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## THE SCIENCE

OF

# HYPNOTISM

THE WONDER OF THE 20TH CENTURY.....

### ALL KNOWN METHODS EXPLAINED.

THE WAY TO BECOME AN EXPERT OPERATOR, ETC.

L. E. YOUNG.

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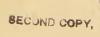
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### PREFACE.

THE tidal wave of Hypnotism is fast approaching the shores of America. The press, the medical faculty, the scientist, the layman, in fact the masses, all are reaching out and seeking for more knowledge, for facts, and for information on this most wonderful and strange subject. Many that have in the past been sceptical, are now counted among the believers and adherents. The study of Hypnotism has proved to be not only interesting but instructive, and therefore, the demand is increasing for books, treating this subject fairly, and without prejudice, and such works find a welcome reception and are eagerly sought after. It has become a common topicof conversation among all classes from the college professor to the schoolboy.

The importance of Hypnotism as a healing agent is fast becoming understood by many throughout our land. Hypnotism does not come before the American people an entire stranger. Its advance guard has already marched

over the entire Continent of Europe, and its noble work has been witnessed there by thousands of our citizens, many of whom have tested its wonderful healing power. Thousands of invalids have been cured in the hospitals of France and Germany of diseases that appear not to have been reached by any other method. Hypnotism promises a great deal to those who suffer from terrible habits—especially the morphine, the alcoholic, the tobacco, the opium, and many others, and if we can reach these unfortunates by the publication of this book we feel positive in saying that a large percentage of those who study its pages can be cured, and all more or less benefitted.

We have traversed a very large field to gain the information this book gives. We have embodied the experiences and views of many who rank high in the medical world, and have for many years treated successfully thousands of patients every year by Hypnotism, in European hospitals, and their success appears to have been something bordering on the miraculous. In some of the chapters we have given their methods and their mode of treatment, and such facts as might interest the general reader.

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### NOTED WRITERS ON HYPNOTISM.

WE would suggest to all who expect to study Hypnotism in detail to secure the latest and best books on that subject. You will find the titles of several of the Standard Books named below, to which we owe a tribute of thanks for extracts we have made.

NEURYPNOLOGY,	-	-	-	В	y Dr. Ja	ames Braid
THE ELEMENTS OF H	Hypnotis	м, -		Ву	Ralph 1	H. Vincent
Psycho Therapeuti	cs,	-	- ]	By Ll	oyd Tu	ckey, M.D
LE MAGNÉTISME ANI	MAL,	-		- :	By Bine	t and Fèrè
DER HYPNOTISMUS,	-	-	-	-	-	By Forel
Du Sommeil, -	-	-		-	- B	By Liébault
THE SUBLIMINAL CO	NSCIOUSN	ESS,	-	-	B	y F. Myers
SUGGESTION AND RE	FLEX,	~		-	Ву Ка	rl Schoffer
DE LA SUGGESTIONS	ET DU S	OMNA	MBUL	ISME,	В	y Liégeois
EINE EXPERIMENTEL	LE STUDI	E AUF	DEM	ı Gei	BIETE	
DES HYPNOTISMU	s, -	-	-	-	By K	rafft-Ebing.
DE LA SUGGESTION N	MENTALE	,	-	-	Ву С	chorowicz.
DAS DOPPEL-ICH,	-	-	-	•	By M	ax Dessoir.

The two following books are published by the London Society of Psychical Researches:

PECULIARITIES OF CERTAIN POST-HYPNOTIC STATES,

By Gurney.

PHANTASMS OF THE LIVING.

The following books we can furnish sent prepaid by mail, at the prices named in this book:

SUGGESTIVE THERAPEUTICS, - - - By Bernheim.

HYPNOTISM, - - - - - By Albert Moll.

THE LAW OF PSYCHIC PHENOMENA, By Thomson J. Hudson.

HYPNOTISM, HOW IT IS DONE, - By James R. Cocke, M.D.

HYPNOTISM, - - - By Dr. Foveau de Courmelles.

HYPNOTISM, - - - By Carl Saxtus.



### HYPNOTISM.

#### CHAPTER I.

#### HYPNOTISM.

Hypnotism as a Science—What Hypnotism means—When Hypnotism was discovered, and by whom—The different names this Science has been known by.

HYPNOTISM, comparatively speaking, is a new word, although the science is as old as the world—as old as the human mind.

In whatever quarter we direct our researches, whether it be in dusty old manuscripts or deciphering hieroglyphics, we find the indelible traces of the influence of man over man.

Diodorus of Sicily, writes: "The ancient Egyptian priests threw each other into trances," thus showing that they understood something of the art of Hypnotism.

On the Zodiac, in the arched wall of the Temple at Denderah, Isis is depicted holding a child by the hand, while she passes her other hand in front of him in the the attitude of a magnetizer.

Prosper Alpinus, in his treatise on the Egyptian practice of medicine, mentions their mysterious chafing and rubbing, and manipulating of the body, for all disease.

In India, Mythology represents Vishun with flames issuing from his finger-ends, and it was said that the light and heat from them cured all the ills of life.

The fakirs of India have great dexterity in their Sankhya philosophy, and believed that they, like Kopila are perpetually exempt from every sort of evil and bodily ills. They practice their arts to-day the same as they have for thousands of years. India is the home of Occult Sciences, and the peculiar rules and doctrines of their faith are laid down in several of their holy books, especially in the "Yoga Satra," which teaches how an ascetic or devotee can enter the fourth stage of life, in which the human soul becomes permanently united to the Supreme Being, which gives man the mysterious power to control all other men who are not advanced into the yoga system of Hindoo philosophy.

Sanskrit literature tells of one Indian god, Brahman, who introduced medicine into all India. Charaka, tells us, that Brahman, with gentle words and a few passes of the left hand over the forehead of his patient, would produce a sleep which had a wonderful power; and that he became renowned as a healer of bodily ills, and seldom used herbs. From Brahman, comes down the long road of time the saying, that "magic and medicine are combined."

The Assyrian scholars, have recently brought to light, the proof, that the old word "magi," signifies "reverend," and that the early Scythian, who inhabited Babylonia 500 years B. C., gave the title magi to their most learned priests and philosophers. They were not only the "keeper of the sacred things, the learned of the people, the philosophers and servants of 'God,'" but "diviners and mantics, wonder-workers and prophets." They were believed to have the power to call up the dead, to be able to bring disaster wherever they wished

by resorting to awful formulas which were in their exclusive possession, to heal the sick by means of water, and passes of the hand.

The oldest traditions of Persia, hold that these Babylonian sages had control over darkness and fire, as well as over the mind and body of man. In matter of fact, the word magi, became a general name for wonderful effects, produced in some mysterious way. The law of nature being little known; one thing was not more incredible than another; and effects were assigned to causes in the most arbitrary and accidental way. The Rosicrucian physicians treated a case of wounding by applying the salve to the weapon instead of to the wound itself, and, the wound was healed. Hyppocrates believed in somnambulistic powers. It is also well-known that exhibitions were got up, and that Aristophanes openly derided the wizards of olden days.

Thus we find that the broad idea that man is endowed with a dual mental organization is far from being new. The essential truth of the proposition has been recognized by philosophers of all ages and nations of the civilized world. That man is a trinity, made up of "body, soul, and spirit" was a cardinal tenet in the early faith of the ancient Greek philosophers, who thus clearly recognized the dual character of man's mental or spiritual organization. Plato's idea of terrestrial man was that he is a "trinity of soul, soul-body, and earth-body." The mystic jargon of the Hermetic philosopher declares the same general idea. The "salt, sulphur, and mercury" of the ancient alchemists doubtless refers to man as being composed of a trinity of elements. The early Christian Fathers confidently proclaimed the same doctrine as is shown in the writings of

Clement, Origen, Titian, and many other early exponents of Christian doctrine.

Therefore it is safe to state that man, has, or appears to have, two minds, each endowed with separate and distinct attributes and powers; each capable, under certain conditions, of independent action. It should be clearly understood at the outset that for the purpose of arriving at a correct conclusion it is a matter of indifference whether we consider that man is endowed with two distinct minds, or that his one mind possesses certain attributes and powers under some conditions, and certain other attributes and powers under other conditions. It is sufficient to know that everything happens just as though he were endowed with a dual mental organization.

In recent years, the doctrine of duality of mind is beginning to be more clearly defined, and it may now be said to constitute a cardinal principal in the philosophy of many of the ablest exponents of this new, yet old psychology.

Thousands of examples might be cited to show that in all the ages the truth has been dimly recognized by men of all civilized races and in all conditions of life. Indeed, it way be safely predicted of every man of intelligence and refinement, that he has often felt within himself an intelligence not the result of education, a perception of truth independent of the testimony of his bodily senses.

It is natural to suppose that a proposition, the substantial correctness of which has been so widely recognized, must not only possess a solid basis of truth, but must, if clearly understood, possess a veritable significance of the utmost importance to mankind.

Now, as we are willing to acknowledge two minds,

and recognize that the two minds possess distinct characteristics essentially unlike, we know that each is endowed with separate and distinct attributes and powers, and that each is capable, under certain conditions and limitations, of independent action. We know, then, that the general difference between man's two minds may be stated as follows:

The objective mind takes cognizance of the objective world. It is the outgrowth of man's physical necessities. It is his guide in his struggles with his material environment. Its highest function is that of reasoning clearly.

The second, or subjective mind takes cognizance of its environment by means independent of the physical senses. It perceives by intuition. It is the seat of the emotions and the storehouse of memory. It performs its highest functions when the objective senses are in abeyance. In a word, it is that intelligence which makes itself manifest in a hypnotic subject, when he is in a state of somnambulism.

It is in this state many of the most wonderful feats of the subjective mind are performed. It sees without the use of the natural organs of vision; and in this, as in many other grades, or degrees, of the hypnotic state, it can be made, apparently, to leave the body, and travel to distant lands and bring back intelligence, oftentimes of the most exact and truthful character. It also has the power to read the thought of others, even to the minutest details; to read the contents of sealed envelopes and of closed books. In short, it is the subjective mind that possesses what is popularly designated as clairvoyant power, and the ability to apprehend the thought of others without the aid of the ordinary objective means of communication.

Two thousand years ago, the inhabitants of East India understood the relations of the two minds to each other, and this we must partly attribute to their great success in all matters relating to this most wonderful of science.

The history of the middle ages is full of wonders—mysteries—and experiments, all wrought to master this science, which comes down to us, with a newness and a vast undiscovered sphere that no other science offers this generation.

During the Middle Ages all Europe studied this science under many names, such as Magic, Mind-reading, Wonder-working, Secret-mysterious, Animal-magnetism, Hindoo-science, Will-power, Soul-power, Unnatural sleep, Psychology, Clairvoyance, Witchcraft, Somnambulism, Mesmerism, Mineral-power, Personal-magnetism, and now the name of this century, is HYPNOTISM.

The Middle Ages can boast of many distinguished names among the students who attempted to treat the "Secret-Mysterious" as a grand science, by which the workings of nature could be discovered, and a god-like power be acquired over the "spirits, men and the elements." The principal students and professors were Pope Sylvester II., Albertus Magnus, Roger Bacon, Raymond Lully, Pico della Mirandola, Paracelsus, Cornelius Agrippa, Trithemius, Van Helmont, and perhaps the most noted of that era, Jerome Cardan, who left behind him many valuable papers pertaining to his researches along this line. He mentions a state of insensibility produced by a magnet, he also speaks of bright spots throwing a subject to sleep; again, he says, "a sudden glance cast

unexpectedly upon a highly sensitive subject will cause him to start forward.

Paracelsus asserts his theory of double magnetism, and shows that the magnetic fluid of a healthy body attracts the weaker and deteriorated magnet of an unhealthy one; so also do Glocenius, Burgraeve, Helinotius, Robert Fludd, Father Kircher and Maxwell, in the latter part of the sixteenth and early part of the seventeenth centuries. These latter considered that the magnet was endowed with the principle of existence. A great number of more or less hazy works, full of abstract terms, often misunderstood by those who employed them, have been handed down to posterity, and they all show the influence of that passionate love of the marvelous which humanity seems unable to shake off. It would seem, indeed, from all past experience, and even judging from the present state of society, that an irresistible attraction draws us toward the study of the Occult Sciences at the close of each century, then the attraction dies away and vanishes, to rejoin the forgotten bygone ages that have preceded it, only to return to us when another age is about to depart.

The close of the eighteenth century, filled as it was with a feverish and mystical activity, proved no exception to the rule. A worldly-minded generation, overflowing with nervous temperament, and over excited by the expectation of some great event, was inevitably destined to produce such a man as Mesmer.

In this name, full of magic reminiscences, our waning nineteenth century sees one who has been cruelly traduced, and is almost ready to worship him. His name is to be rehabilitated, and the charlatan of former days is very near being transformed into the great man of the present time.

Mesmer is proclaimed the creator of scientific magnetism, the scholar who has given us the fruitful inheritance; whose ideas and labors have led to vast researches.

Mesmer argued that the sun, moon and stars acted on the human body by means of a subtle fluid, which he called Animal Magnetism, in order to point out its affinity with the magnet.

A few years later came Father Hell, a Jesuit, who cured diseases by means of magnetized iron.

In 1787, a pupil of Doctor Mesmer, the Marquis Chastenet de Puysègur, attracted all the scientific world to Buzancy, near Soissons, where he obtained most remarkable results.

Doctor Cloquet relates that he saw there, patients no longer the victims of violent hysterical fits, but enjoying a calm, peaceful restorative and silent slumber. It may be said that from this moment, really efficacious and useful magnetism became known. Puysègur had resuscitated magnetism, public opinion had become infatuated once more about this new agent that was to be the gratuitous means of curing mankind. Puysègur's "tree" impregnated with the fluid, was touched by hundreds of persons who came from all parts, and the effects were most beneficial. The learned naturalist Deleuze, wrote in 1813, the "Histoire Critique du Magnetisme Animal," which sums up the question as it stood at that period.

About the same time there appeared in Southern Germany, Father Gassner, a priest, who effected some wonderful cures. This method consisted of the patient being ushered into a semi-dark room, and then, from a portiere, Father Gassner emerged with outstretched hands, carrying the crucifix held aloof. Directing his gaze

sharply on the patient, he exclaimed in thundering tones in Latin: "Detur mihi evidens signum præstigiæ braeternaturalis, proecipio hoc in nomine Jesu!"

If the individual was at all susceptible he would fall into the crisis or unconscious state. Father Gassner was a wise man, much ahead of his time, and he took advantage of it. Among the men who stood by him and believed in his science were Carl Albrecht, Prince of Hohenlohe-Waldenburg, and Ludwig Joseph, Bishop of Freisinger. In 1820, Dr. Bertrand, formerly a cadet at the Ecole Polytechnique, held a course of public lectures on Magnetism and orthodox science, now took up the interesting questions. Dr. Husson at the Hotel-Dieu; Dr. Goerget and Dr. Rastan at the Salpětriěre, induced Baron du Potet to perform experiments in their different wards, many experiments proving very wonderful.

In 1825, Dr. Foissac persuaded the Academy of Medicine of Paris, France, to take up the subject, and that learned body of the most noted men of the world admitted that magnetism did exist:—

"Considered either as an agent of physiological phenomena or as a curative means," said the members of this commission, "magnetism must be allotted a place in medical knowledge; consequently doctors alone must make use of it, or at least superintend its application. The commission has collected and noted down facts important enough to warrant the Academy's authorizing the study of magnetism as a serious branch of Psychology and Natural History."

The above declaration was signed by Bourdois, De la Motte, Fenguier Gueneau de Mussy, Guersant, Itard, J. Leroux, Marc, Thillaye.

From this time, Magnetism was in the hands of honest men, and has never since gone astray. It is of course, like all great sciences, open to doubt, and its partisans may even be considered mad, but with the exception of Mesmer's cupidity none of its adherents have been swayed by mercenary motives. Puysegur, indeed offered a striking contrast to Mesmer, and avoided all public exhibitions and everything that could affect the imagination, never choosing special *subjects*, but experimenting on peasants—male or female—afflicted with stubborn and matter of fact diseases. He however, admitted the marvellous and believed in somnambulistic lucidity.

About the same period, Baron du Potet invented the Magic Mirror, which convulsed so many people. famous magnetiser first traced on the floor with a bit of charcoal, a complete and blackened circle. The subject drew near and then receded, looking alternately at the spectators and at the circle. "Soon," writes Baron du Potet, "the effect is visible. The subject's head is lowered, his whole person becomes uneasy; he turns round and round the circle without taking his eyes off it, then bends lower, rises again, draws back a few steps, then advances again, frowns, looks morose and gloomy, and breathes heavily. The most curious scene then follows. The subject, without doubt, sees images reflected in the mirror, for his perturbation, his emotion, his strange motions, his sobs, tears, anger, despair, and fury, all prove the disorder and agitation of his mind. For him it is no dream or nightmare; the apparitions are relative, and a series of future events represented by figures and signs that he understands, unfold themselves before him, filling him in turn with joy or sadness, as they pass before his

eyes. Soon he is seized with a transport of frenzy, strives to lay hold of the phantoms, and dashing forward stamps with his foot on the blackened circle, the dust flies up, and the operator now approaches and puts an end to this dramatic performance, so full of excitement and terror."

In all this, du Potet fancied he saw magic; but Hypnotism obtained by physical means brings about the same results, but in a very pleasant way.

Father Lacordaire, from the pulpit of Notre Dame, acknowledged the existence of magnetism. "Wrapped in a fictitious sleep," he said, "man sees through opaque bodies; he is able to indicate remedies that heal, and appears to know things he knew not while awake."

The enthusiasm now became universal in France. The new ideas found disciples even amongst the clergy, and an encyclical letter from the Holy Inquisition was addressed to the Roman Catholic Bishops (July 30th, 1856), warning them against the errors and dangers of magnetism.

The next to call attention to it was Dr. James Braid, a surgeon of Manchester, England. After incredulously witnessing experiments by La Fontaine, a French traveling mesmerist, he became interested in the science, and later on Dr. Braid renamed this science to Hypnotism, and employed his method in all cases possible.

Dr. Braid, however, did not seek to deny magnetism for he wrote as follows in his book on "Neurypnology":

"For a long time I believed the phenomena produced by my experiments and those produced by mesmerists to be identical; and after a close investigation, I have come to the conclusion that there is a certain analogy in the effects produced on the nervous system. Nevertheless, and judging from the effects magnetizers declare they have obtained in certain cases, there seems to be enough differentia to lead one to consider *Hypnotism and Mesmerism as two* distinct agents."

When Dr. Braid made this discovery, hypnotism had its origin, and the fact was established, that sleep could be induced by physical agents. This, it must be remembered, is the essential difference between these two classes of phenomena; for magnetism supposes a direct action of the magnetizer on the magnetized subject; an action which does not exist in Hypnotism. This distinction is not generally made, hence the confusion between the two methods. Whenever the word hypnotism is therefore employed, the reader must remember that it is sleep induced by physical agents that is understood, that is to say, sleep obtained by fixing the gaze on some object (as Dr. Braid discovered) or by some sudden sound, like that of a Chinese gong (such as is used at present at Salpětriěre). When, on the other hand, the word magnetism is employed, it will be understood that reference is made to a subject passing from a waking condition into that of sleep, owing to the personal action of the experimentist on the experimentized.

Following his example, came Dr. Esdaile, Presidency Surgeon of Bengal, at Calcutta, who employed hypnotism in nearly all his operations.

Then for a few years this science made little if any progress. The value of this wonderful "Braid" discovery was not appreciated by the English, and it was not until the Continental scientists extended their researches that he obtained substantial recognition.

Liébault was the first to confirm his experiments. He

was, in fact, the founder of what is now known as the Nancy school of hypnotism. It was founded in 1866.

Many prominent scientists have followed him, among them worth especial mention: Ch. Richet, Bremaund, Beaunés, Delboeuf, Beyon, Facachau, Mábille, Liégeois, Forel, Chas. Féré, and Alfred Binet, also Professor Bernheim, the author of the book "Suggestive Therapeutics" which many assert to be the best medical work on hypnotism and therapeutic suggestion which has ever been written. Prof. Bernheim for years was a member of the faculty at Nancy.

Professor Charcot, of the Paris Salpětriěre, is also the founder of a school of hypnotism, which is generally known as the Paris school, or school of the Salpětriěre. Charcot's great reputation as a scientist obtained for him many followers.

Prof. Charcot mostly hypnotized ladies, and especially hysterics. At La Salpětriěre, he studied hypnotism mostly through hysterical subjects. Charcot has, by his cures, done an immense good, curing people by the thousands of a number of diseases.

To Charcot is given the honor of first classifying the different phases of hypnotic sleep into the Lethargic, Cataleptic and Somnambulistic stages.

To Dr. Burg is given the honor of reviving hypnotism in France; and it is to him the world owes the knowledge of the effects of different metals upon the human system. Dr. J. Luys, a member of the Academy of Medicine, has performed many curious experiments in the Hospital de la Charité. The action of physical agents—even at a distance—and of Suggestion are both admitted at La Charité. Dr. Luys' method we give later on in this work.

Jarval, an Ophthalmologist Member of the Academy of Medicine, and Dr. Foveau de Caurmelles are making wonderful discoveries in their researches on the eyes, through the power and aid of hypnotism.

We can furnish Dr. Foveau de Caurmelles' latest book on "Hypnotism," as it is practised in the European Hospitals. This work is illustrated and sells for \$2.50, sent post-paid by mail.

Albert Moll, of Berlin, Germany, who is one of the ablest, and certainly one of the most unprejudiced of modern scientific writers on the subject of hypnotism, writes as following:

"Considering the light of our present knowledge of hypnotism, the most we can accomplish toward an explanation of it is to compare its phenomena with those observed in waking life. By way of explanation, let us suppose that we are trying to explain a hypnotic negative hallucination of sight. We must compare it with a corresponding phenomenon in waking life. By so doing we will notice that in the hypnotic state the patient fails to perceive any object which the operator tells him he cannot see, while in waking life we should be all the more certain to see an object when told that it is not there, from the fact of our attention being directed toward it."

In explanation of this point of difference, Dr. Moll, following Wundt, assumed the existence of a so-called dream consciousness in the hypnotic state.

It is believed by means of this method of analogy, many phenomena, both hypnotic and post-hypnotic, can be explained. Self-observation is a most valuable aid to investigation. A great number of different states are included under the head of hypnosis, and takes up the

discussion of the various hypnotic phenomena in the following order:

FIRST:—The phenomena of Suggestion as regards voluntary movements.

SECOND:—Positive and negative delusions of the Senses.

THIRD: - Rapport.

FOURTH:—The phenomena of Memory.

FIFTH: -Post-Hypnotic Suggestion.

Two rules are emphasized by Dr. Moll as of great importance in enabling us to clearly comprehend the various symptoms of the hypnotic condition. The first is, "that men have a certain proneness to allow themselves to be influenced by others through their ideas, and, in particular, to believe much without making conscious logical deductions"; the second rule, "A psychological or physiological effect tends to appear in a man if he is expecting it."

Dr. Moll gives some very interesting cases of his researches, in his new book "Hypnotism as a Science." The price of this book is \$2.50 sent by mail, fully prepaid. We furnish all books mentioned in this volume that we can procure in America. We will do this to accommodate the readers who may be unable to purchase it in their locality. The time is coming, in fact almost at hand, when the subject of Hypnotism will interest this entire nation, and that class of literature will be eagerly sought after.

#### CHAPTER II.

#### HYPNOTISM.

As discovered by Dr. J. Braid; his method, and a few interesting cases as cited by him, in his noted book "Neurypnology."

This science had lived under many names, none, quite what the world demanded, for science so profound and mysterious, yet so simple and easily applied. It had received many names before Dr. Braid undertook the task of rechristening it, but each was objectional, because they all implied something more or less than the science gave. But when Dr. Braid denominated it, Hypnotism—from the Greek word signifying sleep—it was hailed as a compromise sufficiently non-commital to entitle it to recognition, and "hypnotism" it will be called until some Academician drags to light the ultimate cause of all things.

Dr. Braid is entitled to great credit for the discovery that the hypnotic state can be induced independently of the presence or co-operation of another person. Two facts seem to have been demonstrated by his experiments, both of which are of the utmost importance.

FIRST:—That the hypnotic sleep can be induced independently of personal contact with, or the personal influence of, another.

SECOND: - That the sleep can be induced by his method without the aid of any suggestion.

The mistake which his followers have made is in jumping to the conclusion that because one of the primary conditions of hypnotic phenomena can be induced without the aid of the magnetic hypothesis, therefore the magnetic hypothesis is necessarily incorrect. The same logic would induce a man who for the first time sees a railroad train in motion to conclude that any other method of locomotion is impracticable. Braid, himself, was not so illogical; for he expressly says that he does not consider the methods identical, but does "consider the condition of the nervous system induced by both modes to be analogous."

The scientific development of hypnotism we will now begin to give. In this we see, to a certain extent, a combination of the two processes just mentioned. That is to say, it is found that special manipulation can call forth a changed mental condition, hypnosis; it can, however, also be shown that when a man calls this out it is not by virtue of any peculiar and mysterious unknown power—as until Braid's time was supposed.

At first, Dr. Braid considered hypnotism to be identical with the mesmeric states, but he soon gave up this view; he was of opinion that the two conditions were only analogous, and he left mesmerism in an independent position by the side of Hypnotism. Braid was acquainted with the cataleptic phenomena, (as we will show) and certain suggestions, and used hypnotism therapeutically; in particular, he used it to perform painless surgical operations. Already, earlier, mesmerism had been several times made use of in surgical operations.

To Dr. Braid is due the discovery of hypnotism, and

the words *Braidism* and *Braidic suggestion* have remained in science to commemorate a new doctrine which arose in the very face of Mesmerism.

Dr. Braid proved that no magnetic fluid exists, and that no mysterious force emanates from the hypnotizer. The hypnotic state and its associated phenomena are purely subjective in their origin, which is in the nervous system of the subject himself. The fixation of a brilliant object so that the muscle which holds up the upper eyelid becomes fatigued, and the concentration of the attention on a single idea brings about the sleep. The subjects can even bring about this condition themselves, by their own tension of mind, without being submitted to any influence from without. In this state, the imagination becomes so lively that every idea spontaneously developed or suggested by a person to whom the subject gives this peculiar attention and confidence, has the value of an actual representation for him. The oftener these phenomena are induced, the more readily and easily can they be induced, for such is the law of association and habit. If the hypnotizer's will is not expressed by his words or his gestures, or if the subject does not understand them, no phenomena appears. The attitude which is given the hypnotized subject, the position into which the muscles of his limbs or face are put, may give rise to sentiment, passions, and acts corresponding to these anatomical attitudes, in the same manner that the suggestion of certain sentiments or passions may give rise to co-relative mimicked attitude or expression.

This part of Braid's work cannot be attacked. Observation confirms it on all points. But Braid's experiments did not make such stir till years after the discovery of hypnotism.

Dr. Braid also showed besides that these phenomena could be induced in certain subjects, in the waking condition, by simple vocal suggestion, which fact he published in a memoir entitled: *The Power of the Mind over the Body*. Emotion, sensation, the passions, and even the exercise of the organic functions could be modified by a foreign will without the induction of hypnotism.

Braid had proved that the concentration of the attention and thought, obtained by fixation of the gaze, were the determining causes of the hypnotic state, but he did not try to fathom the physiological and psychological mechanism of the phenomena.

Durand de Gros tried to go further, and to explain the relations which exist between this concentration of thought (the first point of departure of the Braidic modification), and the appearance of insensibility, catalepsy, and ecstacy; that is, in a word, the profound and general revolution of the economy which is its culminating point.

The following is the author's theory, as he himself gives it:

"A general and sufficiently intense activity of thought is necessary for the regular diffusion of nervous force in the nerves of sensibility. If this activity ceases, the innervation of these nerves is suppressed, and they lose their ability to conduct external impressions to the brain. In fact, we know that idiots are more or less anæsthetic, etc. On the other hand, sensation is the necessary stimulus to mental activity.

"From this it follows, that in order to bring about insensibility, it suffices to suspend the exercise of thought, and, in order to suspend this, it is necessary to isolate the senses from the external agents which act upon them. It is not possible to suspend the actions of the mind, but they may be reduced to a minimum, by submitting them exclusively to a simple, homogeneous, and continuous sensation; thus, its sphere of action is reduced to a simple point. The cerebral ganglion-cell continues to secrete its nervous force, but that only consumes a very small part of the whole amount; hence its nervous force accumulates in the brain until congestion takes place. This is the first part of the Braidic operation, which produces what the author calls the hypotaxic condition. This condition being once produced, the impression glides in as far as the brain, through the half open door of the sensorium, along the path of sight, of hearing, or of muscular sense, and the point to which this excitation is transferred, immediately emerges from its torpor, to become the seat of an activity which the tension of the nervous force increases with all its power. Thus it is that general arrest of innervation will all at once succeed an excessive local innervation, which for example, will instantaneously substitute hyperæsthesia for insensibility, and catalepsy, tetanus, etc., for relaxation of the muscular system, etc.

"The available nervous force may be called to this or that functional point of the centre of innervation, by directing toward this point an impression, which arouses its peculiar activity. To accomplish this, a mental impression is employed, that is to say, an idea is suggested. This constitutes the second stage of the Braidic operation, which Durand de Gros calls *ideo-plastic*. The idea becomes a determining cause of the functional modifications to be induced. The mental excitation reproduces the sensation previously induced by means of organic excitations. These sensations, which are originated by means of an idea, are called sensations of recollection."

It is quite natural for any man to prefer the evidence of his own senses to that of all others; no one who has the opportunity to examine the phenomena for himself should neglect to do so. However, there are some circumstances which ought to be particularly borne in mind, or very erroneous opinion may be formed by the uninitiated, from what is actually witnessed.

"FIRST.—There is a remarkable difference in the degree of susceptibility of different individuals to the hypnotic influence, some becoming rapidly and intensely affected; others slowly and feebly so. This is one, analogous to what we experience in regard to the effects of medicine on different individuals, and especially as regards wine and opium and nitrous oxide. Whilst this is a recognized fact, as regards the latter, it appears to me somewhat surprising to find many and even professional men too, who seem to expect as much uniformity ought to obtain, in regard to the Phenomena during hypnotism as if we were operating on inanimate matter. On the contrary, they ought to be ready to admit that a variety might be expected to arise even in the same individual, according to the physical and mental condition of the patient at the moment the operation is performed.

"The next most important point for consideration is the fact of all the Phenomena being consecutive, we have thus the extremes of insensibility and exalted sensibility, of rigidity and mobility, at different stages, and these merging into each other by the most imperceptible gradations, or in the most abrupt manner, according to the mode of treating the patient. It is no unusual thing for different parties to be testing, or calling for tests, for the *opposite conditions* at the *same instant* of *time*. These, of course,

are incompatible, but at a certain stage, the transitions from torpor of all the senses and cataleptiform rigidity to the most exalted sensibility, and flaccidity of muscle, may be effected almost with the celerity of thought, even so slight a cause as a breath of air directed against the part. If left at rest, it will speedily merge back again, and thus those unacquainted with such peculiarities will be continually liable to think they discover discrepancies which, however, only originate from their imperfect knowledge of the subject; just as an unskilful manipulator will be ready to suppose from his different results that the observations of other chemists have been erroneous.

"The third point meriting especial attention is the condition of the mind at different stages. As results from opium, so also from hypnotism. At one stage it gives an extraordinary power of concentration of thought, or disposition to rapt contemplation, whereas, at another stage the discursive or imaginative faculties are excited into full play, and thus the most expanded, bright and glowing scenes and images are presented to the fervid imagination. It must also be borne in mind that these opposite mental conditions may glide into each other by the most imperceptible degrees; or by the most abrupt transitions, according to the modes of management, and thus consciousness or unconsciousness, sound sleep, or somnambulism will result, according as sensations or ideas predominate. It appears quite evident that whatever images or mental emotions or thoughts have been excited in the mind during the nervous sleep are generally liable to recur, or be renovated or manifested when the patient is again placed under similar circumstances. I am induced to adopt this course from my anxiety to remove every possible source of error as to the cause of the original manifestations, and from the recollection of the remarkable circumstance of the woman who during natural somnambulism could repeat correctly portions of the Hebrew Bible, and other books in languages she had never studied, and was perfectly ignorant of when awake, but was at length discovered to have been acquired from hearing a clergyman with whom she had resided when a girl reading them aloud to himself; and also from patients whilst laboring under diseases remembering languages long forgotten. Then during the nervous sleep there is the power of exciting patients to manifest the passions and emotions, and certain mental faculties in a more striking manner than the same individuals are capable of in the waking condition. No one can doubt who has seen much of these experiments, and it can in no way alter the importance of hypnotism as a curative power, and extraordinary means of controlling and directing mental functions in a particular manner by a simple association of impressions whether we thus act on the brain as a single organ or a combination of separate organs or whether the primary associations have originated from the special organic connections, or from some accidental and unknown cause, or from preconcerted arrangement and arbitrary association."

"The experiments that I have made," says Dr. Braid, "of having caused patients to hypnotize, manipulate, and rouse themselves (by simply desiring them to rub their own eyes), and which produced results precisely the same as when done by any one else, seem to me to be the most decisive proof possible that the whole result from the mind and body of the patients acting and reacting on each other, and that it has no dependence on any special influence

emanating from another. My first experiments on this point were instituted in the presence of some friends on the first day of May, 1843, and following days. I believe they were the first experiments of the kind which had ever been tried, and they have succeeded in every case in which I have operated."

"Observation, having thus shown what the simple hypnotic suggestion can perform in the healthy condition, it was natural to apply these qualities to pathological states, and to make use of the nervous activity concentrated by means of suggestion, in neutralizing morbid phenomena. It was natural to say to oneself—if, in a hypnotized subject, anæthesia, constructure, movements, pains, can be produced at will by an analogous mechanism, it ought to be possible in some cases to suppress anæthesia, contracture, or paralysis caused by disease, to increase the weakened muscular force, to modify favorably, or to restore the functional force perverted or diminished by the pathological condition, as far, of course, as the organic condition permits this restoration."

"It would seem that an idea so simple as this would have forced itself upon the attention of the first physicians who learned to recognize *suggestion*. But it has been a long time coming to the front. As long as magnetic phenomena were considered the effect of a fluid acting upon the organism, it was to this fluid action that the cures were attributed. Magnetism, by its mysterious influence upon the vital principle, reestablished functional harmony; it was beneficial like warmth, light, and electricity."

Since Braid's time, the hypothesis of a magnetic fluid has had few adherents, hyponotic suggestion has replaced

magnetism. It is the subject's imagination alone, which rendered active, and causes all the phenomena.

It is a singular thing that Braid, who was first to establish the doctrine of suggestion (caught sight of, for a moment by Bertrand) upon firm foundation, thought no more of applying suggestion itself in its most natural form—suggestion by speech—to bring about the hypnosis and the therapeutic effects. He induced sleep by fixation upon a brilliant object; he brought about therapeutic effects by means of special manipulation.

The manipulations are based upon this fact, that the cataleptiform rigidity of a limb produces, according to Braid, an acceleration of the pulse, which becomes small. This acceleration of the pulse caused by the effort to hold the limbs stretched out for five minutes, is much greater in the hypnotic than in the normal condition. If the muscles are made to relax while the subject is still under the influence of the hypnosis, the pulse declines rapidly to its rate before the experiment, and even below it.

This understood, Braid varies the manipulation according to the object in view. "In order to diminish," Braid says, "the force of the circulation in a limb and reduce its sensibility, it is necessary to set the muscles of this limb in activity, leaving the other limbs relaxed. If we wish to increase the force and the sensibility of a limb, it must be kept relaxed and the other limbs must be put into catalepsy. If we wish to obtain a general depression, after one or two of the limbs have been extended for a short time, we must put them back carefully into the normal position, and let the entire body rest. To obtain a general excitation, all the limbs should

be rendered cataleptic, whence arises difficulty in the free transmission of blood to them, and consequently an augmentation of the cardiac activity, rush of blood to the brain, and excitation of the nervous centres.

Further, in keeping a particular organ in action while the others are quiet, there is a considerable augmentation of its activity by concentration of its nervous energy in keeping the other organs in activity, and the one which is too active quiet, its activity is diminished.

The following we give in Dr. Braid's own words, as found in his noted book, "Neurypnology." We feel the readers will better understand his method if given to them as he gave it to the public:

"It will be observed I have now entirely separated Hypnotism from animal magnetism, I consider it to be merely a simple, speedy and certain mode of throwing the nervous system into a new condition, which may be rendered eminently available in the cure of certain disorders. I feel quite confident we have acquired in this process a valuable addition to our curative means, but I repudiate the idea of holding it up as a *Universal Remedy*; nor do I understand, as yet, the *whole range of diseases* in which it may be useful.

"I am aware great prejudice has been raised against mesmerism from the idea that it might be turned to immoral purposes. In respect to the Neuro-Hypnotic state, induced by my methods (James Braid, M. R. C. S. E., C. M. W. S.), I am quite certain that it deserves no such censure. I have proved by experiments, both in public and in private, that during the state of excitement the judgment is sufficiently active to make the patients, if possible, even *more* fastidious as regards propriety of

conduct than in the waking condition; and from the state of rigidity and insensibility, they can be roused to a state of mobility and exalted sensibility either by being rudely handled or even by a breath of air. Nor is it requisite this should be done by the person who put them in the Hypnotic state. It will follow equally from the manipulations of any one else, or a current of air infringing against the body from any mechanical contrivance whatever. And, finally, the state cannot be induced in any stage, unless with the knowledge and consent of the party operated on. This is more than can be said respecting a great number of our most valuble medicines, for there are many of which we are in the daily habit of using with the best advantage in the relief and cure of disease, which may be and have been rendered most potent for the furtherance of the ends of the vicious and cruel, and which can be administered without the knowledge of the intended victim. It ought never to be lost sight of that there is the use and abuse of everything in nature. It is the use and only the judicious use of hypnotism which I advocate."

# DEFINITION OF FORMS.

"Neurypnology is derived from the Greek words for Nerve Sleep, a Discourse; and means the *nationale*, or *doctrine* of *nervous sleep*, which I define to be a 'peculiar condition of the nervous system, induced by a fixed and abstracted attention of the mental and visual eye, on one object, not of an exciting nature.'

"By the term 'Neuro-Hypnotism' this is to be understood 'nervous sleep,' and for the sake of brevity, suppressing the prefix 'Neuro' by the terms as follows:

HYPNOTIC.—The state or condition of nervous sleep.

Hypnotize.—To induce nervous sleep.

Hypnotized.—One who has been put into the state of nervous sleep.

Hypnotism.—Nervous sleep.

DEHYPNOTIZE.—To restore from the state or condition of *nervous sleep*.

DEHYPNOTIZED.—Restored from the state or condition of *nervous sleep*.

HYPNOTIST.—One who practices Neuro-Hypnotism.

"I now proceed to detail the mode which I practice for inducing the Phenomena. Take any bright object, (I generally use my lancet case), between the thumb and fore and middle fingers of the left hand. Hold it from eight to fifteen inches from the eyes, at such position above the forehead as may be necessary to produce the greatest possible strain upon the eyes and eyelids, and enable the patient to maintain a steady fixed stare at the object. The patient must be made to understand that he is to keep the eyes steadily fixed on the object, and the mind riveted on the idea of that one object.

"It will be observed that owing to the consensual adjustment of the eyes the pupils will be at first contracted, they will shortly begin to dilate, and after they have done so to a considerable extent, and have assumed a wavy motion, if the fore and middle fingers of the right hand extended and a little separated, are carried from the object toward the eyes, most probably the eyelids will close involuntarily, with a vibratory motion. If this is not the case, or the patient allows the *eyeballs* to *move*, desire him to begin anew, giving him to understand that he is to allow the eyelids to close when the fingers are again carried

toward the eyes, but the eyeballs must be kept fixed in the same position, and the mind riveted to the one idea of the object held above the eyes. It will generally be found that the eyelids close with a vibratory motion, or become spasmodically closed. After ten or fifteen seconds have elapsed, by gently elevating the arms and legs it will be found that the patient has a disposition to retain them in the situation they have been placed, if he is intensely affected. If this is not the case, in a soft tone of voice desire him to retain the limbs in the extended position, and thus the pulse will speedily become greatly accelerated, and the limbs in process of time will become quite rigid and involuntarily fixed. It will also be found that all the organs of special sense, excepting sight, including heat and cold, and muscular motion and resistance, and certain mental faculties are at first prodigiously exalted, such as happens with regard to the primary effects of opium or spirits. After a certain point, however, this exaltation of functions is followed by a state of depression far greater than the torpor of natural sleep. By mere repose the senses will speedily merge into the original condition again.

"From the state of the most profound torpor of the organs of special sense, and tonic rigidity of the muscles, they may at this stage *instantly* be restored to the *opposite* condition of extreme mobility and exalted sensibility, by directing a current of air against the organ or organs we wish to excite to action, or the muscles we wish to render limber, and which had been in the cataleptiform state. An abrupt blow or pressure over the rigid muscle will de-hypnotize a rigid part, būt I have found that pressing the nose will not restore smell, unless very gentle and continued, nor will pressing a handkerchief against the

ear restore hearing when the ear has become torpid, nor will *gentle* friction over the skin restore sensibility to the dormant skin or mobility to the rigid muscles underneath (unless so gentle as to be titillation properly so called), and yet a slight puff of wind will *instantly* rouse the whole to abnormal sensibility and mobility, a fact which has perplexed and puzzled me exceedingly.

"At first I required the patients to look at an object until the eyelids closed of themselves, involuntarily. I found, however, in many cases this was followed by pain in the globes of the eyes, and slight inflammation of the conjunctival membrane. In order to avoid this I now close the eyelids, when the impression on the pupil already referred to has taken place, because I find that the beneficial phenomena follow this method, provided that the eyeballs are kept fixed, and thus too, the unpleasant feelings in the globes of the eyes will be prevented. Were the object to produce astonishment in the person operated on, by finding himself unable to open his eyes, the former method is the better; as the eyes once closed it is generally impossible for him to open them, whereas they may be opened for a considerable time after being closed in the other mode I now recommend. However, for curative purposes, I prefer the plan which leaves no pain in the globes of the eyes.

"I feel confident that the Phenomena are induced *solely* by an impression made on the nervous centres by the physical psychical condition of the patient, irrespective of any agency proceeding from or excited into action by another, as any one can hypnotize himself by attending strictly to the simple rules I lay down; and the following is a striking example of the fact which was communicated to me and two other gentlemen by a most respectable

teacher. He found that a number of his pupils had been in the habit of hypnotizing themselves, and he had ordered them to discontinue the practice. However, one day he ascertained a girl had hypnotized herself by looking at the wall, and that a companion had put a pen in her hand with which she had written the word "Manchester," and she held the pen very firmly-in fact the fingers were catileptiformly rigid. He spoke to her in a very gentle tone of voice, and called her. She arose and advanced towards him, and when awake was not aware he had called her or of what had passed. A patient may be hynotized by keeping the eyes fixed in any direction. It occurs most slowly and feebly when the eyes are directed straight forward, and most rapidly and intensely when they can be maintained in the position of a double internal and upward squint.

"It is very important to remark that the oftener the patients are hypnotized, from association of ideas and habit, the more susceptible they become; and in this way they are liable to be affected *entirely through the imagination*. Thus, if they consider or imagine there is something doing, although they do not see it, from which they are to be affected, they *will become affected*; but on the contrary, the most expert hypnotist in the world may exert all his endeavors in vain if the party does not expect it, and mentally and bodily comply, and thus yield to it.

"It is on this very principle of over exerting the attention by keeping it riveted on one subject or idea which is not of itself of an exciting nature, and over-exercising one set of muscles, and the state of the strained eyes, with the suppressed respiration, and general repose which attend such experiments, which excites in the brain and whole nervous system that peculiar state which I call Hypnotism or Nervous Sleep. The most striking proofs that it is different from common sleep are the extraordinary effects produced by it. In deep abstraction of mind it is well known the individual becomes unconscious of surrounding objects, and in some cases of severe bodily inflictions. During Hypnotism or Nervous Sleep, the functions in action seem to be so intensely active as must in a great measure rob the others of that degree of nervous energy necessary for exciting their sensibility. This alone may account for much of the dullness of common feeling during the abnormal quickness and extended range of action of certain other functions.

"I shall now point out the symptoms of danger, with the mode of arousing patients, and thus preventing mischief which might ensue for want of due caution in the operator. Whenever I observe breathing very much oppressed, the face greatly flushed, the rigidity excessive, or the action of the heart very quick and tumultuous, I instantly arouse the patient, which I have always readily and speedily succeeded in doing by a clap of the hands, an abrupt shock on the arm or leg, by striking them sharply with the flat hand, pressure and friction over the eyelids, and by a current of air wafted against the face. I have never failed by these means to restore my patients very speedily.

"I feel convinced that Hypnotism is not only a valuable but also a perfectly safe remedy for many complaints, if judiciously used. Still it ought not to be trifled with by ignorant persons for the mere sake of gratifying idle curiosity. In all cases of apoplectic tendency, or where there is aneurism or serious organic disease of the heart, it ought not to be resorted to, excepting with the precaution

that it may be in the mode calculated to depress the force and frequency of the heart's action.

"In passing into common or natural sleep, objects are perceived more and more faintly, the eyelids close and remain quiescent, and all the other organs of special sense become gradually blunted, and cease to convey their usual impressions to the brain, the limbs become flaccid from cessation of muscular tone and action, the pulse and respiration become slower, the pupils are turned upwards and inwards, and are contracted.—Müller.

"In the Hypnotic state induced with the view of exhibiting what I call the Hypnotic Phenomena, vision becomes more and more imperfect, the eyelids are closed, but have for a considerable time a vibratory motion, (in some few they are forcibly closed, as by spasm of the orbiculares); the organs of special sense, particularly of smell, touch, and hearing, heat and cold, and resistance, are greatly exalted, and afterwards become blunted, in a degree far beyond natural sleep; the pupils are turned upwards and inwards, but contrary to what happens in Natural Sleep. They are greatly dilated, and highly insensible to light; after a length of time the pupils become contracted, whilst the eyes are still insensible to light. The pulse and respiration are, at first, slower than is natural, but immediately, on calling muscles into action, a tendency to cataleptiform rigidity is assumed, with rapid pulse, and oppressed and quick breathing. The limbs are thus maintained in a state of tonic rigidity for any length of time I have yet thought it prudent to try, instead of that state of flaccidity induced by common or natural sleep; and the most remarkable circumstance is this, that there seems to be no corresponding state of muscular exhaustion from such action.

"In passing into natural sleep, anything held in the hand is soon allowed to drop from our grasp, but in the artificial sleep now referred to, it will be held much more firmly than before falling asleep. This is a very remarkable difference.

"The power of balancing themselves is so great that I have never seen one of these hypnotic somnambulists fall. The same is noted of natural somnambulists. This is a remarkable fact, and would appear to occur in this way, that they acquire the centre of gravity, as if by instinct, in the most natural, and therefore, in the most graceful manner, and if allowed to remain in this position they will speedily become cataleptiform and immovably fixed. From observing these two facts, and the general tendency and taste for dancing displayed by most patients on hearing lively music during hypnotism, the peculiarly graceful and appropriate movement of many when thus excited, and the varied and elegant postures they may be made to assume by slight currents of air, and the faculty of retaining any position with so much ease, I have hazarded the opinion that the Greeks may have been indebted to Hypnotism for the perfection of their Sculpture, and the fakirs of India for their wonderful feats of suspending their bodies by a leg or an arm.

"It thus clearly appears that it differs from common sleep in many respects, that there is first a state of excitement as with opium and wine, and spirits, and afterwards a state of corresponding deep depression or torpor.

## EFFECT OF HYPNOTISM.

"The tactual sensibility is so great that the slightest touch is felt. The sense of heat, cold and resistance are

also exalted to that degree as to enable the patient to feel anything without actual contact. In some cases, at a considerable distance, some will feel a breath of air from the lips, at the distance of 50 to 90 feet, and bend from it, and by making a back current, as by waving the hand, or a fan, will move in the opposite direction. The patient has a tendency to approach to, or recede from impressions according as they are agreeable or disagreeable, either in quality or intensity. Thus they will approach to soft sounds, but they will recede from loud sounds, however harmonious. By allowing a little time to elapse, and the patient to be in a state of quietude, he will lapse into the opposite extreme of rigidity and torpor of all the senses, so that he will not hear the loudest noise, nor smell the most fragrant or pungent odor; nor feel what is hot or cold, although not only approximated to but brought into contact with the skin. He may now be pricked or pinched or maimed, without exciting the slightest symptom of pain or sensibility, and the limbs will remain rigidly fixed. At this stage a puff of wind directed against any organ instantaneously rouses it to sensibility, and the rigid muscles to a state of mobility. Thus the patient may be unconscious of the loudest noise, but by simply causing a current of air to come against the ear a moderate noise will instantly be heard so intensely as to make the patient start and shiver violently, although the whole body had immediately before been rigidly cataleptiform. A rose, valerian, or strong ammonia may have been held close under the nostrils without being perceived, but a puff of wind directed against the nostrils will instantly arouse the sense so much that supposing the rose had been carried forty-six feet distant, the patient has instantly set off in pursuit of it, and even whilst the eyes were bandaged, reached it as certainly as a dog traces out game; but as respects valerian or ammonia, will rush from the unpleasant smell with great haste. The same with the sense of touch."

## CURATIVE POWERS OF HYPNOTISM.

"Of all the circumstances connected with Hypnotic Sleep, nothing so strongly marks the difference between it and natural sleep as the wonderful power the former evinces in curing many diseases of long standing, and which had resisted natural sleep, and every known agency for years; patients who have been born deaf and dumb, of various ages, up to thirty-two years of age, had continued without the power of hearing sound until the time they were operated on by me, and yet they were enabled to do so by being kept in the hypnotic state for eight, ten or twelve months, and have had their hearing still further improved by a repetition of similar operations. Now supposing these patients to have spent six hours out of twenty-four in sleep, many of them had had five, six or eight years of continuous sleep, but still awoke as they lay down, incapable of hearing sound, and yet they had some degrees of it communicated to them by a few minutes of Hypnotism. Can any stronger proof be wanted or adduced than this, that it is very different from common sleep. A lady, fifty-four years of age, had been suffering for sixteen years from incipient amarosis. When she called on me she could with difficulty read two words of the largest heading of a newspaper. After eight minutes' hypnotic sleep, however, she could read the other words, and in three minutes more the whole of the smaller heading,

and the same afternoon, with the aid of her glasses, she read the 118th Psalm, 29 verses, in the small Diamond Polyglot Bible, which for years had been a sealed book to her. There has also been a most remarkable improvement in this lady's general health since she was hypnotized. Is there any individual who can fail to see in this case something different from common sleep? Whilst I feel assured from personal experience and the testimony of professional friends on whose judgment and candor I can implicitly rely, that in this we have acquired an important curative agency for a certain class of diseases, I desire it to be distinctly understood that I by no means wish to hold it up as a universal remedy. I believe it is capable of doing great good, if judiciously applied. Diseases evince totally different pathological conditions, and the treatment ought to be varied accordingly. We have, therefore, no right to expect to find a universal remedy either in this or any other method of treatment."

From the foregoing you can readily see that Dr. Braid proved Hypnotism to contain great virtue, mainly to be used as a curative power. Since his discovery, the medical world has from time to time made researches, which always prove the same; but, a science so simple, yet, so hard to explain to the ordinary mind, gains firm ground slowly, thus, year after year has passed by, without Hypnotism becoming popular among doctors and patients. In fact, not until the year 1860, did any physician dream of applying hypnotism for diseases the same as he applied medicine. Then, Dr. Liébault took up the study where Dr. Braid had left off. So great has been his achievements, that to-day all the scientific world wonders. To him, too much credit cannot be given, as

it is through his patient efforts that the medical world, at last, acknowledges the power of this great science Hypnotism, as you will see further on.

### CHAPTER III.

### HYPNOTISM.

The School of Nancy—The Nine Degrees of Hypnotism—The Theory of Hypnotism as advanced by Dr. Liébault, the founder of the Nancy School—The discovery of "Suggestion," showing how it has helped the Science of Hypnotism to advance in the Medical World.

Monsieur Liébault was born September 17th, 1823, at Faviéres, a village about thirty miles from Nancy, in the department of Meurthe, France. In 1866 Dr. Liébault founded the School of Nancy. At the outset, the opinions he held were received with incredulity. "His practice appeared so strange that the doctors dismissed it without inquiry, and Dr. Liébault kept entirely aloof from the medical profession, absorbed in his studies and devoting himself to his patients, mostly recruited from among the poor class."—Bernheim.

Since then, time has progressed and hypnotism has advanced. Dr. Liébault is now well known. France claims him as one of her celebrities, and all he says and writes is accepted. Success has not changed him, his innate modesty will not, unfortunately, permit our offering his likeness to the reader, for he refuses to be photographed, saying that "photographs of clinics or doctors do not add to the value and reputation of a school."

Dr. Liébault's pupils have revealed him to the world of science; it is they who have quoted him, and by their own authority have enforced him on the public attention. Among the most distinguished are: Professor Liegeois of the Faculty of Law, who loudly expresses his regret that his master's book is too dear, and therefore not sufficiently popularized: and Professors Bernheim and Beaunis, both eminent physiologists of the Faculty of Medicine.

The theory of the Nancy school is, that the different physiological conditions characterizing the hypnotic state are determined by mental action alone; that the phenomena can best be produced in persons of sound physical health and perfect mental balance; and that this mental action and the consequent physical and psychological phenomena are the result, in all cases, of some form of suggestion.

The Nancy school of hypnotism is entitled to the credit of having made the most important discovery in psychological science. The fact that the subjective mind is constantly amenable to control by the power of suggestion, constitutes the grand principle in psychological science which, when properly appreciated and applied, will solve every problem and illuminate every obscurity in the labyrinthian science of the human soul, so far as it will ever be possible for finite intelligence to penetrate it. It is safe to say, that in all the broad realm of psychological science, there is not a phenomenon upon which it will not shed light. It is no discredit to say that its leaders and teachers do not yet seem to comprehend the profound significance of their discovery—as yet, this vast find—is only understood in its rudimentary forms.

The Nancy school produces all its phenomena by oral

suggestion, and ignores the fact that the sleep can be produced in the absence of any form of suggestion. It repudiates Braid's method of inducing it as unnecessary, and also as injurious, in that the physical disturbance of the nerve centres unduly excites the patient.

The Nancy school attributes all the phenomena, including the induction of the state, to the *power of suggestion*, and that it is to the psychic powers and attributes of man alone that we must look for an explanation. Thus the Nancy school, true to its theory, employs suggestion alone to induce the condition. Passes are sometimes made over its subjects after the manner of the mesmerists, but only with a view of giving an air of mystery to the proceedings, and thus adding potency to the suggestion.

As for the therapeutic suggestions and their efficacy, they by no means imply the abolition of will; the subject wishes to be cured, lends himself to the idea, and aided by his own imagination is oftentimes successfully cured.

We have often heard it said, "that hypnotism is dangerous to the patient;" we wish to state here, that such is not the case. All the faults that can be found with hypnotism can be found with drugs, and many more. Dr. Liébault, who has used hypnotism therapeutically in France for about thirty-three years, has watched cases for a long time without finding bad consequences.

Among the many objections raised to suggestive therapeutics is the assertion that the patients do not retain any lasting improvement, and few real cures are proved. Doctor Moll, answers the above as follows:

"The results are by *no means transitory;* on the contrary, a large number of *lasting cures* have been observed and published. I have seen many cases where there was

no relapse for years. One cannot ask for more. I have known patients to be cured for years, and die from another disease. The objection that the improvement may be only temporary is thus not justified. But even were this so, we must still rejoice to have found a way of procuring even temporary relief. For instance, in difficulties of menstruation, it is a great thing if we can succeed in subduing pain for a time. If the pain returns a new hypnosis may be induced; it is always to be had, and as it generally becomes deeper the more it is used, it is less likely to lose its effect, (even in relapses) than drugs which often do so quickly. In any case, therapeutics are not yet so far advanced, as to give us the right to reject a remedy merely because it only effects symptoms or has often merely a temporary value. If, we doctors were to reject remedies which suppress the phenomena of disease for a time only, we might abandon a large part of therapeutics, perhaps the whole. Besides, from some methods of treatment nothing but a temporary improvement is expected, and yet this temporary improvement is considered to prove the value of the method. Remedies should not be weighed and measured by different standards "

Perhaps it would be well for the reader at this stage to become acquainted with the different degrees of hypnotism, and as no better classifications can be found than those given by Dr. Bernheim in his book "Suggestive Therapeutics," which has been translated by Christian A. Herter, M. D. If you want to own or read this book (which perhaps is the best publication on Hypnotism to be found translated into English), we can send it to you by registered mail, price \$3.75. It is a large, handsome book

of some four hundred pages closely printed. It is a book every one interested in hypnotism should own.

Dr. Bernheim was a professor of medicine in the faculty at Nancy. This work has won for him well deserved renown everywhere, and his honesty and truthfulness would not be questioned by any reliable medical authority in the civilized world.

"FIRST DEGREE.—The patient does not exhibit catalepsy, anæsthesia, hallucination, nor sleep, properly so-called. He says he has not slept, or that he has been only more or less drowsy. If sleep is suggested to him, he is content to remain with his eyes closed. He must not be dared to open his eyes, however, because then he opens them. The influence obtained may appear as naught or as doubtful, yet it exists; because if neither sleep, catalepsy, nor any other manifestations may be provoked, suggestibility can nevertheless assert itself through other influences. For example, a suggestion of heat on a determined part of the body may be induced, certain pains may be destroyed, and evident therapeutic effects may be obtained."

"I have succeeded in some cases, to all appearance refractory, in inducing all the regular manifestations of hypnotism, by suggestions, causing pains of a muscular or inveterate nervous character to disappear—evident proof that suggestibility exists for certain organic activities.

"SECOND DEGREE.—The patient has the same appearance as in the preceding degree and presents the same negative symptoms. If sleep is suggested, he remains with his eyes closed without really sleeping, or is only drowsy; but he differs from the subject of the preceding

degree, in that he cannot open his eyes spontaneously if he is dared to do so. Here the influence is evident."

"THIRD DEGREE.—The patient is susceptible to suggestive catalepsy whether the eyes are open or shut, and whether he is drowsy or wakeful. As we have already stated, this catalepsy varies in intensity. In the degree of which we are speaking, the patient retains the position induced or suggested, unless challenged to alter it. If he is challenged, he regains consciousness, so to speak, and succeeds in changing his position by an effort of the will. To a superficial observer, the influence may appear doubtful, but this is no longer the case, if upon repeating the experiment, it is shown that the patient keeps his passive position from inertia, so long as his dormant will is not roused.

"FOURTH DEGREE.—In this degree, the suggestive catalepsy is more pronounced and resists all efforts on the part of the subject to break it. The influence is evident. The subject may be convinced that he is influenced by showing him that he cannot alter the position induced.

"Besides this, suggestive catalepsy and automatic rotatory movement in the upper extremities may sometimes be induced, which may continue for a long time. In some cases this motion is obtained by simply communicating the impulse. In others, catalepsy, some patients succeed in checking the motion by an effort of the will if they are dared to do so; others do not succeed in spite of all effort.

"FIFTH DEGREE.—In addition to the cataleptic form condition, accompanied or unaccompanied by automatic movements, contractures varying in degree may be

induced by suggestion. The patient is dared to bend his arm, to open his hand, to open or shut his mouth, and he cannot do it.

"SIXTH DEGREE.—The patient exhibits, moreover, a more or less marked docility, or automatic obedience. Though inert and passive if left to himself, he rises at a suggestion, walks, stands still if ordered, and remains fixed to a spot when told that he cannot advance.

"As in the preceding degrees, he is susceptible neither to sensorial illusions nor to hallucination.

"The subject in these different categories remembers everything upon waking. Some, however, are conscious of having slept: They remain inert, passive, without spontaneity and without initiative. This is the case to such a degree, that they cannot be roused from their torpid state until the intellectual initiative regains the upper hand, and they come out of the condition spontaneously. Some do not know whether they have really slept, and others positively state that they have not been asleep. But in cases included under the last three degrees, the patients can be convinced that, if they have not slept, they have been at least influenced.

"Between a perfectly conscious condition and deep sleep all transitions exist. It is certain that in many subjects belonging to these different categories, intelligence and sensibility remain active during hypnosis. Others have only certain symptoms of the sleep; the lack of initiative, inertia, sensation of drowsiness and the closed eyelids, or their minds reacting to the operator whom they answer and obey, seem uninfluenced by other people whom they do not appear to hear, and to whose questions they give no answer.

"It is often difficult to penetrate the psychical condition of the subject hypnotized. Observation requires nicety, and analysis is subtle. Some cases are doubtful, simulation is possible and easy, and it is still easier to believe in simulation where it does not exist. Certain subjects, for example, keep their eyes closed while the operator is hypnotizing them. When he ceases to look at them their eyes open, and close quickly when he again fixes his gaze upon them. There is every appearance of deceit. The assistants believe it a fraud. They pity the operator's naïve credulity and think the subject is deceitful, or that he is acting to oblige the operator.

"This occurs daily in the presence of my pupils. I show them, however, that the subject is not deceiving me, and that I am not imposed upon, by hypnotizing him again, and inducing catalepsy or contracture out of which I challenge him to come, requesting him at the same time, not to think of obliging anyone.

"This tendency which certain subjects have to open their eyes again, and come out of their inertia as soon as the operator ceases to influence and watch them, this apparent pretending which is especially frequent in children, exists even in certain somnambulists, and one would swear that deception had been practised in these cases. Nevertheless, the subject remembers nothing upon waking."

"The majority of patients, however, remain with eyes closed for some time, apparently or actually asleep. They only open their eyes after the influence has worn off or when they are told to awake." Considering these facts, I cannot repeat too often that the hypnotized subject is not a lifeless corpse or a body in a state of lethargy, for even though he is inert he hears, is conscious, and shows

signs of life. We may see him laugh or try to smother a laugh. He may remark upon his condition. He sometimes pretends that he is cheating or that he is trying to be obliging. Behind the doctor's back, he boasts in good faith that he has not been sleeping, but has only pretended to sleep. He is not always aware that he is unable to pretend, and that his disposition to oblige is forced upon him, and is due to a weakening of his will or of his power of resistance. The majority, however, finally become aware of this want of power. They feel that they are influenced. They are conscious of having slept even when memory is preserved upon waking.

"In the degrees of which I shall now speak, there is no longer any uncertainty as to the hypnotic influence, for there is amnesia upon waking, which is sometimes complete, sometimes partial.

"The subject remembers imperfectly. He knows that he has heard voices, but does not know what has been said. He recalls some things. Other incidents of his hypnotic life are obliterated. These degrees of hypnotism in which memory is destroyed upon waking, we call somnambulism. In certain cases, somnambulism last only during particular moments of the hypnosis. Here there is sleep; if by sleep we mean that condition of the mind which leaves behind it forgetfulness of all that has occurred during its existence. It is in this somnambulistic condition that we find subjects susceptible to hallucination, analgesia, and suggestions of acts. Suggestibility here reaches its highest development. There are many variations however in this condition.

"SEVENTH DEGREE. — Cases in which there is amnesia upon waking but in which hallucinations cannot be

induced, I consider as belonging to this degree. Almost all somnambulistic subjects in this degree are susceptible to catalepsy, contractions, automatic movements and automatic obedience. One or the other of these phenomena, however, may be wanting. Sometimes all are absent, but this is exceptional, as we have said. Amnesia upon waking is the only symptom characteristic of somnambulism. The eyes may be open or shut in this as in the following condition.

"EIGHTH DEGREE.—There is amnesia upon waking as well as a great number of the phenomena observed in the preceding degrees. Susceptibility to hallucination during sleep is increased, but post-hypnotic hallucinations cannot be induced.

"NINTH DEGREE.—Amnesia upon waking, with the possibility of inducing hypnotic and post-hypnotic hallucinations.

"These hallucinations are more or less complete and distinct. They may succeed with certain senses, for example the olfactory and auditary, but not with others, as the visual. In many cases all the most complex hallucinations are perfectly carried out. Many more phases could be mentioned according to the power of mental representation which in each subject calls forth images with greater or less clearness and vividness.

"More or less complete suggestive anæsthesia or analgesia may be met with in all degrees of hypnotism. It is generally more frequent and more pronounced in instances of the degrees last mentioned; those in which there is deep somnambulism and where there is great aptitude for hallucinations.

"By stating the facts in this way, I believe I came

nearer the truth. Hypnotism manifests itself in different subjects in different ways. There may be simply drowsiness, or other induced sensations, as heat, prickling, cold, etc. This is the lightest influence. We have more marked effects when suggestion affects motility; develops the cataleptic condition, the inability to move, contraction and automatic movements. It is still more decided when it affects the will and causes automatic obedience. All these manifestations of motion, will, and even sensibility can be affected by suggestion with or without sleep, and even when it is powerless to induce sleep. In a more intense degree, suggestion produces sleep or an illusion of sleep. The subject convinced that he is sleeping, does not remember anything upon waking. In general, the more advanced degrees of suggestion affect the sensorial and sensory spheres - memory and imagination. Illusions may be created and destroyed, and the imagination may call forth the most varied memory pictures.

"I insist upon the fact that all or some of these suggestions may be realized with or without sleep. Other suggestions may succeed where that of sleep itself remains useless, for the sleep is also nothing but a suggestion. It is not possible in all cases, and it is not necessary in cases of good somnambulism in order to obtain the most diverse phenomena. They can be dissociated, so to speak, from sleep. Catalepsy, paralysis, anæsthesia, and the most complex hallucination may be realized in many cases without the necessity of preceding these phenomena by sleep. Susceptibility to suggestion occurs in the waking state.

"To define hypnotism as induced sleep is to give a too narrow meaning to the word—to overlook the many phenomena which suggestion can bring about independently of sleep. I define hypnotism as the induction of a peculiar psychical condition which increases the susceptibility to suggestion. Often, it is true, the sleep that may be induced facilitates suggestion, but it is not the necessary preliminary. It is suggestion that rules hypnotism."

"I have tried to show that suggested sleep differs in no respect from natural sleep. The same phenomena of suggestion can be obtained in natural sleep, if one succeeds in putting one's self into relationship with the sleeping person without waking him.

"This new idea which I propose concerning the hypnotic influence, this wider definition given to the word hypnotism, permits us to include in the same class of phenomena all the various methods which, acting upon imagination, induce the psychical condition of exalted susceptibility to suggestion with or without sleep."

Later on, when speaking of the subject of hypnotic fascination, you will see how the above can be applied to

the patient.

The following table made from a considerable number of cases and presented to M. Dumont by M. Liébault, gives an idea of the proportion of patients of all ages, of both sexes, and of all temperaments, subdivided into the different categories of sleep.

Tent categories of steep.				
Year 1880,	1012	person	s hypno	tized
Refractory,	-		-	27
Somnolence, heaviness,	-	-	-	33
Light sleep, -	-			100
Deep Sleep,	-	-	-	460
Very Deep Sleep,	-			230
Light Somnambulism,	-	-	-	31
Deep Somnambulism,			-	131

"It is doubtless necessary to take account of the fact that M. Liébault operates chiefly upon the common people who come to him to be hypnotized—to be cured of disease—and who, convinced of his magnetic power show greater cerebral docility than more intelligent people. Perhaps, the number of cases influenced would be less without these favorable and predisposing conditions. I have been able to prove, however, that refractory subjects constitute a small minority, and I succeed in hypnotizing subjects at the first trial, daily, who come to my office with no idea what the hypnotic sleep is.

Persons who can be hypnotized, and who, when they wake, have no recollection of what has happened during sleep, we call somnambulists. It seems to us that this proportion may be considerably increased if the sleeping subject is told, "When you wake, you will remember nothing." In a certain number of cases, amnesia is thus produced by suggestion.

Success in mental and physical healing depends upon proper conditions. This is a self-evident proposition, which the average healer is slow to understand and appreciate.

The success of the physician depends as largely upon his knowledge of the idiosyncrasies of his patient, his personal habits, his mode of living, his susceptibility to the influence of medicine, etc., as upon a correct diagnosis and medicinal treatment of the disease. In like manner the success of the mental healer depends largely upon his knowledge of his patient's habits of thought, his beliefs, his prejudices, and above all, his mental environment.

These remarks apply to all methods of mental healing, no matter by what name the science is called, whether by mental suggestion as distinguished from oral suggestion. Hypnotism as practiced by the Nancy school may stand as the representative of mental treatment of disease by purely oral suggestion.

It must be remembered that much harm is done to the cause of mental healing, or in other words to hypnotism, by claiming for it too wide a field of usefulness. (Theoretically, all the diseases which flesh is heir to are curable by mental processes. Practically, the range of its usefulness is comparatively limited. The lines of its field are not clearly defined, however, for the reason that so much depends on the idiosyncrasies of each individual patient. A disease which can be entirely cured with hypnotism in one case refuses to yield one jot in another, the mental attitudes of the patients not being the same. Besides, the mental environment of the patient has much to do with his amenability to control by mental processes. In an atmosphere of incredulity, doubt and prejudice, a patient stands little chance of being benefited by hypnotism; however strong may be his own faith in mental therapeutics. Every doubt existing in the minds of those surrounding him is inevitably conveyed telepathically to his subjective mind, and operates as an adverse suggestion of irresistible potentiality. It requires a very strong will, perfect faith, and constant affirmative auto-suggestion on the part of the patient to overcome the adverse influence of an environment of incredulity and doubt, even though no word of that doubt is expressed in the presence of the patient. It goes without saying that it is next to impossible for a sick person to possess the necessary mental force to overcome such adverse condition. Therefore, it is easily seen, how necessary it is for both patient and hypnotizer to be in perfect accord with one

another, and also, that discording persons should not be present when a patient is to be hypnotized.

Suggestion is the sole method employed by the Nancy school of hypnotism. The hypnotic condition is induced solely by oral suggestion, and the disease is removed by the same means. There can be no doubt of the efficacy of the method, thousands of successful experiments have been made by Dr. Liébault and his colleagues. These experiments have demonstrated the existence of a power in man to control, by mental processes, the functions and conditions of the human body. They have laid the foundation of a system of mental therapeutics, which must eventually prove of great value to mankind, or as Thomson Jay Hudson, LL.D., says in his book, "The Law of Psychic Phenomena'': "They have done more. have demonstrated a principle which reaches out far beyond the realm of therapeutics, and covers all the vast field of psychological researches. They have demonstrated the constant amenability of the subjective mind to control by the power of suggestion.

"It is not surprising that those who have discovered this great principle should insist upon its applicability to every phenomenon within range of their investigation."

Remember that the Nancy school believes in the power of suggestion, but confines its faith to Oral Suggestion only.

# CHAPTER IV.

#### HYPNOTISM.

Dr. Liébault of Nancy—Description of his treatment and the method employed at the School at Nancy—His system free from Mysticism—Curative Suggestion, as applied by Dr. Liébault—Absolute sleep or unconsciousness unnecessary for curative treatment—Different stages of Hypnotism, as known at the Nancy School.

THE compiler feels indebted for the following remarks to C. Lloyd Tuckey, M. D., of England, writer of the very valuable book, "Psycho Therapeutics." This book is published in London, England, and we had great difficulty in obtaining a copy.

"If the visitor to Dr. Liébault's Dispensary be one who measures results by the impressiveness of the means used, he will surely be disappointed to find how common place 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 laboring classes; and the Doctor, himself, though he has goodness and kindliness written on every feature of his unimposing appearance, and chats on all sorts of subjects with the persons around him.

"The patient paying his first visit is directed to sit down and watch the treatment being applied to others.

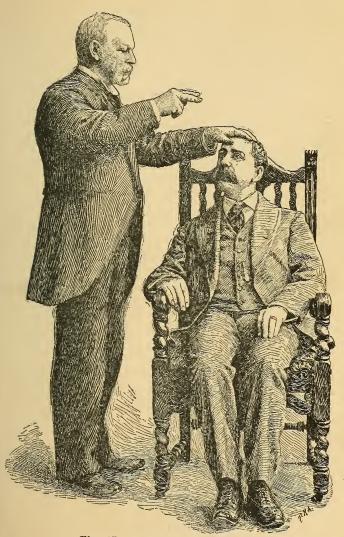


Fig. (I.) The Suggestive Method. Original Portraits. Copyright by M. Young, August, 1899.



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 blank as possible—to think of nothing—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, or in other words the hypnotic sleep, 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 can not 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 and 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. Liébault 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 generally 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. Liébault 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 arm chair in favor 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 employment as usual.

"Long acquaintance with the system prevents an inhabitant of Nancy from regarding it as anything remarkable, and a sick person consults Dr. Liébault 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. Dr. Liébault generally places his hand over the epigastrium, and applies gentle friction, suggesting as he does so, a sensation of warmth. He regards a responsive glow as almost essential to the success of subsequent treatment, and it is the first link in the chain which constitutes rapport between Physician and Patient.

"The fulfillment of the first suggestion tends to augment the patient's confidence, and leads to the more ready reception of those which follow. This point is one of great practical importance, and we generally feel we can do good when we can induce this responsive warmth, no matter how slight the hypnotic influence may be. The feeling is quite different to that produced by simple friction, and requires to be felt to be appreciated. The

magnetizers attributed it to the passage of magnetic fluid from them to the patient, but as we regard all the manifestations of hypnotism as subjective, we must of course seek another explanation. This is found by supposing that the sensation is due to action on the vaso motor system through the solar plexus, allowing a sudden afflux to the part. 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. Liébault 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 to tire the sight. The effect of the strain is to cause dilation of the pupils, and consequent dimness of the 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 guess work. 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 an uninteresting lecture. 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.

"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. They are received as true, and the idea tends to be realized, and to be carried into execution as action. If he is told to move a paralized limb, or to speak after months of loss of voice, any 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.

"The suggestive method is especially applicable to chronic complaints; rheumatic and gouty pains often yield to it. 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 suffering of all kinds. In chronic constipation and diarrhœa it has excellent effects, and patients usually find that they are becoming regular through its use. Nervous affections of the eyes, some forms of deafness, the sick, and those reduced in strength, are exceptionally good subjects for hypnotic suggestion, and therefore offer a very favorable field for its employment.

"Dr. Liébault strongly recommends the treatment for sprains and muscular strains. In such cases it may be combined with gentle massage of the injured part. Insomnia and hysteria are benefited by the treatment. That border land of insanity occupied by the opium habit, and the excessive use of tobacco and other narcotics, offers an extensive field of usefulness to suggestive treatment. Persons whose nervous systems are broken down in this way are very easily hypnotized, and Dr. Liébault puts such a patient in profound sleep, and then tells him that he was to give up smoking and chewing, that a pipe was to be to him an object of loathing, and a quid of tobacco even more offensive. Also if he did indulge in one or the other pain and severe sickness would be the result, so that he must not even feel a desire for the indulgence. The patients come daily for several mornings, and daily show an increasing improvement, till in a week they are completely cured of the symptoms of nicotine poisoning.

"Cures worked by suggestion are of as permanent a character as cures effected by any other means. Relapses occur in many diseases, no matter what treatment has been employed.

"At first some patients will perhaps appear insusceptible. This must not cause discouragement, for in many cases the hypnotic influence is not felt until after three or more trials. Patients should always be thoroughly awakened before leaving the person hypnotizing them. This should never be forgotten.

"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.

"The dangers of hypnotism, are, I believe, much 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 in fact, it is his own will which sends him to steep. Nevertheless, there is no doubt that after a time the on-coming of sleep is less under the patient's control, and when a person is continually being hypnotized by the same operator, the hypnotic state can be reproduced with surprising readiness.

"With our present knowledge, it seems impossible to explain certain phenomena connected with advanced hypnotism. The subject, will, under the simulation 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. Why should the hypnotized subject be deaf to all sounds except the voice of the operator, and hear and obey that voice, though it be the faintest whisper, and the surrounding sounds a perfect Babel?

"THE REALITY OF HYPNOTIC PHENOMENA.—Sceptics we find who entirely deny the existence of the hypnotic state, also others who 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, Krafft-Ebing, Preyer, Beaunis, Lombroso, Myers and others.''

The work of such practical observers and clinicians as Bernheim and Liébault of Nancy, Voisin, Bérillon, Dumontpallier of Paris, Von Schrenk-Notzing of Munich, Van Reuterghein and Van Eden of Amsterdam, Albert Moll of Berlin, Wetterstrand of Stockholm, Cruise of Dublin, 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.

"The method I usually adopt to produce the hypnotic state is that practiced by Liébault, and is undoubtedly the easiest and most rapid. The treatment is psychical, and the 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 of 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 favor the advent of ordinary sleep."

"It is sometimes well to hypnotize one or two patients in the presence of a new-comer, so as to arouse his invitative 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 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 far away look coming into his face. His pupils will contract and dilate several times, and his eyelids will twitch spasmodically. These signs indicate a commencing in direction 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 suggestion such as 'Your eyes are becoming very heavy; they are getting more and more heavy; my fingers seem quite 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 temperment 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 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 awakening. After a few minutes I tell the patient to awake, he has rested long enough, and that he can open his eyes and arouse himself. He generally obeys at once, and says he feels refreshed and comfortable. I ask him what he

remembers of his few minutes rest, and he generally tells me he has heard every word I said to him, and also any other sound there may have been, but he adds 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 the 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. Liébault is invariably confident of doing good to the patient in whom he can produce it if the malady is a tractable one.

Dr. Liébault also believes in the efficacy of magnetized water as a curative means, that is, water into which the practitioner has dipped his fingers; the water to be applied to the diseased parts. When Dr. Liébault first noticed the influence this liquid had upon young children of a few weeks or a few months old, he—the adept and apostle of the theory of suggestion—felt his convictions shaken. He began to doubt whether suggestion was indeed the final expression of hypnotism, and whether the fluid theory ought to be definitively set aside.

Dr. Liébault also freely admits the fact that a specific influence is sometimes exerted by the mesmerizers or hypnotizer upon the subject, which does not arise from oral suggestion.

Professor Beaunis has also expressed somewhat similar doubts.

Professor Bernheim, however, clings to his own system, which the whole scientific world acknowledges he does wonders with.

However, *suggestion* has developed hypnotism, and no matter what the future adds to the science, suggestion will always hold an important place in the curative qualities of hypnotism.

There is nothing to differentiate hypnotic sleep from natural sleep. Startling as this proposition may appear to the superficial observer, it is fully concurred in both by Dr. Liébault and Professor Bernheim.

"There is no fundamental difference," says the latter, between spontaneous and induced sleep." M. Liébault has very wisely established this fact. The spontaneous sleeper is in relationship with himself alone, the idea which occupies his mind just before going to sleep, the impressions which the sensitive and sensorial nerves of the periphery continue to transmit to the brain, and the stimuli coming from the viscera becomes the point of departure for the incoherent images and impressions which constitute dreams.

Have those who deny the psychical phenomena of hypnotism, or who only admit them in cases of diseased nervous temperament, ever reflected upon what occurs in normal sleep, in which the best balanced mind is carried by the current, in which the faculties are dissociated, in which the most singular ideas and the most fantastic conception obtrude? Poor human reason is carried away, the proudest mind yields to hallucinations, and during this sleep—that is to say, during a quarter of its existence—becomes the plaything of the dreams which imagination calls forth.

In induced sleep, the subject's mind retains the memory of the person who has put him to sleep, whence the hypnotizer's power of playing upon his imagination,

of suggesting dreams, and of directing the acts which are no longer controlled by the weakened or absent will.

It is obvious therefore, that the subjective mind is amenable to control by suggestion during natural sleep, just the same as it is during hypnotic, or induced sleep. It might not be unprofitable in this connection to enter into a general inquiry as to how far it would be possible to control our dreams by auto-suggestion, and thus obviate the discomforts incident to unpleasant nocturnal hallucination. But we have not space for such an inquiry.

Dr. Liébault says: "Hypnotism, like natural sleep, exalts the imaginations, and the brain is more susceptible to suggestions. The strongest minds cannot escape from hallucinatory suggestions of their dreams. It is a physiological law that sleep puts the brain into such a psychical condition that the imagination accepts and recognizes as real the impressions transmitted to it. To provoke this special psychical condition by means of hypnotism, and to cultivate the suggestibility thus artificially increased, with the aim of cure or relief, this is the rôle of psychotherapeutics as used at the Nancy School."

This is a case that demonstrates the power of hypnotism over muscular rheumatism, as quoted by Dr. Bernheim:

"A child was brought in with a pain, which pain dated back four days, muscular rheumatism in the right arm; the arm was painful to pressure. The child could not lift it to its head. I said to him, 'Shut your eyes and go to sleep.' I held his eyelids closed, and talked to him. 'You are asleep, and you will keep on sleeping until I wake you up. You are sleeping very well as if you were in bed. You are perfectly well and comfortable. Your arms and legs

and whole body are asleep, and you cannot move.' I took my fingers off his eyelids and they remained so. Then touching the painful arm I said: 'The pain has gone away. You will have no more pain; and when you wake up you will not feel any more pain. It will not come back any more.' In order to increase the force of suggestion by embodying it, so to speak, in a material sensation, I suggest a feeling of warmth-Loco-dolenti. The heat took the place of the pain. I said to the child, 'You feel that your arm is very warm; the warmth increases, and you have no pain.' I woke the child in a few minutes; he remembered nothing. The sleep had been profound. The pain had almost completely disappeared. The child lifted the arm easily to his head. I saw the father on the days following and he told me that the pain had disappeared completely, and there was no return of it."

"In such cases as the above sometimes, the pain persists, or is simply diminished; it may gradually disappear after two or more treatments. In other cases it may be diminished when the subject awakes, and may continue growing less until it disappears without a new hypnotization. If not, a new suggestion may succeed, especially if a deeper sleep can be induced. (For absolute sleep or unconsciousness is much more successful in curing than a light hypnotic sleep). The pain taken away for the moment may return in several hours or even days, and may only yield definitely after a variable number of hypnotizations.

"Finally, only certain troubles or complaints may be effected. Others resist the attempt. We can understand that the effect obtained is subordinate both to the subject's suggestibility and to the psychical cause which determines

the symptoms. Muscular pains, the painful points in phthisis certain dynamic contractures, even though bound up with organic affections of the nervous centre, certain movements which remain after chorea, incontinence of urine from which children suffer at night, etc., often disappear as if by enchantment, after a single suggestion or after several."

The mode of suggestion should be varied and adapted to the special suggestibility of the subject. "A simple word does not always impress the idea upon the mind," says Dr. Liébault. "It is sometimes necessary to reason, to prove, to convince; in some cases to affirm decidedly; in others to insinuate gently; for in the condition of sleep, just as in the waking condition, the moral individuality of each subject persists according to his character, his inclinations, his special impressionability, etc."

Hypnosis does not run all subjects into a uniform mould, and make pure and simple automatons out of them, moved solely by the will of the hypnotist; it increases the cerebral docility; it makes the automatic activity preponderate over the will. But the latter persists to a certain degree, the subject thinks, reasons, discusses, accepts more readily than in the waking condition, but does not always accept, especially in the light degrees of sleep. In these cases, we must know the patient's character, his particular psychical condition, in order to make an impression upon him.

Therapeutic suggestions is not infallible, though it gives good results in a large number of cases. It may even fail when it is intelligently and persistently managed. The cause of failure is inherent sometimes in the disease, sometimes in the subject.

No scientific hypnotist adheres rigidly to any one method. He finds that where it is the brain that is most intimately concerned, the idiosyncrasies and character of each subject must be studied and a method chosen which seems most likely to take effect. In all the difference of details, there is one main principle now recognized by the whole body of scientific hypnotists, and this is the Nancy method of *Suggestion*.

Suggestion influences common sensations in the same way as the functions of the organs of sense. Nothing worthy of remark takes place in hypnosis with regard to this, unless suggestion is called into play.

Dr. Moll says, "Suggestion plays a very important part in hypnotism. We can influence common sensation very materially by suggestion in hypnosis. This is not surprising when we consider that it is exactly the common sensations which are most under the influence of mental processes. Just as looking down from a tower causes giddiness, as the thought of repugnant food produces disgust, so we can call up these, and related phenomena, or cause them to disappear. It is in this direction that suggestion has to record its most striking successes, since the common sensations, of which pain is one, are the cause of most of the complaints we hear. As pain, etc., can be induced by suggestion, so by suggestion it can often be banished. I say to a subject who complains of want of appetite, 'The loss of appetite has disappeared, you are hungry.' I can cause another to feel thirst. Feelings of pleasure can likewise be excited.

"Debove, on the other hand, has induced loss of appetite by suggestion, to such an extent and for so long a time that the person concerned took no regular meal for fourteen days. Further, it is possible up to a certain point to satisfy the hunger and thirst of subjects in deep hypnosis by merely suggested food and drink, as Fillasier informs us. It is a pity, however, that this result can only be obtained with a few persons, and in a certain measure; for otherwise our politicians would no longer need to puzzle their heads over social questions and the feeding of the masses."

To define hypnotism as induced sleep, is to give a too narrow meaning to the word—to overlook the many phenomena which suggestion can bring about independently of sleep. I define hypnotism as the induction of a peculiar psychical condition which increases the susceptibility to suggestion. Often, it is true, the sleep that may be induced facilitates suggestion, but it is not the necessary preliminary. It is suggestion that rules hypnotism.

The following study of hypnosis, we find in Professor Bernheim's book, "Suggestive Therapeutics." It shows the phenomena and manifestations of hypnosis.

"Sometimes the eyes close suddenly before anything has been said, and the subject falls a lifeless mass. Sometimes sleep comes gradually. In some cases the eyelids remain motionless when closed. In others they quiver as long as the hypnosis lasts. In light sleep, the eye-balls retain their normal position. When the sleep is deep, they are often rolled up and the pupils are hidden under the upper eyelid.

"Sometimes nervous subjects have muscular twitching of the limbs and fibrillary contraction of the face while asleep. The majority, however, are inert, or become so after suggestion. Some subjects make reflex movements, scratch themselves, for example, rub their hands together and change their position. Others, on the contrary, remain perfectly quiet."

"Sensibility in its different forms, is more or less modified. It is preserved in light sleep. Tickling, the prick of a pin, or the touching of a painful spot, causes reflex movements, and the subjects wake."

"In deep sleep, sensibility is diminished or totally destroyed. According to M. Liébault, it first disappears in the extremities, and the periphery of the body is always the most anæsthetic part. Further examinations of the organ of sensation show that the senses of sight and taste are the first to become dull. The sense of smell comes next, while hearing and touch are the last to be lost. The visual sense loses its function last when the methods of the hypnotizers are employed, (fixation on some objects as, for instance, the operator's fingers or eyes) because the forced attention of the eyes compels them to remain active the latest.

"If the anæsthesia or deep sleep is complete, a pin may be stuck into the skin, electricity may be applied, objects may be pushed up into the nostrils, ammonia may be held under the nose and the subject will not even wince. This complete anæsthesia may be spontaneously developed by simple hypnotization.

"In other subjects it is not spontaneous, but may be induced more or less perfectly by suggestion. Sometimes—in fact, in many cases—anæsthesia occurs only through suggestion. And often only a certain degree of anæsthesia can be induced by suggestion.

"In a certain number of cases then the hypnotic insensibility is complete enough to enable the most difficult surgical operations to be performed. But this is not true

of the majority of cases. Hypnotism cannot be generally used as an anæsthetic in surgery; it cannot take the place of chloroform. Moreover, the hypnotic condition is often hindered by the subject's anxiety at the time of an operation.

"Changes in mobility are more usually and more easily induced than changes in sensibility. All hypnotic subjects excepting those of the first degree, are susceptible to suggestive catalepsy.

"We have seen that this phenomenon is manifested in different ways, according to the manner and degree of the susceptibility to suggestion. The mind executes the suggestion with more or less contraction or contracture. Sometimes the catalepsy is flabby, and the upraised limb falls at the least pressure. Sometimes the catalepsy is firmer without being rigid-wax-like rigidity. The limbs yield to any motion communicated to them. Sometimes it is true, rigid catalepsy, which I shall call tetanic catalepsy. As soon as the patient is asleep, I lift his arms and legs without speaking. They remain fixed as if tetanized in the attitude communicated. This rigidity is generally much greater in the upper than in the lower limbs. In some few cases the whole body may be thus made immovable, and tetanized to such an extent that the head may be put on one chair and the feet on the other, and the body pressed against without the contracture being overcome.

"Suggestion alone always succeeds in destroying this tetanic condition. I say, 'I can lower your arm and move it as I wish.' The rigidity then vanishes.

"I repeat that in the majority of subjects hypnotized, it is not necessary to formulate the suggestion in order-to induce catalepsy in the limbs. The psychical condition-

is such that all ideas received by the brain are imprinted there, and any attitude communicated to a limb is maintained. The position given to the limb by the operator is accepted by the patient's brain like an imagined suggestion. There is not enough cerebral initiative to modify the induced muscular condition spontaneously.

"A deeper degree of hypnosis seems to be required for the production of automatic movements than for simple catalepsy. In many cases, however, these movements are induced either at first or at one of the following hypnotizations. Both arms are lifted horizontally and rotated one above the other. The patient keeps on moving them spontaneously or in obedience to command. Some subjects move them in a hesitating way, betraying a useless endeavor to stop them. Others, sleep more deeply, turn their arms quickly, regularly, and automatically. I say, 'Do all you can to stop them.' Some can make no effort, others try, but are unable to stop this perpetual movement, which dominates what remains of their will. If I stop one hand, the other keeps on turning alone. An automatic movement of the legs may also be induced, but this is much less frequent.

"In some cases of very deep sleep, these automatic movements occur through imitation. I stand in front of the patient and turn my arms one above the other. The subject imitates me. I make the movement in the opposite direction; he does the same. I put my finger to my nose; he imitates me. I stand on one leg; he stands on one leg also. I stamp my foot on the floor; he does likewise. The movement I make suggests to his mind the idea of the same movement.

"We must add, a subject who has been hypnotized

and subjected to these experiments several times, executes them more promptly and more perfectly. Sometimes it is sufficient to lift both arms horizontally. He suspects what is wanted, and turns them one about the other. It is enough to close his hand lightly, and he contracts it with irresistible force. In some cases, the contracture is so great that the hand can hardly be opened again when the order is given to open it.

"Suggestion induces paralysis as well as contracture. I tell a patient that his arm is paralyzed. If I lift it, it falls motionless, while the other arm, which I have not paralyzed by suggestion, remains up in a cataleptic condition. In some cases, the suggestion disappears quickly, the subject forgets it in a few minutes, in others it lasts a long time.

"Each subject carries out a suggestion as he conceives it, as he interprets it. In hypnotism the subject's condition is such that the idea suggested imposes itself with greater or less force upon the mind, and induces the corresponding action by means of a kind of cerebral automatism. The phenomena arise apart from the operator's will, if by gesture or by touch, interpreted by the subject's mind, he manifests a desire which the subject cannot resist. The subject's movements, induced by a certain sensorial impression, are instinctive and automatic. The patient's brain directs the movement naturally indicated by this attitude.

"The subject more deeply influenced by hypnotism, passes into a condition known as somnambulism. Then new phenomena appear. The automatism is complete. The human organism has become almost a machine, obedient to the operators will. I say rise, and he rises. One subject gets up very quickly, another obeys slowly,

the machine is lazy, the command must be repeated in an authoritative voice. I say 'walk'; he walks. 'Sit down,' and he sits down.

"Somnambulists can write, work, play the piano, and converse among themselves. Seeing them act thus, their eyes shut, or open as in waking condition, one would swear they were not asleep. When left to themselves, they are generally passive and inert, but they become active and move about under the influence of suggestion.

"I wish to call attention to one of the most interesting phenomena of somnambulism. I wish to speak of the possibility of inducing in somnambulists, by means of suggestions, acts, illusions of the senses, and hallucinations which shall not be manifested during the sleeping condition, but upon waking. The patient hears what I tell him in his sleep but no memory of what I said remains. He no longer knows that I spoke to him. The idea suggested arises in his mind when he wakes, but has forgotten its origin, and believes it is spontaneous. Facts of this kind have been observed by A. Bertrand, Gen. Noiset, Dr. Liébault and Charles Richet.

"The effect of the suggestion of post-hypnotic acts is not absolutely inevitable. Some patients resist them. The desire to carry out the act is no doubt more or less imperative, but they resist it to a certain extent. It is also strange that suggested actions may be carried out not only during the time immediately following the sleep, but after a greater or less interval. If a somnambulist is made to promise during his sleep that he will come back on such and such a day, at such and such an hour, he will almost surely return on the day and at the hour, although he has no remembrance of his promise when he wakes up.

"Thus, a suggestion given during sleep may lie dormant in the brain, and not return to consciousness until the time previously fixed upon for his appearance. Further research is necessary to explain this curious psychological fact, and to determine how long a hypnotic suggestion may thus remain latent. It goes without saying, that all somnambulists are not susceptible to suggestions which take effect after a long interval of time.

"I have spoken of suggestions which give rise to acts. I proceed to consider sensitive—sensorial suggestions. Illusions of the senses and sensation may be suggested in the majority of somnambulistic cases. I say, 'When you wake, you will experience a numbness in your foot, or a cramp in your leg, a short pain in your tooth, or an itching of the scalp.' These different sensations appear in all or almost all cases of deep sleep.

"In certain cases, a negative hallucination may be suggested during sleep. This succeeds only in cases of very deep somnambulism." Says Dr. Liébault, "I have made a hypnotized subject see a person or a thing which was not before his eyes, by means of a suggestion given in the hypnotic or in the waking condition. I have created an image called forth by his mind. I have caused a visual hallucination."

However singular, however inexplicable may be the suggestive phenomena, which are realized to be true after long study, one cannot but still wonder, and often ask, where this science will lead to; for all thoughtful men acknowledge that it is yet in its infancy?

## CHAPTER V.

## HYPNOTISM.

M. Charcot experiments at La Salpêtrière—Dr. Burq's discovery— The method used at La Salpêtrière—Hysteria and Hypnotism closely combined, says M. Charcot—Neurosis theory has many followers.

In 1878, Charcot began his experiments at the Salpêtrière. It was in a strange manner, that he became interested in the science, that he has added so much to. It came about in the following way:

Doctor Dumontpallier, physician at the hospital of the Hôtel-Dieu, and President of the first International Congress on Hypnotism, held in 1889, gives the following account of the first researches which lent an impetus to the new science.

"In 1876, a man who thought himself dying, wrote to the great physiologist, Claud Bernard, saying that he would like to ascertain before he died whether he had deceived himself about certain facts that had been under his observation for the last twenty-five years. Claud Bernard, who was President of the Biological Society, considered that the request was suggested by a very creditable and justifiable sentiment, and at once acceded to the demand. A commission was named, composed

of Messieurs Charcot and Luys, with Dumontpallier as reporter. After a series of experiments which extended over more than a year, they confirmed the *Metalo-*Therapeutic theory discovered by Dr. Burq.''

This discovery was made in the following way. While practising as a young doctor, he had one day been obliged to go out, and had deemed it advisable to lock up a patient in his absence. Just as he was leaving the house he heard the sound as of a body suddenly falling. He hurried back into the room and found his patient in a state of catalepsy. M. Burq was at that time studying magnetism, and he at once sought for the cause of this phenomenon. He noticed that the door-handle was of copper. The next day he wrapped a glove around the handle, again shut the patient in and this time nothing occurred. He interrogated the patient, but she could give no explanation. He then tried the effect of copper on the subjects at La Salpêtrière, and found that a number were affected by it.

He was thus able to restore sensitiveness to some who had been deprived of it for many months. At the Salpêtrière the female patients were employed at needlework, and Burq gave them copper thimbles. Then he heard by chance that one of the patients who used a steel thimble had recovered her sensitivety. From that day metaloscopy was established, and Burq experimentalized with different metals, and found out their different action.

Magnetism had led to this important discovery, and the authentication of it recalled to mind the forgotten theories of Braid.

"Dr. Dumontpallier who recognizes in Burq a conscientious and intelligent inquirer, considers him the promoter—perhaps unconsciously so—of the revival of hypnotism.

Burq, however, held his peace. The mere mention of magnetism would have deprived him of his patients, and probably have doomed his discovery. He had already learned this to his cost, for at the outset he had been scoffed at and derided, and had very nearly been turned out of the hospitals."

Thus the discovery was made quietly and partly by accident.

The experiments were renewed at La Salpêtrière, and Charcot was led to adopt Burq's theory by the following circumstance.

"One day as he was going his rounds at the hospital, he received the visit of several English doctors, who, in the course of a discussion insisted on the great difference that existed in neurotic diseases in England and France.

"Anæsthesia, more especially, they urged, presented the greatest differences. The eminent doctor, in order to demonstrate his argument, suddenly pricked the arm of an habitually insensible patient. But to his intense surprise the patient screamed with pain, at which the English medical men exchanged glances of undisguised satisfaction. Charcot, anxious to clear up the mystery, if mystery there was, made a thorough examination, and discovered that Bulq had played the harmless joke of applying a gold plate to the patient's arm, and thereby restored the sensibility which for some years past had disappeared. Charcot then seriously joined in the labors of the commission on metalo-therapy, and was soon convinced like the others of its truth."

Thus, in 1878, Professor Charcot and his pupils began a series of experiments, and started a new scientific movement which continues to the present day. The enthusiasm evoked by Dr. Charcot for the new ideas has not diminished; the impulse came from too great an authority.

Monsieur Charcot was fortunate enough to rehabilitate hypnotism. His lectures at the Salpêtrière have also greatly contributed to rally physicians to the cause of hypnotism.

Since 1882, the study of hypnotism has been closely followed up in Paris, France, and numerous experiments have been made at La Salpêtrière.

The following are the principal doctors and writers on the subject, who are connected at the Salpêtrière:

Charcot and his pupils, Binet and Fèrè, Gilles de la Tourette and Babinski.

Perhaps the predominence of the School of the Salpêtrière is due to the fact that its chief is a member of the *Institute* (Academy of Science section). This learned body is justly considered as the *origin of knowledge*, the vivifying artery from which it flows; it is not therefore very surprising that once hypnotism has been admitted—in the person of its chief exponent—within its precincts, its existence and effects should have been acknowledged.

It is also the Salpêtrière School that first had the idea of classifying the different phases of hypnotic sleep into the lethargic, cataleptic and somnambulistic stages.

M. Charcot found that catalepsy with anæsthesia could be produced by fixing the gaze upon a bright light. He also produced somnambulism from lethargy by rubbing the top of the patient's head.

The various theories have finally become sifted down to the Neurosis theory of La Salpêtrière school, which

is the one supported by M. Charcot, and the theory of the school of Nancy, which is *suggestion*, and the contest between these two schools is still going on, and probably will for some years to come, or until all the world can agree upon Hypnotism.

We find many physicians of great scientific attainment using it successfully for the cure of disease.

Leading psychologists and physiologists in every civilized country in the world are studying it. Only a very few persons deny its existence. Still the public is ignorant of the real nature of hypnotism—as also are many scientific men. It certainly, yet retains many unsolved secrets which it invites the scholar to unravel.

"The La Salpêtrière school, ignores suggestion as a necessary factor either in the induction of the hypnotic state, or in the production of subsequent phenomena, and seeks an explanation of the subject-matter on the basis of physiology and cerebral anatomy.

"The La Salpêtrière school employs physical means to induce the state of hypnotism almost exclusively. They are practically the same as those employed by Braid, namely, causing the subject to gaze steadily at a bright object, although many variations of the method have been introduced, such as flashing an electric light in the eyes of the subject, striking a gong without warning close to the patient's ears, or by some periphecal excitation, such as rubbing the scalp.

The La Salpêtrière school holds that hypnotism is the result of an abnormal or diseased condition of the nerves; that a great number of the phenomena can be produced independently of suggestion in any form; that the true hypnotic condition can be produced only in persons whose nerves are diseased; and that the whole subject is explicable on the basis of cerebral anatomy of physiology.

The experiments that Dr. Charcot made at the Salpêtrière were made almost exclusively upon hysterical women, and that is very likely the reason why that school believes hypnotism to be a nervous disease, and that the disease is found in its most pronounced form in hysterical subjects. That this proposition is unqualifiedly wrong is positively known to every student of hypnotism outside La Salpêtrière school, and needs no further refutation than the bare statement that the experience of all other schools goes to demonstrate the fact that the best hypnotic subjects are perfectly healthy persons. However, it is well known that Dr. Charcot has by his cures done an immense amount of good, as the number he treated run up into thousands, and many were entirely cured, while all were relieved by his method of treatment, and no doctor can do more.

Of course the doctors at La Salpêtrière are aware of the potency of suggestion when purposely and and intelligently employed; but they hold that very many of the most important of the phenomena can be produced without its aid. These, however, are principally physical effects, such as causing any muscle of the body to contract by pressing upon the corresponding nerve, and then releasing the tension by exciting the antagonistic muscle. The condition necessary for the production of this phenomenon is called by Charcot, "neuro-muscular hyper-excitability." In the able and interesting work by Binet and Fèrè, pupils of Charcot, a chapter is devoted to this branch of the subject.

They record, with a scientific exactitude that is very edifying, many curious results in the way of causing contracture of various muscles by kneading, pressure, percussion, etc., releasing the tension by exciting the opposing muscles, and transferring the contractures from one muscle to another by the magnet. These contractures can be easily produced in many hysterical patients in their waking state, either by kneading the muscles by pressure on the nerves, or by striking the tendons.

In the book, "Law of Psychic Phenomena," by Thomson Jay Hudson, LL.D., a long and interesting treatise is given on the methods and their differences of the two schools, La Salpêtrière and Nancy. We have not the space to give it here. Price of this book is \$2.50 by mail.

The phenomena which can be produced independently of suggestion are purely physical, and depend upon the physical condition of neuro-muscula hyperexcitability. That this is true is shown by the fact that the physical phenomena produced by Charcot upon his hysterical patients cannot be produced on healthy subjects without the aid of suggestion. But such experiments do not properly belong to the domain of psychic science proper, but rather to the Braidian system of physical manipulation. This is as much as professed by Binet and Fèrè, when they divulge the fact that the physical phenomena in question can be produced on hysterical patients in their waking condition.

The methods of the Charcot school are essentially Braidian, and hence its results are limited largely to physical phenomena, and its conclusions necessarily pertain to psychical science. You will see that the method

employed by Charcot to induce the state is almost exclusively physical means. They are practically the same as those employed by Braid.

"Dr. Charcot begins his experiments with a young woman about twenty. He requests her to seat herself on a chair near the window through which the clear light of day is shining. He hands her a large brass or copper button to hold, telling her to look at it fixedly. After two or three minutes her eyelids fall; she tries in vain to open her eyes which are fast closed; her hand which until now has grasped the button drops upon her knee. All the while Dr. Charcot stands near the window looking steadily at the patient, now he moves forward, saying in a low, quiet voice, 'You cannot open your eyes, do not try; you are to. rest; you are to get quiet and well; do not try to speak, only rest." At first she tries to open her eyes, then becomes quiet. He lifts her arm, it falls back. He opens her eyes, they close again. After a few minutes he either orders her to wake, or blows upon her eyes. Either wake her instantly."

When she awakes she is rested and better, if not well, and remembers nothing of what has taken place.

Charcot believed in fixed attention, and claimed it to be the only effective way to bring about Hypnotism, because it causes fatigue of the nerves of sight, and consequently produces insensibility to stimulation.

"Charcot distinguishes a grand hypnotisme and a petit hypnotisme. The last he does not describe in detail; in the first, which is found in hystero-epileptic, he distinguishes three stages:

FIRST.—The cataleptic stage, which is produced by a sudden loud noise, or results from the opening of the

subject's eyes while he is in the lethargic stage; in this stage the position of the limbs is easily changed while the hypnotic's eyes are open. Every position which is given to the limbs is maintained for some time, but is also easily changed by the experimenter without resistance on the part of the subject; there is also no wax like flexibility (flexibilitas cerea). No tender reflex, no increase of muscular irritability. There is analgesia, but it is possible to exercise a certain influence over the subject through sight, hearing and muscular sense."

"SECOND.—The lethargic stage. It can be induced primarily by fixed attention, or secondarily out of the cataleptic stage by closing the eyes. The subject is unconscious and not accessible to external influences, and there is analgesia. The limbs are relaxed and fall by their own weight; the eyes are closed, the tendon reflexes increased. There is increased excitability of the muscles, the so-called neuro-muscular hyperexcitability. These increases are demonstrated by mechanical stimulation of the muscles, nerves, or tendons. For example, if the ulnar nerve is pressed, a contraction of all the muscles which it supplies follows, so that a characteristic posture of the fingers results; if a muscle is stimulated, it alone contracts. The same thing is attained by this as by local faradization in normal states, which was shown by Duchenne. While at the extremities, the contraction passes into contracture—that is, becomes permanent—a stimulation of the facial nerve only causes a simple contraction in the face, which soon ceases. The resolution of the resulting contracture is produced by exciting the antagonistic muscles; thus, for example, a contracture of the wrist is put to an end by excitation of the extensors, and the contracture of one sternomastoid by stimulation of the other. "It is striking," says Moll, "that, according to Charcot, the motor parts of the cerebral contex, can be stimulated through the cranium by means of the galvanic current, so that the muscles in connection with them contract."

"Third.—The somnambulic stage. In some persons it arises primarily by means of fixed attention; it can be induced in all by friction on the crown of the head during the lethargic or cataleptic stages. The eyes are closed or half-closed. By means of gentle stimulation of the skin, the underlying muscles can be put into rigid contraction, but not, however, by stimulation of the muscles, nerves, or tendons, as in the lethargic stage. Also, contracture does not appear on stimulation of the antagonistic muscles as in that stage. The posture of the limbs produced by contracture in somnambulism cannot also be so easily altered as in catalepsy; a certain resistance appears, as in flexibilitas cerea.

Charcot calls it the cataleptoid state. The same stimulation of the skin which induced the contractures also resolves them. "In somnambulism many external influences are possible by means of suggestion," says Bernheim and Moll.

Perhaps it would be well to say a word about hysteria and its effects; as Charcot believed that hysteria and hypnotism were very closely connected.

The complexus of morbid phenomena designated by hysteria would require volumes to adequately describe. The state exists in the intellectual and the ignorant alike. It occurs in all gradations and varieties. It may be, and is said frequently to be hereditary. Sometimes in different

generations it alternates with epilepsy, insanity, alcohol and consumption.

The only thing in common between the widely different condition termed hysteria is the fact that in these cases after death we have no means of discovering definite organic diseases of the nervous system.

Minor degrees of this condition are evinced by an instability of the emotional system. It occurs more frequently in women than in men.

The attack of laughing and crying which may come upon them as the result of mental excitement, grief, etc., is well known to all. It is probably not so well understood by the public that, in the graver forms of this disease, persons may be temporarily paralyzed in one limb, or in one side of the body, in the lower or upper extremities, or in all at the same time. There are attacks of blindness, deafness, perversion of the senses of taste and smell, or again all of these senses may be wonderfully acute. Sometimes, but not always, there exists intense vanity, a great desire for notoriety, and this desire may lead the patient to simulate many organic diseases, or to pretend in various ways that she is afflicted with conditions which are only imaginary. Hence to say that a patient is hysterical may imply perhaps more than would be desired.

The profoundly hysterical persons sometimes have what Charcot terms hysteria—epileptic fits.

These persons also take very strong likes and dislikes without reason. Again, they are very intuitive. There is not an organ or a system of the body exempt from these symptoms. There may be areas of numbness (anæsthesia), or hyperæsthesia (great sensitiveness) may be present. There may be zones of the body so

sensitive that they cannot bear even the weight of the slightest clothing. The skin may become pale or the reverse. Bloody sweats have been described; in fact, it would be impossible to imagine a symptom which does not exist in some of these cases. Hence it follows, that a layman should never make diagnosis of hysteria in himself or in any one else, for, indeed, it will puzzle at times the skill of the most expert neurologists. The point which should be understood clearly by all is this, that the disease is susceptible of relief through widely different agencies.

The following are Dr. James R. Cocke's words, verbatim, from this very interesting book: "Hypnotism, How it is done; its uses and Dangers." This book we can furnish, sent by registered mail, \$2.50.

"Cases of hysterical paralysis may yield to the application of magnets, metals, prayer, drugs, electricity, aye, anything in which the patient can be made to believe. Again, these same patients may prove refractory for years, and be cured by some trifling circumstance, or never cured.

"Many of the miracles and wonders worked by charlatans are upon this class of patients. I have no objection to the patient being cured, no matter how it is done, if the cure is not more injurious than the disease. The thing which is objectionable is, that this is sometimes the case.

"Persons afflicted with any form on nysteria are entitled to the utmost consideration. In these cases, particularly, the physician should use the greatest amount of care, for he may overlook some existing organic disease.

"Some types of the hysteria are made better and some

worse by hypnotism. All are benefited if some form of suggestion, with or without hypnosis, is skilfully used."

"Mental therapeutics promises more in this field than in any other. Whenever the imagination is strong, when the patient shows fanatical tendencies; whenever the disposition is essentially contradictory, as is often the case; whenever the patient pretends a great many conditions that do not exist, and when, accompanying all these, the intellect is enfeebled, hypnotism, should be used with the greatest care, if at all, and only when all other methods fail.

"On the contrary, when there is anæsthesia, (numbness), or when one faculty is alone affected by the hysterical symptoms, and when the mental equipoise of the patient is fairly good, hypnotism promises a great deal, as the following case will show.

"A girl, sixteen years of age, attended a clinic, at which I was a post-graduate student. Her arm was paralyzed and had been so for three years. The sense of touch, temperature, and pain were gone. The nutrition, however, was good, and the electrical reaction normal. The arm, hung limp by her side. The physician in charge of the clinic hypnotized her. He then commanded her to raise her paralyzed arm. She did so, to the astonishment of her mother, who was present, and to the amazement of the students as well. The physician told her that she would be able to use her arm for one week, and that at the end of that time she must return to the clinic. At the appointed time she came back, and the arm became paralyzed only as she entered the room, so she said. Again, she was hypnotized, and was told that she would use her arm for a period

of two weeks, and the interval of each hypnosis was lengthened."

"This patient presented not the highly-wrought emotional disposition, but simply an hysterical paralysis. This symptom, like all other symptoms of hysteria, cannot be *accounted* for upon any hypothesis at present current. It is not purely imaginary in the ordinary sense of the word, but it certainly is connected with the mind in some way."

"Medical literature is filled with such cases, and so-called miraculous cures of similar conditions abound on every hand. Here, too, the temperament is equally important, and the suggestion must be tactfully suited to each patient."

From the foregoing it can readily be understood why Dr. Charcot was so successful with hysterical cases. In an attack of majer hysteria there are sensory and moter disturbances, general or local. Now, in a person who is hypnotized, these same phenomena can be produced exactly, and are apparently from the same source, the mind. They vanish with the hypnotic state, but may be left by suggestion in the mind of the patient after the hypnotic state has gone. Can we then, by suggestion, write almost anything we choose upon the mind as upon a tablet with an indelible ink? Does this state, termed hypnosis, so change the condition of the psychic life as to make it susceptible to such profound alteration? It certainly seems in many cases to be so.

## CHAPTER VI.

## HYPNOTISM.

The School of the Hospital de la Charité—Dr. J. Luys' method, and his many finds, which have helped Hypnotism—The hypnotic mirror—Its uses and successes—The effects of colored balls on hypnotized patients—The use of animal magnetism as united with hypnotism—The uses of drugs, and their influence on hypnotized persons—The uses of magnets in hypnotism.

The school of the Hospital de la Charité acts as a kind of connecting link between that of Nancy and La Salpêtrière, accepting as it does both methods and all the theories. Dr. J. Luys, Member of the Academy of Medicine of Paris, France, is at the head of La Charité, where he has performed many curious experiments. Both professor and experiments have, however, shared the usual fate of investigators and new ideas, and have been viewed with great suspicion. Emotions produced by physical agents, and the action of medicine not immediately applied, are by no means facts recognized by the scientific world. After examining the different phases of hypnotic sleep, as used by Dr. Luys, we will relate them as they have been discovered by the now noted Professor.

Dr. Luys, when physician at La Salpêtrière, was named a member of the Commission appointed by the Biological Society, with Dr. Charcot, to examine Burq's



Fig. (II.) M. Young's Method. Original Portraits. Copyright by M. Young, August, 1899.



discovery. He was thus enabled to follow up and test on his own patients Charcot's assertions, to form an opinion, and by pushing forward his experiments, to revolutionize the scientific world by his discoveries and their consequences. The action of physical agents—even at a distance—and of suggestion are both admitted at la Charité. Forces acting outside of these cannot be included among these factors if we suppose them to be localized in their action.

The best description of the method and working of the hypnotic treatment used at La Charité, we find in Dr. Foveau de Courmelles' book. He has been connected with Dr. Luys, and therefore can be quoted as authority. The following is what he says:

"The hypnotic state, generally produced by the contemplation of a bright spot, a lamp, or the human eye, is in Dr. Luys' method induced by a peculiar kind of mirror. The mirror is Dr. Luys' own discovery and made of pieces of wood cut prismatically in which fragments of mirror are incrusted, they are generally double, and placed crosswise, and by means of clock-work, revolve automatically. They are the same as sportsmen use to attract larks, the rays of the sun being caught and reflected on every side and from all points of the horizon. If the little mirror in each branch are placed in parallel lines in front of a patient, and the rotation is rapid, the optic organ soon becomes fatigued, and a calming, soothing somnolence ensues. At first it is not a deep sleep, the eyelids are scarcely heavy, drowsiness, slight and restorative. By degrees, by a species of training, the hypnotic sleep differs more and more from natural sleep, the individual abandons himself more and more completely,

and falls into one of the regular phases of hypnotic sleep. Without a word, without a suggestion or any other action, Dr. Luys has made wonderful cures.

"This particular and ingenious means of inducing sleep is not Dr. Luys only find. He has also several methods of exciting emotion in hypnotized subjects, either by placing them in particular positions or by touching certain muscles of the face. He also obtained these results by placing on the neck of the patient tubes filled with various medicinal substances.

"If an hermetically sealed tube containing a medicine unknown to the subject is placed in contact with the neck, an effect varying according to each substance is produced. Thus alcohol produces merry or furious drunkenness according as it is distilled from corn or from wine; water produces hydrophobia; ipecac, vomiting; oil of cherry-laurel, ecstasy and piety; nitro-benzole, convulsive shocks through the whole body; valerian, feline movements and crawling on all fours, etc.

"There have even been cases that have acted as involuntary tests; as for instance, some tubes were brought in haphazard, and the operator thinking he had one kind of medicine was astonished to see it produce the effects of another substance. On examination it was found that the experimentalist had made a mistake, and that the subject was right. The idea of suggestion must therefore in this case be set aside.

"On the other hand, I heard in June, 1887, Dr. Jules Voisin, physician at the Salpêtrière, relate that he had produced the same effects on the subjects by saying out loud what substance he was using, while in reality he only made use of the empty tubes. And a fortnight later,

repeating his experiment without saying anything, he obtained the same series of phenomena exactly in the same order. He therefore concluded that the action was solely due to suggestion, and also to the sharpness of memory in neurotic patients.

"Dr. Luys also induces emotions by colored balls. He has often exhibited these phenomena in the course of his lectures. For this purpose he uses hollow glass balls, either blue, yellow, red or green. The subject having been sent to sleep, (the lethargic stage), a shade is placed over the subject's eyes, and suddenly, under the action of one of these balls, he is seen to open his eyes and manifest a distinct emotion. If a blue ball is presented to him, terror and horror are depicted in his gaze, if a yellow ball, joy and mirth. According as the colored surface is larger or smaller the emotion is more or less violent. The same thing takes place with magnets; according to the nature of the pole used, the countenance assumes different expressions. It is interesting psychic action. Thus, the north pole placed in the hand causes joy and mirth, the south pole, repulsion. The reunion of the two forces—that is to say, a pole placed in each hand—give experimental indifference.

"Taking for basis the transfer of insensibility, emotions or contractions from one point of the organism to another, by the action of magnets, and the analogy that exists between these latter and the human body, Dr. Luys—in this following Babinski, who conceived the idea of passing the disease of one subject to another—adopted the idea of putting his patients in communication one with another. This is termed *transfer*. Some individuals are easily disposed to take, for the time being, at least, the disease of

others; and, when brought into contact with the sick, can for a few minutes cure them."

"The trained subject, easily hypnotizable, and the sufferer are seated opposite each other. The first is sent to sleep, while holding the hands of the patient; a powerful magnet is moved round, first describing a closed circle, and then turning the north pole to the diseased part or organ. A peculiar kind of contagion takes place, a transfusion of vitality, a propagation of nerve influx. The hypnotized subject suffers but little, still he does suffer; while the sick person, his partner in this struggle against disease, is relieved."

"If the experiment is renewed several times the patient's organism is rested, and by degrees throws off the disease. Magnetizers have always asserted that while making their curative passes they catch the disease. This would be a demonstration of *transfer*, but would require to undergo a thorough investigation."

With regard to the action of the magnet during hypnosis, the phenomena of transference must first be mentioned. According to the school of Charcot transference means that certain phenomena, influenced by some æsthesio-genetic expedient, particularly the magnet, change the place of their appearance. Charcot says that such phenomena are seen in hysterical patients. Thus, contractures on the right side can be transferred to the left by the magnet. Charcot, as well as a number of other experimenters, among them Preyer, thinks these phenomena quite proved, while in Germany a mental factor has been called in to account for them.

Dr. Moll says: "Another method of influencing with the magnet is called polarization. It is a reversal of a functional state. For example, the magnet is supposed to resolve a contracture induced by suggestion (motor polarization). It can banish a suggested hallucination, and can change the mental pictures of colors into their complementaries. If a subject believes he sees blue, he thinks he sees yellow when the magnet is brought close to him (sensory polarization). The magnet is said to change happiness into sadness (mental polarization). When a reversal of the state takes place, e. g., when "blue" is turned into "yellow," i. e., into its complementary color, then this is called polarization in a narrower sense, and an arbitrary change of state, i. e., the changing of "yellow" into "red" is called "dispolarization." Binet and Fèrè are the authors of these experiments, which are confirmed by Bianchi and Sommer."

Venturini and Ventra, make a therapeutical experiment in connection with these phenomena. They say they conquered a fixed idea, an auto-suggestion in the waking state, by means of the magnet. Some experiments of Riggi belong to this class; he says that the approach of a magnet in hypnosis often causes subjective discomfort. In other cases the magnet is said to have put an end to the hypnosis.

"A third possible way of influencing the hypnotic subject by the magnet is given by Tamburini and Seppilli. They think that when the magnet is brought close to the pit of the stomach it influences the respiratory movements. Later on, Tamburini and Righi found that other metallic bodies produced the same effect; the strength of the effect depended, however. on the size of the metal. The electromagnet is said to have the same effect whether the stream is open or closed; Tamburini, supposes later that it is only

the temperature of the magnet which has the effect, and that the magnetic force may have no influence."

"Lastly, there are Babinski's and Luys' experiments, founded on a union of true magnetism and animal magnetism. If a hypnotized subject and a sick person are set back to back, a magnet put between them will cause the sick person's symptoms to pass over to the hypnotized subject. Hysterical dumbness and contractures have been thus transferred. But symptoms of organic disease, e. g., of disseminated sclerosis have also been transferred in this way. As a matter of course, the phenomena must be caused by suggestion. The hypnotic subject must not know what the sick person's symptoms are. Dr. Luys goes still further. He places a magnet on the patient's head; after a time, he places the same magnet on a hypnotized person's head; now, the morbid symptoms of the first person should appear in the hypnotized person. The whole arrangement of the experiments is so uncritical that there can be no doubt about Luys' experiment."

Dr. Moll says: "All these actions of the magnet appear to rest on erroneous observation. But it is certainly singular that the action of the magnet should have been asserted by so many authors at so many different times."

Little has been said in explanation of this supposed effect. Obersteiner supposed that there may be a magnetic sense, which may come into activity during hypnosis, and which is perhaps localized in certain terminal organs of perception whose functions are still unknown.

Dr. R. H. Vincent, in his book entitled "The Elements of Hypnotism," gives the following description of Dr. Luys' method, which he has seen used many times:

"LUYS' MIRROR ROTATIF.—This is an ingenious instru-



Fig. (3.) The Fascination Method. Original Portraits. Copyright by M. Young, August, 1899.



ment invented by Dr. Luys, of the Charity Hospital, Paris. It consists of two mirrors rapidly revolving in opposite directions, and by gazing at this for a short time the sight becomes tired and dazzled and hypnosis is easily produced.

"Many advantages are claimed for this method—that it saves the operator time and trouble, and is impersonal; that a number of people can be hypnotized at the same time by its means, and that it never fails.

"The saving of time is not really so great as might be imagined, for each subject must need the hypnotist's personal attention, while there are many other methods equally impersonal. Only fairly susceptible persons, and those who had been previously hypnotized would, generally speaking, be influenced *en masse*, and these could be hypnotized as quickly by almost any other means. It is, however, of some service in certain cases.

"Dr. Luys has been very successful in curing many patients suffering with the following diseases: Sleeplessness, Depression, Inattention, Irritability, or in other words, which we understand much better, Nervous Prostration, technically termed "Neurasthenia." This disease is more amenable to hypnotism than is any other form of nervous disease."

Dr. Cocke, says: "Many pains, as neuralgia, etc., can be relieved or cured by the use of hypnotism. Many functional disturbances of different parts of the body, likewise, may find relief through its agency. Many painful conditions often attending destructive organic disease can be ameliorated in the same way. Hypnotism never did and never can restore organs whose active tissues have been totally destroyed. A man whose brain has been injured, either from external causes or from an

extensive hemorrhage within its substance, can never again have the paralyzed side of the body restored to its normal condition by hypnotism, but if enough brain tissue is left, suggestion made in the hypnotic state may prove a more powerful stimulant to him than ordinary incentives, and he may regain, in a degree the use of his body.

"I do not know a greater crime than holding out false hopes to such a one, when these hopes must be blighted. Therefore, too much should not be claimed for any medicine or any method of cure, for fear that the disappointment will be too great. It indeed requires nice discrimination upon the part of any one practising hypnotism, to know how much either to hope for themselves, or to promise to their patients.

"Hypnotism is a *Remedial Agent*, so *mysterious* and overwhelming in its effect that it is likely to impress too profoundly the invalid who is seeking relief. It is more wonderful than surgery, more subtle in its influence than drugs, and permeates every part of the psychic life of the patient."

## CHAPTER VII.

## HYPNOTISM.

The Classifications of Hypnotism—The Inductive Stages of Hypnosis Classified as used in the different Methods—Gurney, Speculative Stages of Hypnosis—Lloyd Tuckey's Classifications of Hypnosis—Dr. Liébault Stages of Hypnotism, numbers six—Bernheim's Divisions of Hypnotism—The Method used by Ralph H. Vincent, of London, England—Very Important to a Student in Hypnotism.

We are indebted to the following pages from the very valuable work by Ralph H. Vincent, entitled "The Elements of Hypnotism," published in London, England, in the year 1897.

"Braid, in 1840, we have seen by his insistence on the necessity of concentration and fixed attention, made great advances; but to Liébault, of Nancy, belongs the honor of giving to the world, a scientific exposition of the rationale of Hypnotism. We have it from Liébault's own lips that he was first attracted to the subject by reading Braid's works, and he has constantly admitted that the Nancy system is indebted to Braid for its Genesis. In connection with Nancy must be mentioned Bernheim, who has greatly developed and systematized the study of Hypnotism.

"The method in common use at Nancy is as follows:

"The patient is comfortably seated in an easy chair with

his back to the light, and the operator stands by his side, holding up two fingers of his own hand, some few inches (12 to 15), from the patient's eyes. The patient is told to look intently at these two fingers, and as far as possible to keep his mind a blank. As soon as the eyes begin to show symptoms of weariness, the hypnotist begins in a somewhat muffled and monotonous tone of voice to suggest sleep. Sometimes the operator, without waiting for the symptoms to appear, will start at once telling the patient, 'You are beginning to feel drowsy;' 'Your sight is getting dim,' etc., etc. While in other cases he will wait until the eyes begin to blink somewhat, and then seek to increase the sleepiness by suggestions, which are made as the symptoms begin to develop themselves.

"It is not to be supposed that in all cases precisely the same formula or details of treatment are to be followed; but the principle is the same. Thus this method of Nancy takes Braid's system of physically wearying the eyes, and combines with it a system of *verbal suggestion*, and this method is the one followed with variations in detail by the leading hypnotists of every country.

"As a matter of fact, there is no one plan which will succeed in all cases; some patients will be quite uninfluenced by one method of treatment, while they will be readily susceptible to another. Dr. Moll says he has succeeded in hypnotizing by means of "passes" where fixed attention and simple suggestion both failed, and *vice versa*.

"The method generally adopted by the writer, does not differ materially from the Nancy method above described, but we shall here incorporate into our description details of practical importance. The first essential for the successful induction of hypnosis in a person who has not been

previously hypnotized is to ensure that the person is in a position that is quite comfortable, and which he will be able to maintain during the period of induction without discomfort; every little detail in this respect is an important feature in determining the degree of success or failure on the part of the hypnotist in a large number of cases; the kind of chair in which the patient sits, its relation to the lighting of the room; the position of his legs, and feet, arms and hands; the head, while being supported, must not be allowed to fall backward, and the subject must sit as squarely as his comfort will allow. The surroundings must be free from any disturbing influences, and noises which we should not generally notice cause more difficulty than the larger volumes of sound; thus, the ticking of a clock, the quiet opening or shutting of a door, the whispering of persons inside the room—all these things serve to distract the attention of the subject at a critical time. The subject should be asked to keep his mind a blank as far as possible; he should be told not to trouble himself about any methods used by the hypnotist; not to pay attention to what he may say, and especially not to try and help him by trying to "go off;" and every trouble should be taken to see that the patient is quite calm and free from any undue nervousness. Having placed the subject comfortably in the chair, the next point is to fix his attention. For this purpose, it is not theoretically necessary that we should resort to any physical assistance, but the attention is fixed much more easily when some such assistance is employed. To gain attention the fixation of the sight is the best and readiest means, and we therefore tell the subject to look steadily and without blinking more than can be helped at some given object. The exact

object matters little; it may be the operator's fingers, or a small article held in the patient's hand, but it should not be more than about one foot from the eyes of the subject. It should be placed in such a position that when looking at it the eyes are fairly wide open. The light should fall clearly on the object, and the subject should have his back towards the source of the light. The hours after daylight, are, on the whole, to be preferred, for in the morning, the nervous irritability is generally greater than in the evening; the subject is consequently rendered passive with greater ease, and his general condition is more favorable. After an evening meal, most people are willing to remain quietly in a chair for a short period, whereas earlier in the day the enforced restraint might be more or less troublesome; for the purpose of concentration of light on the object to be looked at, artificial light is better than daylight. It must not be assumed that these detailed observances are in all cases necessary, for it greatly depends on the susceptibility of the subject, but if one is to gain an average of anything over 80 per cent. it will only be by attention to these details. The first hypnosis is always the most difficult, and after the subject has been hypnotized a few times, we can generally dispense with a great many of these precautions. Let us now watch the subject. Passive, and with his gaze fixed on the given object, he at first appears to be in the normal condition; after an interval of varying duration, a change comes over the subject. The writer confesses that to describe the change in so many words, he finds it impossible, but the experienced hypnotist easily recognizes it; the pupils have somewhat dilated; the eyelids may be quivering; the subject is more absorbed in the object than he was at first, the

face has lost its usual expression, the respiratory rhythm is slightly altered. At this point the skill of the Hypnotist has its greatest scope for everything depends on the rapid and accurate perception of the changes which the subject is undergoing; Hypnosis is beginning. The characteristic reaction of the subject to suggestion is also beginning, but it is far from complete, and we have to judge when the subject can take the first suggestion, and how much he can take. If we begin too early we shall disturb him; if we wait too long, he may, and often does, return, more or less, to his normal condition, and we have missed our opportunity. This return is followed by a gradual resumption of the hypnosis, and before the final hypnosis is induced, this alteration may take place several times. The early suggestions must not be of a character repellant or objectionable to the subject's consciousness. Thus, fact and suggestion are mingled with suggestion and fact. "The eyelids are quivering; the eyes are tired; the sleep is coming"—until gradually the state diverges more and more from the normal; the final Hypnosis generally comes suddenly. The eyes close, and one symptom is nearly always present—a peculiar, deep, catching inspiration. The inductive stages may therefore be classified as

- **1.** − Passivity.
- 2.—Passivity with attention.
- 3.--Acute passivity with acute attention.
- 4.—Hypnosis.

"The hypnosis thus obtained varies with each individual; but there are certain classifications which are important; some pass into a light stage; others into a deep stage; as a rule, the hypnotic state deepens with every hypnosis

till about the fourth or at most the sixth hypnosis; by this time the subject will have reached his deepest stage; in the hypnosis subsequent to this, he presents the phenomena of this stage. This is a curious but constant phenomenon, and enables us to classify each subject according to his stage of hypnosis, a point which, in experimental work, is exceedingly useful. These stages vary from a condition which only an expert can recognize as an hypnosis to a condition in which the strikingly abnormal phenomena are present. The variety of these stages is so great that many observers have made attempts at classification, and these are useful in giving the reader an idea of the great differences between the hypnosis of the different subjects.

Gurney, whose researches are valuable though speculative, divided Hypnosis into two stages:

- I. The "alert" stage.
- 2. The "deep" stage.

Forel names three stages as follows.

- I. Drowsiness.
- 2. Inability to open the eyes. Obedience to suggestion.
- 3. Somnambulism. Loss of memory.

Lloyd Tuckey gives a very similar classification to Forel's:

- 1. Light sleep.
- 2. Profound sleep.
- 3. Somnambulism.

Liébault has described six different stages:

- Drowsiness.
- 2. Drowsiness. Suggested catalepsy possible.
- 3. Light sleep. Automatic movements possible.
- 4. Deep sleep. The subject ceases to be in relation with the outer world.

- 5. Light somnambulism. Memory on waking indistinct and hazy.
- 6. Deep somnambulism. Entire loss of memory on waking. All the phenomena of post-hypnotic suggestion possible.

Bernheim suggests no less than nine divisions:

- 1. Drowsiness. Suggestions of local warmth are effective.
  - 2. Drowsiness with inability to open the eyes.
  - 3. Suggestive catalepsy slightly present.
  - 4. Suggestive catalepsy more pronounced.
  - 5. Suggestive contractures may be induced.
  - 6. Automatic obedience.
- 7.—Loss of memory on waking. Hallucinations not possible.
- 8.—Loss of memory; slight possibility of producing hallucinations, but not post-hypnotically.
- 9.—Loss of memory; hypnotic and post-hypnotic hallucinations possible.
- "The extent to which suggestion affects the subject depends on the extent to which he is divorced from consciousness of the external, and on the degree to which the psychical action of the neuronic groups is inhibited."
- "Many post-hypnotic suggestions obtain their reactions almost as well in the lightest stages as in the deepest, provided the suggestions be of a character to suit the condition."
- "The dehypnotization, or waking from hypnosis, is effected by *suggestion*, on the same principle as that on which the state is induced. Physical means, such as blowing on the eyes, may be used; but in any case they can only be regarded as *aids to the suggestion*, and their value depends entirely on the mental impression they produce."

"Many means are recommended by various writers for waking the patient; fanning, sprinkling with water, loud calls and noises, etc. Just as the downward pass may hypnotize, so the upward pass, (by reason of the mental suggestion it conveys) will serve to awaken."

"There is no difficulty or delay in ending the hypnosis. In all cases the subject is brought back to the normal state instantaneously. In the hands of an unskillful or ignorant operator, however, the subject may pass from the waking state into a condition of apparent lethargy; and out of the hands of the experimenter, who is able to neither awaken nor to influence his subject. These misfortunes can never occur to the practised hypnotist; but many such cases are known, and the danger of these rash experiments in hypnotism cannot be too strongly insisted on.

"When once it is found that the patient does not awaken in obedience to the operator, no further attempts should be made, but an experienced hypnotist should be immediately sent for, or if one cannot be found the subject should be allowed to sleep it off. In the one or two cases of the kind which have come under the writer's notice, the harm done was almost entirely due to the ignorant and futile attempts made to arouse the patient.

The duration of the hypnotic sleep of the subject, if not awakened, is very variable. Some subjects will awaken at the precise moment when the operator leaves them, the fact of his absence acting as a *suggestion* that they are no longer under his control. Others will be awakened by an unexpected or loud noise. Some will be aroused from the state by the efforts they have made in it; thus, for instance, a subject has been awakened by laughing loudly in obedience to a hypnotic suggestion. If the sleep be light,

subjects will often return to the *natural* state in a very short period; but if it be deep, the sleep may continue for three to four hours. Bernheim mentions a case in which the sleep lasted eighteen hours.

The condition after Hypnosis is found to be perfectly normal. In the hands of an experienced hypnotist the subject never finds that he is suffering from any such thing as "drowsiness" or "giddiness." Any ill effects are due entirely to the fault of the operator.

"Various opinions have been expressed; some well, many ill informed, with reference to the persons who are hypnotizable. It would be idle to affirm of any particular temperament that it lends itself to hypnosis when we find that over *eighty per cent*. of all persons tried is the *minimum* average of any one who properly understands the subject in its practical application. Speaking from his own experience the writer has found that the class presenting the least difficulty, and generally giving very satisfactory experimental results is to be found in young men of average education and of fairly all-round qualities."

"Excessive self-consciousness presents some difficulty, and consequently the more or less brilliant neurotic, and the very stupid and conceited resemble one another in being difficult subjects. Idiots are not hypnotizable, and the insane are excessively difficult to hypnotize. Sex does not appear to materially affect the question. There is a somewhat commoner misconception prevalent which regards hysterical conditions as likely to indicate easy hypnotizability. Hysteria, however, is nearly always the source of much difficulty and never makes the induction easy. Nationality has very little to do with the matter. In France, Liébault hypnotized 985 out of 1,012; in

Sweden, Wellenstrand hypnotized 701 out of 718; and in Holland, Van Reutezhen hypnotized 169 out of 178. Bernheim and Forel agree, with reference to the medical application of hypnosis, that the opinion of physicians who cannot hypnotize at least eighty per cent. of their patients is of no value. The present writer's percentage in all his cases between January, 1892, and December, 1896, was 915. Among members of the University of Oxford, his percentage was 95.84. And judging from his observation of a large number of cases, he is on the whole inclined to regard susceptibility to hypnosis as generally belonging to men with brains of good quality; unquestionably the process of hypnotizing well educated people is easier, and as a rule, takes less time."

Who is hypnotizable? In order to settle this question without hypnotic experiments, Ochorowicz has invented a special instrument—the hypnoscope; it is an iron magnet, in the form of a ring, which the person to be tested puts on his finger. Hypnotizable persons are supposed to experience certain sensations in the skin and twitching of the muscles, while with the insusceptible nothing of the kind takes place. The researches of other investigators have not altogether confirmed this.

Dr. Moll says: "All other signs which are supposed to indicate susceptibility to hypnotism, I consider untrustworthy."

"Neither neurasthenia nor pallor, neither hysteria nor general feebleness of health, produce a disposition of hypnosis. As far as hysteria is concerned, it is not in my experience peculiarly suited to hypnotism. Our ordinary hysteria with its variable characteristics of headache, and the feeling of a lump in the throat (globus) combined

with the general hysterical desire to be interesting and to exaggerate the sufferings endured, produces, according to my experience, very little disposition to hypnosis. spirit of contradiction, very strongly developed in such patients, contributes not a little to this. The mistaken notion that hysterical or nervous patients are particularly susceptible to hypnotism results from the fact that most physicians have experimented with them only; besides which it is very easy to discover in all persons something which may be explained as a hysterical symptom, if only we try to do so. If, however, we consider every one who submits himself to a hypnotic experiment to be 'nervous' (Morand), then naturally, only nervous persons can be put into the hypnotic state; but this view cannot be taken seriously. In reality, if we are to take a pathological condition of the organism as a necessary condition for hypnosis, we shall be obliged to conclude that nearly everybody is not quite right in the head. For the rest, the old mesmerists in part (Wirth and others), maintained that hysteria only produced a disposition to the magnetic sleep."

"Further, if general weakness is to be put forward as a predisposing factor, I, for my part, must emphasize the fact that I have hypnotized many very muscular persons. It is well known that Hansen, whose practical experience is of some value, always preferred muscular people for his experiments. The susceptibility of tuberculous patients is striking."—Bernheim.

"With regard to intelligence, intelligent persons are more easily hypnotizable than the dull and stupid. Among the lower classes the mentally superior are undoubtedly easier to hypnotize than others. Mental excitement easily

prevents hypnosis. The numerous observations made by Wetterstrand, Ringier, and others, that certain individuals are occasionally refractory to hypnosis may be connected with this fact. I could confirm this occasional disinclination to hypnosis by a whole series of cases. I consider it a complete mistake to say that the disposition to hypnosis is a sign of weakness of will. Without doubt the ability to maintain a passive state has a predisposing effect. This is why soldiers are in general easy to hypnotize. The ability to direct one's thoughts in any particular direction is also very favorable. As we habitually consider this power to be a sign of strength of will, the disposition to hypnosis would rather be a sign of strength than of weakness of will. This ability to give the thoughts a certain prescribed direction is partly natural capacity, partly a matter of habit, and often an affair of will. Those, on the contrary, who can by no possibility fix their attention, who suffer from continual absence of mind, can hardly be hypnotized at all. It is specially among the nervous that a strikingly large number of this last class are to be found, who cannot hold fast to a thought, and in whom a perpetual wandering of the mind predominates. The disposition to hypnosis is also not specially common among those persons who are otherwise very impressible. It is well known that there are some who can be easily influenced in life, who believe all that they are told, upon whom the most unimportant trifles make an impression. Nevertheless, when an effort is made to hypnotize them, they offer a lively resistance, and the typical symptoms of hypnosis cannot be induced in them "

With regard to age, children under three years cannot be hypnotized at all, and even up to about

eight years of age they can only be hypnotized with difficulty. Although children are otherwise easily influenced, their thoughts are so easily distracted that they cannot fix their minds on a prescribed picture, such as that of hypnosis. Old age is by no means refractory to hypnosis. According to the experience of the school of Nancy, with which mine agree, older persons more often remember, after hypnosis, all that has happened than do younger ones. Sex has no particular influence; it is a mistake to suppose that women are better adapted than men."

The frequency with which an attempt should be repeated on the same person is of more importance. While according to Hänhule, only one person in ten proves susceptible on a first attempt; the proportion increases enormously with the frequency of the sittings. This is not to be wondered at, from the mental excitement shown by many people in the beginning. And as it is most important to hypnosis that the attention should be distracted, many people are first of all obliged to learn to concentrate their thoughts. There are even experimenters who maintain that everybody is hypnotizable, if only the attempt is continued long enough. "Without declaring this view to be false," says Dr. Moll: "I may remark that I have made forty attempts with some persons without obtaining hypnosis. Perhaps, by even longer continued efforts a result would have been attained, as indeed has happened to me many times after forty vain attempts. In other cases the exact opposite happens, and the oftener the attempt is made, the less successful is it; by a process of auto-suggestion, the subject persuades himself that he is not hypnotizable."

"Besides these subjective conditions are some other objective ones. Thus, for example, disturbing noises at the first experiment have power to prevent the hypnosis; they draw off the attention, and thus interfere with the mental state necessary for hypnosis. Later, when the subject has learned to concentrate his thoughts, noises are less disturbing. But in hypnotic experiments, the most absolute avoidance by those present of any sign of mistrust is necessary. The least word, a gesture, may thwart the attempt to hypnotize. As the mood of a large company is often distrustful, as a whole generation also is sometimes sceptical, the great variations in susceptibility to hypnosis which have shown themselves at different times and places, are explicable. It is not surprising that on one occasion ten persons, one after the other, are hypnotized, while on another occasion ten other persons all prove refractory."

"Experience and a knowledge of the mental condition of mankind are indispensable for the hypnotizer. The first is absolutely necessary; it is more important than a knowledge of anatomy and physiology. By experience one learns to discriminate and enter into the particular character of the subject. Practice and a gift for observation enable the right stress to be laid at the right moment either on fixed attention or on the closing of the eyes. The experienced experimenter knows how to judge whether it be best in any particular case to attain his aim by speaking or whether, as sometimes happens, speech would be a hindrance, and the chief stress would be best laid on fixed attention, &c. A person who is easily hypnotized can be hypnotized by any one; but one who is hypnotized with great difficulty can only be thrown into hypnosis by a

good and experienced experimenter. It is by no means a contradiction of this that the personal impression made by the experimenter may be very important and have great influence. In consequence of this it happens that a certain person (A), can be hypnotized by (B), while he remains refractory to the efforts of (C). On the other hand, it may happen that (D) can be hypnotized by (C), but not by (B). This shows that the influence of one person over another is dependent on the individuality of both. We find the same in life, in the relation of teacher to pupil, and of pupil to teacher, in the reciprocal relations of friends, or lovers. The influence of one person on another always depends on the individuality of both."

"That there exists an individual aptitude for hypnotization, and for making the suggestions—to which I lay no claim—is certain. It is true that we must not think of this ability as did the older mesmerists, who supposed that certain persons exercised a peculiar physical force upon others; we must represent this natural ability to ourselves as we do many others, when we have to do with particular mental aptitudes. Calm, presence of mind, and patience are essential, and not every one can exercise these qualities. To busy one's self with hypnotizing a subject daily for hours at a time demands a perseverance which everybody does not possess. Very much more patience is necessary for this than for writing prescriptions, for example, several hundreds of which could be produced in the same length of time."



## CHAPTER VIII.

## HYPNOTISM.

The Induction of Hypnosis, by the Fascination method—The method as first used by Donato—Dr. Brèmaud's method of Fascination as it differs from other methods—Abbot Faria's method—The power of the magnet to induce Hypnosis—Carl Saxtus, method—The candle method—Professor Bernheim's method of Suggestion, as used by himself on his patients.

The Fascination method, introducing as it does a large amount of the personal element, is a favorite one of the mesmeric "professors." The subject is told to gaze steadily into the operator's eyes. It frequently happens that in a short space of time, the subject will imitate every movement of the operator, all the while keeping his eyes firmly fixed on those of the operator. This method is somewhat risky, since, if the subject be refractory, the operator himself may involuntarily become hypnotized. Lloyd Tuckey records an instance, where, in using this method on one occasion, he found himself developing the first symptoms of hypnosis.

Doctor Brèmaud, a naval doctor, obtained in men supposed to be perfectly healthy, a condition which he calls fascination. The doctor considered it hypnotism in its mildest form, which after repeated experiments becomes catalepsy.

Monsieur Bremaud induced fascination by the contemplation of a bright spot, the subject falls into a state of stupor. He follows the operator and servilely imitates his movements, gestures and words; he obeys suggestions, and a stimulation of the nerves induces contraction, but the cataleptic pliability does not exist.

Messieurs Bernheim, Liègeois and Beaunis consider this state entirely due to suggestion.

"Long before Monsieur Brèmaud-a platform magnetizer, as the scientific world called him—thought he had discovered this fascination and even named it after himself. He operated in the following manner. After having at the beginning of one of his entertainments - which at that time attracted not only all Paris, but people of every part of the world-operated on his own subjects, and thereby impressed the imagination of his audience, he would inquire if any of the spectators were willing to submit themselves to an experiment. Several would come forward. He would choose one, and make him lean on his hands so as to weaken the muscular power. Both hypnotizer and patient remained standing on the platform in front of the audience, now thoroughly interested in the struggle between one who strove to master and one who would not submit. The patient's everyation under the influence of the numberless eyes fixed on him soon reached its climax. The fascinator would then suddenly call out, "Look at me!" upon which the candidate-subject would draw himself up and gaze intently into the operator's eyes. The latter would then look down at the hapless victim with round, glaring eyes, and in the majority of cases succeed in fascinating the subject. No doubt some individuals would feign to succumb, thereby deceiving the operator, and when they quitted the *seance* would not fail to declare he was a charlatan. But the whole exhibition was well managed, and it would be unjust to refer a general rule from some particular exceptions."

"Fascination thus made its way. By the constant sight of gigantic advertisement, the attention of scientific men was aroused, they went to see the performance, were at first incredulous, then doubted, and finally took up the subject and studied it; striving to make it scientific and useful as a curative means. It no longer remains the object of morbid curiosity, but becomes a therapeutic process that doctors avail themselves of to alleviate suffering."

Vincent says of all the different methods employed, perhaps none have the followers that the simple method of fascination can boast of.

"The professional operators have been very fond of fascination and in this particular method, which is called, amongst other names, "Imitation," "Fascination," and "Donatism."—this last from Donato, who made great use of it.—In this system, the operator fixes his eyes on the eyes of the subject, and after a short time the subject follows every movement made by the magnetist. If he lifts an arm, the subject does the same; if he kneels, the subject kneels; and so on ad infinitum. Here fascination was the form of hypnosis induced. The same state can be obtained by opening the eyes of a hypnotized person when the hypnotist, by gazing fixedly into his subject's eyes, will be able to obtain these imitative movements. If the finger, or the mounted top of a walking stick, be placed before the subject's eyes, he will follow the finger, or the stick, as the case may be; in all this it is clearly suggestion, which is the basis of 'he phenomena. The subject will not perform any of these imitative actions, nor will he be 'fascinated' by the stick, unless he fully understands that it is expected of him. In very many ways, by a look or a movement, the hypnotist is often able to convey a suggestion to his subject which will be quite as potent as if made by means of speech. This extreme susceptibility to suggestion is either not known or is overlooked by the ordinary public, and the professional hypnotizers often avail themselves of this common ignorance to entertain those who attend their exhibitions."

The latter form of fascination was used for the first time by Donato, has since been described by Brèmaud, also has been applied by Hansen. Donato, who operates especially upon young people proceeds in the following manner:

He asks the subject to lay the palms of his hands upon his own, stretched out horizontally, and to press downward with all his might. The subject's whole attention and all his physical force is absorbed in this manœuvre. All his innervation, so to speak, is concentrated in this muscular effort, and so the distraction of his thoughts is prevented. "The magnetizer," says Brèmaud, according to Donato, "looks at him sharply, quickly, and closely, directing him by gesture (and by word if need be), to look at him as fixedly as he is able. Then the operator recedes or walks around the patient, keeping his eyes upon him and attracting his gaze, while the subject follows him as if fascinated, with his eyes wide open, and unable to take them from the operator's face. If once carried away by the first experiment, the simple fixation of the gaze suffices to make the subject follow. It is no longer necessary to make him first place his hand on the operator's,"

Professor Bernheim says, "When we have to do with simple suggestion by gesture, when the magnetizer fixes his eyes upon the subject's, the latter understands that he must keep his eyes fixed and must follow the operator everywhere. He believes that he is drawn toward him. It is a suggestive psychical fascination and not physical in the least. I have seen the experiment successful with the best somnambulists when they did not understand the meaning of the operator's gesture. In such cases, the experiment may be made to succeed by imitation, if the subject has seen it performed successfully in his presence upon some one else. This then is suggestion by imitation."

"Among subjects thus fascinated, some submit to the influence without hypnotic sleep, just as do those who are hypnotized by another method. They are susceptible to suggestion in the working condition. They remember afterward what they have done; they do not know why they were unable to keep from following and gazing at the operator. Others remember nothing at all after they are waked by blowing upon the eyes or by a simple word. They do not know what has happened; they have been in a somnambulistic condition with their eyes open. In this somnambulistic fascination, catalepsy and hallucination may be induced. In these same subjects, catalepsy or hallucination may often be induced by a simple word, a gesture, or a position communicated to them without any previous fascination."

"The awaking may be spontaneous. Subjects who sleep lightly at the first hypnotization, sometimes have a tendeney to awake quickly. It is necessary to hold their eyelids closed, or to say from time to time, 'sleep,'

in order to keep them under the influence. The habit of sleep is very soon acquired by the organism. The subject no longer wakes while the operator remains at his side; he may awake as soon as the operator's influence is withdrawn. The majority of subjects left to themselves sleep on for several minutes, for half an hour, or even for one or more hours. I allowed one of my subjects to sleep fifteen hours, another eighteen."

The Abbé Faria, in about 1814, began to study hypnotism, and it must be admitted that this development is very interesting and contains more than the germs to the whole of Braid's theory, and of all the theories concerning the power of imagination or suggestion in consequence of the same.

The phenomena observed by Faria in his subjects do not differ in the main points from that of Puysègur and the other operators or their somnambulistic subjects, and this is the case especially in regard to the complete loss of memory about everything on awakening.

Faria said, "During the somnambulistic sleep the eyes are as a rule closed. There are, nevertheless, somnambulists who sleep with open eyes, and my experience has proved to me that these latter are somnambulists by nature." Their open eyes remain fixed and immovable, and they seem to be perfectly sightless. There are a few who move their eyes and see what occurs in their surroundings, still without being able to have any recollection whatever when they are awakened.

The Abbé Faria method was very simple. After placing his subject in a comfortable position, in not too bright a light, he concentrated the attention of his subject as much as possible, by having him look at some object on the wall—way up above his head. After several minutes of the most perfect silence, he would suddenly shout in a loud commanding voice the word "Sleep." In very many cases this was sufficient to attain the desired result.

As an advocate of the identity of somnambulism and normal sleep, Faria made a study of lethargy; and he was one of the first who in a few lines described this interesting condition, which Azam also investigated. This is the state in which we nearly always find a certain double individuality of the person. It must be remembered that Faria claimed positively that there were no dangers attached when using his methods, and that subjects thus caused to sleep and brought under influence will by no means suffer any unpleasant effects.

Several authorities claim that the magnet has in some cases the power of hypnotizing. This may be true; but many of the best known hypnotizers have been unable to find any trace of such influence. However, it may be that in a certain few abnormal cases the magnet has this virtue; but it seems a more natural hypothesis to attribute these few hypnosis to suggestion, an element which enters into every method, and which is so subtle in its action that it is almost impossible in these cases for an operator to state positively that it has been entirely avoided.

Braid has left on record an experiment of his, which bears on the supposed influence of the magnet. A lady told him that she could not endure a magnet brought near her, and that it always had the most profound influence on her, and so it had when she knew of its proximity. But Braid, in order to test the nature of this influence, sat near to her on one occasion for half

an hour, with a powerful magnet concealed in his pocket, and as he expected, found that no effect was produced. However, many hypnotists still believe in the power of the magnet.

In fact the belief of the action of the magnet on human beings is very old. The Magi of the East used it for curing diseases, and the Chinese and Hindoos used it long ago. Albertus Magnus, in the thirteenth century, and later, Paracelsus Von Helmart and Kercher also used it, as well as the astronomer and ex-Jesuit Hell, of Vienna, at the end of the eighteenth century. We have seen that Mesmer also used it at first. Even then, many doctors also used it. Reil, the well-known physician, used the magnet therapeutically; in 1845, Reichenbach asserted that some sensitive person had peculiar sensations when they were touched by a magnet. He also said that many saw light—the so-called Odd light.

Carl Saxtus gives the following as his method; and as it is one of the easiest methods, we give it. Mr. Saxtus has been wonderfully successful in hypnotism, as is shown in his book called "Hypnotism." Price of this book by registered mail is \$2.50.

"If I wish to hypnotize a class, or to try a large number, I use a zinc button, with a copper wire through the centre, which I request the individual to hold in his closed right hand, resting the hand on the right knee. In the left hand, which he holds open, I place a small crystal, set in horn, that is polished to a shining black, the left arm and hand resting partly on the chest. The subject is then requested to gaze continually and intently on the crystal prism, and not to undertake any motions whatever, keeping

the same position in which I place him, and to fix his whole attention on sleep. After a lapse of seven or eight minutes I commence to make passes over the subject; at the end of three or four manipulations I command him to close his eyes; I perform one or two passes more, from the head downward to the knee; placing my left hand on his forehead, then press a certain place with my thumb, at the same time pressing with my right hand the subject's thumb."

"Another very simple, yet effective method, when only hypnotizing one person, is to let the subject gaze fixedly at a lighted candle for about eight or ten minutes, hold the candle at such a height that it requires considerable effort on the part of the subject to look up to it. The subject must not wink the eyelids any more than is absolutely necessary, and must draw the breath deep and in a measured time. The subject is told before commencing to hold the mouth open about one inch, with the tongue curved, the tip resting parallel with the lower teeth. At the end of about three minutes I raise my left hand over the back part of the subject's head, and with my fingers spread far apart, make two or three passes downward along the spinal nerves, after which I command the subject to close the eyes. I then perform one or two more manipulations until full sleep is secured."

Professor Bernheim's method is the following, as given in his own book, "Suggestive Therapeutics."

"I begin by saying to the patient that I believe benefit is to be derived from the use of suggestive therapeutics, that it is possible to cure or at least to relieve him by hypnotism; that there is nothing either hurtful or strange about it; that it is an *ordinary sleep* 

or torpor which can be induced in everyone, and that this quiet, beneficial condition restores the equilibrium of the nervous system. If necessary, I hypnotize one or two subjects in his presence, in order to show him that there is nothing painful in this condition, and that it is not accompanied with any unusual sensation. When I have thus banished from his mind the idea of magnetism and the somewhat mysterious fear that attaches to that unknown condition, above all when he has seen patients cured or benefited by the means in question he is no longer suspicious, but gives himself up, then I say, 'Look at me, and think of nothing but sleep; your eyelids begin to feel heavy; your eyes are tired; they begin to wink; they are getting moist; you cannot see distinctly; they are closed.' Some patients close their eyes and are asleep immediately. With others, I have to repeat again and yet again, and lay more stress on what I say, and even make gestures. It makes little difference what sort of gesture is made. I generally hold two fingers of my right hand before the patient's eyes and ask him to look at them, or I sometimes pass both hands several times before his eyes, or persuade him to fix his eyes upon mine, endeavoring at the same time to concentrate his attention upon the idea of sleep. I keep saying, 'Your lids are closing, you cannot open them again; your arms teel heavy, so do your legs; you cannot feel anything; your hands are motionless; you see nothing, you are going to sleep. And I then add in a commanding tone to 'Sleep.' This word often turns the balance. The eyes close and the patient sleeps or is at least influenced."

"I use the word sleep in order to obtain as far as possible over the patient a suggestive influence which shall bring about sleep or a state closely approaching it, for sleep properly so called does not always occur. If the patient has no inclination to sleep and shows no drowsiness, I take care to say that sleep is not essential; that the hypnotic influence, whence comes the benefit, may exist without sleep; that many patients are hypnotized although they do not know it."

"If the patient does not shut his eyes or keep them shut I do not require them to be fixed on mine, or on my fingers, for any length of time, for it sometimes happens that they remain wide open indefinitely, and instead of the idea of sleep being conceived, only a rigid fixation of the eyes results. In this case, closure of the eyes by the operator succeeds better. After keeping them fixed one or two minutes, I push the eyelids down, or stretch them slowly over the eyes, gradually closing them more and more and so imitating the process of natural sleep. Finally I keep them closed, repeating the suggestion, 'Your lids are stuck together; you cannot open them. The need of sleep becomes greater and greater; you can no longer resist.' I lower my voice gradually, repeating the command, 'Sleep,' and it is very seldom that more than three minutes pass before sleep or some degree of hypnotic influence is obtained. It is sleep by suggestion—a type of sleep which I insinuate into the brain."

"Passes or gazing at the eyes or fingers of the operator are only useful in concentrating the attention. They are not absolutely essential."

"With some patients success is more readily obtained by acting quietly; with others quiet suggestion has no effect. With these it is better to be abrupt, to restrain with an authoritative voice the inclination to laugh, or the weak and involuntary resistance which this manœuvre may provoke."

"Many persons are influenced at the first sitting, others not until the second or third. After being hypnotized once or twice, they are speedily influenced. It often is enough to look at such a patient, to spread the fingers before the eyes, to say, 'Sleep,' and in a second or two, sometimes instantly, the eyes close and all the phenomena of sleep are present. It is only after a certain number of hypnotizations, generally a small number, that the patients acquire the aptitude for going to sleep quickly."

"It occasionally happens that I influence seven or eight persons successively, and almost instantly. Then there are others who are refractory or more difficult to influence. I only try for a few minutes. A second or third trial often brings the hypnosis which is not obtained at first."

# CHAPTER IX.

#### HYPNOTISM.

Telepathic suggestion — Hallucination — Auto-suggestion — Post-hypnotic suggestion.

The first proposition is, that there is inherent in mankind the power to communicate thoughts to others independently of objective means of communication. The truth of this general proposition has been so thoroughly demonstrated by the experiments of members of the London (England) Society for "Psychical Research," that time and space will not be wasted in its further elucidation. For a full treatment of the subject the reader is referred to "Phantasms of the Living," in which the results of the researches of that society are ably set forth by Messrs. Edmund Gurney, F. W. H. Meyers, and Frank Podmore. It is hardly necessary to remind the reader that the methods of investigation employed by these able and indefatigable laborers in the field of psychical research are purely scientific, and their works are singularly free from manifestations of prejudice or of unreasoning scepticism on the one hand, and of credulity on the other. It is confidently assumed, therefore, that the power of telepathic communication is as thoroughly established as is any fact in nature.

Hudson says: "Telepathy is primarily the communion

of subjective mind, or rather it is the normal means of communication between subjective minds. The reason of the apparent rarity of its manifestations is, that it requires exceptional conditions to bring its results above the threshhold of consciousness. There is every reason to believe that the souls, or subjective minds of men can, and do habitually hold communion with one another when not the remotest perception of the fact is communicated to the objective intelligence. It may be that such communion is not general among men; but it is certain that it is held between those who, from any cause, are en rapport. The facts recorded by the Society for Psychical Research demonstrate that proposition. Thus, near relatives are oftenest found to be in communion, as is shown by the comparative frequency of telepathic communication between relatives, giving warning of sickness or of death. Next in frequency, are communications between intimate friends. Communications of this character between comparative strangers are apparently rare. Of course, the only means we have of judging of these things is by the record of those cases in which the communications have been brought to the objective consciousness of the percipients. From these cases it seems fair to infer that the subjective minds of those who are deeply interested in one another are in habitual communion, especially when the personal interest or welfare of either agent or percipient is at stake. Be this as it may, it is certain that telepathic communication can be established at will by the conscious effort of one or both of the parties, even between strangers. The experiments of the Society above-named, have demonstrated this fact. It will be assumed, therefore, for the purpose of this argument, that telepathic communion can be established between two subjective minds at the will of either. The fact may not be perceived by the subject, for it may not rise above the threshold of his subjective consciousness. But for therapeutic purposes, it is not necessary that the patient should know, objectively, that anything is being done for him. Indeed, it is often better he should not know it:

"In ordinary practice two methods are used: First, this method is by passivity on the part of the patient and mental suggestion by the healer. Second, is by passivity on the part of the patient and oral suggestion by the healer. That is to say, "the oral suggestionist often unconsciously telepaths a mental suggestion to the subjective mind of the patient. If he thoroughly believes the truth of his own suggestion, the telepathic effect is sure to follow, and always to the manifest advantage of the patient. This is why it is that in all works on hypnotism and mesmerism the value and importance of self confidence on the part of the healer, or, in other words, belief in his own suggestion, is so strenuously insisted upon. Practice and experience have demonstrated the fact, but no writer on the subject attempts to give a scientific explanation of it. But when it is known that the telepathy is the normal method of communication between subjective minds, and that in healing by mental processes it is constantly employed, consciously or unconsciously, to the persons, the explanation is obvious."

You can scarcely talk with a family, in which some member of it has not had some such experience as will be related.

These telepathic impressions, may occur in the waking state at all times of day. They may occur as dreams in sleep. They frequently occur just as, or after one has retired, before falling asleep.

We will cite one case, which James R. Cocke, M. D., speaks of in his book, "Hypnotism."

"It occurred in the winter of 1877, to Mrs. E., a Protestant Irish woman, sixty years of age. Her reputation was good, and she was known to be a truthful woman. She was well educated and unusually intelligent.

"One morning, at breakfast, she told us, that her aunt, a Mrs. B, had died the night before in the City of Cork, Ireland. She stated that she saw her aunt, described her death-scene, and heard her call her, Mrs. E., by name.

"She saw an old-fashioned clock in her aunt's room, and the hands pointed to 1:15 A M. At three o'clock that afternoon, the lady received a cablegram informing her of the death of her aunt, confirming the hour of death as seen by Mrs. E.

"Subsequency, a letter received by Mrs. E., stated that the dying words of the aunt were repeated calls for her.

"This same lady, so she told me, had, on previous occasions, experienced similar telepathic phenomena."

"Telepathy," is comparatively a new word—at least in the sense in which it is now frequently used. By telepathy I mean the influence which one person, by his will or mental suggestions and without any material media of communication, may exert over another at a distance. When a person has once put another into what is called hypnotic sleep, he need not always have recourse to passes or personal contact to hypnotize the subject again. The look of the operator, his will even, without the look, may exert the same influence upon the subject. This influence is also at times effective when the subject is

entirely ignorant of the will of the operator, and even when they are at a considerable distance apart, in different rooms, with closed doors between them.

The absolute truth of this statement has been abundantly verified time and again, by scores of the most careful and reliable operators. It is enough here to say, that no one who has fairly examined the subject has any doubt about the truth of the above statement, made more than sixty years ago to the French Academy of Medicine. Now, operators are not all equally effective, and are not always equally so. The same is true of subjects. The simple fact, however, is that some operators can and do influence some subjects at a distance; and this is not explained on any known sensual basis. As soon as this is admitted, then the question of distance—a yard or a rod, a furlong or a mile, a mile or a thousand miles, is not a question of theory, but of fact.

And the facts are that persons who are not operator and subject in any such sense as those names are used in hypnotic connection, can and do, at will, communicate intelligently with each other telepathically. This is not saying that they can at any time, and under all circumstances, communicate; nor that their communications are full and entirely satisfactory. They do, however, at pre-arranged times, convey and receive consciously well-defined, intelligent, and useful communications. There are, too, certain persons—not a great many, however—who can, whenever it is desired, call certain other persons' attention, telepathically. This is frequently done.

The subject of telepathy, which properly embraces all methods of thought transference which does not mainly employ the usual mechanical means and the usual appeal to the senses, is comparatively a new study which promises great rewards to the patient and successful student.

Sense delusion is the definition to "Hallucination" when used in connection with hypnotism. It is the perception of an object where in reality there is nothing.

We observe numerous hallucinations in hypnosis. Hallucinations of sight are more easily caused when the eyes are closed; the subjects then see objects and persons with their eyes shut, as in dreams. They think, at the same time, that their eyes are open, just as we are aware in dreams that our eyes are shut. Dr. Moll, says:

"If we wish to cause a delusion of the sense of sight at the moment of opening the eyes, it is necessary to make the suggestion quickly, lest the act of opening the eyes should awake the subject. I advise the use of fixed attention while the suggestion is being made, so that the subject may not awaken himself by looking about. The other organs of sense may also be deluded. I knock on the table and give the idea that cannon are being fired. I blow with the bellows and make the suggestion that an engine is steaming up. A hallucination of hearing something, e.g. the piano, is produced without the aid of any external stimulus. In the same way smell, taste, and touch may be the senses deceived. It is well known that hypnotics will drink water, or even ink, for wine, will eat onions for pears, will smell ammonia for eau de Cologne. In these cases, the expression of face induced by the suggested perception corresponds so perfectly to it that a better effect would scarcely be produced if the real article were used. Tell the subject he has taken snuff, he sneezes. All varieties of the sense of touch, of pressure, of temperature, of pain, can be influenced. I tell a person that he is standing on ice. He feels cold at once. He trembles, his teeth chatter, and he wraps himself in his coat. It appears to me that the senses of touch and taste are the most easily and frequently influenced. For example, the suggestion of a bitter taste takes effect much sooner than the suggestion of a delusion of sight or hearing. It is true that the subjects often account to themselves for the delusion; they taste the bitterness, but say at the same time that it must be a subjective sensation, since they have nothing bitter in their mouths.

"Sense delusions can be suggested in any way. We can tell the subject that he sees a bird. We can suggest the same thing by gesture, for example, by pretending to hold a bird in the hand particularly after the subject has received some hypnotic training. The chief point is that the subject should understand what is intended by the gesture.

"Naturally, several organs of sense can be influenced by suggestion at the same time. I tell some one, 'here is a rose'; he not only sees, but smells and feels the rose. I pretend to give another subject a dozen oysters; he eats them at once, without further suggestion. The suggestion here affects the sight, feeling, and taste at the same time. In many cases, the muscular sense is influenced in a striking manner by such suggestion. I give a subject a glass of wine to drink; he lifts the pretended glass to his lips, and leaves a space between hand and mouth as he would if he held a real glass. I am not obliged to define the delusion for each separate sense; the subject does this spontaneously for himself. The subject in this way completes most suggestions by a process resembling the indirect suggestion."

All sorts of hallucinatory impressions may be produced upon the sense of hearing as well as upon the sense of sight, and taste. The subject's hearing may be made abnormally acute, or he may be made to hear things which do not exist. This peculiar sub-conscious condition, when not interfered with by suggestion, renders the sense of hearing peculiarly, nay, pathologically acute.

A hypnotized subject is much more sensitive to music. It has for him a deeper meaning than for the normal mind. There is, indeed, yet unexplored a vast field for experimentation in this direction. The peculiar effect of music on hypnotized subjects is yet unexplained.

The fact that music can produce remarkable effects on hypnotized subjects gives to the subjective consciousness a psychological importance which it has never occupied before, and undoubtedly the future will prove that this field is rich with yet undiscovered treasures.

Many sensations, many vague memories of some forgotten day, will be brought up from the depths and recesses of this wonderful land of dreams and will be studied, and will enrich colder thought with radiant poetic gems.

Hallucinations and delusions of taste and smell in a hypnotized subject can also be produced by suggestion, but they possess no especial interest. The power of speech may be wholly abolished or partially inhibited, and certain words will be forgotten at command while the hypnotic state lasts. Also the memory of a printed page or the memory of certain letters may be forgotten.

I have shown that hallucination may act upon the five senses of the body as well as upon the emotions when a patient is hypnotized.

Auto-Suggestion.—Perhaps the best definition of

Auto-Suggestion or Auto-Hypnosis is that self predominates over all else. No suggestion can quite rid the body of the predominate self or drive the ideas away from the brain, that are persisted in, when not under the influence of hypnosis. Therefore much harm is done—and nearly every case where hypnosis fails to give at least relief—is caused by auto-suggestions as will readily be seen from the following cases which are cited by the best known authority in the world.

Auto-suggestion is now recognized as a factor in hypnotism by all followers of the Nancy school. Professor Bernheim mentions it as an obstacle in the way of the cure of some of his patients. One case that he mentions was that of a young girl suffering from a tibio-torsal sprain. "I tried to hypnotize her," says Bernheim, "she gave herself up to it with bad grace, saying that it would do no good. I succeeded, however, in putting her into a deep enough sleep two or three times. But the painful contracture persisted; she seemed to take a malicious delight in proving to the other patients in the service that it did no good, that she always felt worse. The inrooted idea, the unconscious auto-suggestion, is such that nothing could call it up again. When the treatment was begun, she seemed to be convinced that hypnotism could not cure her. It is this idea, so deeply rooted in her brain, which neutralizes our efforts and her own wish to be cured."

Another one of Professor Bernheim's cases is the following:

"I recently had to treat a young woman who was hypochondriacal. Among other troubles she had a violent pain in the epigastrium, which she believed to be connected with uterine cancer, although she had repeatedly been told that there was no lesion there. I succeeded in hypnotizing her often enough, and sometimes even in obtaining a profound sleep. I hypnotized her for ten days; by energetic suggestion, I succeeded in quieting the pain. Upon waking, she was obliged to confess she had no more, or scarcely any pain. But she hastened to add that the pain would certainly return, and in fact, it did come back, involuntarily evoked by her diseased imagination."

With these sort of patients, auto-suggestion is stronger than a suggestion from some one else. They listen to their inner feelings, they call them up; they are in relationship only with themselves; they are *auto-suggestionists*.

Dr. Moll, says: "Auto-suggestions are not uncommon as pathological incidents. Dread of open spaces is nothing but an auto-suggestion. The patient in this case is possessed by the idea that he cannot step across some open space; no reasoning is of avail here. The patient acknowledges its justice without permitting it to influence him, because his anto-suggestion is too powerful. As a rule, logic is for the most part powerless over these auto-suggestions. Many hysterical paralyses are likewise auto-suggestions; thus, a patient cannot move his legs because he is convinced that movement is impossible. If this conviction can be shaken, movement is at once practicable."

"Auto-suggestion may be called up by some external cause; this may affect the person from outside, and thus induce auto-suggestion. Charcot referred some isolated transmatic paralysis to some such originating mechanism. According to this view a violent blow on the arm, following on certain disturbances of sensibility, may produce in the person concerned a conviction that he cannot move his arm.

As the conviction was called up by a blow, this case stands somewhere between external suggestion and auto-suggestion. We will call all cases in which the auto-suggestion did not arise spontaneonsly, but was the secondary result of something else, such as a blow, indirect suggestion; as opposed to direct suggestion, which arouses a certain idea immediately, of which I have given an example. It is, besides, not always necessary that there should be a conscious mental act in suggestion; individuality and habit sometimes replace this, and play a great part in the training of the subject, of which we have shown above. For another example, if some external sign, such as a blow on the arm, has several times, by means of a conscious mental act, produced the auto-suggestion that the arm is paralyzed, then the auto-suggestion may repeat itself later mechanically at every blow without any conscious thought about the effect of the blow."

One can induce the hypnotic state upon himself by the exercise of the same faculties which produce it when it is brought about by the suggestion of another.

Dr. Cocke, says: "A number of my subjects will pass into a deep trance and remain so for a period of time ranging from five minutes to two hours, if they look at a bright object, a bed of coals, or at smooth running water. They have the ability to resist this state or to bring it at will. That this power of auto-hypnotism is exercised by nearly every one I am quite sure. Who does not look at a tiny picture, and in the minute face see again reflected the beaming countenance, life-size of some dear one. In matter of fact, Dr. Moll, says: "It is possible that some states of sleep, which are generally considered pathological, belong to auto-hypnosis." Post-hypnotic suggestion, means that

a patient will carry out any instructions given him when in a hypnotic sleep, (by the doctor) after he awakens; he will do the act apparently unconscious of having received any suggestion from the operator. Perhaps, the best way to explain this, will be by citing cases where the operator and patient are both used to the post-hypnotic suggestions.

Dr. Moll, says: "For this purpose, I will choose some action induced by post-hypnotic suggestion; and will suppose it to be a case of hypnosis without subsequent loss of memory.

"Here is an analogous case in waking life. I give a letter to X, who called on me, and ask him to post it on his way home, if he passes a letter-box. This he does.

"I now give exactly the same commission to Y, who is in a hypnotic state, without subsequent loss of memory.

"In both cases my commission is executed. Now, the question is, what is the difference between the two cases? In the case of Y, one circumstance may strike us, i. e., that he did the act without or perhaps against his will.

"The fact that Y posted the letter without being willing to do so, does not distinguish his case from X's. X walked home with Z, and talked all the way. He passed a letterbox, and though he continued to talk, and apparently did not notice the box, he mechanically put the letter into it. Later, it occurred to him that he had a letter to post; he had a faint recollection of having done it. He could, however, convince himself of the fact by feeling in his pocket for the letter. We see, then, that he executed the commission without conscious will.

"It would be more striking if X should do some such action against his will. In the action described, this was not the case. He would not have executed the commission

if his will had not consented. Also, he would have remembered the action if his will had opposed it. There must always be consciousness when the will is exerted to prevent something. There must be an idea of the action to be performed. What is striking in post-hypnotic suggestion is exactly the fact that it is carried out against the will, in which case the subject of course knows what is to be done, and has an idea of it. It is this idea which causes a post-hypnotic action to be carried out in spite of the will.

"The question now is whether we can find an analogy to this in waking life; whether an idea can in this case cause a motor or other effect in spite of the will. The answer must be, 'Very commonly.'

"We saw, when talking of suggestion in the waking state, that an idea is sometimes enough to cause an action or a particular state in spite of the will. This is a common occurrence. We will suppose that A, has lost a dear friend or relative. A is, in consequence, sad and depressed, and cannot refrain from tears. Months pass, and he grows calm, but when the anniversary of the death arrives, he falls again into the same state of mental excitement and tears, which he cannot conquer. The vivid idea has been enough to throw him, against his will, into a certain state.

"A person who stammers is in the same case. Alone at home he can speak quite well, but a stranger comes in and he begins to stammer. He stammers because he thought he should stammer, and his will is powerless both over the thought and the stammering. We see the same sort of thing constantly, and certain states of illness are induced merely by a vivid expectation of them; they then come on in spite of the will. Accordingly, it is not astonishing that a post-hypnotic suggestion should succeed against the subject's will.

"The post-hypnotic movements and actions carried out in spite of the will—or, to speak more exactly, in spite of the wish—have a great likeness to the instinctive movements well known in psychology, which are often made to satisfy a pleasure which follows from the act. Such instinctive movements are entirely independent of the will; they take place in spite of the wish."

All post-hypnotic suggestions are merely apparently forgotten between waking and fulfillment, as will be seen in the following cases cited by Professor Bernheim.

"I suggest to D——, during hypnotic sleep that upon waking he should rub his sore thigh and leg, that he should then get out of bed, walk to the window and return to bed. He performed all these acts without suspecting that a command had been given to him while he was sleeping.

"I suggested to S—, on one occasion, that on waking he should put on his hat, bring it to me in the next room, take it off his head and put it on to mine. This he did without knowing why.

"On another occasion when my colleague, M. Charpentier, was present, I suggested to him, when he first fell asleep, that as soon as he waked, he should take my colleague's umbrella, which was lying on the bed, open it, and walk twice up and down the piazza on which the room opened. It was some time afterward when I waked him. Before his eyes were open, we went quickly out of the room, so that the suggestion might not be recalled by our presence. We soon saw him coming with the umbrella in his hand, but not open (in spite of the suggestion). He walked twice up and down the corridor. I said to him, 'What are you doing?' He answered, 'I am taking the air.' 'Why, are you warm?'

'No, it is only my idea; I occasionally walk up and down out here. 'What is the umbrella for?' 'It belongs to M. Charpentier.' 'What! I thought it was mine; it looks something like mine; I shall take it back to the place I took it from.'

"One morning, at eleven o'clock, I suggested to C—, that an hour after midday he would be seized by an idea he could not resist, namely, to walk along Stanislaus Street and return, twice. At one o'clock, I saw him go out into the street, walk along from one end to the other, return, and stop, like a lounger, under the windows. But he did not do it twice, perhaps because he did not understand the second part of the suggested command, perhaps because he resisted it.

"On one occasion, during X—'s hypnotic sleep, I suggested the following act: 'When you awake, you will go to my office, and you will write on a sheet of paper, 'I have slept very well;' you will place a cross after your name.'

"I waked him in a quarter of an hour. He went to the office, wrote the phrase I had put into his mind, signed it, and made a cross after his name. 'What does this cross mean,' I asked. 'Why!' he replied, 'upon my word I do not know; I made it without thinking.' The next day, I made him write another sentence with two crosses after his name; the day after, his name with a star after it. On the following day, I suggested to him while he was asleep, 'When you wake up, you will write, 'I will go to M. Liébault while you are away,' and you will sign it, but you will make a mistake. Instead of signing your name X——, you will sign mine, Bernheim, then you will see you have made a mistake, and you will rub out mine and put yours

instead.' This he did when he woke up, and seemed very much puzzled by his error. He made excuses to me, but did not suspect that the responsibility of the mistake did not rest with him, and that I had suggested it."

The effect of the suggestion of post-hypnotic acts is not absolutely inevitable. Some patients resist them. The desire to carry out the act no doubt is more or less imperative, but they resist it to a certain extent.

The following case shows the struggle and hesitation before obeying the idea which were manifested in the patient until the suggestion finally got the upper hand.

"A young hysterical girl was brought to the Medical Society, at Nancy, by M. Dumont. She was hypnotized and was ordered, when she woke, to take the glass cylinder off the gas-burner, over the table, and put it in her pocket and take it away when she went. After she was waked, she turned timidly toward the table, and seemed confused to find everyone looking at her. Then, after some hesitation, she climbed upon her knees on the table. She kneeled there about two minutes, apparently ashamed of her position, looked alternately at the people around her and at the object which she had to carry away, put out her hand, and then, drew it back. Then, suddenly taking off the cylinder, she put it in her pocket and hurried away. She would not consent to give it up until she had left the room."

It is strange that suggested actions may be carried out not only during the time immediately following the sleep, but after a greater or less interval. If a somnambulist is made to promise during his sleep that he will come back on such and such a day, at such and such an hour, he will almost surely return on the day and at the hour, although he has no remembrance of his promise when he wakes up.

Professor Bernheim cites a case where he made his subject say he would come back to him in thirteen days, at ten o'clock in the morning. The subject remembered nothing when he waked. On the thirteenth day, at ten o'clock in the morning, he appeared, having come three kilometres from his house to the hospital. He had been working at the foundries all night, went to bed at six in the morning, and woke up at nine with the idea that he had to come to the hospital to see me. He told me that he had no such idea on the preceding days, and did not know that he had to come to see me. It came into his head just at the time when he ought to carry it out.

Thus, a suggestion given during sleep may be dormant in the brain, and may not come to consciousness until the time previously fixed upon for its appearance. Further research is necessary to explain this curious psychological fact, and to determine how long a hypnotic suggestion may thus remain latent. It goes without saying that all somnambulists are not susceptible to suggestions which take effect after a long interval of time.

### CHAPTER X.

#### HYPNOTISM.

Somnambulism—Arousing Latent Memories, after Waking from a Somnambulistic Sleep—The use of Tobacco Cured—Curing Drunkenness—The Curing of the Morphia Mania—The dangers of Hypnotism and Drugs compared.

Long ages ago, the word somnambulists was given to the people who walked in their sleep. The resemblance between hypnotism and somnambulism is so great that the name somnabulism is used for both, or at least that is the definition given by Richet. Hypnotism is called artificial somnambulism, according to Poincelot. Professor Bernheim calls somnambulism the seventh degree of hypnotism. Dr. Moll, says: "There are three stages generally distinguished in somnambulism.

"FIRST.—That in which the sleeper speaks.

"Second.—That in which he makes all sorts of movements, but does not leave his chair or bed.

"THIRD.—That in which he gets up, walks about and performs the most complicated actions."

"In my experience," Dr. Moll adds: "the first two stages are found in persons of sanguine temperament who are decidedly not in a pathological condition. It is not yet finally decided whether the third state appears under pathological conditions only. From my own experience I am inclined to think that it is occasionally observed when there is no constitutional weakness, especially in children. If we want to show these states we can do it with the healthiest subjects."

Dr. Bernheim says: "That the functions of relationship, which are unconscious or at least but slightly conscious, grow more active. The tactile, acoustic and muscular senses are gradually aroused. This is known as passive somnambulistic automatism. The subject continues any movement communicated to his limbs (motor inertia), carries out any acts in relation with the sensory or sensorial impression (motor suggestion), reproduces articulate sounds, the movements which he sees or hears (automatic imitation), and executes orders (automatic obedience)."

"Memory and the faculties of the imagination are aroused in their turn. This is known as active somnambulistic automatism. The brain is deprived of spontaneity, and is accessible to dreams, which differ from ordinary dreams, in that the psycho-motor and psycho-sensorial phenomena are of an unconscious character. In this state there are dreams in which the subject walks about, professional, instinctive, and passionate dreams, dreams in which memory is revived, intelligent dreams (during which the subject performs intelligent acts, writes and plays upon the piano, etc.,) and suggested dreams."

"The faculties of co-ordination are imperfectly aroused; the imaginative and instinctive faculties still rule the scene, and have the advantage over the first or reasoning faculties. This is known as the *somnambulistic life*. The subject appears to be awake, performs his everyday acts, but his weakened will and exalted imagination leave him susceptible to suggestions and obedient to acts commanded."

Chambord says: "That from all observation, and from descriptions of the phenomena, we may deduce the fact, that active somnambulism, implies the most profound influence, the most adranced degree of hypnotism, and the most widely separated from the waking condition. All the other phenomena, moreover, motor-automatism, motorsuggestion, automatic imitation and obedience, are found in active somnambulists. The same subject whom we hypnotize daily, often reaches only the stage of motorautomatism in the first hypnotization; it is only through repeated hypnotizations that he gradually acquires the aptitude for carrying out the hallucinations and dreams of suggestion. It is then only that amnesia upon waking exists; a proof of more intense psychical modification than that of the preceding degrees, in which the subject was fully aware of the cause of his catalepsy and retained an exact recollection of it. Moreover, the subjects who only manifest motor-automatism are not pure automatons; they hear and remember what they have heard when they wake; they often reply to questions; they try to resist suggestions, and struggle against the attitudes or movements which are commanded; consciousness is not destroyed; the will is still alive, but is powerless against the exaggerated automatic action."

"Even in active somnambulism, the physical faculties are not destroyed; the somnambulistic subject also resists certain suggestions, and refuses to perform certain acts; he reflects before answering certain questions, and carries on active intellectual work. Moreover, acts, illusions, and post-hypnotic hallucinations commanded during hypnosis, are carried out when the subject wakes, when consciousness and the faculties of co-ordination have certainly resumed

their control. Finally, the manifestations of these same phenomena in waking condition in a subject who is *compos sui*, and astonished that he cannot struggle against the automatism which dominates him, shows clearly that consciousness and will may survive all degrees of hypnotism."

Professor Bernheim says again: "A somnambulist is hypnotized; I speak to him; I make him speak; I make him work; I give him hallucinations; I wake him in half an hour or an hour at the most; he remembers absolutely nothing of what has passed; he will remember nothing spontaneously. Now, nothing is easier than to recall to any somnambulist the memory of all the impressions he has received in his sleep, and this experiment succeeds in all cases of somnambulism. In order to do this I have only to say, 'You will remember everything that has happened, everything that you have done during your sleep.' If necessary, I lay my hand on his forehead to concentrate his attention; he thinks deeply for an instant, without falling asleep, and all the latent memories arise with great precision; he repeats my words as well as his own, relates his acts, gestures and hallucinations successively; nothing is forgotten. I have aroused the latent memories by a simple affirmation "

"We see a somnambulist; she goes and comes, obeys orders, converses, works, and is entirely conscious. We would swear that she is awake. After half an hour's active conversation, I suddenly say, 'Wake up.' She goes on talking after she wakes. She remembers nothing, absolutely nothing. It is a singular phenomenon. Everything is faded from the memory. The nervous force which was concentrated, in certain parts of the brain is now diffused throughout; the light being distributed elsewhere, no longer

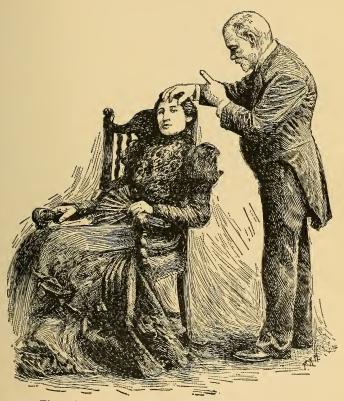
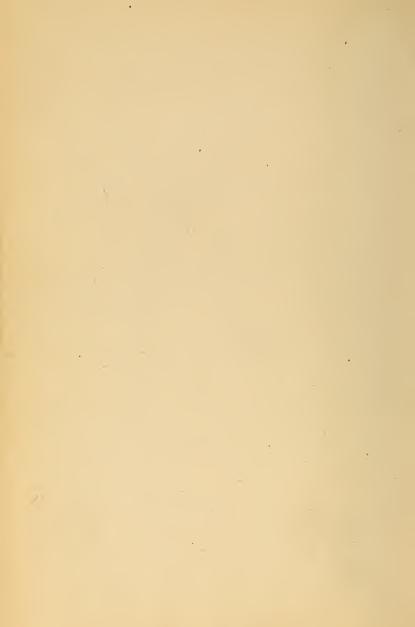


Fig. (4.) Arousing Latent Memories. See Page 158, Original Portraits. Copyright by M. Young, August, 1899.



illumines the preceding impressions; a new state of consciousness exists. I put the somnambulist to sleep again; the old state of nervous concentration re-appears and with it the old state of consciousness, the faded impressions return; the latent memories revive."

In somnambulism—"The most remarkable of these acts," says Despine, "are those which manifest facial expression, gestures, and bodily attitudes, imitative acts, which are habitually associated with various and indistinct feelings, and which are carried out by everyone, although they have never been learned. To these acts also belong the different inflections which the voice takes under different circumstances, and the movements of the head which are made by some musicians when they are playing, as well as by some of their hearers."

"Hate, anger, pride, cunning, admiration, etc., bring about in all persons who experience them, the same muscular contractions, and consequently, a similar expression. And this is true, not only of man, but of animals. Their various acts, accomplished by the automatic mechanism of the nervous centres, are so pre-established by law, that they are found to be always identical in all individuals submitted to the same exciting causes."

"Another effect of this automatic arrangement is seen in affectation. It is thought that the phenomena which constitute it are voluntary and studied. This is a mistake. A person is affected in manner in consequence of an exaggerated facility for following what happens in thought, which the automatic nervous organs possess. The voice takes the most varied inflection, according to the slightest changes in the feelings. The muscles of the face produce the greatest variety of contractions. The limbs and the body move in a

thousand ways. This disposition is observed especially in women."

Sometimes when a patient is in the somnambulistic state treatment can best be obtained by pursuing a slightly roundabout way.

Laurent mentions cases in which persons have been weaned from tobacco, not by direct command, but by suggesting that the smell of tobacco is very unpleasant, and by suggesting that it was slowly and surely poisoning them, and that if the patient did not quit using it he would die. The effect is generally successful."

Dr. Moll says: "In treating patients when in the somnambulist state for the weaning from the tobacco habits, I have found it an excellent plan to place the hypnotic subject back into the earlier periods of his life; back into the early stage when the habit of using tobacco was unknown to him, and to tell him that he must never touch the tobacco again; that he must not smoke or chew, or do any of those things that he did not do when a boy. I would suggest to him that tobacco was harmful to a great degree; that he could never be well and use it. If you can get the patient to promise that he will not use it again, he will not." Promises made when in the hypnotized state are seldom broken. It is often difficult to get the subject to promise anything, but when successful, the cure is assured.

Again, in many cases it is necessary to hypnotize a patient many times before he is really cured of the tobacco habit. The success, often depends on the patient's own desire. If the subject be determined to smoke when he is in his normal condition, it is almost impossible to cure him by hypnotic treatment. On the other hand, if he

wishes to be cured, and has faith in the operation, the cure is sure.

Imagination is a potent factor in both the formation and cure of many vile practises. I have seen a few cases of very severe suffering in consequence of the sudden abandonment of tobacco, but, if the sufferer, will again be hypnotized, the pain by suggestion can be, and is nearly always relieved if not cured. The operator wants to be firm, when the patient is in the somnambulistic state, and repeat two or three times: 'You surely will be out of pain when you waken. You will not want to smoke; the smell of tobacco will make you sick again; you do not like tobacco; it is very nasty; you will be well, when you waken, and will not be sick again for the want of tobacco; only sick if you take it.' It is well to look steadily at the subject while speaking, and either hold his hand in yours. or place your hand on his head. It is seldom necessary to have to hypnotize a patient more than two or three times to cure him of the tobacco habit.

It seems that hypnotism promises a great deal to those who suffer from terrible habits. Oedmann says, that he has had good effects with suggestion, in curing alcoholism. Suggestive somnambulism has cured when every other known remedy has failed.

In cases of drunkenness, much depends on the length of time of each "spree," and the number of years the habit has been inbedded in the mind or brain of the patient, also the physical condition of the patient, at the time the experiment of hypnotic sleep is tried. The better the health, the speedier the cure in most cases.

Hypnotism does not necessarily succeed at once. If the hypnosis is deep and the somnambulistic state is the result,

good effects may be very quickly obtained; in other cases, patience and method are wanted, and all the difficulties taken into consideration. The more the idea of drink has taken root, the more difficult it is to overcome. Dr. Liébault and Dr. Liègeoir were only able to cure one patient, after sixty treatments of hypnotism, of which each lasted over half an hour. Dr. Moll, in speaking of the above case, says: "Why hypnotism should be measured by a different standard than other methods of treatment is inexplicable to me. A doctor is often satisfied to obtain a result after weeks or months of electro-therapeutic treatment, and how often, after months of perseverance, it fails to appear. Why, then, should we expect suggestive therapeutics to succeed in one day? Patience on the side of both doctor and patient is often required in all treatments "

Many authors, and especially Kroepelin, have of late years advocated the use of hypnosis in alcoholism. Corval points out that in alcoholism any injurious effect of abstinence can thus be avoided, by simply suggesting that all desire and taste for liquor shall disappear. The operator when addressing the subject must be sure to speak *firmly* and to say something like this: "Pay close attention to me. Remember, when you waken, you will not drink or taste any wine or liquor. Remember, not for three days and three nights, and then come back to me." The posthypnotic suggestion is a wonderful help in such cases, and after two or three hypnosis the subject can be told not to come back for three weeks, then three months, and finally not to come any more.

Bérillon and Tanzistrand and others are in favor of this gradual method of curing. Bérillon and Jennings hold that

auto-suggestion is a great factor in producing the difficulty of treating both alcoholism and morphinism, the auto-suggestion that he cannot do without drink or morphia leading the patient to desist from treatment. The following case is one given by Dr. Cocke, and we consider it very interesting.

"The patient was a mechanic, well-developed physically, forty-three years old, married, and had three healthy children. No organic disease could be detected about him. Every three months, regularly, he would have a spree lasting two weeks. He explained to me that he had no physical desire for liquor, but had a mental impulse to drink which became a fixed idea, and was impossible for him to resist. This idea usually possessed him about four days before he yielded to it. I told him to come to me as soon as the idea came upon him. This he did. He was put into a somnambulistic state, and in a firm manner told that the idea would vanish. It did not. He told me honestly the evening after he had been hypnotized that the impulse was growing upon him, and he feared that he must yield. Again he was hypnotized, and the sleep was very profound. In a stern, firm manner he was told to remember that he was a man, with a firm will, and that he must resist the desire. That he must not drink. That whiskey would make him sick, and that when he awoke the first thing for him to do was to walk six times up and down before a liquor store and not to go in. And that the thought of whiskey would make him ill. As soon as he was aroused from the hypnotic sleep he did as he was told. He was watched by his brother, who did not drink. He wrote me next day that the desire for drink was entirely gone. At the end of the following three months he again consulted

me, stating that the idea was haunting him but not quite to such an extent as previously. One hypnotic treatment was sufficient to dispel it. At the end of the following nine months he again returned, stating he had drank a glass of whiskey with a friend, and that the old idea had returned. He was hypnotized, and since then, a period of three years, he has had no desire for drink."

"It is always well when making suggestions to somnambulistic subjects, on so important a matter as drinking, smoking, etc., to place your hand on the back of theirs, and to look steadily at them when making the command or suggestion. Professor Bernheim says: 'It is always necessary to have deep sleep for manifestation of a rapid action; simple dullness is sufficient in some cases;' but rarely can disease or habit be relieved or cured unless the patient becomes somnambulistic; with no remembrance of anything upon waking but what you tell him to remember. He will be eminently suggestible. For example, a man comes to me to be cured of the morphio-mania. The patient is put to sleep by means of suggestion, that is, by making the idea of sleep penetrate his mind. He is treated by means of suggestion, that is, by making the idea of cure penetrate his brain, and remain there. I affirm in a low firm voice, 'You are asleep, and you must sleep deep; you must think well of what I say. When you wake, you must remember all I say. Will you?' Repeat over and over, 'Will you?' At last the patient may promise. If he does, you have gained much toward curing him. If he will not speak, I put my hand on his forehead, and continue: 'When you wake, you will not want any morphine; you will not like it; it will make you sick.' I then hold his evelids closed, in silence, a moment or two, then hardly

above a whisper, I continue, 'Remember all I say when you wake. You will not want any opium, in any way; you will have no pain. The desire will not come back any more.' In order to increase the force of the suggestion by embodying it, so to speak, in a material sense, following M. Liébault's example, I suggest a feeling of warmth, loco dolenti. In about twenty minutes, I wake the patient. In some cases, the patient is hypnotized twice; in others, many many times before the desire entirely disappears."

"It is in somnambulism that suggestion reaches its maximum efficiency, and that cures are often instantaneous and seem miraculous. Certain subjects resist for many treatments; they only fall into somnolence; the effect obtained is slight or doubtful. By persevering for a longer or shorter time, several days or even several weeks, with hypnotizations which give but little result, some subjects can at last, be put into a deeper sleep, and then the therapeutic action of suggestion may be rapid and lasting."

"The mode of suggestion should also be varied and adapted to the special suggestibility of the subject. A simple word does not always suffice in impressing the idea upon the mind. It is sometimes necessary to reason, to prove, to convince, in some cases to affirm decidedly; in others to insinuate gently; for in the condition of hypnosis, just as in the waking condition, the moral individuality of each subject persists according to his character, his inclination, his special impressionability, etc. Hypnosis does not run all its subjects into a uniform mould, and make pure and simple automatons out of them; moved solely by the will of the operator; it increases the cerebral docility; it makes the automatic activity preponderate over the will. But the latter persists to a certain degree, the

subject thinks, reasons, discusses, accepts more readily than in the waking condition, but does not always accept, especially in the light degrees of sleep. In these cases we must know the patient's character, his particular psychical condition, in order to make *an impression* on him.''

Many people are afraid of hypnotism, but without cause. While hypnosis may not be absolutely safe, still it is not absolutely dangerous. The dangers of hypnotizing is somewhat exaggerated. In the hands of a thorough operator, whether a doctor or not, there is no harm; in fact, one could not do the harm to a patient with hypnotism, that he could with drugs. Much more knowledge is necessary in handling medicine than in handling hypnotism.

Dr. Moll, says: "It is never asked if a remedy might not be dangerous; we only ask if we cannot avoid the danger by careful and scientific use of it. Rust asserts, in speaking of artificial somnambulism: 'The best assertion that can be made about a remedy or method of cure, is that it might also do damage; for what can never do positive harm can never do positive good.' This assertion is to a great degree justifiable, though perhaps exaggerated; for I think I may say that there are few remedies in medicine which would not injure if carelessly and ignorantly used. There are even medicines which may injure, however carefully used, because we do not know exactly under what conditions they become hurtful. I need not speak of morphia, strychnine, and bella-donna, which have sometimes done injury even when the maximum dose was not surpassed, nor of the deaths from chloroform, the reason of which has not been explained. Thiem and P. Fischer, with praiseworthy scientific frankness, have quite recently published a case of the fatal after-effects of chloroform;

death followed on the fourth day. These authors say that there is at least one death for every thousand administrations of chloroform. Neither will I speak of the dangers of surgical operations. I need only point out that an apparently harmless medicine may have, very likely, already done more mischief than hypnotism. Many deaths have resulted from the use of potassium chloride, and unfortunately this drug can still be bought in retail without a medical prescription. Severe collapse has been observed after the use of antipyrine—sulfonal—which is supposed to be a perfectly harmless hypnotic drug. A friend and colleague has told me that he has seen sad consequences follow from its use, and that there were some patients to whom he never gave it, for fear this 'harmless' drug would work great mischief. And again, as to Mendel's treatment by suspension, which a few years ago became almost a fashion, and from which certain enthusiasts really expected the cure of locomotor ataxia. It is now certain that it may cause great injury, or even death. Many published reports show that even the presence of a doctor does not prevent evil consequences. Billroth has pointed out great dangers from carbolic acid, which is constantly used. If we give up the use of these remedies, we might give up medicine altogether, as everything employed may do harm."

"The above is in favor of hypnotism. The future will decide the fate of hypnotism, but nearly all the men who paint the harm of or dangers of hypnotism (Gilles de la Tourette, Ewald, Mendel, Rieger, Binswagor), and are in general against it, by no means refrain from using hypnotizing sleep. By this they allow that it is not hypnotism itself, but its misuse, which is mischievous,"

# CHAPTER XI.

### HYPNOTISM.

The Phenomena of Hypnotism—Why Hypnosis is different in different subjects—Proof that such a Science as Hypnotism exists—Rapport—Double Consciousness—Max Dessoir Theory—H. Bernheim Theory.

"Truth is never dangerous; ignorance alone is disarmed," says Professor Bernheim.

Charles Richet, relating analogous examples has described this singular psychical state. "Many imagine that they have not been influenced, because they have heard everything. They believe in good faith that they have been pretending. It is sometimes difficult to show them that they were not able to pretend."

"Induced somnambulism is manifested in extreme cases; those in which the act suggested forces itself with an irresistible sway. But nothing happens in the profound sleep which has not its analogy, its diminutive, if I may so express it, in the waking condition. Sleep exaggerates physiological automatism, it does not create it. Between the fatal suggestion and the absolutely voluntary determination, all degrees may exist. And who can analyze all the suggested elements which, unknown to us, come into the actions we believe to be of our own initiative."



METHOD USED IN CURING THE MORPHINE HABIT.

See Page 164.

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"You speak of universal hallucination. It existed, when it was not known, when no one suspected the singular facility with which artificial hallucination could be realized. It existed when a naive faith in sorcery blinded the best minds, as if implanted in the human brain by suggestion; when meetings of witches, sorcery, nightmares, malicious spirits, and all phantoms evoked by the imagination were considered as realities, when trembling science did not dare in face of the funeral pile, to beard all-powerful religious superstition. What crimes, what catastrophes, what judicial errors might have been spared poor humanity if scientific truth had been able to show itself! The history of the devil, of witchcraft, of evil possessions, the history of demoniacal epidemics, these collective suggested hallucinations weigh like a frightful nightmare upon the centuries which precede our own, and in our day still, what superstitions suggested by the binding of a coarse faith will disappear like shadows under the torch of scientific truth!"

"One can do well, by meditating upon these words of Bacon's, 'The human mind does not sincerely receive the light thrown upon things, but mixes therewith its own will and passions; thus, it makes a science to its taste; for the truth that man most willingly receives, is the one he desires."

The following remarks were made by Ralph H. Vincent, and we consider them the best that we can find, pertaining to the subject now under discussion:

"The characteristic features of hypnosis is the presence of a condition in which a *suggestion* causes a reaction of the central nervous system definitely corresponding with the nature of the suggestion.

"The alterations of the ordinary functions of the body

during hypnosis vary in their degree and number, in accordance with the method of hypnotization. Some subjects are able to move with perfect ease and freedom; thus, they will brush a fly off the face with the hand, or change their position when one posture becomes wearying. Others present all the appearances of being in a heavy sleep. The breathing is slower and deeper than in the normal condition, the inspirations being full and prolonged; the pulse is somewhat slower, but increased in fullness and strength.

"At the moment when the subject passes into hypnosis, there is always more or less marked, a deep inspiration of peculiar quality.

"The general condition of the subject when hypnosis has been induced is one of acute passivity. The position which the patient has taken up may remain the same down to the smallest detail for the space of half an hour or more; the fingers, clasped or open, will so remain. The subject can hear perfectly well; but the most amusing story may be told to others in the room without provoking the slightest reaction in him. The normal irritability of the nervous system has disappeared in a striking manner.

"The eyes and the mouth often show striking symptoms of the onset of hypnosis. The closing of the eyes is generally preceded by a marked quivering of the eyelids, and their vibrations are often maintained for some time after the eyes are closed.

"It is not always necessary that the eyes should be closed for a person to be hypnotized, though this is generally the case, and in many instances to open the eyes would awaken the subject.

"When the method of fascination is used, the eyes may remain wide open the whole time. In the deepest

hypnosis, it is frequently found that the eyes are not quite closed, but that there is a slight opening left, through which the eyeball can be seen. Sometimes, as the eyes close, the eyeball turns upwards, and remains in this position till the subject is awakened; at other times it is found that the eyeball returns to its natural position when the eyes are closed. In any but the lightest stages of hypnosis all muscular movements can be prevented or induced by means of suggestion. Thus, the statement, 'You cannot open your mouth,' or 'You cannot bend your arm,' is sufficient to prevent the action being performed.

"A subject in response to the proper suggestion will be able to say some definite word, but in all other respects will be absolutely dumb. He will be able to write, play the piano, sew, but quite unable to hold in his hand some small given object.

"By means of suggestion it is possible to compel the subject to cough, sneeze, laugh, weep, etc., etc. In the case of those subjects who are in a deep stage, a series of movements will be performed by them if they be so directed.

"It is important to note that while *suggestion* may be made *verbally* to the patient, it is by no means necessary that words should be used. All that is requisite is that the subject should clearly understand what it is that is desired of him. The organs of sense and perception are all channels for the conveyance of any suggestion made to the subject. It is found for instance that some action on the part of the hypnotist will tend to bring the suggestion more vividly before the mind of the patient.

"This fact led many to suppose that the physical action of the operator had some intrinsic value. Such is,

however, not the case; its only value lies in its power of intensifying the impression which it is desired to create.

"In the deeper stages the memory is lost, unless after awakening him, some hint be given to the subject; this may serve to bring the whole chain of events to his recollection. In the deepest states memory is entirely lost, the subject fails altogether to remember any event of the hypnotic sleep, and when anything he may have said or done under hypnosis is pointed out to him he manifests the greatest surprise. A very important fact to be noticed is that if the subject be hypnotized a second time he will remember all the events of the previous hypnosis, and thus a deep hypnotic subject may be said to lead two distinct lives—the hypnotic in which he remembers all the suggestions which have been made, and the events which have taken place during previous hypnosis, and the waking in which he has no recollection or knowledge of these events.

"The hypnotic memory is an element which the experimenter has to carefully guard against, lest he be led into many errors by neglecting the necessary precautions. If, for instance, the operator has been in the habit of connecting some particular touch or pass with the verbal suggestion of an act, he will find that owing to the memory of the subject connecting the touch or pass with the verbal suggestion, he can dispense with speech, and rely solely on the touch for the production of the desired effect. This explains many of the performances of magnetizers who have learned in the same way to omit verbal suggestion, and thus add to the mystery of the performance.

"Loss of memory can be induced, and the recollection of any period of the subject's life may be completely destroyed. The subject can be made to forget his own name, age, where he lives, or what is his occupation. According to *Forel* and to *Franck*, it is possible to cause a subject to forget entirely a language he has learned.

"Any suggestion that takes effect in hypnosis will also take effect post-hypnotically, provided the hypnosis be sufficiently deep to admit of post-hypnotic suggestion being executed. Dreams can be suggested, and sleep free from dreams. The suggestion carried on from hypnosis into the normal state is called a continuative suggestion; as for instance, when a subject is given toothache in the hypnotic state, and is told that he will still suffer from it when he awakes.

"It is not necessary to its success that the suggestion should take immediate effect. Let it be said to a subject, "When you come to see me this day fortnight, you will not be able to speak to me;" and on that day he is quite unable to utter a word.

"There are innumerable forms of such deferred suggestion. It must be noted, however, that some forms will not always succeed with certain subjects. Thus, he is told, at four o'clock, that when the clock strikes five he will find that he is at a concert and will go to the piano and sing. Immediately the suggestion is given he is awakened, and he will talk and conduct himself quite naturally, and will not have the least idea that any such suggestion has been made to him; only as soon as the clock strikes five, he will get up, and seating himself at the piano, he will begin to sing.

"In this case the precise time for the carrying out of the suggestion is fixed by an external sign, and these suggestions nearly always succeed. If, however, we do not name any such concrete sign, butrely on something else less definite such as a period of time the results are more uncertain. The suggestion is made to a subject that in an hour's time he will get up and dance, some will carry out the suggestion very punctually, others will dance, but they will begin a quarter of an hour too soon, or (very rarely) a little late. With many the suggestion will altogether fail owing to its want of definiteness.

"Another means of deciding the moment for the execution of a post-hypnotic suggestion is the following:— The hypnotist says to the subject, 'When I get up and open the window you will immediately become very angry.' He is then awakened, and converses amicably enough till the window is opened, when he at once begins to look seriously annoyed. Asked what he is angry about he says that to open the window was a very ridiculous idea; did we not know that he positively objected to draughts—every one in the room must certainly feel very chilly, etc.

"The suggestion may be made more subtle if the subject be told to laugh, when the hypnotist for, say the tenth time, taps his hand on the table.

"As they talk together, the hypnotist unconcernedly taps the table with his fingers; at the tenth tap, the subject laughs. Frequently, though the execution of the suggestion will not be so precise, but will happen a little before or after the exact moment.

"The question naturally arises, 'What is the precise condition of the subject during the action of the post-hypnotic suggestion?

"This is not capable of a very simple answer, because the state varies with the person hypnotized, and it is necessary to clearly understand the nature of these conditions before any explanation is possible.

"It will be seen from the above examples that the nature of the post-hypnotic states varies greatly, and this variation is dependent on the individuality of the subject. In the writer's experience, the first stage of post-hypnosis, namely, that stage in which the subject is normal in every respect save in the performance of the suggestion, is the most frequent, and the other stages are placed in the order of their frequency.

"In all hallucinations of personality, the person hyptized will always 'live up' to the character as far as his knowledge will allow. It is quite possible to make the the subject believe he is some inanimate object, such as a chair, a carpet, a piece of window glass.

"The sense of hearing is frequently increased to an enormous extent by suggestion under hypnosis. A subject who could in the normal state only hear the ticking of a watch at a less distance than four feet, could by hypnotic suggestion hear it twelve feet away, and through a closed door.

"An experiment which the writer frequently performed at Oxford is the following:—A number of persons each take in their hands some small object such as a penknife, a pencil case, a coin, a key, &c. While the hypnotized subject is still out of the room these articles are placed on the table, and the subject is brought into the room. He takes up the first object, smells it, and then smells the hands of the various persons till he comes to the owner of the article, when he leaves it in his or her own hand, and so on until he has settled the ownership of all the articles placed on the table.

"Another evidence of this increase of faculty was given when the writer went, while the subject was out of the room, to some book shelves and touched his finger to the backs of several books. The subject, on returning into the room, smelled the two fingers, and going to the shelves pulled out the very identical books which had been touched.

"In all the deep states of hypnosis, complete anæsthesia can be produced. The most powerful electric current can be administered without the patient evincing the least sign of discomfort. Teeth may be extracted or filled, and many surgical operations performed, without causing any pain to the subject. The fact that this anæsthesia can be produced in all the deep hypnosis, provides the experimenter with a ready means of demonstrating that there is no simulation on the part of the subject.

"The pulse, respiration and temperature, are capable of great modification by means of suggestion. Kraft-Ebling suggested to a patient that he was in a bath, and immediately the patient was covered with goose flesh; by this means, the suggestion made him cold. In a second after he was told that it was very hot, ninety in the shade, and he began to 'melt' till he finally sank to the ground in a mass as ridiculous as he could assume.

"Very often an illusion given will result in what is termed 'auto-suggestion,' for instance, a person hypnotized early in the afternoon is awakened in five minutes with the idea that it is seven in the evening. He says he feels hungry and wants his dinner.

"The following instance of a frequent phenomenon in post-hypnotic suggestion is notable. The writer suggested to a lady that when she awoke she would find that the

floor was covered with tacks, and that she had no shoes on. Immediately on waking, she huddled herself up in the chair, and drew her feet off the floor. When asked the reason, she said there was 'something sharp,' and on being further pressed as to what it was, she said, 'pins;' this variation, slight in itself, is an illustration of the nature of the action of the hypnotic suggestion; the word 'tack' was lost, but the essential idea of the suggestion was in action. Binet and Fèrè point out that hypnotic hallucination has always the appearance of a spontaneous symptom. On awaking, the subject obediently performs the act which he was ordered to do during the hypnotic sleep, but he does not remember who gave him the order, nor even that it was given at all. If asked why he is performing the act, he usually replies that he does not know, or that the idea has come into his head. He generally supposes it to be a spontaneous act, and sometimes he even invents reasons to explain his conduct."

All this shows that the memory of the suggestion, so far as respects its utterance is completely effaced.

Some of the results of the phenomena of hypnosis may seem so startling that we can quite understand their being eccived by some with a certain degree of suspicion; and indeed, in all such matters, the more scientific mind will naturally demand to at any rate see phenomena before they yield them absolute credence; however it is not our present duty to convince any one, but only to record the cf.

"Can the phenomena of hypnosis be explained?" is a question often asked. In answering, Dr. Moll says, "We have been able to connect many every-day occurrences with hypnosis, and have found many more connecting links

with normal life than is generally supposed. I even believe that we can explain certain hypnotic phenomena by means of analogy, and I think that many of the post-hypnotic phenomena are capable of explanation in the above meaning of the word."

We shall understand the different symptoms of hypnosis much more easily if we first examine two phenomena. Let us begin by considering the first point. There are people who believe they can escape external psychical influences, but they are wrong since observation shows that every one is more or less influenced by ideas. Bentivegni and Bernheim both believe that life is full of such influences, and they will work so long as there is mental activity in man.

In the same way men have a tendency to believe things without complete logical proof we will call this quality credulity. Those who contend that men are not credulous, show that they are themselves incapable of reflection, says Forel. A few years ago it was believed that there was no such thing as hypnotism, and that those who believed in it were deceived. But since that time opinion has entirely changed. The representations made by different people in authority as to the reality of the hypnotic phenomena, and particularly the repeated assertions of numerous investigators, has caused a complete change of view.

The second point in view, is that an effect on himself, which a man expects, tends to appear. We can find a great number of these phenomena in ordinary life; they are mysterious and astonishing only when we neglect to consider this tendency. Hack Tuke, and many other investigators have beside admitted that these phenomena are of great importance. I will now describe some of them:

Dr. Moll says: "People who suffer from sleeplessness have often been sent to sleep by taking something which they were told was a sleeping draught, but which was really some inert substance. They slept because they expected to. A great many people wish for sleep, but as they do not expect it, it does not come."

Forel, says: "We will take a case of hysterical paralysis; it is well known that such a paralysis is sometimes cured at the exact moment the patient expects. Many mysterious effects may be thus explained."

According to Noizet and Bertrand, who have been joined lately by Liébault, Bernheim, Forel and others, rapport is a state of sleep in which the attention of the subject is fixed exclusively upon the hypnotizer, so that the idea of him is constantly present in the subject's memory. On this account, Bertrand compared these processes to the falling asleep of a mother by her child's cradle. She continues to watch over it in sleep; she hears the least sound it makes, but no other sounds. This analogy may explain the peculiar influence which a hypnotizer has over his subject. The subject has fallen asleep with the thought of the hypnotizer in his mind, and hears only what he says, as in the case of the mother and child.

"If I tell a working man, who has a chair in front of him, 'there is nothing there, neither chair nor table;' he will see the chair in spite of what I say; but the hypnotic subject will not see it, at least if he is susceptible to negative hallucination. Now, we can regard this process in the hypnotic as a diversion of the attention, like that in the waking man who fails to perceive things which stimulate his organ of sense."

According to Binet and Fèrè another factor must be added to the diversion of the attention, before it can be attained. A conviction that the chair is not there must be first established in the subject. Without this there would hardly be a negative hallucination.

Dr. Moll says: "Such a derangement of the memory as sometimes occurs in hypnosis is certainly very striking, though it is clear at once that we can find many analogies in ordinary life. I need not, of course, discuss those hypnotic states in which there are no derangements of the memory."

"But there are persons who after waking from hypnosis remember nothing of what has happened. It is also a well-known fact that we forget certain events apart from hypnosis. We entirely forget certain mechanical actions, such as winding of a watch, etc. We study this phenomenon, and we saw that the subject in hypnosis remembered all the events of preceding hypnosis and of his waking life; we call this 'double consciousness.' This requires special consideration. It is, indeed, a striking phenomenon that two complete and thoroughly separate states of consciousness can be induced and distinguished in a human being; so that in one, the waking life, the events of waking life only are remembered; and in the other, the hypnotic state, the events of preceding hypnosis and of waking life."

Max Dessoir supposes, with Pierre Janet, that human personality is a unity merely to our consciousness, but that it consists really of at least two clearly distinguishable personalities, each held together by its own chain of memories. According to him many actions are done unconsciously, though of mental origin. If, for instance, one cannot recall a name, and purposely refrains from trying to do so in the hope that it will recur later, these statistics

show that there is still very frequently a certain sense of effort. To return to hypnosis, we have now to explain the state of double consciousness. Max Dessoir thinks that hypnosis simply exhibits the hidden half of our mental life, the part which is called secondary consciousness and which can occasionally be observed in ordinary life or more plainly, in pathological states, that hypnosis represents experimentally this part of life. According to Max Dessoir's theory, the condition of double consciousness is no absolutely new phenomenon, but only the experimental representation of a definite psychic relationship, such as may occasionally be observed even in normal persons. Whatever we may think of this theory, Max Dessoir's explanations are none the less valuable for the consideration of the double consciousness in hypnosis.

By means of automatic writing it can be proved that the impressions of hypnosis are really firmly lodged in the brain; Gurney, F. Myers, and Pierre Janet have made a series of very good experiments on this point. For example, X is waked from hypnosis and remembers n thing that has happened; but, when he is ordered to write automatically what was said to him, he does it correctly. Now, as he could not tell these things, and they are not to be found in the primary consciousness, these experiments in automatic writing prove that the impressions exist all the same. They disclose themselves in the automatic writing.

It is quite another thing when the sense delusion appears without any order or suggestion, which it often does. in post-hypnotic actions. For example, I say to some one in hypnosis, "When I cough after you wake, you will see a pigeon sitting on the table; you will be

thoroughly awake at the time you see it." He is awakened; we talk of many subjects, for half an hour; suddenly I give a slight cough, but go on speaking. He interrupts me, exclaiming, "See that pigeon on the table." There is no pigeon there, but it is impossible to make him accept a further suggestion. That one point excepted, he was perfectly normal.

Professor Bernheim, says: "Some of the subjects whom we hypnotize fall into a deep sleep with loss of memory upon waking; we call such cases somnambulists. According to M. Liébault, one-fifth or one-sixth of all subjects are somnambulists."

"Although the other patients remember everything that has happened upon waking, and sometimes imagine that they have not been asleep, they have been influenced in varying degrees. Suggestive catalepsy, induced contracture, automatic movements, the suppression of pain, etc., decisively prove the existence of the influence."

"The patients in deep sleep with loss of memory upon waking, lie quietly like natural sleep, if left alone. There is nothing by which to differentiate this induced sleep from natural sleep, except the expression, and that difference cannot be described. The phenomena of sensibility, motility, ideation, imagination, illusions, and hallucination, do not appear spontaneously, but are brought about by means of suggestion. The same phenomena may be induced in these subjects when we put ourselves into relationship with them, in their natural sleep; the same passive attitude of the limbs known as catalepsy, the same automatic movement, the same illusions, the same active or passive hallucination. Hallucinations are only suggested dreams; dreams are only spontaneous hallucina-

tions. Whether spontaneous or suggested, these hallucinations remain passive; that is, the subject is motionless as in the normal dreams. They do not become active; that is the subject does not move, does not walk and only plays an animated part in the hallucination induced, when roused from his torpid condition by suggestion. In like manner, the dreams of spontaneous sleep becomes active in some cases, and constitute natural somnambulism. The fact will bear repetition, and all manifestations realized in the hypnotic condition may be realized in natural sleep in the same subject."

"Hypnotic sleep is not a pathological sleep. The hypnotic condition is not a neurosis, analogous to hysteria. Catalepsy, transfer, contracture, etc., are the effects of suggestion. To prove that the very great majority of subjects are susceptible to suggestion is to eliminate the idea of a neurosis. The sleep itself is the effect of suggestion."

The Nancy School placed the study of hypnotism upon its true basis, suggestion, and thus created this most useful and fruitful application, an application which has caused the world to wonder. To M. Liébault belongs the honor of first introducing the application of suggestion, an honor which cannot be denied him."

## CHAPTER XII.

## HYPNOTISM.

What can be done with Hypnotism—The elevated moral tone of Subjects when hypnotized—Three rules, never to be forgotten by the operator—Can hypnotism be simulated?—Professor Gregory's views—How to waken subjects without harm.

I deem it proper to say a few words on one of the branches of hypnotism, which is now attracting the attention alike of students of the science and the public at large. The idea is being very generally promulgated among the people that the ability for one man to hypnotize another implies the possession of a very dangerous power, and one which in the hands of an unscrupulous man, may be used in doing great harm to his subjects. There need be no fear on that account, for if a person does not wish to be hypnotized, he cannot be.

In the first place, by reading over the methods given in this book, it will be seen that it is necessary for every subject, to gaze at some object while being hypnotized. That the subject is asked to do and think certain things, so as to place his mind and body in the right state to be hypnotized. It must be remembered that a person who does not intend to allow himself to be hypnotized will hardly place himself in the necessary mental state. He

will not generally fulfill the conditions; and unless he does as desired, *he cannot be hypnotized*. The only way that we know a person can be hypnotized against his wishes, is when he is asleep, and it is seldom an operator can gain access to one when asleep.

Dr. Bernheim says on this subject, "No magnetizer exists. No magnetic fluid exists. Neither Donata or Hansen have any special hypnotic virtues. The induced sleep does not depend upon the hypnotizer but upon the subject only, it is his own *faith* which puts him to sleep. No one can be *hypnotized against* his will, if he resists the commands and conditions. I am very glad to join my word in re-assuring the public against all chimerical fear which a false interpretation of the facts of hypnotism might produce."

This from Professor Bernheim who is an acknowledged authority by all the scientific world.

We give here the three rules which Dr. Bernheim also says should never under any consideration be broken. He says:

"These rules I bind to myself, and to which all physicians and operators should bind to themselves before using hypnotism in any form, in order to protect their conscience and professional honor, as well as the honor of the subjects or patients."

FIRST:—"Never hypnotize any subject without his formal consent, or the consent of those in authority over him."

SECOND:—"Never induce sleep except in the presence of a third person in authority who can guarantee the good faith of the hypnotizer, also the subject. Thus any trouble may be avoided in the event of an accusation, or any suspicion of an attempt which is not for the relief of the subject."

THIRD:—"Never give to the hypnotized subject, without his consent, any other suggestions than those necessary for his cure. The physician has no rights but those conferred upon him by the patient. He should limit himself to the therapeutic suggestion, any other experiment is forbidden him, without the formal consent of the patient, even though it be in the interest of science. The physician should not profit by his authority over the patient in order to provoke this consent, if he thinks that the experiment which he wishes to perform may have the slightest harmful effect."

No operator should hypnotize any one for idle curiosity, or make any suggestions to *any hypnotized* subject for mere experiments. Every operator should know just what to do without making use of new thought in hypnosis on subjects who have not been hypnotized many times.

Thousands of experiments are daily being made which demonstrate the impossibility of controlling the hypnotic subject so far as to cause him to do that which he believes or knows to be wrong. A common platform experiment is that of causing subjects to get drunk on water, under the suggestion that it is whiskey. It frequently happens that one or more of the subjects are conscientiously opposed to the use of strong drink as a beverage. Such persons invariably decline, in the most emphatic manner, to indulge in the proposed debauch. Like all such experiments on the stage, before a mixed audience, they are passed by as simply amusing, and no lesson is learned from them. The intelligent student, however, cannot fail to see the far-reaching significance of the refusal of a subject to violate his temperance principles. Again, every platform experimenter knows that while he can cause a crowd of his subjects to go in

swimming in imaginary water, he can never induce them to divest themselves of their clothing beyond the limits of decency. Some cannot even be made to take off their coats in the presence of the audience. Others will decline to accept any suggestion, the pursuance of which would cause them to appear ridiculous.

Again, it is well known to hypnotists that an attempt to contradict or argue with a subject in the hypnotic state invariably distresses him, and persistency in such a course awakens him, often with a nervous shock. A conflict of suggestions invariably causes confusion in the subjective mind and generally results in restoring the subject to normal consciousness. It is always well to remember to speak plainly to a hypnotized subject, using short sentences, and to the point. Never speak of but one topic at a time; dismiss one thing before speaking of another.

In fact, it is impossible for a hypnotist to impress a suggestion so strongly upon a subject as to cause him actually to perform an act in violation of the settled principles of his life. If this were not true, suggestion would mean nothing; it would have no place in psychological science, because it would not be a law of universal application. The strongest suggestion must prevail.

It has often been said, that many persons simulated hypnosis. A person might be able to do so before people who knew little about hypnotism, but never before operators who have had much experience. In the first place, we must notice how the eyes close, and how the subject tries to open them. This closing of the eyes is difficult to describe. The gradual falling of the lids is important, and the action of the muscles of the forehead

when opening the eyes, in a way like that after sleep, as well as the convulsive rolling upwards of the eyeballs, which is often seen. The fibrillary twitching of the eyelids is, on the contrary, of no importance, as it often happens without hypnosis.

Dr. Moll says: "In cases where the eyes are open their expression is most important. The look is often blank and meaningless, the mask-like expression and attitude of the subject are often characteristic also. He moves his limbs slowly and heavily when commanded. The expression during sense delusion is also very important. Everyone knows how difficult it is to place oneself in an imaginary situation so that the expression, the attitude, and the actions should correspond to the idea. This is the great art of actors, and everybody knows how seldom an actor is able to represent a scene by the mere exertion of his own will; but it is still more difficult to change the mood in a moment, and pass from one situation to another in a few seconds. It is extremely difficult for a person awake, but the hypnotic subject does it easily. It is astonishing that outsiders should regard this very ability as a sign of fraud, as a competent judge once did at Vienna (Ferroni). It is surely one of the most difficult things to do, and it would be wonderful that all the suspected persons should devote themselves to the thankless part of fraud, when with such talents for acting a very different career would be open to them. The expression of pain, the smiles, the chattering of teeth, and shivering at different suggestions of pain, pleasure, cold, etc., would be no easy task to the supposed impostor."

"The waking in many cases is just as characteristic; the astonished face with which the subject looks round, as if to find out where he is. His behavior in post-hypnotic suggestion is likewise important."

"The impostor generally exaggerates, like a person pretending madness. In spite of the variability of the symptoms of hypnotism there is a certain conformity to rule in its development. The impostor usually accepts all suggestions very quickly, while the experienced experimenter knows that susceptibility to suggestion increases with a certain uniformity. It is very easy to simulate analyseia to slight feelings of pain, as this analyseia is mistakenly thought to be a common symptom. An unexpected suggestion of pain causes the usual reflexes in the face and eyes, and yet the impostor will declare that he felt no pain. It is the same with sense delusions, where the suggestion generally requires to be emphasized before it takes effect. The impostor usually exaggerates here also."

Anyone who understands ever so little about hypnotism will soon be able to tell the true hypnosis from the make believe.

Hypnotic subjects are always endowed with a physical strength far superior to that possessed in the normal condition. Besides, it is the observations of every successful hypnotist that the moral tone of the hypnotic subject, while in that condition, is always elevated. On this subject, we will let the late Professor Gregory speak:

"When the sleeper has become fully asleep, so as to answer questions readily without waking, there is almost always observed a remarkable change in the countenance, the manner, and the voice. On falling asleep at first, he looks, perhaps, drowsy and heavy, like a person dozing in church, or at table when overcome by fatigue, or by

the foul air of an over-crowded apartment; but when spoken to, he usually brightens up, and although the eyes be closed, yet the expression becomes highly intelligent, quite as much so as if he saw. The whole manner seems to undergo a refinement which, in the higher stages, reached a most striking point, insomuch, that we see, as it were, before us a person of a much more elegant and elevated character than the same sleeper seems to be when awake. It would seem as if the lower, or animal propensities were laid to rest, while the intellect and higher sentiments shone forth with a lustre that is undiminished by aught that is mean or common. In matter of fact, it seems as if the very soul of the sleeper lay bare before you, as if the earthly part of man were indeed dead, and only the soul with its everlasting life was conversing and looking at you, with all the grander and purer thoughts of existence at your command. This is particularly seen in women of natural refinement and high sentiments; but it is also seen in men of the same stamp and more or less in all. In the highest stages of the hypnotic sleep the countenance often acquires the most lovely expression, surpassing all that the great artists have given to the Virgin Mary or to angels, and which may fitly be called heavenly, for it involuntarily suggests to our minds the moral and intellectual beauty which alone seems consistent with our views of Heaven. Such an expression is never seen, except in the hypnotic sleep. As to the voice, I have never seen one person in the true hypnotic sleep who did not speak in a tone quite distinct from the ordinary voice of the sleeper. It is invariably, so far as I have observed, softer and more gentle, well corresponding to the elevated and mild expression of the

face. It has often a plaintive and touching character, especially when the sleeper speaks of departed friends or relations. In the highest stages, it has a character quite new, and in perfect accordance with the pure and lovely smile of the countenance, which beams on the observer, in spite of the closed eyes, like a ray of Heaven's own light and beauty. I speak here of that which I have often seen, and I would say that, as a general rule, the sleeper, when in the ordinary state and when in the deep hypnotic sleep, appears not like the same, but like two entirely different individuals. And it is not wonderful that it should be so. For the sleeper in the hypnotic state, has a consciousness quite separate and distinct from his ordinary consciousness; he is, in fact, if not a different individual, yet the same individual in a different and distinct phase of his being, and that phase the highest one given to living man."

Professor Gregory's experience and observations have been those of every hypnotist whose works have been examined. There is, indeed, an ineffable and indescribable something which overspreads the countenance of the virtuous woman while she is in the hypnotic state, which disarms passion, and affects the beholder with a feeling that he at least has seen something of what Heaven is like. He knows that the physical senses are asleep, and he feels that the human soul is shining forth in all its majesty and purity, untainted by any thought that is gross, any emotion that is impure.

In the fore part of this book we have given many methods, and out of so many, every one can certainly select one that they will be able to use with success; but many subjects are put to sleep much easier than they

are wakened, therefore we think it wise to give advice about the care to be given to subjects who do not return to normal life as quickly as others. Much harm can be done to a subject, if great care is not taken when being brought back to actual life. If the hypnosis is deep, it will atways go into natural sleep, if the patient is let alone and does not waken readily.

The awakening may be spontaneous. Subjects who sleep lightly, generally have a tendency to awaken quickly and easily. Often the subject will not awake while the operator remains near him, but will waken as soon as he goes some distance from him, either to the far side of the room or out into the hall. The majority of the subjects left to themselves sleep on for several minutes, then the hypnotic sleep emerges into natural sleep and that may last some minutes, and perhaps, an hour. Dr. Bernheim cites a case, where the patient went from the hypnotic sleep into the natural sleep and did not waken for fifteen hours, yet no harm was done to the patient.

In order to awaken the subject immediately, use verbal suggestion, in the same manner as when sleep is to be induced. Dr. Bernheim always says over and over again, "wake up, wake up," and if not an unusual case it suffices, even when uttered in a very low voice.

In some cases, it may be necessary to add: "Your eyes are opening; you are awake." If that is not enough, blow once or twice on the eyes of the subject, it will generally cause them to open their eyes. Some operators sprinkle cold water on the faces of their subjects, but it is not a pleasant method of awaking. The awaking is usually very easy, but if any subject does not waken when ordered to do so there need be no uneasiness felt by the

hypnotizer, as all hypnotic sleep will go into natural sleep if the subject is left quietly alone.

Professor Bernheim, says: "At times there is nothing so strange as this awaking. The subject is in deep sleep. I question him and he answers. If he is naturally a good talker, he will speak fluently. In the midst of his conversation, I suddenly say: 'Wake up;' he opens his eyes, and has absolutely no remembrance of what has happened. He does not remember having spoken to me, though he was speaking, perhaps, but one-tenth of a second before waking. In order to make the phenomenon more striking, I sometimes wake a patient in the following way: 'Count up to ten; when you say ten aloud, you will be awake,' The moment he says ten, his eyes open; but he does not remember having counted. Again, I say: 'You are going to count up to ten; when you get to six you will wake up, but you will keep on counting aloud up to ten.' When he utters the word six, he opens his eyes but keeps on counting. When he has finished, I say: 'Why are you counting?' He no longer remembers that he has been counting. I have repeated this experiment many times with very intelligent people, the result always being the same."

"It is necessary to proceed cautiously with hysterical subjects, avoiding touching painful points, and exciting the hysterogenic zones, lest an hysterical crisis be produced. The hypnotic sleep may in this way give place to hysterical sleep, and the operator is then no longer in relationship with the subject. Suggestion has then no effect."

"Some subjects remain sleepy when they wake up. If the operator waves his hand once or twice before the eyes, he may dispel this drowsiness. Others complain of heaviness in the head, and of a dull headache or of dizziness. In order to prevent these various sensations, I say to the subject before waking him, 'You are going to wake up, and you will be perfectly comfortable; your head is not heavy, you feel perfectly well,' and he awakes without any disagreeable sensations.'

"Some subjects can be awakened by suggestion after a specified time. It is enough to say, 'You will awake in five minutes.' They wake precisely at the moment suggested. They have a correct idea of time. Some subjects have no accurate idea of time, and awake before the moment suggested. Some too, forget to awake. They remain in the passive condition, and appear unable to come out of the sleep spontaneously. It is necessary to say to such, 'wake up,' in order to have them do so.''

"Many subjects upon waking rub their eyes, look wildly about, and are conscious of having slept deeply. Others open their eyes suddenly, not remembering what has passed, and do not know that they have been asleep. They are like epileptic patients who have been unconscious and ignore the void which has come into their state of normal consciousness. 'Have you slept?' 'I do not know; I ought to believe it if you say so,' or, they are convinced that nothing abnormal has happened to them, and deny that they have been influenced.''

## CHAPTER XIII.

## HYPNOTISM.

The Wonders of Hypnotism—Hypnotism as a Curative Power— The effects of Hypnotism upon the Senses—The effect of Hypnotism on the Function of Individual Organs—All Turns on the way Suggestion is made—'Donatism.'

Hypnotism is one of the Wonders of this age, perhaps, the Wonder that is the least understood of all in this the closing Nineteenth Century. In the beginning of the next hundred years, let us hope that the student and the scientist alike will try to achieve greatness through the avenues that lead to hypnotism, for in that way alone will this most wonderful of sciences be fully understood. And mankind needs to know more of hypnotism for its own good.

Enthusiasm like scepticism is a good thing. In this most fascinating study both should be held in check by a firm, strong judgement ever regulated by reason and experience.

Hypnotism, as has been said before, may be a palliative in some incurable cases, as well as hasten the recovery of those so fortunate as to be susceptible of entire relief. A clear comprehension of the whole subject by the intelligent classes would greatly diminish the amount of functions which is so deleterious to a large number of individuals. We do not need miracles or revelations to

explain phenomena which can be and are susceptible of explanation upon a hypothesis which is based upon experimentation.

"Can so intangible a thing as suggestion exercise an influence over the complex biological chemistry of the brain and body?" Most certainly.

Charcot, Luys, Liébault, Krafft, Ebing, and others, many of whom are acknowledged to be the best authorities in Europe, if not in the world, upon mental and nervous diseases, all testify and are in accord about a few of the following facts, of what can be done with hypnotism.

FIRST.—Hypnotism can, by soothing an over-excited brain cause the blood supply in it to be diminished, and rest follow delirium. Faculties unaccustomed to obey the will, can be trained to obedience through the power of hypnotism.

It is generally believed by most psycho-physiologists that different parts of the brain can act independently, and in this way produce a great many varieties or states of consciousness, hence the terms 'subconscious,' 'dual-consciousness,' and many other similar ones.

"Now, when one part of the brain is acting abnormally," says Dr. Cocke, "it may be checked or exhibited by the other parts of the brain. Each cell of the brain has a certain degree of vitality which can be expanded rapidly or slowly according to the circumstances. Suppose the brain by its activity to be evolving, as the result of the destruction of its own cells, substances which act as poison, and which interfere with or prevent its action. By quieting this activity, the blood circulating through the brain will have an opportunity of removing and disposing of the before-mentioned toxic (poisons) products.



Fig. (5.) The Operator Hypnotising 3 Persons at One Time. Original Portraits. Copyright by M. Young, Aug. 1899.



Hence it follows, that hypnotism acts as a great regulator of the brain and nervous metabolism."

SECOND.—The authorities quoted *en masse* practically agree that by concentrating the mind intensely upon any part of the body, various changes take place in that part, both in its sensation, in its blood supply, and in its nutrition. Tell the hypnotic subject that a part of the body is freezing, and immediately the phenomena popularly termed "goose-flesh" appears. Apply a metal and tell him it is hot, and he not only believes that he is being burned, but according to Professor Bernheim and others, actual blisters on the part will appear. The part will grow red or pale at the command of the hypnotist.

THIRD.—The bowels too will move at a definite hour stated by the hypnotist when his patient is in the hypnotic state. The suggestions will act for twenty-four or thirty-six hours afterwards. Chemically inactive substances will nauseate and produce vomiting, and when ordered will intoxicate like whiskey; and what is more pertinent to this chapter, hallucinations, illusions and delusions may be created, or in many cases destroyed, at the pleasure of the hypnotist. Hence it follows that no spiritual or magnetic theory is necessary to account for, or to give a reasonable explanation of, the curative effects of hypnotism.

The terms nerve-force, vital fluid, etc., are perhaps as vague, at least we know as little about them as we do of hypnotism and other allied terms.

But of this we are sure, hypnotism will cure some cases of insanity which are accompanied by hallucinations and illusions. It will relieve these same conditions when occurring among sane people as a result of some local or general slight disorder.

Dr. Cocke, says: "I again urge upon my readers, whether they be medical men or laymen, the utter folly of relying upon hypnotism without attending to all other methods of hygiene and medicine which have been and are the glorious achievements of the best medical thought of this and other ages."

FOURTH.—Hypnotism can be used for surgical anæsthesia. In fact, it is no new thing to use hypnotism for operations. Dr. Charpignon reviewed the following facts, relative to operations practised during hypnotic anæsthesia, in the *Gazette des Hopitaux*, in 1829. The removal of a breast by Jules Cloquet, in 1845; in 1846, the amputation of a leg, and the extirpation of a gland painlessly performed by Dr. Loysel, of Cherbourg, France, in 1845; a double thigh amputation by Drs. Fanton and Towsel of London, England; in 1845, the amputation of an arm, by Dr. Joly of London, England.

"In spite of these fortunate trials, surgeons soon showed that hypnotism only rarely succeeds as an anæsthetic, that absolute insensibility is the exception among hypnotizable subjects, and that the hypnotizing itself generally fails in persons disturbed by the expectation of an operation."

Many of the failures, however, to produce by hypnotism the insensibility to pain, were due to the subjects not having been properly prepared.

If anæsthesia is complete, an operation can be performed, without any difficulty whatever, and there are none of the bad after effects that usually follow the use of opiates. However, it is a very easy matter to prove if an operation could be performed upon the patient or not, if anæsthesia is complete, a pin may be stuck into

the skin, electricity may be applied, objects may be pushed up into the nostrils, ammonia may be held under the nose, and the subject will not even wince. When one can do all this there need be no fear of using the knife. This complete anæsthesia may be spontaneously developed by simple hypnotization.

In other subjects it is not spontaneous, but may be induced by suggestion, and according to some authorities it is much safer to operate on a patient when suggestion is used, as the hypnotic state is under better control.

FIFTH.—The effect of hypnotism upon the sense of sight is one of the most curious of all phenomena occurring in the hypnotic state. If a person who is hypnotized is told to open his eyes, he will do so, and seeing, will perceive only as the operator may suggest. Professor James mentions many interesting experiments, which prove that blindness which can be induced by suggestion is purely psychic, and not due to any effect directly upon either the centre of sight in the brain or locally upon the eye. The hypnotized subject will become psychically blind at the operator's will. If a line is made upon a clean blackboard, the hypnotized subject, if commanded to do so, will tell you that the blackboard is still a blank. Place a number of lines in any position you please around the first one; the hypnotized subject will still insist that the line you first made upon the blackboard is not there. Professor James argues that the fact of the hypnotized subject refusing to recognize the existence of a line, is an evidence that the subject saw the line, but that his consciousness refused to recognize its existence.

Sixth.—All sorts of hallucinatory impressions may be produced upon the sense of hearing. The subject's hearing

may be made abnormally acute, or he may be made to hear things which do not exist. This peculiar sub-conscious condition, when not interfered with by suggestion, renders the sense of hearing peculiarly, nay, pathologically, acute. A hypnotized subject is much more sensitive to music. It has for him a deeper meaning than for the normal mind. There is, indeed, yet unexplored a vast field for experimentation in this direction.

The East Indian fakirs invariably invoke the aid of music to enable them to enter the subjective state when they are about to give an exhibition of occult power. In fact, the power of music over the hypnotized mind is practically unlimited. It speaks the universal language of the soul and is comprehended alike by prince and peasant. is the most powerful auxiliary of love, of religion, and of war. It nerves the soldier to deeds of heroism, and soothes his dying moments. It inspires alike the devotee of pleasure and the worshipper to God. But while it interprets every human emotion and embodies the inward feeling of which all other arts can but exhibit the outward effect, its laws are fixed; but the fact remains that music can produce remarkable effects upon hypnotized subjects, and gives to the subjective consciousness a psychological importance which it has never occupied before, and undoubtedly the future will prove that this field is rich with vet undiscovered treasures.

SEVENTH.—Hallucinations and delusions of taste and smell in a hypnotized subject can also be produced by suggestion, but they possess no special value, but are interesting when subjects are hypnotized for the amusement of others. A rose will be smelled, (imaginary) perfumes commented upon, water will be called wine, in fact, any

suggested smell or taste will appear real to the hypnotized one.

EIGHTH.—The power of speech may be whoily abolished or partially inhibited, and certain words will be forgotten at command while the hypnotic state lasts. Also, the memory of a printed page or the memory of certain letters may be forgotten.

Dr. Cocke, says: "I once hypnotized a man and made him read all of his a's as b's, his y's as v's, and his b's as x's. I added suggestion after suggestion so rapidly that it would have been impossible for him to have remembered simply what I said and call the letters as I directed. Simulation was in this case impossible, as I made him read fifteen pages, he calling the letters as suggested each time they occurred.

NINTH.—The function of the individual organs, while hypnotized, play no small part in hypnotism. The alterations which we find in hypnosis affect the voluntary and involuntary muscles as well as the organs of sense, common sensation, the secretions, metabolism, and in rare cases also the cell power of organization.

The voluntary muscles show the most frequent abnormalities, and suggestion exercises a most extraordinary influence over their function during hypnosis. First of all, what is the state of the function of the voluntary muscles during hypnosis, when no kind of external influence is exercised. There are the greatest differences, according to the method of hypnotization selected, and according to the character of the subject. Some are able to move with perfect freedom during hypnosis till the command of the experimenter inhibits some particular movement; many, on the contrary, look as if they were asleep. In this case, we

see no movements, or very rare ones, which are slow and labored. Even when the hypnotists suggest movement, he rarely accomplishes it, when the patient is in this state of hypnosis. It is to be understood that between complete freedom of movement and the incapacity to move at all, there exists all sorts of transitional stages. It is all the same which of these characters has the preponderance; muscular activity can nearly always be influenced in a high degree by suggestion. By means of it, we can make the existing movements impossible, or induce previously impossible ones.

"I can make his arm powerless to move," says Dr. Moll, "simply by arousing in him the conviction that the arm is powerless. In just the same way, the movements of the legs, trunk, larynx, and so on, escape the subject's control. 'You cannot raise your arm; cannot put out your tongue.' This suffices to make the forbidden movement impossible. In some cases the inability to move arises because the subject cannot voluntarily contract his muscles; while in other cases a contracture of the antagonistic muscles makes every attempt at voluntary movement useless."

The power of speech can also be taken away. And it is even possible to allow the muscles to contract for one particular purpose only. If we say to a hypnotic subject, "You can only say your name; for the rest you are absolutely dumb," the desired effect will most surely be produced. In the same way it is impossible to prevent movements of the arms for one particular purpose. Thus we can make it impossible for a person to write, though he will be able to do any other kind of work. The subject can sew, play the piano, etc., but all efforts to

write are vain. The movement only becomes possible at the moment when the experimenter gives permission. It is remarkable that in some persons one set of muscles is easier to influence by suggestion, and in others another set. For example, we can make a person dumb by suggestion, while all the other muscles obey his will in spite of suggestion. Another, again loses the power of moving his arms at once, while his speech remains unaffected.

In the same way muscular movements are prevented by suggestion. The hypnotist says: 'You are lifting your arm to lay it on your head.' This happens at once. The movement with the subject's will can often be distinguished from those against it by a certain steady ease. These last are nearly always characterized by strong muscular contractions, and by trembling, which shows the intense effort not to obey the will of the hypnotist.

Just in the same way the hypnotic subject is obliged to cough, laugh, talk, jump, etc., at command. It is further possible to generate by suggestion the idea of paralysis of one of the extremities. According to Lober, Gilles de la Tourette, and Richer, the clinical characteristics of these paralyses are marked by the absolute loss of motor power and sensation, increase of the tendon reflexes, ankle clonus, wrist clonus, complete loss of muscular sense, i. e., of the ability to control perfectly the action of the muscles, and to be certain of the position of the limbs, charged electrical excitability, and vasomotor disturbances; these last are particularly said to show themselves by a bright flush of the skin on slight stimulation. These paralyses can be produced in both the hypnotic and post-hypnotic state.

TENTH.—"With subjects who are deprived of will,

besides the movements described above, complicated movements, or even performances, also take place by suggestion. "I say to the subject," Dr. Moll says:

"Spin round three times," and he cannot help doing so. 'You lift that book from the table,' and he lifts it. The subject cannot help performing the command."

"The suggestion itself is made in different ways. The main point, and all turns upon this, is that the subject should thoroughly understand what the experimenter wishes. Each of the organs of sense is a door of entrance for suggestion. The most common is naturally our habitual means of communication, by means of which we tell the subject what we wish. But it is very important, and much more effective than words alone, that the experimenter should accompany his words by a performance of the movement which the subject is intended to execute. Consequently professional hypnotizers habitually induce movements by imitation."

ELEVENTH.—Imitation appears particularly in a hypnotic state, which certain authors (Brémaud, Marselli, Tauzi) have thoroughly studied, and which Descourties calls Fascination. A professional hypnotizer, Donata, has demonstrated this state completely; and Morselli and others have on this account called this form of hypnosis Donatism.

"This process aims at a primary forced contracture of all the muscles of the body, in order, by this means, to limit the voluntary movements as much as possible. In this case the eyes of the hypnotist and the subject are firmly fixed on one another. The subject finally follows every movement of the experimenter. If he goes backward, the subject follows; if he comes forward, the subject does the same. In the same way, the latter imitates every movement of the experimenter, only on the conditions, however, that he knows he is intended to do so. We see here, as in the fascination experiments, that fascination may become a primary form of hypnosis."

## CHAPTER XIV.

### HYPNOTISM.

The Wonders of Hypnotism Continued—Catalepsy—Automatic Movement—The Phenomena of Imitative Speech—Hemi-Hypnosis—Increased Sensitiveness of Hypnotic Subjects—Hyperæsthesia of the Eye—Suggestion and Hypnosis—Circulation and Respiration in Hypnotism—Memory in Hypnotism—Hypermnesia.

As the most different views exist as to what 'Catalepsy' means, for the sake of brevity, we give Dr. Moll's definition, "Any state in which voluntary movements disappear and the limbs remain as they are placed by the experimenter, without having regard to the length of time which elapses before the limbs move freely again, or fall from their own weight."

TWELFTH. — The muscular sense, which keeps us informed of the position of our limbs, requires particular consideration as a way of entrance for suggestion. It causes the phenomenon which the school of Nancy calls 'catalepsy by suggestion.' It is very common in hypnosis, and is shown in the following example: Professor Bernheim says, "I lift the arm of a hypnotic, hold it in the air, and then let go; the arm remains as I placed it although I say nothing. Why does this happen? Because

the subject believes he must leave his arm thus, and because this suggestion was conveyed to him by the muscular sense. Another person let his arm fall; I raise it again, and say at the same time, 'the arm keeps still,' which happens; but only because the person now knows that this is intended, while he did not understand the simple raising of the arm. The legs, head, trunk, etc., can be put into the most different postures and maintained there in exactly the same way; the muscular sense here is the only transmitter of the suggestion."

The inclination of the subject to maintain cataleptic positions is so great, that Heidenhain considered the hypnotic state to be a catalepsy artificially produced. Catalepsy by suggestion has nothing whatever to do with physical alteration of the muscles.

The main point for the attainment of catalepsy is that the subject should accept the idea of the corresponding attitude. Consequently the idea must take root before the desired result can be attained. For this purpose some means or other must be employed to allow it to operate during a certain period. Words answer the purpose as well as other signs; many persons can only be thrown into catalepsy from suggestion when the attitude required is maintained for some time.

Catalepsy is the part of hypnosis that the platform experimenters use the most successfully, as to those who know nothing of hypnotism it appears perhaps the most wonderful. And then so many novel things can be done with the subject while in this hypnotic state. One of the best known features in hypnosis is the rigidity of the whole body. There is sometimes a complete tonic contracture of nearly all the voluntary muscles, through which the

head, neck, trunk and legs become as stiff as a board. A well-known experiment can be carried out in this state—the head can be placed on one chair and the feet on another, and the body will not double up. A heavy weight, that of a man, for example, may even be placed upon the body without bending it. It is well to make passes over the body, as the stiffening is most easily induced by this means, and it cannot always be induced by mere verbal suggestion. A command from the experimenter is generally sufficient to put an end to the rigidity.

THIRTEENTH.—A deeper degree of hypnosis seems to be required for the production of automatic movement than for simple catalepsy. Both arms are lifted horizontally and rotated one about the other. The subject keeps on moving them spontaneously or in obedience to a command. In cases of deep sleep these automatic movements occur through imitation. "I stand in front of a patient," says Prof. Bernheim, "and turn my arms one above the other. The subject imitates me. I make the movement in the opposite direction; he does the same."

FOURTEENTH. — The phenomena of imitative speech is also one of the features of hypnosis. Berger says that hypnotics will repeat every thing that is said before them, like phonographs; even what is said in foreign languages is repeated with some exactness. The notion that only certain tracts of the bodily surface must be stimulated in order to produce this repetition, Heidenhain, and Berger, consider a mistake, the result of insufficient acquaintance with suggestion. They believe that the hypnotic echoes what he believes he is intended to echo. It is certain that some persons are able to perform great feats in this way, imitating a hitherto unknown language quickly

and correctly. The main point is, that the hypnotic should know he is intended to repeat the sound. Certain reflexes, which are supposed to be induced by touching the head, the appearance of aphasia, or of twitching or contractures in the arm or leg on touching certain parts of the cranium, should be understood in the same way; statements of this kind were made by Heidenhain, and have been repeated lately by Silva, Binet, and Fèrè.

FIFTEENTH.—Another wonderful point is, that it is possible to induce hemi-hypnosis, or hypnosis of one side of the body, by suggestion, or to influence each half of the body in a different way. It was known even to Braid, that by blowing on one eye the corresponding side would be awakened. Descourtis, Charcot, Dumont-Pallier, Bérillon, Lepine and Strohl, carried on these experiments in various modified forms. Though these authors regard hemi-hypnosis as a physiological condition induced by the closing of one eye or by friction of one-half of the crown of the head, their statements do not now prove their point. But, we know that we can produce all these states by mental influence, and suggestion must be excluded before the experiments can be considered conclusive.

SIXTEENTH.—The senses of pressure and temperature become much more delicate in hypnosis than in normal condition. "The hypnotic recognizes things half an inch distant from the skin, and this simply by the increase and decrease of temperature," says Braid. "He walks about a room with bandaged eyes or in absolute darkness without striking against anything, because he recognizes objects by the resistance of the air, and by the alteration of the temperature."

Bergson has described one of the most remarkable cases of increased power of vision. "This particular case has been cited as a proof of supersensual thought-transference; but Bergson ascribes the result to hyperæsthesia of the eye. In this case, the hypnotic was able to read letters in a book which were 3 MM. high; the reading was made possible by a reflected image of these letters in the eye of the experimenter. According to calculation the reflected image could only have been O'I MM. (=1/250 inch) high. The same person was able, without using the microscope, to see and draw the cells in a microscopical specimen, which were only o'o6 MM. in diameter. Souvaire, after some not quite irreproachable experiments, suppose the existence of such a hyperæsthesia of sight, that a hypnotic recognized non-transparent playing cards by the rays of light passing through them. A case of Tagnets, in which an ordinary piece of cardboard was used as a mirror, is said to have proved quite as strong a hyperæsthesia. All objects which were held so that the reflected rays from the card fell upon the subject's eye were clearly recognized. The same thing is shown by a great increase of the sense of smell. A visiting card is torn into a number of pieces, which pieces are professedly found purely by the sense of smell; pieces belonging to another card are rejected. The subjects give gloves, keys, and pieces of money to the person to whom they belong, guided only by the smell."

SEVENTEENTH.—Suggestion is, perhaps, the greatest of all the wonders of hypnosis; for without suggestion, hypnotism can accomplish little; while with suggestion, no man can yet tell the wonders that lay before us, in the undiscovered forces of hypnosis.

Dr. Moll, says: "Suggestion influences common sensation in the same way as the functions of the organs of sense. Nothing worthy of remarks takes place in hypnosis, unless suggestion is called into play. I may, however, mention the feeling of fatigue which many hypnotics experience; it sometimes appears in the lightest hypnosis, and may also exist in the deeper stages. We can influence common sensations very materially by suggestion in hypnosis. This is not surprising when we consider that it is exactly the common sensations which are most under the influence of mental processes. It is in this direction that suggestion has to record its most striking successes, since the common sensations, of which pain is one, are the cause of most of the complaints we hear. As pain, etc., can be induced by suggestion, so by suggestion it can often be banished. I say to a subject who complains of want of appetite, 'The loss of appetite has disappeared; you are hungry.' I can cause another to feel thirst. Feelings of pleasure can likewise be excited."

The state of mind which is intimately connected with common sensation can also be influenced by suggestion. It is consequently easy to induce either sadness or cheerfulness in hypnosis. The method of hypnotization has some influence here. The desires and affections can be controlled in hypnosis as well as the moods. Love and hate, anxiety, anger and fear, can be easily called up, and produce corresponding expressions and postures in the hypnotic.

EIGHTEENTH.—One more word about the circulation and respiration in hypnotism.

According to Braid, the pulse and respiration are at first slower than normal; but as soon as the muscles are

put into activity a tendency to cataleptiform rigidity is produced, with increase of the pulse rate and rapid and laborious respiration. According to his experiments, the increase of the pulse rate caused by the muscular effort which the person makes normally, in order to keep his legs and arms extended for five minutes, is about twenty per cent. In the hypnotic condition it is one hundred per cent. If, then, all the senses are excited, if the muscles of the head and neck are put into a cataleptiform condition simultaneously with the limbs, there is a rapid fall to forty per cent. (that is, twice as much as the increase during the normal condition). If the muscles are allowed to relax again, the subject still remaining in the hypnotic state, the pulse falls rapidly to its rate before the experiment, and even below it. Further, during the cataleptiform rigidity the pulse is slow and small, and at the same time, a sudden injection of the ocular conjunctiva of the capillaries of the head, neck and face occurs. Braid thinks that the rigidity of the cataleptic muscles prevents the free transmission of blood to the extremities, and thus causes an increase of the cardiac action and hyperæmia of the brain and spinal cord.

Other authors have, like Braid, observed modifications of the cardiac and respiratory function. In a case of hypnotic lethargy reported in a thesis at Strasburg, Pan de St. Martin noticed the increase of the pulse and respiration, the diminution of the vascular tension and profuse perspiration.

By means of more precise methods, Heidenhain reached the same results, and noticed besides an augmentation of the salivary secretion, and recently Tamburini and Seppili, with the graphic method, and Mosso's plethysmograph, observed that at the time of transition from the waking condition to the hypnotic sleep, the respiratory movements became irregular, unequal, and more frequent, the cardiac and vascular pulsation increased, and the face was congested.

Dr. Hack-Tuke observed an acceleration of the cardiac and respiratory movements in one case; in another, on the contrary, both remained unaffected.

Dr. Bernheim, says on this same subject: "None of these symptoms are manifested by patients who are hypnotized by the quiet suggestion method, and who retain their tranquility of mind; nor by those who, having already been hypnotized several times, go to sleep with confidence and without emotion or agitation. Under these conditions I have observed neither increase nor diminution of the pulse rate, nor of the respiratory movements. I have recorded the pulse by the sphymograph before, and during hypnosis, and have found it to be the same at both times. Neither have I noticed the marked accelerations, which according to Braid, is produced by the cataleptiform rigidity which occurs in the extension of the limbs. It appears to me that no appreciable difference exists between the waking and the hypnotic condition."

But the above only refers to the hypnotic state when brought about by the suggestive or Bernheim methods.

NINETEENTH.—Is the chain of memory in ordinary life broken by the hypnosis or not? It was formerly supposed that a break in the memory occurred, because the subject always forgot on awaking what had taken place during hypnosis. But this view has not proved correct.

In the lighter hypnotic stages, especially in the first group, no abnormality of memory is found; the subject

remembers everything in the hypnosis which concerns his normal life, and after the hypnosis remembers all that has occurred. In the deeper hypnosis, it is very different; they belong for the most part to the second group, and there is loss of memory after the hypnosis. The subject is much astonished when he hears what he has done during the hypnosis—that he has been running about, that he has had hallucinations, etc. Often, however, a dim memory persists, like the memory of a dream. Dr. Moll, says: "I suggest to some one the hallucination of a bird flying about the room; the hypnotic tries to catch it, amuses himself for a long time with it, gives it sugar, puts it in an imaginary cage, and so on; after waking, he dimly remembers that he had seen a bird, but that is all; he certainly does not believe that he has left his seat."

However, in some cases, chiefly in the deepest hypnosis, memory cannot be recalled by anything you can say or do. In such cases there is a complete loss of memory. On the other hand, the subject remembers in hypnosis all that has happened in previous hypnosis. Things that happened in hypnosis dating many years back, even as many as ten, may be recalled, although they are completely forgotten in the waking state. Wolfart, relates the case of a woman who remembered in the hypnotic sleep all that had taken place in a hypnotic sleep thirteen years before, although in the meantime she had never recollected it.

"Events of normal life can also be remembered in hypnosis, even when they have apparently been long forgotten. This increased power of memory is called hypermnesia. Benedikt relates a case of it. An English officer, in Africa, was hypnotized by Hansen, and suddenly began to speak a strange language. This turned out to be Welsh, which he had learned as a child, but had forgotten. Brewer and Frend point out, many cases of hysteria are called forth by some psychic moment that the patient cannot recall in the waking condition, though hypnosis may again bring it back to memory."

All the phenomena which have been spoken of are very variable. Only the most common, and the most important have been mentioned. But hypnotic education or training needs to be accomplished with great care. Every one who watches hypnotic experiment should give it particular attention. All the phenomena of hypnosis may be interpreted falsely by a mere spectator, if sufficient attention is not paid to this point. When hypnotic experiments are shown to outsiders, subjects are as a rule selected who have gone through a hypnotic training in some particular direction, and as the directions are various, the results also are various. The Breslau investigations, for example, developed the imitative movements, while others did the same with the effects of the movements on the feelings (suggestions d'attitude).

"He who only regards the final results and pays no attention to their gradual evolution will be inclined to believe that the two parties of investigators are engaged with different things; though it is in reality only difference in training which gives a different appearance to identical states. Each experimenter now only demonstrates such symptoms as he has cultivated by training, especially as this training commonly produces most interesting phenomena, the heightening of certain faculties in particular. The outsider is unaware that this is a mere result of hypnotic training, and is easily misled. Children who repeat to strangers the piece of poetry they know

best, do exactly the same thing. Experimenters produce certain objective symptoms by means of training, and any one seeing them for the first time is apt to make mistakes. But every experimenter produces different objective symptoms—one, for example, a lasting catalepsy, another a perfect écholalie. These things strike the stranger, who cannot estimate the effect of training. Thus it happens that different experimenters discover different objective symptoms. The question of training is of immense importance. Many have suspected simulation because of the apparent variety of hypnotic states. This variety is really the result of different training, if we put aside difference of character. The experimenter influences the development of the hypnosis."

"Training," says Dr. Moll "is the great source of error for the experimenter in hypnotism, because the subject is inclined to divine and obey his intentions, and thus unconsciously mislead him. Unknown to himself, the tone of the voice may induce the subject to prevent the phenomena which he expects. The subject is also greatly influenced by his surroundings, and by watching other subjects. Imitation is also of great importance here."

Dr. Bertrand says: "I hypnotize X, and suggest that he cannot speak, at the same time inadvertently touching his left shoulder with my right hand. Y, in hypnosis, sees this, and every time I touch his left shoulder with my right he, too, is unable to speak. Y, believes that this is the signal for loss of speech, and behaves accordingly."

Training enables a hypnotic subject to divine all the experimenter's wishes. The latter need not speak; the least movement betrays his wish. A long training is not necessary. The object of making these remarks is to warn

against attributing great importance to demonstrations, particularly when these contain symptoms apparently objective and impossible to imitate. It should always be kept in mind that many such symptoms can be produced by training; and can, perhaps, be imitated by practice even without hypnosis.

"Dr. Moll also adds: "In most cases it is necessary to give the subject a hypnotic training, in order to make the state as deep as possible. For this, I wish to recommend a particular method, as otherwise the deepening is not always attained. Let the first suggestions be simple, so as not to shock the subject's sense of probability. The first suggestions should be possible, and progress should be gradual. More will be attained in this way than by suggesting impossible situations at first which the subject will not believe in. And if a suggestion is often declined, there is apt to arise in the subject the auto-suggestion that he is refractory to this suggestion, or perhaps to any suggestion. This is often lastingly prejudicial, and may lessen susceptibility to suggestion in all later hypnosis. I therefore strongly recommend a slow and gradually increasing method for post-hypnotic suggestion."

This concludes the symptoms of hypnosis. We have seen that symptoms are of manifold kinds, and that they are hardly ever identical in two different persons. In spite of conformity to law one human body is never exactly like another, the mental state of one man is never exactly like another's. It is the same in hypnosis: one man displays this symptom with greater clearness, another that. We shall never be able to find a subject in whom all the symptoms are united, just as we cannot find a patient who has all the symptoms of an illness as they are theoretically described.

## CHAPTER XV.

#### HYPNOTISM.

[From the New York Journal, June, 1899.]

A Boy who can see straight through your clothes to your very Bones—How he has diagnosed Diseases which puzzled Physicians—Described Internal Disorders which Science had no way of finding out, and explained Fractures of Bones which the Doctors did not suspect—Physicians confronted with a Scientific Phenomenon which it is impossible to explain.

The most remarkable feat that has ever been performed through hypnotism has just been made public through the efforts of one of the most widely read and enterprising dailies of New York, from which we make the following interesting extracts:

The narrative of facts herewith related would seem utterly beyond belief were the facts not solemnly vouched for by some of the best known physicians of Boston. Briefly stated, it may be said that the human eye can see through the usual clothing, underclothing and flesh of man, and to observe the bones and internal organs as clearly and as accurately as the ordinary eye reads a newspaper.

The eleven-year-old boy who performs this scientific miracle is the son of a Massachusetts physician, Dr. Frank Wallace Brett. Not as a freak or an idle test of the possibilities of sight have the experiments been conducted, but for the diagnosis of disease. Some of the actual scientific accomplishments of this extraordinary boy are presented in the exact words of the Massachusetts physicians who tested his powers. Science has, apparently, come face to face with new phenomena and a broadened horizon of the human eye which were hitherto unsuspected and which no one is able to explain.

By Dr. John S. Flagg, former Dean of Faculty of Physicians and Surgeons: "I have watched the case of the Brett boy for over a year with great interest. I was present in person at one of the first experiments performed upon him by his father. In his hypnotic state, the boy answered questions put to him by his father in a manner which did not admit of deception, and into which, I am satisfied, telepathy had no part, for some of his answers to expert medical questions surpassed even the medical acquaintance of his own father. The workings of the sensory and motive nerves from the brain to and from the upper extremities was correctly described, and his correctly locating the double nerve centres, which modern science has agreed to accept as true, was a complete surprise to his father himself.

"In all, the boy correctly described nine separate instances of his father's interior economy, and, so far as I could observe, he was correct in every instance. He also compared his father's heart and liver with my own without the slightest possible chance for deception.

"A broken right arm which I had when a child seemed to puzzle him for some time, but that was not at all to be wondered at, since the accident had occured when I was but four years of age, and the only trace of it was a slight thickening of the bone. It is exceedingly difficult to account for this singular gift of the boy. In default of other explanation might it not be assumed that this peculiar vision of the boy may be simply a reversion to a gift of the primordial man out of which the ages have evoluted him? I am not a spiritualist, and am a member of the Society of Psychical Research. The only interest I take in these stray instances of supernormal happenings—or what professes to be supernormal—is strictly in a scientific sense.

(Signed) John S. Flagg, M. D."

By Dr. Frank L. Burt, Head Physician Union General Hospital of Boston: "I have known the Brett boy, through his father, for the last two years. Dr. Brett I have known for about six years. I consider him a man of the highest integrity and absolutely truthful. In two instances I have been present at the marvelous experiments of the Brett boy, and in both cases deception was impossible.

"The first occurred here in my study, at the hospital, in the month of February of the current year. The Brett boy and his father, the doctor, were visiting me, and my head matron, Mrs. Randall, entered the room. She was suffering at the time from what both she and I supposed was a heavy cold. She had heard of the peculiar power attributed to the Brett boy, and jokingly asked Dr. Brett to allow the boy to make a physical examination of herself. The doctor acquiesced, and the boy at once passed under the hypnotic trance. The boy turned his large widely opened eyes in her direction and looked at her fixedly for about a minute, when he said aloud to his father:

'Oh, papa, I can see a great big sore in her lungs, just where they come together. And it looks around it as if the lungs had been bleeding.'

"This was all he said this time, Mrs. Randall not wishing to hear more. When the boy and his father had gone she told me that she had had two hemorrhages a day or two prior to the boy's visit, but she had attached no particular fear to them, thinking that the blood had come from the stomach. At that time she was apparently in the best of health, and there never was a nurse in any of the hospitals of Boston who excelled her in the use of Ether prior to an operation. On the first day of June she died of what people call quick consumption.

"The other instance was in a matter relating to my own personality. A short time after the boy's examination of Mrs. Randall, I asked his father to allow him to examine me. He consented, and the boy looked me over slowly. He told me-I do not remember his exact words—that I was about to be troubled with my kidneys. This I already knew of, and was in no way surprised, but when he concentrated his gaze upon the abdomen and described to me a certain formation there, of which I myself was unaware, I was struck with amazement. That this condition did exist at the time, I have since proved by experiments and treatment. I am entirely satisfied that the boy is not deceiving his father or any one else, and believe that he is the possessor of some supernormal force, the nature of which I have never before seen exemplified. (Signed) FRANK L. BURT, M. D."

By Professor William A. Barnes, Member of Faculty of College of Physicians and Surgeons: "Dr. Frank W. Brett, of South Braintree, is a personal friend of mine and a former pupil. I taught him hypnotism in the medical school. I have known of the experiments upon his eldest boy for at least a year. I have personally been a witness

of an exhibition of the boy's peculiar power. This occurred in my own office, in obeying a command from his father.

"He examined Mrs. Barnes (my wife), whom he had never before seen, to either her or my knowledge, and correctly diagnosed a broken ankle, the result of an accident when she was a girl. He located the ankle, described its present state, and gave certain evidences of having—it might or might not have been—a mental picture of the ankle before him.

"His eyes were wide open and fixed staringly upon the ankle in question during the time he was speaking.

"There is no question of the authenticity of this strange gift. As a professional hypnotist I am, of course, well aware that the visions and answers returned to the questioning of the hypnotist are wholly the result of telepathy, but in this case there is no evidence of this whatever. This boy SEES portions of the human anatomy which the ordinary man or woman are unable to see, and answers questions concerning them. His father, the hypnotist, could not have suggested my wife's broken ankle to him, since he did not even know of it. I have as yet formulated no theory concerning his marvelous faculty.

# (Signed) WILLIAM A. BARNES, A. M."

Narrative of Dr. Brett, the boy's father: "South Braintree, Mass., June 23.—'Oh, papa, I can see your bones!" This was the exclamation of little Afley Leonel Brett, the eleven-year-old son of Dr. Frank Wallace Brett, in the November of 1897, just before regaining his senses after a hypnotic trance, induced by his father.

"And he could. He proved it then and there. He has proven it hundreds of times since, and again this afternoon, in the parlor of his father's house, he proved

it for the last time upon the person of the Journal correspondent himself.

"The boy is not only the marvel of the town, but of all the surrounding country. Boston has heard of him, and New York, and to-day, his father received an offer from a celebrated New York specialist for the services of his son in the diagnosis of a difficult case in the metropolis.

"Afley (from the Greek verb 'Aphleo') Leonel Brett, who possesses this wonderful faculty, is a small schoolboy, who will not have attained the age of twelve years until next August. To look at him, one fails to see just wherein he differs from any other schoolboy of his age and condition, excepting, perhaps, that he is far better looking than the majority. But he has a good looking father and a handsome mother, and that would account for this. But it will not account for the fact—used advisedly —that, when hypnotized by his father, the eyes of this boy possess all the wonderful faculties of the Roentgen Outside clothing, linen, underwear, the human skin and flesh itself, are as nothing in his sight. The bones of the subject stand out in bold relief, and the organs of the person upon whom he may be looking are spread before him as though on a chart. Furthermore-and most important of all-these miraculous eyes behold the human anatomy in its true colors, red, white brown, even to the blue of the venous blood. impossible with the X rays. Under its use everything appears of the same shade.

"But this supernormal gift entails its responsibilities. The boy is unable to remain under the hypnotic influence for longer than fifteen minutes at a time, and when awakened by his father from the trance is at first weak and faint.

It is undoubtedly a strain upon his nervous system, and wisely has his father decided not to ask him to undergo it oftener than once a week. This afternoon, for the benefit of the readers of the Journal, Dr. Brett allowed his wonderful boy to illustrate his marvelous faculty."

"To begin with," said Dr. Brett, "I myself knew nothing of this gift of my boy until the month of November, 1897, when, one afternoon, upon coming out of a hypnotic state into which I had cast him, he made use of this curious expression, 'Oh, papa, I can see your bones!' Of course, at first, I thought it was only an illusion, but when he began to describe to me my anatomy as though he had it spread out before him on a chart, I began to realize that I was on the verge of a mighty discovery. The idea of anything supernatural did not occur to me—I am not in any sense a spiritualist. I do not claim that this is supernatural. I only say that it must be supernormal, as neither the doctors with whom I have talked over the case nor I myself have ever heard of a similar case.

"Since the time of the first discovery of his gift, Leo, as his mother and I call him, has demonstrated it in probably a hundred instances. In the presence of Professor John S. Flagg, of Boston, a member of the faculty of the College of Physicians and Surgeons, Leo plainly saw and indicated the brain flashes of the sensory and motor nerves from the brain centres to the arm, and back again. And, as if to make the evidence doubly sure, he indicated by his fingers the very spots in the cerebrum as the origin places of the flashes in which scientists have agreed are located the centres for controlling the movements of the upper extremities.

"The experiments I am about to now reveal to you have been made within the past year, and some of them within the past week. Only so recently as Thursday of last week, June 15, I was called into consultation with Drs. Chase and Allen, of Randolph, in the case of the threeyear-old daughter of Mr. F. H. Libby, of that town. The child had been playing in the yard with some of the older children, and they said that they had seen her swallow a cent. When questioned at length, they stuck to the story, and the first two doctors who were called in physicked the child very strongly. Dr. Chase, who was the last physician called by the parents of the suffering child, called Dr. Allen into consultation, and later they both called me into it. The question came up at once whether the little one had or had not swallowed the coin. We were unable to agree, and, with the consent of my brother physicians, I was allowed to introduce Leo into the case. I hypnotized him, and asked him to examine the organs of the apparently dying child, as she lay stretched upon the bed before him. He almost at once declared there was no cent in the child's stomach or intestines, but that there was a mass of some kind, just below the pylorus. Furthermore, he told us that the intestines of the little girl were red and inflamed for a considerable distance. Of course, the violent physicking of the child would account for this. On the evening of that day the child died, and Drs. Chase and Allen and myself performed an autopsy on the body the next day (Friday). We found no cent in the body, but we did find the mass (of fibrous tissue) just below the pylorus, as Leo had described.

"Last winter, Leo was with me one day when I was calling upon the family of Dr. Allen, mentioned in the last

experiment, and Mrs. Allen, the doctor's wife, asked him if he could describe her ailments. He said that he thought he could, and I hypnotized him. He at once began to describe all the symptoms of gouty rheumatism, even going so far as to describe the chalky deposits in the joints. He also described the thickening and inflammation of the right sciatic nerve. The diagnosis, according to Dr. Allen himself, was exactly right. Mrs. Allen had been for years a sufferer from gouty rheumatism, and especially from sciatic rheumatism on the right side. To test him further, before I released him from the trance, Mrs. Allen asked him whether or not she had eaten her dinner. 'I think so,' said Leo. 'Your stomach looks as though it were filled with dishwater (chyme).'

"One of the strongest and at the same time most emphatic experiments that Leo has ever performed was that of the case of Mrs. Randall. In the month of February last while visiting in Boston, I brought my boy to see Dr. F. H. Burt, an old medical friend of mine, who is the head of Burt's Hospital, of Massachusetts Avenue. Dr. Burt was already acquainted with Leo's peculiarities, and we were, if I remember, talking about them when the matron of the establishment, Mrs. Randall, entered the office. The doctor had spoken to her of Leo Brett, and she was anxious to test him. She was then a fine figure of a woman, stout, well set up and apparently in the best of health with the exception of a somewhat toublesome cough. Dr. Burt introduced Leo to her, and she said to him, 'Do you think you could tell what is the matter with me?' 'Yes, I think so,' said the boy. I hypnotized him and told him to examine her. 'Papa,' said the boy, after a minute, 'I can see a

great big sore in her lung, just where the two are joined together, and around it it looks as though it had been bleeding.' That was enough for Mrs. Randall. She left the office in a hurry, and when she had gone the doctor told me that she had had two hemorrhages within a week, although she made little of them. That was in February. On June 1, I had received a note from Dr. Burt telling me that Mrs. Randall had just died from hasty consumption.

"The next experiment is, perhaps, at once the most interesting and convincing of any in which Leo has taken a part. I cannot give you the name of the patient—she is one of my own private patients, and I am well acquainted with her family. Although I do not make her name public, I do not wish it to be understood that she is not willing to substantiate my statements. If necessary, she will come forward to back me up.

"The patient in question, is an elderly lady of perhaps sixty years of age. She came to me from out of town to have her case diagnosed. She had been to many doctors, and they had almost unanimously pronounced her disease to be a cancer of the liver. Of course, this meant certain death, and a very painful one. I refused to declare my diagnosis until Leo had been called into my study to aid. 'Leo,' said I, 'I want you to compare this lady's liver with mine.' In hardly a minute the boy answered, to quote his own words, 'Why, papa, her liver, is much larger than yours. Besides, yours is smooth, while hers is all covered with bunches like hubbly ice. Yours is brown, while hers is brown all streaked with white, like fancy chocolate cake. The white stuff looks to me like candle grease.'

"That was sufficient. The correct source of her trouble had been shown to me. She was suffering from amyloid degeneration of the liver, which, while dangerous, is distinctly not cancer. This, notwithstanding the diagnoses of all the other physicians she has visited. I am now treating this patient for the above disease, and it has at least made no progress. Had it been a case of cancer of the liver she would have been dead long ago.

"Just one more before I close. There came to me in September, 1898, a married lady of about thirty-five, suffering from what I was convinced was valvular disease of the heart. So far as a physician can I examined her with the stethoscope, and her condition appeared to me to be alarming; so much so, in fact, that I was at a loss to understand how she managed to be alive at all. To obtain a clear idea, with the patient's consent, I called Leo into the consultation room and told him to examine the lady's heart. In a minute, he said: 'I can see her heart and the valves. One of them opens slowly, as though it were stiff and tired. Sometimes it shuts, and sometimes it does not. When it don't the blood runs back.' I asked him, 'Why, how many valves are you looking at?' 'Three, of course,' was his reply; 'the other two are all right.'"

"This testimony," concluded the doctor, "ought to be enough to convince any one of the boy's abnormal gifts. As I said before, I do not claim the boy's peculiar ability as supernatural. I do not believe in the supernatural. But I do say that they are supernormal."

"Doctor," said the Journal correspondent, "will you allow your boy to examine me to see whether there is anything the matter with me or not?"

"It is strictly against my rule," said the doctor, but perhaps it may serve a useful purpose in the end. Leo, I am going to ask you to examine this gentleman. Now, close your eyes. (A minute elapsed.) Now, open them; look at him, and tell me what you see."

"The boy was standing leaning on the back of a chair with a serious, eager sort of expression on his face. While he appeared to be entirely conscious of others in the room, his fixed, concentrated attention was centered on the Journal man. Slowly he began to speak in his natural voice. 'I see nothing at all the matter with him, but I think there has been something the matter with one of his arms a long time ago. It's the right one. Ah, now I see more clearly (as the sun shone out from behind a cloud). It has been broken in two places at the wrist. And besides, the muscles and chords look as though they had been wrenched from where they ought to have been, and they look to me as though they never had gone back again. The place where the break was in the top of the wrist looks as if the bones had been grown into one. It's a funny sort of a looking arm, anyway."

"Snap! went the doctor's finger, and the boy came to his normal senses in a second. He looked rather frightened, as though he had been doing something he ought not to; but this expression only lasted a minute. In another minute he was out in the yard and away on his bicycle.

"For the benefit of Journal readers, the Journal correspondent will explain that, fifteen years ago, when a schoolboy, his right arm was broken in two places at the wrist, precisely as Leo Brett described it. The

muscles and chords were also wrenched and bruised, and the swelling never entirely subsided, so that the boy's further description of the way that the arm looked was microscopic in its completeness. The Journal correspondent will also add that never in his life up to to-day, had he ever met Dr. Brett and his boy Leo. Again, he was separated from the boy by about seven feet. He wore his ordinary clothing, coat, linen and underwear, so that it was impossible for the boy to have in any way seen the arm."

"Doctor, this is all very wonderful. But how do you account for the boy's gift?" asked the Journal man.

"I don't account for it," was the doctor's reply. "That is beyond my power. But let me tell you something about his characteristics. In the first place, ever since he began to take notice of things, his mother and I have noticed his wonderful power of concentration, exclusion and application. Shortly after I begun to hypnotize him, I early recognized that he would prove a wonderful hypnotic subject. I found that hypnotism seemed to develop this power of concentration still more, even to the point of excluding the sunlight. My theory of his gift is that his retina, his optic thalmus or his mental perception must be something altogether out of the normal, so much so that medical science has hitherto had no record of a similar case.

"When I have asked him how things appear to him when hypnotized, he tells me that he sees a reddish-black background, with a pale green light irradiating the object at which he looks, emanating from it. This is exactly the same as the effect with the Crookes tube. Yet, when I introduced him to the fluoroscope at the

Mechanics' Fair in Boston last Fall, he threw it down in disgust, after a look, and said: 'Pooh! I can see plainer than that with my own eyes!'

"Dr. Frank Wallace Brett, father of this wonderful boy, was born in the old Massachusetts town of Hingham, May 14, 1861. He graduated from the Hingham High School and from the Bridgewater Normal School, in the class of 1880. In 1882, he accepted the post of Principal of Hanover Academy, and taught there for six years, leaving in 1888 to become Principal of the Highland-ville (Needham) Avery Grammar School, where he taught for three and one-half years. He was graduated from the Boston College of Physicians and Surgeons in 1894, receiving the degree of M. D., and settled in South Braintree for the practice of his profession."

Note.—The publisher of this book feels convinced that this boy's development is but the commencement of an era of many more similar cases, and trusts it will increase the interest in and study of the science of Hypnotism, perhaps by some that heretofore have pronounced it unworthy of investigation.

## CHAPTER XVI.

#### HYPNOTISM.

The dangers of Hypnotism.

Is hypnotism in itself dangerous to those submitted to it? Dr. Bernheim says: "From experience, I do not hesitate in stating that, when it is well-managed, it does not produce the slightest harm. It does not interfere with the functions of organic life; we have seen that respiration and circulation are not influenced in subjects whose minds are at rest. If, in the first sittings, some subjects manifest nervous phenomena, such as muscular twitchings, shortness of breath, discomfort, acceleration of the pulse, and if some hysterical subjects have convulsive paroxysms during the operation, these symptoms, autosuggestive so to speak, are due to moral emotions, to a sentiment of fear, and always disappear in the following treatment, thanks to a quieting suggestion which brings back confidence. When the habit has been formed, the subjects go to sleep peacefully and naturally and awake in the same way, without the slightest discomfort, if the operator has been careful to suggest no discomfort upon waking."

"In my already long practice, I have never seen any harm produced by sleep induced according to our method,



Fig. (6.) Three Persons passing into Hypnotic Sleep. Original Portraits. Copyright by M. Young, Aug. 1899.



for the suggestion is always present as a corrective to any disagreeable symptoms which may arise."

"There is a danger which it is important to recognize and which I am going to mention. After having been hypnotized a certain number of times, some subjects preserve a disposition to go to sleep spontaneously. Some have been hardly awakened when they fall to sleep again of themselves in the same hypnotic sleep. Others fall asleep thus during the day. This tendency to autohypnotization may be repressed by suggestion. It is sufficient to state to the subject during sleep that when once awakened, he will be completely awake, and will not be able to go to sleep again spontaneously during the day."

"Others are too easily susceptible to hypnotization when they have often been put into somnambulism. The first comer may sometimes put them into this condition by surprise, simply closing their eyes. Such a susceptibility to hypnotism is a *real danger*. Delivered over to the mercy of anyone, deprived of psychical and moral resistance, certain somnambulists thus become weak and are moulded by the will of the suggestionists."

"Those moralists who are careful of human dignity, and who are pre-occupied with thought of such great possibilities of danger, are in the right. They are right to condemn a practice which may rob man of his free-will without the possibility of resistance on his part; they would be a thousand times right, if the remedy were not side by side with the evil. When we foresee such a tendency in our cases of somnambulism, we take care to say during sleep (and it is a good rule to follow): "Nobody will be able to hypnotize you in order to relieve you, unless it be your physician! And the subject, obedient

to the command, is refractory to any foreign suggestion. One day, I tried to hypnotize an excellent somnambulist whom I had already hypnotized several times; I could not succeed. I called M. Liébault to aid me; he hypnotized her in a few seconds. I then asked her why I had not succeeded. She told me that, several months before, M. Beaunis had suggested during sleep that M. Liébault and himself were the only ones who could hypnotize her. This idea, written on her mind, and of which she was not conscious in the waking condition, had forwarned her against me. Thus, the danger of a too great susceptibility to a suggestion may be forestalled by suggestion itself."

"But another order of dangers may result from provoked hallucinations, and here I should speak as I think. Doubtless inoffensive hallucination provoked at long intervals, whether hypnotic or post-hypnotic, trouble the mind momentarily, in the same way as do dreams, but the equilibrium is quickly re-established as soon as the hallucinatory dream has disappeared."

"Is it the same of these hallucinations that are frequently suggested to the imagination? In the long run may not some trouble remain in the mind? Is it not to be feared that a more or less marked derangement of the intellectual faculties may survive? I should not like to state that certain delicate brains, predisposed to mental alienation, could not receive serious harm from inopportune and awkward experiments of this kind, knowing that all emotion, all violent disturbance can make an insanity bud out, the diathetic germ of which, often hereditary, is inherent in the organism. I simply should say that in the many experiments which I have

performed, I have never known any psychical trouble to result.

"Another real danger is this: After many hypnotizations, after many hallucinations provoked during sleep, certain subjects become susceptible to suggestion and hallucination in the waking condition."

"Their minds realize with extreme facility every conception insinuated; every idea becomes an act, every image evoked becomes a reality; they no longer distinguish between the real world and the imaginary world suggested. The majority, it is true, are only thus susceptible to hallucination through the one person who is accustomed to hypnotize them."

"But among these subjects, especially if the physician has not taken the precaution to attribute a monopoly of the ability to give suggestion to himself, some may be susceptible to hallucination and suggestion at the hand of any one who knows how to force it upon them."

"And if this extreme susceptibility to hallucination is once produced, if this nervous disease is once created, it is not always easy to cure or to improve it by a new suggestive interference. But it is not necessary to subject the human mind to influences of this sort. Doubtless, some experiments of hallucination induced from time to time are inoffensive, if they are performed with reserve; repeated frequently upon the same subject they may become dangerous."

Dr. Bernheim says: "Must we proscribe a thing which may be efficacious, because the abuse of it is injurious? No one proscribes wine, alcohol, opium, quinine, because the immoderate or intemperate use of these substances may bring about accidents. Doubtless suggestion used

by dishonest or awkward men is a dangerous practice. Law can and should intervene to repress its abuse."

"Suggestion is only beneficial when used prudently and intelligently for a therapeutic end. It is the physician's part to separate the useful from the harmful effect, and to apply it to the relief of his patients."

Dr. Moll says: "The danger of hypnotism has been enormously exaggerated. The inhabitants of a little town once left off eating potato soup because a woman fell downstairs and broke her neck half an hour after eating same. Conclusions have been drawn in the same way here, and this sort of reasoning is not uncommon. If a person was hypnotized, and later on had some ailment or other, straightway the ailment was ascribed to hypnotism. If we reason thus, we should have to say that Carlsbad causes apoplexy, for Mr. X. had an attack of apoplexy, a fortnight after he returned from Carlsbad, etc. Many things could be proved in this way."

"I should hardly have thought it possible that such logic should be used in scientific circles. It is true I have often heard that when patients come back from a watering-place without having been cured—which must happen sometimes—they are dismissed with the comforting assurance that they will feel the effects later on. Till now, I thought this was a bad joke, or at best, an effort to console the patient; I never believed that such a principle was really credited in the medical world. If a patient got better or worse six months after his return from a watering-place, I should not be inclined to ascribe the effect to the baths, because in the interval other things might have affected the patient. Like Pauly, I must on these grounds reject the connection found by Binswanger, Ziems-

sen, between hypnosis and ailments long subsequent to it. Besides, if I were to accept their sophisms, it would be easy for me to prove in the same way that modern medicine made mankind ill; for what medicine might not produce important results half a year after its administration? What doctor has ever argued in this way? Recently Friedrich, formerly an assistant of Ziemssens, has written at length on the dangers of hypnotism; he has, however, been refuted by Forel, Schrenck-Notzing, and Bernheim, who show the cases in which hypnosis is supposed to have had dangerous results, are published in careful detail, it becomes clear - as in the cases of Seglas, Briand, Lwoff, etc.—either that important precautions were neglected, or else that a connection between hypnosis and the disease were assumed according to the principle, post hoc ergo propter hoc."

"However, I by no means deny that there are certain dangers in the *improper use of hypnotism*."

"Mendel maintains that it induces nervousness; that nervous people grow worse, and sound people nervous through its use; but Forel and Schrenck-Notzing think this is a mistake of Mendel's, caused by his using the method of Braid's instead of suggesting hypnosis verbally. Dr. Moll, agrees that fixed attention too long continued may have unpleasant effects. It may be followed by nervous debility or nervous excitement. But I have never seen anyone become 'nervous' whom I hypnotized verbally, and to whom I made no exciting suggestion. This is important to remember. Whoever has seen the difference between a subject who has received an exciting suggestion, and one who has received a soothing one, will agree that as much good can be done in one way

as harm in the other. A man who makes absurd suggestions to amuse himself and satisfy his curiosity, without a scientific aim, need hardly be astonished if he produces ailments. Sawolshskaja is right in warning against such sports. I have observed that patients are often worse on days following bad dreams. Can we be astonished that a person who has awaked from hypnosis during an imaginary fire should feel ill after it? Such suggestions should not be made at all, for most of the danger lies in unpleasant suggestions, and there is never any need of making them. Too much cannot be said against hypnotism being used for such purposes. Great care should be taken, to only use pleasant words to the subject, and only make pleasing suggestions, and always be sure that the subject is soothed, and in a happy frame of mind before the waking. This is the most important point. Mistakes can be made of little consequence, provided the subject is thoroughly and properly wakened in the manner used at Nancy, and by all who follow the prescriptions of that School. Dr. Moll asks of those who talk of the dangers of hypnotism, if they have taken care that the awaking should be complete? I know that most people are not at all aware that they should do away with the suggestion entirely. They think it enough to blow on the subject's face, and I am astonished that more mischief is not done in consequence of insufficient technical knowledge. It is this that is dangerous, not hypnotism. No wonder that there are sometimes unpleasant consequences. It is as necessary to know the right way in this case as in using a catheter."

"To show how a suggestion should be done away with, I will suppose that an exciting suggestion has been

made to a subject, who is disturbed in consequence. One should say something like this: 'What excited you, is just now gone, all gone; it was only a dream, and you were mistaken to believe it. Now be quiet. You feel quiet and comfortable. It is easy to see you are perfectly comfortable.' Only when this has succeeded should the subject be awakened; and this should not be done suddenly; there are reasons for thinking it better to prepare the patient for waking. I generally do it by saying, 'I shall count up to three. Wake when I say three;' or, 'Count to three, and then wake.'''

These three rules should always be followed:

FIRST. — Avoid continuous stimulation of the senses as much as possible.

SECOND.—Avoid all mentally exciting suggestions as much as possible.

THIRD.—Do away with all suggestion, carefully, but surely before the awakening.

This *method cannot cause nervousness*, and if the above rules are properly followed there can be no danger in hypnosis.

Forel mentions some slight accompanying ailments, which are sometimes found after hypnosis, though they cannot be thought a real danger, and are often the result of auto-suggestion, or of a bad method. There may be fatigue and languor, heaviness of the limbs, etc., after waking. It is easy to prevent these by suggestion in deep hypnosis. It is different in the light ones, though I believe a clever operator can do it by post-hypnotic suggestion even here. In other cases it is better to prevent fatigue by suggestion before awakening; in any case it is a good plan to get rid of it at the first sitting,

as otherwise it increases by auto-suggestion at each sitting, and can finally be hardly overcome. This feeling of fatigue in the light hypnosis is the same we sometimes have after an unsound sleep. All these inconveniencies are slight, and can for the most part be avoided.

The main dangers of hypnotism are not those just mentioned, which appear seldom, even when improper methods are used. The real ones show themselves more easily. They are, the increased tendency to hypnosis, and heightened susceptibility to suggestion in the waking state. This too great susceptibility to hypnosis shows us how *careful we should be with* the *method* of Braid, which is the most frequent cause of this; for accidentally fixing the eyes on some object may cause a sudden hypnosis, simply because the idea of an earlier hypnosis is thereby vividly recalled.

The last-mentioned danger can be guarded against by repeatedly making some such suggestion as follows to the subject before waking him. "Nobody will ever be able to hypnotize you without your consent; you will never fall into hypnosis against your wish; nobody will be able to suggest anything to you when awake; you need never fear that you will have sense delusions, etc., as you do in hypnosis, you are perfectly able to prevent them." This is the surest way to avoid the danger. Such are the dangers of hypnotism, and such the methods of meeting them. Their antidote is suggestion, and they are no hindrance to hypnotic treatment. They can be avoided by a proper use of hypnotism.

## CHAPTER XVII.

## HYPNOTISM.

Brief Explanations of Important Points in Hypnotism—Special Advice and Instructions to Young Experimenters, and Particular Reference to Inducing Hypnotic Sleep and Awaking.

We have in the preceding chapters of this book given the methods used by the most celebrated physicians, surgeons, and scientists in the world, to produce hypnotic sleep. Their names are well-known throughout all lands, and their ability and judgment is unquestionable. This book may fall into the hands of a few readers who may need some further or plainer explanations on this great subject of Hypnotism. As many people desire to learn every important point connected with it, and become proficient hypnotizers, and therefore feel themselves fully competent to teach the art to others, to all such we can only say, that if you follow the full directions given, you cannot fail to succeed in every particular. You must have the confidence of your subjects, and impress upon their mind, that you will produce sleep and benefit them thereby. You must feel yourself fully competent to the task, and know that you can hypnotize others.

In case you are not successful in your first attempts to hypnotize, you must not allow yourself to feel dis-

couraged. This book has made you the master of the most wonderful science or art of this century. You are liable to hypnotize the first person you use as a subject, but you may try several before you will succeed. You possess the knowledge, and there is no reason whatever why you should not become as good an operator as any other person. It is unnecessary to again repeat here the different methods to produce the hypnotic state. It is given quite fully ten different times in the preceding chapters. But we desire to impress the reader to study every page, and perfect themselves in every step that they will necessarily take in becoming a thorough hypnotist. It may seem at first almost incredible to a beginner, that he can learn to hypnotize so quickly and perfectly as thousands have already done. But he must abandon all such ideas, and he will very soon witness the most marvelous feats, produced by the simple methods he is using on his subjects.

You will find that those you hypnotize will obey your commands as perfectly as a soldier hastens to obey the orders of his superior officer. What at first will astonish the operator most will be to see his subject sleep, because you commanded him to sleep, then to see him carry out your suggestions and think as you direct him to think. You must in a very mild way impress upon your subjects that you want them to sleep, and in a very short time you will waken them refreshed and contented. You must feel positive and in fact know that you can hypnotize a large percentage of the subjects that desire you to, and if they fully believe that you can produce the hypnotic sleep in their cases, it will go very far towards your success. After you have

hypnotized one or two, you will have gained so much confidence in your ability to control others, that it will be no task to you any longer, and you can go before anyone and feel as bold as if you were just graduated from college. You can study this book and perfect yourself, and give parlor entertainments, cure such diseases as rheumatism, opium habit, tobacco habit, cigarette habit, nervous prostration, stammering, violent headaches, alcoholism, etc.''

You will observe all through this book that subjects who have been hypnotized before, are much easier to control than others, and if you know of any such person, try to get them as your subjects at first. Tell them that you are well read up in the science, and have the best authorities in the world to guide you in every move in hypnotism. Even show the book if necessary. Young people are generally quickly influenced, and if the operator follows the instructions here given in every chapter, he will very soon observe that his efforts are meeting with wonderful success. In several chapters in this book, you will be instructed in the methods and the directions given that you are to follow to become an expert in this art. You must never allow any person present to make foolish or discouraging remarks to the subject before or while you are hypnotizing him. He must not speak until he is told to do so by you. He must concentrate his thoughts on an effort to sleep, as thereby he is assisting the operator in this wonderful phenomena. Give the subject time to become drowsy and sleep will come eighty to ninety times out of every hundred. Speak very softly to him when you observe the changes in his facial expression. Speak as if he was a child you loved, and

let the tone of your voice be low and sweet, not whining, but expressive, and when you finally command him to sleep, do not speak as if you owned him body and soul, but speak as if you were positive he was asleep, and right here I beg to call attention to the waking method as used in the School of Nancy, which you must study and become proficient in. It is very important, and you will so observe when you have become a thorough hypnotizer. And in this connection, it is well to read carefully Chapter XVI., as the waking methods are explained very minutely.

After your subject has passed into the hypnotic sleep, do not speak to him for a few minutes, and he will become quiet as if he were in natural sleep, then you can say to him pleasantly, "You are sleeping soundly, you will sleep a short time, but you will not wake until I order you to. Be calm and enjoy this little nap." You can suggest some pleasant view in the distance, such as "What a beautiful sunset you see over there," pointing to it with your right hand. "You have a grand summer house just beyond the turn in the road. You see the sheep on the side of the hill, and the children in the boat sailing on the lake. Listen-You can hear their voices singing, 'Home, sweet home.' Oh, how happy you are now when you hear the voices of those you love. When you wake you will remember what a beautiful sight you are witnessing. Now, I do not intend to wake you suddenly, so when I count ten, you will wake at that time, and you will open your eyes, and will feel well, refreshed and happy." When you have counted ten, say "Wake."

We call attention to illustration (Fig. 1). Notice the earnestness of both hypnotizer and subject. The operator's

expression is calm, thoughtful, and he *knows* his subject will sleep. The subject is there to be hypnotized, and that is the belief of the operator, or the subject never would have called there. He has confidence in the operator, and believes he will benefit him. You must get your subjects into just that state of mind that is so beautifully illustrated in that picture.

It is the method used in the hospitals of France and Germany, and the position of the operator and subject is very beautifully and correctly shown. It is known as Dr. Liébault's method, and is extremely simple, and easy to learn by the experimenter. (See Chap. IV., of this book).

(Fig. 2).—Is Young's Method. The right hand of the operator is held about 12 to 15 inches from the subject's eyes, the hand being closed with the exception of the first two fingers which are extended (as in illustration) at such an angle that the gaze shall be directed upwards in a strained manner. The left hand of the operator is raised as high as his head, and nearly two feet away from his right hand. It is a new method, and we think somewhat more expressive than others. But we do not claim that it produces hypnotic sleep any quicker than the one so generally used throughout all Europe. But we believe it is another step towards the advancement of this wonderful science.

(Fig. 3).—The Fascination Method. The subject and operator should be seated in ordinary chairs such as appear in the illustration. Place your thumbs against his; let the subject gaze steadily in the operator's eyes, and tell him to concentrate his thoughts entirely on sleep, and think of that only. Arrange the chairs so that the

subject will feel at ease, his back against the chair. The operator can lean forward, but do not suggest to the subject to change his position. Tell him not to speak to you unless you request him to talk. In a short time ten or fifteen minutes, sometimes less, you will notice slight twitching of the muscles of the face, and the eyes appear dull, perhaps watery, and when these symptoms appear, you can draw both of the subject's hands together at the same time holding both his thumbs with your right hand, and place your left hand on his forehead. He may then close his eyes. If he does not voluntarily, let your left hand move slowly down and close his eyelids, stroking them slightly with your fingers, and then return your left hand again to the subject's hand as first held, his eyes now being closed; then say to him, "You are resting pleasantly, and you appear sleepy. You are sleepy—very sleepy. Sleep."

If your subject sleeps, he will imitate everything you do. You can swallow as if drinking, and the subject will swallow. You can raise your arm; he will do the same. If you stand several feet apart, back to back, and a person pricks your leg with a needle, the subject will jump, although he does not see you. We refer the reader to Chap. VIII., in which the method is treated at length.

(Fig. 4).—Think—think deeply for an instant without falling asleep. Arousing latent memories, after being awakened from somnambulistic sleep. A most wonderful phenomena, thoroughly explained in Chap. X.

(Fig. 5).—The operator hypnotizing three persons at one time.

(Fig. 6).—Three persons passing into hypnotic sleep.

(Fig. 7).—Method used in therapeutics, and the method used in curing cigarette smoking, opium, tobacco habit, alcoholism, and other dangerous habits. See Chap. 10.

It is highly important that we call attention to Chap. III. The *Nine Degrees of Hypnotism*, also the use and discovery of suggestion.

You will notice that the time necessary to hypnotize will generally vary from one minute to five minutes, and then again you will meet some who are thinking of something else, which often prevents them being influenced. But those may be hypnotized at some other sitting. When people are hypnotized they do not hear the voices of those present. Neither do they even see or know their own relatives in whose company they are. The operator can introduce the subject to any person in the room. If the party is his own wife, mother or sister, the operator can suggest that the ladies to be introduced are very important personages, mentioning the names of Queen Victoria or the President's wife, and the subject will treat them with great dignity and attention, and in the next suggestion, you can say to him that he must not encroach on the ladies' time, and bid them good evening, and the people present often witness then a wonderful sight, for the most rough, uncouth persons when in the somnambulistic state of hypnotism, are changed into the most polite and gentlemanly men, and the expression of the face is transformed as it were into the highest degree of refinement. By suggestion, you can direct the subject's mind in almost any direction desired. You can send him off far away to Manila, and he will describe quite accurately the country he is visiting. You can say to him, why look off to the right of you, there is a tremendous battle being fought, and

here to the left of you is a wedding party, and see what a crowd of elegant ladies and gentlemen are there. If you watch the subject closely, you will notice that he hears the roar and din of battle, and if you ask him how that wedding is progressing his face will change entirely when he answers you, but you must not make the second suggestion until the subject has fully described the first. When you have studied this book, and have become a thorough hypnotizer, you will be able to originate very many new and startling manifestations that other operators have not thought of; and if you wish to give parlor exhibitions, or to entertain a family gathering or an evening party, the more novel ideas you have to show them among those you hypnotize, the oftener you will be sought after, and in some places such a private entertainment commands from \$50 to \$100. There are many suggestions that the reader may originate, many of which might be very important, not to the subject alone, but to his friends or relatives. Many people that procure this book, become teachers of the science, and thereby have a very considerable income from such an occupation.

The cataleptic or rigid state is, when the body becomes stiff as a log. It is very simple, and very wonderful, and to some people very amusing, but really we fail to find any particular benefit arising from it. It can be produced by suggestion in the same manner as you tell the subject that he is King of England. See Chap. XIV. Your limbs and your whole body are becoming hard and rigid! are the words that can be used.

Hallucination, sense delusion, is thoroughly explained in Chapter IX.

Also telepathic suggestion. Auto-suggestion plays a most important part in hypnotism, and we hope every student will give this part of the book earnest study and attention.

Post-hypnotic suggestion is also taught in this book (Chap. IX). It means that a patient will carry out any instructions given him when in a hypnotic sleep (by the doctor or operator) after he awakens. He will do the act apparently unconscious of having received any *suggestion* from the operator. (See cases cited.)

Somnambulism. (See Chapter X.) Professor Bernheim calls somnambulism the Seventh Degree of Hypnotism. It is certainly the most wonderful part of this yet misunderstood science. In this degree of hypnotism the operator feels as if he was standing face to face with the *Soul of Man*.

Note —The preceding Illustrations (occupying 14 pages), none of which were numbered, therefore the following Pages will commence with the correct Folio 264.

# ANIMAL MAGNETISM.

The origin of Animal Magnetism is coeval with the creation of Eve. The extremely subtil and invisible fluid, which when in contact with the animal brain, is capable of performing all the phenomena of this wonderful science, had existed millions on millions of years anterior to the



creation of man, and is probably coeval with the birth of the trilobite, or even with The sun's creation itself. rays must pass through a suitable medium to cause the phenomenon of light—so this invisible fluid continued unknown, though not inactive, until some of its inherent properties were developed in passing through a suitable inedium, which was found to be the complicate and delicate brain of the highest order in the organized forms of creation.

The smallest insect, the most simple form of vegeta-

tion, and the more noble formation of matter in man, were all mediums through which this fluid ever has, and still continues to flow, producing all the symmetry, beauty and phenomena of nature, which, to superficial minds, are scarcely noticeable, because they are of such frequent and incessant occurrence, and are classed with the phenomena of the earth, only the first time the brain receives their impression by the force of that mysterious fluid through the medium of the senses. A child is in mute ecstacy at the first sound of the spring-rattle. He sees it; the mysterious fluid pervading all space, instantly impresses on his brain, through the delicate lens of the eye, the form of the instrument from which such strange notes had proceeded. He leaps with joy when he perceives it is made of wood, and analogous to other forms of things, long since familiar to his senses, by repeated examination of the impression of similar objects retained in the vast store-room of the brain. He seizes with delight

the play-thing, and wonders that an instrument so simple in its construction, could have caused him to wender, when the strange music caused by its vibrations were first transmitted to his ear. He continues the manipulations and finds amusement in the harmony of sounds, until the sympathy of the nervous system, that accurate tuning key of nature's wind-harp, softens the harsh tones of the rattle: when the whole forms a perfect chord of the brain, which continues to amuse the senses, until monotony fatigues the imagination, and a new and more curious phenomenon is sought for, probably in the decomposition by fire of the very toy which once sent forth such strange sounds to the ear. He scarcely ceases to wonder at the flame issuing from his lighted torch, when he is called to the window to scan a still more marvellous phenomenon in the air, "a kite! a kite!" a paper kite, buoyed aloft with a simple thread, is now the object of mute astonishment, followed by loud demonstrations of joy, as the mysterious fluid conveys through the eager distended eye to the brain, a perfect impression of the object which first held him mute in astonishment.

The most learned among men are but children in embryo, when their researches in science are compared with the vast and unlimited field which remain unexplored. Innumerable are the forms imprinted on the brain in the life time of man. Each form was a phenomenon; each in turn became familar; the whole becomes monotonous, and the imagination, aided by the inventive genius of the brain, seeks among the countless millions of forms in creation for some new phenomena to

feed the insatiate vortex of familiar monotony.

In the eager desire to reach after phenomena, the reasoning faculties are dormant, and man is capable only of admiring the wonderful affect on his brain without knowing the cause which produced it; when with less eagerness and more reason, man could refer to his brain which ever retains the impression received from innumerable objects, among which may be discovered forms sufficiently analogus to reconcile the most wonderful phenomenon to the known and familiar laws of nature, continually in operation around us; so the effects of Animal Magnetism continued to be seen, felt and admired in its various modifications, long before it received a name among the sciences of the earth. In a subsequent chapter, I will give the theory which harmonizes and reconciles all the phenomena attending this science, and show the natural causes continually operating to produce it. I will, likewise, divest it of every supernatural attribute

which its votaries and opposers are so zealous in ascribing to it. Enough for the present chapter will show its origin, its rise, and developments, under the various wrongly applied names of charms, sorcery, beguilements, fortune-telling by the Gipsies, and witchcraft of

the ancients and moderns.

The same fluid, which now unperceived by the keenest eye, is flowing through all organized matter, sup-porting life, when in a just equilibrim, and producing the effects called Animal Magnetism, when forced from its natural channel, was in existence from the creation. and commenced its unnatural effects on our race in the garden of Eden. The beguilement by the serpent was merely the effect of this mysterious fluid operating on the brain and nervous system of Eve. The same fluid held Adam in magnetic sleep when he committed the unholy deed, for which, we, his posterity, are doomed to suffer as penance. The snake at all times has used the same fluid in subduing the feathered tribe. charm attributed to this animal, is the self same magnetism which is now the subject of wonder in its effects on the brain of civilized man. The sorcerers of India knew the power of this fluid, and used it for the vilest purposes of deception. Witchcraft in all countries, was a branch of Animal Magnetism; it was the effect to the magnetic fluid, called a "volition of the will, emanating from the witch by the animal force of the nerves; the "bewitched" was the needle obeying the will of the magnet, and exhibiting all the phenomena common to the present science of Animal Magnetism. The pointing downwards of a crotched stick to indicate a stream of water flowing through the earth; the rat-catcher's charm and the soothing power possessed by many of curing scalded and burned flesh, are volitions of the will, and modified branches of this heretofore intricate science.

The Gipsies, as a commmunity, probably knew more of the astonishing power to be derived from the magnetic fluid than any collective race of beings on the globe. Their accurate predictions of future events are now subjects of history, and thousands of the most respectable inhabitants of Europe have testified to the perfect fulfilment of events predicted by this people. Their origin and habits of life are as curious as their magnetic phenomena. It is supposed that they came from Hindoostan, from the fact that their language resembles in all its parts Hindoostanee, notwithstanding they have been dispersed and wandering nearly four centuries in various parts of the earth. Like the witches in our own country, the Gipsies

have been persecuted in civilized Europe. In 1530, we find penal statutes against them in England; a subsequent act, made it death for them to continue in the kingdom; and it is recorded, to the disgrace of England, that thirteen were executed for this offence alone, but a few years prior to the restoration; this cruel act was not repealed until 1783; when the science of Animal Magnetism was sufficiently improved to show the injustice and inhumanity of legislating against the laws which Nature designed to be established for some benevolent purpose to mankind. The Gipsies were expelled from France in the middle of the sixteenth century, and Spain in 1591. Though expelled by statutes, they have not been entirely extirpated in any country; they are still numerous in Asia, and the northern parts of Europe, and their collective numbers are estimated at nearly a million of souls. Though scattered over the globe, they retain their similar and original character and habits; their principal business is fortune-telling, in which they succeed to an extraordinary degree, by the aid of the magnetic fluid, which they are so long accustomed to use, that they far surpass the best magnetic somnambulists of this country.

Grellman, who wrote the history of the Gipsies, and indeed all persons who have been much acquainted with the habits and manners of this interesting race, regard them as a very singular phenomena; they are not changed by climate, and the sword has not been able to extirpate them. In all countries they are the same wandering tribe. living in small huts, and though subject to the laws of the country in which they reside, they nevertheless have their own government as a community, the head of which is termed "Queen of the Gypsies." Many of them attain a very advanced age. Margaret Finch, who died at Beckenham, in Kent, Oct. 24th, 1740, lived to the extraordinary age of one hundred and nine years; Margaret held the title of queen; after traveling nearly a century, she settled at Norwood, where her extraordinary powers in Animal Magnetism, (denominated "fortune-telling" by the superficial philosophers and unlettered people,) attracted, as it does in all countries, numerous visitors of

the most respectable families in the country.

"From a habit of sitting on the ground, with her chin resting on her knees, the sinews at length became so contracted that she could not assume any other position. After her death, they were obliged to enclose her in a deep square box. Her funeral was attended by two mourning coaches; a sermon was preached on the occasion, and a great concourse of people attended the cere-

mony. Her portrait now adorns the sign-post of a hotel in Norwood, called the Gipsey House. In an adjoining cottage, resides to this day, the grand-daughter of queen Margaret; she inherits the title of queen, and has reached a very advanced age." She is the niece of queen Bridget, who was buried at Dulwich, in 1768. She inherits a knowledge of the magnetic fluid, and continues to practice with great success. She is unlettered, like all the race of this extraordinary people, and therefore her powers are sufficiently systematised to rank in the sciences, and though denominated "fortune-telling" by some, and "supernatural revelations" by others it is, nevertheless, a branch and most constituent part of the

science of Animal Magnetism.

A very extraordinary feature in the magnetic power of the Gipsies seems to have escaped altogether the notice of scientific men, and Animal Magnetizers in particular. I allude to the great difference in the manipulations or process to produce magnetic somnambulism; it is well known by all who have witnessed experiments in Animal Magnetism, that the somnambulic sleep is produced by the volition of the will," as it is termed, from the magnetizer, and there requires two persons to produce a magnetic somnambulist. When it is equally well known by all who have had the pleasure of witnessing the Gipsy experiments, that each one within themselves, is both the magnetizer and the magnetized, without any fluid whatever emanating from a second person; the volition of each will, instantly forms its own brain into a somnambulist. who can, not only travel instantly to any part of the globe, and with an extraordinary power of "clairvoyance," tell the situation of things and passing events, but likewise look into futurity for hundreds and even thousands of years, and predict with much accuracy the time place and circumstances to be connected with extraordinary events. The pages of history are prolofic in the fulfilment of such predictions. I will select one from the thousands on record, to confound the most skeptical opposer of the science, and carry conviction to the most stubborn unbelievers, of a fluid which has existed in all times and in all ages, and is constantly offering to our senses the proof of its power, when directed by a skillful magnetic somnambulist. The case I would offer, is that of the Empress Josephine, the consort of Napoleon. character stands above the reach of suspicion, as regards an extenuation of the extraordinary prophecy; and its equally extraordinary fulfilment is too well known by all persons, to require any extracts on my part from history,

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to prove it. I will relate the circumstance in Josephine's own words; and, reader, if you are an unbeliever in Animal Magnetism, observe well your own emotions, while perusing the prophecy, you will feel the very hairs raise from your head, caused by the transmission of the same magnetic fluid, which enabled the sable African when in St. Domingo, to predict for years in advance, the events connected with the history of France, equally as important and extraordinary as the fall of the ancient Jerusalem. Read it; it is from her, who under the most trying situations and circumstances, proved the most noble as she was the most amiable of her sex.

"One day, some time before my first marriage, while taking my usual walk, I observed a number of negro girls assembled around an old woman, engaged in telling their fortunes. I drew near to observe their proceedings. old sibyl, on beholding me, uttered a loud exclamation and almost by force seized my hand. She appeared to be under the greatest agitation. Amused at these absurdities, as I thought them, I allowed her to proceed saying, 'So you discover something extraordinary in my destiny?'-'Yes.'-'Is happiness or misfortune to be my lot?' Ah stop !— and happiness too!'—'You 'Misfortune. take care not to commit yourself, my good dame; your oracles are not the most intelligible.'—'I am not permitted to render more clear,' said the woman raising her eyes with a mysterious expression towards heaven.—'But to the point,' replied I, for my curiosity began to get excited; what read you concerning me in futurity?'—'What do I see in the future? You will not believe me if I speak'.—' Yes indeed I assure, you. Come, my good mother, what am I to fear and hope?'—' On your own head be ill then: listen: You will be married soon; that union will not be happy; you will become a widow, and then—then you will be Queen of France! Some happy years will be yours; but you will die in an hospital, amid civil commotion. "On concluding these words, continued Josephine,"

To concluding these words, continued Josephine," the old woman burst from the crowd, and hurried away, as fast as her limbs, enfeebled by age, would permit. I forbade the bystanders to molest or banter the pretended prophetess on this ridiculous prediction; and took occasion from the seeming absurdity of the whole proceeding, to caution the young negresses how they gave heed to such silly matters. Henceforth, I thought of the affair only to laugh at it with my relatives. But afterward, when my husband had perished on the scaffold, in spite of my better judgment, this prediction forcibly recurred to my

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mind after a lapse of years; and though I was myself then in prison, the transaction daily assumed a less improbable character, and I ended by regarding the fulfilment as almost a matter of course.

The event of this extraordinary prophecy is well known; Her second marriage was to General Napoleon Bonaparte 9th March, 1796. On the 18th May 1804, was fulfilled the prophecy of "Queen of France," and the circumstances attending her death are equally well known. All France had been a "slaughter house," and all France was an "hospital" at the time of her death.

This black woman, like Gipsies, was capable within herself of controling the magnetic fluid; she was both the magnetizer and somnambulist; she required no assistance from a second person to put her asleep. She was able by her own will to draw the magnetic fluid from remote space and even from futurity, through her own nervous system and brain, which thereby received an impression of all things past, present and future, which could readily by the asisstance of speech, be made known to the inquirer, who for want of a true philosophical reasoning would be unable to see the analogus workings of the magnetic fluid in objects around him, and lost in amazement, would pronounce the oracle a supernatural phenomenon, and the magnetic somnambulist or fotune-teller in concert with some unknown and mysterious power.

This superiority in the Gipsy and African sorcerers over the more scientific magnetizers, induced me to pursue with more zeal my inquiries in Animal Magnetism. I admire simplicity, and have generally observed that Nature's most perfect works are always most simple. I planed my experiments, with a view to ascertain if the somnambulist could not magnetize herself, and my efforts were crowned with the most perfect success. The process is extremly simple and every one who will read these subsequent chapters, no matter what may be the state of his or her nervous system, or age can be a Somnambulist and Magnetizer, within themselves without the aid of a second person, and perform all the phenomena common to Animal Magnetism.

In describing a few of the various forms under which the magnetic phenomena have appeared, since the serpent's conquest in Eden, until it assumed a name among the sciences, I would notice the phenomenon called TRANCE, frequently developed at protracted meetings, for religious

rites in churches, and more frequently in the forest, under the name of camp meetings. The trances are too well known to need much description from me in this place. I will notice them more fully, when I explain the causes which produce it.

It is the effect of the same mysterious fluid; the person affected by it suddenly falls in a magnetic sleep; they are then magnetic somnambulists, and perform all the phenomena peculiar to Animal Magnetism; their spirit frequently leaves the body, and after traversing the confines of earth, returns to its case of organized clay, and there, through the organs of speech, relate to the wondering crowd all the incidents actually occuring at that moment, perhaps thousands of miles distant, in some tavern or convent, secured by walls and doors of cemented stone and iron, impenetrable to sight or animal strength of mortals in possession of the ordinary functions of life.

Even more, they have been known in the short space of an hour, to travel in spirit to the regions of punishment and reward for the dead, and on awaking, have related the cheering and heart-rending seenes to thousands of the most respectable witnesses, many of whom are preachers and can testify to the frequent occurrence of such facts. The phenonomen known as "clairvoyance," is in the trance quite as remarkable as that exhibited in the usual magnetic sleep, and even far exceeds that of reading a letter through various envelopes of paper, or of telling the time by a clock, in a remote or adjoining building or room.

Another class of phenomena which belongs to this science, is the "clairvoyance" exhibited by natural sonambulists. A very extraordinary case occurred in Springfield, Massachusetts, in June, 1833, and continued for nearly one year. My readers are undoubtedly aware, that I refer to the case of Miss Jane C. Rider. A very scientific description of her case has been published by professor L. W. Belden, M. D., her attendant physcian. I will hereafter show the cause of this phenomenon, and for the present will merely cite the words of Dr. Belden,

to prove the "clairvoyance" of Miss Rider.

"On Nov. 10th, it was proposed to ascertain whether she could read with her eyes closed. She was seated in a corner of the room, the lights were placed at a distance from her, and so screened as to leave her in almost entire darkness. In this situation, she read with ease a great number of cards, which were presented to her, some of which were written with a pencil, and so

obscurely, that in a faint light no trace could be discovered by common eyes. She told the date of coins, even when the figures were *obliterated*. A visitor handed her a letter, with the request that she would read the motto on the seal, which she readily did, although several persons present had been unable to decipher it with the aid of a lamp. The whole of this time, the eyes were to all appearance perfectly closed.

"She fell asleep while I was prescribing for her, and her case having now excited considerable interest, she was visited during that and the following day by probably more than a hundred people. To this circumstance undoubtedly, is to be attributed the length of the paroxysm, for she did not wake till Friday morning, forty-eight

hours after the attack.

"During this time, she read a variety of cards, written and presented to her by different individuals; told the

time by watches, and wrote short sentences.

"For greater security, a second handkerchief was sometimes placed below the one which she constantly wore over her eyes, but apparently without causing any obstruction to the vision. She also repeated with great propriety and distinctness, several pieces of poetry, some of which she had learned in childhood but had forgotten, and others which she had merely read several years since, without having committed them to memory. A colored girl came in and seated herself before her; she was asked if she knew that lady; she smiled and returned no answer. Some one said: has she not? Jane laughed heartly, and said, 'I should think she was somewhat tanned.'"

The high respectability of Miss Rider, and the probity and undoubted science of Dr. Belden, precludes the possibility of doubt in the case referred to. The only error, which is common to all the preceding cases, was, attributing the phenomena to some special supernatural cause, instead of classing them where they certainly belong, as a branch of the science of Animal Magnetism; which can be clearly demonstrated by the well known and anologous laws which govern the universe. It is left for me to perform that task, which I hope to accomplish so clearly, that a child may control the science, and all persons be able at a glance to range all the phenomena produced by the magnetic fluid under its proper title.

I have thus noticed a few of the various phenomena produced by this mysterious fluid, from the creation of man until the middle of the eighteenth century, when an apparent new phenomenon was produced by certain manipulations and volitions of will, producing sleep on persons affected with nervous irritability, and performing numerous cures in those submitted to the action of the fluid, supposed to be transmitted by the operator's manipulations and volition of will. This new phenomenon received the name of Animal Magnetism, from the unusual physiological effects being produced by the will of another animal (man,) employing a fluid, supposed analogous to that which gives the magnetic property to iron.

This new science, afforded a broad field for philosophical hypothesis, conjecture and research; the principal agent (fluid) was invisible, yet producing by its agency, the most wonderful, and to many, supernatural effects physiological constitution of man. The superstitious required but a sight, or even the description of a single case, to bring them in the pale of its followers. Scientific and philosophical reasoners gradually became its supporters, and drew with them a large proportion of the less scientific, though more sensible and intelligent, to worship at the shrine of this partially occult science, the phenomenon of which, would be the foundation of a new theory, (to be raised on the ashes of the Mosaic, Copernician and Newtonian,) whose canopy would over-arch cosmogony, and whose structure would elicit the spontaneous production of life.

In the first discovery of this new science, somnambulism was rare, and "clairvoyance" unknown. It remained for other more ingenious philosophers to discover, by repeated experiments, the most extraordinary faculty of traveling in spirit, to see and communicate the situation of things thousands of miles distant from the body of the somnambulist. Enough, however, was known to inspire the most enthusiastic and wild expectations. Its principal uses was curing of diseases, and exhibitions of its wonders, to gratify the curious, with lectures to instruct the uninitiated in the manipulations necessary to produce the phenomenon. Some of its advocates claimed for it powers of a very superior order, and asserted it was a divine inspiration given to man for benevolent purposes, and to be wrested from his grasp the moment his object should be perverted to base and unhely designs on his race.

Among the most fervent advocates of the science at that time, was Antony Mesmer, born at Wieler, in Germany. He tought publicly the doctrine; wrote several treatises on the science, and performed many wonderful cures by the aid of the magnetic fluid, during an extensive travel which he performed through Germany,

Swabia, Switzerland, and Bavaria. Wonder followed his footsteps and fame heralded his approach in advance. He arrived at the French metropolis in 1778, where he performed many wonderful cures, which drew to the standard of Animal Magnetism thousands of all classes in the community, who embraced the doctrine in its fullest extent, and hailed the discovery of the magnetic fluid as a panacea to remove all manner of diseases, and to renew and invigorate age. Enthusiasts in the cause were not wanting, who claimed an immediate divine revelation for the power, and indeed the very manipulations to produce such extraordinary results, induced the most sober philosophers among its votaries, to believe the whole science of Animal Magnetism a supernatural phenomenon.

Such high pretensions in a civilized country, might well be supposed to create opposition from those fearful of entire pervision of the established laws and order of society. Its advocates became enthusiasts; its opponents grew loud in their demands on the civil authority to suppress it. The King's government instituted an inquiry into its pretensions and merits. The commission was composed of men of exalted character and science, chosen from the Society of Medicine, and the French Academy of Science. Dr. Franklin, then a Plenipotentiary from the United States to the French Court, was one of the commission. M. D'Eslon, who wrote a treatise entitled, "Observations sur le Magnetisme," was a member of the Royal Academy of Medicine, and a firm disciple of Mesmer, who pronounced him a powerful magnetizer.

From this gentleman the commission obtained the most of their experiments; perhaps because of evasion on the part of Mesmer to furnish suitable opportunities for investigations. Be that as it may, the commission reported against Animal Magnetism in 1784, and the weight of their characters and decision had sufficient influence to suppress, only for a time, the progress of this science

in France.

During Mesmer's experiments in Paris, other portions of Europe felt the influence of this mysterious fluid. The science was born and cradled in Germany, where the giant continued to disseminate light, and gain converts to the faith. England furnished her share of its champions, and among them was Mainaudus, whose success in healing the sick and gaining converts to Animal Magnetism, almost equalled that of Mesmer in France. In some respects, Mainaudus was superior; his lectures contained more philosophical reasoning, and were therefore more

powerful in gaining converts from the scientific and

philosophical opposers of the science.

"I shall not," said Deleuze, (as reported in his life by Foissac,) "permit myself to form any theory, but will only state what has been witnessed by myself, and others worthy of credit." After giving a sketch of the history of its discovery, and various oppositions to it, he devotes a long chapter to the examination of proofs on which the

science is founded.

He first lavs down undisputed, correct principals of the probability of testimony, and applies them, with sound logic to the examination of the proofs of Animal Magnetism. He shows that its effects have been attested by thousands of respectable witnesses, among whom are physicians, savans and enlightened men who have not been afraid to meet ridicule while obeying the dictates of conscience and fulfilling a duty to humanity; that the many who have published their opinions, and the yet greater number who make their observations in silence, and content themslves with acknowledging their belief when questioned on the subject, have all either seen for themselves or actually produced the phenomenon of which they speak; while among the opposers of the science, not one can be found who has examined the subject in the only proper way, by experimenting for himself with scrupulous attention in exact accordance with the prescribed directions.

The science, under, Deleuze, gained converts from among the most learned men in the Empire. Mr. Foissac a distinguished member of the medical faculty of Paris readily embraced the doctrine, and from being a skillful magnetizer himself, wrote a memoir to the Academy of Medecine, in 1825, inviting that learned society to make a new examination of Animal Magnetism. His proposition was after much discussion adopted, and a commission composed of its members, Bourdois de la Motte, Fouquier, Gueneau de Mussy, Guersent, Itard, Leroux, Magendie, Marc, Thillaye, Husson, and Double, were appointed to conduct the experiments and report to the Academy.

The commission spent five years with the most scrutinizing experiments, and finally, in 1831, reported unfavorable to the science, but acknowledged in the report haveing seen many extraordinary and "unaccountable" facts, which was sufficient to show their prejudice and total incapability of judging in a science in which the fundamental, principals were above their comprehension. The respectability of the society which appointed the commission had some influence in retarding the rapid advances which the science was making; but truth cannot be

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hid, and many intelligent man soon saw the injustice occasioned by the report, and consisted themselves in favor of Animal Magnetism which is again on a triumphant march

through all the civilized sections of the globe.

The limits of this work will not admit the details connected with the rise and progress of this science in Europe, or of giving the many thousand well attested facts, which are recorded in its favor on the pages of history, neither are they essential to my purpose; for when I treat of its progress in America, I will give the minutia of so many well authenticated facts, as shall leave no doubt on the minds of the most skeptical.

Before entering on its rise in this country, I will give the manipulations, or mode of magnetizing, as practised by Mesmer and Deleuze, with their followers, described by the last named commission in their report to the soci-

ety.

"The person" says the report "who was to be magnetized was placed in the sitting position, on a convenient sofa or upon a chair. The magnetizer, sitting on a little higher seat, before his face, and at about a foot distant, recollects himself a few moments, during which he holds the thumb of his patient, and remains in this position until he feels that the same degree of heat is established between the thumbs of that person and his own. Then he draws off his hands in turning them outwards, and places them upon the shoulders for nearly one minute. Afterwards he carries them down slowly, by a sort of friction, very light, along the arms, down to the extremities of the fingers,—he begins again the same motion five or six times; it is what magnetizers call passes. Then he passes his hand over the head, keeps them there a few moments, brings them down in passing before the face, at the distance of one or two inches, to the epigastrium. where he stops again, either in bearing upon that region, or without touching it with his fingers. And he thus comes down slowly along the body, to the feet. passes, or motions, are repeated during the greatest part of the course, and when he wishes to finish it, he carries them even beyond the extremities of the hands and feet, in shaking his fingers at each time. Finally, he performs before the face and the chest some transversal motions, at the distance of three or four inches, in presenting his two hands, put near one another, and in removing them abruptly. At other times, he brings near together the fingers of each hand, and presents them at three or four inches distant from the head or the stomach, in leaving them in that position for one or two minutes; then, alter-

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nately drawing them off, and bringing them near those parts, with more or less quickness, he imitates the motion that we naturally execute when we wish to get rid of a

liquid which wet the extremity of our fingers.

"These various modes were followed in all our experiments, without adhering to one rather than to the other, —often using but one, sometimes two; and we never were directed in the choice that we made of them, by the idea that one mode would produce a quicker or better marked effects than another. The commission will not follow in the enumeration of the facts it has observed; the order of the times when each of them was produced; we thought it more convenient, and above all, more rational, to present them to you, classed according to the degree, more or less decided, of the magnetical action that it recognized in each of them."

I will give a single experiment from the many reported by the commission, to prove the influence of the magnetic fluid.



"The commission found among its members a gentleman who was willing to submit himself to the explosion of the somanin-bule; it was, Mr. Marc. Mlle Celine was requested to carefully examine the state of health of our colleague; she applied her hand on his forehead. and the region of the heart. and after three minutes, said that the blood was rushing to the head: that Mr. Marc actually had a pain in the left side of that cavity; that he often felt oppression, especially some after his meals; that he was often troubled with a slight cough, that the lower part of

the chest was filled up with blood; that something troubled the passage of the food; that the part called the region of the xiphoid (appendix,) had grown narrower;—that to cure Mr. Marc, it should be necessary to bleed him in an abundant manner; apply, on the interior part of the breast, poultices made with hemlock, and rub it with laudanum; that he should drink lemonade, in which he should dissolve some gum arabic; eat little, and often; finally he ought not to walk immediately after eating.

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"We longed to hear from Mr. Marc, whether he had really felt what the somnambule had announced; he said that he had, indeed, some oppression when he walked immediately after his meals; that he was often troubled with cough, and that before the experiment, he had a pain in the left side of his head, but felt no difficulty in the passing down of his food."

The present chapter, as I before remarked, sketches the era in which somnambulism and clairvoyance were discovered in persons under the force of the magnetic fluid, and therefore a description of those extraordinary powers would be desirable and appropriate in this place.

MAGNETIC SOMNAMBULISM, called simply "somnambulism," when treating of this science, differs only from the common somnambulism, or sleep walking, by being the known effect of magnetic fluid directed by the "manipulations which excites the phenomena; while the common somnambulism or sleep-walking is produced by a natural sleep. Magnetic somnambulism, according to Deleuze. is "an inexplicable change which occurs in the function of the nervous system, in the play of the organs, and in the manner of receiving and transmitting sensation.". The same author gives lucid directions for ascertaining when the patient is a somnambulist; the following are the words: "If your patient speaks, and to the question, 'Do you sleep?' answers, 'Yes,' he is a somnambulist." The same author continues, "when your somnambulist shall have given an affirmative answer to your first question, 'Are you asleep? you may address others to him. These questions should be simple, clear, well adapted, and concise; they should be made slowly, with an interval between them. leaving the somnambulist all the time he wishes to reflect on them."

From the earliest times recorded in history we observe well-authenticated accounts of persons appearing, at various times, who seemed to be endowed with supernatural powers of mind or body, which have enabled them to influence their fellow-men in a manner altogether inexplicable, according to any ordinary laws of nature.

Among the evidences of this fact we may mention the history of the ancient oracles, to which the wisest philosophers of antiquity bowed with a reverence that we now consider superstitious; the power of curing diseases by the touch, carried to an extent that seems, to our ordinary comprehension, absolutely miraculous; the power of predicting events by knowledge communicated in dreams

the influence possessed by great orators and certain religions impostors, who have from time to time led thousands of seemingly intelligent followers into the belief of the grossest absurdities that the imagination of man is capable of inventing; the effects on health and conduct produced by what has been termed witchcraft, and attributed to the direct agency of the spirit of evil, with many

other mysteries of a similiar character.

However we may endeavor to rid ourselves of all belief in these unusual, and seemingly unaccountable phenomena, the force the multitude and the respectability of the evidence compel us reluctantly to admit the truth of these wonderful stories. We cannot refuse to acknowledge the facts, whatever we may think of theories and opinions based upon them. That man possesses some mysterious power over the feelings, thoughts and even the vital operations of his fellow-man—a power that cannot be resisted, and may be employed for good purpose at least, if not for evil ones—is a belief that has prevailed from the earliest times down to the present day. But it is only since the progress of physiology, electrical and magnetic science, during the last centuy, that any thing like a theory or philosophical explanation of these curious facts has been attempted. When it was found out that the nerves of an animal could be violently excited by a mere contact of different metals, and that a slight spark of electricity, would produce convulsions in the body of a dead animal, it was very natural that all the unaccountable effects produced upon the human system by external agents, should be attributed to the subtle and invisible fluid that could thus seemingly awake the dead! The effects of the electric shock on the living body, were well calculated to cause a belief that the nervous system was constantly under the influence of this fluid; and numerous curious experiments were made which tended to convince many philosophers that life itself was but the result of the action of electricity circulating through the nerves, and probably formed in the brain for this express purpose.

When the identity of electricity and lightning had been proved by Dr. Franklin, when the strange action of metals upon the nerves was traced to the same general cause, and when it was discovered that the wonderful power of the magnetic needle to point towards one fixed spot in the heavens could be given, taken away, or altered by lightning, electricity or galvanism, it is not suprising that those who considered electricity as the vital principal, should give the name of animal magnetism to the power by which one individual appeared to be able to

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draw, or attract that vital principal from one part of the body to another, so as to cure diseases by the touch, or to cause a sick person to sink into slumber at will.

#### PLAN OF MESMER

The celebrated Mesmer, who claimed the discovery of animal magnetism, always employed a complex apparatus to generate, or rather to collect the magnetic fluid pervading, as he believed, all space; and to direct a stream of it upon the patient, in order to cure diseases. In these recent times, when it is believed that all the astonishing effects of animal magnetism are produced by the action of the mind of one individual upon the nervous fluid of another, or by the actual transfer of the vital spirits from the magnetizer to the person magnetized, by a simple effect of the will, it is curious to recall the rude methods of Mesmer, who produced the same effects without being at all conscious of the mental character of his operations. The following description is an account of his apparatus and mode of acting, as given by the Royal Commissioners appointed by Louis XVI. to examine his

pretensions, in 1784.

In the middle of a large room was placed a circular vessel or tub, a few feet in hight, furnished with a lid in two parts, moving on hinges in a central line. This lid was perforated with holes, through which were inserted a number of firm and movable rods. Its interior was occupied by bottles filled with water previously magnetized. These were placed over one another in such a manner, that the first row had their necks converging towards the centre of the vessel, and their bases turned to the circumference; and the next set was arranged in an opposite direction. The tub itself contained also a certain quantity of water, filling up the interstices which were left by this symmetrical arrangment of bottles; and to this a quantity of iron filings, pounded glass, sulphur, manganese, and a variety of other substances, was occasionally added. The patients then stood round the apparatus, and applied the iron rods to the affected parts of the body, or encircled themselves with a hoop suspended for that purpose. Sometimes they laid hold on each other by the thumb and index finger, and formed what was called a chain. The magnetizer then held an iron rod, which he moved to and fro before them, for the purpose of directing at will the course of the magnetic fluid. The whole apparatus, or water, bottles and metallic rods, was supposed to facilitate the circulation of the fluid; and during this time a person occasionally played on the piano or harmonicon; for it was one of Mesmer's opinions that the magnetic fluid was especially propagated by sound. Though the apparatus just described was used to increase the power of the magnetizer, yet the universal fluid was supposed to be every where, and the magnetizer himself was thought to possess a certain quantity which he could communicate and direct, either by means of a rod, or simply by the motion of his outstretched fingers. To these gestures, performed at a distance, were also added certain slight touching on the hypochondria, the epigastric region, or the limbs. In order to increase the power of these processes, trees, water, food and other objects, were magnetized, for all the bodies in nature are, according to Mesmer, susceptible of magnetism.

The following particulars are taken from Mesmer's

own directions for using animal magnetism:

When a healthy person is brought into immediate contact with a sick person, in whom one or more functions are disordered, the latter feels, in the morbid part, sensa-

tions more or less acute.

In order to magnetize the patient, you must place yourself opposite to him, with your back turned towards the north, and draw your own close against his feet; you must then place, without pressure, both your thumbs upon the plexus of nerves in the epigastrium (the pit of the stomach), and stretch your fingers towards the hypochondria (the part of each side of the body where the short ribs are found). It is beneficial, occasionally, to move the fingers on the sides, especially in the region of the spleen.

Before you cease magnetizing, you must endeavor to put the magnetic fluid in equilibrium in every part of the body. This may be done by presenting the index finger of the right hand at the summit of the head, on the left side, and then drawing it down the face to the breast, and over the lower extremities. In this manœuvre an iron rod may be used instead of the finger. When patients form a chain, in the manner already described, by taking hold of each other's hands, the power of magnetism is

augmented.

The effects produced by such process, says the Baron Dupotet, were not less strange than the processes themselves. The patients experienced many unusual sensations, such as undefinable pains in the body, particularly in the head and stomach; an increase or suppression of cutaneous perspiration of the heart, and a momentary obstruction of breathing. Sometimes a certain exaltation

of the mind, and a lively sense of comfort were ex-The nervous system in particular, was often perienced. powerfully affected. Ringing in the ears, vertigo, and sometimes somnolency of a peculiar kind supervened. These effects were varied according to the constitution and the disease of the patients, but they increased as the operation proceeded, and terminated in convulsions! When many patients were magnetized at once, and one became affected with convulsions, the others soon exhibited the same symptoms. The condition was termed a magnetic crisis; it was regarded as an effort of nature to effect a cure, and it was the constant aim of Mesmer to produce it. Many very curious moral phenomena were also commonly displayed during the magnetic operation. Some patients burst into immoderate fits of laughter; others were dissolved in tears. Some seemed attracted towards each other by the strongest affection, while others displayed mutual antipathy. But the most surprising circumstance was the prodigious influence that the magnetizer exercised over his patients. The least sign of his will excited or calmed the convulsions, and command love or hatred. He thus stood before them like a magician with his wand, keeping their souls and bodies in submissive obedience.

#### PRINCIPLES OF DELEUZE.

But the progress of science since the days of Mesmer, has proved that many of his processes were altogether unnecessary, and the use of machinery, or metallic wands, is now entirely relinquished. Though convulsions are still produced, in some persons, by the magnetizer, it is no longer his desire to produce them; for all the benefits. and all the curious mental phenomena, of magnetism may result without any such consequence. The manual processes of different operators are now exceedingly various; and it is found, that after an individual has been placed several times under the influence of magnetism, all its effects may sometimes be produced by the simple will of the magnetizer, without any manipulation whatever! Two doctrines now divide those who practice on the principles of this science into different sects. The first attributes all the phenomena to the action of the nervous fluid of one individual, directed by the will, over the nervous system of another; while the second considers the soul itself as one of the chief agents in producing these effects. To avoid confusing the mind of the reader with unnecessary statements of these differences of mere opinion, it will be best to give the doctrines of the science, as now generally believed, from the work of M. Deleuze, one of the most active and successful practitioners of animal magnetism, omitting only those of his principles that have been disproved, or rendered doubtful by the experience of his brethern. In his chapter of General Views and Principles, this highly distinguished author makes the following statements:

1. Man has the faculty of exercising over his fellow men a salutary influence in directing towards them, by

his will, the vital principle.

2. The name of Magnetism has been given to this faculty; it is an extension of the power which all living beings have, of acting upon those who submitted to their will.

3. We perceive this faculty only by its results; and we make no use of it, except so far as we will use it.

4. The first condition of action, then, is to receive the

will.

5. As we cannot comprehend how a body can act upon another at a distance, without something to establish a communication between them, we suppose that a substance emanates from the magnetizer, and is conveyed to the magnetized persons, in a direction dictated by the will. This substance, which supports life in us, we call the magnetic fluid. Its nature is unknown, and even its existence has not been demonstrated; but everything takes place as if it existed, and this justifies us in admitting its existence.

6. Belief in our power to accomplish our purpose is as necessary to the effect as the will to doit; for without self

confidence the magnetizer will not succeed.\*

7. In order that one individual should act upon another, it is necessary that there should be a moral and physical sympathy between them; and when this sympathy is produced, we say that the parties are in communication with each other.

8. In order that the action of animal magnetism should be safe and useful, it is necessary that the magnet-

<sup>\*</sup>It appears from the evidence of other observers, that the rule is subject to some exceptions; for there are a few persons so happily constituted, that they have been known to magnetize others without any intention, and even when they had no faith in the sciance; but these cases very seldom occur. Many of the wonderful effects of oratory, and certain religious exercises, as well as the personal influence of some physicians in curing the sick by their manner and presence, almost without medicine, are probably owing to a magnetic influence, of which the actors are themselves unconscious,

izer should be influenced only by the desire of doing good.

9. Direct communication between persons is not absolutely necessary to the transfer of the magnetic fluid; for water, food, and other bodies may be charged with the fluid, and employed to convey it to the person for whom the magnetizer expressly designs it.

10. Magnetism or the operation of magnetism, springs from three things:—the will to act, a sign to express that will, and confidence in the success of the attempt; and unless the purpose be also good, the effects, though

obvious, will be irregular.

11. The faculty of magnetizing exists in every one, but not to the same extent. The difference is caused by the moral and intellectual superiority of some over others, and the most important requisites is a powerful magnetizer and self-confidence, energy of will, the power of concentrating the attention and the will upon one object for a long time, benevolence, moral courage, and self-possession on the occurance of alarming crises, and patient calmness of mind. Good health also increases the power, because it is a mark of vital energy. When all these advantages in a high degree are combined in one individual, he is often found to possess such magnetic power that sometimes he may be obliged to moderate it. The power is very much increased by practice.

12. The magnetic influence flows from all parts of the body, and the will may direct it any where; but the hands and the eyes are better fitted than other parts to throw off and direct the current determined by the will.

13. Magnetism can be conveyed to great distances

when persons are in perfect communication.

14. There are some individuals who are sensible of magnetic action; and the same individuals are more or less so, according to their tenporary dispositions at that moment. Persons in good health rarely feel its effects; nor are we able to judge, except by trial, who is subject to them, and who is not; but at least three-fourths of mankind may be acted upon.

15. Women and men possess the power of magnetizing

in an equal degree.

16. Whatever vital energy or magnetic fluid is conveyed to the patient by the magnetizer, is lost by the latter; and if the sessions be continued too long, or be too frequently repeated, he may become very much exhausted by this loss. The weakness sometimes felt by the magnetizer is not produced by the motions and exertions that

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he uses, but by the flow of the fluid from him to his patient.

17. Cofidence on the part of the person magnetized is

not necessary to success.

18. The choice of a particular process is not necessary to give direction to the action of magnetism. But it is best to choose and follow some one method, so as never to be perplexed and compelled, while acting, to draw off the attention, in order to decide what motion it is most proper to take.

19. It is very dangerous to interrupt a crisis, however alarming it may be; and we should never attempt to act, unless we are secured against all interruptions from our

own affairs the person magnetized or his friends.

Such are the doctrines now usually adopted by the professers of animal magnetism.

#### INFLUENCE OF ANIMAL MAGNETISM ON THE BODY.

The effects of animal magetism are very various, because they are influenced not only by the constitution, actual condition, and faith of the patient, but also by the energy and the moral and physical character of the

operator.

Many of these effects are so astonishing, that the student of this wonderful subject is absolutely alarmed, at first, by the multitude of well authenticated facts that seem to exceed the bounds of faith. But when they are attentively examined, beginning at first with those which are of a more simple nature, and then proceeding to those which are less consistent with our preconceived notions of the laws of nature; especially when we compare these effects with the symptoms observed in natural somnainbulism, in certain cases of epilepsy and in hysteric cataleptic ecstacy, we shall be prepared to acknowledge that it is impossible to refuse them our credence, however difficult it may be to explain them in a manner completely satisfactory. We cannot deny the truth of wellauthenticated facts simply because they are mysterious, for all nature is a mystery.

When an individual is placed under the influence of magnetism, the symptoms most commonly observed in the first instance are as follows: Slight pricking and winking of the eyelid; an increased, or sometimes a diminished, rapidity of the pulse; a sensible alteration of the temperature of the body; a flushing or an extreme paleness of the cheeks, and a remarkable change of the countenance; stretching, or a deep yawning comes

on; a gurgling in the throat is often heard; the patient may feel a desire to move, but finds himself unable to do so; he experiences an indescribable composure, and a sense of calm delight; the breathing becomes much affected, and is sometimes rendered much slower, even when the pulse increases in rapidity. These are the simplest effects, but often, under circumstances not to be foreseen, phenomena of a more remarkable character appear. The eyelids are spasmodically affected, and close against the will of the patient. He finds it impossible to keep awake, and, if the operation be continued, he gradually sinks into a slumber more or less The head falls on the chest, or thrown backwards; the eyelids are generally half open, and the eyeball moves slowly in the socket, but gradually becomes fixed; drops of mucus fall from the lips, the limbs become cold, and the respiration audible. If spoken to, the sleeper may attempt to speak, without success; or he may start awake, rub his eyes, stare round with astonishment, and remember what has passed as we remember a dream. To disturb any one in this state is highly improper, for this may produce convulsions, and the interference of others with the proceedings of the magnetizer may produce dangerous consequences. Convulsions, or crisis of the kind described by Mesmer, are not at all uncommon.

The kind of sleep just described differs entirely from natural sleep. Its phenomena were first discovered by the Marquis de Puyeegur, and have escaped, in a great degree, the observation of Mesmer. In order to distinguish it from the natural, has been termed the magnetic sleep, or Somnambulism. It may be more or less

complete.

In order to give the reader an idea of the condition of a person who has been thrown into the state of magnetic sleep, we will now describe the phenomena observed by all who have given serious attention to this singular subject. In this peculiar state the surface of the body is sometimes actually sensible; but more frequently, the feeling is totally destroyed. The jaws are firmly locked, and cannot be opened by any effort; the limbs are often rendered inflexible; the senses of sight, hearing, and smell are so completely benumbed, that neither the strongest light, the loudest sounds, nor the most pungent odors, can arouse the slighest attention. We may prick, pinch, tear, or burn any part of the body, without awakening the consciousness of the patient. Extreme, and altogether unwarrantable cruelties have often been

practiced upon persons in magnetic sleep, and though unfelt at the time, they have given rise to great torture after the senses were recovered. Though these proceedings were most unwarrantable, it is now too late to remedy them, and we may quote them without impropriety in proof of the wonderful effects of magnetism, after protesting against the repetition of such injurious and

dangerous experiments.

Many incredulous physicians of Paris induced Baron Dupetet to perform a series of experiments of that celebrated hospital, the Hotel Dieu of Paris, in the year 1820. In speaking of the trials made to test the insensibility of the patients, he states that their nostrils and lips were tickled with feathers, smoke was introduced into their nostrils, their skin was bruised by pinching till the blood came, and the feet of one person were placed in a hot infusion of mustard seed, but no change of countenance was produced; but on waking, they all experienced the pain such treatment was likely to occasion. Some of these physicians learned the art of magnetizing, and carried these cruelties much farther for their own satisfaction. Dr. Roboum, who was then attached to the hospital. reports the following facts in relation to the case of a man. named Starin, whose bed was No. 8 of the ward Sainte Madelaine. M. Recamier (a physician of high celebrity Paris) first threatned the patient that he would burn him with moxa (a slow fire applied to the part), if he suffered himself to go to sleep. Dr. Roboum then magnetized him, and forced him to sleep against his will, and M. Recamier applied the moxa on the front of the right thigh, producing an eschar nearly an inch and a half long. and an inch in breadth. Starin showed no sign of pain, either by look or cry, nor was his pulse in the least altered until Dr. R. roused him from the magnetic sleep.

In another case, reported by the same physician, a female patient, named Leroy, was magnetized, and while in the magnetic sleep, agaric, one of the most pungent substances known to us, was burned immediately under her nose by M. Gilbert. M. Recamier then applied moxa over the pit of the stomach, producing an eschar of nearly the same size, but not the slightest sign of feeling was produced until after her sensibility was restored by the

magnetizer, when she suffered intensly.

It has been mentioned, that, while under the effects of magnetism, the patient is completely under the control of the magnetizer, and when cast into the state of slumber and insensibility, it often happens that the continuance of the operation produces what is called the somnambulic state. The patient then appears to be awake to the influence of the magnetizer, or any other person or things with whom the latter has been chosen to put him in communication, but is perfectly asleep and insensible to all the rest of this world. When in this condition, the magnetic sleeper, while absolutely insensible to all other external impressions, is mentally conscious of every act and thought of the magnetizer. He will hear even at a distance, the slightest modulation of his voice, though inaudible to those around. The following case, reported in the same manner with the two former, will give some idea of the phenomena attending the somnambulic condition:

Catherine Samson, a young girl of much natural timidity, was put to sleep in about fifteen minutes. Many persons present endeavored to rouse her, by first individually, and then collectively, screaming suddenly in her They struck violently, with their clinched fists, upon various pieces of furniture, but could not obtain any symptom of her hearing the loudest noise. another occasion she feel asleep in three minutes. M. Recamier opened her eyelids, shook her violently, struck the table with all his might, pinched her repeatedly, squeezed her hand violently, raized her from her seat and suddenly let her fall. Still no change was perceptible,—nothing which could convey an idea that the patient either saw or felt. When the magnetizer spoke, however, she heard him distinctly. M. Recamier then alternated his voice with that of the magnetizer, but to his voice she was insensible.

On the third trial she fell asleep in three minutes. The bystanders attempted to rouse her by abuse. They called her an impostor, taxed her with scandalous conduct, and threatned to kick her out of the room; but even this very philosophical proceeding produced no effect. In the evening of the same day she was again magnetized in bed, fell asleep in a few minutes, and remained in the somnambulic state all night. Those appointed to watch her observed that she never moved. They pulled and plucked out her hair by the roots, but could detect no sign of sensation. More than six years after this, the same Mademoiselle Samson was magnetized before the second committee of investigation, some of whom were well acquainted with her, and had the fullest confidence in her good faith.

In a case reported by M. Bouillet, professor of philosophy at the college of Saint-Barbe, a young woman was magnetized by him, and when somnambulic, was intro-

duced into the presence of about twenty persons. "This seance," says he," was nearly a repetition of the same boisterous scenes which had before occurred at the Hotel Dieu; and every possible means was had recourse to for the purpose of making the patient hear others, and preventing her hearing me. She was tormented in a thousand ways without effect, a young man who was present having provided himself, unknown to me, with a pocketpistol, with the view of making a decisive experiment, suddenly and unexpectedly fired it off close to her ear. Every person present started, and several ladies taken by surprise, screamed out violently; but the somnambulist was not interrupted in quietly continuing a sentence which at the moment she was addressing to me. It should be added that the pistol was fired off so close to her ear, that the bonnet and cap of the poor girl were scorched, and some of the powder lodged under the contused cuticle, yet did she remain perfectly insensible, although, on being awakened, she felt the most acute pain in the neck, and discovered with indignation the state into which, to my deep regret, she had been thrown, and from which, for upwards of a fortnight, she suffered severely."

Important Medical testimony in favor of Mesmerism. Among other astonishing proofs of the insensibility of the magnetic somnambulist, the following facts, very rapidly selected from the mass of evidence, may be preferred on account of the very high character of the authorities from which they are derived. M. Husson president of the Academy of Medicine of Paris, states that he has seen a bottle containing several ounces of concentrated ammonia held for five, ten, fifteen or more minutes, immediately under the nose of the sleeper, without the slightest effect. Dr. Bertrand saw forty or fifty pins thrust simultaneously by as many witnesses, into the flesh of a somnambulist who was singing, "without causing the least appreciable alteration in his voice. This horrible cruelty was committed at the request of the magnetizer? M. Sauvage-de-la-croix, in the Memoires de l'Academie des sciences, gives an account of a girl at Montpelier, on whom, when somnambulic, he tried, among other vain attempts to rouse her, putting brandy and spirits of hartshorn in her mouth, tickling the ball of the eye with a feather, blowing snuff into the nostrils, and violently twisting the fingers. She never gave the slightest sign of sensation.

In the tenth volume of the Bibliotheque de Medecine, there is an account of a female somnambulist, who was

severly whipped over the bare shoulders without effect, and once had her back most savagely smeared with honey and was exposed to the stinging of bees: but she felt nothing till she was awakened, when, of course, she suffered acute agony. Messrs. Foissac, Foquier, Guersent and Itard, men of high celebrity, and members of the inquest established by the Royal Pademy, all give testi-

mony to facts of a similar nature.

But even severe surgical operations have been performed on patients without their knowledge, while their senses were buried in magnetic sleep! A man in the department of Gers, in France, had an extremely painful abscess of the thigh, and it was resolved to spare him the pain of operation, by performing it while under the effects of magnetism. This was done by Dr. Larieu, after the patient had been rendered somnambulic by the Counte de Brivazac. During the operation the patient remained motionless as a statue. When awakened, M. Roc asked him whether he would submit to the operation; he replied, "I suppose I must, since it is necessary." M. Roc then informed him that it was over. The astonishment of the patient may be conceived, when he discovered the fact, for he had neither seen nor felt it; and the last thing he remembered was, the act of M. de Brivazac laying his hand on his forehead to induce sleep!

All the tests of insensibility that have been mentioned, except the more surgical operations, have been tried again and again in this country, and even in this city. The observations of Dr. Capron, of Providence, R. I., have led to so much public discussion, that almost every one must have some knowledge of them. Dr. J. K. Mitchell and Dr. Pierce, of Philadelphia, have both experimented extensively on this subject. The former is said to have caused teeth to be extracted from patients during the magnetic sleep, without awakening any consciousness; and the latter found somnambulists perfectly insensible to the strongest odors, while their thoughts, their taste, and their muscular power, seemed to be entirely subjected to the will of the magne-

tizer.

But the most astounding case of magnetic insensibility that has been recorded, is that reported by M Jules Cloquet to the French Academy. The high character, deep learning, and great practical ability of M. Cloquet, render it impossible to doubt the truth of any statement to which he would affix his name. The case was as follows:

Madame Plantin, a lady of sixty-four years of age, consulted M. Cloquet on the 8th of April, 1829, for an ulcerated cancer in the right breast, with which she had been afflicted for several years, and which was complicated with a considerable enlargement of the corresponding axillary glands. M. Chapelain, her physician, had heen in the habit of magnetizing her, without any other good effect than producing the magnetic sleep, with its usual insensibility. He proposed that M. Cloquet should operate upon her while in this state, which

was agreed to.

On the day appointed for the operation, M. Cloquet, on his arrival at half-past ten o'clock in the morning found the patient dressed and sitting in an arm chair, in the attitude of a person in a tranquil, natural sleep. She had returned, nearly an hour previously, from mass, which she was accustomed to attend at that time. M. Chapelain had thrown her into the magnetic sleep after her return, and she then spoke with much composure of the operation she was about to undergo. All the arrangements being made, she undressed herself, and seated herself in a chair. M. Chapelain supported her right arm, and the left was suffered to hang down. M. Pailloux, eleve interne of the Hopital St. Louis, was employed to present the instruments and tie the vessels. The first incision, commencing at the armpit, was carried round the lower part of the tumor till it met the first. The enlarged glands were then dissected with precaution, on account of their vicinity to a very large artery, and the tumor was extirpated. The operation lasted from ten to twelve minutes, and during the whole time the patient continued conversing tranquilly with the operator, and did not give the slightest sign of sensibility; no motion of the limbs or of the features; no change in the respiration or the voice; no alteration even in the pulse could be perceived: the patient never ceased to be in that state of automatic abandon and passiveness in which she had been for some minutes before the operation. It was not even necessary to hold her; they only supported her. A ligature was applied to an artery that had been divided (the most painful part of all operations and the wound was dressed. The first dressings were removed, and the wound cleansed and redressed, on the 14th, without any sign of pain being given. After this dressing, M. Chapelain awakened her. the magnetic sleep having continued from an hour before the operation for two entire days. She was then again put to sleep, but it is not stated for how long a time.

Though some persons seem to be incapable of being

magnetized powerfully, and others yield with difficulty yet there are some who fall under this influence almost almost instantaneously. M. Dupotet remarks, "A young girl, or rather a child, for she is not twelve years of age, at this moment attends my demonstrations, who is so susceptible of the magnetic influence, that she almost instantly falls asleep, and the approximation of my fingers towards her causes a short and quick convulsive start. which seems to pervade her whole frame."

### NECESSARY PRECAUTIONS.

Such is the command of the will of the magnetizer over the muscles of the magnetic sleeper, that he can determine, in many cases, what part of the body shall be at rest, and what part in motion. Sometimes the hand of the patient will follow that of the operator in all its

movements as the needle, will follow the magnet.

Even the whole person may appear to be attracted in this manner; and when a magnetizer allows himself to become alarmed at the consequence of his own acts, this condition of things may become exceedingly distressing. There is a well-authenticated story of a French nobleman who magnetized his favorite daughter in mere sport, before a considerable circle of observers, neither of them having faith in the process. But to the utter horror of the father, the laughter of the daughter at the whole proceeding, which had gradually assumed more and more the character of fatuity, without his suspecting that the change was other than a jocose affection, was soon settled into a complete appearance of idiocy; and when he turned from it in distress, the daughter rose and followed him about the range of apartments, as if actuated by his will alone, nor could be escape the presence of that distorted and convulsed countenance that he had agitated, but had not presence of mind to allay. This young lady was seriously in danger of suffering permanently from the consequences of her father's want of self-possession and firmness; for it is extremely injurious to lose sight of the original purpose when a crisis is impending, until that crisis is complete. The magnetizer should never leave his patient until all signs of undue agitation have subsided, in case where convulsive symptoms are present.

The following extracts from the report of the commissioners of the French Academy, will give an idea of the extent to which the motions of the sleeper may be sometimes controlled by the operator. The gentleman

(M. Petit) subjected to this experiment was affected with

a paralysis of the face from an abscess.

'The patient was in a short time put to sleep; after which, in order to remove every suspicion of any previous understanding between him and the operator, the commissioners handed to M. Dupotet a note, written at the moment, wherein they had specified the parts they wished to be convulsed. Possessed of this instruction, M. Dupotet first directed his hand towards the right wrist. which immediately became convulsed. He then stood behind the patient, and directed his finger first towards the left thigh, then towards the left elbow, and lastly towards the head. Each of these parts was almost immediately seized with convulsive movements. M. Dupotet then directed his left leg against that of the patient, which became so much agitated that he nearly fell off his seat. He then directed his foot towards the right elbow of M. Petit, which became violently agitated; he then stretched his foot towards the left hand and elbow, and violent convulsive movements developed themselves in the upper limbs. One of the commissioners, M. Marc, with the intention of obviating more effectually every possibility of deception blindfolded the patient, and the preceding experiments were repeated. with a slight variation in the result. Messrs. Thillage and Marc directed their fingers towards different parts of the body, and provoked some convulsive movements, which were, however, less promptly developed and more feeble. This occurred whether his eyes were blinded or not, and these convulsive movements were more marked when the parts operated upon were submitted to the action of a metallic rod, whether in the shape of a key or the branch of a pair of spectacles."

#### INFLUENCE OF ANIMAL MAGNETISM ON THE MIND.

Thus far the attention of the reader has been directed to the physical effects of animal magnetism on the body, but the effects produced upon the mind, in those persons who are rendered somnambulic, are often far more wonderful.

It was the celebrated Marquis de Puysegur who first particularly observed the mental condition that has been termed magnetic somnambulism. He was a student of Mesmer, and a most able magnetizer, practising the art solely for the benefit of the sick, and universally beloved for his benevolence and amiability. The history of his discovery is as follows:

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While magnetizing his gardener, an ignorant rustic, he observed him fall into a deep and tranquil sleep. It then occurred to him to address to the sleeper a few questions, which he did, and the man immediately answered him with intelligence and clearness. found that he possessed a peculiar power over the mind of his patient, and that he had but to will a question and it was answered. Their souls seemed to be in communication as well as their bodies! In speaking of his gardner while in this condition, he says: "He is no longer, when in the magnetic state, a peasant who can hardly utter a single sentence, he is a being to describe whom I cannot find a name. I need not speak; I have only to think before him, when he instantly hears and answers me. Should any body come into the room, he sees him if I desire it, and addresses him, and says what I wish him to say, not indeed exactly as I dictate to him, but as truth requires. When he wants to add any thing more than I deem it prudent strangers should hear, I stop the flow of his ideas, and of his conversation, in the middle of a word, and give his thoughts guite a different turn. I know of no subject more profound, more lucid, than this peasant in his crisis. I have several patients approaching his state of lucidity, but none to equal him." This patient, like many others since observed, had the

power of perceiving his own internal structure, and distinguishing what was the disease. He prescribed what treatment he required, when he would be benefited by being magnetized again, and when he would be well, if so treated. The Marquis followed his directions, and every thing happened as he predicted.

All the magnetizers who now attempt to treat diseases in this manner, prefer the knowledge of the patient when

possessed of this lucidity and second-sight (clairvoyance and prevoyance) to their own judgment, and the result proves the propriety of doing so. "These patients," says the Marquis, "during the crisis, possess a supernatural power, by which, on touching a patient presented to them, as passing their hand even over the clothes, they feel which is the affected viscus (internal organ)—

the suffering part; they point 't out, and indicate pretty rearly the suitable remedies." One of these sleepers told the Marquis that he was subject to frequent headaches a buzzing in his ears, which was true, though he had complained of it to no one. A young man who was present at this experiment, but who ridiculed the pretensions of magnetism, was told that his complaint consisted in pains of the stomach and other disorders in the abdomen, that had been produced by a disease which he had suffered from some years before. And when, still doubting, he applied to be examined by another magnetic somnambulist, distant some twenty yards from the first, he was told just the same thing, by which he was utterly confounded.

A well-known physician of high standing at Providence, Rhode Island, at one time employed a sleeper in his family, to assist in determining the character of occult direases in patients who consulted him at his office. The results were singular and important. Once she declared the cause of deafness by describing the internal ear and brain, and at another time pointed out the cause of an incurable blindness, by describing a red tumor at the back part of the eye. She knew nothing of anatomy, and the parts described are entirely out of the reach of

natural vision.

M. Husson describes the condition of the sleeper in this

state as fallows:

"The somnambulist has his eyes closed. He neither sees with his eyes, nor hears with his ears; yet he sees and hears better than a waking person. He sees and hears only those with whom he is in relation. He sees only that at which he looks, and he usually looks at those objects only to which his attention is directed. He is submissive to the will of the magnetizer in all things which cannot injure himself, and in all that does not oppose his own ideas of justice and truth. He sees, or rather he has a perception of the interior of his own body and that of others; but he usually remarks those parts only which are not in a natural state, and which disturb the harmony of it. He recalls to his memory things which he had forgotten in his waking state. He has provisions and presentiments which may be erroneous in several circumstances, and which are limited in their extent. He expresses himself with surprising faculty. He is not free from vanity. He becomes more accurate by degrees, for a certain time is guided with discretion, but if ill directed he goes astray. When returned to his natural condition, he entirely loses the recollection of all the sensations and ideas he had during his state of somnambulism; so that those two states are as entirely strangers to one another as if the somnambulist and the waking man were two different persons."

No obstacle seems to bound the vision of the somnambulist, and at the will of the magnetiser he can see sometimes from the back of the head, and sometimes from the

pit of the stomach, or the tips of the fingers.

M. Rostan, in the Dictinaire des Sciences, Medicaies art. Magnetisme, gives an account of an experiment performed by him in the presence of M. Ferres. "I took my watch and held it at the back of the head of the somnambulist at a distance of three or four inches from the occiput. I asked her if she saw anything. 'Certainly,' said she; 'I see something shining; it gives me pain.' Her countenance was expressive of pain, and ours bespoke our astonishment. We stared at each other, and M. Ferrers at last broke silence by observing to me, that if she could see something shine, she could probably see what it was.

"'What do you see shining?' 'O! I do not know; I cannot tell.' 'Look well., Why, it fatigues me so. Why, it is a watch.' Fresh surprise on our part. 'But if she can see that it is a watch,' again said M. Ferrers, 'she will probably tell us of the time. Can you tell me what time it is?' 'Gh' no! that is too difficult., Pay attention and look well!' 'Well, I will try. I can perhaps tell the hour, but I can never see the minutes.' When she had looked with the utmost attention, she said, 'It is ten minutes to eight;' which was then the exact time. M. Ferrers wished to repeat the experiment himself, which he did, with similar success. He altered the direction of the hands on his watch several times, and when it was presented to her without our having looked at it, she was right every time.

M. Chardel narrates a case of a magnetic somnambule, who, while quietly sitting in her chair, saw him go into another room for a decanter of water. He went to a filtering tank, turned the cock, but no water came. He split off a piece of wood and picked the spigot with it, thinking that the passage was obstructed, but without success. He then picked the air-hole, but no water came; at last he filled his decanter with unfiltered water. the somnambule, on his return, told him all of his motions, without omitting a single circumstance notwithstanding there were between her and him two wall and a par-

lor.

## New Theory of Animal Magnetism.

In searching for materials to form a theory of Animal Magnetism, it is only necessary to sweep, with a thought, the accumulated obstructions from the pathway of time, and look back on the chaotic mass as it moves in retrospection from behind the dim nebula to occupy the more conspicuous station assigned to it in cosmogony. See now the simple forms of matter, all globular, and how few in number; count them; there are less than one hundred, but they are all moving to join in various proportions, and form an infinite number of objects; oxygen and nitrogen have come together, and now form a new transparent called atmosphere. A new composition of matter is now to be formed. See moving from a distance, two large collections of very small globules; the smallest collection is oxygen, and extends six hundred and sixty-two miles; the largest collection is hydrogen, and extends one thousand three hundred and twenty-five miles; the two collections have now come together, and formed a pond of transparent water, only one mile in length. Again the simple globules are in motion, and now many of them meet together and form a granite rock; others, collected in another place, have formed earth. A new substance is now to be formed, many kinds of globules are now moving; they are now together, and form iron ore. simple globules are now every where in motion, and meeting together in different clusters, from all the inaminate objects composing the universe. A more beautiful formation is now to take place, the globules are collecting in the water; they meet from the trilobite, a marine annual; it is alive, and is capable of re-producing its kind. The globules are every where again in motion, and as they come together, form inumerable kinds of fishes, beasts, and birds. The globules are again congregating, and see! they have formed the most beautiful figure of all; it is a MAN; he is endowed with intellect, and seems superior to all other forms of life; all the previous remaining globules have congregated in his formation, and there seems nothing left. Look again, you will perceive some very small globules left; they are mere molecules compared with the other globules, and appear infinite in numbers; they do not seem to combine with any formed object. and yet they move every where, and pass through every thing. All objects being composed of round globules, must be porous, occasioned by the impossibility of round globules forming a perfectly solid mass. It is between these openings or pores that the last remaining globular moleules find a free passage through all objects in the Universe. In the unobstructed passage of these infinitely small globules, moving in infinite numbers, they produce such wonderful effects, that we will, for convenience, name them collectively, magnetic fluid. This fluid sometimes collects in large masses in the atmosphere, which it displaces to occupy the space itself; though collected in large masses, it never coheres together, and being very elastic, it sometimes starts suddenly to another place, leaving a vacum where it comes from. This vacum being suddenly filled by the elastic atmosphere rushing together, forms the phenomenon called thunder; the rapid passage of the magnetic fluid through the atmosphere. produces a vivid light, called lightning, by friction with the

globules which form the atmosphere.

Let us now trace the course of the magnetic fluid through the pores of objects on the earth. In passing through some objects, particularly iron, it frequently continues to keep up the stream, until stopped by a very simple process well known to man, and the iron through which the stream passes is called the magnet; large beds of iron ore are found in the earth, having a stream of this fluid passing through it from South to North; the Southern part of the bed of ore where the fluid enters, is called the South Pole, and the Northern end, where the fluid passes out, is called the North Pole. If you break from the mass a piece of this ore, it will have a stream passing through it with a South and North Pole; this is called a natural magnetic fluid (first put in metion by the atmosphere,) will gradually work through the metal, and in one or two years, form a permanent stream through the tongs, which all have a North and South Pole, and perform all the phenomena of the horse shoe magnet. Draw a natural magnet lenthwise over a bar of iron or steel, and you start a stream of the magnetic fluid through it; this bar, poised on a vertical pivot, forms the compass used by surveyors and mariners; it receives the fluid at the South, and discharges it at the North; hence it must follow, if the South Pole of one magnet be placed to the North Pole of another magnet, they will cling to-

gether, for the fluid in passing out of the North Pole of one, enters the South Pole of the other, and continues an unbroken stream; that is called attraction in magnets; and hence, it also follows, that if two North Poles come together, they will fly off, because two streams come together from opposite directions; that is called magnetic repulsion. The same fact will be seen, if you take two horse shoe magnets and bring them together the two North and the two South Poles, which will repel each other, and if one is suspended the other will fall; but if you turn one over so as to bring the north of one to the south of the other, they will adhere by the circular stream of magnetic fluid running through the whole; hence it follows incontrovertibly, that as the magnetic fluid can pass through the pores of all substances, two magnets must continue to attract each other, even when other substances are placed between them; this is found to be invariably true, in all cases tried with the most dense substances, such as glass, wood, metals, water, stones, etc., and the magnets always continue to attract the same as if nothing intervened. THERE IS ONE EXCEPTION ONLY TO THIS GENERAL LAW, CERIN, \* AN ANIMAL FAT, (THE GLOBULETS OF WHICH ARE SO SOFT, THAT THEY MASH TOGETHER, AND CLOSE UP ALL THE PORES, ) WHEN SPREAD ON PAPER AND HELD BE-TWEEN TWO MAGNETS, CUTS OFF THE MAGNETIC STREAM AND RENDERS THE MAGNETS AS POWERLESS AS WOOD. If a stream of magnet fluid can be caused to run through a bar of iron by drawing a natural magnet in one direction ove, it i' follows that the stream can be changed or stopped by drawing the natural magnet over it in an opposite direction. This is also true in practice; and even a common spike drawn hard over a magnet needle from the North to the South Pole, will deprive the needle of its magn tic pr perties, and destroy the compass,
The magn tic fluid pervades the pores of all substances

The magn tic fluid pervades the pores of all substances and is generally inactive, or nearly so, until put in motion by the firition of some other globules striking against it. It has a great affinity for animal hair, and a still great r for me 1; hence, a deer's tail whirled in the atmosphere, collects the fluid, and the tail striking on a metall plate, communicates the fluid to the plate, from thence it may be conducted by a string to a stop cock,

<sup>\*</sup> This wonderful substance, Cerin, is like the "larnin" of Teddy O'Rourke, it must be "spread thin and made to go a great ways," or else the fabric will explode, as it comes in contact with the dull brain of a scientific "numskull,"

rom which hydrogen gas may issue and take fire by the fluid; such a lamp is used for instructive lectures at most colleges in the country. The fluid is collected by the same principle in the electric machine. The magnetic fluid pervades all substances, animate as well as inanimate, and produces singular effects in animals. A small portion of it conducted from an electric machine into man, will produce drowsiness; a very large portion of it will produce death, by forcing asunder the globules of which man is composed; the hairs on man are continually collecting small portions of the fluid from the atmosphere; woolen clothes also collect it, and communicate it to the system, from whence it again passes off to the atmosphere. A small portion of the fluid is always necessary to support life, by warming the blood with friction as it passes through the pores; sufficient for this purpose is collected from the carpet and earth by the feet, which forms the South Pole of an animal magnet; the eye by continually straining after objects, causes the fluid to pass off at the retina, which forms the North Pole, (when awake,) of an animal magnet; change and relaxation, ebb and flow, are essential to all things; the nerves, by fatigue with manual labor during ten or twenty hours, loose the power to draw the fluid up, and the eyes by fatigue with "looking," loose the power to throw off the magnetic fluid, which must now begin to ebb or run downwards, entering in at the eye, which now becomes the South Pole, and passes off at the feet, which in turn becomes the North Pole of the animal magnet; the eye being transparent, receives the fluid faster than it can pass off at the North Pole, (feet,) which surcharges the system and produces the natural sleep. In sleep there is a relaxation of the nervous system, and consequently the whole body is gradually invigorated, until the eye gains sufficient strength to open and change the magnetic current, receiving the fluid again at the feet, (South Pole,) and throw it off from the eye, (North Pole;) this is called "natural waking."

In the waking state, man is capable of forcing a more than natural magnetic stream from the eye; particularly if he desires to see or have the object towards which he directs the eye; this is called "will." Hence man is able to "will" a magnetic current from his eyes; the magnetic fluid can pass through the pores of all substaces, (except CERIN) and consequently the current thrown out by the "will" can be sent to another person's eye, which (if awake) will likewise be a north pole, and offer an opposing current; two currents meeting from opposite directions.

the weakest must be turned. Hence if a strong man "will" a magnetic current from his eye, (North Pole, ) it must turn the weak current from a woman's eye, which no w becomes the South Pole, receiving the magnetic current from the North Pole of a man. In nature, when the eye becomes the South Pole, the person is in natural sleep; hence, when by the animal "will," the eye of a women becomes the South Pole, the woman is in a MAGNETIC SLEEP, and can be a magnetic somnambulist, the same as one in a natural sleep, can be a natural somnambulist.

In the magnetic sleep, the magnetic fluid passes from the brain and eye (North Pole,) of the magnetizer to the eye (South Pole) and brain of the magnetic somnambulist; the magnetic fluid is composed of globular molecules which touch each other, and form strings or magnetic cords from one brain to the other; hence, if the brain of the magnetizer be moved by a "sense of external things," the magnetic cords instantly conveys the same sympathetic move or "sense of external things"

to the brain of the magnetic somnambulist.

"A sense of external things" is knowledge, hence, all knowledge possessed by the magnetiser is instantly possessed by the magnetic somnambulist, who is, consequently, capable of answering correctly any question which the magnetizer could answer himself.

Diseases are obstructions in the pores of the body. The magnetic fluid carries off all obstructions in its passage through the pores of the system; hence, all diseases are carred off from the system by the magnetic fluid, in its

passage through the pores of the system.

The magnetizer can force the fluid through all objects, (except cerin,) and consequently can force the fluid "by his will," in a curve through the brain of a third person, in its passage to the brain of the magnetic commanbulist; and consequently, the third person will be in magnetic communication with the magnetic somnambulist, who will be able to answer correctly, all questions which the person in magnetic communication could answer himself.

# Process used in India to Produce Magnetic Sleep.

Having ascertained from my first case that coma might be induced with the patient's eyes closed, and feeling the necessity of an easy attitude for both operator and patient where an hour's labor was given, I mesmerised my next patient lying in bed, with his eyes closed, and in a darkened room. If the open eye were not necessary, I concluded that it would probably be a source of distraction; and the sitting posture was also objectionable for the same reason, as a person instinctively resists going to sleep in the erect posture. My second patient was accordingly mesmerised lying in bed, with his eyes closed, and the room darkened. This succeeded perfectly, and, from its convenience, was the routine followed ever afterwards without exception.

The patient was desired to lie down and compose himself to sleep; his head was brought to one end of the bed and the mesmeriser seated himself so as to be able to breathe upon the head and extend his hands readily to

the pit of the stomach.

We then began making passes from the back of the head down to the pit of the stomach, breathing gently on the head and eyes also. The fingers were held loosly in the shape of claws, and carried slowly over the parts at the distance of an inch from the surface, dwelling longer over the eyes, nose, mouth, and sides of the neck; and, on reaching the pit of the stomach, the hands were

suspended there some minutes.

Having continued this process for a quarter or half an hour, the passes may be advantageously ended by pressing both hands for some minutes on the pit of the stomach. This done for an hour daily was the routine which enabled me to perform so many mesmeric operations, and often on the first day of treatment. The lads varied this routine, however, to suit their convenience. One preferred to place both hands on the pit of the stomach from the beginning to the end of the process, breathing on the eyes and head all the time. Another placed one hand on the pit of the stomach at the beginning, and made passes slowly over the face with the other. changing hands when tired. A third would make his passes from the stomach upwards to the head: and they seemed to me to succeed all equally well—provided they attended to their work.

A moderate degree of continued attention is indispensable. Otherwise the passes are mere mechanical movements without vitality, and the lads knew from experience that if they did not work with a will, they were losing their time.

It is better not to test the patient's condition at first by speaking to him, but by gently raising his arm; and, if it fall helplessly down without subsequent movement, or is found cataleptic when bent, or rigid on attempting to bend it, we may consider the mesmeric sleep to be established. When the patient is insensible to the loudest sounds, to pricking of the navel, and pinching of the nipple the operation may be performed. But the muscular irritability cannot be extinguished in some persons; they show signs of irritation on being pricked, pinched, and burned still if protracted testing does not awake them the operation may be confidently performed, as the signs of sensibility are usually not increased during it, and the case is as successful for all practical purposes as when the patient lies like a corpse.

The more delicate European process may be resorted to

when required, and is performed in this manner.

The patient is seated in a comfortable chair for sleeping in. The mesmeriser seats himself in front with the patient's knees between his, and, laying hold of both hands, opposing the thumbs to each other, he concentrates his attention upon the patient, and desires him to look steadily at the operator. He having held his hands till there is an equilibrium of heat established, passes are made slowly from the forehead down to the pit of the stomach, and from the crown of the head down both sides of the neck, and along both arms to the fingers. The eye shows very satisfactorily the progress made. When it begins to follow the mesmerizer's hand involuntarily, and a peculiar tremor of the eyelids, or a prolonged heavy wink, is observed, it is very encouraging, and ought to induce the mesmerizer to increase his attention. The eye at last closes, but the eye-lashes generally continue to quiver as if from an instinctive attempt to open the eye. This the patient cannot now do, even though he may still retain his general sensibility and consciousness. The process being continued, or repeated, at last brings on the mesmeric coma which being tested the operation is performed.

But this process seems to induce a state of artificial somnambulism in the European much more frequently than in the Asiatic; and possibly the difference of the routine followed may partly account for this. Our object

was to knock the patient down as fast as possible, and to keep him from rallying from, or even feeling, the first impression made on the system; and this appears to be more effectually done by the more intimate and continued contact of the two bodies. My patients seemed to escape the first stimulating effects of Mesmerism (the sonnambulistic stage), and to plunge at once into the coma. But painless operations may be as satisfactorily performed in somnambulism as in mesmerism.

In the treatment of chronic diseases suited for Mesmerism, coma is not often required. If it occur, it is probably because nature needs it. But we ought to be satisfied with the improvement of the patient, though it be unaccompanied by any striking phenomena. The system is often recruited, not the less effectually because sil-

ently--just as the best digestion is least felt.

For refreshing the nervous system and procuring sleep, mesmerising a longs courants, as the French call it, will usually be found sufficient. This consists in steady continuous tractions, with the points of the spread fingers, from head to foot; the head may be breathed upon also, and the hand allowed to rest for a few minutes at the pit of the stomach, en passant. Half an hour, or an hour of of this, will often soothe restlessness, bring back natural sleep, and invigorate the nervous system.

Local Mesmerising is often very useful in removing pain (especially if the system has been previously affectby Mesmerism), and a few minutes of local passes, with or without contact, combined with breathing on the part, will sometimes prove the speediest anodyne for local

pains.

The Demesmerising Processes.—The means used for dissipating the mesmeric influence are precisely those employed for rousing the brain in fainting or natural insensibility. Although volition and consciousness are suspended in natural syncope and mesmeric coma, the involuntary part of the nervous system still retains sensibility to organic stimulants. Cold air and friction are the natural stimulants to the nerves of the skin, and are the most likely means used to restore their sensibility. when it is diminished. The respiratory nerves of the face and chest are more particularly sensitive to the impression of cold air and friction; and these natural agents are the popular and most successful remedies in restoring persons to their senses who have fainted. This result arises, I presume, from the organic irritation of the nerves of the skin being propagated to the brain, thereby arousing it again to activity and re-establishing the

interrupted sympathy between the voluntary and in-

voluntary parts of the nervous system.

The equilibrium of the nervous circulation is equally deranged in the mesmeric condition. But organic life seems to be exalted at the expense of the life of volition, and the nerves of the surface are often preternaturally sensitive to organic stimuli; so much so, that blowing in the face of a mesmeric sleeper will often cause a shock that rouses the brain into activity in a moment, and the person instantaneously recovers his senses. How this happens I cannot imagine, unless it be by driving the nervous currents back to the surface that had been concentrated upon and had oppressed the brain.

Blowing sharply in the eyes, rubbing the eyelids and eyebrows, rapid reverse or transverse passes, sprinkling cold water on the face and chest, or exposing the surface of the body to a cold current of air, are the usual methods employed for demesmerising the brain; and when locally applied are equally efficacious in demes-

merising cataleptic or rigid limbs.

But it sometimes happens that all these means fail to awake the sleeper, and I know nothing for it but to leave him alone and let him sleep it out, which is always done without any bad consequences that I ever

observed.

The smallness of the cause, and the greatness of the result, when we restore a person in a moment to the full possession of his senses and intellect by blowing in his eyes or sprinkling cold water on his face when in the mesmeric coma, are quite as remarkable in natural fainting, in which the effects from the same causes are equally striking and instantaneous, although the two conditions can have nothing in common in their origin.

## THE ART OF MIND READING.

We are indebted to that valuable and interesting magazine the "Popular Science Monthly," for the following explanation of the phenomenon of mind reading. It was written by a physician of high standing (George M. Beard, M. D.) who has given much attention to this and kindred subjects.

In the history of science and notably in the history of physiology and medicine, it has often happened that the ignorant and obscure have stumbled upon facts and phenomena which, though wrongly interpreted by themselves, yet, when investigated and explained, have proved to be of the highest interest. The phenomena of the emotional trance, for example, had been known for ages, but not until Mesmer forced them on the scientific world, by his public exhibitions and his ill-founded theory of animal magnetism, did they receive any serious and intelligent study. Similarly the general fact that mind may so act on body as to produce involuntary and unconscious muscular motion was by no means unrecognized by physiologists, and yet not until the "mind-reading" excitement was it demonstrated that this principle could be utilized for the finding of any object or limited locality on which a subject, with whom an operator is in physical connection, concentrates his mind.

Although, as I have since ascertained, experiments of this kind had been previously performed in a quiet, limited way in private circles, and mostly by ladies, yet very few had heard of or witnessed them; they were associated in the popular mind very naturally with "mesmerism;" or "animal magnetism," and by some were called "mesmeric games." The physiological explanation had never been even suggested; hence the first public exhibitions of Brown, with his brilliantly successful demonstrations of his skill in this direction, were a new revelation to physiologists as well as to the scientific world in

general.

The method of mind-reading, introduced by Brown, which is but one of many methods that have been or may be used, is as follows:

The operator, usually blind-forded, firmly applies the back

of the hand of the subject to be operated on against his own forehead, and with his other hand presses lightly upon the palm and fingers of the subject's hand. In this position he can detect, if sufficiently expert, the slightest movement, impulse, tremor, tension, or relaxation, in the arm of the subject. He then requests the subject to concentrate his mind on some locality in the room, or on some hidden object, or on some one of the letters of the alphabet suspended along the wall. The operator, blindfolded, marches sometimes very rapidly with the subject up and down the room or rooms, up and down stairways, or out-of-doors through the streets, and, when he comes near the locality on which the subject is concentrating his mind, a slight impulse or movement is communicated to his hand by the hand of the subject.

This impulse is both involuntary and unconscious on the part of the subject. He is not aware, and is unwilling, at first, to believe, that he gives any such impulse; and yet it is sufficient to indicate to the expert and practised operator that he has arrived near the hilden object, and then, by a close study and careful trials in different directions, upward, downward, and at various points of the compass, he ascertains precisely the locality, and is, in many cases, as confident as though he

had received verbal communication from the subject.

Even though the article on which the subject concentrates his mind be very small, it can quite frequently be picked out from a large number, provided the subject be a good one, and the operator sufficiently skillful. The article is sometimes found at once, with scarcely any searching, the operator going to it directly, without hesitation, and with a celerity and precision that, at first sight, and until the physiological explanation is understood, justly astonish even the most thoughtful and skeptical. (In New Haven I saw Brown, before a large audience, march off rapidly through the aisle and find at once the person on whom the subject was concentrating his mind. although there was the privilege of selecting any one out of a thousand or more present.) These experiments, it should be added, are performed in public or private, and on subjects of unquestioned integrity, in the presence of experts, and under a combination of circumstances and conditions for the elimination of sources of error that mak it necessary to rule out at' once the possibility of collusion.

The alternative is, therefore, between the actual transfer of thought from subject to operator, as has been claimed, and the theory of unconscious muscular motion and relaxation on the part of the subject, the truth of which I have demonstrated by

numerous experiments.

One of the gentlemen with whom I have experimented, Judge Blydenberg, who began to test his powers directly after I first called public tiention to the subject in New Haven, claims to succeed, even with the most intellectual persons, provided they fully comply with the conditions, and honestly and persistently concentrate their minds. One fact of interest, with regard to his experiments, is the exceeding minuteness of the objects that he finds. A large number of the audience empty their pockets on the table, until it is covered with a medley of keys, knives, trinkets, and miscellaneous small objects. Out of them the subject selects a small seed a little larger than a pea, and even this the operator, after some searching, hits precisely.

One may take a large lunch of keys, throw them on the table, and he picks out the very one on which the subject con-

centrates his mind.

Another fact of interest in his experiments is that, if a subject thinks over a number of articles in different parts of the room, and, after some doubt and hesitation, finally selects some one, the operator will lead him, sometimes successively, to the different objects on which he has thought, and will wind up with the one that he finally selected. He also performs what is known as the "double test," which consists in taking the hand of a third party, who knows nothing of the hidden object, but who is connected with another party who does know, and who concentrates his mind upon it. The connection of these two persons is made at the wrist, and the motion is communicated from one to the other through the arms and hands. The "double test "has been regarded by some as an argument against the theory that this form of mind-reading was simply the utilizing of unconscious muscular motion on the part of the persons operated upon.

This gentleman represents that the sensation of muscular thrill is very slight indeed, even with good subjects; and, in order to detect it, he directs his own mind as closely as pos-

sible to the hand of the subject.

In all these experiments, with all mind-readers, the requirement for the subject to concentrate the mind on the locality agreed upon is absolute; if that condition is not fulfilled, nothing can be done, for the very excellent reason that, without such mental concentration, there will be no unconscious muscular tension or relaxation to guide the operator.

Experiments of the following kind I have made repeatedly

with the above-named gentlemen:

A dozen or more pins may be stuck about one inch or half an inch apart into the edge of a table; I concentrate my mind on any one of these pins, telling no one. The operator enters the room, gets the general direction of the object in the usual way, and, when he has come near to the row of pins, he will limit the physical connection to one of his index-fingers, pressing firmly against one of mine, and in this way he soon finds the head of the pin on which my mind has been concentrated. The only limitation of area in the locality that can be found by a good mind-reader with a good subject is, that two objects should not be so near to each other that the finger of the oper-

ator strikes on both at once:

When I began the study of this subject, I supposed, even after the true theory of the matter had become clear to me, that very small objects and narrow areas could not be found in this way. Subsequent experiments showed that this supposition was erroneous. In a wide hall, in the presence of a large audience, where the subject had the right to think of any object he chose Brown once found, after considerable searching, so limited an area as a capital letter in the title of a newspaper pinned up on the wall and barely within reach. About an hour after, in the same place, he found a very small vialout of quite a large number ranged in a row. Although reasoning deductively from the known relations of mind to body, I had established conclusively to my own mind that the so-called mind-reading was really muscle-reading, yet I could not believe, until the above-named experiments had been made, and frequently repeated, that it was possible for even the most expert operator to find such small objects; and no physiologist, I am sure, would have believed such precision in these experiments conceivable until his general deductions had been many times verified, and supplemented by observations in which every source of error was guarded against.

As already remarked, there are a variety of ways of making the physical connection between subject and operator. A lady may go out of the room, and while she is absent an object is hidden. She returns, and two ladies, who know where the object is, stand up beside her in the middle of the room and place both of their hands upon her body, one hand in front, the other behind; all three stand there for a moment, the two subjects who know where the object is, keeping their minds intensely concentrated on that locality. In a moment or so this lady who is to find the object moves off in the direction where it is, the other ladies with her still keeping their hands upon her, and in nearly all cases she finds it. This is accomplished by the unconscious muscular tension of the two ladies who know where the object is, acting upon the person of the

lady who is seeking it.

This experiment I have repeated with a number of amateur performers, and in all cases with pretty uniform success. This method is easier, both to learn and to practice, than some of the others; it is also far less artistic, and is not at all adapted for the finding of very small localities. It illustrates, however, the general principle of mind acting on body producing muscular tension in the direction of that locality on which the

thoughts are concentrated.

The relaxation, when the locality or its neighborhood is reached, is not so distinctly appreciated in this method of experimenting, which is sufficient, however, to enable the operator to get the right direction and to proceed until the corner or side of the room is reached; then, by a combination of manipulation and guess-work, she will, after a few trials, get hold of the precise object hidden, or locality thought of. When the operator and subject are connected by the methods practised by Brown, it is possible to detect also the relaxation when the locality is reached, and, guided by this, the master in the art knows just when and where to stop and, in very many cases, feels absolutely sure that he is right, and with a good subject is no more liable to error than he would be to hear wrongly or imperfectly if directed by word of mouth.

The special methods of muscle-reading here described may be varied almost indefinitely, the only essential condition being, that the connection between the subject or subjects is of such a nature as to easily allow the sense of muscular tension or relaxation to be communicated. Instead of two subjects, there may be three, four, or half a dozen, or but one. With a number of subjects the chances of success are greater than with one, for the two-fold reason that the united muscular tension of all will be more readily felt than that of but one, and because any single subject may be a bad one—that is, one who is capable of muscular control—while among a number there will be very likely one or more good ones. For these two reasons, amateurs succeed in this latter method when they fail or succeed but imperfectly after the method of Brown.

A method frequently used, although it is not very artistic, consists in simply taking the hand of the object and leading him directly, or, as is more likely to be the case, indirectly to

the locality on which his mind is concentrated.

J. Stanley Grimes thus describes the performance of a mindreader in Chicago: "I repeatedly witnessed similar performances with different experts in this branch and under circumstances where every element of error from intentional or unintentional collusion was rigidly excluded. At the request of the company the same young lady was again sent from the room and blindfolded, as on previous occasions. The gentleman requested the company to suggest anything they desired the subject should be willed to do, thus removing any possibility of a secret agreement to deceive between the parties. suggested that the young lady should be brought into the room and placed in a position with her face toward the north; that the gentleman should then place his fingers upon her shoulder as before; that she should turn immediately to the right facing the south and proceed to a certain figure in the parlor-carpet; then turning to the west, she was to approach a sofa in a remote corner of the room, from which she should remove a small tidy, which she should take to the opposite side of the room, and place it upon the head of a certain young gentleman in the company; she was then to proceed to the extreme end of the parlor, and take a coin from the right vest pocket of a gentleman, and return to the opposite side of the room, and place the coin in the left vest pocket of another gentleman named; she was then to remove the tidy from the head of the gentleman upon whom it had been placed, and return it to the tete-a-tete where she originally found it.

"I must confess to no little surprise when I saw the young lady perform with the most perfect precision every minute detail as above described, and with the most surprising alacrity; in fact so quick were her motions that it was with the greatest difficulty that the gentleman could keep pace with the young

lady's movements."

Thave seen a performer—who though one of the pioneers in this art is far less skillful than many with whom I have experimented—take a hat from the head of a gentleman in a small private circle, and carry it across the room and put it on the head of another gentleman; take a book or any other object from one person to another; or go in succession to different pictures hanging on the wall and perform other feats of a similar character, while simply taking hold of the wrist of the subject. In the experiment described by Mr. Grimes the subject placed three fingers of his right hand on the shoulder of the operator. Note the fact that in all these experiments direction and socality are all that the mind-reader finds; the quality of the object found or indeed whether it be a movable object at all or merely a limited locality as a figure in the carpet or on the wall, is not known to the mind-reader until he picks it up or handles it; then if it be a small object as a hat, a book, or coin, or tidy, he very naturally takes it and moves off with it in the direction indicated by the unconscious muscular tension of the subject, and leaves it where he is ordered by unconscions muscular relaxation. In the great excitement that

attends these novel and most remarkable experiments the entranced audience fail to notice that the operator really finds

nothing but direction and locality,

I have said that various errors of inference, as well as of observation, have been associated with these experiments. A young lady who had been quite successful as an amateur in this art was subjected by me to a critical analysis of her powers before a large private audience. She supposed that it was necessary for all the persons in the audience to concentrate their minds on the subject as well as those whose hands were upon her. I proved by some decisive experiments, in which a comparison was made with what could be done by chance alone, that this was not necessary and that the silent, unexpressed will of the audience had no effect on the operator, save certain nervous sensations created by the emotion of expectancy. Similarly I proved that when connected with the subjects by a wire, she could find nothing, although she experienced various subjective sensations, which she attributed to "magnetism," but which were familiar results of mind acting on body.

Another lady, who is quite successful in these experiments, thought it was necessary to hide keys, and supposed that "magnetism" had something to do with it. I told her that that was not probable, and tried another object, and found that it made no difference what the object was. She supposed that it was necessary that the object should be secreted on some person. I found that this was not necessary. She does not always succeed in finding the exact locality at once, but in some cases she goes directly to it; she very rarely fails.

In order to settle the question beyond dispute whether unconscious muscular action was the sole cause of this success in finding objects, I made the following crucial experiments with this lady: Ten letters of the alphabet were placed on a piano, the letters being written on large pieces of paper. I directed her to see how many times she would get a letter which was in the mind of one of the observers in the room correctly by chance purely, without any physical touch. She tried ten times and got it right twice. I then had her try ten experiments with the hand of the person operated on against the forehead of the operator, the hand of the operator lightly touching against the fingers of this hand, and the person operated on concentrating her mind all the while on the object, and looking at it. In ten experiments tried this day, with the same letters, she was successful six times. I then tried the same number of experiments with a wire, one end being attached to the head or hand of the subject, and the other end

to the head or hand of the operator. The wire was about ten feet long and was so arranged—being made fast at the middle to a chair-that no unconscious muscular motion could be communicated through it from the person on whom she was operating. She was successful but once out of ten times. Thus we see that by pure chance she was successful twice out of ten times; by utilizing unconscious muscular action in the method of Brown she was successful six times out of ten. When connected by a wire she was less successful than when she depended on pure chance without any physical connection. In order still further to confirm this, I suggested to this lady to find objects with two persons touching her body in the manner we have above described. I told these two to deceive her, concentrating their minds on the object hidden, at the same time using conscious motion toward some other part of the room. These experiments several times repeated, showed that it was possible to deceive her, just as we had found it pos-

sible to deceive other muscle-readers.

The question whether it is possible for one to be a good. muscle-reader and pretty uniformly successful, and yet not know just how the trick is done, must be answered in the affirmative. It is possible to become quite an adept in this art without suspecting even remotely the physiological explanation. The muscular tension necessary to guide the operator is but slight, and the sensation it produces may be very easily referred by credulous, uninformed operators to the passage of "magnetism;" and I am sure that with a number of operators on whom I have experimented this mistake is made. Some operators declare that they cannot tell how they find the locality, that their success is to them a mystery; these declarations are made by private, amateur performers, who have no motive to deceive me, and whose whole conduct during the experiments confirms their statements. Other operators speak of thrills or vibrations which they feel, auras and all sorts of indefinable sensations. These manifold symptoms are purely subjective, the result of mind acting on the body, the emotions of wonder and expectancy developing various phenomena that are attributed to "animal magnetism," "mesmerism" or "electricity"-in short, to everything but the real cause. I have seen amateurs who declared that they experienced these sensations when trying without success to read mind through the wires, or perhaps without any connection with the subject whatever. Persons who are in the vicinity of galvanic batteries, even though not in the circuit, very often report similar experiences.

The facts which sustain the theory that the so-called mindreading is really muscle-reading—that is, unconscious muscular tension and relaxation on the part of the subject—may be

thus summarized:

1. Mind-readers are only able to find direction and locality. and in order to find even these, they must be in physical connection with the subject, who must move his body or some portion of it—as the fingers, hand or arm. If the subject sits perfectly still, and keeps his fingers, hand and arm perfectly quiet, so far as it is possible for him to do so by conscious effort, the mind-reader can never find even the locality on which the subject's mind is concentrated; he can only find the direction where the locality is. Mind-readers never tell what an object is nor can they describe its color or appearance; locality and nothing more definite than locality is all they find. object hidden may be a coin or a corn-cob, a pin or a pen-holder, an elephant's tusk or a diamond pin-it is all the same. Again, where connection of the operator with this subject is made by a wire, so arranged that mass-motion cannot be communicated and the subject concentrates his mind ever so steadily, the operator does just what he would do by pure chance and no more. This I have proved repeatedly with good subjects and expert performers.

2. The subject can successfully deceive the operator in various ways—first of all, by using muscular tension in the wrong direction, and muscular relaxation at the wrong locality while at the same time the mind is concentrated in the right direction. To deceive a good eperator in this way is not always easy, but after some practice the art can be acquired, and it is a perfectly fair test in all experiments of this nature.

Yet another way to deceive the mind-reader is, to think of some object or locality at a great distance from the room in which the experiments are made, and if there be no ready means of exit, the performer will be entirely baffled. I am aware that some very surprising feats have been done in the way of finding distant out-of-door localities by muscle-readers but in these cases there has usually been an implied understanding that the search was to be extended to out-of-doors; muscle-readers have thus taken their subject up and down stairs or from one room or hall into another, and out-of-doors until the house or locality was reached.

In Danielsonville, Connecticut, Brown after an evening's exhibition in which his failures had been greater than usual (the intelligent committee having the matter in charge being prepared by previous discussion of the theory of unconscious muscular motion), took a subject and led him from the hotel

in the darkness through the streets, to some rather out-of-the way building on which the subject had fixed his mind. A somewhat similar exploit is recorded of Corey, a performer in Detroit.

Another way in which deception may be practise I is for the subject to select some object or locality on the person of the muscle-reader. This object may be a watch, or a picket-book, or a pencil-case, or any limited region of his clothing, as a button, a cravat, or wristband. If such a selection be made, and the method of physical connection above described be used, the experiment will be a failure, provided the muscle-reader does not know or suspect than an object on his own person, is to be chosen. Similarly if the subject selects a locality on his own person, as one of the fingers or finger-nails of the hand that connects with the muscle-reader. When such tests are used, there is not, so to speak, any leverage for the tension of the arm toward the locality on which the mind is concentrated and the muscle-reader either gets no clew, or else one that misleads him.

3. When a subject who has good control over his mental and muscular movements keeps the arm connected with the operator perfectly stiff, even though his mind be well concentrated on the hidden object, the operator cannot find either the direction or the locality. This is a test which those who have the requisite physical qualifications can sometimes fulfill without

difficulty.

Here I may remark that the requirement to concentrate the mind on the locality and direction sought for all the time the search is being made is one that few if any can perfectly fulfill. Any number of distracting thoughts will go through the besttrained mind of one who, in company with a blindfolded operator, is being led furiously up and down aisles, halls, streets and stairways, fearful each moment of stumbling or striking his head, and followed it may be, by astonished and eager investigators. And yet these mental distractions do not seem to interfere with the success of the experiment unless the arm is kept studiously rigid, in which case nothing is found save by pure chance. The best subjects would appear to be those who have moderate power of mental concentration and slight control over their muscular movements. Credulous wonder-loving subjects are sometimes partially entranced through the emotions of reverence and expectation; with subjects in this state operators are quite sure of success.

4. The uncertainty and capriciousness of these experiments, even with expert operators, harmonize with the explanation here given. Even with good subjects all mind-readers do not

uniformly succeed; there is but little certainty or precision to the average results of experiments, however skillfully performed. An evening's exhibition may be a series of successes or a series of failures according to the character of the subjects; and even in the successful tests the operator usually must try various directions and many localities sometimes for ten or fifteen minutes before he finds the locality sought for; cases where the operator goes at once in the right direction, stops at the right locality, and knows when he has reached it, exceptional.

5. Many of those who became expert in this art are aware that they succeed by detecting slight muscular tension and re-

laxation on the part of the subject.

Some operators have studied the subject scientifically, and are able to analyze with considerable precision the different steps in the process. In the minds of many this fact alone is evidence adequate to settle the question beyond doubt.

6. A theoretical and explanatory argument is derived from the recent discovery of motor centers in the cortex of the

brain.

I was repeating the experiments of Fritsch and Hitzig at the time when my attention was first directed to the remarkable exhibitions of Brown, and the results of my studies in the electrical irritation of the brains of dogs and rabbits suggested to me the true explanation of mind-reading before any oppor-

tunity had been allowed for satisfactory experiments.

The motto "when we think, we move," which I have sometimes used to illustrate the close and constant connection of mind and body, seems to be justified by these experiments on the brain, and may assist those who wish to obtain a condensed statement of the physiology of mind-reading. Taking into full consideration the fact that all physiologists are not in full accord as to the interpretation to be given to these experiments, whether for example, the phenomena are due to direct or reflex action, still it must be allowed by all who study this subject experimentally, that thought-centers and muscle-centers are near neighbors, if not identical.

The popular theory to account for these failures is the weariness or exhaustion of the operator; but both in New York and in New Haven it was observed that Brown met with his most brilliant successes in the latter part of the evening, the reason

being that he happened then to have better subjects.

From an editorial in the "Boston Medical and Surgical Journal," (September 23, 1875,) referring to the mind-reading exhibitions, and accepting the explanation here given, I make the following extract: "The whole performance seems to us

to furnish good illustrations of one or two well-known principles of great physiological interest. Of these the most important is one that finds at once support and application in the modern doctrine of the nature of aphasia and kindred disorders; namely, that the thought, the conscious mental conception of an act differs from the voluntary impulse necessary to the performance of that act only in that it corresponds to a fainter excitation of nervous centers in the cortex cerebri which in both cases are anatomically identical. Thus in certain forms of aphasia, the power to think in words is lost at the same time with the power of speech. Some persons think definitely only when they think aloud, and it would readily be believed in the case of children and uneducated persons that the ability to read would often be seriously interfered with if they were Similarly a half-premeditated not permitted to read aloud. act of any kind slips often into performance before its author is aware of the fact. Further, there is reason to think, from the experiments of Hitzig, that these same centers may be excited by the stimulus of electricity so as to call out some of the simpler co ordinated movements of the muscles on the opposite side of the body. Applying now, this principle to the case in hand, it will be evident that for the person experimented with to avoid giving 'muscular hints,' of either a positive or negative kind, would be nearly impossible."

In all these experiments it should be observed there is no one muscle, there is no single group of muscles, through which this tension and relaxation are developed; it is the finger, the hand, the arm, or the whole body, according to the method employed. Among the various methods of making connection between the subject and operator, are the

following:

1. The back of the subject's hand is held firmly against the forehead of the operator, who, with his other hand, lightly touches the fingers of the subject's hand.

This is, undoubtedly, the most artistic of all known methods. 2. The hand of the operator loosely grasps the wrist of the subject.

This is a very inartistic method, and yet great success is of-

tentimes attained by it.

3. One finger of the operator is applied to one finger of the subject, papillæ touching papillæ.

This is a modification of the first method; by it exceedingly

small objects or localities are found,

4. The operator is connected in the usual way with a third party who does not know the locality thought of by the subject, but is connected with the subject by the wrist ("double test.") In this experiment, which astounded even the best observers, the unconscious muscular motion was communicated from the subject to the arm of the third party, and through the arm of the third party to the operator.

5. Two, three or more subjects, who agree on the locality to be thought of, apply their hands to the body of the operator in

front and behind.

This method is excellent for beginners, and the direction is easily found by it; but it is obviously not adapted for the speedy finding of small objects; it is frequently used by ladies.

6. The hand of the subject lightly rests on the shoulder of

the operator.

In all these methods the operator is usually blindfolded, so that he may get no assistance from any other source than the

unconscious muscular action of the subject.

The movements of the operator in these experiments may be either very slow, cautious, and deliberate, or rapid and reckless. Brown in his public exhibitions, was very careful about getting the physical connection right, and then moved off very rapidly, sometimes in the right direction, sometimes in the wrong one, but frequently with such speed as to inconvenience the subject on whom he was operating. These rapid movements give greater brilliancy to public experiments and serve to entrance the subject, and thus to render him far more likely to be unconscious of his own muscular tension and relaxation through which the operator is guided.

The power of muscle-reading depends mainly, if not entirely, on some phase of the sense of touch. Dr. Hanbury Smith tells me that a certain maker of lancets in London, had aequired great reputation for the superiority of his workmanship. Suddenly there was a falling off in the character of the instrument that he sent out, and it was found that his wife, on whom he had depended to test the sharpness of the edge on

her finger or thumb, had recently died.

That the blind acquire great delicacy of touch has long been known; Laura Bridgman is a familiar illustration. Dr. Carpenter states (although there are always elements of error through the unconscious assistance of other senses in cases of this kind) that Miss Bridgman recognized his brother, whom she had not met for a year, by the touch of the hand alone.

Every physician recognizes the fact of this difference of susceptibility to touch; and in the diagnosis of certain conditions of disease, much depends on the tactus eruditus. I am not sure whether this delicacy of perception, by which muscle-reading is accomplished, is the ordinary sense of touch, that of con-

tact, or of some of the special modifications of this sense. It is to physiologists and students of diseases of the nervous system a well-known fact that there are several varieties of sensibility—to touch, to temperature, to pressure or weight, and to pain—which, possibly, represent different rates or modes of vibration of the nerve-force.

The proportion of persons who can succeed in muscle-reading, by the methods here described, is likewise a natural subject of inquiry. Judging from the fact that out of the comparitively few who have made any efforts in this direction, a large number have succeeded after very little practice, and some few, who have given the matter close attention, have acquired great proficiency, it is probable that the majority of people of either sex, between the ages of fifteen and fifty, could attain, if they chose to labor for it, with suitable practice, a certain grade of skill as muscle-readers, provided, of course, good subjects were experimented with. It is estimated that about one in five or ten persons can be put into the mesmeric trance by the ordinary processes; and, under extraordinary circumstances, while under great excitement, and by different causes, every one is liable to be thrown into certain stages or forms of trance; the capacity for the trance-state is not exceptional; it is not the peculier property of a few individuals—it belongs to the human race; similarly with the capacity for musclereading.

The age at which this delicacy of touch is most marked is an inquiry of interest; experience, up to date, would show that the very old are not good muscle-readers. I have never known of one under fifteen years of age to study this subject; although it is conceivable that bright children, younger than that age, might have sufficient power of attention to acquire

the art, certainly if they had good instruction in it.

In these mind-reading experiments, as indeed in all similar or allied experiments with the living human beings, there are six sources of error, all of which must be absolutely guarded against if the results are to have any precise and authorative

value in science.

1. The involuntary and unconscious action of brain and muscle, including trance, in which the subject becomes a pure automaton. I have used the phrase "involuntary life" to cover all these phenomena of the system that appear independently of the will. The majority of those who studied the subject of mind-reading—even physicians and physiologists—failed through want of a proper understanding or appreciation of this side of physiology.

THE ART OF MIND READING 2. Chance and coincidences. Neglect of this source of error 4. Unintentional deception on the part of the subject.

was the main cause of the unfortunate results of the wire and chain experiments with mind-readers.

3. Intentional deception on the part of the subject.

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5. Collusion of confederates. To guard against all the above sources of error it is necessary for the experimenter himself to use deception.

6. Unintentional assistance of audience or bystanders.

When the muscle-reader performs before an enthusiastic audience, he is likely to be loudly applauded after each success; and, if the excitement be great, the applause, with shuffling and rustling, may begin before he reaches the right locality, while he is approaching it; when, on the other hand, he is far away from the locality, the audience will inform him by ominous silence. The performance thus becomes like the hide-and-seek games of children, where they cry "Warm!" as the blindfolded operator approaches the hidden object; "Hot!" as he comes close 60 it; and "Cold!" when he wanders far from it. Some of the apparent successes with the wire-test may be thus explained.

In regard to all the public exhibitions of muscle-r, aders, it should be considered that the excitement and eclat of the occasion contribute not a little to the success of the operator; the subject grows enthusiastic-are partly entranced, it may bebecome partners in the cause of the performer-end unconsciously aid him far more than they would do in a similar entertainment that was purely private. In a private entertainment of muscle-reading at which I was present, ore of the subjects, while standing still, with his hands or he · perator. actually took a step forward toward the locality on which his mind was concentrated, thus illustrating in a visite renner the process by which muscle-reading is made possible.

The subject under discussion, it will be observed, is to be studied both inductively and deductively. The general claim of mind or thought reading is disproved not by any such experiments as are here detailed, no matter how accurate or numerous they may be, but my reasoning deductively from the broad principle of physiology, that no human being has or can have any qualities different in kind from those that belong to the race in general. The advantage which one human being has over another—not excepting the greatest geniuses and the greatest mousters-is, and must be, of degree only.



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