UNIVERSAL CURES, ANCIENT AND MODERN.*

BY

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ANY general discussion of quackery is far too big a subject for a single paper.

This paper is confined to certain universal cures, brought forward by men of considerable medical knowledge, who nevertheless appear to have genuinely believed that they had discovered a universal cure for disease. Most of the cures discussed appear to have some real or supposed connexion with electrical phenomena.

Francis Anthony Mesmer.

During the last two centuries there has been a general tendency for universal cures to be connected with electricity and magnetism. About 1750 a widespread idea was established that the mysterious new phenomena of electricity and magnetism were manifestations of a force which, if properly applied, would act as a remedy for all known diseases.

This vague popular idea was first exploited on a large scale by Francis Anthony Mesmer (1733-1815). Mesmer started with an interest in astrology, and wrote his thesis for the M.D. of Vienna on the subject of the influence of the planets on the human body. He next spent many years experimenting with the Imperial astronomer Père Maximilian Hell on the effects produced by magnets when applied to the diseased body, and he attained considerable success by practising in Vienna along these lines. He discovered, however, that he could influence patients without magnets and even without touching them, and thus developed a form of treatment by suggestion. Professional jealousy drove him from Vienna, and he went to Paris in 1778, where he attained sensational success by methods which really consisted in treatment by suggestion reinforced by an imposing display of imitation electrical apparatus. Like most enthusiasts who believe that they have discovered a universal remedy, Mesmer expressed the utmost contempt for orthodox medicine, and resolutely refused to submit his apparatus to any form of test.

The measure of his success in Paris is indicated by the fact that he was supported by a large number of doctors, headed by Dr. D'Eslon, President of the Medical Faculty of Paris; moreover, he is said to have made £16,000 in fees in two years, and the Government offered him a pension of about £1,000 a year provided that he established a clinique magnétique and instructed three State-appointed persons in his methods. Mesmer refused this offer, but in 1783 a number of well-to-do persons subscribed a total of about £14,000, in return for which Mesmer agreed to instruct them as pupils.

Mesmer therefore enjoyed the support of a large and powerful section of Parisian society, but his methods soon found imitators, and the wholesale exploitation of hysteria forced the Government into action. A strong commission was appointed, including amongst its members Lavoisier and Franklin. After five months' inquiry the commission decided that Mesmer's apparatus was incapable of producing any electrical or magnetic effects. They admitted that patients were profoundly affected, but thought that more harm than good was likely to be produced, and recommended the suppression of Mesmer's practices.

The most interesting points about Mesmer's success are as follows: he really did discover something—namely, the extraordinary effects that suggestion can produce in disease; on the other hand, he firmly convinced both himself and his patients that a complex and imposing apparatus, his famous tub, possessed marvellous powers of healing by the magnetic force it exerted, and yet the tub was incapable of producing the slightest electrical effect of any kind. The general similarity between Mesmer's tub and Abrams's oscilloclast is very striking.

James Graham.

James Graham had a fair knowledge of medicine: he studied at Edinburgh and may have taken his degree there. He picked up some knowledge of electricity in America. In 1780 he returned to Europe, and practised in London and Bath, and also at Aix-la-Chapelle. He exploited electricity as a cure for all diseases; he apparently had a fair amount of knowledge of the subject, for he had constructed to his own design some unusually large electric friction machines, and apparently produced quite impressive sparks.

He converted a large house in the Adelphi in London into one of the most remarkable palaces of quackery that has ever been known. This Temple of Health was furnished throughout with most lavish ornateness: statues, armour, painting, immense pillars and globes of glass, remarkably arranged plates of burnished steel, and electrical apparatus of every description were included in the decorations. The general effect was intensified by soft music from an invisible orchestra and perfumes of spices. The chief shrine of the temple was the Grand Apollo Apartment; this contained a throne, and above the throne a crown was suspended from which electric discharges could be produced. Patients were treated by being placed on the throne and having electric discharges played upon them.

In addition to the above methods of treatment, Graham claimed that by means of electricity he could extract from drugs ethereal extracts that were cures for all known complaints and which were indeed practically elixirs of life. For a constant supply of these medicines the modest fee of £1,000 paid in advance was demanded, and it is known that this sum was paid by several persons.

Graham was a tall handsome man of commanding presence and he reinforced the attractions of his electric sparks by providing a strong sex interest. He gave a lecture on the cure of sterility, with an entrance fee of six guineas; and a contemporary reports, "He uses the plainest language in dealing with the parts concerned with generation, yet ladies as well as men crowd to hear him without scruple." Graham issued his lecture in pamphlet form at the price of a guinea, and even by modern standards it must be ranked as remarkably obscene.

Extra attractions also were provided at the lectures, for Emma, the future Lady Hamilton, is said to have served as a nude model in his lecture on health. In addition, Graham's temple contained the famous piece of apparatus, his "Celestial Bed." This was an ornate couch around which electric discharges could be produced. The bed was guaranteed as a cure for sterility, and couples were allowed to use it on payment of a fee of £50.

There is, however, another side to his character, for he gave very sound hygienic advice to his patients, recommending cold baths and fresh air, ideas that were then extremely uncommon. Moreover, Graham was a religious fanatic, and throughout his writings one finds declamations against war, and appeals for religious toleration blended with a kind of deism.

In the late years of his life Graham became insane. Southey called him "half enthusiast, half knave." Graham is chiefly interesting as a blend of religious enthusiast and obscene charlatan, and his writings are a proof of how complex and contradictory are the motives actuating the unbalanced minds of the discoverers of universal cures.

Elisha Perkins.

The vogue of Perkins tractors is, I consider, the most interesting example on record of the sudden rise and fall of a universal delusion regarding a universal cure.

For many years Perkins, who was the son of a doctor and a graduate of Yale, lived as a successful practitioner in Connecticut; he was a man of fine physique and remarkable for his untiring energy. He was respected by his fellow practitioners, and acted as chairman of the local medical society. His strong personality and devotion to his professional duties won him a high prestige amongst his patients, and he was very impressed by the amount of benefit that patients appeared to derive from his mere presence.

Magnets and lodestones were still believed at this period to possess medicinal powers—for example, the Royal Society

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of Medicine in Paris concluded in 1779 that magnets were therapeutic agents of no ordinary efficacy. Perkins concluded that his personal influence was due to some occult magnetic force, and made experiments in treatment by the application of magnets and metals to the diseased parts. His son, in a short biography, states:

"These experiments, however, for many years added but little to the information he obtained from the first observation. The extreme uncertainty attending the results of all his experiments sometimes almost inclined him to think that this supposed discovery was all a fallacy, and the effects ascribable to imagination. In the year 1796 however he acquired some new ideas on the subject which led to the discovery of the unequivocal influence of certain metallic substances on diseases, and the invention of the metallic tractors."

These tractors were two sticks of metal, about as thick as lead pencils—one looking like brass and the other like steel. They were made of a mixture of various metals, including silver and gold, and were sold for five guineas a pair. Perkins believed that these tractors were capable of benefiting or curing practically all diseases both of men and animals. Their method of application was as simple as the tractors themselves, for it consisted in simply drawing the tractors downwards over the affected part for twenty minutes, and no previous knowledge was apparently needed for their application.

Perkins, who was a man of great energy and enthusiasm, travelled up and down the country demonstrating his invention. He demonstrated the use of the tractors in numerous hospitals, and his methods were endorsed by numerous doctors and professors, and he received the support of many of the leading men of the country, such as governors and judges. His methods naturally met with opposition, and in 1799 he was expelled from the Medical Society of the State of Connecticut on the ground that his patenting of his invention was contrary to professional etiquette.

In 1799 yellow fever ravaged New York, and Perkins went there to combat the epidemic with his tractors; he caught the disease, and died, after five days' illness, at the age of 59. This ending proves conclusively Perkins's absolute sincerity. Yellow fever is not a disease which anyone would encounter with a remedy which they knew to be worthless, but one would have imagined that his death would have raised doubts concerning the efficacy of his tractors. The vogue of the tractors was, however, undiminished. They had been introduced to Denmark by the wife of Major Oxholm, a Danish diplomat, and were investigated by the leading professors of surgery and medicine in Copenhagen, who issued a report stating that "The arguments against animal magnetism would not apply to Perkinism; that the discovery was of importance to the healing art; and that it merited the thorough attention of physiologists." The report contains accounts of the cure of gout, rheumatism, and epilepsy and other diseases, and it was translated into German by Dr. Tode, physician to the King of Denmark.

England was, however, the seat of the greatest triumphs of Perkinism. The movement here was directed by Perkins's son, who came here about 1797; he was not a medical man, but possessed the instincts of a sound advertising agent. The tractors had a tremendous popular success, and were used with equal efficacy on humans, horses, and pet dogs. In 1804 a Perkinian Institute was founded in London, with Lord Rivers as president. The institute enjoyed the support of eight professors of four different universities, twenty-one physicians, nineteen surgeons, and thirty clergymen. It is said to have had a larger endowment than any other hospital in London.

There was, of course, opposition to the prevailing craze. In 1799 a Dr. Haygarth of Bath performed a few experiments with the help of some friends. They explained fully and impressively to a group of hospital patients that a miraculous new remedy had been discovered, and proceeded to treat them with imitation tractors made of wood. The results were striking; most of the patients declared themselves immediately cured or greatly benefited, although one or two stated that the pain of the treatment was so intense that they could not endure it. The hospital was

soon surrounded by an excited mob demanding treatment with the new remedy. The experimenters apparently had a rather difficult and dangerous time when they had to explain that the whole business was a hoax.

The opinions of Perkins, junior, on this criticism are best indicated by the following headings of the pamphlet he published in reply.

"All these artifices having in view to prove that the tractors acted on the imagination, the author presented as an extinguisher of such pretensions, above an hundred cures on infants, horses, epileptic fits, tumefactions and inflammations.

"Among the vouchers to these facts were eight professors, in four different universities; eighteen regular physicians; fourteen surgeons; thirteen clergymen, etc.

"Very strange that the diminutive looking tractors should be pretended to have any influence on the imagination of a patient, from the confidence they might create.

"The writers in the *London Medical Review*, whose supply of bread depends on a continuance of the use of medicine in preference to this simple remedy, devote thirty-six pages to dissuading the public from trying metallic tractors.

"Reason for attaching far greater confidence to the testimony of the numerous respectable and *disinterested* characters adduced in this work than to the *interested* writers on the contrary side of the question."

It will be observed that the arguments for and against universal cures have not altered appreciably during the course of one hundred years. The cures always fail completely when subjected to any adequate control or test, and the reply to such criticisms is always the same: a high-minded philanthropist is working for trivial pecuniary rewards to provide mankind with a universal safeguard against disease, and this urgent and all-important work is being obstructed by the selfish opposition of a profession which fears that its livelihood is being endangered.

I hope that I have indicated in this discussion the respect that I feel for Perkinism—the respect that one owes to any perfect example of its kind, even though it be but an example of human folly. Perkinism was a true artistic triumph in that a maximum effect was produced with the simplest possible technique. Half the civilized world was induced to believe that any disease could be cured by drawing over the diseased part two sticks of metal for twenty minutes. I do not think that this record in delusions has ever been rivalled, and I doubt if ever it will be surpassed.

Twenty years later, when the bubble had burst, it still seemed incredible to one who remembered the craze that the whole thing should have been a complete delusion. The idea that an enormous effect can be produced without any rational cause is offensive to the ordinary beliefs of mankind, and with every craze one hears the identical argument that there must be something in it because it is so widely believed and supported.

Perkinism is a remarkably clear-cut demonstration of the falsity of this assumption. There was no discoverable germ of truth in its practice; it achieved enormous popularity in a few years—testimonials as to its miraculous powers were supplied by thousands of persons, including many of the highest professional attainments; finally it fell into utter disrepute with equal suddenness. Like an epidemic the craze rose and raged and waned, without any apparent reason for its course. The only reason for the belief and for the disbelief seems to have been the rise and decline of a wave of delusion, and the whole history of the process shows how completely judgement can be inhibited by mass suggestion.

Albert Abrams, 1863-1924.

Dr. Albert Abrams was a medical graduate of Heidelberg, and he practised for many years as an orthodox practitioner in San Francisco. About fifteen years ago he began to seek for a universal cure for disease, and first brought forward the cult of spondylotherapy. This was a blend of osteopathy and chiropractic with some of the more glaring absurdities toned down. We cannot tell what form spondylotherapy would finally have assumed, for its development was dwarfed by Abrams's next step—his discovery of the famous electronic reactions.

The electronic reactions of Abrams are obtained by two

machines—one a diagnostic machine and the other a curative machine. The diagnostic machine was the original and fundamental "discovery," and I shall only deal with this at present.

The apparatus consists of a container or dynamizer in which is put the drop of blood to be tested; this is connected through four rheostats to the forehead of a healthy medium. The presence of the blood in the dynamizer causes changes in the area of stomach dullness of the medium; these changes are modified or abolished by varying the resistances in the rheostats. With this mechanism Abrams claimed that he could determine the age, sex, religion, race, and nature of disease of the patient providing the drop of blood. Moreover, the diagnosis could be made from either a drop of blood or the handwriting of the patient. For example, the diseases suffered by Dr. Johnson were determined from a signature of the great lexicographer. I think you will agree that these claims are remarkable, for in the first place there appears to be no conceivable relation between Abrams's theories and any of the known laws of physics, chemistry, or physiology. Secondly, the claims appear to be of such a nature that their truth or falsehood could be demonstrated by a few hours' test.

An examination of Abrams's publications shows that his ideas developed step by step from some theories put forward by a Mr. Baines in 1913. Mr. Baines was an electrician who detected the well known skin currents by means of delicate galvanometers and thought that their measurement would provide a means of diagnosing and locating disease. This theory, advanced by an electrician with no knowledge of medicine was developed by Abrams, who had some knowledge of medicine, but apparently no knowledge of electricity. This accounts for the final bizarre form of his theories. Naturally Abrams was able to get equally good results whatever modifications were introduced into his apparatus, and his followers have found the same. On some occasions wires have been disconnected unknown to the operator; the reactions have been unaltered, the reason being that electronic vibrations need not travel along wires. On other occasions specimens have been removed from the dynamizer without the knowledge of the operator and the reactions have continued; the reason is that the electronic vibrations are so powerful that they set up similar vibrations in all material with which they come in contact, and these after-effects can only be destroyed by waving a magnet over the spot.

Abrams soon passed from the diagnosis to the treatment of disease. Starting from the fundamental idea that disease is due to derangement of the vibration rates of the electrons, he sought a method of altering these rates. He noted the fact that a glass resonator could be shattered by a sufficiently strong sound of the wave-length to which it vibrated. He therefore devised his oscilloclast, a form of electrical interrupter. The oscilloclast is intended to pass into the body electronic energy of the same wave-length as the erring electrons in the diseased tissue. Some of the early forms of the oscilloclast were the subject of adverse criticism, because an investigator found that one of them contained four closed circuits and did not furnish sufficient energy from its terminal leads to deflect even the most sensitive galvanometer. This error has now been adjusted, and the patients under treatment can lie and watch an electric light twinkling at the correct vibration rate. Abrams was an American Jew, and naturally, almost instinctively, he made a commercial success of his discoveries. As I have pointed out in other instances of universal curers, the fact that they consider their discoveries priceless and charge accordingly is no evidence that they do not believe in the discoveries.

Abrams's theories violate all the known laws of physics and physiology even more completely than did the theories of Perkins, and I do not propose to attempt any criticism, but will pass on to describe the progress of electronic therapy. As already mentioned, the diagnostic claims of Abrams are such that they admit of proof or disproof with extraordinary ease.

Abrams's doctrines were naturally disbelieved by the rest of the American medical profession as a whole, but since he held a reputable position in San Francisco he was given

opportunities to demonstrate the truth of his extraordinary claims. He always refused, and soon there arose a sharp antagonism between him and his followers and the rest of the American profession.

The offer of two machines, one a universal means of diagnosis and the other a universal means of treatment, naturally proved attractive to many persons, particularly to osteopaths, homoeopaths, and chiropractors. The great expense of the machines rapidly provided a strong commercial interest in support of the electronic methods, and public interest was sufficiently aroused for a leading popular scientific paper, the *Scientific American*, to offer to undertake an impartial investigation of the whole matter. This proposal was endorsed by the electronists in general and Abrams in particular. The committee of investigation found, however, that it was practically impossible to arrange even the simplest tests, and the investigation, which they imagined would take a few weeks, took nearly a year. The final report has just been published, and it simply states that as far as the committee can ascertain the so-called electronic reactions do not even exist.

The following criticism by the *Scientific American* appears to be completely justified:

"If in the opinion of the electronic workers, their methods are insufficiently developed at this time to pass a most elementary test such as we propose, then in good faith and through honesty of purpose they should, without delay, suspend their present electronic practice. They should tell their patients that they are not sure just what they are doing. After all human life is too precious to be the subject of raw experimentation of something worse than that as the case may be."

The only means by which the electronists can make this position satisfactory is by submitting their methods to some properly controlled impartial test. Such tests ought to commence with the diagnostic technique, for this is much the easiest to test and this was Abrams's original discovery. The methods of treatment were later developments from the original diagnostic methods. There is now an Electronist Society, I believe, and therefore there is no obvious difficulty in organizing satisfactory and final tests.

The general argument of the electronists is that tests are superfluous, since they can support the truth of their claims by innumerable testimonials from patients cured of every kind of disease, and that they are so busy doing good that they cannot waste time in proving what they already know to be true. Unfortunately for this argument, history fails to record any variety of quackery that has failed to obtain testimonials from persons who have genuinely believed themselves to have been benefited by its methods.

The history of Perkins's tractors surely teaches as clearly as anything can that thousands of honest people can believe sincerely in a universal remedy for disease which is absolutely worthless. As I have said, it is difficult to offer any criticism of Abrams's theories, because these bear no relation to any of the known laws of physics, and therefore there is no basis for argument. They are just as completely outside the realm of inductive science as were Mesmer's tub, Graham's ethereal essences, Perkins's tractors, or Hahnemann's tinctures, and, like these other cults, the electronic reactions have acquired a body of devout followers, most of whom are probably fervent and sincere believers.

In all cases, ancient and modern, we find that the followers of the cult, if left to themselves, can perform miracles daily, but under impartial inspection cannot satisfy the most elementary tests. There is really nothing strikingly new or remarkable in the present electronic vogue; dozens of similar crazes have arisen in the past and will arise in the future. These universal cures simply represent the old quest for the elixir of life in a new form, and arise to satisfy the fundamental craving of the mass of humanity for a miraculous cure for disease. Science has nothing to do with these cults, and they are scarcely influenced by its progress; and since the type of mind that produces them and accepts them both remain constant, one finds from century to century that remarkable sameness between succeeding crazes which I have tried to indicate in this paper.