

of twenty-five patients, Dr. Bruen deduced the following conclusions:—

1. In nearly all cases lasting effects have been secured in the reduction of temperature, suspension of night-sweats, lessened cough and expectoration, and in some all physical signs of bronchial catarrh abolished.

2. Temporarily reduction of pulse-rate fifteen to twenty beats, and temperature one-half a degree to one degree during the administration of the gas.

3. The amount of gas introduced into the bowel has varied from three quarts to a gallon at each injection. It has been introduced very slowly, from fifteen minutes to half an hour being demanded by the operation. The administration has been practised in most cases twice in the twenty-four hours. No injurious effects from the gas have as yet been observed.

4. Administration of the gas in different amounts and varying degrees of concentration is now being practised, and also investigations into the characteristics of the sputa.

5. In only one of the cases of phthisis the effects of the gas have been entirely negative.

6. In cases of phthisis complicated by intestinal lesions, experience is still insufficient to make it possible to state positive results.

7. The ultimate value of the treatment can certainly only be established by time. The probable mode of action would seem to be antiseptic, and, by reducing suppuration and the relief of the attending serious symptoms, the patient is permitted to gain by food, exercise, and general treatment. Thus far, the value of the gas seems to be that of a useful therapeutic measure, rather than a curative plan of treatment.

8. The method of preparing the gas for use in the hospital is as follows: the carbonic-acid gas is passed through a solution of chloride of sodium and sulphide of sodium in twenty-two ounces of water. The proportion of the salts has been increased in some cases, and some trials of other combinations are being made.

Of the twenty-five cases treated in the early part of the year, Dr. Bruen has been able to follow fourteen of them continuously. Two have since died. In twelve the physical signs remain unchanged, the temperature still above normal, the flesh and strength not increased after the first gain of an average of five pounds. Yet the patients undeniably feel better. The process of suppuration, with its attendant evils, has been modified, suppressed, or controlled, and it must be admitted that the patients have been benefited by the treatment. More recently Dr. Bruen has applied this method in the treatment of twenty-four cases in private practice, and to thirteen additional hospital cases; so that, in all, he presents sixty-two cases in which the treatment has been applied in a systematic manner.

In commenting on the cases which have come under his care, in a paper read before the Association of American Physicians, Dr. Bruen says that two suggestions may be given for the failure of the treatment to give better results. The first applies only to hospital cases. It is impossible, in a large general hospital, to secure the detailed attention to diet necessary to suit the capricious appetite of the consumptive. In treating consumption it is absolutely necessary to increase the vitality of the tissues so that they will be unfavorable culture-media for the bacilli. The second suggestion is, that in cases with inherited tendencies to phthisis, or in those who acquire a phthisical tendency, there is great vulnerability of the mucous membrane, which even fosters an outbreak of catarrhal processes in the bronchial structures. In this way the good effects of the treatment are constantly opposed. He thinks that suitable climatic environment is an all-important adjunct to the proper settlement of the value of Bergeon's treatment. But it is certainly an important addition to the therapeutic equipment to have an agent capable of influencing very markedly bronchial catarrh in so many cases, especially the stay-at-homes. In a word, Bergeon's treatment is chiefly valuable in those cases of pulmonary disease attended with bronchial catarrh; but it is to be feared that the trouble and detail necessary to its successful use will prevent many from employing the method, and the limitation of its power will cause it often to be set aside for other plans of treatment.

It is more desirable, in the treatment of consumption, to adopt those measures which tend to establish the general health, than to

hunt up specific forms of treatment. Suitable climatic conditions, judicious alimentation, and appropriate personal hygiene, are the first principles in the therapeutic management of phthisis, and Bergeon's method should be considered an adjunct to these.

HYDROPHOBIA INOCULATION IN NEW YORK.—Dr. Sommer, an Hungarian physician, obtained the consent of the mayor and president of the Board of Health of New York to conduct experiments with the virus of hydrophobia upon the dogs collected by the dog-gatherers and taken to the pound. The Society for the Prevention of Cruelty to Animals have, however, interfered, and require the doctor to obtain the authority of some medical college or university in the State before they will permit him to conduct his investigations. We should think that an application, properly made, to any of the medical institutions of the city, would be followed by the granting of the requisite authority.

USE OF OPIUM.—Dr. Boynton is authority for the statement that Woodstock, Vt., consumes a large quantity of opium. There are four druggists in the town, and they report that their sales of opium in a single year are sufficient to make one hundred gallons of laudanum, equivalent to one hundred and sixty-seven ounces of morphine. Of this, only five per cent is sold to physicians. It can hardly be possible that there is any greater demand for opium in Woodstock than in other towns of the same size, and yet we can hardly believe that this represents the true condition of things in our New England towns. If so, the thought is a startling one, and should receive more than passing notice.

SEASICKNESS.—We have already mentioned a number of remedies for seasickness. Dr. Sutherland suggests another, which he employed successfully in crossing the English Channel, he escaping when almost every one was sick. He takes a tight hold of one of the pillars supporting the deck, and, as the boat rises in going over a wave, he runs uphill, as it were, reversing the direction of his run when the boat descends the wave.

CETTI'S FAST.—It will be remembered that Cetti, a Norwegian, fasted for twelve days in Berlin under the observation of Professor Virchow. In June he began another fast, of thirty days, for scientific purposes. During the fast he was detected eating gelatine jujubes, about a half-pound of which were found on his person.

SCARLET-FEVER.—Dr. Edington of Edinburgh claims to have discovered a bacillus in the blood, and desquamation, of patients suffering with scarlet-fever. The Medico-Chirurgical Society of Edinburgh has appointed a committee to investigate the bacillus and its relations to scarlet-fever.

BOOK—REVIEWS.

Romantic Love and Personal Beauty: their Development, Casual Relations, Historic and National Peculiarities. By HENRY T. FINCK. New York, Macmillan & Co. 8°

IN the current issue of an American weekly this volume is reviewed under the heading of 'A Curious Book.' This epithet it most decidedly merits. Though the first impression of the work is that of its uncommon character, this feeling gradually gives way to an ever-increasing recognition of the intrinsic importance of the argument it sets forth, until in closing its pages one feels that something has been added to his stock of knowledge, a new light has been more or less brightly cast upon many problems, and that these acquisitions will always be associated with Mr. Finck's book.

The fundamental note of the book is the evolution of love, the most conservative element of human nature, that which poets and essayists delight in pronouncing as always and always to be the same, is shown on proper analysis to be subject to that same developmental process which Darwin has associated with his name. Not only have the affections a natural history in the animal world closely affiliated with appearances in early man, but that form of love that to-day is *the* love par excellence—romantic love—is itself only a very modern development, not a thousand years old.

The passion that gives the ground-tone to modern social life, that plays the chief rôle in imaginative literature, that attracts the attention of all travellers and observers, that has revolutionized and is modifying many of the problems which to the sociologist are of

maximum importance, the passion that so permeates our mental tissue that we read ancient history and literature through the spectacles it puts before our eyes,—this passion was unknown, or, where known, neglected, until modern times. This announcement is most startling. If it can be satisfactorily established, it will take its place not only as a most important historical fact, but as a richly suggestive generalization, reflecting light on certain obscure problems of anthropology, giving the marriage and courtship customs of all peoples, primitive, ancient, and modern, a newer, fuller biological meaning, as well as pointing the way to the solution of many social questions of the day which irrelevant and unscientific discussion has done much to confound.

Mr. Finck is a biologist, and includes in his treatment the arrangements for mutual attractiveness of the sexes found in plants and animals. This prevents a too narrow anthropocentric view of the affections, and escapes the danger into which literary men have fallen of regarding as typical what is almost accidental. But first the characteristics, the 'overtones of romantic love,' must be set forth. Mr. Finck enumerates eleven. (1) Individual preference. The savage chief does not hesitate to exchange one bride for another equally attractive; the lover cares for one alone. (2) Monopoly. Not only does he prefer her alone; he expects all her attentions. (3) Any neglect leads to the third 'overtone,' jealousy, which by inspiring watchfulness and fear keeps the flame aglow. (4) Coyness, a feminine trait, which by retarding increases the lover's passion. (5) Gallantry, a masculine trait, acknowledging the conquest. (6) Self-sacrifice, which may be an exaggerated gallantry or a suicidal impulse of unrequited love. (7) Sympathy. No pleasure is complete unless enjoyed by both. (8) Pride of conquest or possession. (9) Emotional hyperbolæ. The lover sees, thinks, and feels in superlatives. (10) Mixed moods. Finally, (11) Admiration of personal beauty,—that all-important æsthetic overtone that now more than ever leads the way to love.

Many of these qualities are shown by animals. Individual preferences, gallantry, jealousy, sympathy, are illustrated in many authentic anecdotes. Birds especially—and along with this goes their monogamous habit—show a much more refined and noble courtship than the lowest savages. In savage life, where courtship consists in knocking the girl on the head and carrying her away, love can hardly find a place. Even in the higher forms of courtship by purchase or service, nothing but a very rudimentary form of real love can enter. Individual preference there was none; polygamy flourished. The woman was the slave, and none of the romantic virtues were possible. In historic nations the advance is at first small. Egypt had trial marriages of one year's duration. Amongst the Hebrews polygamy, the exclusion of woman from all but the minor social duties, and the selection of the wife by the father of the suitor, prevented true romantic love, in spite of the elevation of the woman to be the companion of man, which that nation introduced. The Greeks show no true love-stories. They say much of conjugal love; filial and sisterly love is a frequent theme. Friendship and platonic love is the type of the highest Greek affection. The women were excluded from the living interests of the nation; male beauty was the admired type. Rome made an advance, but not a great one. Engagements were made by parents at a very early age. Social customs forcing the girl to marry one of the same profession as her father, and the like, prevented a choice. In later days marriage was a farce, and divorce the rule. The poets, in advance of their age, uttered a few strains of romantic love; Ovid especially pleaded for gallantry and the tender emotions. But all such beginnings were crushed by mediæval asceticism. Marriage became almost a degradation, celibacy a virtue; beauty and the personal hygiene that led to it were considered sensuous. Love was to be subdued and self-mutilation rewarded. Only with the dawn of the renaissance did love again begin. Dante was the first love-poet; Romeo was the first hero-lover of a play. The chivalry that preceded these was either merely fictitious and fashionable, or more usually an adoration of a married lady. It was not a courtship. The poets sound but a weak strain of romantic love. Even Spenser puts friendship above love. If the reader will imagine this outline filled in with a host of corroboratory passages, cited from recognized authorities, he must admit that Mr. Finck has made out a very strong case indeed. Moreover, his scheme of the evolution of love

answers a critical biological test. The law that the individual epitomizes the race holds here. Historically, maternal love is the oldest and strongest (until romantic love appears). "Then paternal, filial, and fraternal love are gradually developed, followed by friendship (Greek) and finally by love proper." The baby, first and most loves its mother; then the father receives attention, followed by sisters and brothers. At school the Greek devotion and friendship develops. Finally comes true love, which, usually passing like the blind chivalry of old through a 'calf-love' stage, emerges into romantic passion.

Into the author's long and careful analysis of modern love it will be impossible to enter here. His guiding principle is that love, 'natural selection,' is the bulwark of civilization. In comparing the customs of various nations, those are regarded as highest that give freest opportunity for social intercourse of the young, that widen the play of selection, and thus lead to the amelioration of the race. It is the excluding of French girls from a rational education, the marrying them out of convents, that causes their homeliness and the degeneracy of that race. The German system of chaperonage and formal social equality in marriages is tending, though less seriously, to the same end. In England and especially in America have the agencies that lead to a betterment of the race full and free play. This is precisely the view taken by Mr. Grant Allen. He regards falling in love as the expression of the healthy instinct of mankind; and looks for the improvement of the race, not in any artificial system of scientific or any other kind of mating, but in removing the trammels from the free choice of partners,—in discountenancing all but love marriages. All this has an important practical bearing which Mr. Finck well expresses. He holds that "love may be safely accepted as a guiding-star in making a proper division of the world's labor between men and women." This point of view pleads for the true higher education of woman, for giving her that intelligence without which beauty is dead, that live interest in the world's activities without which frivolity is inevitable. The contrast between the homely, studious, earnest, retired maiden and the pretty, lively, society-loving, frivolous, but silly and ignorant girl is one that the perverseness of man has created. A natural education will go far towards removing it. Again, the tendency of civilization is to make men and women more and more different (we are not speaking of legal and social privileges); the recent attempt to make women masculine is biologically absurd. "Whatever approximation there may have been has been entirely on the part of the men, who have become less coarse or 'manly,'" while woman has correspondingly increased her own refinement. The spirit of the women's rights movement is in opposition to the impulse of romantic love, and will perish accordingly. Finally, this point of view refutes the notion that intense love is inconsistent with intellectual culture. On the contrary, only the highest culture can appreciate romantic love; intelligence is an obstacle to marriage only in a silly society; the education of the head and the heart go hand in hand. True culture teaches, not that this instinct is opposed to the highest life, but that all the refinements of civilization have been gained by the virtues which it has taught men to appreciate. The evolution of romantic love will continue until it has stamped out all other artificial modes of promoting marriage.

The rest of the book is taken up with a minute discussion of personal beauty. Much interesting and readable matter is there set forth: the scientist will be glad to read that the close relation between true beauty and health is so strongly and ably set forth. Just as morality and hygiene have drawn closer together under a scientific treatment, so hygiene and æsthetics begin to overlap when looked at in the light of science.

Mr. Finck's book is sure to attract great attention. According to a literary periodical, a German translation is in preparation. The genial vein of humor that runs through much of it will attract the popular reader, and the personal interest of the many titles in the preface is sure to allure those interested in themselves. But, from a scientific point of view, this is a fault of the book. A serious paragraph suggestive of deep reflection is followed by a witty satire on society or a light fling at a local abuse. Mr. Finck wants his book to be taken seriously. A glance at the wide bearing of the topic will at once convince the reader that the serious aspect of the problem is supremely important. Consider in the first place

that romantic love is consistent only with a monogamous society and that this kind of society is the bulwark of civilization; consider, too, that the ways of finding one's mate not only gives tone to the social institutions of a nation, but, according as they are in accord with or opposed to the inexorable laws of heredity and selection, make for the amelioration or degeneration of the community; consider, next, that the education of the next generation is profoundly influenced by our views of courtship and marriage; consider how this fact will influence our conceptions of ancient life; consider that the division of labor between men and women, and the admittance of women into occupations until now monopolized by men, can only be satisfactory settled by a settlement that does not interfere with the reign of romantic love; consider, in short, that all that is deep and valuable in cultured life is here at stake, — and all must admit that a knowledge of the laws of evolution as they affect sexual selection amongst us is of the profoundest importance. Such inquiries into the nature of human faculty as Mr. Galton is pursuing are directed towards supplying this information. This knowledge is not for the many; but in the hands of the few it is to be converted into public sentiment against certain customs and ways of thinking and in favor of others, by which, eventually, misery will be checked and happiness increased. If Mr. Finck will accept a suggestion, the present writer would urge upon him the preparation of a review article embodying the main points in the evolution of love, and expounding in a strictly scientific style, and without any feuilletonistic *bon mots*, the anthropological, sociological, and psychological significance of this new¹ contribution to human development.

The Hidden Way across the Threshold. By J. C. STREET. Boston, Lee & Shepard. 8°

The Mark of the Beast revealed by the Shape of the Head. By LUCILLA R. HEDLEY, M.D. Philadelphia. 8°

THE reviewer of books like these is in no enviable position; especially as the reviews are written for those interested in science, and the books any thing rather than scientific. The first is another of those ponderous volumes — a combination of strange mysticism, excited exhortation, wild symbolism, unscientific cant, and childish credulousness — that one finds heaped up on the shelves of a second-hand book-store. The author writes powerfully, makes his points ably, appeals to his reader skilfully, and here and there makes a noble plea for the despal of the sordid and the living of a high intellectual life. But those portions of the book in which one feels the rationality and the earnestness of the writer give the impression of being aloof from the real purpose of the work, — accidental at least, if not inconsistent.

The weirdness of this intellectual conglomerate, it is hard to describe: the cause of such writing seems to be an hypertrophy of that sentiment, common to all specialists, that the public at large does not stand in sufficiently close contact with them; that they live a life exclusive, — the life of an adept, an occultist. Mr. Street, A.B.N., fellow of the order S.S.S., and of the brotherhood Z.Z. R.R.Z.Z., is such an adept: "the mystery which hath been hidden for ages and from generations" is revealed to him. He is in the clouds, but the ladder, alas! is still to be found. The present writer, at least, fails to get the slightest inkling of the process, save that it seems much like dropping common sense and giving one's self over to wild fancy and morbid illusion.

The following extracts will perhaps be sufficient to enable the reader to decide with which one of the categories into which he is accustomed to divide books, this one belongs. Amongst the original contributions to science here announced, we read that "the Sun and Planets in space, as well as terrestrial objects, have their magnetic, odyllic, and astral emanations, and these exert influence upon each other and upon every organized being, in proportion to their size, their distance, and the velocity of their revolutions." "This Astral influence is conveyed to man, and acts upon him through the Astral light. This, the palmist tells us, is composed of the seven fluids which emanate from the seven primary planets respectively.

¹ Mr. Finck thinks that the reason why no one has called attention to this recent origin of romantic love is that no sufficient distinction has been drawn between romantic and conjugal love.

These fluids, separately and in their combinations, are tempered and modified by the sun and moon." And so on. Here is a wonderful discovery: the sensations arising from the cut nerve-strings of amputated limbs we thought explained by the physiological law of the external projection of sensation. But, no! "All this is due solely to the action of the Star-magno, or Astral, vibrating between the amputated limb and the patient. So frequent and almost universal are such occurrences [i.e., cases in which the patient feels amiss because something is wrong with his lost member: a number of such are cited] that all surgeons use the utmost caution in disposing of amputated limbs." "The Astral body, enclosing the Soul like an atmosphere, can be and has frequently been seen by attendants and physicians, leaving the animal body just at the moment of separation between Soul and body, known as death or dissolution." Under proper light, there is seen accompanying the death-rattle "a column of thin ethereal violet blue vapor vibrating and oscillating, ebbing, finally passing upward and fading away." As a piece of logic, the following cannot be excelled: "The golden sunlight produces vibration to the amount of 500,000,000 of millions in a second" proportioned amongst the several colors in such and such a way. "Of course, therefore, different colors must necessarily affect the human soul," etc. "Love comes from pink and bright red, Hope and Faith from violet, Truth of blue, Melancholy of yellow, Epilepsy of pearl white," etc.

Let us hear what the author holds regarding the material basis of modern Spiritualism, that now stands in so bad a light. He gives full details for forming spirit circles, which practically amount to employing all conditions that make rational observation impossible, and neurotic self-deception inevitable, and assures all that the failure of manifestations is always due to the bad influence of sceptics and the like. "Students of occult mysteries," he warns them without seeing the double interpretation of his words, "never permit scientific investigators or psychic-research committees to control or even be present in the room during your efforts at development of mediumship. Remember thought is a potential atmosphere. Their worldly-wise theories create opposing vibrations and congeal the Spirit. Even in large rooms and at a distance their presence is highly objectionable." If to this we add the definition of 'a medium,' the reader will be able to imagine the rest of the chapter. Here it is: "To become a medium is to learn to vibrate the Astral body as a pendulum between Spirit and mortal, and thus to reach the third state of being, the state between sleeping and waking, — Trance — a condition co-equal with both, is to have found the Key that unlocks the mysterious place where actual Soul semblances have their immortal birth."

That this omnivorous 'psychist' unfolds the theory of soul-migrations; shows the rationality of faith-cure (e.g., to cure consumption you must insist that it is not inherited, that "tubercles, hemorrhage, inflammation, and ulcers are only ugly names and beliefs, not spirit and truth of man"); expounds the mysteries of theosophy; and indorses the cabalistic literature of all ages and nations, — is easily believed. For this he has six hundred pages at his disposal.

Considering the volume as the sincere and earnest expression of an enthusiast for the spiritual side of life, — and this is the most charitable point of view, — it is still a pernicious work. It embeds the kernel of truth it contains with a husk of rubbish; it chokes up 'the threshold' with a refuse-heap. By so doing it fosters an immoral trade, — a scandalous appeal to the sentimentalities of simple-minded folk. It debases the value of true spirituality, draws men's activity away from the proper duties of life, cultivates a life of useless solitude, and, moreover, is unscientific and unprogressive. With a healthy public taste, such a book can have no success.

The second book is indeed an absurd piece of pseudo-scientific writing, and can be dismissed with a word. The idea of the book is, that the 'mark of the beast,' as mentioned in the Book of Daniel, refers only to the leopard, bear, lion, and dragon. There are given pictures of the heads of noted criminals, showing their resemblance to one or other of these animals. They had 'the mark of the beast,' and, had we only known it, their crimes could have been prevented. Besides this, there is much phrenology, some little Spiritualism, several untrue statements, and a host of Scripture quotations not always relevant.