, and his friends, willing to avoid the scandal of a public execution, allowed him to be made the subject of an experiment. He was told that he must be bled to death. His eyes were bandaged, and his arm having been lightly pricked, a stream of warm water was made to trickle down it and fall into a basin, while the assistants kept up a running commentary on his supposed condition. 'He is getting faint; the heart's action is becoming feebler; his pulse is almost gone,' and other remarks of the sort. In a short time the miserable man died with the actual symptoms of cardiac syncope from hemorrhage, without having lost a drop of blood. (*Vide* note in Appendix, page 162.)

There are some authenticated cases of apparent death being produced by auto-suggestion. We hear of this being accomplished by Indian fakirs and other religious enthusiasts in Eastern countries. Braid cites a remarkable, and, he believes, thoroughly well-authenticated instance of a distinguished holy man, who, to convince the Maharajah Runjeet Singh* that he possessed this power over himself, apparently died, and was laid in a sealed coffin within a vault, the entrance to which was also

* This case is related in medical detail by Dr. McGregor in his 'History of the Sikhs,' p. 227. He was an eye-witness of the disinterment. There are other cases of a similar character, and apparently well authenticated, but further scientific investigation of the subject is desirable.

sealed and guarded by soldiers. After six weeks, the time appointed by himself, he was taken out of the tomb in the presence of the Rajah and of several credible witnesses, English as well as native, and found to display every appearance of death. Having been gradually revived by his own servant, the still ghastly-looking, corpse-like creature sat up and spoke, his first words being addressed to the doubting Rajah: 'Do you believe me now?'

The best warranted European case of the sort is that of Colonel Townshend, related as follows by Dr. Cheyne: 'He could die or expire when he pleased, and yet, by an effort or somehow, he could come to life again. . . . We all three felt his pulse first; it was distinct, though small and thready, and his heart had its usual beating. He composed himself upon his back, and lay in a still posture for some time. While I held his right hand, Dr. Baynard laid his hand upon his heart, and Mr. Skrine held a clean looking-glass to his mouth. I found his pulse sink gradually, till at last I could not feel any, by the most exact and nice touch; Dr. Baynard could not feel the least motion in the heart, nor Mr. S. discern the least soil of breath on the bright mirror. Then each of us by turns examined his arm, heart, and breath, but could not, by the nicest scrutiny, discover the least symptom of life in him. We reasoned a long time about this odd appearance, and, finding he still continued in that condition, we began to conclude that he had indeed carried the experiment too far; and at last we were satisfied that he was already dead, and were just ready to leave him. This continued about half an hour. . . . As we were going away we perceived some motion about the body, and, upon examination, found his pulse and the motion of his heart gradually returning; he began to breathe heavily and speak softly. We were all astonished to the last degree at this unexpected change.'*

* The starting-point of the movements of the heart is the excitation produced by the pressure of the blood on the sensory or centripetal nerve-fibres of the endocardium. If the contact of the blood with the endocardium be prevented, the heart ceases its pulsation, the physio-

As sickness, and perhaps even death, may be produced by suggestion, so may be, and very often is, produced the cure of sickness. Towards this, however, auto-suggestion, though it might do much, does actually little or nothing, the natural reason being that the mind of a sick person, when left to itself, is prone rather to suggest morbid than health-inducing ideas, and so operates for mischief rather than in the direction of cure. Every physician knows how, by determined hopefulness and cheerfulness, a sufferer from functional, and even from curable organic disease, may facilitate the work of healing, and materially hasten his recovery.

In all ages wonderful cures, real amid a multitude of shams, have been wrought at holy places dedicated to various saints of various cults. Among the throngs of pilgrims to Mecca, to the sacred rivers and temples of India, to the shrines of Buddhist hagiology, there are some who, having made the outward journey wearily and painfully, do indeed turn homeward with the gift of health. A proportion of those who have limped or been carried to Lourdes and to a hundred other holy places of the Catholic Church do leave behind them crutches that they no longer require. Some of the sufferers who worshipped the Holy Coat at Trèves did truly receive in restored health the reward of their faith. Some wearers of relics and amulets are really the better for possessing them. The cheered, uplifted, and convinced mind works, sometimes with startling rapidity, on the diseased body.

For this same reason, touching for the king's evil did no doubt effect many cures. The royal progresses were announced some time beforehand, and the sufferers along

logical cause of the reflex action having been removed. If the chest, and consequently the heart, be compressed by a series of forced expirations and by holding the breath, so as completely to empty the lungs, and bring the muscular walls of the heart into close contact, we may succeed in stopping its beating. The performance of this experiment is not recommended, as it might have a fatal issue. *Vide* an article on 'La mort simulée,' by Dr. G. Tourdes, 'Dictionnaire Encyclopédique des Sciences Médicales,' Paris, 1875.

their route had often weeks in which to cherish the expectation of healing, in itself so beneficial; and in those days of faith, when a belief in the divine right of kings was universal and strong, the touch of the royal hand must, except in the most hopeless cases, have had a stimulating effect which may often have caused a healthful reaction. Even in our own times, a royal touch, accompanied by kindly words, has good effect. We read in the life of Victor Emanuel,* that in 1865, when the cholera was raging in Naples, and the panic-stricken inhabitants were migrating by thousands from the city, the king, wishing to give his people courage, went the round of the hospitals. 'He stood beside the sick-beds, and spoke encouragingly to the patients.' Before one of those already marked for death, the king stopped, and taking his damp, frozen hand, he pressed it, saying, 'Take courage, poor man, and try to recover soon.' The warm grasp of the hand, the strong cheerful words, the recognition of the king's face, had an agitating effect on the dying man. That evening the syndic visited the king, and said: 'Your majesty's coming is a joyful omen. I am happy to tell you that the doctors report a diminution of the disease in the course of the day, and your majesty has unawares worked a miracle. The man you saw this morning stretched for death is out of danger this evening. The doctors say the excitement of your presence caused the salutary crisis.' In Carpenter's Physiology† numerous

* 'Life of Victor Emanuel,' by G. S. Godkin, vol. ii., p. 213.

† 'On the Influence of the Nervous System on the Organic Functions,' chap. v., ninth edition. Perhaps the most striking example of the power of the will and imagination to affect function, and even to initiate it, is afforded in a few rare but well-authenticated cases collected by Dr. Dunglison ('Human Physiology,' vol. ii., seventh edition), and quoted by Carpenter, in which strong desire to furnish milk, combined with continued irritation of the nipple by the infant's mouth, has brought about a secretion of milk in the mammary glands of childless and unmarried women, and even of men. The not uncommon occurrence of pseudo pregnancy, with production of all the subjective and many of the objective symptoms of real pregnancy under the stimulus of a strong desire for children, affords evidence of the power of auto-suggestion. The historical case of Queen Mary is a familiar example.

examples are given demonstrating the influence of the mind and imaginative faculties on the different bodily functions, and we have only to consider a moment to recall many personal experiences pointing in the same direction.

CHAPTER III.

Power of Mind and Body increased by Concentration of Attention and Energy.—Suppression of one Faculty tends to increase the Development of others.—Concentration of Mind on one Idea in Somnambulism, and Performance of Tasks impossible when awake.—Some Tragical Results of Natural Somnambulism.—Artificial or Hypnotic Somnambulism may be turned to Therapeutic Purposes.—Natural Sleep may pass into Hypnotic Sleep and *vice versâ*.—The Faculties may be aroused and intensified in Hypnotic Somnambulism.

I HAVE endeavoured to show how much the imagination (in its widest sense) may have to do with our health of mind and body; and I shall now try to point out that the effects of 'directed consciousness' are greatly increased under certain conditions, when the mind is so withdrawn from the consideration of all extraneous ideas as to be absolutely concentrated upon one object.

We have seen how concentration of mind-faculty, whether self-induced or brought about by some shock to the system, or some powerful external influence, can modify functions, and both produce and cure disease—sometimes gradually, but often, in the case of shock or sudden and overpowering influence, with a rapidity which seems almost miraculous.

We all know, and frequently by our own experience, that mind-concentration, brought about by some strong motive, will enable us to perform mental or bodily actions of which we would generally be incapable. Through it a man will achieve feats of strength far beyond his apparent muscular power, or will go boldly through dangers from which he would shrink if he paused to consider probable consequences. Or he will, in a limited time, execute a prodigious amount of intellectual work, possibly

of such startling excellence that he himself, in after-moments of less intensity, will be amazed at his own performance. Of course, concentration, if sustained at such a pitch, would in time be the ruin of mind and body; but we know that it is a necessary factor in the accomplishment of all great things, and that there can be no success in life for those who cannot command it to a moderate degree. Of this, we see a striking instance in Coleridge, who, with all his wonderful genius, brought a surprisingly small quantity of work to completion, for want of this mind-directing power. The less we have of it, the more our mental action tends to become automatic. The mind of a person unused to exercise it drifts undirected and undisciplined from one idea to another; he can hardly follow a line of thought to its conclusion, and his talk, and probably his actions, will be as inconsequent as his wandering fancies.

As a rule, happily, the organic functions which carry on life are purely automatic; but, as we have seen, it is possible to concentrate the attention upon them, and so affect their operation, sometimes beneficially, but far more commonly with detriment to the health of mind and body. Those bodily movements over which we have full control are also generally performed automatically. Under ordinary circumstances, we give no conscious thought to our steps in walking, to the motion of our hands while at work; these are nearly as automatic as healthy breathing. So likewise, in a general way, is the operation of the senses. We see, hear, feel without any effort of our will, unless some special motive impels us to exercise it. We concentrate our minds upon sight when we strive to see a minute, or indistinct, or distant object; and upon hearing when we listen for a faint or eagerly-expected sound. If such concentration is continuously brought to bear upon any sense, it will in time convey automatically the more intense impression which has been exceptional. Thus, in savages and in travellers and settlers in wild or dangerous regions, the senses of sight

and hearing are far more keen than in those who live under civilization. The senses of touch and hearing become exquisitely fine in the blind. A blind man will sometimes hear sounds which are absolutely inaudible to ordinary ears, and recognise objects by touch as correctly as most people can by eyesight. Some blind persons seem, through concentration, to have developed a sense of space. On entering a room they can tell whether few or many persons are present ; they can guess with wonderful accuracy the size and shape of an enclosed place, and have a curious power of avoiding any obstruction, such as an article of furniture which may be in their way.* Deaf people often develop the sense of sight to an extraordinary extent. By concentration of this faculty they are able, as we know, to follow a speaker by watching his expression and the motion of his lips. Their sense of touch also becomes more delicate ; and occasionally they are able to enjoy music by feeling the vibration of air set in motion by its sound.

Concentration of mind upon intellectual or physical action is usually possible only in our waking and wakeful moments. Fatigue of brain renders us incapable of it ; and in sleep, the natural consequence of such fatigue, we generally lose consciousness, and only exercise those functions which are performed automatically. In dreams consciousness is once more aroused, and we may even use some reasoning power, and be influenced from without through our senses. But in ordinary dreams there is no concentration of ideas upon an act to be performed or a goal to be reached. When a sleeper uses this effort of mind, he passes out of the region of dreams, and enters that of somnambulism.

The somnambulist never has that semi-consciousness of his state, and of the unreality of his fancies, which

* Most people have probably noticed that closing the eyes will, for the moment, render the hearing and touch unusually acute. Any sense may be intensified by mind-concentration, as in the case of tea and wine tasters, and of professional buyers of raw silk, who develop an unerring capacity of judging its quality by touch.

sometimes exists through a dream—when the sleeper *knows* that he is dreaming, and will even try to prolong his vision if it be delightful, and dispel it if painful. Such an exertion of will is impossible in somnambulism.* In this state all fancies *must* appear realities. The imagination is, as I have said, concentrated upon one object, and so completely that actions are as effectually performed as if directed by strong will-power. But an onlooker can easily perceive, by the expression and posture of somnambulists, that the discerning and judging faculties are in abeyance.

In somnambulism actions of extraordinary difficulty, such as could not be performed by the sleeper during his waking hours—except, perhaps, through mind-concentration caused by some overpowering impulse or motive—are accomplished with perfect ease. Persons in this condition will walk on the extreme edge of a precipice, climb dangerous heights, get out of a house through an upper-story window. There are numerous instances of this on record, of which I will quote two or three. Dr. Paul Garnier† gives one of a patient, a dentist's assistant, of feeble bodily and mental health, who frequently fell into a state of somnambulism. On one of these occasions he escaped by a window from the ward of the Hôtel Dieu, in which he was undergoing treatment, and, though a peculiarly unathletic person, walked easily and fearlessly along the sloping parapet of the façade—a feat which a trained gymnast could hardly have accomplished. He awoke in the course of this dangerous performance, and had to be rescued by means of a ladder. With the return of consciousness reason awoke, and he understood the horror of his position. While blindly obeying his impulse he had acted automatically, and fear, which is a product of reflection and association of ideas,‡ had no existence for him.

* In dreams, doubtless, it is possible only when the sleeper is close upon waking.

† 'Somnambulisme devant les Tribunaux,' Paris, 1888.

‡ Infants, in whom of course neither is possible, will, if allowed, grasp at the flame of a candle, or a sharp instrument; and young children will fearlessly put themselves into positions of great danger.

A patient of my own, a young man twenty years of age, not an habitual somnambulist, but a sufferer from nightmare produced by chronic dyspepsia, on one occasion, while spending the night in an hotel, dreamed that he was confined in a dungeon from which he must escape. The dream no doubt passed into somnambulism, for under its influence he broke his iron bedstead—a feat of strength which, waking, he assuredly could not have accomplished—and tore up his bed-clothes. His amazement was great when he awoke in the morning amid the ruins of his own creation. He remembered his dream, but had no recollection whatever of the acts into which he had been led by it.

Dreams thus merging into somnambulism may produce tragic results. Dr. G. Tourdes* relates how a man sleeping beside his wife dreamed that she was a robber whom he must kill. He accordingly attempted to suffocate her with a pillow, and it was with great difficulty that she succeeded in awaking him, and so saving her life.

In 1843 a young man was tried for the attempted murder of an innkeeper at Lyons.† He had arrived at the inn towards nightfall, and was allotted a room. In the dead of night loud cries were heard from this room, and the landlord, rushing in to see what was the matter, was set upon by his guest and seriously wounded. It was ascertained that the young man was a somnambulist, who had dreamt that the landlord was murdering the occupants of a room near his own, and that he was defending them. He was, of course, acquitted. A case is also recorded by Drs. Guy and Ferrier, in their 'Forensic Medicine.' 'Two men, being in a place infested by robbers, engaged that one should watch while the other slept. But the watcher, falling asleep, and dreaming that he was pursued, shot his companion through the heart.'

We have many instances of mental work being ac-

* Article 'Sommeil,' 'Dictionnaire Encyclopédique des Sciences Médicales.'

† 'Dictionnaire Encyclopédique des Sciences Médicales,' article 'Somnambulisme,' by Drs. Ball and Chambard.

complished during somnambulism. Professor Wœhner* of Gottingen, after vainly trying for several days to write a Greek poem on a given subject, composed it successfully while in this condition, which probably was brought about by the mental strain of his previous futile efforts.†

A clear case of somnambulism was that of a clergyman, whom his wife saw rise from bed in his sleep, go to a writing-table, and write rapidly for some minutes. This done, he returned to bed, and slept on until morning. On awaking, he told her that in a dream he had worked out an argument for a sermon, of which he now retained no recollection whatever. She led him to the writing-table, and showed him the written sheet, upon which he found his argument worked out in the most satisfactory manner.

It rarely happens, however, that solutions of problems, poems, etc., written by persons in this state, have any value. They may begin well, but generally drift into nonsense, probably because the mental concentration has been dispelled by some new idea crossing the first, and displacing it.

Habitual somnambulism may be natural—that is, may exist without any actual disease, though it is hardly ever found in persons of robust bodily and mental constitution. It is not uncommon in delicate or nervous children and young persons, but if with advancing years the mind and body gain strength, the tendency to it is likely to decrease and finally disappear. *Accidental* somnambulism is directly produced by illness or mental strain, and may occur in normally healthy persons of great intellectual power. When the state is habitual or frequent, the somnambulist may be said to lead two lives, one almost distinct from the other, and to have two entirely unconnected memories. Memory, as we generally understand it, is dormant during somnambulism. The sleeper remembers nothing that has occurred during his waking hours, and, when he

* 'Dictionnaire Encyclopédique,' etc.

† Coleridge's poetical fragment, 'Kubla Khan,' was probably composed in a dream—not in somnambulism—as he remembered and wrote it down on awaking.

again awakes, has no recollection of his actions during the somnambulistic state. Yet, in his next attack of somnambulism, the memory of these is likely to come back to him.

The effect of natural or accidental somnambulism on the health is anything but beneficial. An attack is generally followed by feelings of weariness and discomfort, for which the subject is at a loss to account. The concentrated mind-power does not operate in a beneficial direction, but impels the sleeper to bodily or mental effort likely to have an exhausting and hurtful effect upon him. But the artificially-produced mental condition seen in hypnotism can be turned to therapeutic uses, and be made to fill a void which no other plan of treatment can reach. Dr. Bernheim considers hypnotic sleep analogous to the natural state, with the important difference that in natural sleep the subject is only in relation with himself, whereas in the artificial state he is in relation with the operator, who is therefore able to direct the thoughts into the channel he wishes. That it resembles natural sleep is proved by the fact that it is possible in certain cases for one to pass into the other. Dr. Van Eeden told me that a patient of his, a gentleman, wearied by long waiting and exhausted by the heat, fell asleep in the waiting-room. The doctor came in, and, seeing him asleep, said, 'Don't wake, but come with me into my consulting-room.' The patient got up and, with assistance, did as he was desired. After the treatment was over he was led back in the same way to his former seat in the waiting-room, and allowed to finish his sleep. He soon awoke, apologized to the other patients for having slept, and expressed surprise that his turn had not yet come for seeing the doctor. Great was his astonishment when he was told that the séance had taken place and was finished without his knowing anything about it. Dr. Maury,* who cannot be accused of being too easily influenced, gives some instances in which, while sitting by his fireside dozing after dinner, he had heard, as in a dream, the

* 'Le Sommeil et les Rêves,' Paris, 1865, p. 429.

words uttered by his wife and friends, and had followed out the train of thought suggested by them in his dreams, and had even acted upon suggestions so made.* If a person is very tired it is frequently possible to obtain an answer to a question whispered in his ear without awakening him. Dr. Hack Tuke and Mr. Braid give several examples of this in their writings.

Braid, for instance, tells of a naval officer who was the subject of many practical jokes. He entertained and acted upon any idea which was suggested to him when asleep without awaking. On one occasion, while lying in his berth, he was told that his ship was in action, and that his men were fighting all around him. His face immediately assumed an expression of martial excitement, and he wielded an imaginary sword. His friends supplied details of the fight, telling him that the battle was going against them, and that his dearest companions were being killed; then his expression changed to one of fear. Finally, when told that all his friends were slain, and that the rout was complete, he leaped from his place and fled with an aspect of terror. I have myself spoken to and received answers from nurses who had fallen asleep, worn out by long hours of watching; and examples of such automatic answering must be familiar to most people. On the other hand, patients in the hypnotic sleep sometimes pass into the natural state, when they are no longer in relation with the operator, but follow their own ideas in ordinary dreams.

As in natural somnambulism a person may be able to do things he is at other times incapable of, so in the artificially-produced condition he can sometimes be made to excel himself. Dr. Beaunis found in experimenting with the dynamometer that the muscular power could be

* He relates how, on one occasion, he was sitting in his easy-chair half awake, when his wife spoke to him. He was awakened by the words, and remembered them, but was quite unable to tell whether he had uttered them himself, or whether they were his wife's. On this he remarks, 'How many actions and ideas are daily suggested to us by others which we act upon, thinking they are our own!'

greatly increased at times by suggesting in the hypnotic state increased strength and effort; and one frequently finds the grasp of an enfeebled patient can be perceptibly strengthened by similar suggestions. The therapeutic bearing of this experiment is easily seen.

Dr. Grazzini, of Florence, has kindly sent me some copies of drawings done while in a state of hypnotic somnambulism by an uneducated man who in waking moments hardly knew the use of a pencil. These copies are faithfully and well executed, but probably the man would have been quite unable to initiate a design. The faculty of imitation was strengthened by the hypnotic condition, and at the same time he concentrated all his attention on the figures, and took infinite pains to reproduce them. I have frequently told somnambulist subjects that they are to write such and such a sentence on awaking with their left hand, and have invariably found the task accomplished fairly well, though in many instances I have seen the same person before the operation declare it impossible, and be unable to make an intelligible letter. This may prove a practical hint in the case of left-handed children.

An artist under the same circumstances would no doubt have produced a drawing in his usual style; and a musician, in a similar way, if asked to play, would perform some familiar air. Whatever a man's natural disposition might be, it would come out if he were in a state of profound hypnotic sleep; but we shall see that 'suggestion' in this condition has power to modify even life-long habits and deep-rooted tendencies.*

* Frequent repetition of the suggestion, especially if done with confidence, has what may be called a cumulative action, expressed by Professor Delbœuf in a kind of mathematical formula. This, of course, is also the case in our waking moments, and is well understood and turned to account by advertising tradesmen. The announcement in confident language on every blank wall that 'Johnson's soap is the best,' becomes, by constant repetition, almost an axiom, and we are inclined to accept its truth. In the same way it is told of George IV. that from constantly repeating the story of his being at Waterloo, he at length got to believe that he had really taken part in the battle.

CHAPTER IV.

Dr. Liébeault of Nancy.—Description of his Treatment.—System free from Mysticism.—Curative Suggestions.—Explanation of the Phenomena.—Definition of Hypnotism.—Absolute Sleep or Unconsciousness unnecessary for Curative Treatment.—Theory of Professor Charcot not accepted by the School of Nancy.—Proportion of Persons hypnotizable and Degrees of Hypnotic Influence.—Phenomena of Somnambulism outside the Sphere of Psycho-Therapeutics.

I HOPE to have shown in the preceding chapters that Dr. Liébeault's system is the outcome of the collection and classification of many isolated facts previously neglected or misunderstood. That cures have been and still are worked by such means as are implied in faith-healing, the mind-cure, etc., and by charms and relics, is beyond doubt; but it is not in the supernatural that we should seek for the explanation of them. They all proceed from the same cause, and on the same lines. We have, firstly, the patient's strong desire for cure; and, secondly, his firm belief in the efficacy of the means used; while to these may generally be added the presence of a sympathetic and impressive environment. The reasonable and deliberative side of the patient's brain is suppressed, while the emotional or instinctive side is developed, and in proportion as the latter is predominant the greater generally is the success of the treatment. The Nancy school obtain, in suitable cases, as good results as it is possible to expect; but they work on scientific principles and by recognised laws.

A brief account of the treatment practised at Nancy, and of the theory which explains it, will, I think, make this clear.

If the visitor to Dr. Liébeault's dispensary be one who

measures results by the impressiveness of the means used, he will surely be disappointed to find how commonplace are operators, patients, and building. The rooms are unpretentious, and even shabby; the patients are ordinary looking people enough, belonging mostly to the artisan and labouring classes; and the doctor himself, though he has goodness and kindness written on every feature, is of unimposing presence; while his habit of chatting on all sorts of subjects with the persons around him, even while receiving patients, has an odd and hardly impressive effect.

The patient paying his first visit is directed to sit down and watch the treatment being applied to others. This gives him confidence, and arouses that imitative faculty, which is so active in childhood and is never lost throughout adult life. When his turn comes, he is told to take his place in an arm-chair, and to make his mind as much a blank as possible—‘to think of nothing at all’—and to fix his eyes and attention on some special object; almost anything will do, from the operator’s face or hand to a mark on the ceiling or the pattern of the carpet. Then the phenomena which attend the on-coming of natural sleep are gradually ‘suggested’ to him: ‘Your sight is growing dim and indistinct; your eyelids are becoming heavy; a numbness is creeping over your limbs; my voice seems muffled to you; you are getting more sleepy; you cannot keep your eyes open.’ Here the eyes close of themselves, or are closed by the operator, and it is generally found that the patient is indeed asleep.

About two minutes of this ‘talk about sleep’ will usually produce the hypnotic effect on a new patient; and on subsequent visits even less time is required.

The patient being more or less influenced, Dr. Liébeault now proceeds with the treatment proper. This consists essentially in directing the invalid’s attention to the part affected, and suggesting an amelioration or disappearance of the morbid condition and symptoms. To take a very simple case—let us suppose that the malady is chronic

nervous headache. The part of the head affected is gently rubbed, so that the patient's attention shall be attracted to it, and he is told that the pain is to disappear—that he will awake feeling his head cool, clear, and comfortable, and that there is to be no return of the trouble. In ordinary cases the whole process will not have lasted more than five minutes when Dr. Liébeault brings it to a close by arousing the patient, which he does by telling him to open his eyes and awake. This is generally enough; he awakes as from ordinary sleep, and is told to vacate the armchair in favour of the next patient. When asked how he feels, he will generally reply that he is better, and very often that the pain has entirely vanished. He is quite his natural self, and can leave the room at once and go about his work as usual. Long acquaintance with the system prevents an inhabitant of Nancy from regarding it as anything remarkable, and a sick person consults Dr. Liébeault just as he would consult any other physician, with the simple idea that the treatment will do him good. He does not trouble himself with metaphysical theories, but is content to know that some acquaintance has been cured of a complaint similar to his own, and that he himself hopes to be relieved in a few days.

If the hypnotic sleep has been profound, it may be necessary twice or thrice to repeat the order to awake, and even to enforce it by fanning the patient, or blowing gently upon his eyes; but the simple command is nearly always sufficient.

There certainly is nothing mysterious in all this, and Dr. Liébeault seems to take pleasure in making his whole mode of treatment clear to any serious inquirer, and in giving the rational explanation of everything that he does. He directs the patient to fix his attention on a certain point in order to strain the accommodation of the eyes and tire the sight. The effect of the strain is to cause dilatation of the pupils and consequent dimness of vision. The feeling of heaviness in the eyelids results from the fatigue of keeping them open in a strained position, and

the assertion that the eyes are becoming tired and the sight dim is therefore founded on physiological data, and is not guesswork. The eyes being tired, the natural impulse is to close them, and this act calls up a previous association of ideas connected with fatigued or confused sight. That association points to sleep, towards which the patient is rapidly led, aided by the monotonous tones of the operator suggesting it to him, and by his mind being free from all disturbing thoughts, and his nerves from all external stimuli. He falls asleep, in fact, much in the same manner as one does when reading a dull book or listening to a not too brilliant discourse. Dr. Maury,* in his well-known book on sleep and dreams, says, 'The less the mind is occupied with ideas the more easily can the thoughts be directed into any given channel. If nothing claims our notice or holds our attention, the cerebro-spinal system, for want of that gentle stimulation which is necessary to it, falls into a state of semi-torpor inseparable from atony of the nervous system.'

In the chapter on sleep in Carpenter's 'Physiology,' various conditions are mentioned as being favourable to it, one being the desire for it, another the expectation of it. We expect, from previous experience, that if we lie down in a certain place, sleep will follow. The faculty of imitation helps to bring it about; when we see others dozing we naturally incline to follow their example, and at night the consciousness that all around us are asleep disposes us to seek the same condition. Talking about sleep is apt to induce somnolence, just as talking about food may provoke hunger. And a monotonous sound, such as the droning voice of a speaker, or the breaking of gentle waves upon the seashore, tends to encourage slumber. Thus it will be seen how closely the artificial method I have described follows natural rules. This method may fail, just as we may fail to obtain natural sleep, or may battle it off should we desire to remain awake. If a patient wishes to resist the somnolent in-

* 'Le Sommeil et les Rêves, Paris,' 1865.

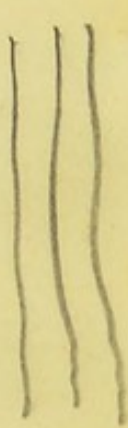
fluence, he can do so by refusing to concentrate his thoughts, or by inducing some physical discomfort—for instance, by placing himself in an uncomfortable position. Strong emotion, such as anger or fear, will prevent the hypnotic sleep; so will severe pain, hunger, thirst, and indeed anything which preoccupies the mind or agitates the nervous system. Constitutional idiosyncrasies affect this as they affect the natural sleep. The naturally restless sleeper will be restless, and he who commonly goes off as soon as his head touches the pillow will quickly succumb to the hypnotic influence. The extent to which a person is influenced varies according to his mental and physical condition. If he is of restless and flighty temperament, it may be impossible to fix his attention for even the few minutes that are necessary, and no effect is produced—except, perhaps, an inclination on his part to treat the whole affair as a jest, and a consequent irritation on the part of the doctor. But in ordinary cases some effect is certainly produced, if not on a first visit, still on subsequent ones. This effect will vary in various patients, some feeling only a heaviness and torpor, with a disinclination to open the eyes, while others fall into a more or less profound sleep, or into a state of somnambulism. Dr. Liébeault divides the sleep into six different stages,* but as these really merge imperceptibly into each other, the division is purely arbitrary, and is made for convenience in classification. They may be shortly summed up as: 1. Light sleep; 2. Profound sleep; 3. Somnambulism.

The first and second stages closely resemble and are analogous to ordinary sleep; but the third is *sui generis*, and will require a few words later on. Though it is analogous to natural sleep, there is one very important fact which shows that the conditions are not identical. If an ordinary sleeper is spoken to, he is generally aroused by the stimulating effect of the sound conveyed to the brain through the auditory nerves, but one in the hypnotic

* See Appendix, p. 171, note 7.

state may be talked to without being disturbed—the effect will, on the contrary, be soothing. He is, in fact, *en rapport* with the outer world, though only to a limited extent, whereas in natural sleep he is *en rapport* only with his own consciousness.

Upon this difference depends the possibility of applying curative suggestion. Carpenter (*op. cit.*) says that the very closure of the eyes renders the other senses more acute; and we have seen that the inactivity of one sense is nearly always compensated for by increased sensitiveness of the others. Now in the hypnotic state all the senses are more or less torpid and in abeyance until called into play by the operator. Physiologists suppose that during activity the nerve-centres are continually discharging nervous energy in all directions in response to stimulating impressions received through the senses; but in sleep a state of inactivity is induced, and the nervous force accumulates in the brain-cells. Natural sleep comes as a consequence of fatigue, and because the store of nerve-energy is nearly or entirely exhausted. During its continuance a fresh store of nerve-energy will be laid up, and if it be undisturbed, the store will go on increasing until sufficient is acquired for complete nerve recuperation. This point attained, the sleeper, if in good mental and bodily health, will awake naturally, and feel no further desire for slumber. But as the hypnotic state may be produced at any time in the twenty-four hours, and long before any perceptible inroad has been made on the store of nerve-energy laid up during the previous natural sleep, it follows that during the artificial sleep there may be great accumulation and excess of energy. All this can be concentrated and directed into any channel the physician may desire; and this concentrated and directed nerve-force must naturally affect the system more powerfully than any ordinary nervous impression. This fact may explain the rapid production of congestion to a given part (alluded to in Chapter V.), and also the sensation of warmth usually experienced in any part to



which the attention has been drawn. It also accounts for the success of the treatment in paralysis of long standing.

We may imagine in such a case, and the surmise would probably be physiologically correct, that the nervous channels are blocked to ordinary impulses sent to them from the brain, but that the extraordinary impulse from an accumulation and concentration of nerve-force is sufficient to break down and overcome the obstruction; as a dam which easily withstands ordinary currents is swept away upon the bursting of a reservoir, by the rush of accumulated water.

Bernheim defines hypnotism as *the production of a psychical condition in which the faculty of receiving impressions by suggestion is greatly increased*. But this is only half the truth; for not only is the receptivity increased, but the power to act upon and carry out the suggestion is increased likewise. Suggestions have all the force of commands, and the patient will strain every nerve to obey them. If he is told to move a paralyzed limb, or to speak after months of loss of voice, one can see what intense effort he puts into the attempt to comply. A stammerer making such effort will speak fluently, and a deaf person will distinctly hear a whisper. To express adequately the cause of such effects, the word 'suggestion,' in English at least, is far too weak, and therefore somewhat misleading.

The increased force of suggestion does not depend so much as one might suppose on the profoundness of the sleep. In the case of deafness, referred to above, the hypnotic effect was extremely slight; and, on the other hand, I have heard a person in a state of decided somnambulism argue with the operator as to the correctness of his assertions. In applying suggestion, all that is necessary is a state of increased receptivity of ideas suggested by the operator, and an ignoring of other impressions. This attained, it matters little from a therapeutic point of view whether light sleep, profound sleep, or som-

nambulism, is produced. My own experience, like that of all observers whom I have known, is that good results are effected when there has been no loss of consciousness, and even when the patient denies having felt any hypnotic influence.*

Consciousness is lost only in the advanced stages of profound sleep, and even when this has occurred there is remembrance on waking of everything that has happened during the sleep. A patient in profound sleep may be questioned, and will probably return answers, unless the question be put too brusquely, when it will be likely to wake him, or too gently, when he may shirk replying; for a person in this state dislikes being disturbed, and is especially unwilling to exert his reflective faculties. Nevertheless, if questioned as to his complaint, he will give truthful replies, and thus may help the physician in his diagnosis and treatment.

Bernheim seems to accept the theory of Herbert Spencer,† and of most psychologists, that two sorts of nervous action go on within the brain—the one automatic and instinctive; the other rational, volitional, and deliberative. Hypnotism suppresses the latter (the *Ego* of some psychologists), and allows full play to the former. It follows that where the second kind of nervous action prevails in an individual, he is less liable to be acted upon by external impressions, and is less the creature of impulse than one in whom the first kind is predominant. The more a man's actions are the result of impulse rather than of reason, the more susceptible he is to external impressions, and therefore to suggestive treatment.‡

* A gentleman, whom I am treating for various nervous affections, always denies having slept, and protests that he has remained conscious of everything going on around him. Yet if I put some small article, such as a paper-knife, into his hand during the sleep, and tell him to hold it tightly, he will do so, and on being aroused will show surprise at finding himself grasping it.

† 'Principles of Psychology.'

‡ He who obeys his instincts, and instantly knocks down a man who has insulted him (this being a purely automatic action), would thus be a better subject for hypnotism than he who deliberately calls a policeman and goes in for damages.

This brings us to the question, Who are the best subjects for the treatment, and how far is it applicable to the bulk of mankind?

Professor Charcot asserts that it is suitable, and indeed possible, only for hysterical subjects. He divides the hypnotic sleep into three well-defined stages: 1. Lethargy; 2. Catalepsy; 3. Somnambulism; and contends that there is a regular sequence in these, and that, according to the will of the operator, one or other can be produced.*

Drs. Liébeault, Bernheim, Beaunis, and others of the Nancy school deny the existence of these three stages. They assert that their experience in treating hypnotically a vast number of patients leads them to the conclusion that nothing resembling them has been or can be evoked *spontaneously*. They consider, in fact, that Professor Charcot has introduced a new hysterical condition into the Salpêtrière, and that this has become as it were an institution of the place which every new-comer hastens to comply with. They support this assertion by showing that when they in their Nancy practice explained to hysterical patients the effects produced by Charcot, the three stages, never before manifested, were forthcoming. Bernheim has well said: 'Méfiez-vous de la suggestion;' and an English physician has given an equally sage warning: 'Take care, or you will find what you are looking for.'† Charcot has thus entered the field weighted with a

* He obtains a state of lethargy by fixing the patient's eyes on a given point, or by gentle pressure on the eyeballs. This state resembles natural profound sleep. It passes into the second stage when the eyelids are opened: cataleptic rigidity may now be produced in a limb, and it may be bent or placed in any position. Moreover, emotions corresponding with the position are evoked. If the subject is put into a pugilistic attitude, his expression will become fierce and determined; if into one of prayer, it will wear the aspect of devotion. The third stage is produced from the first or second by gently rubbing the top of the head, when the cataleptic condition will vanish, and other characteristics will appear, chief among which are abnormal acuteness of the senses, and obedience to suggestion. The reader must be struck by the artificial nature of these stages.

† Braid was at one time misled into supposing that by touching the phrenological 'bumps' he produced corresponding effects. For instance, if he touched the 'bump' of Destructiveness, the subject immediately proceeded to hit out and to destroy whatever was within his

theory which he seems unable to shake off. If one of his school is shown a broad-shouldered navvy or a sun-dried old soldier in a state of profound hypnotic sleep, and is asked whether this looks like an hysterical subject, he will reply that appearances are deceptive, and that the very process of hypnotizing has developed a latent condition of hysteria, or one analogous to it.* The discoveries of Professor Charcot in physiology and pathology fully entitle him to the world-wide reputation which he enjoys; but the attitude he has chosen to adopt towards hypnotism is unfortunate. By attaching undue importance to *le grand hypnotisme*, as seen in his subjects at the Salpêtrière, and ignoring what his school calls *le petit hypnotisme*, and confining his researches to hysterical cases, he has retarded the progress of rational hypnotism. Of the considerable number of medical men I have met who have attended Charcot's demonstrations, not one has looked upon hypnotism as more than a toy, and not one has adopted it for the treatment of disease; whereas all those I have met who have studied the subject at the *cliniques* at Nancy have been thoroughly convinced of the value of the treatment, and have adopted it into their practice.† To my mind, the great merit of Dr. Liébeault

reach; if that of Benevolence, he would give away his watch, purse, etc., to any bystander. The fact is, that the sense of sight (under the apparently closed eyelids), that of hearing, etc., are so abnormally acute in somnambulists, that the slightest hint of expression, voice or touch, is sufficient to evoke from them the desired response.

* The fanciful method adopted by Charcot to produce the hypnotic state may give rise to unexpected results. Some of his highly 'educated' subjects fall into a state of catalepsy if a bright light is suddenly turned full on their eyes, and by the action of this excitant an hysterical patient of his was lately taken *in flagrante delicto*. She had stolen into a room, gone to a chest of drawers, and actually placed her hand on a coveted photograph which she intended to abstract, when a bright ray of light shot through a chink direct into her eyes, and she remained entranced and motionless until she was discovered. (*Revue de l'hypnotisme*, October, 1889.) I have never heard of the hypnotic condition being thus involuntarily and spontaneously induced when the Nancy method has been employed.

† Perhaps here I may be allowed to say that my own experience in this matter is a very pleasant one. It has been my privilege to demonstrate the Nancy treatment to a large number of medical men, and

is that he approaches the subject with only one end in view—the relief of disease. If the theories he has deduced from observed facts (for every man who is not a mere empiric must hold theories) do not, after closer observation, continue to correspond with them, the theories are thrown over, and not the facts, as too often happens. The Nancy school may therefore be called practical and therapeutic, in distinction from Charcot's, which is theoretical and experimental.

The following table, taken from Professor Beaunis's work, proves what a mistake it is to suppose that only hysterical persons are influenced by the treatment.

Patients submitted to hypnotization by Dr. Liébeault in 1880 (1,014) :

Not influenced	...	...	...	27
Drowsiness	...	...	...	33
Light sleep	...	...	...	100
Heavy sleep	...	...	...	460
Very heavy sleep	...	...	...	232
Somnambulism (slight)	...	...	...	31
Ditto (advanced)	...	...	...	131
				1,014

Professor Beaunis shows as follows the percentage of the different stages of hypnotism at different ages :

not only have they been kind enough to express appreciation of what they have seen, but they have practically shown it by at once trying the method in their own practices. Doctors are naturally only too pleased to adopt a new treatment which has been proved useful and which will help them to deal with many troublesome cases ; but it requires to be presented to them in a manner free from mysticism and exaggeration. The enthusiasm the good Dr. Liébeault shows is a part of his character, and lends a great charm to his advocacy of hypnotism ; but discretion is the better part for his followers, and I think they fully realize this.

	Somnambulism.	Very heavy sleep.	Heavy sleep.	Light sleep.	Drowsiness.	Uninfluenced.
To 7 years	26.5	4.3	13	52.1	4.3	—
7 to 14 "	55.3	7.0	23	13.8	—	—
14 " 21 "	25.2	5.7	44.8	5.7	8	10.3
21 " 28 "	13.2	5.1	36	18.3	17.3	9.1
28 " 35 "	22.6	5.9	34.5	17.8	13	5.9
35 " 42 "	10.5	11.7	35.2	28.2	5.8	8.2
42 " 49 "	21.6	4.7	29.2	22.6	9.4	12.2
49 " 56 "	7.3	14.7	35.2	27.9	10.2	4.4
56 " 63 "	7.3	8.6	37.6	18.8	13	14.4
63 and above	11.8	8.4	38.9	20.3	6.7	13.5

These statistics refer, of course, to Nancy, and, as has been already pointed out, that town is pervaded by an atmosphere of hypnotism and suggestion. But my friend Dr. Van Eeden assures me that at Amsterdam he finds the proportion of the 'uninfluenced' but little larger. The proportion of somnambulists, however, is undoubtedly much greater at Nancy than we could expect to find it in England. Among over two hundred patients I have as yet found only about twenty.

And here a word on the subject of somnambulism. As natural somnambulism is nearly always associated with mental or bodily weakness, so the artificial variety is, I believe, found chiefly in patients whose minds are weakened by hysteria or an allied nervous condition, or whose bodies are enfeebled by phthisis or some other wasting disease. It is an abnormal product of hypnotism, and, interesting though the phenomena may be from a pathological and psychological point of view, they are no more a part of suggestive treatment than an exhibition of the poisonous effects of drugs is a part of ordinary medical practice. They help to elucidate points in the treatment, and therefore must be studied, but experimentation upon them is outside the scope of the physician, as such.*

* See Appendix. Hypnotism being a new thing in England, the knowledge of it seems chiefly confined to theory, and one has to hear many fanciful and exaggerated statements. For instance, in an article on the subject in the *Saturday Review* of December 8th, 1888, *à propos* of a paper of mine in the *Nineteenth Century* for December, the writer,

evidently a medical man, states that a person once hypnotized is at the mercy of the operator, who can repeat the operation at will, even without the consent of the patient. Further, that anyone can easily hypnotize a person who has once submitted to hypnotism ; and again, that a person once hypnotized is unable to look people in the face without feeling an irresistible desire to sleep. I have made inquiries among my patients of both sexes, some of whom have been hypnotized many times, and have fallen into the profounder degrees of sleep. They can all certainly look me in the face for any length of time without feeling in the least degree sleepy ; and they all tell me that until they entirely give up their minds to the operation no soporific effect is produced. Most misleading conclusions have been drawn from exceptional cases, such as that of the 'Soho sleeper.' These belong in no sense to hypnotism as a therapeutic system, but are examples of hysteria. Constantly hypnotizing a weak-minded person for experimental purposes will probably bring about a morbid state of brain, and such abuse of a therapeutic agent can only be deprecated and discouraged.

CHAPTER V.

Psycho-Therapeutics not an exclusive System of Treatment.—Some Diseases found to benefit from it.—Organic Processes affected by Hypnotic Suggestion.—Blisters and *Stigmata* so caused.—Treatment especially useful in Neurotic Diseases.—Hysteria, Hypochondriasis, Dipsomania, and the Opium Habit.—Moral Depravity.—Double Consciousness.—Permanence of Cures.—Hypnotism distinct from Magnetism.—Possible Abuse of Hypnotism not a Bar to its Use in Medical Treatment.—Restrictions and Precautions necessary.

WE are now in a position to speak of suggestion as a mode of treatment and cure, and we will first consider to what class of diseases it has hitherto proved applicable. And here I may say that, although Dr. Liébeault rarely gives medicines, but obtains most of his remarkable results by the suggestive treatment pure and simple, his followers by no means dispense with those remedies which the researches of generations of able men have put within their reach. In suitable cases they make use of dietetics, drugs, electricity and massage, and the combination of these means with suggestion often gives better results than any simple treatment.

The suggestive method is especially applicable to chronic complaints. Rheumatic and gouty pains often yield to it, as do also many diseases of mal-nutrition, such as anæmia and 'general debility.' In derangement of the functions in women it acts very beneficially, both in checking excessive loss and in promoting a proper flow; also in relieving or curing periodic sufferings of all kinds. In chronic constipation and diarrhœa it has excellent effects, and patients usually find that the intestinal functions become regular through its use. Indeed, therapeutic

suggestion gives a healthy tone to the organic system generally, and tends to regulate all its functions. A consideration of the experiments of Bernheim, Delbœuf, and others will render this statement more comprehensible than it may appear on the surface.

Suggestion is extremely useful in cramp from the over-use of certain muscles, such as is commonly found among writers and telegraph clerks. It is very successful also in some cases of old-standing paralysis, and especially so in the infantile variety. Many practitioners speak highly of its curative power in nervous affections of the eyes, *e.g.*, hysterical amaurosis, and it is found beneficial in a few forms of deafness. In fact, wherever we find chronic disease resisting the usual methods of treatment, suggestion may be thought of as a useful ally.

Perhaps some readers will consider the scope here given to suggestion too wide, but I am convinced that its intelligent use by the medical attendant will be found beneficial in many cases where drugs do not act satisfactorily, or to reinforce the action of drugs. For instance, it may be desirable to give ipecacuanha, but the retching following its administration may render its use impossible at an important time; or a mild cathartic may induce colic, often half imaginary; in such cases hypnotic suggestion may be useful to calm over-sensitiveness. In how many diseases, such as typhoid and rheumatic fevers, are the attendant weariness and restlessness among the most distressing symptoms! These may often be relieved by this treatment, which is here advocated, not as a speciality, but as an auxiliary in practice to every medical man. Professor Bernheim uses it practically for every case in his wards, and finds it of immense value in calming nervous excitability, improving general nutrition, and producing refreshing sleep. The sick, and those reduced in strength, are exceptionally good subjects for hypnotic suggestion, and therefore offer a particularly favourable field for its employment. In many chronic cases it seems to give the patient a fresh start, and puts

the system in a condition favourable to the action of other remedies—such as massage. I am certain that it will, in many instances, be found a valuable adjunct to the Weir Mitchell method, and will supply the mental and moral element which is sometimes required in this treatment. Some patients are irritated rather than soothed by massage, and for these hypnotism will act as a preparatory step. Several well-known physicians, speaking to me on the subject of hypnotic suggestion, have told me that they find *suggestion* sufficient in their practice, without *hypnotism*, and have given several instances in which pseudo-paralysis and hysterical troubles generally have yielded to their well-timed assurances. But I maintain that if simple suggestion can work thus beneficially, its effects must be greatly increased by hypnotism, and that with this aid it will sometimes produce results which it would be impossible for it to achieve alone, even in the most able hands. It is, as I have said elsewhere, through unwonted concentration of the imaginative powers upon a given point, that suggestion works, and for most persons intense concentration is difficult—indeed, almost impossible to attain to in their normal state. Sir James Crichton Browne, in his eloquent address before the British Association at Leeds, in 1889, laid particular emphasis on the important rôle played by the imagination both in health and disease, and begged his audience to employ this power and direct it into proper curative channels.

In cases of 'railway spine,' and of disorders resulting from shock and concussion generally, it affords hope of relief and cure; and in such cases the patient should be allowed to remain in the hypnotic state for a considerable time, as, no doubt, the rest to the nervous system and freedom from pain and irritation are important factors in the cure. There is no question of the value of suggestion in the treatment of such nervous conditions as insomnia and hysteria, and of such diseases as require above all things mental calming and repose. It is often impossible

in many cases of chronic disease to say how much of the suffering depends upon organic disease, and how much on reflex disturbance and functional derangement. This is well seen in diseases of the heart where often the distress of the patient is quite out of proportion to the amount of lesion. In such cases the neurotic symptoms may often be relieved by hypnotic suggestion.

Its power over the organic processes has been clearly shown by many experiments, made either on students of the system or on patients, with their own previous consent. A patient in the hypnotic sleep is told that he has burnt his hand or some other part of his body; he not only feels heat and pain in the place indicated, but it frequently happens that the spot becomes red and inflamed, and exhibits all the objective signs of congestion, and even of inflammation, vesication, etc. The suggestion of the operator has, through the patient's imagination, been able to affect the vaso-motor functions of the sympathetic nervous system. This experiment and others of a like nature open up a wide field of pathological interest; for if suggestion can cause an increased flow of blood to a part, and local congestion and inflammation, can it not also dissipate and cure these conditions when they occur in disease? Clinical experience answers in the affirmative.

Professor Delbœuf, of Liège, desiring to ascertain the positive effect of hypnotic suggestion in the treatment of a burn, and being of course unable to find two persons of identical constitution and condition generally, used the ingenious device of producing, with caustic, two exactly similar burns on the same person—one on each arm—and of treating one wound by curative suggestion, combined with the usual remedies, and the other with the usual remedies only. Having induced hypnotic sleep, he suggested to the patient that the one arm should be cured painlessly and without any suppuration; and it did in fact heal, by simple separation of the slough and healthy granulation, ten days earlier than the other, which went through the suppurative process, accompanied by inflammation and

pain (*op. cit.*, p. 9). Were this case not reported by a well-known *savant*, I confess I should feel some hesitation in recording it here; as it is, its accuracy is beyond doubt.

Professor Beaunis (*op. cit.*) notes a case in which, by suggestion, he regulated the pulse of a patient. Before sleep there were 96 pulsations in a minute, which during the sleep increased to 98.4. He suggested a reduction, and it fell to 92.4. The pulse having again risen to 100.2, he suggested an acceleration, and it further rose to 115.5. The slackening and quickening of the pulse in each instance followed immediately upon the suggestion. The tracings were taken by Marcy's sphygmograph; and of these facsimile reproductions are given in Beaunis's work. He also succeeded in slightly raising the temperature of patients by suggesting an increase of warmth.

He describes at some length the production of all the effects of a blister by suggesting that one had been applied. 'M. Focachon, a chemist of Charmes, showed us (Drs. Bernheim, Beaunis, and Liébeault) this phenomenon on a patient whom he brought to Nancy. During her sleep, at about 11 a.m., eight postage stamps were applied to her left shoulder, while it was suggested to her that they were a blister. She was allowed to sleep all day, being, however, aroused for meals, and was kept under observation. When she retired for the night she was told to sleep until 7 the next morning. At 8.15 a.m. the dressing which had been put on was removed, and the stamps were found *in situ*. The surrounding skin, for four or five centimètres, was thickened, modified, and of a yellowish-white colour. The cuticle, however, was not raised, and did not form a blister; but it was thickened and wrinkled, and presented the appearance usual before complete vesication. This part of the skin was surrounded by a zone of intense redness and swelling. M. Focachon and the patient returned to Charmes, and by 4 p.m. four or five vesicles were developed. Fifteen days later the blister was still suppurating freely. M. Focachon made a similar

experiment on another patient, and in forty-eight hours produced a blister, which followed the same course.'

Professors Bourru and Burot, of Rochefort, succeeded in causing hæmorrhage from the nose, by suggesting that it should take place, in a young soldier of epileptic and hysterical constitution; they even fixed the hour when it should come on. On this same subject Dr. Mabilie, of the lunatic asylum at Lafond, produced instantaneously, by suggestion, hæmorrhage from different parts of the body, exactly similar in character to the *stigmata* of some mediæval saints.

In Binet and Féré's 'Animal Magnetism' (Kegan Paul, Trench and Co., London, 1887), the above and several other similar experiments are related; for instance, how Dumontpallier succeeded in raising the local temperature several degrees, and how Bourru and Burot wrote his name with the blunt end of a probe on both arms of an hysterical male patient, suggesting to him, 'This afternoon, at four o'clock, you will go to sleep, and blood will then exude from your arms in the lines which have been traced.' The patient fell asleep at the appointed hour, and the letters appeared on his left arm, marked in relief, and of a bright red colour, with here and there minute drops of blood. But no such sign appeared on the right arm, which was paralyzed.

Charcot (the writers go on to say) and his pupils at the Salpêtrière have often, by means of suggestion, produced the effects of burns upon the skin of hypnotized patients (pp. 198, 199). Féré adds that he has demonstrated that any part of the body of an hysterical patient may be made to change in volume by simple directed attention—thus showing what influence may be exerted by a simple phenomenon of ideation on the vaso-motor centres.

Binet and Féré cannot be accused of undue credulity. They refuse to accept as proof any phenomenon which has not been subjected to the most searching scientific tests; and they are so imbued with the theories of Professor Charcot, that they fail to see the therapeutic appli-

cability of hypnotic suggestion, except in hysterical cases.

The effects of suggestion are not necessarily temporary and immediate, but may be caused to appear hours, days, and, in some cases, months after the suggestion has been given. Bernheim cites several instances of this prolonged or deferred action, applied to the physical or the psychical side. Under the physical heading I should place the production of such an objective symptom as a blister or ecchymosis; and under psychical, a sensory impression, such as the appearance of an hallucination at a given hour, or the performance of a suggested action after a certain interval. For instance, a soldier, a patient of Dr. Liébeault, while in a state of hypnotic somnambulism was told that on a certain day in two months' time, at 10 o'clock a.m., he would come to Dr. Liébeault's consulting-room, and would there see the President of the Republic, to whom he would make a profound obeisance. The President would then advance towards him, would address him in complimentary language, and confer upon him a decoration, which he himself would fasten to the recipient's buttonhole. On the day appointed a considerable audience, consisting both of doctors and patients, was assembled in the consulting-room, and at 10 o'clock precisely the soldier appeared. As he entered his expression changed, he regarded the bookcase, and bowed low in its direction. He then advanced, bowed to Dr. Liébeault, and stood at attention, with a gratified smile on his face, and looking downward at his buttonhole. In a few moments he made another profound obeisance, muttered some words and walked away, much to the astonishment of those present, who were ignorant of the meaning of this pantomime.*

Dr. Beaunis tells a similar story of a young woman whom, while she was in a profound hypnotic state, he assured that on the following New Year's Day she would see him enter her room, and would hear him say, '*Bonjour, mademoiselle.*' This suggestion was made in July,

* Quoted by Binet and Féré, *op. cit.*, p. 245.

and on the following 1st of January the young woman wrote to the doctor, saying that she could not understand how it was that he had entered her room that morning, had greeted her, and then walked out immediately. She remarked further that he was dressed in the same clothes she had seen him wear in the month of July. At that time Dr. Liébeault happened to be in Paris, while the young woman was in the East of France.

Deferred suggestions, like nearly all suggestions given in the advanced stage of hypnotism, are almost invariably followed by amnesia. The subject when awaked has no recollection whatever of the order received by him, nor will it recur to his consciousness until the moment for performance has arrived. If he is then questioned as to his motives for such an action, he will probably reply that he did it upon an unaccountable impulse which he could not withstand. In very rare cases indeed, there exists for some time beforehand an impression that at a certain time a specified act must be done, or a specified word spoken. Occasionally, too, the hypnotic subject may recognise the impulse as having been dictated to him by a past suggestion; but generally, as I have said, it will be regarded as quite spontaneous, and not to be accounted for.*

Such phenomena throw a strong light on many stories of supernatural apparitions, and show how useful hypnotism may prove in the hands of competent observers as a key to psychical problems. Here we find an idea impressed on the 'unconscious mind,' and lying dormant for months, brought into action by the simple efflux of time, as certainly as a piece of clockwork can be set to run down at a fixed hour. I need hardly add that such experiments as the foregoing are successful only in a very small proportion of cases, and probably only in 'educated' subjects.

Fulfilment of a suggestion, the prompting of which has

* Further instances are given by Forel in his *Hypnotismus* (Stuttgart, 1889).

either not been consciously heard, or has been instantly forgotten, is not without its analogy in ordinary life. We must all acknowledge that we occasionally think, speak, and act in what seems a motiveless manner, and yet, by careful introspection or tracing back, we shall probably find that our thought, word or action has its source in some forgotten or apparently unnoticed incident, which has left its impression upon our brain-cells. The brain-cells, once stimulated, may under certain conditions, as in delirium, prompt the utterance of sounds apparently forgotten or unrecorded. Thus, we find persons on their death-bed, or in fever, speaking a language which they had forgotten since childhood; like an elderly Scotch physician, a friend of mine, who for an hour before his death talked only in Gaelic, the language of his childhood, which he had not spoken for fifty years. There is a well-known story of a servant-girl, who, in the delirium of fever, continually repeated passages from the Greek Testament, which her ears had unconsciously taken in years before, when she had been in the service of a clergyman. And all persons entrusted with the care of lunatics must know what unseemly and even vile expressions may, in the paroxysms of insanity, be uttered by young, refined and virtuous women, whose lives have been carefully guarded from evil influences. The vicious word or phrase heard by them long ago, perhaps in early childhood, while passing along a street, or standing at a window, though uncomprehended at the time, and apparently unremembered, was, nevertheless, recorded in the brain-cells.

It will thus be seen that suggestion is an exceedingly powerful agent—effective in the hands of the experimentalist, and efficacious also in those of the physician. When we consider that the knowledge of this treatment has only become general within the last four or five years, we must acknowledge that its progress, and the number of diseases which it affects, are both remarkable. But we must also acknowledge that it is no universal remedy, warranted to act like magic on all diseases. In some

cases it is powerless, or comparatively so. It cannot restore a joint altered by chronic rheumatism or gout, nor put right an internal displacement, nor can it remove cancer or other malignant disease; neither will it cure paralysis agitans, glaucoma, advanced Bright's disease, or diabetes. Neither can it materially benefit cases of phthisis or organic heart disease, though it may do much to relieve the sufferings incidental to all painful affections. It has been but little employed in acute illness. I believe that most of the Continental practitioners of the system use it chiefly at consultations in their own rooms, where, of course, sufferers from acute diseases are not likely to present themselves. It has occasionally been used in childbirth, with beneficial results; but in surgery it is not often employed. No doubt a few susceptible persons might be painlessly operated upon while under its influence; but as a rule, the natural agitation of a patient before an operation would so distract his attention as to render hypnotism impossible; whereas chloroform and other anæsthetics are easily administered, and are commonly certain in their effect. Professor Bernheim, however, uses suggestion in conjunction with chloroform, and finds that his patients take the anæsthetic better, and require a much smaller quantity, than when it is administered silently in the usual way. This is the experience of many chloroformists.

Suggestion may be usefully employed instead of narcotics in temporarily relieving acute pain, by inducing sleep which will not be followed by the deleterious consequences of such drugs. It is also used in cases where the sleep itself is remedial, as in threatening congestion of the brain, delirium tremens, and in insomnia, when it exists as an independent condition and not as a symptom of disease.

But it is in the so-called 'neuroses' that suggestion obtains its most brilliant successes—in functional epilepsy, St. Vitus's dance, asthma, palpitation, nervous headache, spinal irritation, neurasthenia, ovarian pain, and the many

forms of dyspepsia. Nervous disease is, unfortunately, ever on the increase; and the study of its symptoms, its cure and prevention, must increase to keep pace with it. As civilization advances, humanity develops 'nerves,' which, in this sense, may be said to have no existence in the savage and barbarous states. The vices and virtues of civilization tend alike to increase our sensitiveness. Drink, narcotics, the abuse of tobacco, social excitements, intellectual culture, the ever-spreading desire to be or do something remarkable—these and many other stimulating influences are perpetually at work to promote nerve-disease among us. In large cities especially, where men live under artificial conditions and at high pressure, we find in all classes of the community affections presenting subjective symptoms quite out of proportion to the objective signs. It would be interesting to ascertain what proportion neurotic affections bear to organic diseases in a city doctor's day's work. Probably one half at least. Many of us when fresh from the hospital are vexed and surprised to find how much of our practice is made up of such cases. They are really among the most painful and difficult complaints a physician is called upon to treat, for they generally indicate a weak and depressed state of vitality, in which the slightest suffering is felt with intensified force. Take the medical nomenclature ending in *algia*: cardialgia, cephalalgia, gastralgia, myalgia, neuralgia—what visions of suffering do these words call up!

Though these affections often depend upon organic disease, they more frequently have their source in nerve irritability and functional weakness. How they perplex the able practitioner, who feels quite at home with a case of scarlet-fever or inflammation of the lungs! Nervous disease generally—hysteria and hypochondria in their many forms—are spoken of contemptuously by some pathologists, who are impatient of subjective symptoms which have no apparent objective reason for existence. Therefore we must not be too severe on the friends of hysterical and

nervous patients who, perhaps after long endurance of their complaints, grow intolerant, and, it may be, incredulous of their sufferings. It is natural to ascribe to imagination an ailment for which neither friend nor physician can find any comprehensible cause; yet these so-called fanciful ailments may be as real as typhus, and entail a thousand times more suffering on the patient. Bodily weakness, unaccountable pains, depression of spirits, a weight of misery accompanied by the conviction that no power on earth can lift it, a sense of being neglected by friends, or of being to them a weariness and trouble—all these sufferings of mind and body are real enough and hard to bear, whatever their original cause may have been.

There is no doubt that they are sometimes brought about by the patient's own fault. They may spring in the first instance from indulgence in bad habits, from idleness, from a tendency to foster and dwell upon morbid ideas; in short, they frequently are diseases *caused by the imagination*, which is quite a distinct thing from *imaginary diseases*. Indeed, there is no imaginary disease; he who persistently imagines a disease in himself *has* one, though possibly not the one he imagines. For the imagination which can furnish its owner with a bodily disease is itself not in a state of health. Who with healthy, well-balanced mental powers could or would bring upon himself a sickness by auto-suggestion? 'No one can be a hypochondriac at pleasure,' aptly says Lavègne.

'When one of those hypochondriacs,' write Binet and Féré, 'whom we are apt to call *malades imaginaires*, comes to seek the help of medicine, complaining of subjective pains and uneasiness, what do we often reply? "It is nothing; it is merely fancy; try not to think about it;" and he is sent away with some anodyne or simple remedy. This invalid, who has suggested to himself his disease, and who really suffers from it, becomes convinced that it is not understood, and that nothing can be done for him. The more he trusts his physician, the deeper is this

conviction, and he who came with merely a trifling complaint may go away with one which is practically incurable.'

The disease induced by morbid auto-suggestion may be controlled and cured by healthy suggestion from without, given when the brain is in a state peculiarly receptive of outer influence. The mind of a nervous, hysterical, hypochondriacal person is usually shut against all outward influence, except such as corresponds with and feeds its morbid state. The patient when awake rejects cheerful and hopeful suggestions almost as if they were insults, but in the hypnotic sleep, his morbid self-influence being temporarily in abeyance, his mind will admit and act upon suggestions of bodily and consequent mental cure.

The suggestive system has been extensively taken up by foreign lunacy and mental physicians. Among these are Drs. Semal, of the Asylum at Mons; Mabilie, chief physician of the Asylum at Lafond; Burckhardt, of the Asylum at Préfargier (Switzerland); these specialists and others frequently report cases of amelioration and cure through the use of suggestion in the *Revue de l'Hypnotisme*.

The insane are not easily influenced by hypnotism: all who have anything to do with them know how difficult it is to get them to fix their attention on anything except their delusion, but once an influence is gained over them, suggestion may prove most useful.

That border-land of insanity occupied by dipsomania, the opium habit, and the excessive abuse of tobacco and other narcotics, offers to the suggestive treatment an extensive field of usefulness. Professor Forel, of Zurich, in his address at the Congress of Neurologists, held at Zurich in 1888, gave it as his opinion that suggestion is a very beneficial, and often a very powerful, agent in these cases, frequently enabling the drunkard to take that first step, which is always so difficult, towards reformation and cure. He cited also several cases in which he had succeeded by its means in curing patients of the opium habit in from eight

to twelve days, and that without the acute mental suffering which is commonly felt when an enslaving habit is quickly broken off. Drs. Van Renterghem and Van Eeden (of Amsterdam) likewise tell me that they have had great success in overcoming these moral diseases. At Nancy I had the opportunity of seeing many such cases in process of cure. One man came to Dr. Liébeault completely shattered by indulgence in tobacco, which he both smoked and chewed. He was a railway porter, a big, strongly-built fellow, but he was weak and shaky through his excesses. His digestion was faulty, his tongue thickly furred, and he had no appetite. His pulse was slow and intermittent; he felt giddiness on movement, and his sight frequently vanished through incipient amaurosis. Persons whose nervous systems are broken down in this way are very easily hypnotized, and Dr. Liébeault soon had this man in a state of profound sleep. He then told him that he was to give up smoking, that a pipe was to be to him an object of loathing, and a quid of tobacco even more offensive. Also, that if he did indulge in one or the other, pain and sickness would be the result, and that he must not even feel a desire for the indulgence. The patient came daily for several mornings, and daily showed an increasing improvement, till in a week he was completely cured of the symptoms of nicotine poisoning. He would, of course, have been cured by voluntary abstinence from tobacco, but I doubt if the beneficial effect would have been so rapid—and no one seeing the man would have credited him with the moral courage and determination necessary for breaking off a long-cherished habit. It is told of the younger Dumas that he was formerly an inveterate smoker, and on one occasion, feeling out of health, went to consult his doctor with the usual cigar in his mouth. The physician, one in whom Dumas had entire confidence, having heard his symptoms, told him plainly that smoking was destruction for him, whereupon the great writer immediately flung away his cigar, declaring that he would never smoke

another—and he has kept his word. But how many are gifted with such resolution?*

In the *Revue de l'Hypnotisme*, 1886-1887, some papers appear by Dr. Voisin, of the Salpêtrière, showing the efficacy of suggestion in the treatment of moral obliquity; and at the Congress of the French Association for the Advancement of Science, held at Nancy in 1886, papers dealing with this subject were read by several physicians of eminence. Dr. Voisin gives instances of female prisoners, formerly considered incorrigible, who, after a course of suggestive treatment (combined with the religious and moral instruction which, alone, had unfortunately proved ineffectual), became modest, cleanly, and industrious. Some of these reformed women have been placed in situations of trust, which they hold satisfactorily.

Many such cures are thoroughly authenticated, and the number of recorded cases is being rapidly augmented. In a most interesting article by Mr. F. W. H. Myers,† Dr. E. Dufour, the chief physician of the Saint-Robert Asylum (Isère), is quoted as follows: 'From this time our opinion is settled, and we have no fear of being deceived when we affirm that hypnotism can render service in the treatment of mental disease.' 'In common with most inquirers, Dr. Dufour finds only a small proportion of lunatics hypnotizable,' says Mr. Myers, 'but the effect produced on these is uniformly good. His best subject is a depraved young man, who, after many convictions for crimes, including attempted murder, became insane.' Dr.

* A near relation of my own has recently been undergoing hypnotic treatment at Nancy, for the cure of the tobacco habit, and his experience is interesting. After being a great smoker for years he formed the resolution of giving up the weed, as he found that it was causing nervousness and palpitation. Dr. Liébeault never induced in him more than a slight drowsiness, with inability to open the eyes, and yet the effect of suggestion was immediate and remarkable. Tobacco almost at once became distasteful to him, and he has never felt the least inclination to resume the habit. Probably in this case the patient would have been able to reform himself unaided; but Dr. Liébeault saved him from a good deal of suffering, and very likely from some relapses.

† 'Multiplex Personality:' 'Proceedings of the Society for Psychical Research,' vol. iv., 1886-7.

Dufour assures us that this difficult subject has become a reformed character through the influence of hypnotism.

Professor Forel, Medical Superintendent of the Cantonal Asylum at Zurich,* gives a case of reformation in a confirmed drunkard, seventy years of age, who, after twice attempting suicide, was placed under his care. He spent nine years in the asylum, during which he gave an infinite amount of trouble, drinking himself into a state of insanity whenever an opportunity offered, and inciting the other patients to rebellion.

In 1887, Forel hypnotized this apparently incorrigible subject, and treated him by suggestion. He proved susceptible, and after a few sittings became an utterly changed character. He proved his reformation by voluntarily giving up the small quantity of wine which had been allowed him, and joining the Temperance Society, which hitherto he had vilified and opposed. It was now safe to allow him full liberty, as the formerly attractive wine-shops were no longer any temptation to him. Dr. Forel adds, that during the last nine months he has been occasionally hypnotized for purposes of demonstration; but requires no further anti-alcoholic suggestion.

In such examples one would say that there are two separate entities dwelling within a single bodily form, and that one of these can be brought out and developed, while the other is so absolutely suppressed as to appear non-existent. To some extent this is indeed the case with everybody. The best of us can feel a suppressed evil self struggling at times to get the upper hand; the worst are dimly conscious of some crushed-down better self striving within them—however rarely and feebly. It is in a weakened or diseased brain condition that this psychological fact becomes startlingly manifest. Dr. W. Ireland† gives the case of a young man of good character, who, after an epileptic seizure, took possession of a carriage which he found in the street, drove to his father's

* *Op. cit.*

† 'The Dual Function of the Double Brain.'

grave a mile and a half away, gathered some flowers which grew there, and took them home to his mother. She was naturally alarmed at his conduct, and bade him take the carriage back to its owner ; but instead of doing this he left it at a livery-stable in his own name. When he recovered his normal state of health it was found that he had no recollection whatever of this circumstance. On another occasion, again after an attack, he engaged himself as a sailor, but was soon found by his shipmates to be utterly ignorant of seamanship, and extremely strange and flighty in manner. In a short time he recovered his usual consciousness, and was amazed to find himself on board ship and far from land, for he had quite forgotten the series of events which had led him there. It would be interesting to see what view a judge would take of the legal responsibility incurred in such a case.

But far more remarkable are the cases of Louis V—— and Félicité X——. The former is well described by Mr. F. W. H. Myers* (*op. cit.*). Louis V—— was born in 1863 ; his mother was a woman of ill-character, and as a natural consequence, he fell early into evil ways. At the age of ten he was sent to a reformatory, where he showed himself docile and obedient. Four years later he was frightened by a viper, and this fright brought about a series of convulsions and hysterical attacks, which left him with hysterical paralysis of the lower limbs. He became worse, and in 1880 was sent to the asylum at Bonneval, suffering from periodical epileptiform fits, and from paraplegia. He was now a quiet, well-mannered boy of seventeen, and the change in him for the worse was as yet merely physical. He had, indeed, forgotten how to read and write, but this was probably to be accounted for by want of practice, for he distinctly remembered his life before entering the reformatory, and was deeply ashamed of it. He was employed at tailoring for two months ; then he had a severe attack of hystero-epilepsy, after which he

* Fully described in medical detail by Dr. A. T. Myers in *Journal of Mental Science*, 1886.

slept for several hours. He awoke from his sleep entirely free from paralysis, and got up, intending to work in the fields, as he had been used to do at the reformatory, where he now believed himself to be. He walked with comparative ease, though somewhat uncertainly, a consequence of muscular atrophy from disease of the limbs. He recognised no one about him, and had entirely gone back to the time before his fright. His disposition was completely changed. From being quiet and tractable, he had become quite the reverse, and he was found out in a theft. In 1881 he escaped from Bonneval, and after a few years, which he spent partly in drifting about from hospital to prison, partly as a private of marines, he was sent to the asylum of Rochefort, having been convicted of a theft, but judged to be of unsound mind. Here he came under the care of Drs. Bourru and Burot, who carefully observed his case, as Dr. Camuset at Bonneval and Dr. Jules Voisin at Bicêtre had already done.

At Rochefort he developed hemiplegia of the right side, with consequent indistinctness and difficulty of speech, notwithstanding which, he was extremely impudent and abusive, and ready to expound his theories, which were all adverse to established authority. He could now remember only detached vicious periods of his past life. Contact with metals (metallo-therapy) was tried upon him: silver, lead, zinc, and copper had little or no effect, but when a bar of steel was laid upon his paralyzed arm the hemiplegia shifted from the right side to the left, which became insensible. Such a physical change is not uncommon, but the coincident mental change was unexpected and startling. Louis V—— had become another creature. The insolent and unmanageable patient was now gentle, modest, and respectful. His speech was once more distinct, but he now declined to give any opinion on important matters, declaring himself unable to judge of them wisely. His experiences as a marine were absolutely forgotten, and he remembered only the more reputable epochs of his life.

These two contrary conditions, evil and good, were by his physicians called his first and second states, and from them several intermediate and varying states could be produced. His 'fifth state' was especially curious. By being placed in an electric bath, or having a magnet applied to his head, he could, for a time, be wholly cured of paralysis. He became light and active as a healthy child, and on questioning him it was found that he had indeed gone back to childhood. He was again at the reformatory, and all his life after his fright from the viper was an utter blank. But let him be in any way reminded of that circumstance, and he fell at once into an epileptiform condition, which left him in his 'first' or 'second' state.

Louis V—— is now no longer at Rochefort, and according to the last account of him, his health and psychical status are both much improved.

The physicians who have had charge of this extraordinary case agree in supposing that the various observed changes point to a dual action of the brain, and the unstable preponderance of one hemisphere. The imperfect speech, and violent, insolent conduct associated with the right hemiplegia, in contrast with the clear speech and self-controlled demeanour which accompanied the left hemiplegia, show the contrasting tendencies (in this case) of the supremacy of the right and left hemispheres respectively.

Such marked effects of brain duality seldom appear spontaneously, except among the insane, idiots, and sufferers from brain disease or delirium. Dr. Ireland gives a case of double personality, which he has witnessed in an idiot boy named Finlay. This lad would talk to himself, and argue as if two persons were discussing a question. Sometimes he would thrash himself, saying, 'Finlay is a bad boy to-day,' and then would cry out with pain in his own personality. In some cases, where insanity follows upon injury or disease of one-half of the brain, the patient is conscious of the struggle for

mastery which is being carried on within him. The organism which remains sound controls the insane impulses of that portion which is damaged, until at last it becomes tired out, and partakes of the common intellectual ruin.

A most remarkable case of double personality is that of Félicité X——, which is fully described by Dr. Azam,* Professor in the University of Bordeaux. Félicité was born in 1843, of respectable parents. From childhood she showed a melancholy and reserved disposition. She was subject to hemoptysis, and dwelt continually on her bad health. At the age of fourteen and a half, her first transformation occurred. After a sudden pain in her head, she fell into a short trance, from which she awoke completely metamorphosed. She was now bright and lively, very loquacious, and even noisy. Her health seemed improved, and she did not complain of any ailment. But after a few hours, she again fell into a trance, and awoke to find herself in her first or normal state. Henceforth she passed her life alternately in one or the other of those two conditions. For some time the 'second state' did not occupy more than a tenth part of her existence, but by 1875 the relative duration of the two states, which had been changing by degrees, had become reversed, so that she was nearly always in the second state. In this latter condition, her memory of the past is complete, but in her first state all that has occurred in her second is utterly forgotten. Hence ensued some curious complications; for instance, while in her second state, she showed a very decided preference for a young man, whom in her first she completely ignored. On one occasion she was attending the funeral of a friend, and while returning home in the carriage, she had an access of trance, which lasted only a few minutes, and aroused no remark. She awoke in her first

* 'Hypnotisme, Double Conscience,' etc., Paris, 1887. One of the most interesting histories ever written, Professor Azam being a master of style as well as a scientific observer of the first rank.

state, without any recollection of why she was in the carriage, or whose funeral she had been following. By questioning, however, she managed to set herself right without betraying her change of personality. In due time Félicité married and became the mother of several children, but the alternation of personality went on as before, and assuredly she could have no secrets from her husband, as in her second state she revealed everything she had done in her first, even though she had intended to keep it secret.

Both Louis V—— and Félicité X—— proved excellent subjects for hypnotism; and in the case of the former hypnotism produced the same alternation of personality as did metallo-therapy. In this case it seems fair to attribute to its use by Drs. Bourru and Burot some of the credit of his recovery and reformation.

I have called the first state of Félicité X—— ‘normal,’ but should it be thus called merely because it happened to be the first? It is incomparably inferior to her second state, which has now almost entirely replaced it. In this second state, Félicité is frank and cheerful in her manner, an active woman of business, and an excellent mother.* In her now rarely recurring first state—her *état bête*, as she herself calls it—she is reserved, gloomy, and selfish. Which of these two is her sane, her truly natural condition? which her abnormal? Such instances lead us to inquire, Can the good effects which in this woman occurred spontaneously be brought about by outward means? The reassuring answer is that they can be, and have been, thus brought about, and in the future will be wrought more frequently and more completely. The newer hypnotism is still a young science, and before the physician and the moral reformer lies a vast field of psychical possibilities still to be explored.

Richet† describes how by hypnotic suggestion he

* The changes are chiefly psychical. In both states she suffers from chronic asthma and general delicacy of health.

† ‘L’Homme et l’Intelligence’: Appendix.

changed an enthusiastic Bonapartist into an equally enthusiastic Republican, who furthermore recognised her conversion. 'Vive Gambetta!' cried this lady. 'A veil seems torn away! How mistaken I have been about him!' The effects of such an experiment as this are of course superficial and transitory, but such incidents point to possible induced moral changes, which may be rendered deep and permanent.

The head-master of a boys' school tells me that he is obtaining good results in the suggestive treatment of moral disease and of mental torpor, and some of his pupils declare that when they have been hypnotized their sums 'come easier' to them than usual. Some time since I was called upon to treat a case of moral perversity—a young girl, who has greatly improved under the influence of suggestion. From being idle and rebellious, she has, so I am told by her teachers, become docile, and has developed a decided aptitude for study. A 'chronic' medical student, in about his tenth year, who consults me occasionally, assures me that my treatment 'winds up' his intellectual machinery, so that he can work several hours a day after each visit. But as the gentleman is only slightly hypnotizable, I do not take much credit to myself for this good effect.

It should be clearly understood that the use of hypnotic suggestion as an educational influence should be carefully restricted and never allowed to interfere with the healthy development of individual character. It should be reserved for cases where there is inherited or acquired vicious tendency, and should even then be resorted to only when other means have been fairly tried and found ineffectual. We know that in some young persons there is a complete breakdown of the moral self, while in some others it seems entirely absent, and it is for children of this debased or deteriorated type—such children as abound in our reformatories—that this moral treatment will prove most useful. I would especially mention its power to cure the inherited craving for alcohol, which so

frequently appears in the neuropathic children of drunken parents.

Many persons have objected to the educational use of hypnotic suggestion, on the ground that it is a tampering with the 'free-will' of those influenced. It is true enough that the will should not be *weakened*, but who would say that it should not be interfered with? Is it not a fact that all education and all moral training are an interference with free-will? The child who delights in school-work needs no coercion to application. The child—if such a one there be—who has no moral faults whatever, requires no exhortations to unselfishness, truthfulness, and other good qualities. But most children prefer play to work. Some will tell a lie to escape punishment; all, so it seems, have a variety of failings and bad habits, so that re-formative and preventive means must be used to train them to industry, truth-telling, and general excellence of conduct. It is, as I have said, only when those ordinary means have failed that hypnotic suggestion should be employed, and then it should work on the same lines as all judicious education: the child should not be made to obey like a slave or an automaton, but should be guided by suggestion, as by a wise teacher, to practise *auto-suggestion*, and thus, by his own will-power, to aid in the overcoming of bad habits and the acquiring of good ones.

At the Nancy Congress, Dr. Liébeault and others gave instances of dull, idle, and unmanageable children who by suggestion (combined in some cases with judicious home influence) were made models of industry and good behaviour. A schoolboy who had habitually kept at the bottom of his form was by this treatment so incited to work, that he soon occupied a place at the other end. Another child, seven years of age, so obtuse as to be almost an idiot,* was so benefited by suggestion, that in

* See also page 134. In cases of complete idiocy, suggestion may be considered powerless, the difficulty of exciting and concentrating the attention being almost insuperable.

three months he could read, write, and understand the four rules of arithmetic.

Dr. Hack Tuke, speaking of 'moral insanity' (*Journal of Mental Science*, 1885), well puts it when he says that in cases of this description, where, perhaps, the disposition and actions of one member of a family will by their perversity bring untold suffering on the relations, there is undue development of the lower or automatic functions, whilst the higher centres are defective, and that it should be our object to correct this disproportion by suppressing some functions and developing others. If (he goes on to say), the horses drawing a coach run away in consequence of the driver being drunk, it is not the horses we should blame for the accident, but the incapable driver who is no longer able to hold the reins. We know that badness may proceed from two causes, which Dr. Tuke calls moral resolution—positively bad, and moral irresolution—negatively bad. It is probable that in either case, if the offender were caught young, hypnotic suggestion would prove a valuable adjunct to other reformatory agencies.

In course of time the new personality, induced by suggestion and encouraged by religious ministrations and teaching, will displace the old, and a complete moral revolution will be the result.

In these cases a state of double consciousness,* such as one sometimes sees in natural somnambulism, was probably induced. A subject of this kind may live two alternate lives, one good, the other evil; and in one of these lives she will be unconscious of her actions in the other (Forbes Winslow, *op. cit.*, p. 420). In some instances both of these utterly different lines of conduct will appear so rational that it is difficult to decide which is natural to the subject.†

One is frequently asked whether the cures worked by

* Writers on somnambulism give many instances of this double consciousness.

† The story of 'Dr. Jekyll and Mr. Hyde' might be founded on one of these cases.

suggestion are of a permanent character. To this I reply, they are as permanent as cures effected by any other means. Relapses occur in many diseases, no matter what treatment has been employed; sometimes through some carelessness on the part of the patient or of those who have charge of him. A person who is cured of rheumatism to-day, may to-morrow get fresh cold and develop a new attack, or other symptoms. But with proper attention, and the customary precautions as regards diet, rest, temperature, etc., the success of this treatment is not transitory. The improvement effected by its means is often so marked and so rapid that patients are tempted to discontinue its use, and return to their ordinary habits before the cure is perfected and the habit of disease broken, forgetting that when a diseased condition has existed for some time it probably has taken firm hold on the system, and is not to be dispelled in a day. Sudden cures are apt to be fallacious, as are such cures by other modes of treatment; and though brilliant results are sometimes attained they can never be counted upon, and there should be no disappointment when improvement is a little delayed.

On the very threshold a difficulty may occur; the patient will perhaps appear insusceptible. This need not cause discouragement, for in many cases the hypnotic influence is not felt until after three or more séances. But very few persons remain insusceptible* to it; and when

* See tables, page 31. An apparent trifle may cause one operator to fail where another will succeed at once. I know a very able foreign physician who completely failed to influence two English patients because he smelt of garlic, and so called up disturbing emotions in their minds. I was once unsuccessful with a gentleman, who afterwards told me the reason of my failure. He imagined, as many do, that it is essential for the operator to possess great strength both of mind and body. When I touched his eyes to close them, he observed a slight tremor in my hand, and attributed this to a physical or mental weakness, which, he argued, must prevent my influencing him—a stranger, and a strong man of high intellectual capacity. The idea called up a resistance, which rendered him insusceptible. Subsequently, when I had explained to him that my personal attributes were, in this matter, of no consequence whatever, he easily fell into a profound hypnotic sleep. There is, however, a proportion of sane

once it is established, the hypnotic state is afterwards more easily induced, and tends also to become more intense, though this does not necessarily follow.

It is very difficult to eradicate a deeply-rooted popular belief, and it is not very easy for a practitioner of the suggestive system to avoid being called a magnetizer, since artificially induced sleep is the common preliminary of the treatment. But, as I have already stated, Dr. Liébeault and his disciples absolutely reject the fanciful theories regarding animal magnetism which were held fifty years ago. They contend that no unusual gifts are needed to practise the system, and that the chief requisite is confidence. (The above note shows how want of confidence may be detected by the patient, and how the very suspicion of it will cause failure.) With wider experience comes increased confidence in one's self and in the system, followed naturally by increased success.

But '*majus remedium majus venenum*' is a true saying, and it would be an exception to all rule if such a powerful remedy as suggestion were not liable to abuse. When dynamite was discovered, no one denied that the lawless and desperate would, if possible, turn it to bad account, yet it was not tabooed for this reason, but its manufacture and distribution have been surrounded by precautions and restrictions, and it is allowed to occupy its proper place in applied science in the hands of miners and engineers. Sir James Simpson was not prevented from making public his grand discovery of chloroform because nervous people were afraid it might be employed for evil purposes; nor is its use forbidden, though every year a certain percentage of crimes and outrages are committed by its aid. Poisoning by arsenic, corrosive sublimate, and digitalis sometimes occurs, and yet these drugs occupy a prominent place in the pharmacopœia.

persons—perhaps 10 per cent.—who are to all intents and purposes unhypnotizable. This insusceptibility seems to depend upon idiosyncrasy, and is neither a sign of commanding intelligence nor the reverse.

For it is found that although these powerful agents are sometimes used to inflict harm, the evil caused by their illegitimate employment is so outweighed by their usefulness that no one would think of suppressing them. So with hypnotism. Its power for good is undoubted; it fills a place that nothing else can fill so adequately, and used with proper precaution and under necessary restrictions it is perfectly safe.

Dr. Sémal, in the discussion on hypnotism in the Belgian Academy of Medicine (June 30th, 1888), having condemned the prostitution of the system by travelling *prestigiateurs* and charlatans, spoke strongly in favour of having it included in the medical curriculum of the universities, as being the only legitimate means of making it known. 'This course,' he said, 'would prevent its being used empirically and stupidly, and would keep it as a powerful therapeutic agent in the hands of the medical profession as long as the art of healing is practised.'

The exploitation of hypnotism as an exhibition at public entertainments has been already prohibited by law in Switzerland, Holland, and other countries, and when the true position of this treatment is understood among us, the same restrictions will probably be enforced in England.* 'The performance of experiments in public,' write Biné and Féré (*op. cit.*), 'should be condemned, just as we condemn public dissection of the dead body, and vivisection in public. It is certain that there are still graver objections to hypnotic exhibitions, since they are liable to produce nervous affections even in those who do not propose to be the subjects of experiment.' Such experiments, I maintain, are always useless and often cruel, besides being an offence against the dignity of humanity. The contortions and exclamations of a patient under chloroform are often interesting, and might by some

* One of the objects of the International Congress of physicians practising hypnotism, which was held in Paris in 1889, was to pass a strong resolution dealing with this question, and calling upon Governments to render public exhibitions of hypnotism illegal.

persons be thought amusing, but we should hardly choose to excite them for the gratification of idle curiosity or the entertainment of the multitude.

Since the foregoing pages were written, a remarkable development of hypnotism has taken place in this country, but unfortunately not altogether in the right direction. Several 'Hypnotic Societies'* have been founded for the instruction of the public in the 'art and mystery' of hypnotism, and it seems impossible to take up a newspaper or magazine without finding some reference—generally a misleading one—to the subject. It is to be feared that the interest of the public in this branch of science is somewhat outrunning that of the profession—a most unfortunate circumstance.

By all means let people be made aware of the existence and nature of an influence to which most of us are susceptible, and some to a dangerous degree, for to be forewarned is to be forearmed, and we shall not have foolish persons playing with such an edged tool if they know how serious may be the consequences of their trifling. A paragraph which lately went the round of the papers shows how ignorance may lead to awkward results. A couple of young men went to a café after attending a 'magnetic' performance, and one of them, full of what he had seen, proposed 'magnetizing' the barmaid. She consented, and he imitated the 'passes' made by the lecturer. Very soon the subject fell into a hypnotic trance, from which neither of the young men could arouse her. Like Ali Baba's brother, they had got into forbidden regions, and did not know the password which should let them out. The police were sent for, the young woman was taken to the hospital, where after a time she awoke, and the operator was arrested and locked up.

The following case has recently come under my own notice, for my advice was sought by the much-perplexed experimenter :

* See letter on this subject by the author in *The Lancet* and *British Medical Journal*, Oct. 15th, 1889.

A young gentleman, after a few lessons from a public magnetizer, went to stay in a country house where, among other guests, was a young lady of well-marked hysterical temperament. To show off his recently acquired knowledge, and to afford a little amusement, he undertook to hypnotize this girl, and after a few minutes' employment of the method known as *fascination* the subject fell into a profound trance. He had some difficulty in arousing her, and ever since she has had frequently recurring fits of cataleptic trance, which are always ushered in by an outburst of screaming, in which she cries: 'He is doing it now!' She is under the impression that the young man is constantly exercising a power over her, though he is hundreds of miles away, and her nervous system is reduced to a state which causes serious alarm to her family. That her idea is absurd, and that such action at a distance is impossible, renders the matter none the less painful for the young lady and her family, or less awkward for the rash experimenter. Such an occurrence naturally fills people's minds with dislike and distrust for hypnotism, for they confuse a wanton and clumsily conducted experiment with a medical treatment of which hypnotism forms only a preliminary step.*

There is another reason for the careful regulation of the use of hypnotism, which should appeal to all those who have the progress of science at heart. The process of hypnotizing an ordinary subject is so simple, that it seems absurd to talk of teaching it to a person of ordinary intelligence and liberal education; to see it done a few times is to be able to do it one's self. But of course this is

* A story told by the late Prof. Christison, of Edinburgh, bears on this point. He one day mesmerized a highly nervous lady, and when she awoke he told her that the following day, at noon, he would repeat the operation from a distance. At that hour the Professor was lecturing, and had quite forgotten the occurrence; nevertheless the lady, in spite of all her husband could do to prevent it, fell into a profound trance, and said she felt she was being mesmerized. Expectant attention and auto-suggestion produced the effect, and such is found to be the explanation of most of the stories which are foisted upon a credulous public.

the least part of the treatment, and in fact it bears the same relation to the Nancy method, as the administration of chloroform does to a subsequent surgical operation. The practice of hypnotic suggestion is surrounded by pitfalls which only the operator with a medical training can avoid, and the results of the treatment are only of scientific value if they have been checked by investigators accustomed to gauge the value of evidence. At the present time, when the treatment is, we may say, in its infancy, we want every fact scientifically investigated, and therefore it is of immense importance to restrict the field of hypnotism to trained medical workers.* If Dr. Elliotson, a physician of rare ability and a man of unimpeachable probity, had acted with the discretion shown by Bernheim and other foreign physicians, he would probably have arrived at the truth, which it required another generation to extract from a mass of superincumbent rubbish. By disregarding professional opinion, and allowing himself to believe any story which dishonest or incapable observers told him, he not only retarded the progress of the system, the development of which he had at heart, but rendered it difficult for medical men in this country to practise any psychical treatment, even at this distance of time.

Some persons, especially some young women, are so susceptible, that one has only to get their consent and to bid them go to sleep to induce a condition of profound somnambulism. In such cases 'expectant attention' alone seems sufficient, and it is matter for surprise that we do not find more people falling into spontaneous somnambulism, as the condition is so easily induced.

It is these subjects of unstable cerebral equilibrium who are most liable to danger from the abuse of hypnotism, and it is these, consequently, that we should especially seek to protect. I need hardly say that the use of

* I refer of course to medical hypnotism, with which I am chiefly interested. The scientific value of work done by such trained observers as Messrs. Gurney and Myers has been already referred to.

hypnotism towards the accomplishment of a crime or misdemeanour should be regarded as a serious aggravation of the offence.

Charcot in France, Ladame in Switzerland, and Sémal in Belgium, have done much to stop the public exhibition of hypnotism in those countries, by demonstrating the physical and mental evils which have befallen the subjects of such performances. Those who witnessed a so-called entertainment of this kind given in London last year, must remember how fatigued and languid, or excited and hysterical, were many of the subjects. The aim of a public entertainer is to excite wonder or mirth in the minds of his audience, and so long as he can evoke a sufficiently startling note, he cares little, even if he fully understands, that the instrument he plays upon is the delicate organism of the higher brain centres.*

There has been a great deal of correspondence in the daily press about hypnotism and suggestion during the last few months, and one writer in an evening paper complained that after being hypnotized she felt for some time a disagreeable sensation, as of being 'drawn to the operator.' I believe that such a sensation, unless suggested during hypnosis by the operator, could only be the result of hysterical imagination, and I have never seen anything of the kind in my practice. Such a statement, however, emphasizes the importance of the rule, that hypnotism should be practised only in the presence of witnesses, and that the patient should be thoroughly awakened before leaving the consulting-room. The best

* Apprehension of danger rests very frequently upon the misconception that loss of volition and amnesia are ordinary accompaniments of medical hypnotism. Such an idea arises from witnessing public performances, and it is difficult to eradicate. The physician who employs hypnotism as a remedial agent neither seeks to obtain somnambulism—in which state alone are the patients' memory or will-power seriously affected—nor, as a matter of fact, does it occur, except in a small proportion of cases. The condition ordinarily attained, and here I can speak from personal experience, is one of gentle lethargy, very similar in character to that agreeable state between sleeping and waking which most of us experience when, after being called in the morning, we give ourselves five minutes' grace before getting up.

guarantee against the abuse of hypnotism will be its recognition as a branch of medical treatment, to be used by medical men with the same caution as anæsthetics and poisons in general.

The practitioner who uses hypnotism should do so with the same precautions which he adopts in administering an anæsthetic. Chief among these are obtaining the formal consent of the patient, and, when expedient, of his friends, and never operating save in the presence of at least one witness. Thus he will guard himself and his patient from all possible imputation of wrong-doing or abuse of power. I need hardly add that a patient desiring hypnotic treatment will, if commonly prudent, use discrimination in choosing a physician, and will avoid placing himself under the influence of one not known to him, at least by reputation.

The dangers of hypnotism are, I believe, exaggerated. The stories told of persons obtaining undue influence over others by its means are mostly fables, which experience shows to be impossible. Professor Bernheim asserts, and is borne out by other observers, that no one can be hypnotized against his wish, and that in fact it is his own will which sends him to sleep. Nevertheless, there is no doubt that after a time the on-coming of sleep is less under the patient's control, and when, as we see sometimes at Nancy, a person is continually being hypnotized by the same operator, the hypnotic state can be reproduced with surprising readiness. I believe that in certain hysterical cases there arises a craving for this, as there might for any other sedative; but such a craving has little chance of being encouraged if the suggestive practice is confined to its proper sphere. A physician does not go on prescribing narcotic drugs because a patient has a craving for them, but, on the contrary, forbids their use when they cease to be beneficial.

The physician practising suggestion may protect his over-sensitive patients from the dangers of being hypnotized by a stranger. He has only to impress upon them,

while they are in the hypnotic state, that no one can produce any such effect upon them without their free will and formal consent. The most practised operator would try his art in vain upon one so protected, as Drs. Liébeault and Bernheim have repeatedly proved,* and as I myself have seen.

I may fitly bring this chapter to a close with a quotation from Professor Bernheim's oft-referred-to work: 'It is the duty of the physician to select what is useful in suggestion, and to apply it for the benefit of his patients. When, in the presence of sickness, I think that therapeutic suggestion has a chance of success, I should consider myself to blame as a physician if I did not propose it to my patient, and if I did not even make a point of getting his consent to its employment' (*op. cit.*, p. 580).

* These physicians were in the habit of hypnotizing an hysterical patient, who used to fall into somnambulism as easily in the hands of one as in those of the other. On one occasion, while she was in this state, Dr. Bernheim told her that she was not to be influenced by Dr. Liébeault. She awoke quite oblivious of this suggestion having been made, and soon afterwards went to Dr. Liébeault, who was ignorant of what had taken place, and asked him to hypnotize her as usual. To the surprise of both patient and doctor, all his attempts to do so were futile, and it was only on communicating the fact to Dr. Bernheim that his colleague found its explanation.

CHAPTER VI.

Some Points in the Physiology and Psychology of Hypnotism.—Authorities and their Theories.—Expectant Attention, Suggestion, and Inhibition.—Induction of Functional Aphasia, and what it Teaches.—Exaggeration or Suppression of certain Senses and Functions in the Hypnotic State.—Automatism in Hypnotism and in Pathological State.—Amnesia.—Hypnotism compared with the Action of Poisons.—The Double Brain, its Single Action in Health and possible Dual Action in Disease and in the Hypnotic State.—Cases illustrating this.—The Induction of Automatism without Hypnotism.

THE study of hypnotism will doubtless do much to advance our knowledge of the higher brain functions, and it is well to bear in mind that, as the phenomena depend upon an induced psychical condition, they may not be explainable by any physiological method which we at present possess. Charcot, Richet, Bernheim, Heidenhain, Hack Tuke, and others have, however, done most useful work by building up a working hypothesis, which serves as a standpoint for future investigators.

Expectant attention, suggestion, and inhibition are the processes which afford an explanation of the commonest phenomena.

Expectant attention seems to be a necessary psychical preparation, for an ordinary person may gaze at an object for an indefinite time without producing hypnosis, unless he expects such a result to ensue. Were this not so, spontaneous somnambulism (as in the case reported on page 172) would be of very common occurrence.

Brown Sequard and other neurologists show that when one cerebral centre or function is used to excess, the others become, for the time being, paralyzed or inhibited. A slight continuous stimulation of one sense is promulgated from its centre to those surrounding it—including those of higher cerebration: volition, attention, co-ordination of ideas, and memory—and causes their temporary

inhibition. This is seen in everyday life. When reading an interesting book we greatly exert our intellectual and emotional faculties, and consequently impressions on other senses are not registered or noticed. A noise in the street is unheard by us; a coal may fall on the hearthrug, and we neither see the accident nor are affected by the smell of burning wool; even bodily pain and mental suffering may be forgotten or benumbed while the attention is thus absorbed. Everyone knows how gentle friction of a skin-surface, in neuralgia or headache, will often act in the same way, by over-stimulating one sensory centre and rendering inactive that which registers the pain.

Heidenhain attributes the hypnotic state to monotonous gentle stimulation of a sense, causing inhibition of the higher cerebral functions. A monotonous sound or scene will thus induce drowsiness or sleep, and a sudden intense stimulation, such as a sudden noise or flash of light, will cause an awakening.* This is seen at magnetic séances, where the sleepers are commonly aroused by the sound of a gong.

The subject who has been hypnotized by the method of fascination sees nothing but the eyes of the operator, which shine forth with exaggerated size and brilliancy, and is unconscious of every other sensory impression. In the advanced hypnotic states, not only the higher intellectual centres are inhibited, but even those concerned with directing motor and sensory influences, and the subject lies as inert and unconscious as one suffering from cerebral compression or hæmorrhage into the ventricles, or as an animal from which the lobes of the brain have been removed.

* This fact may help to explain an occurrence such as the following, which was reported in several papers last March, and which a local medical man kindly authenticates for me. A miner in the Rhondda Valley, who many years ago lost his sight and speech in an explosion, recently recovered his sight through being present in a mine while a large quantity of dynamite was exploded, and standing as close to the charge as was compatible with safety. 'Expectant attention' had probably some share in his cure, as he had been told it would be effected by this 'counter-irritation.' His speech did not return on that occasion, but some weeks later, when he fell into a violent passion. Charcot *per contra* gives a case of 'psychical' aphasia following a violent fit of rage.

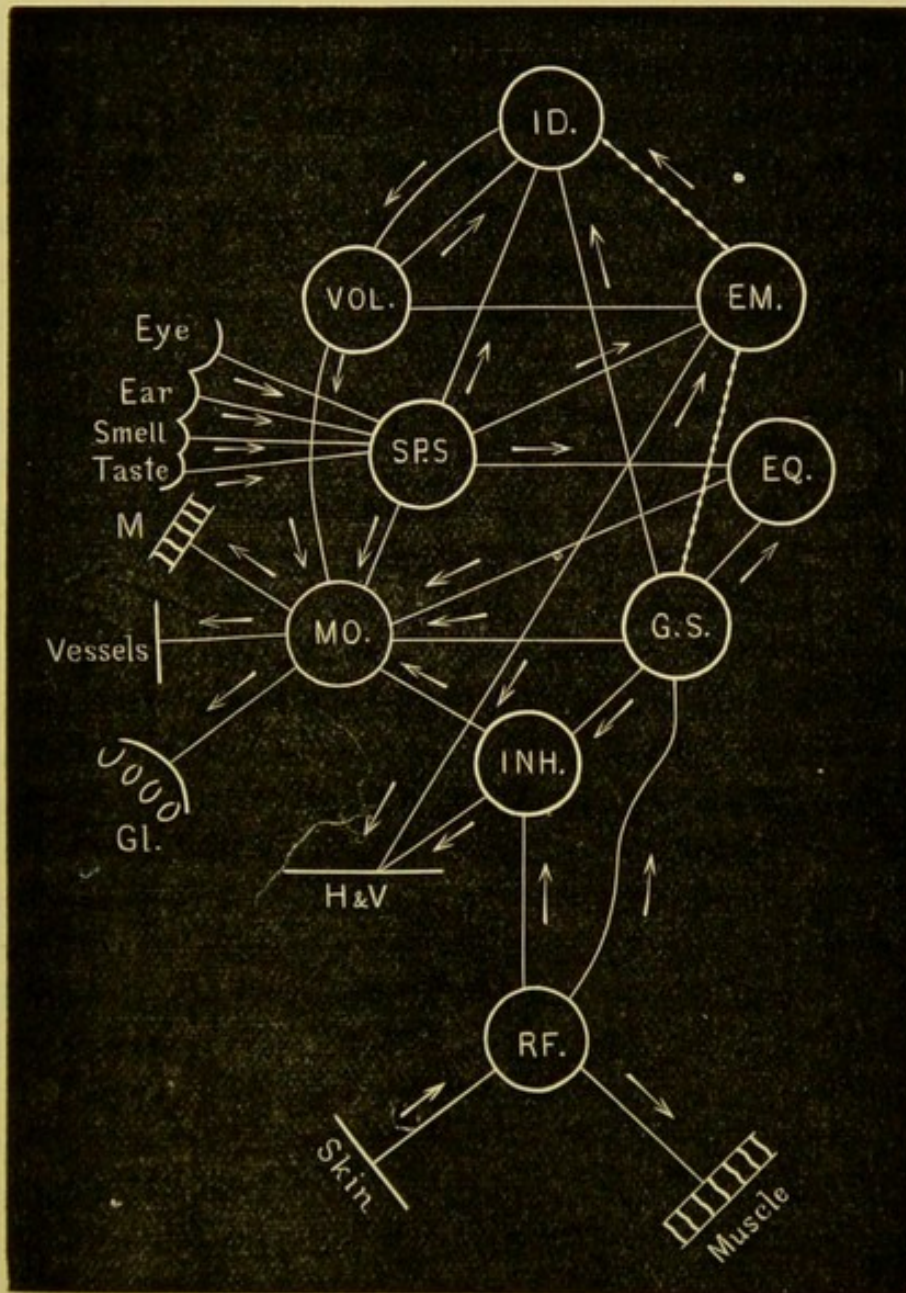
As in the former condition, the patient, on recovering consciousness, may continue the speech or occupation which was interrupted by the injury, so the hypnotized person, on being aroused, will sometimes carry on a phrase or an action from the point at which it was broken off by hypnotic influence—thus showing how completely the brain, as the organ of mind, has been paralyzed. But whereas in the coma of disease the paralysis is absolute and complete, in induced somnambulism it is partially or entirely removable at the command of the operator. He can arouse any centre to more than its normal functioning activity, so that the subject, who a moment before was insensible to the fumes of strong ammonia held close to his nostrils, will now recognise the faintest odour; and he who now lies in a condition of muscular impotence will, at the word of the operator, perform extraordinary feats of strength. The same holds good with the expression of the emotions. From a state of abject misery, the subject may be suddenly transported to one of bliss, and be it noted, that he shows both conditions far more markedly than he would do if awake; for in the normal state our emotions are subject to that inhibitory influence which we call self-control, and which is non-existent in the somnambulant subject, over whom each passion, each emotion that is called up, has for the moment an undivided sway.

If I am told to raise my arm, the order is conveyed to the auditory centre, and thence referred to the ganglionic cells of the cortex, in which the highest functions—attention, volition, comparison, etc.—may be supposed to reside; if endorsed by the will, it is despatched through the motor centres, basal ganglia and spinal cord, to the muscles, which perform the required action. Even if my will refuses to obey the order, it may happen that an involuntary stimulus is sent downwards, sufficient to cause some slight muscular movement, which, however, is promptly checked by the inhibitory action of the highest centres. But suppose the order is given in an imperative tone to one accustomed to obey the voice

of authority—a soldier,* for example—it will probably be executed automatically, without any functioning whatever of the will; the command is referred from the

* There is a well-known story of an old soldier who, while carrying home his Sunday dinner, was hailed by a practical joker, who called, 'Attention!' His arms immediately fell into the required position, and the dinner rolled in the gutter. Assuredly, volition had no voice in this matter.

The subjoined diagram (adapted from the 'Encyclopedia Britannica,' article 'Physiology') will assist the comprehension of voluntary and automatic actions.



Id., Ideational centre; Vol., Volitional centre; Em., Emotional centre; Sp. S., Centres for special sensations; Eq., Centre for sense of equilibrium; Mo., Motor centre; G. S., Centre for general sensation; Inh., Inhibitory centre; Rf., Reflex centre; M., Muscle; Gl.,

auditory centres, where it is taken in, direct to the motor centres, and through the basal ganglia to the muscles of the arm. In such a case, a like order has been so frequently followed by its execution that the two have become cause and effect, and the action is automatic or cerebro-reflex, and almost beyond the man's control. A hypnotized subject is in much the same position; his intellectual centres do not work, and an order suggests its fulfilment, without, and indeed sometimes contrary to, volition and reason.

A severe mental shock will sometimes induce this automatism; the various duties and actions of everyday life will then be gone through as in a dream, and often without leaving any recollection of their performance. A severe blow on the head will occasionally bring about a like condition—as in the case of a gentleman, aged twenty-one, a patient of mine, who was thrown from his horse while hunting. He subsequently recollected riding at the fence at which he came to grief, but had totally forgotten everything that followed until the end of the run, which lasted for about fifteen minutes after his fall. Yet I have the report of eye-witnesses, who state that he was up in a moment, mounted his horse, and joined the field as if nothing had happened; but that he wore a dazed expression, and made unintelligible answers to the remarks addressed to him. He is always a plucky rider, but on this occasion he surpassed himself, taking a dangerous fence which only one other horseman attempted, and which he would probably have avoided had his reasoning faculties been at work. He felt a severe pain in the vertex, which had been struck in his fall, and for a few hours remained in a somewhat dazed condition.

There is no memory of acts done in the somnambulic state, because that association of centres and balancing of one mental function by another which constitute ideation,

Gland; H and V, Heart and vessels. The lines show the association of one centre with the others, and the arrows indicate the direction taken by nervous impulses. Hypnotism may be supposed to cut off or inhibit some of these associations, *e.g.* the volitional from the motor.

self-control, attention, volition, comparison, and memory are for the time being rendered inoperative. A patient under hypnotic influence may be compared to a complicated machine, which is thrown out of gear, and yet can be so adjusted that some parts can be made to act independently of the others.

As regards the physical basis of the phenomena, little has as yet been discovered. Heidenhain supposed that there must be anæmia of the brain, until he found that his brother could be hypnotized as easily as usual immediately after taking a physiological dose of amyl nitrite. Other observers consider that there is a condition of cramp of the arterioles of the brain. We have probably no drug which acts exactly in the same way as hypnotism, otherwise we might use it as a vehicle for suggestion, especially in the case of patients who are insensitive to the hypnotic influence. Cannabis indica presents certain analogous symptoms,* and apparently exposes its consumer to an exaggerated action of suggestion. But there is this important difference. In hashish intoxication, the suggestion is simply a natural sensory impression, received *spontaneously*, and greatly exaggerated. The hashish-taker sees a small sheet of water, and in his

* If the following story is correct (and I have no reason to doubt my informant), the action of chloroform may, under certain circumstances, be considered analogous to hypnotism: At one of the large metropolitan hospitals there existed, about thirty years ago, a club of medical students, called the 'Chloroform Club,' the chief object of which was to test the action of narcotics, and especially of chloroform. The members met in each other's rooms, and consumed physiological doses of various drugs. On this remembered occasion chloroform was the narcotic chosen, and one of the members was, as usual, told off to keep sober and watch his companions. But the temptation proved too great for him, and he also inhaled a considerable dose of the poison. Into this room full of drug-excited young men came a late member who was extremely unpopular with the others, and one of them shouted, 'Here's —! Let us kill him!' The horrible suggestion at once took possession of the whole party. They flung themselves on the new comer, and a tragedy would certainly have followed, had not some students in another room heard the victim's cries of terror. They, of course, rushed in, and made a forcible rescue. The affair was hushed up, and the club dissolved; but some of those who took part in the episode, which in its weird horror reminds one of the situations of Théophile Gautier, are now respected members of the profession, and will remember the occurrence.

drug-induced dreams it becomes a magnificent river, a vast lake, or boundless ocean. He hears an Italian organ beneath his windows, and imagines himself listening to the orchestra at Bayreuth.

In alcoholic and other forms of intoxication, there is commonly an exaggerated automatic action, as seen in gesture, speech, and general demeanour, with corresponding inhibition of the higher and controlling centres, and increased readiness to act upon suggestion; whether it be self-supplied by the senses, or from without, by the bystanders. It is known that epileptics are extremely susceptible to suggestion, and any action suggested to one immediately after an attack would probably be executed automatically, without volition, and without subsequent recollection of its performance. This point is noticed by Dr. Gowers, and is interesting, as these subjects are peculiarly susceptible to hypnotism, perhaps because their cerebral centres are abnormally easy to dissociate and throw out of gear.*

With our present knowledge, it seems impossible to explain certain phenomena connected with advanced hypnotism. Some of these, which have often been attributed to clairvoyance, are undoubtedly the result of exaggerated perception. The subject will, under the stimulation of suggestion, read figures or letters at an amazing distance, will distinguish persons by a sense of touch too delicate to exist when the other faculties are at work, will feel the apparently imperceptible currents of air set in motion by 'magnetic' passes, and will comprehend and act upon hints and whispers which are inaudible to the ordinary listener. *Why* should the

* According to Richet (*op. cit.*) the normal sleep of young children is almost somnambolic, and in support of this theory he instances the case of his little boy, aged 5, who remains profoundly asleep when his father goes in at night to caress him, but who murmurs a welcome and returns the embrace. The next morning the child is unconscious of what has passed. It must be the experience of all observers that not only in such a matter, but in other everyday occurrences, a child is frequently in a condition resembling hypnosis, and this perhaps explains the fact that children are such satisfactory subjects for hypnotic treatment. The balance of the faculties has not yet been attained, and thus re-adjustment is easily affected.

hypnotized subject be deaf to all sounds except the voice of the operator, and hear and obey that voice, though it be but the faintest whisper, and the surrounding sounds a perfect babel? The waking of a tired mother at the feeblest cry of her infant, though loud noises are unnoticed by her, and that of Nelson's signal-lieutenant at the word 'Signal,' though the roaring of cannon had failed to arouse him, may afford an analogy, if not an explanation.

A peculiar species of phenomena is that in which a letter, or word, or object, is eliminated from the consciousness of the patient. For instance, A B is told that on awaking he is to write certain words, say 'Alexandra Palace,' without the letter *a*. He will do this, and in so rapid and business-like a manner, that the observer (who had better try to do the like), must be convinced of the genuineness of the experiment. Or he is forbidden to use the pronoun *I*, when he will be at extraordinary pains to avoid the word, and will not once be betrayed into employing it, though, as in the case reported by Max Dessoir, he may use its equivalent in some foreign language. The subject may be wide awake and perfectly reasonable in all other respects, but this *idée fixe* is firmly implanted in his mind, though he is absolutely unaware of its presence. If shown his copy in which the letter *a* or the pronoun *I* is missing, he will see nothing wrong about it, and the delusion remains until he is told to return to his usual state, when the absurdity of the thing will be at once apparent, and he will perhaps deny having written the incorrect words or sentences.

Several varieties of aphasia may be functionally induced by suggestion. The subject may be rendered incapable of uttering a sound (complete motor aphasia), or can be made to reply to every question by a meaningless formula, as in some of the pathological cases cited by Trousseau and by Gowers. He may be conscious or unconscious of the absurdity, just as in the pathological entity, and the condition may be modified in various directions. He may, for instance, be unable to pronounce the letter *e*, but able to write it, or *vice versâ*. We know that aphasia may occur

from functional causes, as from a strong emotion, when one is rendered speechless by terror, indignation, or overwhelming joy or surprise;* and the induced aphasia of hypnotism seems to resemble this variety rather than that which sometimes occurs in the course of typhoid fever and from reflex disturbances. The subject is well worth the attention of physiologists, and its study may throw light on some morbid conditions connected with speech. The differentiation is very much finer than anything of this nature to be seen in disease, and requires correspondingly fine analysis. Dr. Gowers remarks on the deficiency of facts and the redundancy of theories connected with this subject. Hypnotic experiments may help to increase the former and prove or disprove the latter.†

Violent emotion may cause other effects than transient loss of speech. Dr. Charcot‡ gives the case of an intelligent man, who, after a violent paroxysm of rage, lost the memory of visual impressions. Though he could see objects, they all appeared strange to him, and he could not recognise his friends, nor even his own face in the glass. Injury to certain parts of the brain, especially the lower parietal lobe, may induce this 'psychical' or 'mind-blindness,' and this condition can be exactly simulated by suggesting it to a sufficiently sensitive hypnotized subject. The association between the visual centre and the higher

* Dr. Ireland (*op. cit.*, page 273) cites a case of sudden *gift* of speech under the influence of exciting emotion. A well-known merchant in London had a son about eight years of age who was perfectly dumb, so that all hope of his ever speaking had long been abandoned. The boy was intelligent and had no other infirmity. During a water-party on the Thames the father fell overboard, and the hitherto dumb-boy cried out: 'Oh, save him, save him!' From that moment he spoke nearly as well as his brothers, and afterwards became an active partner in his father's business.

† By hypnotic suggestion reading may be rendered impossible (alexia). The subject may also be made incapable of writing (agraphia), and can even be prevented from expressing himself by signs (amimia). Sewing, drawing, and indeed every action, may be tabooed by the same means. (See 'Der Hypnotismus,' by Dr. A. Moll, page 92, Berlin, 1889.)

‡ Quoted in Landois and Stirling's 'Physiology.'

intellectual centres in which *memory* resides is inhibited in both cases.*

That suggestion acts by partially or wholly inhibiting the perceptive centres seems demonstrable; but how it does this cannot at present be explained. There is, of course, great scope for self-deception in hypnotic experiments; but if subjects of proved integrity are chosen (hysterical women and young boys are not so trustworthy as intelligent artisans), and if they are kept in ignorance of the phenomena which the operator desires to obtain, simulation need hardly be feared. Negative hallucination, as described on page 168, is a complex condition, which I cannot explain, as some would do, by calling it mere clever acting. Sometimes, indeed, I suspect *unconscious* simulation on the part of the patient, as in the case of E. H——, who, when told not to see Dr. F——, carefully avoided looking in his direction, and refused to answer when he spoke to her, except once, when she looked puzzled, and answered him while looking towards me. She assured me that Dr. F—— was not in the room, but had been called away to see a patient; this I had suggested to her in the hypnotic sleep. On being told by me to see Dr. F——, she immediately looked at him, and expressed surprise at his sudden return. But in most cases the blotting out is complete, and the subject may even be pinched or pricked by the person designated as invisible without feeling anything, and the invisibility may be extended to any article which he (the subject) takes in his hand.

Suggestion alone is sufficient to explain the success of a vexatious experiment practised on a Parisian accountant, who was told that two and two make five, and acted upon this information with startling results next day while making up his accounts.

* Partial or complete loss or impairment of all the special senses may be induced in a similar way by suggestion; *e.g.*, the subject may be rendered unable to perceive the odour of violets, while noticing all other scents, or to see red, while other colours remain distinct. The hypothesis that certain cells of the cortical perceptive centres are differentiated in the process of evolution to react to the special stimulus of certain sounds, odours, or colours, and that these are inhibited, is a tempting one.

The induction by suggestion alone of pseudo-paralysis in a limb is a curious phenomenon. I can say to E. F——, whom I have frequently put into a state of advanced somnambulism, 'You cannot move that arm or that leg,' and so evoke the idea of powerlessness, that for a few minutes the limb remains motionless, then with a sensation as of 'pins and needles,' power comes back to it, and she can move it freely. Max Dessoir describes how he influenced a postman whom he could not hypnotize in any usual way. He told him to make the movements required in stamping letters, and when he had done this for some minutes, cried in an authoritative tone, 'Now you cannot stop doing that!' The idea was fixed in the man's mind, and, in fact, he could not leave off. During his performance of an act that with him had become automatic, the higher centres, being inactive, were easily inhibited, and the hypnotic condition was then induced by suggestion.

The case of Mrs. M——, a hospital nurse, is typical and interesting. She was first hypnotized by me in October, 1888, and since then I have hypnotized her frequently—perhaps fifty times—generally to demonstrate various phenomena to medical friends. She is a person of little education, but has good natural ability, and is a clever nurse. I find her a somnambulist of an advanced type, with no memory on waking of what has occurred during the hypnotic sleep. As she was a good and willing subject, I used to get her to obey my suggestions post-hypnotically; but on one occasion she took offence at some remark of a bystander, and told me she would never again do anything of the kind. Henceforth her reply was always *No* when I asked her to do anything on waking, and such suggestions were never carried out. After some months, however, I persuaded her to withdraw her opposition, and she now again goes through the little tests which I propose. I find, as Binet and Féré have observed in some of their cases, that this subject is quite unconscious of obeying any initiative

except her own,* and invariably finds some reason for her conduct. For instance, she is told to move a lamp from one table to another, and if asked why she has done so, she replies that she thought it would look better in another place, or gives some such plausible excuse. No one could be more surprised than she is when told that she has simply obeyed an order. And as in dreams no commands given seem ridiculous, and hardly any are deemed impossible to fulfil, so it is with such 'advanced' hypnotic subjects. Nevertheless, Mrs. M——'s resistance to suggestion seems to show that some personal control is maintained, and her intelligent replies to questions demanding calculation and reasoning, such as, 'What is the best route to the city? How much time is required to get there?' imply some working of the higher faculties.

Dr. F——, a foreign physician of much experience, attempted in my presence to hypnotize this subject. Without being aware of it, she was protected by my having frequently told her, while she was in the hypnotic state, that she must allow no one except myself to send her to sleep. Dr. F——'s attempt to do so made her uncomfortable, but not at all sleepy, until I told her that she was to be influenced by him. My embargo thus removed, a few minutes sufficed to induce her usual state of profound somnambulism, in which she was anæsthetic and insensible to her surroundings. I now spoke to her, and she gave no reply, until Dr. F—— told her to do so, when she immediately answered my questions.

There is another curious phenomenon obtainable with the above-mentioned subject, as well as with many other somnambulists—a compulsory automatic action brought about and maintained by suggestion *without* hypnotism.† Thus, I set Mrs. M—— to perform the action of 'twiddling her thumbs,' and tell her that she is unable to dis-

* Dr. August Forel records, also, the same experience. 'Der Hypnotismus,' etc., page 31, Stuttgart, 1889.

† Dr. A. Moll (*op. cit.*, pages 192, 193) is of opinion that such obedience generally implies a slight degree of hypnosis, induced by the mere command in a susceptible subject.

continue it. Though she laughs and protests, and is apparently in full possession of her faculties, she cannot leave off the movement until I give her permission to do so.

Dr. Ireland, writing on the double brain (*op. cit.*), quotes largely from Dr. Edgar Bérillon's book.* This author certainly has the courage of his convictions, for after giving many examples of the double brain action, he records experiments which satisfy him that through the agency of hypnotism we can induce this double action. For instance, he will speak into the right ear of a subject in a profound state of hypnosis, and describe to her an amusing scene at a theatre; then into the other ear he will pour some tragic tale. The right side of the face will express pleasurable feelings, whereas the left side will, at the same time, wear a look of grief or terror. Dr. Bérillon defies anyone in an ordinary state of health, or even in hysteria, thus to produce the simultaneous expression of a double set of emotions. He makes the following inductions: '1. That hypnotism can suppress the physical motor and sensory activity of one hemisphere of the brain. 2. That it can give to each hemisphere a different degree of activity. 3. That the two hemispheres having an equal degree of activity, we can create for them at the same time manifestations varying in their seat, their nature, and their character.'

That a transference of functional activity from one side of the brain to the other may sometimes be effected by hypnotism seems to be shown by the case of Louis V—— (described on page 69). This subject was easily hypnotized, and in the hypnotic state would lose the right hemiplegia from which he was suffering, and walk quite naturally. When he was hypnotized, both his eyes were shut, as in natural sleep, and if either of them was forcibly opened the corresponding side of his body became cataleptic, while if both were opened the whole body took on this condition. If the right eye was opened while he was talking or reciting in the hypnotic state, he

* 'Hypnotisme Expérimental, la Dualité Cérébrale, et l'Indépendance fonctionnel des deux Hémisphères Cérébraux,' Paris, 1884.

not only became cataleptic on the right side, but also aphasic, and the physician in attendance, Dr. Jules Voisin, came to the conclusion that this action produced an inhibitory effect on the left hemisphere, and consequently and inclusively on the normal centre of speech. When the eye was again closed, he took up his speaking or reciting where he had left off. The opening of his left eye in his 'first state' had no effect in his speech; but in his 'second state,' during which his words and mode of expression were extremely childish, opening the left eye stopped speech, whereas opening the right eye produced no effect. This, according to Dr. Voisin's theory, supported to a certain extent by Drs. Burot and Bourru, showed that the speech centre had shifted sides. In his 'first state' Louis V—— used chiefly the left hemisphere of his brain, and in his 'second state' the right hemisphere, which being less educated than the other, accounted for the imperfect character of the speech produced during its preponderance.

Dr. W. Ireland,* in his delightful volume of essays dealing with abnormal mental conditions, gives some interesting examples of double consciousness occurring in the course of disease from poisoning. He refers to hashish-eaters being sometimes conscious of a double individuality, and he quotes the well-known case of a drunken porter who, when sober, used entirely to forget where he had left his parcels, and remembered it only when he was again intoxicated; that is, when the brain was again in the same specific state which it had been in when he committed the action. Dr. Ireland also mentions the sensation of double personality sometimes experienced by a person suffering from severe illness, who has appeared to himself as two different individuals, one of whom suffered, while the other looked on and pitied him.

The brain is, of course, a double organ, anatomically and physiologically, and though in normal life the two hemispheres are so functionally associated that they act

* 'The Blot on the Brain,' Edinburgh, 1885.

as one, such cases as those I have cited seem to show what most observers are agreed in concluding, that under certain conditions the partnership may be dissolved, and one side may act independently of the other. In some cases of insanity the patient has been observed to ask questions and reply to them, as in two different capacities, and Dr. Ireland supposes that in such instances the two hemispheres are acting alternately. He suggests that the existence of such conditions may prove a key to the explanation of many cases of 'spirit-possession' and hallucination.

The left hemisphere is much more used than the right, and in general is proportionately more developed, though in left-handed persons the reverse is said to be the case. But although we may ordinarily use only one half of our brain for certain actions, we can sometimes, in case of necessity, educate the neglected half to act when the other is injured. We may thus explain those curious instances in which, after an illness, previous education is forgotten, and the patient has laboriously to learn everything over again—to re-educate his brain, or rather to educate that portion of it which hitherto has been comparatively unused. Hypnotic suggestion, circumspectly used, might doubtless afford valuable assistance in such brain education.

The disassociation of the two sides of the brain, and the transference of preponderating influence from one to the other, certainly seems to afford a plausible explanation of many of the phenomena of advanced hypnotism. But it is not so easy to attribute to this disassociation and transference the therapeutic and other effects observable in the minor degrees of hypnotic influence with which the practitioners of the Nancy school are satisfied. Physiological theories change as knowledge increases, and when they are proved to be erroneous they are apt to drag down in their fall the practice which has been founded upon them. Therefore, while avoiding mere empiricism, it is safe not to depend too much on any as yet unverified theory of hypnotic suggestion. Within the next few years a flood of light will assuredly be thrown upon this subject.

CHAPTER VII.

Reality of Hypnotic Phenomena.—Simulation Tests.—Practical Directions for Medical Hypnotism.—Absence of Personal Element in the Nancy Treatment.—Method of Fascination.—Voisin's success in Lunacy.—Forel's Opinion of the Treatment.—Hypnotism best applied by the Family Physician.—Some diseased Conditions benefited by Hypnotism.—Medical Education essential for its successful Practice.—Aids to Hypnotism.

To the believer in the scientific certainty and therapeutic value of hypnotic suggestion, it is somewhat trying to be told, as he sometimes is, that the whole thing rests upon a foundation of error or misrepresentation. Sceptics, we find, divide themselves naturally into two classes: those who entirely deny the existence of the hypnotic state, or affirm that its production is so rare as to be hardly worth taking into account; and those who, while they acknowledge the reality of the psychical condition, refuse to believe in its utility as a remedial agent.

The former are a diminishing quantity, and must soon succumb under the accumulating evidence adduced by such scientists as Charcot, Richet, Hack Tuke, Moll, Heidenhain, Myers, etc.

The attitude of the latter class is comprehensible and, indeed, natural; and it is right that the guardians of the public health should exercise a healthy scepticism and demand convincing evidence before approving a treatment of this kind, or admitting it into their practice.

The work of such practical observers and clinicians as Bernheim and Liébeault of Nancy, Voisin, Bérillon and Luys of Paris, Schrenk-Notzing of Dresden, Van Renterghem and Van Eeden of Amsterdam, Albert Moll of

Berlin, etc., will soon supply the necessary therapeutic testimony—if, indeed, it has not already done so—and we shall see hypnotic suggestion take its place in the armamentarium of the medical practitioner in spite of the difficulties thrown in its way by charlatanism and impostors past and present.

The *argumentum ad hominem* is, as Richet* tells us, undoubtedly the best to use; and as medical men are often excellent subjects, it has sometimes been my good fortune to convince a friend, and at the same time benefit a patient, by putting a member of our profession into one or other stage of the hypnotic state.

That simulation and imposture are frequently practised at public ‘entertainments,’ I am not concerned to deny, though, as Dr. de Watteville remarks, it is easier to procure a genuinely susceptible subject than to take the trouble of training a confederate. Public performers are generally careful to have with them some subjects whom they have frequently hypnotized, so as to be prepared for contingencies.

I readily admit that the desire to please and to appear interesting will, especially among hospital patients, lead to a good deal of simulation, intentional or unintentional. But in private practice and among intelligent patients, simulation is a bugbear of which we need take little account. With experience, too, comes the ability to detect deception, and the practised hypnotist is on the watch for it,† and is very acute in perceiving its slightest tokens. And in fact, the patient is, as a rule, *more* rather than *less* influenced than he supposes. He will frequently say that he has in no way lost control over his thoughts and actions, and will be surprised to find that he cannot

* ‘L’Homme et l’Intelligence.’

† Charcot has devised an ingenious instrument, by means of which the tracings given by the involuntary movements of the arm in simulated catalepsy can be compared with the very regular and even tracing made on a revolving cylinder when the subject is in the genuine hypnotic state. This contrivance may prove useful in the detection of fraud. (*Vide* ‘Diseases of the Nervous System,’ vol. iii.)

open his eyes, or that his arm has become immovable at the operator's bidding. The very way in which he tries to open his eyes is characteristic of an altered condition. Instead of using the levator palpebrarum, he wrinkles his brows and energetically employs the frontalis. If at last he succeeds, it is only after great exertion, and the eyelid opens in a peculiarly slow and heavy manner. In the same way, if, after being a little more influenced, he is told that he cannot bend or otherwise move his arm, he will make violent efforts to do so with the wrong sets of muscles, and will perhaps at last, with difficulty, effect a partial and jerky movement in the desired direction.

It is but fair to ask one's self, Why should a patient make pretence about hypnotism any more than about other medical procedures? If we give a prescription to remove neuralgia or rheumatic pains, we do not accuse our patient of simulation when he returns and tells us that the *mistura ferri* or *sodæ salicylas* has relieved or cured him, but rather attribute this good result to our remedy, and congratulate ourselves on its success. The therapeutic test is a perfectly fair and correct one, and as it is neither necessary nor desirable to produce the physiological action of drugs when we give them as curative agents, so it is needless to evoke or expect the phenomena of *le grand hypnotisme* in cases where we use suggestion as a remedy. A knowledge of the physiological action of a drug is necessary, as, without such knowledge, we should be using it empirically; and a familiarity with the phenomena of advanced hypnotism furnishes us with a key to the action of suggestion, as in the phenomena of poisons we find one to the action of drugs.

The method I usually adopt to produce the hypnotic state is that practised by Liébeault, and is undoubtedly the easiest and most rapid. The treatment is psychical, and attention to detail is absolutely necessary to success. The existence in the patient of any opposing idea, as of fear—or of a spirit of ridicule, or of decided hostility—or a consciousness of bodily discomfort, will render futile all

attempts to hypnotize him—at least at the first trial. His mind must be at rest, his position comfortable, and the environment should be such as would favour the advent of ordinary sleep. It is sometimes helpful to hypnotize one or two patients in the presence of a newcomer, so as to arouse his imitative faculty and dissipate any nervous feeling he may have. And some friend should always be present during the entire operation.

The patient reclines on a couch or in an easy-chair, and I stand or sit beside him, and hold the first two fingers of one hand at a distance of about twelve inches from his eyes, at such an angle that his gaze shall be directed upwards in a strained manner. I direct him to look steadily at the tips of those fingers, and to make his mind as nearly blank as possible. After he has stared fixedly for about half a minute, his expression will undergo a change—a blank look coming into his face. His pupils will contract and dilate several times, and his eyelids will twitch spasmodically. These signs indicate a commencing induction of the desired psychical condition. If the eyelids do not close spontaneously, I shut them gently, and the progress of sleep is generally helped by verbal suggestions, such as : ‘Your eyes are becoming heavy ; they are getting more and more heavy ; my fingers seem indistinct to you ’ (this when the pupils are observed to dilate or contract) ; ‘a numbness is stealing over your limbs ; you will be fast asleep in a few minutes ; now sleep.’ It is sometimes an assistance to lay one’s hand gently, but firmly, on the forehead.

In ordinary cases, the operator will find that the hypnotic condition has by this method been induced in from one to three minutes, and he may now ascertain what degree has been arrived at. This depends chiefly, if not entirely, on the temperament of the subject, and I consider it impossible to foretell with any certainty what stage of hypnotism will be reached by any person who has never yet been hypnotized. I do not, as a rule, make many suggestions at a first sitting, but I gently rub the

epigastrium and suggest a feeling of warmth in that part of the body, a general sensation of comfort and well-being and an agreeable awaking. After a few minutes I tell the patient that he has rested long enough, and that he can open his eyes and arouse himself. He generally obeys at once, and says that he feels refreshed and comfortable. I ask him what he remembers of his few minutes' rest, and he generally tells me that he has heard every word I said to him, and also any other sound that there may have been, but he adds that he felt a great disinclination to move or speak until he was told to open his eyes. He finds the feeling of warmth, induced by suggestion and by gentle friction of the abdomen, very marked, and this sensation will probably continue for several hours. He is perfectly awake and quite himself before he leaves the house.

The feeling of warmth is an important symptom, and Dr. Liébeault is invariably confident of doing good to the patient in whom he can produce it, if the malady is a tractable one. Magnetizers naturally attribute this sensation to the passage of the magnetic fluid from the operator to his patient, but it seems to arise from stimulation by suggestion of the vaso-motor centres, and from a transmission to the part of increased nerve and blood supply. A sensation of cold can often be substituted by suggestion for one of warmth, as I have seen in cases of gastric ulcer and of congestive headache; in such a case the physiological process is perhaps reversed. Suggestion without contact would probably suffice to produce this local action; and there is no doubt that friction with a book or other small article has generally the same effect as hand-friction.

On a second visit, the patient will usually enter the hypnotic state more rapidly, and its degree will very likely be found intensified. Therapeutic suggestions may now be made, or, if it is desired, the extent of hypnotic influence may be tested. This is generally done by first raising the arm at an angle to the body, and telling the

patient to keep it there. If the cataleptic state has been reached, it becomes stiff and rigid in that position, and will remain in it for an indefinite time corresponding to the subject's muscular development. If the arm shows no tendency to drop, a rotary motion may be given to it, and the patient told to continue this movement. If the third degree is reached, he will do so until he is ordered to desist. The tests of somnambulism may now be applied. The first of these is to speak to the patient and get him to reply. Another person is then told to address him, and if the questions he may put fail to elicit any response, it will be evident that the subject is *en rapport* with the operator only, and other tests may be used, such as tickling the nostrils with a feather to demonstrate that anæsthesia exists, and prove the depth of somnambulism. Finally, if all these tests point to decided somnambulism, post-hypnotic suggestions may be made. The patient may, for instance, be told to sit on a certain chair, to open some book at a particular page, or to write a sentence leaving out a specified letter. Negative hallucinations, delusions of the senses, etc., can also be suggested. I need hardly insist that such tests and experiments are quite inadmissible without the previous consent of the patient and the presence of his friends.

Hypnotism, as I have already said, is merely a psychical preparation or vehicle for suggestion, and this condition being induced, it remains for the treatment to be applied. The suggestions vary, of course, with the nature of the malady to be treated. If headache is the chief symptom, the head is gently rubbed, while the disappearance of the pain and its non-reappearance are suggested. If sciatica, the course of the sciatic nerve is rubbed, and the substitution of warmth for pain is suggested. If insomnia, the patient is told to feel sleepy at a certain time, and to sleep steadily through the night. If constipation, a motion is suggested at a specified hour—for instance, after breakfast. In treating rheumatic affections, the parts are well rubbed and the joints and muscles exercised by movements. In

neurasthenia and spinal irritation, the spine is rubbed and kneaded. In cases of amenorrhea, the advent of the period is suggested at the time when, by inquiry, it is found to be due.

In moral cases, such as dipsomania, a dislike of stimulants and a freedom from craving or discomfort is suggested, as also are self-control and a desire for cure. The training and tact of the physician find full scope in the application of suitable suggestions, and also in the recognition of the amenability of a case to this treatment.

The results are often more pronounced and more rapid than in most lines of treatment, and a patient may awake relieved or cured of a long-standing pain or loss of function ; but it is well that neither patient nor physician should expect too much, and marvellous cures are apt to be short-lived. There should, however, be a steady improvement from day to day, and if, after a few trials, no change is observable, I generally give up the case, as being unsuited for the treatment. Dr. Liébeault allows only a few minutes for each case, but in many instances it seems to me desirable to let the patient rest for twenty minutes or longer, for we may well suppose that during that period suggestions are working under a favourable condition of the nervous system.* The treatment should be repeated at intervals of not more than two or three days ; other-

* Prof. Wood, of Philadelphia, writing to *The Lancet*, Jan. 11th, 1895, on hypnotic suggestion, which he has recently studied in Paris, and has introduced into his hospital practice, seems to consider that the hypnotic sleep alone is frequently sufficient to promote cure, and to think that Bernheim is wrong in attributing everything to 'suggestion.' I entirely agree with Dr. Wood that in certain cases of hysteria and nervous exhaustion and irritability the physiological rest enjoyed during hypnosis is a powerful and, perhaps, sufficient factor in the cure ; but it is impossible, even in these cases, to eliminate curative suggestion, for where it is not expressed by the physician it is understood and supplied by auto-suggestion by the patient. Dr. Wood's remark that the atmosphere of the Nancy and Paris hospitals is 'heavy with faith' applies, fortunately, to all institutions where cure-work is carried on. In London, at present, we have not the advantage of this meteorological condition, but the results are sufficiently satisfactory in suitable cases.

wise incipient improvement may be checked by a fresh relapse.

I find improvement progressive, and cure permanent when once achieved. But in many patients there is a tendency to give up when a certain amount of progress has been made ; and this tendency should be strenuously combated. In moral cases, it is absolutely necessary to have the patient under trustworthy observation, so as to guard against deception and relapse. I now refuse to treat such cases unless the friends are able to give proper supervision ; and even after the cure appears complete, the patient, so I consider, should be told to report himself at regular intervals for at least a year, for repetition and reinforcement of the suggestion.

My practice is to make three or four attempts to hypnotize, and if no effect is produced I feel that the subject is not susceptible. In this respect I confess I lack the confidence and perseverance of Dr. Moll, who seems to think that every one can be hypnotized, by one method or another, in course of time. He relates how he tried one patient forty times ! An experience which speaks equally for the faith and pertinacity of patient and physician. I have occasionally, in special cases, made five or six attempts, but so far I have almost invariably found that if no effect is produced at the third sitting it is useless making further attempts—at least for some time to come. It is quite probable that circumstances may change, and subsequent attempts be successful. One frequently finds the degree of hypnotic effort varies. For instance, I hypnotized Mr. R——, in November, 1888, and noticed that he fell into the fourth stage. He was suffering from chronic bronchitis, and was in a low, depressed state of vitality generally. Subsequently I could never induce more than the second degree, for as his health improved he became less susceptible.

As regards personal qualification, I should say that tact and confidence are the only requirements. Different patients require to be approached in different ways, and

the somewhat imperious tone which is necessary in some cases would arouse fatal antagonism in others.

The education and training of a medical man naturally tend to the development of these qualities, and from my experience I believe that any medical man can, with a little practice, succeed in hypnotizing the majority of patients. Any one can hypnotize some people, and there are others whom, practically, no one can influence. Between these extremes lies a third and comparatively small class, with whom it requires experience and practice to succeed, and it is the management of these cases which requires most time and patience. Doctors who have known nothing of hypnotism, except that they have seen me hypnotize two or three patients, have frequently gone home and at once been able to hypnotize their wives, children, and servants, and have only been stopped in their run of success by meeting a case altogether insusceptible or requiring very careful management. Dr. Bernheim in his Hospital Clinique, claims over ninety per cent. of successes, and four-fifths of the patients fall into profound sleep or somnambulism, whereas in his private practice this is altered in a remarkable degree, for though nearly the same percentage are influenced, only one-fifth or one-sixth fall into profound sleep without recollection on waking. The French seem slightly more susceptible than other nationalities, but Forel, at Zurich, Yung, at Geneva, Moll, at Berlin, Van Eeden and Van Renterghem, at Amsterdam, and Wetterstrand, at Stockholm, obtain nearly as good results.

In my own practice I have found the following results :

Somnambulists	32
Profound sleepers	35
Light sleepers, or somnolent . .	88
Doubtful	9
Uninfluenced	42

Number of persons operated on . . . 206

All classes of society are represented in this table, which does not profess to be anything but a record of a somewhat limited personal experience. The English uneducated classes have an invincible distrust to novelty in treatment, and to this I attribute my almost complete want of success hitherto in public institutions. On most occasions, when I have talked to the patient and got him to come to my house, he has been easily hypnotized, and I have no doubt but that when hypnotism becomes a recognised treatment in hospitals, English experience will not differ widely from that of Nancy. One of the somnambulists is a doctor in large general practice. My oldest patient was a gentleman of eighty-two, who fell into the second stage, and was cured in a few days of an attack of gouty sciatica, which had always previously lasted for weeks. He has been my patient for seven or eight years, so perhaps the therapeutic test is admissible here. My youngest patient was a child of five, who fell into profound sleep at once. Most of the somnambulists are women of neuropathic predisposition, but very few of them had ever had any attack of ordinary hysteria, and many of them are hard-working clerks or good household managers. Five of these, however, are boys of ordinary types apparently, and three are adult men of perhaps more than average ability and intelligence. The profound sleepers were generally epileptics or persons of phlegmatic temperament. I have never seen any untoward symptoms arise from medical hypnotism, and I can hardly conceive such a thing possible with ordinary care and gentleness.

I am quite certain that the patient has in no way felt subsequently influenced by the operation, except in the direction suggested by me and wished for by himself. The Nancy treatment is essentially impersonal, and it is the patient who hypnotizes himself under the suggestion and guidance of the physician, and the curative effect gained is the result of concentration and direction of the patient's own faculties and functions. The somnambulist might, I believe, be made, by frequent induction of hypnosis, to do

foolish, and even criminal acts, but no suggestion made to an ordinary subject will be executed unless it be in accordance with his wish. For instance it would be useless to suggest to a staunch teetotaler, in any stage of hypnosis short of somnambulism, that he should drink brandy. The suggestion would defeat its end by arousing indignation and disgust. Such a suggestion, opposed to his moral sense, made to a somnambulist, might be obeyed even the first time, but it would probably require frequent repetition to break down resistance and overcome his individuality.

If the method described for producing hypnosis fails, or loses its effect, I use a modification. Instead of the fingers the patient may be told to look at a bright metal disc or coin, or the skin of the forehead may be gently rubbed while the gaze is fixed on a distant object. Sometimes verbal suggestion tends to keep a patient awake instead of inducing sleep, and in many instances methods will have to be devised to meet different idiosyncrasies.

The method of fascination is, I consider, inapplicable and objectionable in ordinary medical practice, as it introduces too much personal element into the operation, and induces a state of complete automatism, in which the subject's *ego*, or personality, is entirely suppressed (Binet and Féré). It is practised by looking fixedly and pertinaciously into the subject's eyes at the distance of a few inches, and at the same time holding the hands. In a few minutes all expression goes out of the face, and the subject sees nothing but the operator's eyes, which shine with intense brilliancy, and to which he is attracted as a needle to a magnet.

Voisin adopts this plan with insane patients, and sometimes succeeds when he has failed by all other methods. In such cases, of course, any means are permissible, as by hypnotism and suggestion he has succeeded in cutting short attacks of mania, and curing various intractable mental conditions.

Dr. Voisin's practice requires a few words of explanation. Many observers contend that as hypnotic sugges-

tion is essentially a psychical treatment, and dependent for its success on healthful stimulation of the brain centres, it is inapplicable when the central organ is diseased. It is certainly most difficult to hypnotize the mentally affected, whether the condition be mania, dementia, melancholia, or idiocy. Nevertheless Voisin finds he succeeds in about ten per cent. of cases. But his physical strength, enthusiasm, and patience enable him to do what few men would care to try. He will spend an hour a day attempting to hypnotize one patient, and will feel amply rewarded if after twenty operations he achieves an alleviation or cure. When he read his paper before the British Medical Association at Leeds, in 1889, his listeners could only express astonishment at his method and its results. Dr. Voisin has done much good work in other branches of medical science, and practises with such openness and publicity at the Salpêtrière, that no one can fail to be impressed by his testimony.

Personally, I have succeeded in somewhat benefiting melancholia in two or three cases, and in removing slight but troublesome and long-standing delusions in several instances; and in a case of retarded brain development in a boy considerable improvement is observable; but in mental diseases generally, I have as a rule failed to produce the slightest hypnotic influence.

Dr. Forel, of Zürich, finds he can hypnotize even more than ten per cent. of the insane who are confined in the public asylum, of which he is superintendent, but he expresses great disappointment with the result (*op. cit.*). Even when he has obtained advanced somnambulism, so that the patient has proved anæsthetic, and susceptible to negative hallucinations, he has often failed to remove a fixed delusion. For instance, Madame A—— fancied herself Madame B——. She was very susceptible to hypnotism, and Dr. Forel assured her in the somnambulant state that she was Madame A—— and not B——. She only shook her head, and even in this state refused to part with her delusion. Dr. Forel, however, obtains

good results in mental troubles of emotional and hysterical origin, and altogether is a strong disciple of the school of Nancy.

I have tried the action of various drugs as aids to producing hypnosis in intractable cases, but neither subcutaneous injections of morphia, inhalation of chloroform or ether, cannabis indica, or bromides, have seemed to exert any marked effect in that direction. In fact, hypnotism seems a psychical condition *sui generis*. Alcohol, however, seems to predispose to hypnotism, and I frequently find a subject is more amenable after a good meal than he is before it. Hypnotism practised in a rational manner is not fatiguing or trying in any way, and no concentration of the operator's mind, or direction of his will, seems to have any effect. Liébeault is old and not robust, yet he hypnotizes sometimes as many as forty people in a morning. The idea of personal influence and magnetic attraction so industriously promulgated by interested public performers, and so objectionable to most people, is entirely discountenanced and denied by scientific practitioners.

In the foregoing remarks an endeavour has been made to answer many questions which are constantly being put to the practical hypnotist. The answers are founded on experience which it is in the power of any medical man to verify. The cases described in the following chapter are by no means exceptional, but are fairly illustrative of the use of hypnotic suggestion in ordinary practice. The results are certainly no better than would be attained by any trained medical man using the same method with a due regard to its *technique*.

There are several highly interesting cases of more chronic character at present under treatment. Among these are two of infantile paralysis—a boy aged eight, and a girl of ten; both are steadily improving, but progress is slow. There is an old standing case of right hemiplegia complicated with urinary trouble: the patient, a man of fifty, has improved very much in general health,

and slightly as regards the local symptoms after a month's treatment. Such cases give strength to my contention, that the treatment should be employed by the attendant physician, and not as a speciality by a hypnotist. They require time, and the patient is apt to resent a long course of visits from a stranger, whereas he would be only too pleased to see his own doctor as often as was necessary.

I have failed to get any improvement in a case of paralysis of the right arm dependent on spinal sclerosis; nor have I been more successful with an old standing right hemiplegia, with late rigidity, in a young man of twenty-one, dating from an attack of infantile convulsions, and dependent on cerebral lesion.* I gave up a case of congenital chorea, as it was impossible to tell if the patient—a boy aged eight, of weak intelligence, but great cunning—were really influenced, or was only pretending. I am unable to say much of its use in epilepsy. In some cases the fits have diminished in number and intensity at first, but they have generally reasserted themselves. Several times, however, I have persuaded the patient to leave off taking bromides, and have generally found that hypnotic suggestion, as long as it is used, will enable the sufferer to dispense with drugs. In cases of bromism this is by no means a small gain. I have tried hypnotism as an aid to treatment in stammering, but I have not been impressed with its value. Probably, in

* The improvement I have seen result from suggestion in two cases of locomotor ataxy would encourage me to try the treatment in organic cerebro-spinal diseases. Drs. Fontan and Ségard, Professors at the Medical School of Toulon, have published in their '*Elements de Médecine Suggestive*' clinical notes of a case of disseminated sclerosis of the cord. The patient improved so much under hypnotic treatment that doubts were thrown on the accuracy of the diagnosis; but the man returned to the hospital the following year and died there of acute tuberculosis. A careful necropsy was made, which revealed very extensive patches of sclerosis, chiefly in the left lateral column, and rendered the improvement somewhat extraordinary. As Bernheim says, there is, no doubt, a great deal of sympathetic and functional disturbance of the neighbouring centres and structures in many forms of cerebro-spinal disease, and it is this element which can be reached by suggestion.

the case of young children, it would prove useful before the habit has become permanent and fixed. In incipient melancholia, and in depression of spirits short of this condition, I have found it of service; but hitherto I have failed to notice much effect from it when the condition was of long standing. On several occasions I have succeeded in removing false ideas, as in the case of a gentleman who was afraid to enter a dark room in consequence of having been frightened by ghost stories when a child. One frequently finds morbid fixed ideas depend upon a suggestion made in early life, and these are well met by a course of counter-suggestion. Hypnotism introduces one to curious histories, and I undertook, with some confidence, the case of a gentleman, aged fifty, who for three years has suffered from a curious antipathy, apparently half-mental and half-physical. He is unable to remain in the room with his youngest son, a bright, intelligent boy of twelve, on account of the feeling of restlessness which comes over him, followed by flushing of the face, noises in the ears, confusion of thought, and palpitation of the heart. He is perfectly sane, and holds an important financial position, and there is absolutely no cause to account for the sensation.* The feeling is confined to this particular boy. At first I found it

* The subsequent history of this case is of interest. In December, 1889, the gentleman came to see me, not as a patient, but as escort to a lady who wished to be hypnotized. The lady was nervous, and Mr. X— offered to let me demonstrate the process on him. To our mutual surprise he yielded to the soporific influence, and fell into the second stage of hypnotic sleep, after looking at a bright disc held above his eyes for a couple of minutes, and I was at once able to make suggestions combating his delusion. He experienced less discomfort than usual from his son's presence that evening, and there was no difficulty in hypnotizing him subsequently. He can now, after twenty operations, remain in the room with the boy for two hours at a time without suffering, and I have no doubt but that he will be entirely relieved of his trouble in a few more sittings. The morbid idea was of three years' persistence, was steadily increasing in intensity up to the time of his being first hypnotized, and was a cause of serious distress and worry to him. I had endeavoured to influence him no less than ten times previously with absolutely no effect, and I attribute my ultimate success to the fact that his mind was taken off its guard; and the nervousness, and unconscious resistance, which had prevented any

impossible to influence him sufficiently to master this *idée fixe*.

In many forms of genito-urinary troubles I have found suggestion a useful auxiliary in treatment, nor is this to be wondered at when we consider the amount of functional disturbance which is present in these cases. In many forms of rheumatism the effect of hypnotic treatment is at first sight surprising. It very frequently removes pain even in chronic rheumatoid arthritis. There is a great deal of neuralgia mixed up with most kinds of rheumatism, and suggestion enables us to meet this and at the same time to bring about an alteration in the local blood-supply, especially if aided by friction.

I have succeeded on two or three occasions in breaking down adhesions about rheumatic joints without pain, when the patient would not allow me to touch them in his normal state.

In various small surgical procedures, such as lancing whitlows, opening abscesses, etc., I have found hypnotism a useful anæsthetic; and it is evident that in certain operations in which chloroform is inadmissible, either from the condition of the patient or from the locality of the operation, hypnotism may be a valuable substitute.*

The casual and careless application of hypnotic suggestion will be no test of its value, and handing it over to unscientific and unqualified persons will certainly end in disaster.

If medical men will employ the Nancy method of treatment in their ordinary practice, they will find it a very useful auxiliary in many trying, painful, and tedious cases.

The medical world is familiar with instances where a

hypnotic effect when he came as a patient, were no longer existent when he returned merely as a spectator.

Readers of fiction will remember that Dr. Oliver Wendell Holmes learnedly discusses a somewhat similar train of symptoms, upon which he founds his novel, 'A Mortal Antipathy.'

* It has been used in this way at the Paris hospitals, and notably in one case of ovariectomy at the Hotel Dieu.

treatment which has been highly praised in some quarters has failed to produce good results when tried elsewhere. Apostoli's method of applying electricity in uterine fibroids, and Charcot's suspension treatment for locomotor ataxy, are cases in point. Neglect of apparently trivial technicalities may explain some of these discrepancies.

Practitioners of the Nancy school all over the world are agreed as to the efficacy of hypnotic suggestion, and of the absolute importance of observing points of detail. Bernheim asserts, and Forel agrees with him, that no one is entitled to speak with authority on the subject until he succeeds in hypnotizing at least eighty per cent. of the hospital patients on whom he tries the treatment. Hypnotic suggestion is a psychical treatment, and to use it successfully demands tact, judgment, medical knowledge, and knowledge of one's patient.

It will never be more efficaciously applied than by the trusted family physician, and in his hands it will be free from the risk of abuse which might otherwise attend its extensive employment.

NOTE.—The experience of a scientific and critical friend, Dr. B., whom I have frequently hypnotized, is interesting. He is a healthy man of forty-five, of dark complexion and lymphatic temperament, somewhat hypochondriacal, and a clever and successful practitioner. He is a good subject, and is sometimes affected to the third, and sometimes only to the first degree of hypnosis. For Liébeault's 'Stages' see p. 171.

When told that he cannot open his eyes he makes no attempt to do so unless strongly urged to try, when he proceeds in the ineffectual manner already described. With much effort he is generally able to move his arm in spite of my prohibition, but the force employed is evidently entirely out of proportion to the result achieved. In the hypnotic state he feels absolutely tranquil and at rest, and when exhorted to exert himself he reflects: 'Of course I can do any of these things if I only try, but I am not going to disturb myself by trying.' When told that he will open his eyes and be wide awake when I count fifteen, he makes up his mind not to comply, and yet when I reach fifteen he cannot help becoming wide awake. After removing a real pain, such as occipital neuralgia, I have frequently, in the same subject, induced a pain localized by suggestion—*e.g.*, in the eye or forefinger. Dr. B. frequently feels a sensation of numbness, heaviness, and 'pins and needles' in a limb for some minutes after I have told him it is fixed and immovable. It is interesting to note that having been frequently hypnotized does not prevent him from successfully operating on others, and he is beginning to use the Nancy method in his

practice. In this case and all others I find the patient's co-operation is absolutely necessary to success, and I have always failed to produce any effect upon him and others when I have either asked them to resist, or when there has been some disturbing emotional element present. This is an important fact in face of the statement sometimes advanced, that after being hypnotized the patient is unable to resist subsequent attempts. I speak here only of medical hypnotism. Though I have failed to find the inhalation of chloroform of much use in inducing hypnosis in the four or five intractable cases where I have tried it, such has not been the experience of some other observers. Dr. Abdon Sanchez Herrero, Professor of Clinical Medicine in the University of Valladolid, contributed to the congress a paper on 'Forced Hypnotisation' ('Comptes Rendus,' p. 212). He, following up the experiments of Dr. Rifat, of Salonica, found that there is a short period during the inhalation of chloroform when the subject is as open to outside suggestion as in somnambulism, and this stage is, he says, at the end of the period of nervous excitement, and before that of delirium—a space of very short duration, sometimes only of a few seconds. Dr. Herrero experimented on six patients, whom he had previously found to be absolutely insusceptible to hypnotism after repeated and long-continued attempts. He failed in the first two cases owing, as he thinks, to allowing the favourable moment to pass; but in the other four he was successful in hitting upon the exact period of 'suggestibility.' To the first he suggested ready susceptibility to ordinary hypnotism the following day, and as a result the hitherto intractable patient was hypnotized by a few minutes' simple fixation of the eyes the next morning. He suggested to the other three patients daily increasing susceptibility to the action of chloroform, and finally the production of anæsthesia and unconsciousness without the drug. In each case he was successful within a week in reducing the quantity of chloroform to the vanishing-point, and in inducing what was practically hypnotic somnambulism by simple suggestion. Dr. Herrero has continued his researches and feels himself justified in asserting that in chloroform we have an aid to hypnosis which will enable us to hypnotize the most intractable cases, and he proposes it as an alternative to the terribly fatiguing and somewhat repulsive method pursued by Dr. Voisin, at the Salpêtrière, in cases of insanity. This paper throws a light on the induction of anæsthesia in Mr. Braine's case (quoted p. 18), and also on Bernheim's assertion that he finds the action of chloroform greatly reinforced by suggestions made whilst administering the anæsthetic.

I should here like to add a word of caution which is rendered necessary by the extensive advertising of hypnotism as a panacea for drunkenness. I am thoroughly convinced of the value of hypnotic suggestion as *an aid* to moral reform, and I look forward to a time when it will be used at all retreats for inebriates and other reformatory institutions; but I recognise its limits, and I know that its indiscriminate employment will only bring disappointment to the patients and discredit to the system.

When we consider that hypnotizing simply intensifies to a notable extent the influence of suggestion on the bodily functions and mental characteristics, we see how its curative scope is necessarily limited by pathological and other conditions, and how illogical it is to expect miracles in the way of moral reformation from it alone. Granted the patient has preserved some degree of self-control and has a strong

desire to be cured, it is possible that success may result from the use of hypnotic suggestion even when the surroundings continue unsatisfactory. Under such circumstances I know that publicans have been cured without leaving their business, and soldiers without quitting their regiment; but I regard these cases as exceptional, and in long-standing or inherited dipsomania I consider removal from temptation an essential condition of success.

After a period of treatment, varying in different cases, a new personality or 'conscience' is produced, and the patient can return to his former associations and friends so protected as to be safe from relapse. The time necessary for restraint or close observation is from three to six weeks, and after that he should be under observation for at least a year, and the suggestion should be repeated at lengthening intervals during that time. It is by no means necessary that the patient should spend any portion of the time in a retreat if efficient control and observation can be exercised by a trustworthy relation, friend, or attendant. We must remember that at first every public-house offers a suggestion to drink, and every boon companion calls up associations of ideas connected with former self-indulgence, and opposed to the suggestions we have endeavoured to implant.

I was induced last year to undertake the case of a medical man, whose surroundings were extremely unsatisfactory, but the patient expressed a great desire to be cured, and proved a very susceptible subject. Dipsomaniacs are notoriously untrustworthy, and in a few days I found on inquiry that his protestations were false, and that he had made no attempt to avoid temptation, but rather put himself in its way. Under such circumstances the treatment had not a chance, and as he refused to submit to restraint I at once abandoned it.

In another case, which has since turned out most successful, the gentleman had a relapse at the end of a week, in consequence of being insufficiently guarded from special temptation. He at once told me of his fault, and explained how difficult he had found it to act against hypnotic suggestion and take the first glass of spirits. It was a real battle, so he said, with his new conscience, in which conscience nearly won the day. After a month's hypnotic treatment he seemed positively proof against temptation, and I could trust him anywhere alone. It is now a year since the treatment was commenced, and he has remained a consistent abstainer, though he has paid me four or five visits for renewal and reinforcement of the anti-alcoholic suggestions.

The four other cases I treated in the first half of last year have been equally successful, and in none of them has there been a relapse from the beginning.

The above observations apply with increased cogency to treatment of the morphia habit by hypnotic suggestion. It is well-known that this habit is more deeply impressed on the system than alcoholism, and that morphinomaniacs are even less trustworthy in their resolutions and protestations than drunkards. In treating the morphia habit it is therefore necessary to have the patient under very efficient observation, and it is desirable to induce the most advanced degree of hypnosis possible, in order that suggestion may act with the most complete effect.

CHAPTER VIII.

Part I.—Some cases successfully treated by Hypnotism and Suggestion by Foreign Authors: 1. Aggravated Hysteria; 2. Hysterical Aphonia; 3. Chorea; 4. Hysteria; 5. Pseudo-paralysis; 6. Writer's Cramp; 7. Rheumatism; 8. Articular Rheumatism; 9. Neuralgia of Fifth Nerve; 10. Sciatica; 11. Nocturnal Enuresis; 12. Amenorrhœa; 13. Menorrhagia; 14. Partial Hemiplegia; 15. Hypochondriasis; 16. Puerperal Mania; 17. Hysteria and the Chloral Habit; 18. Moral Depravity; 19. Neuralgia and Hemiplegia; 20. Headache and Dyspepsia; 21. Chronic Alcoholism; 22. Neurasthenia and Deficiency of Saliva; 23. Confinement under Hypnotism; 24. Loss of Speech for Eight Years.

Part II.—Some cases treated by the Author: 1. Insomnia; 2. Neurasthenia; 3. Writer's Cramp; 4. Tabes Dorsalis; 5. Torticollis; 6. Traumatic Headache; 7. Chronic Diarrhœa; 8. Paroxysmal Sneezing; 9. Chronic Constipation; 10. Supra-orbital Neuralgia; 11. Spinal Irritation; 12. Functional Heart-trouble; 13. Symptoms dependent on Organic Heart Disease; 14. Enuresis Nocturna; 15. Gouty Sciatica; 16. Chronic Rheumatism; 17. Nervous Dyspepsia; 18. Amenorrhœa; 19. Functional Dysmenorrhœa; 20. Post-Parturition Troubles; 21. Dipsomania; 22. Moral Case; 23. Incipient Melancholia.

IN this chapter I propose to give an extract of cases successfully treated by hypnotic suggestion from the writings of Professor Bernheim and others. Most of the reports are much abridged from the originals.

CASE I.—*Aggravated Hysteria for a year completely Cured by Suggestion in Three Séances.**

Madame X——, aged 26; mother of two children. A lady of good constitution and lively temperament. She had not suffered from any symptom of hysteria until 1885, when an attack was brought on by some domestic trouble. From that time any annoyance induced a nervous crisis; otherwise she continued in good health.

* Bernheim, *op. cit.*, p. 399.

Dr. Bernheim was consulted in October, 1886. The attacks had then increased in frequency and severity. They occurred about once a week, and were ushered in by a feeling of general weight and heaviness, and by a sense of constriction at the throat. These premonitory symptoms were followed by a deep sleep, which lasted from ten minutes to an hour. After this came general muscular tremors, which increased to strong convulsive movements, alternating with general rigidity, arching of the spine, etc. On this stage followed one of muttering and hallucinations, loud laughter and gesticulation. After the attack had lasted from one to two hours it passed off, leaving great exhaustion and *malaise*, with complete forgetfulness of what had occurred during the fit. On October 19th Dr. Bernheim was consulted; he examined her and found nothing organically wrong. He hypnotized her, and she at once fell into a profound sleep. He suggested while she was in this state that there should be a disappearance of the malady, and that it should not reappear. On October 21st and 23rd she returned, and was again subjected to the treatment. There was no further need for suggestion, as the patient was cured and remained free from hysteria.

CASE 2.—*Hysterical Aphonia for Two Months, rapidly Cured by Suggestion.**

Madame C. L——, aged 30, has been hysterical since girlhood. On January 15th, 1884, having been voiceless for two months, she consulted Dr. Bernheim, who first applied electricity to the throat externally, affirming the while that it would cure her. As that, however, had no effect, he hypnotized her, and at once induced a profound sleep. He suggested to her while she slept that her voice should return, but on awakening her he found no improvement. The second and third séances were equally unsuccessful. At the fourth she slept more heavily, and Dr. Bernheim was able to make her say she expected to be

* Bernheim, *op. cit.*, p. 427.

cured in eight days* (the following Tuesday). He continued to hypnotize her daily, and each day he caused her to repeat that she was to be cured on the Tuesday. When that day came she was quite unconscious of having made this prophecy, she was still voiceless, and was hypnotized as usual. Dr. Bernheim told her she must speak when he awoke her, and impressed her strongly with this idea. On arousing her she said in a feeble voice, 'I think I can speak now.' The voice became gradually stronger, and by the evening was restored to its normal quality and volume. Dr. Bernheim gives many other cures of hysterical aphonia, several of them after one séance.

CASE 3.—*Choreic Movements of the Hands and Inability to Write, Cured by Hypnotic Suggestion.*

Victorine A——, aged 12½, of lymphatic temperament and good constitution, affected with chorea of the right side. It appears that when she was four and a half years old she suffered from general chorea, brought on by fright. It was a very severe attack, as she could neither walk nor talk, and had great difficulty in eating. It lasted three months. A second attack of the same kind came on when she was seven and a half. She was attacked a third and fourth time at intervals of two years. In the fifth attack she was brought to Dr. Liébeault for treatment. It commenced on May 27th, and on that day she had seven very violent fits, on the 28th and 29th the same number, and then she was hypnotized for the first time. Afterwards, in the afternoon, she had two fits slighter than the preceding ones. On May 31st again hypnotized. On that day she had one fit, and then no more until June 9th, when she returned to be treated for a relapse brought on by fright. Professor Beaunis happened to be at the dispensary, and he got the patient to attempt to sign her name. In spite

* In many cases it is most important to get the patient to fix a time for his cure; the idea becomes deeply implanted, and, in hysterical cases, it is generally realized. Of course, the sleep must be very profound to make this possible.

of much effort, the child—a very intelligent and docile little girl—completely failed to make any distinguishable

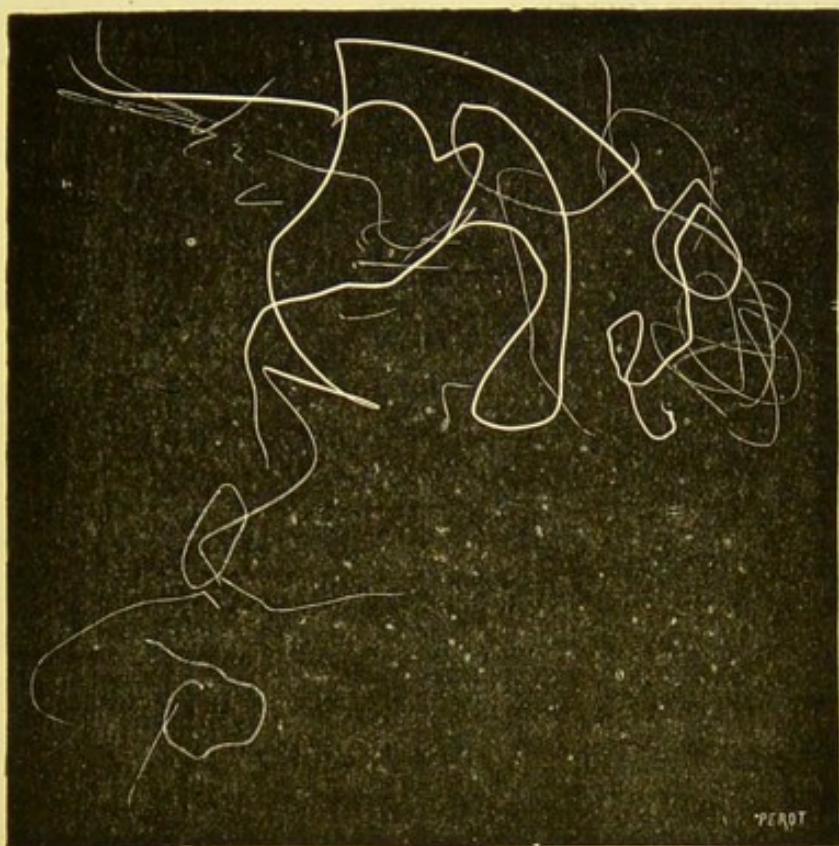


PLATE 1.

letter on the paper (Pl. 1). Dr. Liébeault hypnotized her, and while asleep she was directed to write her name. The result was fairly legible, and she wrote without hesitation

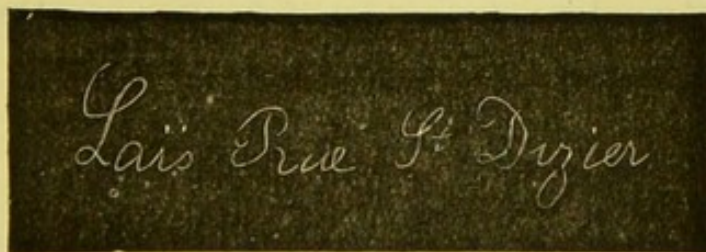


PLATE 2.

or trembling. She was soon awakened, and again told to write. Without difficulty she at once wrote her name and address in very creditable style (Pl. 2). For the next few

days she continued under observation and treatment, and was then discharged perfectly cured.

Professor Beaunis says he makes no remarks on this case, as the handwriting appeals more than words can to an unprejudiced mind.*

CASE 4.—*Hysteria, Sleeplessness, Want of Appetite, Tremors, Depression of Spirits, Cured by Suggestion in Two Séances.*

Mdlle. X——, aged 27, an intelligent lady who had enjoyed good health and spirits, and was free from hysteria until August, 1885; at that time she had a disappointment which changed everything.

In February, 1886, she consulted Dr. Bernheim. She had then suffered for months from complete want of appetite, sleeplessness, giddiness, especially on lying down, terrible dreams when she did sleep, and slight muscular tremors in the limbs, so that it was not easy for her to keep her hand steady. She had been treated with bromides and antispasmodics without success. He hypnotized her and she slept easily and profoundly. He suggested the disappearance of all her troubles, and after two séances all the morbid symptoms had disappeared, she slept well, and ate with appetite. Her spirits were as good as ever. Dr. Bernheim adds that she remained well.

CASE 5.—*Intermittent Pseudo-Paralysis of the Lower Limbs, with Convulsive Trembling of the Legs for nearly Four Years, Cured by One Hypnotic Suggestion.*

Madame S——, aged 26. After much domestic trouble and a bad miscarriage, this lady completely lost the use of her lower limbs for three months. The paralysis disappeared as suddenly as it came, but returned again in a few weeks. These intermissions and relapses followed each other every few weeks, up to the time Dr. Bernheim saw her, for nearly four years. She had undergone all kinds

* Beaunis, *op. cit.*, p. 236.

of treatment—including electricity and massage—at the hands of the most eminent neurologists of Paris, but nothing seemed to shorten the terms of paralysis or to avert them. On May 29th, 1887, Dr. Bernheim was sent for to Paris to see her. He found her perfectly free from the ordinary symptoms of hysteria, in good general health without any organic disease, and unusually bright and intelligent. While lying down she was able to move the legs perfectly well, but when Dr. Bernheim made her attempt to stand she at once collapsed, and would have fallen to the floor had she not been supported. On moving the legs they were seized with tremors, over which she had no control.

He found the reflexes normal and all the functions perfect.

On being hypnotized she fell into a light sleep, during which she was conscious of everything going on around her. On being aroused she denied having been at all influenced. Dr. Bernheim, while she was in the hypnotic state, moved the legs, and told her she would be able to stand and walk quite well when he told her to try.

After the operation he insisted on her making the attempt, and, to her surprise, she was able to both stand firmly and walk with confidence.

He hypnotized her again the next day, when she fell into the third stage of sleep, and the suggestions were repeated.

Madame S—— had been suffering from the present attack for six weeks when Dr. Bernheim was called in. He had opportunities of seeing the patient at intervals afterwards, and there was no relapse.*

CASE 6.—*Writer's Cramp for Three Years ; Rapid Improvement ; Temporary Relapse ; Finally Cured by Suggestion.*

H. C——, aged 47, an accountant, consulted Dr. Bernheim November 18th, 1885. He was healthy and strong, and in no wise nervous or hysterical. Three years before

* Bernheim, *op. cit.*, p. 457.

he began to feel symptoms of the malady. After writing a few lines all the fingers became contracted, and he had to desist for a time. At first he was able to write again after a short rest, but gradually the cramp became worse, so that he was unable to sign his own name. By means of various devices he contrived to go on a little longer, but at the time he consulted Dr. Bernheim he had been compelled for three months to write with his left hand. He was hypnotized, and at once fell into the third degree of sleep. Dr. Bernheim suggested the disappearance of the cramp. On awaking he was able to write two lines and a half without cramp. The next day he wrote eight lines without cramp.

On November 21st the patient was able to write a business letter, and only complained of feeling heaviness in the wrist and a slight tendency to flexion of the fingers.

On November 24th the improvement was still maintained, and Dr. Liébeault took charge of the case during Professor Bernheim's absence for two months. In the middle of September a relapse took place, and the patient again became unable to write more than a few lines. He left off treatment, until January 29th, when he again consulted Dr. Bernheim. Improvement now rapidly set in and progressed until, on March 2nd, he finally discontinued treatment, being perfectly cured. He has gone back to his office, and writes all day long without fatigue or cramp.*

CASE 7.—*Rheumatic Pains in the Shoulder-joint for Three or Four Months, completely Cured in Two Séances.*

Emile L——, aged 61, glass-maker, consulted Dr. Liébeault November 30th. He had never suffered from rheumatic fever, but nine years before had had sciatica for three years.

When seen, the pain was in both the shoulders, but especially the right one, at the place where the collar-bone articulates with the scapula. There was also a tender

* Bernheim, *op. cit.*, p. 486.

spot above the anterior superior spine of the ilium on the left side. It was most felt on stooping. Besides all this there were pains in both knees. The patient was hypnotized, and fell into a light sleep. On awaking the pains in the knees were gone, and those in the shoulder were much better. He had been unable for three weeks to dress himself, but now he was able to do so.

On November 3rd he was again hypnotized, and again slept lightly. He awoke perfectly cured, and remained so.*

CASE 8.—*Articular Rheumatism for Three Months, Cured by Suggestion in Two Days.*

Jeanne M——, aged 17, consulted Dr. Bernheim August 3rd, 1887. She was brought to the hospital in a carriage, and into the consulting-room supported with difficulty by two persons, being quite unable to stand alone. She was lymphatic, pale and thin, and had had an attack of hysteria brought on by chagrin some months before.

Since May she had suffered from sub-acute rheumatism, which had gradually and steadily become worse.

Dr. Bernheim found that both wrists were extremely painful, but not swollen. The first joints of the fingers were greatly swollen and acutely painful on pressure. The left knee was slightly swollen and very tender. There was also pain below the right ankle and in the joints of the toes. The spine was tender on pressure.

There was also amenorrhœa, leucorrhœa, and sleeplessness. The patient was hypnotized and fell into a sound sleep.

On August 6th, after two séances, she felt very much better. She slept well, had a good appetite, and had hardly any pain. The swelling of the joints had almost entirely disappeared, and there was only tenderness

* *Ibid.*, p. 539.

on pressure. She was again hypnotized, and the suggestion made that she should feel no more pain.

On August 8th she returned completely well and cured of all the symptoms, was able to walk perfectly and without any pain, and was altogether a changed person.*

CASE 9.—*Neuralgia of the Fifth Nerve for a Year, with Tic-doloureux for a Month; Rapid Improvement and Cure in Ten Days.*

Charles X——, aged 60, entered the hospital July 27th, 1885. His trouble had commenced a year before with pain in the right side of the nose. The pain came on several times a day, and lasted from a few minutes to several hours. Since four weeks the pain had spread to the eye, the forehead, and all the right side of the face. It was very acute, and came on in paroxysms every hour or two, and lasted about half an hour. In the intervals there was no pain, but only a feeling of burning. There was lacrymation during the attacks, and they were also accompanied by convulsive movements of the face.

The patient was strong and well otherwise for his age. Dr. Bernheim found the points of exit of the branches of the fifth nerve sensitive to pressure, and all the right cheek tender to the touch. On July 28th, the first attempt to hypnotize him was unsuccessful; but on July 30th he was successfully operated on, and when he awoke he felt much better. In the afternoon he had paroxysms of pain, but less intense, and he slept better that night than he had done for weeks.

He was hypnotized about every second day until August 9th, by which date he was perfectly cured, and he remained well.

CASE 10.—*Sciatica for Seven Weeks, Cured by Suggestion in Six Days.*

Joseph L——, aged 44, shoemaker, was admitted into the hospital under Dr. Bernheim May 15th, 1885. He

* Bernheim, *op. cit.*, p. 544.

was a weakly person of lymphatic temperament and with emphysema. He had continual pain along the course of the sciatic nerve of the left side, and this was everywhere painful on pressure, aggravated by sitting, and especially by lying down in bed. The leg felt heavy and numb, and the pains, which were pricking in character, radiated from above downwards.

On May 20th he was hypnotized, and fell into the third degree of sleep. He felt better on awaking, and the curative suggestions were repeated daily until the 26th. Each day he became better, and in a week was perfectly cured. He had previously been treated with medicated baths at the hospital for three days without much effect.*

CASE II.—*Nocturnal Enuresis from Infancy, cured by a Single Suggestion.*†

Jacob S——, aged 17, of weak intellect, but strong and healthy, had always suffered from the above complaint. He had control over the functions during the day, but nearly every night he suffered from incontinence.

He consulted Dr. Bernheim, December 28th, and was hypnotized with great readiness. Suggestions were made to him while in a state of profound hypnotic sleep that he should awake several times in the night, and leave the bed.

He returned to the hospital, but required no further treatment, for the malady was at once cured, and did not reappear.‡

CASE 12.—*Amenorrhœa. Suggestion that the Function should Reappear on a Certain Day. A Successful Result.*

Mdlle. C——, aged 25, teacher, consulted Dr. Bernheim November 17th, for the above-mentioned trouble. She had seen nothing since 7th October, and in consequence

* Bernheim, *op. cit.*, p. 548.

† *Ibid.*, p. 495.

‡ All practitioners of suggestion agree that the system is absolutely specific in the treatment of this troublesome complaint uncomplicated by organic defects.

she felt distended, a sense of constriction round the waist, and other symptoms referred to the same cause. She was a regular patient of Dr. Liébeault's, and she readily fell into a profound sleep. Dr. Bernheim suggested that the function should be re-established on November 30th, and made the patient repeat the suggestion after him.

On November 30th she came to tell him that it had happened as he suggested. He hypnotized her again, and suggested December 28th for the next period. This also was realized.*

CASE 13.—*Menorrhagia about every Twelve Days. Altered by Suggestion to Twenty-eight or Twenty-nine Days and finally Cured.*

Madame H——, aged 35, mother of three children, the youngest of which is nine years old. Hysterical, but of good constitution. Before she had had children the period used to come on every three weeks, but for two years it had returned about every twelve or fourteen days, or even at shorter intervals. It was accompanied by pain and hysterical troubles, and was very copious. The patient readily fell into a profound sleep, and Dr. Bernheim suggested that the next should not come on until October 9th, should only last three days, and should not be accompanied by any pain.

September 27th. This was the fifth séance, and the sixteenth day since her last period. She felt premonitory symptoms of its return—such as headache, and pain in the back. These symptoms, however, passed off, and by means of suggestions repeated every second day the period was retarded until the night of October 6th and 7th, or twenty-six days. *This was the first time in her life that there had been more than twenty-one days' interval, and the first time for two years that it exceeded sixteen days.* It lasted three days, was unattended with pain, and was less copious than usual.

* Bernheim, *op. cit.*, p. 557.

On October 18th, Dr. Bernheim recommenced hypnotic treatment, and suggested that the next period should be on December 4th or 5th, and henceforth every four weeks.

It appeared at the end of twenty-four days. The treatment was continued until the following May, by which time the function was thoroughly regulated, and occurred every twenty-eighth or twenty-ninth day, without pain, or other abnormal symptoms. During the treatment a number of nervous and catarrhal symptoms disappeared.*

CASE 14.—*Partial Paralysis of the Left Side for Eight Days. Rapid Improvement under Suggestion, and almost Complete Cure in Three Weeks.*

Louis C——, aged 60, house-painter, was taken into the hospital November 7th, 1886. He had enjoyed good health until six days before, when he had suddenly felt a sensation of weight in the left leg. He returned home, and two hours later felt the same sensation in the left arm, accompanied by a pricking, which still continued when he entered the hospital. In the evening he was no longer able to use his left leg.

Dr. Bernheim found the temperature and pulse normal, the arteries atheromatous and rigid. The features deviated markedly to the right. The patient sat up in bed with difficulty, and was unable to fully raise his left arm, which was also weak and easily tired. He was unable to stand. When lying down he was able to raise the left leg, but could not keep it up for more than four or five seconds. The reflexes were diminished, and he was unable to bend the instep. Sensibility normal. Constipation for four days, for which he was given an enema.

On November 9th the patient was hypnotized, and fell

* Bernheim, *op. cit.*, p. 560. The effect of imagination and emotion in modifying the renal, alvine, uterine, lacteal and other secretions is so well known, that the striking results produced by hypnotic suggestion in their functional disturbance is not to be wondered at. In 'Carpenter's Physiology' (*loc. cit.*) numerous examples are given.

at once into a profound sleep. On awaking he was able to hold up the left leg for ten seconds, and to bend the toes better.

He was hypnotized the 11th and 16th, with only slight effect. On November 17th, after the suggestion, he was able to stand alone, and to walk with very little assistance.

On November 19th he was able, after being hypnotized, to walk the length of the ward without help. He could hold the leg up when lying down for an indefinite time, and had quite regained power over it. The reflexes were slightly increased.

He progressed steadily every day, and was able to walk downstairs on December 2nd. He still, however, felt a heaviness in the arm and leg, which prevented his using the brush or climbing ladders so well as formerly.*

Professor Bernheim fully describes one hundred and five cases of many kinds of disease treated by hypnotic suggestion. Among these are several examples of grave cerebral and spinal disease, in which the treatment seemed to prolong life, and of which it certainly relieved the suffering.

Examination after death often revealed a great amount of disorganization, so that it seemed extraordinary that any treatment could bring about much improvement. He explains the good effects which attend suggestion, even where there has been extensive hæmorrhage into the brain tissue followed by atrophic changes, by insisting that in disease of the nervous centres, functional derangement often exists quite out of proportion to the actual lesion, *i.e.*, hæmorrhage may destroy a portion of the brain substance, and this may react on the neighbouring zones by setting up sympathetic irritation.

Neither suggestion nor anything else can, of course, do anything to restore the disorganized brain tissue; but it is all-powerful, he observes, in the treatment of the sympathetic and functional troubles which accompany such a condition (*op. cit.* pp. 308-324).

* Bernheim, *op. cit.*, p. 342.

CASE 15.—*Aggravated Hypochondriasis.*

M. F——, aged 43, has suffered for a year from this malady. She is conscious of all her internal organs, and their functions cause her painful and distressing sensations, which makes her think that they are all more or less diseased. She has lost all hope, and is persuaded that she will never recover. She is debilitated and suffers from indigestion, does nothing but lament and analyze her sensations, lives in a perpetual state of agitation, and does not sleep.

She was put under suggestive treatment, and fell into a light sleep. By its means sleep was restored, digestion re-established, and, above all, her attention was gradually diverted from her sufferings, real and imaginary, and in a few weeks she was cured.*

CASE 16.—*Acute Puerperal Mania.*†

Madame X—— has had several confinements in quick succession. The consequent exhaustion, and an attack of phlebitis with fever, are the chief causes of the malady. After the first sixteen days, during which her life was in danger, the excitement and tendency to violent and purposeless acts were no longer continuous, but alternated with comparatively lucid intervals. Dr. Godet found that he could sometimes cut short attacks by suggestion. He suggested that she should remain tranquil, and should not open her mouth. In this way he calmed her in a remarkable manner, and the attacks soon ceased, and she was cured.

CASE 17.—*Hysteria, Tendency to Tetaniform Spasms, Insomnia, Morphia and Chloral Habit.*‡

Madame K—— was admitted for treatment, suffering from the above conditions.

* Dr. Burckhardt, superintendent of the asylum at Préfargier, *Revue de l'Hyponotisme*, August, 1888.

† *Ibid.*

‡ Burckhardt, *loc. cit.*

Hypnotic treatment combined with suggestion was employed to combat them. The narcotics were gradually discontinued, the spasms ceased, the natural sleep was regained by degrees, so that she was dismissed cured.

Braidism was tried without suggestion at first, but it only aggravated the symptoms.

CASE 18.—*Moral Depravity in a Boy, Cured by Suggestion.**

On June 9th, 1888, M. F——, a youth aged 16, was brought to Dr. Voisin at the Salpêtrière. From the age of six or seven he had been incorrigible. Not only did he tell lies, steal, play truant, and behave ill generally, but he also tried to corrupt all the children with whom he came in contact. He became worse and worse as he got older, and was turned out of several institutions into which his mother had procured his admission. (Dr. Voisin describes some of his vices, which are unfit for repetition, and which prove the youth to have been utterly depraved and bad.) On examination he was found to have an internal squint of the left eye, nystagmus, and haziness of the cornea. The tongue deviated to the left. Otherwise he was well-made and healthy. He read with difficulty, and was very ignorant, though his memory and power of observation were sufficiently good.

Dr. Voisin endeavoured to hypnotize him, but was not successful until the third séance. Once asleep, suggestions of moral reform were made.

He began to improve at once, and by July 6th the youth was absolutely transformed. The wish to do evil first disappeared, and was then replaced by a desire to do right. His insubordination and disobedience had given place to a wish to please his mother. He expressed to Dr. Voisin the happiness he felt at being thus changed. He saw the doctor again on October 6th, six weeks after the discontinuance of the treatment, and the cure was maintained.

* Voisin, *Revue de l'Hypnotisme*, November, 1888.

Dr. Bernheim and Dr. Liébeault gave several instances of cures of moral diseases. The former, after describing a somewhat similar case to the above, asks if he can be accused of tampering with the child's free-will because he has repressed his bad qualities (*op. cit.*, p. 357).

CASES CONTRIBUTED BY DR. VAN EEDEN, OF AMSTERDAM.

CASE 19.—*Neuralgia of the Neck and Left Shoulder. Paralysis of the Left Arm and Leg, of Syphilitic Origin.*

A. H—, aged 34, is a strongly-built man, with an originally good constitution. He became infected eight years ago. Thirteen months ago he was suddenly attacked with total loss of power in the left arm and leg.

On October 9th he consulted Dr. Van Eeden, and was then suffering from severe pain in the neck and left shoulder, which had lasted two months. The pain prevented his sleeping more than an hour or two at night. He had partially recovered from the paralysis, but for five months no progress had been made. He was unable to fully raise the left arm, to open the hand, or extend the fingers. Antisyphilitic treatment had produced no effect for some months.

The patient was hypnotized in the usual way, and the second degree of somnolence (slight catalepsy) was produced. While in the hypnotic state suggestions were made to lessen the pain, and the rigidity of the semi-paralyzed limbs was relaxed by suggestions and active and passive movements. On awaking, the pain was found to be much relieved, and at night he slept for hours.

The treatment was continued daily for six weeks. By October 12th the pain had entirely disappeared, and he enjoyed eight hours' sleep every night henceforth.

Movements were constantly employed during the hypnotic state, and power gradually returned to the limbs, so that by November 8th the patient could extend all the fingers of the left hand, and keep the arm in a horizontal position for a considerable time. When treatment was discontinued after six weeks he could make all the move-

ments of the arm and hand freely. His walking power had also greatly increased.

CASE 20.—*Cephalalgia, Gastrodynia, Dyspepsia.*

The patient, a little girl of eight, is a delicate child, and has suffered from continuous headache, want of appetite, and pain in the stomach. She rises nearly every day with a bad headache, and twice or thrice a week she is obliged to stay in bed on account of the pain. The stomach pains occur irregularly, last only a short time, and are very severe. She never has had a good appetite. Once only has she been free from pain—about three years ago, for a fortnight.

On September 16th the child was hypnotized by Dr. Van Eeden for the first time. The sleep produced was profound, as is usual with children. In the first sitting the pain was quite removed by suggestion, and did not return for two weeks, though there was only one consultation. Since September 16th she has only twice had headache, and this was each time at once removed by suggestion. The child remains under treatment, as such cases necessarily require a long course. There has been no pain in the stomach since her first visit, the appetite is better, and the child's general health more satisfactory than it has been for years.

CASE 21.—*Chronic Alcoholism.*

M. G——, a well-to-do man of 49, had for sixteen or seventeen years constantly drunk alcohol to excess. He has never during all that time given it up. On his best days he has only taken four to eight glasses of cognac, but mostly he has drunk twenty or more. He has had several attacks of *delirium tremens*, and his mental faculties are much deteriorated. He is unable to apply himself to any business requiring thought or attention, and is unable to write his name. His face is covered with pustules of acne.

On September 27th he was hynotized, and fell into a light sleep. Dr. Van Eeden suggested disgust for stimu-

lants and increased strength of will. During the sleep the patient was persuaded to promise solemnly to leave off alcohol. He was also treated with arseniate of strychnia, four to eight milligrammes daily.

The treatment was continued daily for a week, then once a week for two weeks. After that no further suggestion was needed. From the time of the first sitting the patient took not a drop of alcoholic liquor, and though offered wine he refused it. Some restlessness and *malaise* were felt the first week. On October 4th he was able to write his name and to resume his business. Now (after two months) he feels quite well and strong, and is confident of being able to keep his promise. The acne is cured, and he sleeps and eats well. He continues to visit Dr. Van Eeden from time to time as a precaution.

In communicating these cases Dr. Van Eeden says 'they are selected from many similar ones. My results are the best in the treatment of various nervous diseases, but the cases are oo long to report. I may add that according to my own experience the effect of psychical treatment is best seen in the following diseases: Neurasthenia, nervous debility, enuresis nocturna, slight or incipient brain-troubles, morphia habit, alcoholism, bad habits in children, hysterical paralysis, nervous dyspepsia, anæmia, stammering, chorea, sleeplessness, nervous asthma. Combined with systematic movements during the hypnotic sleep, the treatment is of effective service in paralysis caused by apoplexy or embolism, and in infantile paralysis (acute anterior polio-myelitis), if not of too long standing.'

Drs. Van Renterghem and Van Eeden contributed a valuable paper to the International Congress on hypnotism held in Paris, 1889.* In this they give very fully the results obtained in their clinique in nearly five hundred *consecutive* cases. Many of these cases were not of a nature to benefit by any treatment, and most of them only came into these doctors' hands after other methods had failed. The reader of this paper must be favourably

* 'Comptes-Rendus,' Octave Doin, Paris, 1890.

impressed by its candour and impartiality, and by the evident absence of exaggeration, which often seems inseparable from the advocacy of a new treatment, and which is certain to prejudice the professional mind against it. They attach much importance to the presence of a favourable environment and to the observance of *minutiæ*. They contend that by suggestion in the hypnotic state they can restore the balance of health by suppressing morbid action and by developing the *vis medicatrix naturæ*. They seek only to obtain the lighter grades of hypnosis in order that there may be no possible interference with the patient's free-will or individuality.

Drs. Van Eeden and Van Renterghem have practised treatment by suggestion among the upper and middle classes of Amsterdam for three years, during which time they have applied the system in several hundred cases. They were both previously for many years in ordinary practice, and their testimony to the value of hypnotism and suggestion is therefore of great value.

In dipsomania they have been very successful, and also in the treatment of bad habits and perverted instincts.

In affections of the genito-urinary organs they have achieved good results, and also in many forms of dyspepsia and intestinal trouble. In morphinomania they have been successful when they have produced somnambulism.

Like all physicians who have tried hypnotic suggestion in rheumatic affections, they express themselves pleased with the results, and they attribute the beneficial effect partly to the relief of subjective symptoms, such as pain, which depress the vitality, and partly to the regulative action it exercises over the circulation and secretions. They mention an interesting case of hystero-epilepsy and spontaneous catalepsy of several months' duration initiated by the experiments of a public lecturer on hypnotism. The young man was speedily cured by a course of medical hypnotism.

From August, 1887, to June, 1889, they treated 417

persons by hypnotic suggestion—219 men and 195 women. In respect to their susceptibility they found as follows: uninfluenced, 15; light sleepers, 217; profound sleepers, 135; somnambulists, 47. As regards results they give the following figures: 53 discontinued treatment after the first or second visit, 71 were not improved, 92 improved, 98 greatly improved, and 100 were cured.

They agree with Dr. Forel that every person in sound mental health is susceptible to hypnotism under favourable conditions. The difficulty being to discover the conditions necessary in each individual case, therein lies the opportunity for exercising the physician's tact and *savoir faire*.

Their success has been chiefly with the neuroses, but they give particulars of several cases of organic disease which have been benefited or cured. Among these are one case of right hemiplegia with aphasia of three months' duration (cured); four cases of hemiplegia (much improved); one case of paraplegia with loss of control over the sphinctus (cured). In two cases of Bright's disease they effected great improvement, and suggestion seemed to stimulate the kidneys and relieve the œdema. In many of the slighter forms of mental disturbance they have been very successful. In epilepsy they have been unable to do much good.

CASE 22.—*Neurasthenia with Deficiency of Saliva and Constipation for Thirty-five Years, Cured by Suggestion.**

Madame V——, aged 55, consulted Dr. Burot in August, 1888. She had for many years carried on the business of weaving hemp, and it had been her habit to moisten the thread with the saliva. When about twenty years of age this secretion showed signs of drying up, and at the same time obstinate constipation appeared. She lost her appetite and became anæmic, constantly drowsy, extremely weak and feeble, and altogether a confirmed

* Reported by Professor Burot, of Rochefort, *Revue de l'Hypnotisme*, December, 1888.

invalid. At forty the change of life occurred, but it made no improvement in her health, which became worse and worse.

Dr. Burot found her suffering from pains all over the body, general *malaise* and anæmia. The tongue was red and dry, with prominent papillæ. There was great dryness of the mouth, very deficient digestion, and obstinate constipation. The stools were infrequent, and their passage caused intense pain. The dryness of the mouth often prevented sleep. Dr. Burot hypnotized her and suggested increased flow of the digestive secretions, and at the same time gently rubbed the salivary glands and the abdomen.

After a month's treatment the patient was cured. The mouth became moist, the saliva abundant, digestion easy, and the bowels regular and comfortable. At the same time the general health was re-established, and she grew stouter and quite strong.

CASE 23.—*Confinement.**

Professor Ramon Cajal of Barcelona reports a case in which he abolished the pains of labour, without in any way weakening the power of the uterine contractions, by hypnotic suggestion. The woman had been frequently hypnotized previously, and was the mother of five children. The labour was extremely rapid (occupying less than half an hour) and was quite painless. On the fifth day she resumed her household duties, and in a fortnight was quite well. Her previous confinements had all been tedious.

CASE 24.—*Functional Dumbness with Melancholy, Cured by Suggestion.*

J. D——, aged 36, was born of healthy parents, and was well and strong until her twenty-fifth year, when she fell suddenly ill. After a violent attack of hysteria, during

* Reported in *Brit. Med. Journal*, Oct. 9th, 1889.

which she uttered piercing cries, she became gradually perfectly dumb, then indifferent to her surroundings, and finally extremely feeble in body. After a course of treatment at a spa her health became re-established, but she remained mute in spite of all attempts to make her speak.

This condition had continued for ten years when Dr. Velander first saw her. She heard and saw perfectly, but she made no attempt to utter a sound, and she was also in a state bordering on melancholia. He hypnotized her, and she at once fell into a state of profound somnambulism.

In this state he tried in various ways to make her speak, but her lips never moved until, after an hour of fruitless effort, he ordered her to open the mouth, and he manipulated the tongue with a considerable degree of force, and told her he had broken the strings which tied it and that she could speak.

After a few minutes' friction of the temples she actually did utter a few words in a faltering and husky voice. She returned for treatment daily, and in two weeks Dr. Velander says he had the pleasure of sending her home perfectly cured, not only in speech but in spirits.*

Dr. Velander reports having treated over six hundred cases by the Nancy method, and testifies to his satisfaction with the results. His experience tallies with that of other observers, for he finds it most successful in pains in general, neuralgia, sleeplessness, incipient melancholy, dysmenorrhœa, amenorrhœa, incontinence of urine, sleep-walking, acute and chronic rheumatism, nervous amblyopia, vicious habits, and dipsomania.

* * * * *

I propose here to record a few cases from my own practice which will perhaps prove interesting.

* Dr. Velander, of Yonkoping, Sweden, contributed a report of this case to the congress.

CASE 1.—*Insomnia*.*

A. T——, aged 35, electrician, came to me on February 1st complaining of sleeplessness. It seemed to date from a severe accident from the explosion of a torpedo three years before. He is a man of exceptional mental activity, and the want of sleep had induced much nervous depression and dyspepsia. At whatever time he went to bed he awoke at 3 A.M., and was unable to sleep again. He was readily hypnotized, and a slightly lethargic condition was induced. Suggestions were made that he would sleep well that night and would not awake at 3 A.M., but that if he did awake, he would be able to sleep again. February 2nd, he reported that he had awoke the previous night at the usual hour, but had soon dropped off asleep again. The treatment was repeated. Feb. 3rd, he had been awakened the previous night by a noise in the street about 4 A.M., but had fallen asleep again. 5th, he reported having had two good nights. One repetition of the treatment completed the course, and since that time he has remained a good sleeper, getting an average of eight hours' sleep every night. His general health has improved to a corresponding extent.

This case presents several points of interest. Though the patient was only affected to a slight degree by hypnotism, suggestion was successful in breaking a morbid habit of three years' growth in less than a week. Mr. T—— tells me he never lies down during the day, and that while lying down in my consulting-room he was completely conscious, but felt comfortable and disinclined to move. He was able to open his eyes, but they felt somewhat heavy, and he experienced reflex warmth in any part where I placed my hand and 'suggested' it.

CASE 2.—*Neurasthenia*.

R. H——, an American, aged 43, press agent, consulted me in June, 1889, for pains in the back, de-

* This case and several of those following were published in the *Lancet*, August 24, 1889.

pression of spirits, languor, loss of appetite, constipation, muscular weakness, dull pain all over the head, but worse in the forehead and on stooping. He had worked very hard all his life at newspaper editing, and he looked at least ten years older than his age. Physical examination revealed no organic disease, but the heart's action was rapid and feeble, and he had some tenderness over the dorsal region of the spine.

He was easily hypnotized, and fell into the second stage. The treatment consisted in rubbing his spine, loins and abdomen, and suggesting increase of strength, absence of pain, and regular action of the bowels every morning. The patient improved rapidly under treatment, and was able to return to America after twenty operations, quite set up and in good spirits.

This seems to me a typical case of breakdown in an overworked man of nervous temperament. I allowed him to remain in the hypnotic state an hour daily, and no doubt the rest was an important factor in the cure. He was unable to open the eyes, but could raise or depress the arms at will.

CASE 3.—*Writer's Cramp.*

Alice N——, clerk, aged 25, came under treatment in March, 1889. She had had much writing to do, and since three years had felt symptoms of loss of power in the right hand and control over the pen. She had been treated at a general hospital by galvanism for three months without benefit, and had become so much worse that she had been obliged to leave the desk and engage in other occupations. She was also unable to use the needle for any length of time on account of cramp supervening. After writing two or three lines, she experienced crampy pains in the thumb and forefinger and in the flexor muscles of the forearm. After a few lines, spasmodic jerking of the thumb was observed, and this increased—together with the pains—to such an extent that in less than a minute the patient declared her

inability to hold the pen any longer. There was marked tenderness and soreness on pressure over the median and musculo-spiral nerves. She was hypnotized, and fell into the third stage. In that condition the muscles were rubbed, the joints exercised, and suggestions of improvement made.

After a few minutes' rest the patient was directed to again write, and she found the fatigue and cramp had disappeared and did not return until she had written half a page. She came regularly for treatment three times a week for two months, and at the end of that time was able to return to her original post quite cured.

She was a good example of the second or cataleptic stage (Liébeault), which she never passed beyond. She lay apparently fast asleep, was unable to open the eyes, and retained the arm rigid in any position I placed it. But she remained vividly conscious, and was able to repeat the conversation going on around her, and would laugh, protest and struggle when told she was unable to move the arm. This is one of five cases of occupation neuroses which I have treated by suggestion. One case was not susceptible to hypnotism, but all the others improved rapidly, and were cured. I should certainly always combine it in these cases with local massage, though I believe at Nancy they use no treatment but verbal suggestion.

CASE 4.—*Tabes Dorsalis*.*

H. F——, aged 47, a valet, came under treatment in March. He was pale, anæmic and emaciated, and had an expression and appearance of great depression. His family history was good. He had never drunk to excess or had syphilis, and was married and had a healthy family. In 1870 he was a soldier in the German army, and was wounded severely in the leg, but made a good recovery. In 1884 he had an attack of what he calls

* This case is published in the *Comptes Rendus* of the first international congress on hypnotism.

blood-poisoning, but what appears to have been typhoid fever, on the Continent, and he has never been really well since. In 1888 he noticed some failure of sight, and at the same time a numbness of parts of the skin of the back and chest became apparent. His bowels became constipated and only moved by the aid of purgatives, which, however, caused so much colicky pain that the action was always accompanied by vomiting and followed by prostration, which kept him confined to bed for the following twenty-four hours. He suffered from frequent sharp 'lightning' pains down the arms, and especially the legs, and from neuralgia in the chest and back. His tongue was dry and coated; he had no appetite, and there was great mental depression. In twelve months he had lost two stone in weight, was unable to walk more than half a mile, and always felt tired. The pupils were contracted and almost insensible to light, and there was almost complete atrophy of the right optic nerve, with partial atrophy of the left. The reflexes were absent, but there was nothing ataxic in his gait. Extensive patches of local anæsthesia occupied almost the whole of the left chest and back, and also the skin of the upper lip and nose. He was hypnotized, and fell into the third stage.

Suggestions were made as to regular and painless action of the bowels, absence of pain, etc. The next day he had a slight motion (the first natural one for three months) without much pain, and felt better generally. Improvement was steady and constant, and in two weeks he was able to walk two or three miles without fatigue, was free from pain and discomfort, and the bowels were regular.

With the exception of a slight relapse, following a bad chill in June, he has continued fairly well and comfortable. The disease no doubt progresses, but it does so slowly and painlessly. On finding such great success followed suggestions, I was induced to try if they had any influence on his sight, and one morning suggested increased warmth and circulation, followed by improved

vision—keeping my fingers over the eyes for three or four minutes. The effect was somewhat surprising, for the following day he was able to read ordinary print at a distance of six inches with his left eye, and to distinguish the hands of the clock at two feet with his right. A wonderful improvement on his performance the previous day when he could barely make out large type ($D=4$) with the left eye, and could not distinguish the nature of any object with the right. But the improvement was only temporary, and in spite of repeated suggestions his sight had relapsed to nearly its former condition within a week. He tells me a somewhat similar result followed some months previously the administration of strong doses of strychnine by hypodermic injection. Still he invariably sees more clearly and distinctly after being hypnotized than before, and whereas his sight was steadily deteriorating previous to this treatment, it is now no worse than it was six months ago.*

Probably the explanation of the sudden improvement, is that suggestion had powerfully stimulated the healthy nerve elements to abnormal activity, which, however, could not be maintained. I may add that suggestion did little or nothing for the local anæsthesia, but that symptom was greatly modified by a course of suspension under Dr. de Watteville.

This patient was conscious of what went on around him, and by an effort of attention could follow the conversation and repeat its purport, but voices sounded indistinct and far off, and he felt very disinclined for exertion. It is the stage of automatic continuative movement, as shown by a simple experiment. If I give his arms or hands a few turns and tell him to go on with the move-

* This incident throws some light on cases of 'miraculous' recovery of sight which one reads about as occurring at Salvation Army gatherings, etc. In purely hysterical cases no doubt permanent cure is sometimes brought about by suggestion, aided by expectant attention, when the nervous system is thrown off its balance by enthusiasm and by the impressiveness of the surroundings—is, in fact, in a condition analogous to hypnosis. One knows that many of such cases relapse in a very short time when the effect of excessive nervous stimulation subsides.

ment, he is unable to stop it, but continues the action indefinitely. He answers questions addressed to him, not only by me but by bystanders, and he awakes spontaneously in about fifteen minutes. If told to awake at the end of a certain number of minutes, he will do so almost to a second.

CASE 5.—*Torticollis, etc.*

W. T——, aged 34, consulted me in March, for rheumatism of the muscles of the neck, shoulders, and back. She was a rheumatic subject, and the present illness dated from two weeks previous, when she had been exposed to wet and cold. She had been unable since that time to dress or undress herself, and the least movement of the head or upper extremities caused pain. The muscles were tender to the touch, but there was no swelling, or constitutional disturbance. She was advised to try hypnotism, and, with some reluctance, as she said she did not believe in it, she consented. In less than a minute she slept profoundly, and while in the sleep the affected muscles were well rubbed, and the head turned in different directions. Within five minutes she was awakened and told to move her head and arms freely. This she did without pain, but said there was some stiffness remaining. The stiffness continued until the following morning, when it disappeared and did not return. Faith had nothing to do with this result, for even after the relief was given, the patient refused to believe it could be anything but temporary.

This patient appeared entirely unconscious of the conversation going on around her, and of external impressions generally, except such as were rendered apparent to her by my suggestions. She was insensible to pain, as shown by her perfect tranquillity when I moved her head, a movement she had previously been unable to endure. Her eyeballs were turned up and the conjunctivæ were nearly insensible to touch, but the pupils readily contracted to light. She took no notice of any sound except

my voice, and did not appear to hear if anyone else addressed her unless I told her to answer. Her pulse and respiration were slightly slower than in the waking state, and her aspect generally resembled that of profound natural sleep. The knee-jerk was increased by paresis of the inhibitory centre, until I told her to control it, and then it became less than normal.*

She was not susceptible to post-hypnotic suggestions regarding actions or conduct, nor to suggested hallucinations or delusions of the senses.

CASE 6.—*Headache following Injury.*

E. H——, post-office clerk, aged 32, came under treatment in July. She had been knocked down by a bicycle three weeks previously, and had fallen with her head against the curbstone. Her back also had been strained, and she had pain in raising the left arm.

She was anæmic, and of neuropathic constitution. Pressure on the occipital and right parietal region increased the pain, which, however, had never left her since the accident. She had been stunned, but not rendered actually unconscious. She was one of the most susceptible subjects I have ever seen, and within half a minute of being told to look at my fingers and go to sleep, her eyes closed, and she fell into a state of profound somnambulism (6th stage). Her head was gently, and the shoulders somewhat more vigorously rubbed, and suggestions were made tending to the removal of pain and shock. In ten minutes she was awakened by being told to count up to twenty and awake when she got to the end—a good method, as it avoids giving a sudden shock, and leads up to the change of state gradually. She left the house absolutely free from pain, and there has been no relapse. In a profound somnambulist of this type, the most advanced phenomena of hypnotism are demonstrable. She is in the same condition, apparently, as case

* Dr. Myers tells me he has seen the knee-jerk apparently suppressed by suggestion in Bernheim's *clinique*.

No. 5, but differs from her in being susceptible to post-hypnotic suggestions—negative hallucination, delusions of the senses, automatic actions, etc. It is important, therefore, to safeguard such a subject by telling her she is not to be hypnotized except for medical purposes, by a medical man, at her own request.

CASE 7.—*Chronic Diarrhœa.*

General B——, aged 72, came under hypnotic treatment on April 3rd. He had previously been attended by me for chronic diarrhœa, but without much effect, and the malady was generally considered quite incurable. It dated from the time of the Crimean War, and since then he had never passed less than four motions a day, and these were always thin and watery. Any excitement or emotion aggravated the condition, and the day previously to my visit he had been moved twelve times. He is a man of exceedingly nervous type, but enjoys fairly good general health for his age. Hypnotism produced very much the same effect on him as on the patient in Case 1—a slight lethargy. In this state his abdomen was gently rubbed and the suggestion made that he should in future have but two motions a day, and that they should be properly formed. On April 4th the patient reported three motions during the last twenty-four hours. He was again hypnotized, and the same suggestions were repeated. On the morning of April 5th he passed the first formed motion he had had for over twenty years, and from that time his bowels have continued to act regularly twice a day and the stools have been well formed and natural.

CASE 8.—*Paroxysmal Sneezing.*

F. H——, 38, lady's-maid, suffered during the summer of 1888 from hay-fever, and the fits of sneezing continued into the autumn, so that when I saw her on October 4th, she told me that every morning on awaking she was seized with a paroxysm, which lasted about an

hour, during which time she sneezed about forty times, and discharged copiously from the eyes. In addition to this, for a few days she had suffered from pain after eating, flatulence, and constipation. She was hypnotized and at once fell into a profound sleep (Liébeault's sixth stage). Her nose was rubbed, and the suggestion made that she should sneeze no more. The stomach was also rubbed, and the suggestion made for the regulation of the digestive functions. There was no need to repeat the operation, for the paroxysmal sneezing ceased forthwith, and the digestion became easy and painless. There has been no relapse.

CASE 9.—*Chronic Constipation.*

Mr. H——, aged 39, solicitor, of lymphatic temperament, consulted me in May, 1889, for constipation. He had led a very sedentary life, and was in the habit of taking a good deal of opening medicine. His appetite was capricious and his tongue furred. He was hypnotized and rapidly fell into the third stage. The abdomen was well rubbed and a regular motion suggested daily after breakfast. The treatment was almost immediately beneficial, and six operations sufficed to establish a regular after-breakfast habit of relief.

CASE 10.—*Supra-orbital Neuralgia.*

E. H——, a stockbroker's clerk, aged 21, came to me in July suffering from neuralgia of ten days' duration. The pain came on in paroxysms which were worse at night, and it was chiefly felt over the right eye, where there was extreme tenderness. But the pain radiated over the anterior part of the head, and sometimes affected the eyes. He was out of health generally and very depressed. He fell into the second degree of hypnosis, and the treatment consisted in rubbing and suggestions. He was allowed to remain in a drowsy state for half an hour, and was then aroused. He said he felt much better, and he passed a fairly good-night. Three operations effected a complete cure. It was his first attack of the kind.

CASE 11.—*Spinal Irritation.*

Mrs. F——, aged 37, came under treatment in April, 1889. She had suffered since the birth of her first child ten years before, from pain and discomfort in the spine, referred especially to the lumbar region. She was unable to walk without great fatigue, and standing was a misery to her. She was anæmic, of constipated habit, and with general depression of vitality. Manipulation down the spine caused pain, and there was frequently numbness of the extremities with twitchings. Her mental condition was one of depression and great nervous irritability. She was susceptible to the third degree, and began to improve under suggestion almost immediately. The case being of very chronic nature, required a longer attendance than usual, and she occasionally comes up for a repetition of the treatment. She is greatly improved in appearance, the irritability of temper has subsided, and she can walk two or three miles, and stand about in picture galleries and exhibitions, as well as most ladies, without undue fatigue.

CASE 12.—*Functional Heart-trouble.*

H. L——, 23, consulted me in November, 1888, complaining of palpitation on exertion and on lying down at night, shortness of breath, giddiness and frequent attacks of fainting coming on without any warning. Examination of the heart revealed no organic disease, and all the organs seemed healthy. She had suffered a good deal of anxiety of late, and this was apparently the cause of her illness. She was treated on general principles with iron, nuxvomica, digitalis, etc., but she made little or no progress, so in January, 1889, I suggested hypnotism and soon induced the third degree. She began to improve almost at once under suggestions, directed to the over-action of the heart, and after ten operations, spread over a period of three weeks, was relieved of all her symptoms.

CASE 13.—*Symptoms Dependent on Mitral Disease.*

Miss H——, aged 32, has been under my treatment on and off for several years, and after a long spell of literary work and late hours she consulted me in March, 1889, complaining of palpitation, frontal headache, loss of appetite, nausea, constipation, debility, swelled feet and legs, and especially of attacks of faintness coming on without apparent cause. She has mitral regurgitation consequent on rheumatic fever ten years ago, and her pulse was very weak and rapid (104). She was hypnotized and fell into profound somnambulism. Reduction in the rapidity of the heart's action with increase of force was suggested, and the pulse after a few minutes became reduced to 87, and of firmer character. Suggestions were made corresponding to all her symptoms and she was allowed to rest for nearly an hour. On awaking she at once said she felt much better. The nausea which had troubled her incessantly for several months had disappeared, and she felt no discomfort from her heart. On going home she slept well that night and the improvement was maintained the next day. The following day she came to me complaining of a fresh attack of palpitation, and she was again hypnotized with the same result as before. The operation was repeated three times with an interval between each visit of three days, and she was then quite free from pain and discomfort. During the hypnotic treatment I purposely refrained from giving medicine, but afterwards I prescribed *strophanthus* for the swelling of the feet, which had not improved much under suggestion. This medicine almost completely removed that symptom in a couple of weeks. She had no more attacks of syncope after the first operation.

CASE 14.—*Nocturnal Enuresis.*

Thomas L——, aged 13, was brought to me in June, 1889, for this trouble. His parents had never succeeded in breaking him of the habit, though they had tried many different modes of treatment. He was fairly well-nour-

ished, intelligent, and of nervous temperament. He had no organic lesion of any kind, and the malady evidently depended on functional weakness and bad habit. He was hypnotized daily for six days and then once a week for six weeks, and he always fell into a profound sleep. He wetted the bed once the first and once the third week, while previously he had rarely gone more than two consecutive nights without doing so. After that there was no return of the trouble, but he wakes up every night about 12 and empties his bladder quite automatically. The boy's future was in danger of being compromised, as his parents were unable to get him into any public school. He is now at a large school and doing well. I told him he was to always wake at 12 and leave the bed, and the suggestion has acted excellently well.

CASE 15.—*Gouty Sciatica.*

Mr. S. R——, a gentleman aged 81, has been for many years a patient of mine, and is subject to attacks of gout, which shows itself in various ways. On this occasion (July) it took the form of sciatica of the right side. There was extreme tenderness along the whole course of the sciatic nerve, and the pain was very severe. The treatment I had previously adopted—colchicum internally and poppy-head fomentations externally—was practised, but he continued to suffer much and to be unable to sleep, so on the third day I proposed hypnotism, to which he gave a ready assent. In a few minutes—using verbal suggestion and fixation of the eyes—he went off into a light doze, and in that condition his thigh was well rubbed and absence of pain suggested. The old gentleman remained in a somnolent state for about ten minutes, and awoke feeling somewhat relieved. He slept well that night, and the operation was repeated daily for three days, with the result that he was able to leave his bed within a week, whereas previously he had always been confined to it for three weeks by similar attacks. He is an extremely nervous and sensitive subject.

CASE 16.—*Chronic Rheumatism with Wasting of Muscles.*

Mary T——, aged 34, dressmaker, was sent to me in July, 1889, suffering from very intractable rheumatism of the right shoulder and elbow. It had lasted for three years and caused great pain on moving the arm. The illness had come on gradually and had resisted all treatment. The patient was somewhat anæmic, complained of constipation, and was kept awake at night by the pain. The deltoid and muscles of the arm were a good deal wasted, but gave a normal reaction to electricity.

She at once fell into the third stage of hypnosis, and in this state her shoulder and elbow were rubbed and warmth and absence of pain suggested. She was able on being aroused to move her arm almost to a right angle with her body without pain, which she had not previously been able to accomplish. She remained under treatment for three weeks, and at the end of that time returned to the country absolutely free of pain and able to move the arm freely in any direction.

CASE 17.—*Nervous Dyspepsia.*

Miss L——, aged 32, consulted me in February, 1889. She had suffered more or less all her life from indigestion. She was very thin, and her complexion was yellow and spotted with papules of acne. She complained of constant pain over the epigastrium, which was tender on pressure, increased by food and accompanied with 'sinking' heart-burn and palpitation. Her circulation was deficient, and she had always cold hands and feet, there was frequent headache and neuralgia, generally in the frontal region. She slept badly at night and was troubled with uncomfortable dreams. She felt languid and despondent and had no aptitude for settling to any occupation. Her condition was becoming worse, and she had been under all sorts of medical treatment for her digestion since childhood. Her teeth were sufficiently good for mastication, the bowels were constipated and the tongue was moist but furred. There were no symptoms pointing to disease of any

organ, and it was evident the malady was purely functional.

She was hypnotized, and the second degree of hypnosis was induced. In this condition the stomach and abdomen were rubbed and warmth suggested. Comfortable sleep and improved appetite were promised, together with regular action of the bowels, and general increase of strength and energy. The patient was on very rigorous diet, and this was somewhat modified and enlarged. Improvement in her condition became visible after two or three days, and the treatment was repeated daily for ten days, and then at longer intervals for a month. At the end of that time she was better than she had ever been previously. She slept well, ate with fair appetite, and enjoyed life. The improvement has been maintained and the morbid condition seems permanently cured.

CASE 18.—*Amenorrhœa.*

E. S——, aged 24, consulted me for various symptoms dependent on amenorrhœa in May, 1889. She was pale, somewhat anæmic, ate and slept fairly well, but suffered from nearly constant frontal headache. She had seen nothing for five months and thought the cause of this was a chill incurred at the time of the last period. She had taken iron and quinine and used hot baths without effect. She was hypnotized, and at once fell into a profound state of somnambulism. I rubbed the abdomen, and suggested that the period should come on the following week, without pain, and should last three days. These suggestions were repeated daily, with the addition that the day of the week (Friday) was suggested after the second visit. Early on the following Saturday morning the function was re-established and lasted three days.

CASE 19.—*Functional Dysmenorrhœa.*

A. T——, aged 21, clerk, came under treatment on October 10th, 1888. She suffered much from painful

menstruation, and has done so since the function became established four years previously. The period was always delayed three or four days, and was scanty and light-coloured. It lasted about three days, and was attended with excessive backache, languor, and frontal headache. She suffered also from gastralgia, constipation, and flatulence. After treating her for some time on general principles, she was hypnotized on March 15th, immediately after a period, and at once fell into a profound sleep (Liébeault's sixth stage). Suggestions directed to the painless performance of the digestive and menstrual functions were made and were repeated two or three times a week for four weeks. The following period appeared on the twenty-ninth day, and was attended by but little pain or inconvenience. She was told to return in three weeks, and suggestions were then made regarding the next period. This came on twenty-seven days after the last, and continued for four days. It was more abundant and healthy, and perfectly free from pain. Since that time she has continued regular, and there has been no dysmenorrhœa. The digestion soon became painless and natural, and the general health shows great improvement.

CASE 20.—*Post-Parturition Troubles.*

F. Y——, aged 43, was confined of her fifth child in January, 1889. She was anæmic, and had suffered during her pregnancy from severe colicky pains, constipation, hæmorrhoids and occipital headache. Delivery was tedious, and there was much hæmorrhage from the relaxed and insufficiently contracted uterus; and the placenta had to be removed, as it remained adherent. The patient complained greatly of headache and restlessness after the confinement; the uterus contracted but slowly, and there was also much pain, in spite of hot douches and ergot. She was hypnotized by being told simply to look at my outstretched fingers and go to sleep.

In a few minutes the eyelids began to twitch, and on closing the eyes she sank into a comfortable sleep, which lasted for four hours. She awoke much refreshed, and without headache. The operation was repeated daily for four days, and she made an unusually good recovery.

CASE 21.—*Dipsomania.*

L. G——, a gentleman of position, who was intensely anxious to be cured, was under my care during the month of January, 1889. His case was a bad one, and for three years had been getting worse. Uncontrollable fits of craving for spirits recurred every two or three weeks, and indulgence for three or four days was followed by intense nervous depression. He was hypnotized twice daily, and, like most of these patients, he proved a very susceptible subject. Suggestions were always made that he should look upon spirits and intoxicating liquors generally with dislike, and that he should have no craving or wish for them. Under this treatment his appetite soon became very good, he slept well at night, and recovered his spirits. In four weeks he was able to return to his family, and he writes at intervals, telling me that, in spite of some exceptional temptation, he has no inclination to taste alcohol or break his promise to me.*

CASE 22.—*Moral Breakdown.*

T. L——, aged 21, engineer, was sent to me for treatment by suggestion, by a medical friend, as all ordinary treatment, medical and surgical, had failed. Since early adolescence he had practised private vices, which had reduced him to a deplorable state of mental and physical weakness. He was easily hypnotized, and fell into the fourth stage of hypnosis. Suggestions were made directed to the reduction of morbid functional activity, and to increase of power of self-control. The patient, who

* I consider that four weeks is altogether too short a time for cure in most cases. Here I was helped by the earnest efforts of an intelligent and trustworthy patient (*vide* Note, p. 113).

thought himself on the verge of insanity, was a willing patient, and is now after five months a completely altered man. He comes to me at gradually lengthening intervals, and in that way any danger of a relapse is obviated until the influence of the habit is absolutely eradicated.

NOTE.—If hypnotism had done nothing more for medical science than bring such melancholy cases as the above within the scope of curative treatment, it would have conferred a lasting benefit on humanity. In even worse cases of perverted sexual instinct it is frequently successful, and Dr. Von Schrenk-Notzing, of Munich, read before the International Congress notes on a case of this kind, treated by him with the happiest results. Modern medicine teaches us that these perverted instincts depend upon an hereditary or acquired morbid condition of the brain and spinal cord, and constitute, in fact, a psychical disease. Hypnotic suggestion seems to act by checking excessive functional irritability, and by developing and bringing into play the inhibitory action of the higher brain centres, which have either not developed or have undergone impairment.

It is absolutely necessary to gain the confidence of the patients in these cases, and they must be carefully watched, as they are notoriously given to deception. But their confidence can be gained by judicious management, and then one is saved from the danger of allowing 'the wish to be father to the thought.'

CASE 23.—*Incipient Melancholia, with Delusions.*

Mr. C. K——, an Englishman residing in Holland, consulted me in October, 1889. He had been hypnotized sixteen times by Dr. Van Eeden, and was beginning to get better. His age is 71, and in consequence of this and a history of excessive indulgence in spirits, I had grave doubts as to the treatment being of any avail. He is naturally a religious man, but for more than a year he had been tormented with blasphemous thoughts, which assailed him especially in the morning in waking, but which were never absent. These thoughts impelled him 'to curse God.' His dreams were full of the same idea, and in consequence of the strain on his mind his health was in a feeble state, and there was every appearance of a speedy breakdown. He had almost continual pain in the occipital region, with giddiness on movement, and frequently suffered from neuralgia of the left side of the face. However, he had no signs of organic disease, and was

extremely desirous of trying the treatment. He fell into a light sleep, characterized by being only able to open the eyes with some difficulty, and by feeling reflex warmth wherever suggested. He rapidly improved under treatment, and came to me daily for four weeks. He was then nearly quite well, and had his waking thoughts under complete control. His dreams still, however, had a tendency to be full of the old idea. By my advice he went into the country for a couple of weeks, and then returned to London for another short course of treatment. He was hypnotized daily from December 15th to 21st, and by that time was entirely free from unpleasant thoughts. He was able to go to church, which was previously impossible, and his health and spirits were good. His bowels, which had been most irregular for some months, became natural, and he almost completely lost a chronic nervous cough. He has returned to his home, and writes that he continues perfectly well. The patient was allowed to rest in the hypnotic state for half an hour daily, and for a considerable part of that time I talked gently to him, and pointed out how his evil thoughts came from a mistaken idea which my suggestions would overcome and replace.

NOTE.—The following case illustrates the use of hypnotic suggestion in general practice. During the recent epidemic of influenza, I was called to attend a young woman who, in addition to the usual symptoms, was suffering from congestion of the right lung and erysipelas of the face. She complained very much of frontal headache and pains in the limbs, and had not slept the preceding night. The eyes were completely occluded by the erysipelatous swelling, and she experienced much heat and aching in them. I asked her if she would like to sleep and get rid of some of her pain, and she naturally replied that there was nothing she more desired. The ordinary method was out of the question, as she could see nothing, so I gently stroked her forehead and suggested drowsiness and sleep. This simple process rapidly induced somnolence and tranquillity, followed in less than ten minutes by a deep sleep, which lasted for two hours. The patient awoke greatly relieved by the physiological rest the system had enjoyed, and made a good recovery under the usual remedies. Of course, I do not contend that hypnotism is curative in erysipelas, congestion of the lungs, or any other acute disease; but from a number of experiences similar to the above I know that it quiets the nervous erethism which is so distressing a symptom in many acute cases, and puts the patient into a condition most favourable for recovery and for the action of drugs. I have found it useful as a palliative in cancer

and other painful and incurable diseases. The following cases have recently been under treatment and present features of interest :

(1) Hystero-Epilepsy for 5 years in a girl aged 14. Attacks were caused by touching the region of the right breast (a hystero-genic zone), and were characterized by convulsive movements of the right side. In addition, there were nearly daily attacks of what looked suspiciously like real epilepsy, with occasional biting of the tongue and followed by languor and drowsiness. The girl had been an in-patient at several hospitals without much benefit. After being hypnotized seven or eight times she began to improve. There is now no longer a hystero-genic zone, and she has had no fit of any kind for three months. The catamenia, which had been suppressed for six months, did not, however, reappear, in spite of suggestions made to that effect.

The two last cases I shall give are not examples of brilliant cures, but illustrate the importance of not promising too much from the treatment.

(2) Miss H—— has been a chronic invalid almost since childhood. She is 40 years of age, and has ankylosis of the right hip-joint following hip-joint disease and lateral curvature of the spine. She is of hysterical and melancholy temperament, and her mental powers seem to have atrophied *pari passu* with her disused muscles. A year's perseverance in the treatment has enabled her to find some enjoyment in life ; she is able to walk over a mile without much fatigue, and to play the violin for nearly an hour at a time. Previously for some months she had been barely able to move about the house, and it is years since she was able to walk a quarter of a mile. Neither had she been able for a long period to play, partly because of invincible habitude, and partly from the fatigue attendant on the slightest effort.

(3) Miss E—— was sent to me in October suffering from hysterical right hemiplegia of a year's standing. It came on suddenly after her mother's death, and she had had repeated relapses after apparent improvement. She fell sometimes into the third and sometimes the fourth degree of hypnosis, and in this condition friction was applied to the paretic side and suggestions made. She improved but slowly, and after twelve operations suffered from a relapse ; and was confined to her bed completely helpless for a week. On her return to me I found the right arm and leg much colder than the left, and the reflexes on that side increased. Perseverance in the treatment for three months has produced a decided improvement ; the right leg is nearly as warm and strong as the left, and her general health has greatly improved. One would almost have felt justified in expecting more rapidly curative results in this case, and the relapse whilst undergoing treatment was disappointing. It illustrates the point I have so frequently alluded to, that pronouncedly hysterical persons are by no means the best subjects for this treatment.

My appreciation of the efficacy of drugs has been intensified since studying hypnotic suggestion ; for I have seen on several occasions a properly selected remedy remove a symptom which suggestion had left untouched. Dr. Van Eeden has shown how the beneficial effects of massage and Swedish gymnastics are increased in certain cases by being combined with Dr. Liébeault's system.

That hypnotic suggestion is designed to play henceforth an important part in the treatment of disease and the alleviation of human suffering is evident, and enlarged observation will show what it can and what it cannot do. If such a 'gift of healing' were allowed, in consequence of the neglect of men of science, to fall into unworthy and incapable hands, it would be a national misfortune and disgrace; but the truth has only to be pointed out to render such a consummation impossible. Of this I am confident.

APPENDIX.

Dr. Yung's Experiment with 'Magnetized Cards.'—James Braid of Manchester.—Duration of Hypnotic Sleep.—Dr. Luys' Rotating Mirror, and Dr. Ochorowicz's Hypnoscope.—Theory of Professor Delbœuf.—Some Phenomena of Hypnotic Somnambulism.—Dr. Liébeault's Classification of Hypnotic Sleep.—Dr. Grazzini's Case of Somnambulism.—Method of Public Performers.—Resolutions adopted at the Paris Congress.—International Statistics of Hypnotism.—Experiments in Auto-Suggestion.—Hypnotization of Animals.—Hypnotism and Thought Transference.—Christian Science Healing.

NOTE I.—FOR PAGE 26.

I AM informed on the best authority that in the initiatory rites of several secret societies the candidate is submitted to a somewhat similar ordeal. He is told that he must submit to be bled. His eyes are blindfolded, his arm is pricked, and a stream of warm water is allowed to trickle down it.

The surroundings at the same time being mysterious and awe-inspiring, a very great effect is produced on nervous and sensitive subjects. Syncope and nervous exhaustion not uncommonly follow the ceremony, and the new member may be made ill for days.

The rite is, no doubt, an example of the survival of the form after the unpleasant reality has, in deference to civilization, been allowed to fall into disuse.

An amusing experiment is described by Dr. Yung, *privat docet* of Geneva, which forcibly displays the power of suggestion without hypnotism. He calls it 'the experiment with magnetized cards,' and he carries it out as follows: With a grave face and serious manner he pro-

ceeds to give a short account of 'animal magnetism,' and to explain how the 'subtle fluid' can be made to affect even inert substances. Having thus aroused 'expectant attention,' he carefully arranges a few cards on the table and makes 'magnetic' passes over them. This process, he assures his audience, charges the cards with his magnetism, and makes them different to any other cards, so that if a person touches one of them he will change its polarity, and it will thus be distinguishable to his touch from the others. He then leaves the room and a bystander touches one of the cards. Dr. Yung, on his return, makes a few passes over them and finally picks out the card which has been touched, saying that he feels contact with it sends a nervous thrill up his arm like an electric shock.

But he adds there is nothing wonderful in this, as anyone will experience the same thing. The challenge is accepted, and probably the most sceptical person in the room goes through the same pantomime of magnetizing the cards with a look of scornful contempt on his face. No card is touched, and he is told on his return not to make a guess, but to really try if he can detect a difference between one card and another. In nearly every instance Dr. Yung found a difference was said to be felt, and whatever card was indicated was declared to be the right one. The experimenter is shut out of the room a second and a third time, and it is nearly always found that by the third time the subject will declare he undoubtedly feels a very strong nervous shock of the kind described by Dr. Yung. Of course, Dr. Yung had a confederate who, by an agreed-upon signal, informed him of the card which had been touched. He has tried this experiment on about eight hundred persons, many of whom were medical men and scientific students, and in nine cases out of ten he has elicited by pure suggestion the sensations he described.

I have repeated the experiment in about a score of cases, and in nearly every instance have obtained a like result. One subject, a particularly wide-awake American, assured

me at the third trial that the shock was quite as strong as that received from a powerful static battery which he had just been testing.

NOTE 2.—BRAID OF MANCHESTER.

James Braid used to throw his patients into a kind of sleep or trance by making them fix their eyes and attention on a bright object—generally his lancet-case—held a few inches above the eyes. He found this caused fatigue of sight and abstraction of mind, which, in nearly all cases, induced the condition he termed *hypnotism*.

He practised his system successfully for many years at Manchester, and wrote several books in which he fully explained it.

But it seems to have died with him, and it is only now that *suggestion* with hypnotism has come so prominently before the profession that his works begin to be largely read. The most important one, 'Neurypnology' (London, 1852), has been recently translated into French by M. Jules Simon—an almost unique honour, I imagine, for a foreign medical author nearly thirty years after his death.

Braid found hypnotism increased the heart's action to such an extent that he warned medical men against using it when heart disease was suspected. He found it impossible to get children to keep their eyes fixed on his lancet case for the necessary four or five minutes, and therefore regarded them as insusceptible. We have seen, on the other hand, that suggestion finds its best subjects in children between the ages of three and fourteen, and in heart disease it is one of the most successful means of calming and reducing irregular heart-action. Braid went near to discovering the truth which Liébeault, a few years afterwards, thought out, and introduced to the world.

NOTE 3.—DURATION OF HYPNOTIC SLEEP.

In order to arrive at the solution of this, Professor Bernheim allowed many of his patients to 'have their

sleep out.' He found its average duration was three or four hours, but, as with natural sleep, it varied with individuals and circumstances.

On several occasions it lasted fifteen, and once eighteen hours. In all cases the patients awoke fresh and comfortable.

NOTE 4.—DR. LUY'S ROTATING MIRROR, AND DR. OCHOROWICZ'S HYPNOSCOPE.

The mirror designed by Dr. Luys, of La Charité, is used in dispensaries and hospitals when it is desired to hypnotize a large number of persons in a short space of time. It consists of a rapidly revolving mirror mounted on a stand, and it is found that gazing at this quickly dazzles the sight and produces hypnosis in susceptible subjects. By its means a roomful of people may sometimes be hypnotized at once, and the suggestions can be applied at leisure. There is a large sale of these instruments in Paris, but in private practice I think they would not be found very effectual. Dr. Liébeault and others frequently operate on thirty or forty patients in a forenoon by the ordinary method without fatigue, so I fail to see the object of this plan of hypnotizing people wholesale.

Dr. Ochorowicz, late Professor of Physiology at Lemburg, has devised an instrument for testing hypnotic susceptibility, which he calls the hypnoscope. It consists of a steel magnet bent in the form of a ring, which is placed on the patient's finger. He finds susceptible persons experience a sensation of numbness and stiffness in the part after wearing the instrument for a short time, and the finger is often rendered rigid and immovable. Dr. Ochorowicz himself seems to think this effect is the result of suggestion, and no doubt a patient who is so easily influenced by the imagination would be a good subject for the treatment. But I imagine that many persons who are sufficiently susceptible to hypnotism to benefit from suggestion would be quite insensitive to such action.

Readers of Braid's 'Neurypnology' will remember how he paid a visit to a lady who announced herself as so affected by a magnet that she knew at once when there was one anywhere near her. Braid sat close to her for an hour with a most powerful magnet in his pocket within a few inches of her, but she experienced no discomfort *because she did not know it was there*. I have frequently produced many curious local subjective symptoms in impressionable persons by passing a magnet over a limb, but always of the nature I have previously suggested.

NOTE 5.—THEORY OF PROFESSOR DELBŒUF.

Among the numerous theories which have been advanced during the last few years to account for the influence of hypnotic suggestion in organic functions, that of Professor Delbœuf, of Liège,* deserves notice on account of its ingenuity.

He supposes that in an earlier state of existence the organic functions may have been under the control of the will and consciousness, but that in process of evolution the increasing influence and attraction exerted by the environment caused this controlling power to become weaker, and fall into abeyance.

In the hypnotic state the faculties are no longer occupied with external things, but may be directed and concentrated on one or more of the internal organs or functions. Then the power which has never been completely lost is again exercised for a short time.

As showing that control may still be exerted at times over organic processes, he relates how during a long dental operation he was able to restrain the salivary secretion by directing his attention and will to the function. The cases of Colonel Townsend and the Indian fakir, cited in Chapter II., also illustrate this theory.

Dr. Delbœuf goes on to say that in a state of perfect

* 'De l'Origine des effets curatifs de l'Hypnotisme,' Paris, 1887. See also review in *Mind*, Jan. 8th, 1888.

health the organs and functions work harmoniously, and it is to our advantage to know and feel nothing about them; but when organic life ceases to be normal, and when some function is deranged, it would be useful to be able to bring the will and attention to bear on the affected part. Hypnotism, by setting free the attention from the 'life of relation,' with which in the normal state it is preoccupied, renders this possible, and enables the mind to resume its knowledge, and the will its control.

NOTE 6.—SOME PHENOMENA OF HYPNOTIC
SOMNAMBULISM.

Many extraordinary and, at the present time, inexplicable phenomena can be produced in subjects who attain the last degree of hypnotic somnambulism.

Such persons are but rarely met with, and are, I believe, always of hysterical temperament, which is generally combined with a tendency to phthisis, scrofula, or other chronic disease.

These phenomena, as has been already said, are of purely psychological interest, and should be kept entirely distinct from therapeutic suggestion.

Among Dr. Liébeault's patients at Nancy is a young woman named Camille, a favourite subject for experiment, as she readily falls into the most profound state of hypnotic somnambulism.

Like many hysterical persons, she takes a pride in her infirmity, and therefore, without being over-sceptical, one may wish to verify the experiments tried on her. One of the most curious of these is the production of *negative hallucinations* by suggestion. Camille, and one or two other persons of the same nervous temperament, would be told that on waking they would not see So and So, though he might speak to her, touch her, and even prick or pinch her, and the suggestion was realized. Or they would be told that the door was no longer existing, in which case, though apparently quite awake, they would

seek in vain to cross the threshold until the spell was removed.

On my return to London I was fortunate enough to meet a lady who takes a great interest in the subject, and is at the same time susceptible of being thrown into the most advanced stages of hypnotic somnambulism. Her husband is a man of science, and also much interested in hypnotism. They were both quite ignorant of the phenomena I wished to produce, and the conditions therefore were perfectly satisfactory.

Mrs. H—— is about thirty years of age, small, slight, and a blonde. She is highly nervous, and occasionally hysterical, but she enjoys good health, is intelligent, and active in her household duties. On the first occasion I tried to develop a negative hallucination her husband was confined to the room with a bad cold, and was sitting by the fire in an armchair a few feet from her. I hypnotized her, and told her that on waking she would not see him, would not hear him if he spoke to her, and would not feel him if he touched her. All this was literally realized. She was apparently wide awake, and yet when I asked her where her husband was she said she didn't know, but thought he had gone upstairs and would be down very soon. He spoke to her, calling her by name, and asked her to get his medicine, to stir the fire, what there was for supper, and a number of other questions. She gave not a sign of having heard; in fact, she evidently did not hear him, though she conversed with me intercurrently quite rationally. Mr. H—— then approached her, touched her hand, sat down beside her, and talked; but evidently for her he had ceased to exist, as she betrayed not the faintest consciousness of his presence. I then asked Mr. H—— to speak impersonally, and he said, 'Mrs. H—— will now go to the table, take up the doctor's gloves, and try them on.' She did not appear to hear, but in a few moments she got up, went to the table, and tried on my gloves—a thing she would never have thought of doing of her own initiative. I asked her why she did this, and

she replied, 'I don't know; I thought I should like to.' She was not aware that the impulse proceeded from another. When I blew on her eyes and said, 'Mrs. H——, there is your husband close beside you, and you can see him now,' she looked fixedly at his chair for a moment, and then said, 'Yes, I see him now, but where was he a minute ago?' adding, 'At first he looked small and indistinct, but now it is all right.'* We know we may look at a thing and yet not see it when in a 'brown study,' or preoccupied with something. A familiar example of this is afforded by observing how absent-minded people pass their friends in the street without recognition, though their eyes may dwell on them for some time. Afterwards they will deny having seen them, and truly they have not. 'Eyes have they, but they see not.' A physical impression has been made on the retina, but it has not undergone that cortical co-ordination or registration in consciousness without which there can be no perception.

I had only learnt that morning, from reading an article by Professor Liégeois,† the curious fact that in hypnotic somnambulism the subject will carry out a suggestion made by a person whom she is prevented by some inhibitory nerve-action from apparently either seeing or hearing. The same lady kindly allowed me to try other simple experiments on her. She was ignorant of the nature of them, and only stipulated that they should not make her appear ridiculous or cause much pain. When in the hypnotic sleep I gently touched and kept my forefinger on a small surface of the wrist, saying while I did

* Binet and Féré, *op. cit.*, p. 311, relate a convincing experiment showing the reality of this psychical blindness. A subject had on each side of the mammary region a hysterogenic zone, pressure on which immediately produced an hysterical attack. One of the physicians rendered himself invisible by suggestion, and at the same time destroyed the sensation of contact on his approach. A strong pressure on the zones then failed to produce any attack, nor did she make any effort to repel the experimenter, but only complained of a vague sense of oppression. On the other hand, she recoiled in terror when another person put his hand near these zones.

† 'Un Nouvel état Psychologique,' *Revue de l'Hypnotisme*, August, 1888.

so, 'Poor Mrs. H—— has a nasty burn on her wrist, probably from some boiling water ; the place is very red, and rather painful.' In a few minutes I awakened her, and she immediately began rubbing her wrist as if in pain there. On my asking her what was the matter, she replied, 'I think I must have spilt some boiling-water on my wrist ; it feels as if I had burnt it.' On looking at the spot, there was a very perceptible patch of redness about the size of a sixpence, and every moment this became more defined and angry-looking. As the pain was increasing, it would have been a breach of our agreement to protract the experiment, so I hypnotized her once more, and told her that there was no burn, and that the redness and pain would be quite gone when she awoke. In point of fact, a very short time was sufficient to disperse the morbid appearance, and on re-awakening her there was no complaint of discomfort. The same lady after the first operation complained of chilliness and stiffness, but I had only to suggest on future occasions that she was not to feel these unpleasant symptoms to ensure her not being troubled with them.

These experiments belong in no way to therapeutic suggestion, but are of interest as they show how exactly the phenomena produced at Nancy may be reproduced by experiment in England.

Dr. Luys, physician to La Charité Hospital, Paris, showed some extraordinary experiments on a somnambulic and hysterical subject before the profession in October, 1888 ; and in the same month Dr. Vizioli gave a similar demonstration before the members of the Medical Congress assembled in Rome.

The importance of hypnotism as a means of investigating psychological problems is recognised by many eminent psychologists on the Continent. Binet and Féré, in their work already referred to,* say: 'Hypnotism seems to us to fill a void. . . . Associated with the clinical observation of mental and nervous diseases, it

* 'Magnétisme Animal,' Paris, 1887.

will give to the new school of experimental psychology the method it needs, and will furnish an explanation of phenomena based on experiment.'

NOTE 7.—DR. LIÉBEAULT'S CLASSIFICATION OF HYPNOTIC SLEEP.

First Degree.—The patient feels a heaviness of the eyelids and a general drowsiness.

Second Degree.—This is characterized by suggestive catalepsy. When the operator places the arm in a certain position and says it is to remain there, it is impossible for the patient to put it down. It remains rigid and fixed for a much longer time than would be possible in a natural state. In these two degrees consciousness remains almost complete, and often the patient denies having been in the hypnotic state because he has heard and remembers every word which has been spoken to him. A very large proportion of people never pass beyond this stage.

Third Degree.—In this the subject is also conscious of everything going on around him to a certain extent, and hears every word addressed to him, but he is oppressed by great sleepiness. An action communicated to a limb is automatically continued. If the arm is rotated to begin with, it goes on turning until the operator directs its stoppage.

Fourth Degree.—In the fourth degree of hypnotic sleep the patient ceases to be in relation with the outer world. He hears only what is said to him by the operator.

The *Fifth* and *Sixth Degrees*, according to Liébeault, constitute somnambulism. In the former, recollection of what occurred during sleep is indistinct and recalled with difficulty; in the latter, the patient is unable to recall *spontaneously* anything which has occurred while asleep. All the phenomena of post-hypnotic suggestion can be induced in this condition, and it presents features of extraordinary interest to the psychologist.

Though spontaneous memory is extinct, it can be evoked by hypnotizing the subject and asking him what happened in the previous sleep. Even in this rare and helpless condition, therefore, one has a check on abuses which can always be brought into use, and which might play an important part in legal or criminal cases.

NOTE 8.—DR. GRAZZINI'S CASE OF SOMNAMBULISM.

A very well-known and scientific physician, Dr. Grazzini, of Florence, has been kind enough to send me the enclosed letter, giving full particulars of the case alluded to on page 39. It is so interesting, from a psychical point of view, that I feel impelled to translate and publish it *in extenso*, though it must be understood that such phenomena lie outside psycho-therapeutics as a system of treatment. In England we rarely, if ever, see such cases; but I believe that they are not uncommon among the Latin races. The hysterical Frenchman, known as the 'Soho Sleeper,' occasionally arouses scientific curiosity by indulging in fits of prolonged trance or somnambulism. In November, 1888, he had one of these fits, which lasted for thirteen days, during which time he was susceptible to suggestions of various kinds. Dr. de Watteville, for instance, made him the subject of delusions, in order, as he tells me, to prove to the police the indiscretion of allowing all sorts of people to have access to him.

In England we frequently hear of 'fasting girls,' and I imagine these cases fall into the same category as 'sleeping men.' As will be seen from Dr. Grazzini's letter, suggestion was actually curative in this case of 'spontaneous hypnotism.'

'The following case of spontaneous hypnotism may interest you. G. F., of Alessandria (Piedmont), aged 32, of feeble constitution and delicate appearance, with a pallid and beardless face, is by occupation a travelling

conjurer. I can easily hypnotize him by making him look steadily at one of my fingers and telling him to sleep. Occasionally he spontaneously falls into the same condition if a ray of light strikes his eyes when in the streets or when entering a brilliantly-lighted room.*

‘I think it may be called a case of advanced (*grande*) hypnotism, for the various phases are developed in regular and characteristic succession.

‘In the lethargic stage all the limbs are in a state of relaxation, and there is marked nervo-muscular hyper-excitability; the slightest pressure on or even touch of a nerve or muscle causes a corresponding movement.

‘On raising the eyelids, he immediately passes from the lethargic into the cataleptic stage. He can then be placed in the most difficult and impossible positions, as though he were made of wax, and in these he will remain as long as desired without strain or fatigue. If the right eyelid alone be raised, that side of the body only becomes cataleptic, and the other side remains in the lethargic state, and *vice versa* if the left eye be opened. Slight pressure on the top of the head causes him to fall into somnambulism, and in this state he is susceptible to suggestions. For instance, I suggested to him that on awaking he would be unable to speak or to move a limb; and this suggestion was realized, and his speech and movements were paralyzed until I removed the prohibition. Again, at my suggestion, he went to places which he did not know, and called on people who were strangers to him, at the hour and on the day I had named. He came to the studio of an artist friend of mine at the exact time I had suggested to him eight days previously, and on being asked why he did this could give no reason, and was surprised and annoyed at having gone there, for he had an engagement for that time at a neighbouring village. It was on that occasion I induced a state of somnambu-

* The man was subject to these attacks of spontaneous hypnotism previous to his having ever been hypnotized. The condition is not very uncommon among hystero-epileptics.—C. L. T.

lism, and suggested his copying a head drawn by my friend (alluded to on p. 39). He reproduced the drawing with the quickness and facility of a real artist; whereas his attempts at drawing when awake are childish scrawls, as you will see by the photographs I send you.*

‘I determined to repeat on this susceptible subject the experiments shown by Dr. Luys before the Academy of Medicine of Paris, exhibiting the influence exerted by drugs on a hypnotized person at a distance. Without in any way entering into the controversy excited in the Academy by these experiments, I can only say that on holding glass tubes, which I had filled with tartar emetic or ipecacuanha, near the subject’s back, he being in a state of somnambulism and ignorant of my proceedings, he was *invariably* attacked by nausea, agitation, and violent fits of vomiting. These symptoms ceased as soon as the tubes were removed. But when the tubes were prepared by a third person and covered with paper, so that I was myself ignorant of the nature of their contents, he no longer showed the physiological effects of the drugs used, but only vague symptoms, such as muscular contractions, more or less violent, or various emotions. I should add that these experiments were repeated in the presence of my colleagues and friends at the hospital of the “Fate bene Fratelli” (in Florence), to which G. F. had been brought, and where he was a patient in my ward.†

* Dr. Grazzini has sent me photographs of some of this man’s drawings when awake and when in a state of somnambulism. He has also given me copies of his letters, written in his own person, which are what one would expect from a peasant; and others when, while in a state of somnambulism, he had been told that he was (1) a general in the army, (2) a grandmother, (3) a small boy. These letters are quite in keeping with the supposed position.

† The result of the deliberation of the Academy on these experiments was, that they decided that the so-called effects of drugs at a distance depended upon the subject in some way guessing the nature of the drug contained in the tube, and acting accordingly. In these highly nervous subjects the senses are wondrously acute in somnambulism, and the slightest hint by word or gesture excites the *suggested* effect.—C L.E.

‘ While in the hospital a large carbuncle developed on his right thigh, and, as an operation was necessary, I determined to avail myself of hypnotism to procure anæsthesia. A deep incision was made and the cavity was scraped and cleansed, while he was in a state of lethargy, without the faintest sign of suffering, and on awaking he had not the least idea that he had been operated on.

‘ I had observed that a magnet applied along the spine and to the head arrested the lethargic and cataleptic states, and it occurred to me that it might be possible to cure G. F. of the morbid tendency to spontaneous catalepsy which prevented him following his business and exposed him to dangerous or criminal suggestions.

‘ Accordingly I suggested that he should wear a magnet of medium strength tied round his neck, and that he should buy one as soon as he left the hospital. He followed my directions exactly, and for four months was unable to remove the magnet from his neck. During that period he had no hypnotic seizure, although he was constantly exposed to brilliant light in cafés and other places where he followed his occupation of conjurer.

‘ But, as usually happens, the suggestion gradually lost its efficacy, and when last I saw him he told me that he had had one or two slight attacks. I believe that by occasional repetition of the suggestion this tendency might be lessened, or perhaps cured; but my treatment could not be persevered with, as he left Florence, and I have lost sight of him.*

‘ Before bringing this long letter to a close I must add that I have used hypnotism *as a curative agent* in a case of St. Vitus’s dance. The patient, a young man, had been treated with all kinds of remedies in vain, for the disease was most obstinate. He is now entirely cured, by suggestions made by me during the hypnotic sleep. He was

* In treating such a case, Dr. Liébeault would certainly insist upon the patient returning at lengthening intervals until the morbid habit was overcome and displaced.—C. L. T.

allowed to sleep for half an hour at a time for twelve consecutive days.

‘If you think these experiences worth publishing, pray do so, and they may perhaps serve as material for researches in psychology and therapeutics.*

(Signed) ‘G. B. GRAZZINI.

‘FLORENCE, *December 13th*, 1888.’

NOTE 9.—METHOD OF PUBLIC PERFORMERS.

Though in deference to public sentiment the travelling ‘professors’ style themselves hypnotists, it is easy to see that they do so somewhat under protest, and that they much prefer the old name of ‘mesmerism,’ or better still, ‘animal magnetism.’

Their method is the same all the world over. A certain number of previously hypnotized subjects are scattered among the audience, and when the lecturer asks for persons to experiment on, these make a rush for the platform and form a nucleus on which to work. Probably a few *bonâ fide* strangers will lend themselves for experiment, and one way and another the platform will be well filled with candidates. The lecturer gives to each person a bright disc which he is to look at steadily. In a few minutes he goes round, closes the eyes, and tells the subject that he is unable to open them. If he opens them he is sent back to his seat among the audience, if not, he is reserved for further use and is given a seat on the platform. A favourite plan with the experimenter is now to open the subject’s mouth to its widest extent, turn him round so as to face the audience, and tell him he is unable to shut it. A friend of mine, a doctor in good practice, was so treated in a foreign watering-place, and his feelings when he was thus made a laughing-stock of a large assemblage of people were not enviable. After

† Dr. Grazzini writes to tell me that he is using hypnotic suggestion to a considerable extent in his practice, and that he is very pleased with the results he obtains.

these experiments in inhibiting voluntary motor action, the lecturer will go on to produce hallucinations of the senses, and will amuse his audience by showing what antics a human being can be made to perform when he has been deprived of the use of the higher brain-functions. He can be made to think himself a general at the head of his army in battle, a school-boy being flogged, or an animal at the Zoological Gardens. Whatever he is told to believe is at once acted upon, and as the lecturer's object is to cause amusement, he finds it advantageous to make the actions outrageous and to alternate the imaginary changes of condition as rapidly as possible. It is no wonder therefore that the unfortunate subjects complain the next day of *malaise* and mental confusion, and it is fortunate if no graver results follow. Public performances are forbidden in most cities on the Continent, and their prohibition was brought about at Geneva last year in a curious manner. A travelling 'professor' gave a performance in the city, and among his subjects he succeeded in obtaining several respectable citizens. After the usual comedy, he ended with a grand *tour de force*, for he told his victims that on the following day at noon they were to go to the chief *Place* and were then to do various acts which he detailed to them, and he invited his audience to assemble to see the sport. At noon the next day the *Place* was naturally well filled with sightseers, and as the subjects of the preceding evening appeared, there was a murmur of expectation. As the clock struck twelve one respected citizen mounted a seat and harangued the crowd, two more removed their coats and ran an exciting race round the square, and others did equally absurd things in obedience to suggestions made the night before. This performance proved too much for the City Fathers, the too clever hypnotist was shown out of the city, and it is probable that Geneva will be avoided by gentlemen of his profession for some time to come.

The performance of such a person has about as much

relation to psycho-therapeutics as the antics of a merry-andrew at a fair have to the practice of a court physician. That such things should have been tolerated will probably be a subject of astonishment to our descendants.

NOTE 10.—RESOLUTIONS ADOPTED AT THE PARIS CONGRESS.

The following resolutions were agreed to at the first International Congress of Physicians and Jurists on Hypnotism held in Paris, 1889 :

‘This Congress recognises the danger of public exhibitions of magnetism and hypnotism, and deeming that the therapeutic application of hypnotism has become a branch of the science of medicine, that its official teaching is the province of psychiatry, votes the following resolutions :

1. ‘Public exhibitions of hypnotism and magnetism should be forbidden by the administrative authorities in the interest of public hygiene and public morals.

2. ‘The employment of hypnotism as a curative agent should be subject to the laws and restrictions which regulate medical practice generally.

3. ‘It is desirable that the study of hypnotism and of its therapeutic application be introduced into the curriculum of medical sciences.’

The following schedule (pp. 180, 181) has been sent to all physicians who have sent in their names as practising hypnotism. The immense practical value of the statistics to be thus collected will be recognised at a glance.

INTERNATIONAL STATISTICS OF HYPNOTIC IMPRESSION-ABILITY AND OF SUGGESTIVE PSYCHO-THERAPEUTICS.

The following schedule is framed with the object of elucidating the results of hypnotic treatment by comparative statistics.

a. ‘The proportion of persons who are susceptible to hypnotic influence.’

b. 'The degree of impressionability and its relation to the age, sex, constitution and temperament of the subject, and the method of hypnotizing adopted.'

c. 'The value of hypnotic suggestion as a therapeutic agent tested by the amount of success and number of failures, by the duration and completeness of the cures, ameliorations,' etc.

This inquiry is extremely important, because authorities are not agreed on the subject, and we therefore beg our colleagues who use hypnotism either as a means of cure or for scientific investigation to fill in the enclosed papers as completely and carefully as possible.

Please give the degree of hypnotism attained, and for the purpose of classification observe the following definitions and characteristics:

I. *Light Sleep*. Feeling of fatigue. The patient's will-power is either unaffected or is only slightly modified. It is often difficult or impossible to open the eyes. The subject on awaking remembers everything that has happened, and does not experience the sensation of having slept.

II. *Profound Sleep*. The patient's will is either partially or completely in abeyance. The eyes are generally closed, but sometimes remain open. Memory on awaking is either lost or incomplete, and he feels more or less the sensation of having slept.

III. *Somnambulism*. Complete amnesia on awaking, and possibility of realizing hallucinations and other hypnotic and post-hypnotic suggestions.

The sign O signifies the waking state.

Please indicate the method employed by the following signs :

a. Method of Braid and Charcot. Physical means. Vivid sensory impression (light, sound, etc.). Fixation of the eyes with a brilliant object. Pressure on or friction of certain regions of the body (hypnogenic zones). Monotonous sensory impressions, etc.

β. Method of Liébeault and Bernheim. Suggestion :

SCHEDULE.

Somme totale des personnes.	Hommes (=h)	Femmes (=f)	Age (approximatif) $a = 1-10$ $b = 10-20$ $c = 20-30$ $d = 30-40$ $e = 40-50$ $f = 50-60$ $g = 60-70$ $h = 70-100$	Dégré d'influence hypnotique. O. Refractaires. I. Sommeil léger. II. Sommeil profond. III. Somnambulisme.	Méthodes employées, $\alpha \beta \gamma \delta$	Effet nul.	Amélioration légère ou passagère.	Amélioration très décidée.	Guérisons.	Récidives.	Durée des succès.	Ont abandonné le traitement fin.	Résultat inconnu.	Nombre des séances hypnotiques.	Remarques.	Nom, titre, fonction du correspondant : Domicile adresse du correspondant :
																I. Personnes saines.
																II. Personnes malades.
																A. Maladies du système nerveux. (Affections organiques). Affections traitées.
																B. Maladies mentales.
																C. Grandes névroses : (a) épilepsie, névrasthénie, tétanie, chorée, etc. (b) Affections hystérique.
																D. Troubles névropathiques diverses : (a) anesthésie, hyperesthésie, crampes, convulsions diverses. Névralgies. Céphalalgie habituelle. Migraine, etc. (b) Paralysies fonctionnelles, parésies. (c) Autres troubles nerveux, incontinence d'urine, somnambulisme nocturne, insomnie.

[illegible]

the method adopted by the school of Nancy. γ . Combined method — α employed systematically in conjunction with β .

Forms to be obtained from, and details to be sent to, Dr. Von Schrenck-Notzing, Munich.

NOTE II.—EXPERIMENTS IN AUTO-SUGGESTION.

Dr. Coste de Lagrave, surgeon-major in the French army, contributed an interesting paper to the International Congress on auto-suggestion, and related several experiments he has made on himself during the last few years.

By practice he acquired the power of being able to sleep at will, and of awaking at a definite time. To effect this he only had to lie down, and fix his attention on sleep, and on the idea that he would awake after a certain number of minutes. In a short time he obtained such self-control that he could get five or six distinct sleeps, and as many distinct awakenings in the course of an hour. He also succeeded in producing dreams of the character he wished, and in evoking sensory delusions and hallucinations to such an extent that he became alarmed, lest the condition thus induced should become permanent. He was able to apply auto-suggestion in a curative direction, and thus to relieve himself of colic, gastrodynia, and the like. He did this by closing his eyes, and concentrating his thoughts on the organ he wished to affect. In from a quarter to half an hour he generally succeeded in getting rid of the pain. On one occasion, when riding with troops, he suffered greatly from cold feet, and he tried the effect of auto-suggestion. He closed his eyes, and induced a state of drowsiness, in which he directed his thoughts to his feet, which he wished to become warm. In less than half an hour he was conscious of a feeling of warmth in them, and as long as he kept his attention fixed there they continued so; but very soon they became cold again when he

allowed his thoughts to dwell on other things, showing, as he thinks, that the sensation of warmth depended on mental influence and mind concentration. In subsequent experiments he produced the desired result in a shorter time, and he found that the sensation of warmth was not merely subjective, for on removing his boots he felt the previously cold feet warm to the touch, thus getting the same effect as is nearly always demonstrable in ordinary hypnotic practice.

He relates a curious experience of auto-suggestion in nervous prostration. He had been invalided home from Tonkin for dysentery, and for a year had been so prostrated by weakness that he was unable to walk a mile in the course of a day. One night he suggested to himself increased muscular and nervous force, and ability to walk without fatigue. The next day he walked over six miles without difficulty; but unfortunately he does not mention in his paper whether this effort was followed by reaction, or whether the improvement was permanent.

Dr. de Lagrave's experiments open up an interesting field of research, and if his experience is corroborated by that of other scientific observers, it will throw light on a number of mental phenomena connected with directed self-consciousness, which are at present surrounded with a degree of mysticism. The yogis and fakirs of India assert that they can obtain remarkable control over their bodily organs and functions by contemplation, introspection, and other mental exercises; and there is little doubt that many of their achievements are the result of auto-hypnotism and auto-suggestion.

NOTE 12.—HYPNOTIZATION OF ANIMALS.

Dr. Gerald Yeo, Professor of Physiology at King's College, read a very interesting paper before the College Society in 1883 ('The Nervous Mechanism of Hypnotism'), in which he propounded some interesting theories on the subject of hypnotic phenomena, and illustrated

them by experiments on animals. He showed how animals of such diverse organization as crayfish, frogs, fowls and guinea-pigs could be easily hypnotized by monotonous continuous stimulation, and made to remain motionless and unresponsive to ordinary stimulation. He induced this state by firmly fixing them in one position for a few minutes, and then gently removing the restraining influence when it was found the animals continued in that position, however abnormal, for several minutes. Kircher's experiment with the domestic fowl is the most familiar example of hypnotic effect in animals. If a chalk line is drawn and the bird held for a few seconds with its beak on this line, it will be found that the creature remains in that position for several minutes. Dr. Yeo, however, says that the line is unnecessary in performing this experiment.

The plan of changing the nest of a sitting hen, familiar to farmers, probably depends on hypnotism for its success. The fowl's head is firmly held under its wing for a few minutes, and she is carried from one nest to another. She seems ignorant of the change, and continues sitting on the new set of eggs until they are hatched, or she is again removed to another nest in the same way. The drowsy condition induced in many animals by gentle friction of the forehead is a matter of common observation; and I have frequently seen negroes in South America reduced to a condition of drowsiness verging on somnambulism by the gentle stroking of the head and manipulation of the hair which they seem to be so fond of at the hands of their womankind.

NOTE 13.—THOUGHT TRANSFERENCE AND HYPNOTISM.

Obscure psychical phenomena do not come within the scope of practical medical hypnotism, and I only refer to thought transference in connection with hypnotism because the idea exists in many quarters that the hypnotic state favours this mental process. I have repeatedly put

the matter to experimental test, and have proved, at any rate to my own satisfaction, that there is no transference of thought in ordinary hypnotism.

The thought by which I have generally tried to influence my patients was that they should awake when I mentally counted up to a certain number, but I have also frequently endeavoured by direction of thought and mental suggestion to produce local sensations, such as a feeling of warmth.

I may say that in no case has there been any satisfactory response to my unexpressed thought, though when put into words it has immediately and almost invariably produced the desired result.

I think, therefore, that the idea of thought-transference and influence in the employment of medical hypnotism may be dismissed, for the phenomenon is as rare and requires as special conditions for its production as it does in the waking state.

In the face of such experiments as have been performed by Professor Janet of Havre, and by the Society for Psychical Research, it is impossible to deny that in special cases, when the subject has been hypnotized repeatedly and for a long period of time by the same operator, *with such an object in view*, a state of mental dependence of one mind on another has been induced, which it is to my mind most repulsive to witness, and which constitutes a very grave abuse of hypnotism.

NOTE 14.—CHRISTIAN SCIENCE HEALING.

As far as I understand the method of healing called *Christian science*, and similar modes of treatment which, as Sir J. Crichton-Browne told us at Leeds, fall legitimately within the scope of medical inquiry, I believe that the cures they have effected in certain neuropathic conditions depend upon the same factors as we have been considering.

Auto-suggestion is a proved exciter of disease and ill-

health, and it is easily conceivable that when directed into healthful instead of morbid channels, it may prove a valuable moral and curative agent.

It is certain that most of those who derive benefit from healthily directed self-consciousness are capable of doing themselves an infinity of harm by morbid introspection if left to themselves.

If a hypochondriacal or nervous invalid can by any means, its name matters not, be induced to look upon himself as healthy and strong, instead of as diseased and weak, a great point is gained, and as he has grown into the miserable creature he imagined himself to be, so it is possible that under different conditions of thought he may realize in his own person some of the perfection upon which he fixes his aspirations. But we must remember that reverie is apt to pass into brooding, and introspection into hysteria, unless very carefully watched. We know also that ecstasies of all times and creeds have succeeded in becoming careless and unconscious of bodily pain and discomfort, but that this deadening of sensation has not saved them from wasting with disease, and dying from exposure and neglect.*

* Last autumn I had the opportunity of listening to a few lectures on Christian Science, given by some very earnest Americans. The subject interested me, and I was anxious to see how far the imagination and what is termed the sub-conscious mind can affect function and influence health apart from hypnotism.

Their theories were delightful and morally elevating, and there appeared to be a large amount of common sense in their application. The audience was told how to pass scathless through epidemics, and especially how to avoid getting the influenza, which was then making its appearance in Eastern Europe. Many of those present were honestly convinced that if they directed their thoughts into healthy channels, and held that the power of Good could conquer that of Evil, they would escape any disease, for 'healthy thought makes healthy blood, and with healthy blood there is no chance for morbid germs to gain a footing or multiply.' But, alas! when the influenza invaded us, most of these good people succumbed, and some of them incurred bronchitis and inflammation of the lungs, and so suffered more than most of us, from battling with the malady, denying its power, and neglecting to take proper steps to treat it. The inference naturally is that the patients' condition of thought has not much effect on the bacillus of influenza. Other instances are not wanting in reports of deaths occurring while the patient was under this treatment, to teach people that bodily diseases are to be met by material remedies. But

I have frequently succeeded, following Dr. de Lagrave's hints, in awakening at a pre-determined moment, and no doubt anyone with a little practice will be able to do the same thing; but I imagine that the other effects of auto-suggestion which he relates are only to be attained by hysterical or neuropathic subjects.

Such experiments afford additional proof of the correctness of Bernheim's theory that in hypnotism it is the patient who hypnotizes himself, and that it is the evocation of his own forces (under the stimulus of suggestion) which constitutes the curative agency in the treatment. Surely this is a better and nobler conception of the power in every way than that current before Braid's time, and still held by unscientific 'magnetizers,' which would have us believe in a subtle fluid passing from operator to subject.

Dr. Byrom Bramwell, speaking of the important part voluntary effort plays in cases of paralysis, instances that of the late Mr. Horatio Ross, a celebrated sportsman.* 'When some eighty-two years of age, Mr. Ross was attacked with hemiplegia which was, perhaps, embolic. He was seen by a distinguished neurologist in London, who, considering the advanced age of the patient and the very serious nature of the attack, gave a very unfavourable opinion, saying that he would never use his arm again. Shortly afterwards he came to Edinburgh and placed himself under the care of Dr. Foulis, who had previously attended him. When he consulted Dr. Foulis the paralysis of the arm, though not absolute, was very great; the leg, as is usually the case, had to a much greater extent recovered.

'Dr. Foulis, who is a firm believer in the beneficial effects which frequently repeated voluntary efforts produce

the scope left for mental treatment in neurotic conditions is assuredly wide enough. Those who are desirous of knowing something of this very interesting subject will find it very clearly set forth in 'Christian Theosophy,' by Dr. Dewey (New York, 1887).

* 'Studies in Clinical Medicine,' vol. i., No. 6.

in cases of paralysis, explained to Mr. Ross the importance of making frequent and systematic efforts to throw the paralyzed muscles into voluntary contraction. Mr. Ross, who was a man of iron will as well as (in his younger days) of iron muscles, fully appreciated the *rationale* of this method of treatment, and set himself diligently and with firm determination to carry it into effect. Many times every day he endeavoured to perform each of the individual movements which the hand, forearm, and arm are capable of making. The paralyzed muscles soon began to regain some power, and each day and almost all day, he diligently practised some form of muscular movement. I was asked to see him some two months after he had commenced this treatment, with the object of advising whether electricity would be beneficial. He had then regained considerable movement in the paralyzed arm and much more in the leg. He continued to practise his muscular gymnastics, and in the course of three or four months he had practically recovered; he could, in fact, make such good use of his paralyzed arm that, on the following 12th of August, he was able to get on to the moor and actually to shoot several brace of grouse.'

Dr. Bramwell attributes Mr. Ross's rapid recovery to the exercise of the will power, as each voluntary effort tends to act as a stimulus which travels along the damaged nerve tract and forms a path for motor impulses.

In support of this theory he reminds us that after facial paralysis the orbicularis palpebrarum is the first muscle to recover its tone, on account, he thinks, of its great functional activity. In consequence of the immense number of times each day the reflex stimulus from the conjunctiva—inclination to wink—is applied, the nerve tract is continually being stimulated by impulses which endeavour to force their way through the lesion, and this repeated stimulation leads to rapid repair of the damaged nerve fibres.

The important part will-effort and concentration of purpose play in muscular development and renovation of tissue is seen in Swedish gymnastics, and in the method practised in America under the name of psycho-physical culture. We have much to learn of hypnotism as a stimulator of effort and arouser of the will, and it is in this direction the power should be used, and not as a supplanter or enfeebler of individuality.

THE END.



OPINIONS OF THE PRESS

ON THE FIRST EDITION.

'Dr. C. Lloyd Tuckey in *Psycho-Therapeutics* furnishes a good sketch, with some English illustrations, of the practice and results of the School of Nancy. . . . The best part of the book is that in which he describes the process of treatment as carried out at Nancy, and it has the practical advantage that he indicates what are the best cases for such treatment.'—*British Medical Journal*.

'Dr. Tuckey has done a very useful work in giving us a sketch of how the matter stands now in the medical practice of France and Holland; especially in the medical school of Nancy, where Liébeault has practised hypnotism for thirty years, and since 1882 the large experience of Bernheim, Beaunis and Liégeois, physician, physiologist and lawyer, has built up a solid superstructure.'—*Practitioner*.

'Dr. Tuckey has evidently made himself thoroughly acquainted with the subject by practical experience, and has investigated it more as a careful scientific observer than as an enthusiast. This little book will be an important addition to our literature, inasmuch as it is the first practical exposition of the Nancy system that has appeared in this country.'—*Weekly Medical Review*, St. Louis, U.S.A. (Review of American Edition).

'Dr. Tuckey, who has dedicated his treatise to Dr. Liébeault, has produced a very readable book, and no doubt has helped to increase the interest felt in the subject of the treatment of disease by suggestion in this country.'—*Journal of Mental Science*.

'On the whole Dr. Tuckey's task has been well performed. The book sets forth the present state of the subject in a compendious and attractive form, and will largely help to bring treatment by suggestion under the notice of the profession in this country.'—*Provincial Medical Journal*.

'It is fortunate that at last the matter has been taken up and investigated by men who are not only properly qualified physicians, but who are also capable of testing its value as a therapeutic agent. . . . That hypnotism might cause harm—might even be used for criminal purposes—is no reason why it should not be employed in suitable cases, under proper safeguards, any more than the fact that arsenic and chloroform having been used criminally would be a reason for expunging them from the armamentarium of medicine.'—*Public Health (Journal of the Society of Medical Officers of Health)*.

A
CATALOGUE OF THE PUBLICATIONS
OF
BAILLIÈRE, TINDALL, & COX,
IN
MEDICINE, SCIENCE AND ART.

CONTENTS.

	PAGE
AIDS TO THE CLASSICS	<i>Back of Title</i>
ANATOMY	7, etc.
ART, ARTISTIC ANATOMY, ETC.	9, etc.
CHEMISTRY	12, etc.
MEDICINE, SURGERY, AND ALLIED SCIENCES	17, etc.
PHARMACY	24, etc.
STUDENTS' AID SERIES	31, etc.
VETERINARY MEDICINE AND SURGERY	34, etc.
PERIODICAL PUBLICATIONS	<i>P. 3 of wrapper</i>
MEDICAL AND PHYSIOLOGICAL MANIKIN	<i>Outside wrapper</i>



LONDON :
KING WILLIAM STREET, STRAND.
[PARIS; MADRID.]
1889.

* * Baillière, Tindall and Cox have special facilities for the disposal of authors' works in the United States and abroad ; being in almost daily communication with the principal houses and agents.

AIDS TO THE CLASSICS.

TEXT, TRANSLATION AND COPIOUS NOTES, together with an account of the Author and his works.

- Ovid.** Metamorphoses. Lib. I. Price 2s.
Cicero. Oratio Prima in L. Catilinam. Price 1s.
Cicero. De Amicitia. Price 2s.
Sallust. De Catilinæ Conjuratone. Price 1s. 6d.
Cæsar. De Bello Gallico. Lib. V. and VI. Price 2s.

TEXT AND NOTES.

- Cæsar.** De Bello Gallico. Lib. I. Price 1s.
Cæsar. De Bello Gallico. Lib. II. Price 1s.
Cæsar. De Bello Gallico. Lib. VII. Price 1s. 6d.
Horace. Carminum. Book III. Price 1s. 6d.
Horace. Carminum. Book IV. Price 1s.
Livy. Book XXII. Price 1s. 6d.
Ovid. Epistolæ ex Ponto. Lib. I. Price 1s.
Ovid. Tristia. Lib. I. Price 1s. 6d.
Ovid. Metamorphosoen. Lib. II. Price 1s.
Ovid. Metamorphoseon. Lib. XI. Price 1s. 6d.
Cicero. Pro Lege Manilia. Price 1s. 6d.
Cicero. De Senectute. Price 1s.

TRANSLATIONS IN LITERAL ENGLISH.

- Cæsar.** Gallic War. Book I. Price 1s.
Cæsar. Gallic War. Book II. Price 1s.
Cæsar. Gallic War. Book VII. Price 1s.
Horace. Odes. Books III. and IV. (together). Price 1s.
Ovid. Metamorphoses. Book II. Price 1s.
Ovid. Metamorphoses. Book XI. Price 1s.
Ovid. Pontic Epistles. Book I. Price 1s.
Ovid. Tristia. Book I. Price 1s.
Ovid. Tristia. Book III. Price 1s.
Livy. Book XXII. Price 1s. 6d.
Cicero. Pro Lege Manilia. Price 1s.
Cicero. De Senectute. Price 1s.
Virgil. Æneid. Book I. Price 6d.
Virgil. Æneid. Book V. Price 6d.
Virgil. Æneid. Book XII. Price 9d.
Virgil. Georgics. Book II. Price 6d.

ALPHABETICAL INDEX OF AUTHORS.

	PAGE
ABERCROMBIE (J.) On Tetany in Young Children	13
ADAMS (W.) Deformities (in Gant's Surgery)	27
ALLAN (J. H.) Materia Medica Tables	20
ALLEN (Alfred) Microscopical Science	22
BAKER (Benson) How to Feed an Infant	23
BANHAM—Veterinary Tables.....	33
BARRAUD (H. R.) Picture of the International Medical Congress	19
BARTON (J. K.) The Diagnosis of Syphilis	27
BEACOCK (J.) Prize Essay on Breeding Cattle, etc.	33
BENNETT (E. E.) Veterinary Surgeon's Diary and Dose-book	36
BERNARD (Claude) and HUETTE'S Text-book of Operative Surgery	27
BIGELOW (Horatio R.) Hydrophobia as it appears in Man	18
BLACK (C.) Atlas of the Male Organs of Generation	8
BLACKLEY (C. H.) Hay Fever, its Causes and Treatment	18
BLAKE (Carter) Translation of Fau's Anatomy for Artists	9
BODDY (E. M.) History of Salt.....	26
BOYD (Stanley) Movable Atlas of the Foot, its Bones and Muscles	8
BROCHARD (J.) Practical Guide for the Young Mother.. ..	23
BROWN (A. M.) Treatise on Animal Alkaloids	9
BROWN (George) The Student's Case-book	11
——— Aids to Anatomy	7, 31
——— Aids to Surgery	27, 32
BROWNE (Balfour) Mental Responsibility and Disease	11
BROWNE (Lennox) The Throat and its Diseases.....	29
——— Forms for taking Throat and Aural Cases	12
——— Movable Atlases of the Throat and Ear	8
BROWNE (W. J.) The Moon, its Influence on Weather	22
BURKE—Tropical Diseases of Horses	34
BURNESS (A. G.) The Specific Action of Drugs.....	34
BURTON (J. E.) Translation of Ebstein's Gout	18
CAMERON (Chas.) Microbes in Fermentation, Putrefaction, and Disease ...	22
——— The Cholera Microbe and How to Meet It	13
——— A Romance of War	30
CAMERON (Sir C. A.) History of the Royal College of Surgeons in Ireland	18
CAMPBELL (C. M.) and HARRIES (A.) Lupus, a Clinical Study	26
——— Skin Diseases of Infancy and Early Life.....	26
CANTLIE (Jas.) Atlas of the Hand	8
——— Text-book of Naked-Eye Anatomy	7
CARMICHAEL Prize Essays	21
CARTER (R. Brudenell) Training of the Mind... ..	22
CASSELLS (J. Patterson) Deaf-mutism and the Education of the Deaf-mute	14
CHARCOT (J. M.) Bright's Disease of the Kidneys.....	20
CLARKE (E. H.) The Building of a Brain	11
COCKLE (John) Contributions to Cardiac Pathology	18
——— Insufficiency of the Aortic Valves.....	18
COFFIN (R. J. Maitland) Obstetrics	23
COLE (A. C.) Methods of Microscopical Research	22
COOPER (R. T.) On Vascular Deafness	15
COSGRAVE (C. M.) Botany, Glossary of	11
COTTERELL (Ed.) The Anatomist's Vade Mecum	9
COURTENAY (E.) Practice of Veterinary Medicine	34
CRUISE (F. R.) Hydropathy	18
CULLIMORE (D. H.) Consumption as a Contagious Disease	14
CUTTER (George R.) Dictionary of German Terms used in Medicine.....	15
DALBY (Sir William) Politzer on Diseases of the Ear	15

	PAGE
DARLING (W.) Anatomography, or Graphic Anatomy	9
——— The Essentials of Anatomy	7
DARTNELL (G. M.) Notes on Anatomy	7
DAVIDSON (J.) Chemistry of Pharmacopœia	13
DAWSON (W. E.) Guide to the Examinations of the Apothecaries' Society	15
DAY (W. H.) Irritable Brain in Children	11
DENNIS (Hy. J.) Second-Grade Perspective Drawing	10
——— Third-Grade Perspective Drawing	10
DOLAN (T. M.) Whooping Cough, its Pathology and Treatment.....	30
——— Summary of New Remedies	23
DOWSE (T. Stretch) Apoplexy.....	9
——— Syphilis of the Brain and Spinal Cord.....	11
——— Skin Diseases from Nervous Affections	26
——— The Brain and the Nerves	11
——— Movable Atlas of the Brain and Skull	8
DRAGENDORFF (Prof. G.) Plant Analysis	25
DRYSDALE (C. R.) Nature and Treatment of Syphilis	28
DRYSDALE (John) The Protoplasmic Theory of Life.....	28
——— Germ Theories of Infectious Diseases	28
DUDGEON (R. E.) The Sphygmograph	26
DUFFY (G. F.) Note-taking	23
EBSTEIN (Prof.) The Treatment of Gout	17
EDRIDGE-GREEN (F. W.) Memory	22
EDWARDS—Diseases of Children	13
EVANS (C. W. De Lacy) How to Prolong Life?	28
——— Consumption : its Causes, Treatment, etc.	14
FAU (J.) Artistic Anatomy of the Human Body	10
——— Anatomy of the External Forms of Man.....	9
FEARNLEY (W.) Text-book for the Examination of Horses.....	33
FINNY (F. M.) Clinical Fever Chart	16
FITZGERALD (H. P.) Dictionary of British Plants and Flowers	10
FLAXMAN (J.) Elementary Anatomical Studies for Artists	9
FLEMING (G.) Text-book of Veterinary Obstetrics	34
——— Text-book of Veterinary Surgery	34
——— Actinomykosis	35
——— Roaring in Horses	35
——— Practical Horse-Shoeing	35
——— Animal Plagues, their History, Nature and Treatment	35
——— Contagious Diseases of Animals	34
——— Tuberculosis.....	35
——— Human and Animal Variolæ	35
——— Heredity and Contagion in the Propagation of Tuberculosis	35
FOTHERGILL (J. Milner) Chronic Bronchitis	11
——— Aids to Diagnosis (Semeiological)	14, 31
——— Aids to Rational Therapeutics.....	29, 33
——— The Physiological Factor in Diagnosis	14, 25
——— The Physiologist in the Household	25
——— Diseases of Sedentary and Advanced Life ..	23
——— Vaso-Renal Changes	19
——— What to Ask	14, 31
FOY (Geo). Anæsthetics : Ancient and Modern	9
FUCHS (Dr.) The Causes and Prevention of Blindness	16
GANT (F. J.) Text-book of the Science and Practice of Surgery	27
——— Diseases of the Bladder, Prostate Gland, and Urethra	10, 29
——— Examinations by the Conjoint Board	15

	PAGE
GARMARY (J. J.) Surgery on the Cadaver	27
GARSTER (A. G.) Aseptic and Antiseptic Surgery	27
GIRAUD-TEULON—Anomalies of Vision	16
GLOVER (J. G.) Medical Reform	21
GORDON (Chas. A.) Our Trip to Burmah	11
——— Life on the Gold Coast	7
——— Lessons in Military Hygiene and Surgery	18
——— A Manual of Sanitation	19
——— Rabies and Hydrophobia	18
——— Reports of the Medical Officers of Chinese Service	13
——— Experiences of an Army Surgeon in India	19
GORDON (T. Hurd) Aids to Practical Chemistry	31
GORE (Albert A.) Our Services Under the Crown	22
——— Medical History of African Campaigns	7
GRAY—The Pocket Gray, or Anatomist's Vade-Mecum	9
GREEN (F. W. Edridge) Memory	22
GREENWOOD (J.) Laws Affecting Medical Men	21
GREENWOOD (Major) Aids to Zoology	30, 33
GRESSWELL (J. B. and A. G.) Manual of Equine Medicine	34
GREVILLE (H. Leicester) Student's Hand-book of Chemistry.....	13
GRIFFITHS (W. H.) Text-book of Materia Medica and Pharmacy	20
——— Notes for Pharmacopœial Preparation.....	24
——— Posological Tables.....	25
GUBB (Alfred S.) Aids to Gynæcology	18, 31
GUBB & GRIFFITHS. Materia Medica and Pharmacy	21
GUBLER (Professor) The Principles and Methods of Therapeutics	28
GUILLEMARD (F. H. H.) Endemic Hæmaturia	16
HALTON (R. J.) Short Lectures on Sanitary Subjects	19
HARRIS (Vincent) Manual for the Physiological Laboratory	25
HARRIES (A.) Scabies: its Causation and Treatment	26
——— and CAMPBELL (A.M.) Lupus: a Clinical Study	26
HARTMANN (Prof.) On Deaf-mutism, Translation by Dr. Cassells.....	14
HAVILAND (Alfred) Topography of Disease	
HAYNES (Stanley) Healthy Homes	19
HEATLEY (G. S.) Practical Veterinary Remedies	35
HEIBERG (Jacob) Atlas of Cutaneous Nerve Supply	23
HEMMING (W. D.) Aids to Examinations	15, 31
——— Aids to Forensic Medicine	17, 31
——— Otorrhœa	15
HEPPEL—Analytical Conic Sections	17
HEWITT (Frederic) Anæsthetics	9
HILL (J. W.) Principles and Practice of Bovine Medicine	34
HIME (T. W.) Cholera: How to Prevent and Resist It... ..	13
——— The Practical Guide to the Public Health Acts.....	26
HOGG (Jabez) The Cure of Cataract	16
——— The Impairment of Vision from Shock	16
——— Parasitic or Germ Theory of Disease	28
HOPGOOD (T. F.) Notes on Surgical Treatment	27
HORNER (Professor) On Spectacles	16
HOWAT (G. R.) How to Prevent and Treat Consumption	14
HUSBAND (H. Aubrey) Handbook of Forensic Medicine	17
——— Aids to the Analysis of Food and Drugs.....	16, 31
——— Handbook of the Practice of Medicine.....	22
——— Student's Pocket Prescriber	25
——— A Digest of the Sanitary Acts of England	27

	PAGE
HUTCHINSON (Jonathan) Guide to Diseases of the Eye.....	16
INCE (J.) Latin Grammar of Pharmacy	24
INTERNATIONAL MEDICAL CONGRESS	20
JACOB (A. H.) The General Medical Council	21
JAMES (Brindley) Replies to Questions in Therapeutics.....	33
JAMES (M. P.) Laryngoscopy and Rhinoscopy in Throat Diseases	29
— Therapeutics of the Respiratory Passages	29
— Vichy and its Therapeutical Resources	30
JENNINGS (C. E.) On Transfusion of the Blood and Saline Fluids	29
— Cancer and its Complications	11
JONES (H. Macnaughton) The Diseases of Women	18
JUKES-BROWNE (A. J.) Palæontology (in Penning's Field Geology)	17
KEETLEY (C. R. B.) Guide to the Medical Profession.....	21
— Annals of Surgery	27
KENNEDY (Hy.) An Essay on Fatty Heart.....	18
LAFFAN (T.) The Medical Profession Carmichael Prize Essay) ..	21
LAMBERT (J.) The Germ Theory of Disease	34
LEASK (J. G.) Questions at Medical Science Examinations	15
LEDWICH (J. L'E) Anatomy of Inguinal and Femoral Regions	9
LEE (R. J.) Lectures on Diseases of Children	13
LEONARD (H.) The Pocket Anatomist	9
— Bandaging	10
LE SUEUR Analytical Geometry, Straight Line and Circle	17
LETHEBY (Hy.) The Sewage Question	26
LIAUTARD (A.) Animal Castration	35
— Lameness of Horses	35
LITHGOW (R. A. Douglas) From Generation to Generation	18
LITTLE (Jas.) Clinical Note-Book	12
LOWNE (B. T.) Aids to Physiology	25, 32
LUNN (C.) The Philosophy of Voice	30
— Artistic Voice in Speech and Song	30
MACKENZIE (Sir M.) Diseases of the Throat (in Gant's Surgery)	27
MADDICK (Distin) Stricture of the Urethra	27
MAGNÉ (Dr.) How to Preserve the Sight.....	16
MANIKIN (The) Medical and Physiological.....	<i>Wrapper</i>
MAPOTHER (E. D.) A Manual of Physiology	25
— Chronic Skin Diseases. 3s. 6d.	
MARTIN (J. W. & J.) Ambulance Work	7
MASSE (J. N.) Text-book of Naked-Eye Anatomy.....	7
McARDLE (J. S.) Notes on Materia Medica.	20
McBRIDE Anatomical Outlines of the Horse	34
McLACHLAN (John) Anatomy of Surgery	27
MEARS (W. P.) Schematic Anatomy	9
MELDON (Austin) A Treatise on Gout	17
— Skin Diseases	26
MEYRICK (J. J.) Stable Management in India.....	36
MILLARD (H. B.) Bright's Disease of the Kidneys.....	19
MILNE (Alex.) The Principles and Practice of Midwifery	22
MOLONY (M. J.) Rupture of the Perineum	26
MOORE (E. H.) Clinical Chart for Hospital and Private Practice.....	28
MORDHORST (Carl) Rheumatism. Its Treatment by Electric Massage ...	26
MORGAN (John) The Dangers of Chloroform and Safety of Ether	7
MORRIS (Malcolm) The Skin (in Gant's Surgery)	27
MUCKLEY (W. J.) Student's Manual of Artistic Anatomy.....	9
— A Handbook for Painters and Art Students on the Use of Colours	13

	PAGE
MURRAY (R. Milne) Chemical Notes and Equations	12
----- Pregnancy	8
MUTER (J.) Key to Organic Materia Medica	20
----- Manual of Analytical Chemistry	13
----- Introduction to Pharmaceutical and Medical Chemistry	13
NALL (S.) Aids to Obstetrics	23, 32
NAPHEYS (G. H.) Modern Medical Therapeutics	28
----- Modern Surgical Therapeutics	28
----- Handbook of Popular Medicine	15
NATIONAL SOCIETY FOR PREVENTION OF BLINDNESS	16, 17
NORTON (A. T.) Text-book of Operative Surgery	27
----- Osteology for Students	24
----- Affections of the Throat and Larynx	29
----- Clinical Lectures on Hoarseness	31
----- Movable Atlas of the Skeleton	8
ORMSBY (L. H.) Deformities of the Human Body	14
----- Phimosis and Paraphimosis	24
----- Chart of Surgical Appliances	27
PALFREY (J.) Atlas of the Female Organs of Generation	8
PALMER (J. F.) How to Bring up Children by Hand	23
PARRISH (Ed.) A Treatise on Pharmacy	24
PENNING (W. H.) Text-book of Field Geology	17
----- Engineering Geology	17
----- Notes on Nuisances, Drains, and Dwellings	19
PETTENKOFER (Von) Cholera: How to Prevent and Resist it	13
POLITZER (Prof.) The Ear and its Diseases	15
POWER (Hy.) Movable Atlas of the Eye, and the Mechanism of Vision	8
----- Diseases of the Eye (in Gant's Surgery)	27
POWER (D'Arcy) Handbook for the Physiological Laboratory	25
POYSER (R.) Stable Management of Troop Horses in India	36
PRATT (W.) A Physician's Sermon to Young Men	22
PROCTOR (Richd.) The Stars and the Earth	10
PSYCHOLOGICAL ASSOCIATION'S Handbook for Attendants on the Insane.....	20
PURVES (L.) Aural Diseases (in Gant's Surgery)	27
RABAGLIATI (A.) The Classification and Nomenclature of Diseases	14
REMSSEN (Ira) Principles of Theoretical Chemistry	12
REYNOLDS (R. S.) The Breeding and Management of Draught Horses.....	36
RICHARDS (J. M.) A Chronology of Medicine	22
RICHARDSON (B. W.) The Healthy Manufacture of Bread	17
RICHARDSON (Thos.) Chemistry in its Application to the Arts, etc.....	12
RIVINGTON (W.) The Medical Profession (First Carmichael Prize Essay)... ----- Medical Education and Organization	21 20
ROBERTSON (William) A Handbook of the Practice of Equine Medicine...	36
ROCHE (J.) Hernia and Intestinal Obstruction	18
ROCHET (Chas.) The Prototype of Man, for Artists	10
ROTH (M.) Works on Deformities, Gymnastic Exercises, etc.	17
ROTH (W. E.) Elements of School Hygiene.....	19
----- Theatre Hygiene	19
ROUTH (C. H. F.) Overwork and Premature Mental Decay.....	24
----- On Fibrous Tumours of the Womb	23
----- On Checks to Population	25
SALISBURY (J. H.) The Salisbury Plans of Treating Disease	15
SARCEY (F.) Mind your Eyes.....	16
SCHOFIELD (A. T.) Examination Cards—Pathology.....	16, 24

	PAGE
SCHOFIELD (A. T.) Minor Surgery and Bandaging	16, 27
SEILER (C.) A Compendium of Microscopical Technology	22
SEMPLE (R. H.) Diphtheria, Its Causes and Treatment	14
——— Movable Atlas of the Human Body (Neck and Trunk)	8
SEMPLE (C. E. A.) Aids to Botany	11, 31
——— Aids to Chemistry	12, 31
——— Aids to Materia Medica	20, 32
——— Aids to Medicine	21, 32
——— Aids to Pharmacy	24, 32
——— Diseases of Children	13
——— The Voice Musically and Medically Considered	30
——— The Pocket Pharmacopœia	28
SEWILL (Hy.) Movable Atlas of the Teeth	4
——— Dental Caries and the Prevention of Dental Caries	28
SHARMAN (J. S.) Notes on Inorganic Materia Medica	20
SIMON (W.) A Manual of Chemistry	12
SMITH (F.) Manual of Veterinary Hygiene	36
SPARKES (John C. L.) Artistic Anatomy	10
SQUIRE (P. W.) Posological Tables	26
STARTIN (J.) Lectures on Ringworm	26
STRAHAN (J.) Extra-Uterine Pregnancy	25
STUDENTS' AIDS SERIES	32
SUTTON (H. G.) Handbook of Medical Pathology	24
SWEETING (R. D. R.) The Sanitation of Public Institutions	19
SYMINGTON (J.) Anatomy of the Child	7
TEULON (G.) The Functions of Vision	16
THIN (George) Introduction to Practical Histology	18
THOMSON (W.) Transactions of the Academy of Medicine in Ireland	29
THOROWGOOD (J. C.) Consumption ; its Treatment by the Hypophosphites	14
——— The Treatment of Bronchial Asthma	10
——— Aids to Physical Diagnosis	14, 31
THUDICHUM (J. L. W.) The Physiological Chemistry of the Brain	11
——— Aids to Physiological Chemistry	25, 32
——— Aids to Public Health	26, 32
——— Polypus in the Nose	25
——— The Coca of Peru, and its Remedial Principles	14
TICHBORNE (Professor) The Mineral Waters of Europe	23
TIMMS (G.) Consumption ; its Nature and Treatment	14
——— Alcohol in some Clinical Aspects, a Remedy, a Poison	7
TRANSACTIONS of Royal Academy of Medicine in Ireland	wrapper
TUCKEY (C. I.loyd) Psycho-Therapeutics	28
TYSON (J.) The Urine, a Guide to its Practical Examination	29
UNDERWOOD (Arthur S.) Aids to Dental Surgery	28, 31
VAUGHAN (J.) Strangeways' Veterinary Anatomy	35
WAGSTAFFE (W. W.) Atlas of Cutaneous Nerve Supply	23
WALLER (B. R.) Interstitial Nephritis	23
WALLEY (Thos.) The Four Bovine Scourges	35
WILLIAMS (Maurice) Materia Medica	20
WILLIAMSON (J. M.) Ventnor and the Undercliff	30
WILLSON (A. Rivers) Chemical Notes for Pharmaceutical Students	13
WILSON (J.) A Manual of Naval Hygiene	19
WINSLOW (L. S. Forbes) Fasting and Feeding	16
——— Aids to Psychological Medicine	32
WORTHINTON (L. N.) Chimie, Botanique, Zoologie	30
——— Thérapeutique	30
WITKOWSKI (G. J.) Movable Atlases of the Human Body	8, 17

AN
ALPHABETICAL INDEX OF WORKS,
IN
MEDICINE, SURGERY, SCIENCE AND ART,
PUBLISHED BY
BAILLIÈRE, TINDALL, & COX.

- Africa.** A Contribution to the Medical History of our West African Campaigns. By Surgeon-Major ALBERT A. GORE, M.D., Sanitary Officer on the Staff. Price 10s. 6d.
- Africa.** Life on the Gold Coast. A Description of the Inhabitants, their Modes and Habits of Life; Hints to Travellers and others in Western Africa. By Surgeon-General GORDON, M.D., C.B., Hon. Physician to the Queen. Price 2s. 6d.
- Alcohol,** in some Clinical Aspects: A Remedy, a Poison. By GODWIN TIMMS, M.D., M.R.C.P. Lond., Senior Physician to the North London Consumption Hospital. Price 1s.
- Ambulance Work.** Questions and Answers on "First Aid to the Injured." By JOHN W. MARTIN, M.D., and JOHN MARTIN, F.R.C.S. Eighth thousand. Price 1s., net.
- Anæsthetics.** The Dangers of Chloroform and the Safety and Efficiency of Ether in Surgical Operations. By JOHN MORGAN, M.D., F.R.C.S. Second thousand, price 2s.
- Anatomy.** Aids to Anatomy. By GEORGE BROWN, M.R.C.S., Gold Medallist, Charing Cross Hosp. Price 1s. 6d. cloth, 1s. sewn.
- Anatomy.** Text Book of Naked-Eye Anatomy. Containing 113 beautifully engraved Steel Plates, designed under the direction of Professor MASSE. Text by JAS. CANTLIE, M.B., C.M. (Honours), F.R.C.S., Charing Cross Hospital. Third Edition. Plain, 25s., hand coloured, 50s., bound half calf.
- Anatomy.** The Essentials of Anatomy. A Text-book for Students, and a book of easy reference to the Practitioner. By W. DARLING, M.D., F.R.C.S., and A. L. RANNEY, M.D. 12s. 6d.
- Anatomy. Notes on Anatomy.** By GEORGE MEADOWS DARTNELL, L.R.C.S. Part I.—Upper Extremity. Price 1s.
- Anatomy.** Anatomy of the Child. Illustrated with 14 coloured plates and 33 woodcuts. By JOHNSON SYMINGTON, M.D., F.R.S.E., F.R.C.S.E., Lecturer on Anatomy, School of Medicine, Edinburgh. Price 42s.

Anatomy. Human Anatomy and Physiology, illustrated by a series of Movable Atlases of the Human Body, showing the relative positions of the several parts, by means of Superposed Coloured Plates, from the designs of Prof. G. J. WITKOWSKI, M.D. Each part complete in itself.

Part I.—Neck and Trunk. With Text Descriptive and Explanatory of the physiology and functions of the several parts. By ROBERT HUNTER SEMPLE, M.D., F.R.C.P., Lond. Price 7s. 6d.

The same enlarged to Life Size. Price £2 2s. 0d.

Part II.—Throat and Tongue, showing the Mechanism of Voice, Speech, and Taste. Text by LENNOX BROWNE, F.R.C.S. Edin. Price 7s. 6d.

Part III.—The Female Organs of Generation and Reproduction. Text by JAMES PALFREY, M.D., M.R.C.P. Lond., late Senior Obstetric Physician, London Hospital. Price 7s. 6d.

Part IV.—The Eye and the Apparatus of Vision. Text by HENRY POWER, F.R.C.S., Senior Ophthalmic Surgeon to St. Bartholomew's Hospital. Price 7s. 6d.

Part V.—The Ear and Teeth. The Mechanism of Hearing, and of Mastication. Text of the Ear by LENNOX BROWNE, F.R.C.S.E. The Teeth by H. SEWILL, M.R.C.S. Price 7s. 6d.

Part VI.—The Brain and Skull. (Cerebrum, Cerebellum, and Medulla Oblongata). Text by T. STRETCH DOWSE, M.D., F.R.C.P. Edin. Price 7s. 6d.

Part VII.—The Male Organs of Generation. Text by D. CAMPBELL BLACK, M.D., Physician to the Glasgow Royal Infirmary. Price 7s. 6d.

Part VIII.—The Skeleton and its Articulations, showing the Bones and Ligaments of the Human Body and Limbs. Text by A. T. NORTON, F.R.C.S. Price 7s. 6d.

Part IX.—The Hand; its Bones, Muscles and Attachments. Text by JAS. CANTLIE, M.B., F.R.C.S. Price 7s. 6d.

Part X.—The Foot; its Bones, Muscles and Attachments. Text by STANLEY BOYD, M.B., B.S., Lond., F.R.C.S., Assistant Surgeon, Charing Cross Hospital. Price 7s. 6d.

Part XI.—The Progress of Gestation: a Synopsis of Practical Obstetrics. Text by R. Milne Murray, F.R.C.P. Edin., M.B. Edin. Price 7s. 6d.

* * No such simple, reliable, and comprehensive method of learning the several parts, positions, and functions of the body has hitherto been attempted; the entire Series being unique, will be most valuable to the Teacher, the Student, and to all who wish to become acquainted with the anatomy and physiology of the human economy.

Anatomy. The Pocket Gray, or Anatomist's Vade-Mecum. Compiled from the works of Gray, Ellis, Holden, and Leonard. By E. COTTERELL, L.R.C.P., M.R.C.S. Enlarged edition, 3s. 6d.

"A marvellous amount of information condensed into a remarkably small space."—*Med. Press.*

Anatomy. The Pocket Anatomist. By H. LEONARD, M.D. M.D. Enlarged Edition illustrated. Price 3s. 6d.

Anatomy. Schematic Anatomy; or Diagrams, Tables and Notes treating of the Association and Systematic arrangement of Structural Details of Human Anatomy. By WILLIAM P. MEARS, M.B., Professor and Examiner in Anatomy at the University of Durham. Profusely illustrated. Price 7s. 6d.

Anatomy of the Inguinal and Femoral Regions in relation to Hernia. By E. L'LEDWICH, Lecturer on Anatomy in the Ledwich School of Medicine, Dublin. Price 3s.

Anatomography; or, Graphic Anatomy. A new method of grasping and committing to memory the most difficult points required of the student. By W. DARLING, M.D., F.R.C.S. Eng., Professor of Anatomy in the University of New York. Price 1s.

Anæsthetics: Ancient and Modern. Their Physiological Action, Therapeutic Use, and Mode of Action. By GEORGE FOY, F.R.C.S., Surgeon to the Richmond Hospital. Price 3s. 6d.

Anæsthetics. Selected Methods in the Administration of Nitrous Oxide and Ether. By FREDERIC HEWITT, M.A., M.D. Cantab. Lecturer on Anæsthetics at the London Hospital. Price 2s. 6d.

Animal Alkaloids. A Treatise on the Animal Alkaloids, Cadaveric and Vital; or the Ptomaines and Leucomaines, in relation to scientific medicine. By A. M. BROWN, M.D. Second Edition in the press.

Apoplexy. Diagnosis and Treatment of Apoplexy. By T. STRETCH DOWSE, M.D., F.R.C.P.E., formerly Medical Superintendent, Central London Sick Asylum. Price 1s.

Army Hygiene. Lessons in Military Hygiene and Surgery. By Surgeon-General GORDON, M.D., C.B., Hon. Physician to H.M. the Queen. Illustrated. Price 10s. 6d.

Artistic Anatomy. Anatomy of the External Forms of Man, for the use of Artists, Sculptors, etc. By Dr. J. FAU. Used at the Government School of Art, South Kensington. Twenty-nine plates. Folio; New edition. 42s. coloured, 24s. plain.

Artistic Anatomy. Elementary Anatomical Studies of the Bones and Muscles, for Students and Schools, from the drawings of J. FLAXMAN, R.A. Lately used as a Text-book in the Art Schools at South Kensington. 20 plates, with Text, price 2s.

Artistic Anatomy. The Student's Manual of Artistic Anatomy. With 25 etched plates of the bones and surface muscles of the human figure. By W. J. MUCKLEY. Used at the Government School, South Kensington. Second edition. Price 5s. 6d.

Artistic Anatomy. Elementary Artistic Anatomy of the Human Body. From the French of Dr. FAU. With English Text. Used at the Government School of Art, South Kensington. Price 5s.

Artistic Anatomy. Description of the Bones and Muscles that influence the External Form of Man. With 43 plates. By John C. L. SPARKES, Principal of the National Art Training School, South Kensington. Adapted as a text-book at the Government Art Schools. Price 7s. 6d.

Artistic Drawing. Second Grade Perspective (Theory and Practice), containing 21 block illustrations, 20 plates, and many examination exercises. Used at the Government Science and Art Schools. By H. J. DENNIS, Art Master, Lambeth School of Art, Dulwich College, etc. Price 2s. 6d.

Artistic Drawing. Third Grade Perspective, for the use of Art Students. By H. J. DENNIS. Used at the Science and Art Schools. In two parts 7s. 6d. each. Part 1, Angular and Oblique Perspective. Part 2, Shadows and Reflections; or, half-bound leather in one vol., price 15s.

Artistic Drawing. The Prototype of Man, giving the natural laws of Human proportion in both sexes. A manual for artists and professors of drawing. By CHAS. ROCHET, of Paris. Price 1s.

Asthma. On Bronchial Asthma—its causes, Pathology and Treatment. Lettsomian Lectures. By J. C. THOROWGOOD, M.D., F.R.C.P. London, Senior Physician to the City of London Hospital, for Diseases of the Chest. Third edition. Price 3s.

Astronomy. The Stars and the Earth; or, Thoughts on Time Space, and Eternity. With Notes by R. A. PROCTOR, B.A., Fourteenth thousand, price 1s.

Bandaging. A Manual for Self-instruction. By C. H. LEONARD, M.A., M.D., Professor of Diseases of Women in the State College, Michigan. With 139 illustrations. Price 3s. 6d.

Bladder. On Diseases of the Bladder, Prostate Gland, and Urethra. By F. J. GANT, F.R.C.S., Senior Surgeon to the Royal Free Hospital. Fifth edition. Price 12s. 6d.

- Botany.** A Dictionary of British Plants and Flowers ; their names, pronunciation, origin, etc. By H. P. FITZGERALD. Price 2s. 6d.
- Botany.** Aids to Botany. Outlines of the Elementary Facts, including a Description of some of the most important Natural Orders. By C. E. ARMAND SEMPLE, B.A., M.B. Cantab., M.R.C.P. Lond. Price 2s. 6d. cloth ; 2s. paper wrapper.
- Botany.** The Student's Botany. Encyclopædic Glossary. By E. MACDOWEL COSGRAVE, M.D., Lecturer on Botany, Carmichael College. Price 2s. 6d.
- Brain.** The Building of a Brain. By E. H. CLARKE, M.D. (author of "Sex in Education"). Price 5s.
"Carefully and elegantly written, and full of sound physiology."—*Lancet*.
- Brain.** On Irritable Brain in Children. By W. H. DAY, M.D., M.R.C.P. Lond., Physician to the Samaritan Hospital for Women and Children. Price 2s.
- Brain.** The Physiological and Chemical Constitution of the Brain, based throughout on original researches. By J. L. W. THUDICHUM, M.D., F.R.C.P., Lond. Price 10s. 6d.
- Brain.** Syphilis of the Brain and Spinal Cord, showing the part which this agent plays in the production of Paralysis, Epilepsy, Insanity, Headache, Neuralgia, Hysteria, and other Mental and Nervous Derangements. By T. STRETCH DOWSE, M.D., F.R.C.P. Ed. Second edition, illustrated. Price 7s. 6d.
- Brain.** The Brain and Nerve Exhaustion (Neurasthenia). By the same author. Price 2s. 6d.
- Bronchitis.** Chronic Bronchitis : its Forms and Treatment. By J. MILNER FOTHERGILL, M.D. Edin., M.R.C.P. Lond. Second Edition. Price 4s. 6d.
- Burmah.** Our Trip to Burmah, with Notes on the Ethnology, Geography, Botany, Habits and Customs of that Country, by Surgeon-General GORDON, C.B., M.D., Physician to the Queen. Illustrated with numerous Photographs, Maps, Coloured Plates, and Sketches in gold by native Artists. Price 21s.
- Cancer and its Complications.** By C. EGERTON JENNINGS, M.B., F.R.C.S. Eng. Price 2s. 6d.
- Case-Books.** Students' Case-book. For recording cases as seen, with full instructions for methodising clinical study. By GEORGE BROWN, M.R.C.S., Gold Medallist, Charing Cross Hospital. Third thousand, cloth. Price 1s. net.

Chemistry. Aids to Chemistry. By C. E. ARMAND SEMPLE, B.A., M.B. Cantab., M.R.C.P. Lond.

Part I.—Inorganic. The Non-metallic Elements. Price 2s. 6d., cloth; 2s. paper wrapper.

Part II.—Inorganic. The Metals. Price 2s. 6d., cloth; 2s. paper.

Part III.—Organic. Cloth, 2s. 6d.; paper, 2s.

Part IV.—Tablets of Chemical Analysis. Price 1s. 6d. and 1s.

"Students preparing for Matriculation at the London University, and other Examinations, will find it simply invaluable."—*Students' Journal*.

Chemistry. A Manual of Chemistry; a complete guide to Lectures and Laboratory work for beginners in Chemistry, and a text-book for students in Medicine and Pharmacy. By W. SIMON, Ph.D., M.D., Professor of Chemistry. Sixteen woodcuts, and coloured plates representing 56 Chemical reactions. Price 15s.

Chemistry. Chemistry in its Application to the Arts and Manufactures. A Text-book by RICHARDSON and WATTS.

Parts 1 and 2.—Fuel and its Applications. 433 engravings, and 4 plates. Price £1 16s.

Part 3.—Acids, Alkalies, Salts, Soap, Soda, Chlorine and its Bleaching Compounds, Iodine, Bromine, Alkalimetry, Glycerine, etc., their Manufacture. Price £1 13s.

Part 4.—Phosphorus, Mineral Waters, Gunpowder, Guncotton, Fireworks, Aluminium, Stannates, Tungstates, Chromates and Silicates of Potash and Soda, price £1 1s.

Part 5.—Prussiate of Potash, Oxalic Acid, Tartaric Acid, tables, plates, and wood engravings, price £1 16s.

Practical Treatise on Acids, Alkalies, and Salts: their Manufacture and Application. In three vols., being Parts III., IV., V. of the above work, price £4 10s.

Chemistry. The Principles of Theoretical Chemistry, with special reference to the Constitution of Chemical Compounds. By IRA REMSEN, M.D., Ph.D., Professor of Chemistry in the John Hopkins University. Third Edition, enlarged. Price 7s. 6d.

Chemistry. The Student's Hand-book, with Tables and Chemical Calculations. By H. LEICESTER GREVILLE, F.I.C., F.C.S. Second Edition. Price 6s.

Chemistry. Chemical Notes for Pharmaceutical Students. By A. RIVERS WILLSON. Second edition, price 3s. 6d.

"Of exceeding value to students going up for examination."—*Pharmaceutical Journal*.

Chemistry. A Short Manual of Analytical Chemistry for Laboratory Use. By JOHN MUTER, Ph.D., M.A., F.C.S. Price 6s. 6d.

Chemistry. An Introduction to Pharmaceutical and Medical Chemistry, Theoretical and Practical. With Analytical Tables and copious Index. By the same Author. Price 10s. 6d.

"Very useful and original; brought up to the latest date."—*Chemical News*.

Chemistry. Aids to the Chemistry and Test of the Pharmacopœia. By J. DAVISON. Price 1s. 6d.

Children. The Diseases of Children their History, Causes and Treatment. By C. E. ARMAND SEMPLE, B.A., M.B. Cantab., M.R.C.P. Lond., Physician to the North-Eastern Hospital for Children. Price 6s.

Children. Lectures on the Diseases of Children delivered at the Hospital for Sick Children. By ROBERT J. LEE, M.D. Cantab., F.R.C.P. Lond. Second edition, enlarged. Price 3s. 6d.

Children. On Tetany in Young Children. By J. ABERCROMBIE, M.D., M.R.C.P. Lond. Price 2s.

Children. Modern Therapeutics of the Diseases of Children, with Observations on the Hygiene of Infancy. By T. F. EDWARDS, M.D. Price 12s. 6d.

China. Reports of the Medical Officers of the Chinese Imperial Maritime Customs Service, from 1871 to 1882, with the History of Medicine in China. Compiled by Surgeon-General GORDON, M.D., C.B., Physician to Her Majesty the Queen. Price 21s.

Cholera: How to Prevent and Resist it. By Professor VON PETTENKOFER and T. WHITESIDE HIME, A.B., M.B. Second edition. Illustrated. Price 3s. 6d.

Cholera. The Cholera Microbe and How to Meet It. Read at the Congress of the British Medical Association. By CHARLES CAMERON, M.D., LL.D., M.P. Price 1s.

Coca. The Coca of Peru, its Remedial Principles, and Healing powers. By J. L. W. THUDICHUM, M.D., F.R.C.P. Price 1s.

Colours. A Hand-book for Painters and Art Students, on the use of Colours, Vehicles, etc. By W. J. MUCKLEY. Price 3s. 6d.

Consumption. Consumption, as a Contagious Disease ; the Merits of the Air of Mountains and Plains. By D. H. CULLIMORE, M.K.Q.C.P., F.R.C.S.I., formerly Surgeon H.M. Indian Army. Price 5s.

Consumption. Consumption and its Treatment by the Hypophosphites. By JOHN C. THOROWGOOD, M.D., F.R.C.P. Lond., Physician to the City of London Hospital for Diseases of the Chest, Victoria Park. Third edition, price 2s. 6d.

Consumption. A Re-investigation of its Causes. By C. W. DE LACY EVANS, M.R.C.S. Eng. Price 2s. 6d.

Consumption. Tuberculosis from a Sanitary and Pathological Point of View. By G. FLEMING, C.B., F.R.C.V.S., President of the Royal College of Veterinary Surgeons. Price 1s.

Deafness. (See Ear.)

Deformities. The Nature and Treatment of Deformities of the Human Body. By LAMBERT H. ORMSBY, M.B. Dub., Surgeon to the Meath Hospital and Dublin Infirmary. Price 5s.

Deaf-mutism. On the Education of Deaf-mutes by Lip-Reading and Articulation. By Professor HARTMANN. Translated by Dr. PATTERSON CASSELLS. Price 7s. 6d.

"The instruction of deaf-mutes is here rendered easy."—*Athenæum*.

"We can honestly recommend it to anyone seeking for knowledge."—*The Lancet*.

Diagnosis, Aids to. Three Parts. Price 1s. and 1s. 6d. each.

Part I.—Semeiological. By J. MILNER FOTHERGILL, M.D., M.R.C.P. Lond.

Part II.—Physical. By J. C. THOROWGOOD, M.D., F.R.C.P. Lond.

Part III.—What to Ask. By J. MILNER FOTHERGILL, M.D., M.R.C.P. Lond.

"A mine of valuable information."—*Edinburgh Medical Journal*.

Diagnosis. The Physiological Factor in Diagnosis. By the same Author. Second Edition. Price 7s. 6d.

"An exceedingly clever and well written book, put together in a very plain, practical, and taking way."—*Edinburgh Medical Journal*.

Diphtheria. Diphtheria, its Causes, Pathology, Diagnosis, and Treatment. By R. HUNTER SEMPLE, M.D., F.R.C.P. Lond. Second edition, price 2s. 6d.

Diseases.—The Classification and Nomenclature of Diseases. By A. RABAGLIATI, M.A., M.D., Senior Surgeon Bradford Infirmary, Surgeon to the Children's Hospital. Price 2s. 6d.

Diseases. The Salisbury Plans of Treatment by Alimentation of the Diseases produced by Unhealthy Feeding. By J. H. SALISBURY, M.D. Price 2s. 6d.

Domestic Medicine. Handbook of Popular Medicine for family instruction, colonists and others out of reach of medical aid. By G. H. NAPHEYS, A.M., M.D. With movable plate and 100 illustrations. Price 7s. 6d.

Ear. Text-book of the Diseases of the Ear and adjacent Organs. By Professor POLITZER, of Vienna. Translated by Sir W. DALBY, M.B. Cantab., F.R.C.S. Second Edition in the press.

"The work of a recognised master."—*British Medical Journal*.

Ear. On Vascular Deafness. By ROBERT J. COOPER, M.D., Trinity College, Dublin. Price 3s. 6d.

Ear. Otorrhœa; or, Discharge from the Ears: Causes and Treatment. By W. DOUGLAS HEMMING, F.R.C.S. Ed. Price 1s.

Etiquette. A few Rules of Medical Etiquette. By a L.R.C.P. Lond. Price 1s.

Examinations. Aids to Examinations. By W. D. HEMMING, F.R.C.S. Ed., and H. AUBREY HUSBAND, M.B., F.R.C.S. Being Questions and Answers on Materia Medica, Medicine, Midwifery, Pathology, and Forensic Medicine. Price 1s. 6d. cloth, 1s. paper.

Examinations. A Guide to the Examinations of the Conjoint Board in England, and for the Fellowship of the College of Surgeons, with Examination Papers. By F. J. GANT, F.R.C.S. Sixth edition, revised and enlarged. Price 5s. net.

Examinations. A Guide to the Examinations of the Apothecaries' Society of London, with Questions, Tables on Materia Medica, etc. By W. E. DAWSON, L.S.A. Second edition. Price 2s. 6d.

"May be studied with great advantage by a student, shortly before presenting himself for examination."—*British Medical Journal*.

Examinations. The Irish Medical Students' Examiner. Examination Questions at the University of Dublin, Royal University. King and Queen's College of Physicians, Royal College of Surgeons, and Army and Navy Competitions. Price 2s. net.

Examinations. Examination Questions on the Medical Sciences, including the Army, Navy and University Examinations. Selected and arranged by JAMES GREIG LEASK, M.B. Abdn. Second edition. Price 2s. 6d.

"Dr. Leask's questions are particularly suitable for pure examination study. Students should test themselves thereby."—*British Medical Journal*.

16 Baillière, Tindall, and Cox's Books.

Examination Cards: Questions and Answers. By A. T. SCHOFFIELD, M.D., 9d. each. Pathology, 2 sets, 1s. 6d. Minor Surgery, Bandaging, etc., 9d.

Eye. Student's Guide to Diseases of the Eye (Aids Series). By J. HUTCHINSON, jun., F.R.C.S., Ophthalmic Surgeon to the Great Northern Hospital. Cloth, 2s. 6d.; paper, 2s.

Eye. The Cure of Cataract and other Eye Affections. By JABEZ HOGG, M.R.C.S., Consulting Surgeon to the Royal Westminster Ophthalmic Hospital. Third edition. Price 2s. 6d.

Eye. On Impairment or Loss of Vision from Spinal Concussion or Shock. By the same Author. Price 1s. 6d.

Eye. The Functions of Vision and its Anomalies. By Dr. GIRAUD TEULON. Translated by LLOYD OWEN, F.R.C.S.I., Surgeon to the Midland Eye Hospital, Ophthalmic Surgeon to the Hospital for Sick Children Birmingham. Price 5s.

Eye. Movable Atlas of the Eye and the Mechanism of Vision. By Prof. G. J. WITKOWSKI. Price 7s. 6d. (See Anatomy.)

(The following four works have been translated for the National Society for the Prevention and Cure of Blindness.)

Mind your Eyes. By F. SARCEY. Price 2s. 6d.

The Causes and Prevention of Blindness. By Dr. FUCHS, Professor of Ophthalmology in the University of Liege. Price 7s. 6d.

How to Preserve the Sight. By Dr. MAGNÉ. Price 6d.

On Spectacles, their History and Uses. By Prof. HORNER. Price 6d.

Fasting and Feeding, Psychologically considered. By L. S. FORBES WINSLOW, M.B. Cantab., D.C.L. Oxon. Price 2s.

Fever. On the Endemic Hæmaturia of Hot Climates, caused by the presence of Bilharzia Hæmaturia. By F. H. H. GUILLEMARD, M.A., M.D., F.R.G.S. Price 2s.

Fever Charts. Daily Clinical Fever Charts, to record the progress of a case of continued or eruptive fever. By F. MAGEE FINNY, M.D. Price 5s.

Food. Aids to the Analysis of Food and Drugs. By H. AUBREY HUSBAND, M.B., F.R.C.S., Lecturer on Public Health, in the Edinburgh Medical School. Price 1s. 6d., cloth; 1s. paper.

- Food.** The Healthy Manufacture of Bread. By B. W. RICHARDSON, M.D., F.R.S. Price 6d., paper cover; cloth 1s., with Vignette.
- Foot.** Movable Atlas of the Foot; its Bones, Muscles, etc. By Prof. WITKOWSKI. Price 7s. 6d. (See Anatomy.)
- Forensic Medicine.** The Student's Handbook of Forensic Medicine and Public Health. By H. AUBREY HUSBAND, M.B., F.R.C.S. E. Sixth Edition. Price 10s. 6d.
- Forensic Medicine.** Aids to Forensic Medicine and Toxicology. By W. DOUGLAS HEMMING, F.R.C.S. E., and H. AUBREY HUSBAND, M.B., F.R.C.S. E. Fifth thousand, price 2s. 6d. cloth, 2s. paper.
- Geology.** Field Geology, with a Section on Palæontology. By W. HY. PENNING, F.G.S., of H.M. Geological Survey, and A. J. JUKES-BROWNE, B.A., F.G.S. With woodcuts and coloured map. Second edition, revised and enlarged, price 7s. 6d.
"Others have taught us the principles of the science, but Mr. Penning, as an accomplished field-geologist, introduces us to the practice."—The Academy.
- Geology.** Engineering Geology. By the same Author. Illustrated with coloured maps and woodcuts, price 3s. 6d.
"A full and lucid description of surveying and mapping, the diagnosing of the various minerals met with, the value of sites, rocks, etc."—Popular Science Review.
- Geometry.** Aids to Analytical Geometry. I. The Straight Line and Circle. By A. LE SUEUR, B.A. Cantab. Second Edition, 2s.
 II. The Conic Sections, with solutions of questions set at the London University and other Examinations by GEORGE HEPPEL, M.A. Cantab. Price 2s.
- Gout.** A Treatise on Gout. By AUSTIN MELDON, M.K.Q.C.P., F.R.C.S.I., Senior Surgeon Jervis Street Hospital, Consulting Physician Dublin General Infirmary. Tenth edition, price 2s. 6d.
- Gout.** The Nature and Treatment of Gout. By Professor EBSTEIN of Gottingen University. Translated by J. E. BURTON, L.R.C.P. Lond. Price 3s. 6d.
- Gymnastics.** A Short Sketch of Rational Medical Gymnastics; or, the Movement-Cure. By M. ROTH, M.D., F.R.C.S. Eng. With thirty-eight engravings, price 1s.

BY THE SAME AUTHOR.

- The Prevention and Cure of Many Chronic Diseases by Movements. With 90 engravings, price 5s.
- Contribution to the Hygienic Treatment of Paralysis, and of Paralytic Deformities. Price 3s. 6d.
- On Paralysis in Infancy, Childhood, and Youth, and on the Prevention and Treatment of Paralytic Deformities. 3s. 6d.
- The Prevention and Rational Treatment of Lateral Spinal Curvature. (Gold Medal of the International Health Exhibition, 1884.) 200 engravings. Price 5s.

Gynæcology. The Diseases of Women and their Treatment. By H. MACNAUGHTON JONES, M.D., F.R.C.S.I., F.R.C.S.E., Examiner in Midwifery, Royal College of Surgeons, Ireland. Third edition. Illustrated, price 9s.

"The work of a mature and experienced authority."—*British Medical Journal*.

"Of exceptional merit drawn from a field of wide personal experience."—*Medical Press*.

Gynæcology. Aids to Gynæcology. By ALFRED S. GUBB, M.R.C.S., L.R.C.P., Obstetric Assistant and Gold Medallist Westminster Hospital. Cloth 1s. 6d., price 1s.

Hay Fever: its Causes, Treatment, and Effective Prevention; Experimental Researches. By CHAS. HARRISON BLACKLEY, M.D. Second edition, revised and enlarged, price 10s. 6d.

"A piece of real honest work, original and instructive."—*Lancet*.

Hand. Movable Atlas of the Hand; its Bones, Muscles and Attachments. By Prof. WITKOWSKI. Price 7s. 6d. (See Anatomy.)

Heart. On Insufficiency of Aortic Valves in Connection with Sudden Death. By JOHN COCKLE, A.M., M.D., F.R.C.P., Physician to the Royal Free Hospital. Second edition, price 2s. 6d.

Heart. Contributions to Cardiac Pathology. By the same Author. Price 2s. 6d.

Heart. An Essay on Fatty Heart. By HENRY KENNEDY, A.B., M.B. Physician to the Whitworth Hospitals. Price 3s. 6d.

Heredity and Disease. From Generation to Generation. By DOUGLAS LITHGOW, LL.D., M.R.C.P., L.R.C.S. Ed. Price 4s. 6d.

Hernia and Intestinal Obstruction. By J. ROCHE, M.D. 6d.

Histology. Introduction to Practical Histology. By GEORGE THIN, M.D. Price 5s.

History of the Royal College of Surgeons in Ireland. By Sir C. A. CAMERON. Price 10s. 6d.

Hydrophobia. Inoculation for Rabies and Hydrophobia. A Study of the Literature of the subject. By Surgeon-General C. A. GORDON, C.B. Price 2s. 6d.

Hydrophobia. Comments on the Reports of the Committee on M. Pasteur's Treatment. By Surgeon-General C. A. GORDON, M.D., C.B. Price 2s. 6d.

Hydrophobia. The Disease as it appears in Man. By HORATIO R. BIGELOW, M.D. Price 5s.

Hydropathy. Notes of Visits to Contrexéville and Royat-les-Bains. By F. R. CRUISE, M.D. Price 6d.

Hygiene. Lessons in Military Hygiene and Surgery, from the Franco-Prussian War. Prepared on behalf of Her Majesty's Government. By Surgeon-General GORDON, M.D., C.B., Hon. Physician to the Queen. Illustrated, price 10s. 6d.

Hygiene. A Manual of Sanitation ; or, First Help in Sickness and when Wounded. Alphabetically arranged pocket companion. By the same Author. Second Ed., cloth, 2s. 6d., sewn, 1s.

"It is a most useful and practical manual, and, as the instructions are simple and reliable, it should be placed in the hands of officers and men alike."—*The Graphic*.

Hygiene. The Elements of School Hygiene for the Use of Teachers and Schools. By W. E. ROTH, B.A. Price 3s. 6d.

Hygiene. Theatre Hygiene, a study in construction, safety and healthy arrangement. By W. E. ROTH, B.A. Oxon. Price 1s. 6d.

Hygiene. Healthy Homes. By STANLEY HAYNES, M.D., M.R.C.S., F.R.G.S. Price 1s.

Hygiene. Notes on Nuisances, Drains, and Dwellings. By W. H. PENNING, F.G.S. Second edition, price 6d.

Hygiene. Short Lectures on Sanitary Subjects. By RICHARD J. HALTON, L.K.Q.C.P., L.R.C.P. Ed., L.R.C.S.I., etc. Price 5s.

Hygiene. A Manual of Naval Hygiene, with Instructions and Hints on the Preservation of Health and the Prevention of Disease on board Ship. By JOSEPH WILSON, M.D. 2nd ed., 10s. 6d.

Hygiene. The Sanitation of Public Institutions. The Howard Prize Essay. By R. D. R. SWEETING, M.R.C.S., Medical Superintendent of the Western Fever Hospital. Price 3s. 6d.

India. Experiences of an Army Surgeon in India. The Treatment of Wounds, Injuries and Diseases incidental to a Residence in that Country. By Surgeon-General GORDON, M.D., C.B., Hon. Physician to the Queen. Price 3s. 6d.

International Medical Congress. The Commemorative Portrait-Picture of the International Medical Congress, 1881. Illustrating this most memorable gathering of Medical Men. Designed and executed by Mr. BARRAUD ; nearly 700 Likenesses of Members, representing Medicine and Surgery in every part of the world ; special sittings accorded for every Portrait.

The Picture is Printed by the New Permanent Carbon Process in two Sizes :—

EXTRA SIZE, 47 × 30, MOUNTED, BUT UNFRAMED	£7 10s.	FRAMED -	£10 0s.
POPULAR SIZE, 29 × 20, MOUNTED, BUT UNFRAMED	£3 3s.	FRAMED -	£4 10s.

Kidneys. Vaso-Renal Change *versus* Bright's Disease. By J. MILNER FOTHERGILL, M.D. Ed. Price 7s. 6d.

Kidneys. Bright's Disease of the Kidneys. By Professor J. M. CHARCOT. Translated by H. B. MILLARD, M.D., A.M. Revised by the Author, with coloured plates, price 7s. 6d.

Lunacy. Handbook for the Instruction of Attendants on the Insane. Prepared by a Committee of the Medico-Psychological Association. With Appendix containing Lists of Asylums and Licensed Houses. Price 2s.

Materia Medica. Comprising the Drugs contained in the Schedule issued by the Conjoint Board of the Royal College of Physicians and Surgeons. Arranged by MAURICE WILLIAMS, Principal of the City School of Chemistry and Pharmacy. Price 3s. 6d.

Materia Medica. Table of Official Preparations, as required by Candidates for First Examination Conjoint Board. By J. H. ALLAN, F.C.S. Price 1s.

Table of Doses. Same author. Price 6d., cloth.

Materia Medica. A Key to Organic Materia Medica. By JOHN MUTER, Ph.D., M.A., F.C.S., President of the Society of Public Analysts. Third edition, price 12s. 6d.

Materia Medica. Aids to Materia Medica and Therapeutics. By C. E. ARMAND SEMPLE.

Part I.—The Non-metallic and Metallic Elements, Alcoholic and Ethereal Preparations, etc. Cloth 2s. 6d., paper 2s.

Part II.—The Vegetable and Animal Substances. 2s. 6d., 2s.

Part III.—Classification of Remedies. Cloth, 1s. 6d., paper, 1s.

Part IV.—New Remedies of the British Pharmacopœia. Cloth 2s. 6d., paper 2s.

Part V.—Tablets of Materia Medica. Price, cloth 1s. 6d., paper 1s.

Materia Medica and Pharmacy. A Text-Book for Medical and Pharmaceutical Students preparing for Examination. By W. HANDSEL GRIFFITHS, Ph.D., F.C.S., F.R.C.P. Ed. Third edition. Edited by A. S. GUBB, L.R.C.P. Lond., M.R.C.S., Gold Medallist, Prizeman in Materia Medica, Westminster Hospital. Price 7s. 6d.

"A book of great value . . . a standard text-book."—*Edin. Med. Journal*.

"One of the ablest, if not the best, work on the subject in our language."—*Med. Press*.

Materia Medica. Notes on Inorganic Materia Medica, and its Chemistry. By J. S. SHARMAN. Second edition. Price 1s. 6d.

Materia Medica, Notes on Materia Medica and Therapeutics. Mineral Drugs, Part I. By J. S. MCARDLE. Price 1s.

Medical Education. Medical Education and Organization. The Hunterian Oration for 1880. By WALTER RIVINGTON, B.A., M.B., F.R.C.S., Surgeon to the London Hospital. Price 1s.

Medical Etiquette. A Few Rules of Medical Etiquette. By a L.R.C.P. Lond. Price 1s.

Medical Laws. The Laws Relating to Medical Men. By JAMES GREENWOOD, Barrister-at-Law. Price 5s.

"Admirably suited as a guide to the busy practitioner, who frequently runs great risks of becoming involved in legal penalties, in consequence of an imperfect knowledge of the law."
—*Glasgow Medical Journal*.

Medical Profession. A Guide to the Medical Profession in all its branches, including the Public Services. By C. R. B. KEETLEY, F.R.C.S. Second Edition, revised and enlarged. Price 3s. 6d.

Medical Profession. The Medical Profession: the First Carmichael Prize for 1879. By WALTER RIVINGTON, B.A., M.B., F.R.C.S. Price 6s.

BY SAME AUTHOR AND ON SAME SUBJECT.

The First Carmichael Prize Essay for 1887. Price 15s.

The Second Prize Essay, 1879. By T. LAFFAN, L.K.Q.C.P.I., M.R.C.S. Ed. Price 4s.

BY SAME AUTHOR AND ON SAME SUBJECT.

The Second Prize, Essay 1887. Price 7s. 6d.

Medical Profession. Medical Men and Manners of the Nineteenth Century. By a Physician. Third Thousand, price 3s.

"At times scathing, at others amusing, the author is never dull, and writes as one who knows the many blots on our system, and honestly tries to remedy them."—*Medical Press*.

Medical Reform. A Letter to the Right Hon. A. J. Mundella, M.P. By JAMES GREY GLOVER, M.D. Edin. Price 1s.

Medical Reform. The General Medical Council: Whom it Represents, and How it should be Reconstructed. By ARCHIBALD HAMILTON JACOB, M.D. Dub., F.R.C.S., Surgeon-Oculist to His Excellency the Lord Lieutenant. Price 1s.

Medicine. Aids to Medicine. By C. E. ARMAND SEMPLE, B.A., M.B., Cantab., M.R.C.P. Lond.

Part I.—General Diseases. Price 2s. 6d. and 2s.

Part II.—The Urine, Kidneys, Stomach, Peritoneum, Throat, and Œsophagus. Third Thousand, price 2s. 6d. and 2s.

Part III.—Diseases of the Brain, Nervous System, and Spinal Cord. Third thousand, price 2s. 6d. and 2s.

Part IV.—Fevers, Skin Diseases. Price 2s. 6d. and 2s.

Medicine. A Chronology of Medicine from the Earliest Times. By J. MORGAN RICHARDS. Price 10s. 6d.

Medicine. Student's Handbook of the Practice of Medicine. By H. AUBREY HUSBAND, M.B., C.M., B.Sc. Fourth edition revised and enlarged. Illustrated. Price 7s. 6d.

Medico-Military Services. Our Services under the Crown. A Historical Sketch of the Army Medical Staff. By Surgeon-Major A. GORE, M.D., Sanitary Officer on the Staff. Price 6s.

Memory. Its Logical Relations and Cultivation. By F. W. EDRIDGE GREEN, M.B., B.S. Durham, M.R.C.S., L.R.C.P. Lond. Price 6s.

Meteorology. The Moon and the Weather: the probability of Lunar Influence reconsidered. Showing how storms and depressions may be predicted. By WALTER J. BROWNE (St. Petersburg). Second edition, price 3s.

Microbes, in Fermentation, Putrefaction, and Disease. By CHAS. CAMERON, M.D., LL.D., M.P. Price 1s.

Professor Tyndall, F.R.S., writes:—"Matthew Arnold himself could not find fault with its lucidity, while as regards knowledge and grasp of the subject I have rarely met its equal."

Microscope. A Compendium of Microscopical Technology, the use of the Microscope in the preparation of Histological and Pathological Specimens. By CARL SEILER, M.D., of the Academy of Natural Sciences, Philadelphia. Price 5s.

Microscopy. Methods of Microscopical Research. By A. C. COLE. Price 5s.

Microscopical Science. The Journal of Microscopy and Natural Science. Edited for the Postal Microscopical Society by ALFRED ALLEN. Quarterly with plates. Price 1s. 6d.

Midwifery. The Principles and Practice of Midwifery and Diseases of Women. By ALEXANDER MILNE, M.D., Vice-president of the Obstetrical Society of Edinburgh. Second edit., price 12s. 6d.

Mind. The Training of the Mind for the Study of Medicine. A Lecture delivered at St. George's Hospital. By ROBERT BRUDENELL CARTER, F.R.C.S., Surgeon to the Hospital. Price 1s.

"A remarkable address."—*The Lancet*.

"No one can read it without learning and profiting much."—*Students' Journal*.

Morals. A Physician's Sermon to Young Men. By WILLIAM PRATT, M.A., M.D., etc. Eighth thousand, price 1s. cloth.

"The delicate topic is handled wisely, judiciously, and religiously, as well as very plainly."—*The Guardian*.

Mineral Waters. The Mineral Waters of Europe. A complete Analytical Guide to all the Bottled Waters, and their Medicinal and Therapeutic Values. By PROFESSOR TICHBORNE, LL.D., F.C.S., President of the Pharmaceutical Society of Ireland, and M. PROSSER JAMES, M.R.C.P. Lond., Lecturer on Therapeutics, London Hospital. Price 3s. 6d.

"Such a book as this is simply invaluable."—*The World*.

Morals. Revelations of Quacks and Quackery. A Directory of the London and Provincial Quack Doctors; with Facts and Cases in Illustration of their Nefarious Practices. By "DETECTOR." Thirtieth thousand, price 2s.

Nerve Supply. Atlas of Cutaneous Nerve Supply. By JACOB HEIBERG, M.D., and W. W. WAGSTAFFE, F.R.C.S., containing 10 plates in colours. Price 4s. 6d.

New Remedies. A Summary of New Remedies: their Physiological Action and Therapeutic Uses. By THOS. M. DOLAN, M.D. Price 2s. 6d.

Note-book. Suggestions for a plan of taking notes in medical cases. By GEO. F. DUFFEY, M.D. Dublin. Price 6d.

Nursing. How to Feed an Infant. With an Appendix on the Common Ailments of Infancy, with their Hygienic and Curative Treatment. By BENSON BAKER, M.D. Price 1s. 6d.

Nursing. How to bring up Children by Hand. By J. FOSTER PALMER, L.R.C.P. Price 6d.

Nursing. Practical Guide for the Young Mother. From the French of Dr. BROCHARD, Director-General of Nurseries and Crèches, with Notes and Hints by a London Physician. Price 2s.

Obstetrics. Aids to Obstetrics. By SAMUEL NALL, M.B. Cantab., M.R.C.P. Lond., First Class Honours Nat. Sci. Cambridge, Resident Obstetric Assistant, St. Bartholomew's Hospital. Sixth thousand. Price 2s. 6d. cloth, 2s. paper wrapper.

Obstetrics. Hints for Midwives on Pregnancy and Labour. Abstracts of a Series of Lectures by H. MACNAUGHTON JONES, M.D., M.C.H., F.R.C.S. Price 1s.

Obstetrics. On Fibrous Tumours of the Womb: their Pathology, Diagnosis and Treatment. By C. H. F. ROUTH, M.D., M.R.C.P. Lond., Physician to the Samaritan Hospital. Price 3s. 6d.

Obstetrics. Hints for the use of Midwives preparatory to their Examinations. By R. J. M. COFFIN, F.R.C.P. Ed. Price 1s.

Old Age. The Diseases of Sedentary and Advanced Life. By J. MILNER FOTHERGILL, M.D., M.R.C.P. Lond. Price 7s. 6d.

Osteology. Osteology for Students, with Atlas of Plates. By ARTHUR TREHERN NORTON, F.R.C.S., Surgeon to, and Lecturer on Surgery at, St. Mary's Hospital. Atlas and Text in one volume, 7s. 6d.; in two volumes, 8s. 6d.

"The handiest and most complete hand-book of Osteology."—*The Lancet*.

Overwork. Overwork and Premature Mental Decay: its Treatment. By C. H. F. ROUTH, M.D., M.R.C.P. Lond. Fourth edition. Price 2s. 6d.

Pathology. Handbook of Medical Pathology. Being Lectures delivered at the London Hospital during the Session 1886. By H. G. SUTTON, M.B., F.R.C.P. Lond., Physician to, and Lecturer on Pathology at, the London Hospital. Price 5s.

"There is not a page that is not readable, and often one meets with a phrase or sentence that deserves to be recorded as an aphorism, embodying in a few words the sum and substance of a pathological idea. Such a work is to be accepted with gratitude for the thoughts it contains, and the facts on which they are based."—*The Lancet*.

Pathology. Examination Cards. Arranged as questions and answers for self-examination. By A. T. SCHOFIELD, M.D., M.R.C.S. Complete in two sets of cards, price 9d. nett per set.

Mr. Jonathan Hutchinson, F.R.C.S., writes: "It is an invaluable means of self-tuition."

Pharmacopœia. The Pocket Pharmacopœia. A Précis of the British Pharmacopœia, including the Therapeutical Action of the Drugs, their Natural Orders and Active Principles. By C. ARMAND SEMPLE, M.D., M.R.C.P. Price 3s. 6d.

Pharmacopœia. Notes on the Pharmacopœial Preparations for Pharmaceutical Students. By HANDSEL GRIFFITHS; revised by A. S. GUBB. Price 3s. 6d.

Pharmacy. Latin Grammar of Pharmacy, for the use of Students, with an Essay on Latin Prescriptions. By JOSEPH INCE, A.K.C.L., formerly Examiner and Member of Council, Pharmaceutical Society. Third Edition with appendix. Price 4s.

Pharmacy. Aids to Pharmacy. By C. E. ARMAND SEMPLE, M.B. Cantab., M.R.C.P. Lond. Cloth, price 2s. 6d.; paper, 2s.

Pharmacy. A Treatise on Pharmacy. A Text-book for Students, and a Guide for the Physician and Pharmacist. By EDWARD PARRISH. Fifth edition, revised by T. S. WIEGAND, F.C.S. With 300 illustrations, half-bound morocco, price 30s.

"There is nothing to equal Parrish's Pharmacy in any language."—*Pharmaceutical Journal*.

Phimosis. Its Causes, Symptoms, and Treatment; with a description of the ancient rite of circumcision. By L. H. ORMSBY, M.D., F.R.C.S.I., Lecturer on Clinical and Operative Surgery at, and surgeon to, the Children's Hospital, Dublin. Price 1s.

Physiology. Aids to Physiology. By B. THOMPSON LOWNE F.R.C.S., Arris and Gale Lecturer, and Examiner in Physiology Royal College of Surgeons of England. Fourth thousand, illustrated. In two parts 2s. each, or in one vol., cloth, 4s. 6d.

"As 'aids' and not substitutes, they will prove of real value to students."—*Medical Press*.

"Certainly one of the best of the now popular 'Aid Series.'"—*Students' Journal*.

Physiology. The Physiologist in the Household. By J. MILNER FOTHERGILL, M.D., M.R.C.P. Part I.—Adolescence. Price 1s.

Physiological Chemistry. Aids to Physiological Chemistry. By J. L. THUDICHUM, M.D., F.R.C.P., Lond., St. Thomas's Hospital. Cloth, price 2s. 6d. Wrapper, 2s.

Physiological Factor in Diagnosis. By J. MILNER FOTHERGILL, M.D., M.R.C.P., Lond., Physician to the City of London Hospital for Diseases of the Chest. Second edition. Price 7s. 6d.

Physiological Laboratory. Manual for the Physiological Laboratory. By VINCENT HARRIS, M.D., M.R.C.P., Examiner in Physiology, Royal College of Physicians of London, and D'ARCY POWER, M.B. Oxon., Curator of Museum, St. Bartholomew's Hospital. Fourth edition, price 5s. 6d.

"This manual is already well and favourably known, and the new edition contains many valuable additions."—*Lancet*.

Plant Analysis. Quantitative and Qualitative. By G. DRAGENDORFF, Professor of Chemistry and Pharmacy in the University of Dorpat. Translated by HY. G. GREENISH, A.I.C. 7s. 6d.

Polypus in the Nose and other Affections of the Nasal Cavity; their successful treatment. By J. L. W. THUDICHUM, M.D., F.R.C.P. Lond. Sixth edition. Price 1s.

Population. On the Evils, Moral and Physical, likely to follow, if practices, intended to act as checks to population, be not strongly discouraged and condemned. By C. H. F. ROUTH, M.D., F.R.C.P. Second thousand, price 1s.

Posology. Posological Tables; a Classified Chart, showing at a glance the Dose of every Official Substance and Preparation. By HANDSEL GRIFFITHS, Ph.D., L.R.C.P. Fifth edition, revised by PETER W. SQUIRE, F.L.S., F.C.S., price 1s.; or mounted on linen, rollers, and varnished, 3s. 6d.

Pregnancy. The Diagnosis and Treatment of Extra-Uterine Pregnancy. By JOHN STRAHAN, M.D., M.Ch., M.A., Fothergillian Gold Medalist, Medical Society of London. Demy 8vo., price 4s. 6d.

. The Essay to which the Triennial Jenks' Prize of 250 dollars was awarded by the College of Physicians, Philadelphia, 1889.

Prescriptions. The Student's Pocket Prescriber. By H. AUBREY HUSBAND, M.B., F.R.C.S.E. Price 1s., cloth.

- Public Health.** The Practical Guide to the Public Health Acts and Correlated Acts, for Officers of Health and Inspectors of Nuisances. By THOS. WHITESIDE HIME, B.A., M.B. Leather, gilt edges, price 5s.
- Public Health.** Aids to Public Health. By J. L. THUDICHUM, M.D., F.R.C.P., Lond. Price 1s. 6d. cloth; 1s. paper wrapper.
- Rheumatism.** Its Treatment by Electric Massage, etc., in connection with the Wiesbaden Thermal Waters. By CARL MORDHORST, M.D. Kiel. Price 1s.
- Rupture of the Perineum.** Its Causes, Prevention and Treatment. By MICHAEL JOSEPH MOLONY, M.R.C.P.L., R.C.S. Price 2s. cloth, 1s. 6d. paper.
- Salt.** History of Salt, with Observations on its Medicinal and Dietetic Properties. By EVAN MARLETT BODDY, F.R.C.S., F.S.S., L.R.C.P. Price 2s. 6d.
- Sewage.** The Sewage Question: Reports upon the Principal Sewage Farms and Works of the Kingdom, with Notes and Chemical Analyses. By the late Dr. LETHEBY. Price 4s. 6d.
- Skeleton.** Movable Atlas of the Skeleton and its Articulations, showing the Bones and Ligaments of the Human Body and Limbs. By Prof. WITKOWSKI. Price 7s. 6d. (See Anatomy.)
- Skin Diseases of Infancy and Early Life.** By C. M. CAMPBELL, M.D., C.M. Edin. Price 5s.
- Skin. Scabies:** its Causation, Diagnosis, and Treatment. By ARTHUR HARRIES, M.D. Price 6d.
- Skin.—Lupus.** A Pathological and Clinical Investigation. By ARTHUR HARRIES, M.D., and C. M. CAMPBELL, M.D. Price 1s.
- Skin.** Some Diseases of the Skin produced by derangements of the Nervous System. By T. STRETCH DOWSE, M.D., F.R.C.P.E. Price 2s.
- Skin.** Lectures on Ring-worm and other Diseases of the Skin, due to Vegetoid Parasites. By JAS. STARTIN, M.R.C.S. Price 1s.
- Skin.** The Treatment of Chronic Skin Diseases. By E. D. MAPOTHER, M.D. Price 3s. 6d.
- Skin.** Treatise on Diseases of the Skin. By AUSTIN MELDON, M.R.Q.C.P., F.R.C.S.I. Price 2s. 6d.
- Skin.** The Classification, Correct Dietary, and New Method of Treating Diseases of the Skin. By H. S. PURDON, M.D., Physician to the Belfast Hospital for Skin Diseases. Price 2s.
- Sphygmograph.** The Sphygmograph: its History, and use as an aid to Diagnosis. By R. E. DUDGEON, M.D. Price 2s. 6d.

Stricture. Stricture of the Urethra: its Diagnosis and Treatment. By E. DISTIN MADDICK, F.R.C.S. Edin., late Surgeon R.N. 4s.

Surgery. The Science and Practice of Surgery, a Complete Text-book. By F. J. GANT, F.R.C.S., Senior Surgeon Royal Free Hospital. Third edition, with nearly 1,100 engravings. 2 vols., price 36s.

"The entire work has been revised, and made to present the modern aspects of Surgery."—*Lancet*.

"Marks a distinct epoch in the progress of Surgery."—*Hospital Gazette*.

Surgery. The Students' Surgery: A Guide to the Science and Practice. By the same Author. [*In the press*].

Surgery. The Rules of Aseptic and Antiseptic Surgery, for the use of Students and General Practitioners, with 248 engravings and 3 chromo-lithographic plates. By A. G. GARSTER, M.D., Professor of Surgery at the New York Polyclinic. Price 15s.

Surgery. **Operative Surgery on the Cadaver.** By JASPER J. GARMANY, A.M., M.D., F.R.C.S. Price 8s. 6d.

Surgery. Aids to Surgery. By GEORGE BROWN, M.R.C.S. Parts I. and II., price 1s. 6d. and 1s. each.

Surgery. The Text-book of Operative Surgery. With 88 beautifully engraved steel plates, after BERNARD and HUETTE. Text by ARTHUR TREHERN NORTON, F.R.C.S., Surgeon to, and Lecturer on Surgery at, St. Mary's Hospital. Second Edition, half calf, plain, 25s.; hand coloured, 50s.

"Of the highest merit as a guide to operative surgery."—*Students' Journal*.

Surgery. **Annals of Surgery.** A monthly Review of Surgical Science and Practice, published simultaneously in America and London. Edited by L. S. PILCHER, M.D., and C. B. KEETLEY, F.R.C.S. Price 2s., or 21s. per annum post free.

Surgery. The Anatomy of Surgery. By JOHN McLACHLAN, M.B., M.R.C.S. With 74 illustrations. Price 10s. 6d.

Surgery, Minor—and Bandaging. Cards for Self-examination by means of Questions and Answers. Arranged by A. T. SCHOFIELD, M.D. Price 9d. nett.

Surgical Operations. Chart of Instruments and Appliances required. By C. H. ORMSBY. Price 2s. 6d., or mounted on linen, varnished, with rollers, 7s. 6d.

Surgical Treatment. Notes on Surgical Treatment and Minor Operations. Designed especially for House Surgeons and Students. By T. F. HOPGOOD, L.R.C.P., M.R.C.S. Surgeon to the Sunderland Infirmary. Price 2s. 6d.

Syphilis. The Diagnosis of Syphilis. By J. K. BARTON, M.D., F.R.C.S.I. Price 1s. net.

Syphilis. The Nature and Treatment of Syphilis and the other so-called Contagious Diseases. By C. R. DRYSDALE, M.D., M.R.C.P. Lond., F.R.C.S. Eng. Fifth edition. Price 5s.

Teeth. Dental Caries and the Prevention of Dental Caries. By HENRY SEWILL, M.R.C.S. and L.D.S. Eng. Second edition. Price 2s. 6d.

Teeth. Aids to Dental Surgery. By ARTHUR S. UNDERWOOD, M.R.C.S., L.D.S. Eng. Price 2s. 6d. cloth; 2s. paper.

Temperature Charts for Recording the Range of Temperature, Pulse, Respiration, History, Progress, and Treatment of Cases, By E. W. MOORE, M.D., M.R.C.P. Price 1d. each, 9d. per dozen, or mounted, similar to a blotting-pad, 50, 3s. 6d.; 100, 7s.

Theories of Disease. A Parasitic or Germ Theory of Disease: the Skin, Eye, and other affections. By JABEZ HOGG, M.R.C.S., Consulting Surgeon to the Royal Westminster Ophthalmic Hospital. Second edition, price 2s. 6d.

Theories of Disease. The Germ Theories of Infectious Diseases. By JOHN DRYSDALE, M.D., F.R.M.S., President of the Liverpool Microscopical Society. Price 1s.

Theories of Life. The Protoplasmic Theory of Life. By JOHN DRYSDALE, M.D., F.R.M.S. Price 5s.

Theories of Life. How to Prolong Life? Showing the Diet and Agents best adapted for a lengthened prolongation of existence. By C. W. DE LACY EVANS, M.R.C.S. Second edition. Price 5s.

"A good account of the changes which occur with the advance of age."—*Lancet*.

Therapeutics. Modern Medical Therapeutics. Formulæ and Specific Therapeutical directions, from the practice of eminent Contemporary Physicians, English, American, and Foreign. By G. H. NAPHEYS, A.M., M.D. Ninth edition, price 18s.

"A summary of the best modes of treatment."—*Practitioner*.

"The volume will supply what many practitioners are often anxious to possess for reference in the practice of their art."—*Glasgow Medical Journal*.

Therapeutics. Modern Surgical Therapeutics. From the Practice of eminent contemporary Physicians and Surgeons. By G. H. NAPHEYS, A.M., M.D. Eighth edition, price 18s.

"Of much value to the surgeon and general practitioner."—*New York Medical Journal*.

"Invaluable to every practising physician."—*New York Medical Record*.

Therapeutics. The Principles and Methods of Therapeutics. From the French of ADOLPHE GUBLER, M.D., Professor of Therapeutics in the Paris Faculty of Medicine, price 18s.

Therapeutics. Psycho-Therapeutics. Treatment by Sleep and Suggestion. By J. LLOYD TUCKEY, M.D. Price 2s. 6d.

Therapeutics. The Therapeutics of the Respiratory Passages. By PROSSER JAMES, M.D., Lecturer on Materia Medica and Therapeutics at the London Hospital. Price 10s. 6d.

"Dr. Prosser James has produced a scholarly treatise."—*New York Medical Record*.

"It must be pronounced as sound and good."—*Lancet*.

Therapeutics. Aids to Rational Therapeutics, for the guidance of Practitioners and Senior Students. By J. MILNER FOTHERGILL, M.D. Second edition. Price 2s. 6d., cloth; 2s., paper wrapper.

Throat. Movable Atlas of the Throat, and the Mechanism of Voice, Speech, and Taste. By Prof. WITKOWSKI. (See Anatomy.)

Throat. The Throat and its Diseases. A Practical Guide to Diagnosis and Treatment. With 160 typical illustrations in chromolithography and numerous wood engravings. By LENNOX BROWNE, F.R.C.S. Edin., Senior Surgeon to the Central London Throat and Ear Hospital. Third edition in the press.

Throat. Affections of the Throat and Larynx. By ARTHUR TREHERN NORTON, F.R.C.S., Surgeon to St. Mary's Hospital. Second edition, illustrated, price 6s.

"Short, simple, and thoroughly practical instruction."—*Medical Times*.

Throat. Laryngoscopy and Rhinoscopy: in the Diagnosis and Treatment of Diseases of the Throat and Nose. With hand-coloured plates and woodcuts. By PROSSER JAMES, M.D., M.R.C.P. Fifth Edition. Price 6s. 6d.

Transactions of Societies. Transactions of the Academy of Medicine in Ireland. Published annually. Edited by WILLIAM THOMSON, M.A., F.R.C.S., with numerous plates and woodcuts. Vols. I. to VI. (1883-8). Price 14s. each.

Transfusion. On Transfusion of Blood and Saline Fluids. By C. EGERTON JENNINGS, L.R.C.P., F.R.C.S., formerly House Physician and Resident Accoucheur at the London Hospital. Third edition, with Preface by SIR SPENCER WELLS, Bart., 4s. 6d.

Urine. The Urine; a Guide to its Practical Examination. By J. TYSON, M.D., Professor of Morbid Anatomy in the University, and President of the Pathological Society of Philadelphia. Fifth edition, with numerous illustrations, price 7s. 6d.

"We think it the most practically useful guide we have on the subject."—*Medical Record*.

Urinary Diseases. Diseases of the Bladder, Prostate Gland, and Urethra. By F. J. GANT, F.R.C.S., Senior Surgeon to the Royal Free Hospital. Fifth edition, enlarged. Price 12s. 6d.

- Ventnor and the Undercliff.** By J. M. WILLIAMSON, M.D. M.B. Edin., Hon. Surgeon to the National Hospital for Consumption. Second edition, price 1s.
- Vichy.** Vichy and its Therapeutical Resources. By PROSSER JAMES, M.D., M.R.C.P. Lond.; Lecturer on Materia Medica and Therapeutics at the London Hospital. Price 2s. 6d.
- Voice.** The Philosophy of Voice. Showing the right and wrong Action of the Breath and Vocal Cords in Speech and Song. By CHARLES LUNN. Sixth Edition. Price 3s.
- Voice.** Artistic Voice in Speech and Song. Dedicated to Mr. Sims Reeves and Mr. Santley. By the same Author. 1s.
- Voice.** The Voice Musically and Medically Considered. By C. ARMAND SEMPLE, M.B. Cantab., M.R.C.P. Lond., Physician to the Royal Society of Musicians. Part I. Musical, price 1s.; Part II., Medical, price 2s.; or in one vol., cloth, 3s. 6d.
- War.** A Romance of War; or, How the Cash Goes in Campaigning From the Evidence before the Committee of the House of Commons on the Egyptian Campaign. By CHARLES CAMERON, LL.D., M.P. Second Thousand. Price 1s.
- Whooping-Cough.** Its Pathology and Treatment. Fothergillian Prize Essay. By THOS. M. DOLAN, M.D., F.R.C.S.E. Price 3s. 6d.
- Zoology and Comparative Anatomy, Aids to.** By MAJOR GREENWOOD, M.D., Honours. Price 2s. 6d., and 2s.
- Chimie Inorganique et Organique.** Botanique Zoologie. Notes servant à la préparation de l'examen du premier doctorat. Recueillis et Publiés par LEWIS NICOLAS WORTHINGTON, Docteur en Médecine de la Faculté de Paris. Price 10s.
- Thérapeutique Ligatures des Arteres.** Tracheotomie et Laryngotomie. Notes servant à la préparation de l'examen du quatrième doctorat. Recueillis et Publiés par LEWIS NICOLAS WORTHINGTON, M.D. Paris, etc. Price 10s.

THE STUDENTS' AIDS SERIES.

Specially designed to assist Students in committing to memory and grouping the subjects upon which they are to be examined.

Aids to Analysis of Food and Drugs. By H. AUBREY HUSBAND, M.B., F.R.C.S. Price 1s. 6d. cloth ; 1s. paper.

Aids to Anatomy. By GEORGE BROWN, M.R.C.S., Gold Medalist, Charing Cross Hospital. Price 1s. 6d. cloth ; 1s. paper

Aids to Botany. By C. E. ARMAND SEMPLE, B.A., M.B. Cantab., M.R.C.P., Lond., late Senior Examiner in Arts at Apothecaries' Hall. Third Thousand. Price 2s. 6d. cloth ; 2s. paper wrapper.

Aids to Chemistry. By the same Author.

Part I.—Inorganic: Non-Metallic Substances. 2s. 6d. and 2s.

Part II.—Inorganic: The Metals. 2s. 6d. cloth ; 2s. paper.

Part III.—Organic. Price, cloth 2s. 6d.; paper 2s.

Part IV.—Tablets of Chemical Analysis. 1s. 6d., 1s.

Aids to Practical Chemistry. Especially arranged for the Analysis of Substances containing a Single Base and Acid Radicle. By T. HURD GORDON. Price 2s. 6d. cloth ; 2s. paper.

Aids to Dental Surgery. By ARTHUR S. UNDERWOOD, M.B., M.R.C.S., Lecturer on Dental Surgery at the Dental Hospital of London. Price 2s. 6d. cloth ; paper wrapper 2s.

Aids to Diagnosis. Part I.—Semeiological. By J. MILNER FOTHERGILL, M.D., M.R.C.P. Lond. Price 1s. 6d. cloth ; 1s. paper.

Part II.—Physical. By J. C. THOROWGOOD, M.D., F.R.C.P. Lond. Price 1s. 6d. cloth ; 1s. paper wrapper.

Part III.—What to Ask. By J. MILNER FOTHERGILL, M.D., M.R.C.P. Lond. Price 1s. 6d. cloth ; 1s. paper.

"A mine of valuable information."—*Edinburgh Medical Journal*.

Aids to Examinations. Being Questions and Answers on Materia Medica, Medicine, Midwifery, Pathology, etc. By W. DOUGLAS HEMMING, F.R.C.S., and H. AUBREY HUSBAND, M.B., F.R.C.S. Third thousand. Price 1s. 6d. cloth ; and 1s. paper.

Aids to Forensic Medicine and Toxicology. By W. D. HEMMING, F.R.C.S.E., and H. AUBREY HUSBAND, M.B., F.R.C.S.E. Third Thousand. Price 2s. 6d. and 2s.

Aids to Gynæcology. By ALFRED GUBB, M.R.C.S., L.R.C.P., Obstetric Assistant and Gold Medalist, Westminster Hospital. Cloth, price 1s. 6d. ; paper wrapper, 1s.

Aids to Materia Medica and Therapeutics. By C. E. ARMAND SEMPLE, B.A., M.B. Cantab., M.R.C.P. Lond.

Part I.—The Non-Metallic and Metallic Elements, Alcoholic and Ethereal Preparations. 2s. 6d. cloth ; and 2s. paper.

Part II.—Vegetable and Animal Substances, 2s. 6d. and 2s.

Part III.—Classification of Remedies, 1s. 6d. and 1s.

Part IV.—New Remedies. 2s. 6d. and 2s.

Part V.—Tablets of Materia Medica. Price 1s. 6d. and 1s.

Aids to Medicine. By the same Author.

Part I.—General Diseases. Lungs, Heart, and Liver. Price 2s. 6d. and 2s.

Part II.—The Urine, Kidneys, etc. 2s. 6d., 2s.

Part III.—The Brain and Nervous System. 2s. 6d. and 2s.

Part IV.—The Fevers, Skin Diseases, &c. Price 2s. 6d. and 2s.

Aids to Obstetrics. By SAMUEL NALL, B.A., M.B., Cantab., M.R.C.P., Lond., late House Physician and Resident Obstetric Assistant, St. Bartholomew's Hospital. Price 2s. 6d., 2s.

Aids to Ophthalmic Medicine and Surgery. By JONATHAN HUTCHINSON, jun., F.R.C.S. Cloth, 2s. 6d. ; sewn, 2s.

Aids to Pathology. (*In preparation.*)

Aids to Pharmacy. By C. E. ARMAND SEMPLE, B.A., M.B., Cantab., M.R.C.P., London. Cloth, price 2s. 6d. ; paper wrapper, 2s.

Aids to Physics. (*In preparation.*)

Aids to Physiology. By B. THOMPSON LOWNE, F.R.C.S., Examiner in Physiology, Royal College of Surgeons. Fourth thousand. In two parts price 2s. each, or in one vol., cloth, 4s. 6d.

"Certainly one of the best of the now popular Aids Series."—*Students' Journal.*

Aids to Practical Physiology. By J. BRINDLEY JAMES, M.R.C.S. Price 1s. 6d., cloth ; 1s., paper.

Aids to Physiological Chemistry. By J. L. THUDICHUM, M.D., F.R.C.P., Lond., formerly Lecturer on Physiological Chemistry, St. Thomas's Hospital. Price 2s. 6d. and 2s.

Aids to Psychological Medicine. By L. S. FORBES WINSLOW, M.B., D.C.L. Oxon. Price 1s. 6d. and 1s.

Aids to Public Health. By J. L. THUDICHUM, M.D., F.R.C.P., Lond. Price 1s. 6d. cloth, 1s. paper.

Aids to Surgery. In two parts. By GEORGE BROWN, M.R.C.S. Price 1s. 6d. and 1s. each.

Aids to Rational Therapeutics. By J. MILNER FOTHERGILL, M.D., M.R.C.P. Lond. Price 2s. 6d. and 2s.

Replies to Questions in Therapeutics. By BRINDLEY JAMES, M.R.C.S. Price 1s. 6d. cloth, 1s. paper wrappers.

Aids to Zoology. By MAJOR GREENWOOD, M.D. Honours in Zoology, University of London. Price 2s. 6d., and 2s.

Aids to Analytical Geometry.

The Straight Line and Circle. By A. LE SUEUR, B.A. Cantab. Second Edition, price 2s.

The Conic Sections, with solutions of questions set at the London and other University Examinations. By GEORGE HEPPEL, M.A., St. John's College, Cambridge, Member of London Mathematical Society. Price 2s.

WORKS ON VETERINARY MEDICINE AND SURGERY.

Amateur. Horses: their Rational Treatment and the Causes of their Premature Decay. By AMATEUR. Price 5s.

——— An Abridgment of the above. By the same Author. Price 1s.

Banham. Tables of Veterinary Posology and Therapeutics. With Weights, Measures, etc. For the use of Students and Practitioners. By GEORGE A. BANHAM, F.R.C.V.S. Price 2s. 6d.

Beacock. Prize Essay on the Breeding, Rearing, and Fattening of Cattle and Sheep, and proper treatment of Cows at time of Calving. By JOSEPH BEACOCK. Price 3d.

Burke. The Tropical Diseases of the Horse. By R. W. BURKE, M.R.C.V.S., A.V.D. Second Edition. Price 5s.

Burness—Mavor. The Specific Action of Drugs, an Index to their Therapeutic Value. By A. G. BURNES and F. MAJOR, President of the Central London Veterinary Society. Price 10s. 6d.

Courtenay. The Practice of Veterinary Medicine and Surgery. By E. COURTENAY. Price 10s. 6d.

"Such a book as this—written as it is in a clear and concise style—will form a welcome addition to the library of the horse-owner, stock-breeder, and those who take an interest in domesticated animals generally."—*Mark Lane Express*.

Fearnley. A Text-Book on the Examination of Horses as to Soundness. Lectures delivered at the Royal Veterinary College, Edinburgh. By Professor FEARNLEY, with an Appendix on the Law of Horses and Warranty. Price 7s. 6d.

Fleming. A Text-Book of Veterinary Obstetrics, including the diseases and accidents incidental to pregnancy, parturition and early age in the Domesticated Animals. By GEORGE FLEMING, LL.D., F.R.C.V.S., F.R.G.S., President of the Royal College of Veterinary Surgeons, Principal of the Army Veterinary Department. Profusely illustrated. Cloth, price 30s.

"Has filled up a void in a more satisfactory and complete way than any other member of his profession could have done."—*The Field*.

"No man who makes any pretensions to veterinary science or stock breeding can dispense with this work."—*Live Stock Journal*.

——— A Text-Book of Operative Veterinary Surgery. Part I., price 10s. 6d. Part II. (*In the Press*.)

——— The Contagious Diseases of Animals: their influence on the wealth and health of the nation. Read before the Society of Arts. Price 6d.

Fleming. Animal Plagues; their History from the Earliest Times, Nature, and Prevention. Vol. I., to 1800, price 15s.

——— Vol. II., from A.D. 1800 to 1844. Price 12s.

——— Actinomykosis. An Infectious Disease of Animals and Mankind. Price 1s.

——— On Roaring in Horses (**Laryngismus Paralyticus**). Its History, Pathology and Treatment. With coloured plate and woodcuts. Price 6s.

——— Tuberculosis from a Sanitary and Pathological point of view. Price 1s.

——— Human and Animal Variolæ. A Study of Comparative Pathology. Price 1s.

——— Practical Horse Shoeing. With 37 illustrations. 2s.

——— The Influence of Heredity and Contagion on the Propagation of Tuberculosis. By G. FLEMING, F.R.C.V.S., HERR A. LYDTIN, and M. VAN HERTSEN. Price 6s.

Gresswell. A Manual of the Theory and Practice of Equine Medicine. By J. BRODIE GRESSWELL, M.R.C.V.S., and ALBERT GRESSWELL, M.R.C.S. Eng. Price 10s. 6d.

BY THE SAME AUTHORS.

Equine Hospital Prescriber. Price 2s. 6d.

Bovine Prescriber. Price 2s. 6d.

Veterinary Pharmacopœia. Materia Medica and Therapeutics. Price 10s. 6d.

Diseases and Disorders of the Horse. A Treatise on Equine Medicine and Surgery. Price 5s.

Heatley. Practical Veterinary Remedies. A useful Handbook on Medicine. By G. S. HEATLEY, M.R.C.V.S. Price 3s. 6d.

Hill. Principles and Practice of Bovine Medicine and Surgery, with woodcuts and coloured plates. By J. WOODROFFE HILL, F.R.C.V.S. Price 36s.

Lambert. The Germ Theory of Disease, Concisely and Simply Explained. Illustrated by Diagrams and References to Important Diseases of Domestic Animals, etc. By JAMES LAMBERT, F.R.C.V.S., Army Veterinary Department. Price 1s.

Liautard. Animal Castration. By A. LIAUTARD, M.D., H.F.R.C.V.S. Price 7s. 6d.

Liautard. Lameness of Horses and Diseases of the Locomotor Apparatus. By A. LIAUTARD. Price 10s. 6d.

McBride. Anatomical Outlines of the Horse. By J. A. MCBRIDE, Ph.D., M.R.C.V.S. Third edition. With 8 coloured illustrations. Price 8s. 6d.

Meyrick. Stable Management and the Prevention of Diseases among Horses in India. By J. J. MEYRICK, C.B., F.R.C.V.S., Principal Army Veterinary Surgeon in Egypt. Formerly Superintendent of Horse Breeding for the Punjab. 2s. 6d.

Poyser. The Stable Management of Troop Horses in India. "The Collinsian" Prize Essay. By R. POYSER, F.R.C.V.S. Price 2s.

Reynolds. The Breeding, Rearing, and Management of Draught Horses. By RICHARD REYNOLDS, M.R.C.V.S. Price 3s. 6d.

Robertson. A Handbook of the Practice of Equine Medicine. By WM. ROBERTSON, F.R.C.V.S., late Principal of the Royal Veterinary College, London. Second edition. (*In the Press.*)

Smith. A Manual of Veterinary Hygiene. By FREDERICK SMITH, M.R.C.V.S., Army Medical Department, Lecturer on Veterinary Hygiene in the Army Medical School, Aldershot. Profusely illustrated. Price 10s. 6d.

Walley. The Four Bovine Scourges: Pleuro-pneumonia, Foot and Mouth Disease, Cattle Plague, and Tubercle; with an Appendix on the Inspection of Animals and Meat. By THOS. WALLEY, F.R.C.V.S. Price 16s.

Veterinary Diagrams in Tabular Form. Illustrated with coloured and plain engravings. Size of sheet $28\frac{1}{2}$ inches by 22 inches. Price per set of Five, 12s.; or mounted on roller and varnished, 27s.; or separately as follows:

No. 1.—The External Form and Elementary Anatomy of the Horse. Price 3s. 6d., or mounted on roller and varnished, 6s. 6d.

No. 2.—The Age of Domestic Animals. Price 2s. 6d., or mounted on roller and varnished 5s. 6d.

No. 3.—The Unsoundnesses and Defects of the Horse. Price 2s. 6d., or mounted on roller and varnished, 5s. 6d.

No. 4.—The Shoeing of the Horse, Mule and Ox. Price 2s. 6d., or mounted on roller and varnished, 5s. 6d.

No. 5.—The Elementary Anatomy, Points and Butcher's Joints of the Ox. Price 3s. 6d., or mounted, 6s. 6d.

The Veterinary Journal and Annals of Comparative Pathology. Monthly, price 1s. 6d. Annual Subscription 18s., prepaid. (Foreign postage extra.)

The Veterinary Surgeon's Diary, Note and Dose Book, including also the Acts and Orders of Council relating to the Profession. Annual. Price 3s. 6d., leather, or 2s. 6d., cloth.

PERIODICAL PUBLICATIONS.

The Medical Press and Circular. Established 1838. Published every Wednesday in London, Dublin, and Edinburgh. Price 5d. ; £1 1s. per annum, post free, in advance.

The Hospital Gazette (and Students' Journal). A Weekly Review of Medicine, Surgery, and the Collateral Sciences. The only Paper that represents the whole body of Medical Students. Price 2d. ; 8s. per annum, prepaid.

Annals of Surgery. A Monthly Review of Surgical Science and Practice, published simultaneously in New York and London. Price 2s. monthly, or 21s. per annum, post free.

The Australasian Medical Gazette. Monthly, 2s., or yearly post free, price 21s.

The Analyst. The Official Organ of "The Society of Public Analysts." Monthly, price 6d. ; 5s. per annum, paid in advance.

The Veterinary Journal, and Annals of Comparative Pathology. Monthly, price 1s. 6d. ; 18s. per annum, prepaid.

Quarterly Journal of the Postal Microscopical Society. Edited by Mr. ALFRED ALLEN. Price 1s. 6d.

Transactions of the Royal Academy of Medicine in Ireland. Annual volumes, 14s.

Proceedings of the West London Medico-Chirurgical Society. Vol. III. Sessions 1886-7-8. Price 5s.

DIRECTORIES.

The Australian Medical Directory and Handbook, including New Zealand, Tasmania, etc. Price 15s.

The Official Register of the Royal College of Veterinary Surgeons; published in accordance with the Act of Parliament. Price 2s. net.

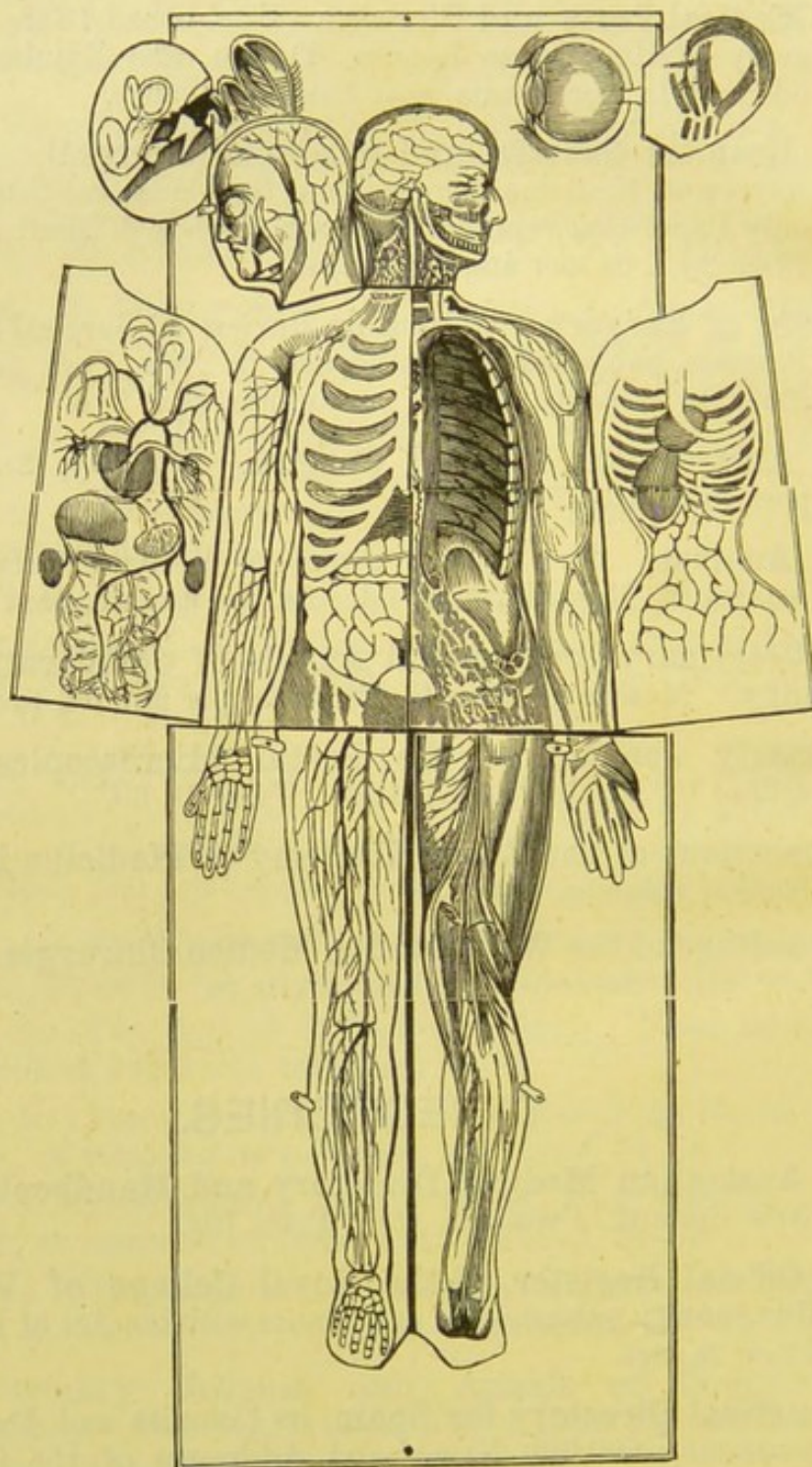
Commercial Directory for Spain, its Colonies and Dependences. containing 500,000 Names and Addresses of the Commercial Houses, Public Officers, Offices, etc., etc. Annual, price 25s.

Veterinary Surgeons' Diary and Note-book. (Yearly.) Price 3s. 6d., leather ; 2s. 6d., cloth.

Baillière, Tindall, and Cox's

NEW PHYSIOLOGICAL MANIKIN.

Life size, Anatomy of the Internal Organs, and all Surgical Operations. Coloured to nature,
mounted on linen and varnished, in polished wood, folding-up case. Price £5 5s. net.



Manikin partially opened showing a portion of the Interior Organs.

