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## CURABILITY OF INTEMPERANCE.

(ADDRESSED TO THE NEW YORK TRIBUNE.)

MR. GREELEY :—Your kind reception of my hints upon Consumption, Architecture and Ventilation, induces me to furnish additional essays upon subjects of practical value.

For the present, I would discuss an evil which *devastates the world at all times and seasons*, and which it requires all the world's wisdom and philanthropy to meet, with all the legal power and scientific information which can be brought to bear. Intemperance, the almost universal scourge of humanity, sweeping annually, to a dishonored grave, thirty thousand of our population, and probably a million of the earth's inhabitants, has never yet been rightly understood and thoroughly treated by the devoted philanthropists who are engaged in arresting its march; and their labors, in consequence, have been productive of but imperfect results, in comparison with what might have been accomplished, had there been a correct understanding of the nature of this disorder, and the philosophy of its cure.

With all due deference for the previous investigations of physiologists, I must express my regret that they have failed to discover and enforce the only great and valuable practical truth which, upon this subject, physiology can contribute to philanthropy—to wit: the proposition that intemperance is strictly a curable disease, and that, by proper medicinal and moral remedies, it may be entirely removed from the earth, if the necessary remedies are applied on a scale sufficiently extensive. I propose, then, to illustrate :

1. The philosophy of intemperance—which explains its production and its cure.
2. The medical cure and prophylaxis.
3. The moral cure and prevention.

## 1. PHILOSOPHY OF INTEMPERANCE.

The extravagant consumption of alcoholic drinks, which is the leading form of intemperance in our own country, is based upon an appetite, which manifests itself in many other modes, none of which, however, have been so destructive as that of alcohol. Spices, condiments, and aromatics; coffee, tea, tobacco, opium, ether, chloroform, and other narcotics, are the common gratifications of the intemperate appetite. In all of these indulgences, it exhibits the same essential character, and love of pleasant stimulation. The universal presence of this appetite for stimulus, in all countries, and in all ages of the human race, especially in those where man, as a savage, is supposed to be more nearly in a state of nature, proves that the love of stimulus is an inherent appetite, or organic tendency of the human constitution, and not the mere production of artificial custom, imitation, and disease. If, then, there be an inherent natural appetite for stimulation, that appetite must have its organic locality, and its laws of development and decline, which will enable us to regulate its manifestations. That the love of stimulation depends, like the love of food, upon a particular portion of the brain, was one of my earliest discoveries in cerebral physiology. The organ upon which the appetite for stimulus depends, is located immediately in front of the cavity of the ear, at the posterior margin of the lower jaw, about half an inch below and behind its socket. Immediately anterior to the Love of Stimulus is located the organ of Alimentiveness, or the appetite for food.

The excitement of the organ of Love of Stimulus, in an impressible subject, creates the true drunkard's thirst. In its first degree of excitement there is merely a desire for the lighter kinds of stimulation—for such drinks as cider, wine and beer; but when the organ is more intensely excited, nothing but the strongest distilled liquors will satisfy its desires. The most delicate females, to whom a spoonful of ardent spirits would be a disagreeable and loathsome dose, have been prompted, when the Love of Stimulus has been excited, to drink pure brandy and whiskey with pleasure, with as much comfort and as little exhilaration as would be experienced by an old toper.

As Alimentiveness produces a depressed condition, which we call hunger, and which is relieved by food, so the Love of Stimulus produces a different form of depression and appetite, which is relieved by stimulants. If the organ of Love of Stimulus be largely developed, as we generally find it in the descendants of the intemperate, there is a strong constitutional tendency to intemperance, which may be counteracted, it is true, by heroic self-denial, and a continual struggle, but which few have the fortitude to resist. The victim of this hereditary organization finds himself in a depressed, melancholy, and craving condition, until

his natural appetite is gratified—when he finds himself restored to serenity and comfort, and, perceiving no evil effects from its indulgence, he is tempted to repeat it, with a strong conviction that he is doing a healthful act, and procuring an innocent pleasure. It is useless to tell such an individual that all alcoholic drinks are essentially poisonous, and that every drop which he takes is an injury to his constitution. He knows, experimentally, that such is not the fact. He knows that within reasonable limits he enjoys the highest health and comfort, while indulging in his usual potations, and that abstinence is immediately followed by depression and debility, which predispose to disease. Hence, when he is summoned by the ultra advocate of temperance, in accordance with an erroneous physiological doctrine, to abandon his usual gratification, his reason revolts at the demand, and instead of sympathising with the cause of temperance, which has so many earnest claims upon his benevolence, he is driven, by the extravagance of its advocates, into a feeling of coolness, if not absolute hostility to this great and benevolent reform.

We should say to this large class of our countrymen who are addicted to vinous and alcoholic potations, not that they are consuming essential poison, and perpetrating moral or physiological sins in every consumption of their usual beverage, but rather that they are gratifying and cultivating an appetite which, however apparently innocent in its present form, is still an evil, and is ever liable to increase until it becomes destructive to body and soul. If, in its excess, the alcoholic appetite tends to the destruction of all that is noble and manly, even its milder indulgences must be, to some extent, an evil, although less palpable in their effects. Hence, we are justified in warning even the temperate consumer of wines, who never rises to alcoholic exhilaration, against the error of his course. But in what does error consist? Mark the distinction! It is not the vinous indulgence which we should denounce as a physiological sin, but the organic depravity or debility, which demands it, and which is perpetuated by indulgence. When a miserable patient, exhausted by hemorrhage and profuse discharges, requires to be sustained from hour to hour by brandy, ammonia, and other potent stimulants, what is the physiological disorder which we are to mourn? Is it the use of brandy and ammonia, which prevent him from sinking still farther—or is it the prostration and exhaustion which rendered these stimulants necessary? It is evident that in his present condition he cannot live long; but in what manner is he to be relieved? Is it by removing at once the stimulants upon which he depends, or by restoring the healthy action of his constitution, so as to render them unnecessary? Is the debility or the stimulation the evil? The question answers itself. In like manner should we regard all who are addicted to alcoholic stimulation, as victims of an organic evil or infirmity, which requires to be rectified. So long as the

debility exists, and the craving for stimulus is perpetuated, no legislation to annihilate the alcoholic trade, and no amount of virtuous self-denial, that we can reasonably expect, will accomplish what the case requires. It may be, that, if alcoholic drinks were banished from society, the constitution of man, gifted as it is with immense powers of adaptation, would become, in the course of a few generations, a temperate constitution, and that the organ of the Love of Stimulus, absolutely starved into atrophy, would gradually cease to be an influential element of the human constitution. But in this tedious process a great deal of moral evil and unhappiness would be produced, and there is a strong probability that other stimulants would be introduced, destructive to health and longevity, and capable of producing a gradual deterioration in the constitutions of mankind.

I hold, therefore, that all the external means for the cure of intemperance which have heretofore been adopted—the moral suasion, the legal coercion, and the immense power of public sentiment and juvenile education—are but superficial and imperfect modes of treating a constitutional disorder;—methods which aim too much at effects, and too little at causes.

Those causes lie in the universal constitution of man—in his natural or inherent tendency to nervous depression, with a consequent desire for a stimulus which shall lift him out of that sphere of misery toward which he naturally gravitates. It is not merely by snatching from the poor victim the Devil's nostrum, alcohol, which alleviates his symptoms, but prolongs and aggravates his constitutional disorder, that the cure is to be wrought. The disorder must be cured by revolutionizing the constitution of the patient, and annihilating that craving infirmity which constitutes the essence of the disease. Two all-potent cures have been offered us by the Creator, plainly and palpably indicated in the constitution of man and of nature, and it is marvelous, indeed, that a world so full of learning, so full of benevolence—paying millions to two professions for the cure of body and of soul—has not yet understood and applied the two great remedies—the physiological and the moral cure of intemperance.

In my next, I shall develop the curability of intemperance by medicinal and hygienic means—hoping to satisfy the reader that intemperance may be medically treated, by safe, simple, and wholesome measures, with at least as great certainty of success as we generally experience in the treatment of any disorder of equal permanency, magnitude, and danger.

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## II. PHYSIOLOGICAL AND MEDICAL CURE OF INTEMPERANCE.

Having shown in my last that intemperance is not merely an affair of external circumstances, but a constitutional peculiarity or temperament, dependent upon an organic development at the

base of the brain, in the region of the appetites, which produces a nervous exhaustion and depression, with a desire for stimulation, the practical question before us is this :

In what manner can we efficiently and permanently remove the constitutional infirmity which demands stimulation ?

The *modus operandi* of the cure will be best understood by examining farther the physiological nature of the difficulty.

Why is it that man grasps at external objects, and continually seeks a supply of nourishing and stimulating food? Why cannot his living organs continue to act, and maintain their integrity of substance, like a tree in mid-winter, independent of food? Or, like the frogs which we sometimes find encased in the solid stone ?

The necessity for food arises from the fact that his constitution is a disintegrating, or self-wasting apparatus. From six to ten ounces of carbon, with a proportionate quantity of nitrogen, and and a large but indefinite quantity (several pounds) of oxygen and hydrogen, are daily thrown off and separated from the substance of his body, and discharged into the atmosphere by various routes. Not only are the solid tissues thus consumed, but the blood, upon which every process of life depends, is still more rapidly wasted ; and, unless this waste be supplied by digested materials, the blood and solid tissues are reduced in eight or ten days, to an extent incompatible with life ; and death by starvation is the consequence. The rapidity with which the vital power becomes completely exhausted depends partly upon the rich abundance of the blood and tissues, and partly upon the vital tonicity and firmness of structure, which resist the tendency to decomposition and waste. In constitutions remarkable for firmness of fibre, and a great quantity of rich blood, with certain anti-septic qualities of temperament, abstinence may be borne for several weeks. Indeed, so many marvellous stories, of apparent authenticity, have been told, in reference to abstinence from food, that it would be impossible to set any definite limits to the endurance of abstinence.

The important hygienic point to be understood is this : that, other things being equal, the constitution is more independent of external support, in proportion to its firmness of fibre, and the predominance of the tonic over the relaxing elements of the constitution. In other words, where the muscles are well developed, and firm, while the viscera which form the various secretions, and thus waste our substance, are of but moderate development, the power of resistance rises to its maximum ; and the constitution has the least necessity for incessant supplies of nourishment and stimulation. On the contrary, when the vital tonicity is moderate, the tissues relaxed, the viscera active, and decomposition rapid, life becomes speedily exhausted, and an incessant supply of nourishment and stimulation becomes necessary.

In these remarks upon tonic and atonic constitutions, I have spoken of nourishment and stimulation without distinction, as they are demands of a similar nature, associated together, and belonging to adjacent portions of the brain. Hence, in the management of these demands, similar principles are to be observed. By increasing the tone and firmness of the constitution, it becomes more buoyant or self-sustaining, less inclined to dissolution, and more independent of external support.

The tonicity which is needed in these cases is not merely that which sustains the muscular strength, but that also which sustains the pleasurable activity of the brain, giving one full possession of his intellectual and moral faculties. Whenever these decline—whenever hope, energy, enthusiasm, and the more pleasant sentiments decline in activity, leaving us a prey to despondent melancholy—we feel the need of stimulation, and eagerly resort to coffee, tobacco, or wine.

The question, then, arises, whether it is possible, by any medicinal agencies, to check the more exhausting processes of life, and to maintain that buoyant energy of the brain and muscular system which may render the mind cheerful, happy, brilliant, energetic, and altogether above the necessity for material stimulants—being a condition, in fact, to which stimulants are unpleasant.

I have long been convinced that a tonic regimen might be devised which would gradually lift the constitution above the necessity or the desire for any species of stimulation; and that those articles of the *Materia Medica*, belonging to the class of Tonics, would furnish valuable remedies in reclaiming the drunkard, and fortifying his constitution against a relapse into intemperate habits. Other more immediate and engrossing subjects of attention and thought have prevented me from following up this suggestion as its importance demanded, and subjecting it to the test of an experiment. Meantime, however, the principle has been tested by others, and my highest anticipations have been fully verified.

Of all our vegetable tonics, I know of none more valuable than our favorite article, the *Hydrastis Canadensis*, or Golden Seal. The officinal tincture of *Hydrastis*, in doses of from five to twenty drops, is one of the most valuable and sanative tonics known, and has an extensive range of application in our *Materia Medica*. This article, which, upon general principles, I had recommended as one of the best agents in the treatment of intemperance, I have since learned from my colleague, Prof. N., had been successfully used by him, in the treatment of a patient of intemperate habits.

I have also been informed by a graduate of our last medical class that he had accidentally verified the principle in himself, in taking tincture of *Quassia*, which he found to be incompatible with the use of alcoholic drinks.

The thorough and decisive demonstration, however, of the

efficacy of the tonic system has been made by a physician of Texas. A Dr. Urban, while practicing in that State some years since, finding his supply of Quinine exhausted, was compelled to resort to other tonics; and having a good supply of Quassia, made it a substitute, and prepared a medicine which answered his purpose. In using this preparation, he discovered accidentally that it possessed a marked antagonism to intemperate habits; and not only tended to destroy the desire for alcoholic drinks, but rendered the stomach repugnant to them, to such an extent as to cause a frequent ejection by vomiting. Being himself accustomed to a very liberal use of spirituous liquors, the discovery was first made upon his own person. Having satisfied himself of the fact, he tried another experiment upon his friend and associate, Mr. Harney, with the same results. Ardent spirits could not be retained on the stomach, which had been previously fortified by his tonic remedy. Satisfied by this experience, he tested the new remedy thoroughly among his friends and patients, until he obtained sufficient evidence of its value and power in curing confirmed habits of intemperance. Having thus established the reputation of his remedy in Texas, he has since located in Louisville, and is endeavoring to propagate its use, under the title of Urban's Anti-Bacchanalian remedy.

When I first saw his startling announcement, I took the first opportunity to call and obtain some information upon the subject—and received from Dr. U. the personal narrative of his experience, with sufficient testimony to convince me of the value of his remedy. Satisfied that it must be essentially a preparation of some efficient tonic, I mentioned my conviction—and he informed me that the principal ingredient in his nostrum was Quassia, from which, with the assistance of Sulphuric Acid, he had extracted the active principle.

Whether Quassia is entitled to any special pre-eminence over our other tonics, I think there can be no doubt that it is a most excellent and efficient remedy. I am confident, however, that in various forms and conditions of intemperance several other tonics might be advantageously brought to bear, their use and combination being varied according to circumstances. Among these, I would mention the *Hydrastis Canadensis*, or Golden Seal—*Leonurus Cardiaca*, or Motherwort—*Euonymus Atropurpureus*, or Wahoo—and the *Lycopus Virginicus*, or Bugleweed. The *Leonurus* is especially valuable in cases of delirium tremens, and general disorder of the nervous system.—(*See Eclectic Dispensatory.*)

To the medical profession, and especially to medical friends of temperance, I would most urgently recommend the use of Quassia, in the treatment of cases of intemperance, and an occasional trial of the tonics which I have recommended, or such others as they may find useful, (*Liriodendron*, *Iron*, *Inula*, *Chamomile*, *Columbo*, *Gentian*, *Orange Peel*, &c. ;) and as the establishment of

the successful cure of intemperance, by measures so sure and safe, is a matter of such immeasurable importance, I hope that no one who has any success will keep it to himself. I would, therefore, most earnestly request physicians who take hold of this matter to send me a report of the results of their trials, in order that a sufficient mass of information may be collected upon the subject to establish, beyond all doubt, the curability of intemperance, and not only enable physicians to combat this disorder, but to arouse the attention of our National and State Temperance Societies, and enable them, by the distribution and application of a medical remedy, to arrest this terrible disorder. When I have witnessed the immense moral power exerted by an eloquent temperance agent, in arousing the enthusiasm of the community, and procuring the adoption of the temperance pledge, how deeply have I regretted that he was not able, at the same time, to carry with him an antidote to the drunkard's thirst—which would enable him to arrest the progress of the sot, and to relieve the intemperate from every difficulty in fulfilling the temperance pledge.

To those who do not belong to the medical profession, I would recommend the use of the tincture of Quassia, in doses of a teaspoonful, or of the extract in doses of three grains, from two to five times a day, until the desired impression has been produced; and, for further information, would refer them to any intelligent physician, or to the United States Dispensatory; or if it be necessary to obtain a remedy completely prepared for use, with the necessary directions, I would refer them to the Anti-Bacchanalian remedy of Dr. Urban, of Louisville, which, I presume, will soon be for sale in the principal cities of the Union, if it is not at present. I presume that the nostrum of Dr. U. contains but little of importance, except the Quassia. Though it is contrary to the fashionable ethics of medicine to recommend any nostrum, even if its principal ingredients are known, it would be altogether too punctilious to be influenced by such scruples, when the salvation of a single drunkard is concerned.

The discovery of a satisfactory medical remedy for the eradication of intemperance will rank in importance with the discovery of vaccination; and although there may be various formulæ adopted for this purpose, which may be susceptible of continual improvement, the principles which I have thus briefly laid down will be sufficient to guide a philosophic physician to the discovery and use of the true remedies.

In my next, I shall present the moral cure and prophylaxis of intemperance.

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## III. MORAL CURE OF INTEMPERANCE.

Having shown in the last number that intemperance, as a physical disorder, consists of a peculiar craving appetite, connected with debility or depression, which may be removed by an efficient tonic regimen, let us now proceed to take a more comprehensive view of intemperance, as a disorder of the entire constitution of man, involving his moral nature, as well as his physical organism. Intemperance should be eradicated from the mental as well as the physical constitution; and a perfect cure requires the use of moral as well as physical medicine. Let us, then, analyse more thoroughly the nature of intemperance.

Why is it that men resort to alcoholic drinks, or to coffee, opium, and tobacco? Is it not for the exhilaration or elevation of feeling which they produce? Why is such exhilaration or elevation demanded? Simply because it is not spontaneous—because the constitution of those individuals naturally sinks below the elevation which is necessary to happiness; and, to rouse the sluggish energy of their oppressed functions, they resort to a transient physiological stimulation, which produces no permanently good effects, instead of resorting to the more natural and wiser processes, which would restore their debilitated faculties.

The brain which is dull from fatigue, from unintellectual habits, from sensual excesses, or from excessive manual labor, is but poorly qualified to contribute to the joy or pleasures of a social evening; and the deficiency which is felt is so promptly relieved by the exhilarating influence of strong coffee or tea that the temptation to their use becomes irresistible. The selfish cares of business, the anxieties and irritations of life, the fatigue and depression of labor, and the moroseness which settles upon us when, for days in succession, we have known scarcely an hour of happy emotions—these, and similar influences combined, depress the moral nature to an extent which becomes gloomy, if not painful. Agreeable society may not be within reach—books may possess but little interest to those who have not been familiar with their use—and there seems to be no refuge but in some narcotic stimulus, which may deaden the sense of mental or physical pain, and stimulate the torpid organs of the brain to vigorous action and joyous emotion. Coffee, perhaps, gives a partial relief, but it does not meet the demand. Wine and brandy are then called in to rouse the sluggish faculties, and restore the lost emotions of pleasure. But perhaps the voice of prudence is heard, warning to escape from the intoxicating bowl, and a safer substitute is sought and found in tobacco; and the smoke of the cigar, or the pungent stimulus of the leaf, spreads an anodyne influence over mind and body, whilst it rouses blissful and social feelings, and happily removes the depressing effects of a long chain of vicious influences. That tobacco, opium and wine have

these delightful influences, in stimulating the intellect, rousing the affections and hopes, the genial impulses and practical energies, may not be known to those who are most zealously engaged in opposing their use—for upon this subject an incorrect view of physiology has become widely prevalent.

But, in truth, the real charms of these articles consist in the fact that, for the time being, they rouse our faculties to a temporary energy, and thus lift us up out of the purgatory of mental depression into which we necessarily sink when we violate the higher laws of our being. Hence, the demand for narcotic stimulus is always most prevalent among those who have departed most widely from the nobler attributes of humanity. Woman, in all the bloom and brilliance of her beauty, with roses upon her cheek and celestial softness in her eye, seeming in our presence as a ministering angel, presents the highest type of loveable humanity; and in her constitution there is no demand for artificial stimulation. Rum and tobacco are horribly discordant with her delicate and refined organization—and the incessant flow of her energy, hope, love, and intuition, need no artificial impetus. But in proportion as she degenerates from her beauty and loveliness—in proportion as she becomes coarse, animalized, and vicious—in proportion as she sinks into that purgatorial sphere of existence in which the brutal, criminal and unfortunate are found—she loses her repugnance to alcohol, and clutches at whiskey and tobacco, to obtain, by their anodyne power, a faint temporary consciousness of the bright hopes and lofty emotions which belonged to her earlier years of innocence and bliss. Her genial emotions are aroused not so much by their direct stimulation as by benumbing or paralyzing her painful sensibilities, and producing a torpid tranquility of the lower animal faculties.

As with women, so with men, and with nations. Men of a lofty intellectual and moral nature—the highest type of masculine humanity, are above the necessity for alcoholic stimulation, and recoil from every form of intemperance; or, if they indulge in spirituous drinks at all, are content with the milder beverages, and lighter wines. On the other hand, wherever we find coarse and brutal humanity, accustomed to quarreling, fighting, gaming, bloodshed, profanity, and other forms of vice, we may be confident that a fierce appetite for alcoholic drinks prevails, and that nothing will prevent their use but the impossibility of procuring them. Savage races are invariably drunkards when they have free access to ardent spirits; and whisky has done more than the sword of the white man, in depopulating our continent of its aborigines. Wherever we find a nation characterized by indifference to ardent spirits, we may be sure that they abound in the refining and humanitarian sentiments. Indeed! most persons can realize these truths in themselves, by a little observation. When our moral and intellectual faculties are most elevated, or

when perusing the most brilliant works of genius, or in enjoying the society of those whom we love best, we feel no desire for ardent spirits. But when depressed by a succession of difficulties, and maddened by wrongs and injuries, which energise every fierce animal passion, we are enabled to enjoy the unadulterated brandy, rum, or whiskey, which in our better moments, would be harsh and disgusting.

In short, without dwelling farther on this prolific theme, which is not yet half illustrated, it is obvious that the consumption of alcoholic drinks, and other narcotic stimulants, is an instinctive effort of the depressed and degraded constitution, for the violent restoration of its higher powers; its energies, hopes, loves, intellect, and moral sentiment—an effort producing a transient success, but a permanent injury.

If then, we would relieve intemperance, we must keep man from sinking into the purgatorial regions of human despair, where he is tempted to grasp at these temporary artificial mitigations of his sufferings. In other words, we must keep up the energy of the moral and intellectual nature of man, and give to his higher powers, that permanent and steady vigor, which will keep them sustained through life. The tonic recommended as the medical remedy, will do a great deal to prevent that exhaustion and depression which benumb the higher organs of the brain, and will thus contribute to the moral as well as the physical cure of intemperance. But our higher powers need something more than a mere tonic support. They need to be strengthened by a systematic exertion and gratification.

A considerable amount of this desirable gratification, is already accomplished by the processes of education; especially, where that education is accomplished chiefly by oral instruction, from the lips of able and eloquent men. And it is well known that intellectual education accomplishes much in the way of refining the coarser appetites, and checking the tendencies to vice. But education will never perform even half its duty, in reforming man from vice, until it has become not merely intellectual, but emotional and industrial. The unfortunate scholar, who has merely a dry, lifeless, intellectual education, is turned adrift upon the world, with a feebleness in his emotions, and languor in all the energies which go to make a man, with but little of self-sustaining energy and spontaneous happiness, and with no refuge from the melancholy which settles upon him, but in those pleasures which he has learned to derive from literature, and the activity of his own intellect. On the other hand, an education that embraces the industrial and emotional elements of our nature, which keeps the pupil under the incessant influence of action, enterprise, social enjoyment, eloquence, music, and contagious enthusiasm, sends him forth fully equipped, with an energy of character, and

internal resources for happiness, which defy the depressing influences, and scorn the aid of stimulants.

But as it is not my purpose now, to discuss the education of the young, I would refer to the lamentable defect which our society exhibits in reference to the moral means of counteracting intemperance.

As the world is now going on, and has been going on for thousands of years, adult men must and will have stimulants. The laboring mass of mankind are doomed to an amount of toil which withdraws the vital power from the brain, to accumulate in the muscles, thus deteriorating the moral and intellectual nature, and giving the predominance to mere animal life. A purely animal existence, deprived of emotional and intellectual pleasures, is barren and dreary, if not absolutely miserable. A partial relief from monotony and misery is found in the family circle,—but the many unfavorable circumstances and cares which belong to that, render it but an imperfect solace, and the over-taxed laborer has but the alternative of plodding on, through his life of dreary dullness, or snatching the imprisoned powers of alcohol, which lift him up a few brief moments, to a somewhat higher sphere of existence, and bring him back to a still gloomier reality.

Can nothing be done for the industrial millions? Must they forever continue to live far below the level of rational happiness, under the strongest temptation to seek the transient, delusive pleasures of alcohol, opium, and tobacco?

I do not think it necessary to wait for the millenium of social reorganization, to solve this problem. Man must and will have his stimulants, to sustain his higher powers. We must determine whether those stimulants shall be narcotic and destructive, or nourishing, moral and healthful.

Here then, is the climax of our reasoning:—man has an inherent and indestructible love of stimulation, and he must find that stimulation either in the poison that destroys him, or in the moral power that elevates his life. Temperance societies, then, must be roused to a new and higher view of their duties. It is not sufficient merely to arrest the sale of alcohol, even if we could also suppress the use of opium and tobacco, which we can not. That which temperance societies have, thus far, attempted, is but one half of their work. Before destructive temperance has fulfilled its mission, I demand that constructive temperance shall come in to finish the task. I demand social institutions, which shall give to the entire community, that healthful and delightful moral and intellectual stimulation, which shall supercede the demand for the grog-shop, and which may not only be erected on the ruins of the demolished drinking house, but may be introduced at once into our communities, where the grog-shop is flourishing, and gradually withdraw people from the den of vice,

to more fascinating resorts, where the spiritual nature shall be refreshed, and strengthened, and the appetite for low indulgences destroyed, by substituting that which is high and holy.

In short, I demand for our whole people,—for every village, township, and ward, a new social institution,—the PANEGYRIUM. What the PANEGYRIUM is,—how it will cure intemperance, and how it may be most easily introduced, I must postpone to another number. But before proceeding further I must protest that I am perfectly aware some of my doctrines may appear loose and unphilosophical to readers of different opinions, since I have neither given the amount of explanation necessary to a perfect understanding of the subject, nor introduced the arguments necessary to fortify and illustrate my position. The critic will, therefore, be as merciful upon my philosophy as I have been upon his time, in condensing my essays to a mere outline.

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#### PREVISION.

CINCINNATI, October 20th, 1853.

DEAR SIR:—Reading in your last *Journal of Man* several cases of prevision, reminded me of a case, or cases, of which I can testify as truths, from personal witness of the facts. In our last war with England, I was taken a prisoner of war in the Bay of Fundy, and sent to the "Melville Island" prison at Halifax, where I was confined for several months. Our numbers increased rapidly, owing to the English captures so near our own coast. Toward the latter part of the time that I remained, there was a small capture made, and the prisoners sent to the "Island;" among them was a person by the name of Dean—a man upward of six feet in height, very straight, and liberally educated. While in prison, he would traverse the yard to and fro, and speak to no one, unless first spoken to. He (and the only one in the prison that) refused to shave, and allowed his beard a freedom of growth that was quite luxuriant. At that time, news came that a brig was being fitted out at Boston as a cartel for exchange of prisoners, which highly elated us, and we daily anticipated her arrival at Halifax. One morning, Mr. Dean started up in his hammock, and says, "The cartel has arrived!" Another seaman sings out, "What does the *brig* look like?" Dean says, "It is no brig—it is a large *ship*." Numbers then shouted out—"You'd better dream again; you may hit better next time!" "No," says Dean, "there is no need of that, for I saw her plain enough, and, what is strange, she has the flag of truce flying at maintop instead of the foretop." When we were let out of prison in the morning, the first question to the Turnkey was, "Has any cartel arrived?"

He answered there was. "Was it a ship or a brig?" was the next question. He said that he did not know, but he was going to Halifax (the Island is between two and three miles inland, and out of sight of the ocean.) that morning, and would find out. He was asked particularly to observe on which top the flag of truce was flying. He did so—and reported the cartel to be a large ship, with the flag of truce as stated by Mr. Dean. We then—that is, a number of us who were first made prisoners (the exchange goes by rotation—first taken, first exchanged)—anticipated being liberated in a short time, three days at farthest, and prepared accordingly. The next morning, Mr. Dean rose in his hammock as before, and stated that it would be ten days before we would leave the prison. He was scoffed at as before, but he heeded it not, and, furthermore, told them (us) that he would be in Boston as soon as any of us. To that was replied, that over a thousand would be exchanged before his turn came, and that the ship would take only seven or eight hundred. "No matter," says he; "time will tell." The English Prison Agent, Lieut. Miller, the day before the prisoners were to be liberated, had them all paraded, and marched before and past him in single file, (his endeavor was to detect His Majesty's subjects.) As Mr. Dean was passing, he was asked by the Agent what countryman he was. The answer was, "Part American, and part Wolf." His appearance warranted such an answer. The Agent asked him why he did not shave himself. He said he had no razor. "You must be very destitute," observed the Agent. "Destitute! To be sure I am—I'm neither *naked or clothed*." "Well," says the Agent, "borrow a razor; put yourself in a decent trim, and you may go with the rest." Which he did. Owing to a variety of delays, (occasioned mostly by suspicion of smuggling or secreting deserters on the cartel,) we did not go on board until the tenth day after her arrival! When all were on board, we left Halifax with a fair wind, anticipating to be in Boston in a few days. Mr. Dean said it would be *ten* days before the cartel would anchor in Boston harbor. The assertion appeared to irritate many, as it was so in variance to their wishes; but, sure enough, after getting into the open ocean, the wind changed to "*dead ahead*," and our progress retarded, from that and other causes, that it was on the tenth day, from the time the cartel left Halifax, that she dropt anchor in Boston!

I asked him if he possessed any faculty or science that enabled him to prophesy with such correctness. He answered that he had not; that its production was unaccountable to him; that his prophecies appeared in his mind as "*past transactions*," when, nevertheless, he knew that such *had not* taken place.

Yours, respectfully,

GEO. SAMPSON, Sen'r.

## THE MENTAL TELEGRAPH.

The following communication, which was duly received from Mr. McAllister, exhibits rather more of mystery and secretiveness than I admire. I have no doubt that something interesting may be accomplished in the direction in which Mr. M. appears to be pursuing his investigations; yet I have great doubts whether any such thing as a *discovery* susceptible of being *patented* has been or will be achieved by him.

The fact that various drugs of the narcotic class have a remarkable power in the way of elevating human impressibility and developing the clairvoyant faculties is a well known and rather ancient truth, although but little use has been made of it.

The fact that a current of electricity may convey vital, physiological, pathological and mental conditions, from one individual to another, is not to be presented now as a new discovery—at least, it is not at all new to myself. However, I do not know what is the nature of Mr. M.'s discovery, though I would presume that it must be based on the two foregoing propositions. I have no doubt that mental telegraphing, or the communication of thought from one mind to another, will, in time, become a common operation, partly by the general development and cultivation of the clairvoyant powers, and partly by the subsidiary use of drugs, electricity, and spiritual agencies.

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I saw the following remark in the August number of your Journal of Man: "That Mr. M. may be a remarkable clairvoyant is quite credible; but the machine portion of the story [related by the Plain Dealer] has a very improbable appearance. However, without further explanation, it is quite unintelligible."

I beg leave to say, through your Journal of Man—

I was once looked upon as "a remarkable clairvoyant," and successful Mesmerist; I have also been pronounced a strong medium through which spirits conversed with men, while some have boldly asserted that I was a wizard, and others that I was only a natural magician.

I acknowledge that I am, to a certain extent, what is termed a clairvoyant—that is, I can discover things, at a distance, without the aid of any of the five senses. I have the power to place myself in circumstances favorable to this at pleasure, and I can teach any person of ordinary capacities to do the same, more or less successfully, without the aid of chemicals. I have not the power, however, to unveil that which is unknown, except by the aid of certain natural laws, which are, at present, but *very* imperfectly known. I profess, in addition to this, to have discovered an immutable law of nature, which will be fully explained at the proper time. One effect of this law has been noticed by certain Mes-

merists and electricians, but was passed by as one of the mysteries of Heaven, concerning which it is idle for man to speculate. Without this law, animals and vegetables would cease to be, and all nature thrown into a state of chaos. This remark may not be received now, although it is the latter part of the nineteenth century, but it will be received and established beyond controversy in less than one year.

I also acknowledge that I am a Mesmerist, and to the science of Mesmerism I am indebted for the first suggestion that led me, step by step, to my important discoveries. Thanks be to MESMER; may his name live forever—may all who shall be advantaged by my labors and discoveries praise the name of MESMER, that lover and promoter of true science.

I deny being a spiritual medium, and also deny believing in spiritual manifestations. I do not mean by this remark that all who pretend to be mediums are liars and hypocrites, or fools, but, on the contrary, I believe that *many* of them are conscientious and intelligent persons, but are dealing with that which they do not understand—but which will be understood shortly. Much of it is, no doubt, deception, and much of it the babblings of insane persons.

I am not a wizard, nor do I believe in wizards; but I confess I am not entirely ignorant of natural magic. However, natural magic has nothing to do with the Mental Telegraph—a caveat for which is now filed in Washington City.

Concerning the machinery alluded to above, I remark—there is a strange sympathy existing between the Mesmerizer and the individual mesmerized, which is brought about by a certain process. I have discovered that certain chemicals, used in a certain way, will bring about, instantaneously, this sympathy between any two persons. All the machinery connected with my exhibitions in Cleveland and Ohio City was of *particular* use—a large portion of it operating upon the chemicals and batteries, and a much larger portion designed only to lead the reflecting mind astray.

Soon after making my discoveries, and satisfying myself of their reality, I sought assistance in a certain direction, and on a certain plan, which, at present, are unknown to the public. I was, however, ridiculed and turned away empty. Since that, many obstacles have been thrown, *intentionally*, in my path—but I have never been discouraged—I never will be—I have overcome them—I shall succeed. A history of the invention, and of every circumstance connected with it, will be given to the public very soon.

The above is subject to any remarks or criticism from any source whatever.

JAMES B. McALLISTER.

OBERLIN, Oct. 22, 1853.



## ETHNOLOGY—CRANIA BRITANNICA.

The following notice from the *Columbia (S.C.) Banner* is a remarkable illustration of the dead and barren character of scientific thought on all anthropological subjects. How very trivial appear the labors of eminent men in the collection and delineation of skulls, without any reference to the character of the minds and brains which formerly occupied them. Studying skulls in such a manner, they become of little more value than any other portion of the skeleton, and are about as instructive a contribution to the true sciences of Anthropology and Ethnology as would be a collection of portrait frames for a contribution to the fine arts.

One single delineation of the skull of an eminent man, with reference to his known character and biography, would be of more value to true science than portraits of a ton of unknown crania described by men unacquainted with the functions of the brain or the significance of the cranial forms:

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“ We have received from the distinguished author the prospectus of a work on ‘ *Crania Britannica*, or delineations of the skulls of the aboriginal inhabitants of the British Islands, and of the races immediately succeeding them, together with notices of their other remains, by Joseph Barnhard Davis, F. S. A., Member of the Royal College of Surgeons of England; of the Archæological Institute of Great Britain and Ireland; Associate of the Ethnological Society, and of the British Archæological Association; and John Thurnam, M.D., F.S.A., of the Royal College of Physicians of London; Member of the Archæological Institute of Great Britain and Ireland; of the British Archæological Association; and of the Ethnological Society of London; Author of *Papers on the Ethnology and Archæology of England*.’

“ The natural history of man is a study which has lately occupied much attention in the scientific world. Facts, in the progress of science, are the alphabet by which history is to be spelled out. Every thing, therefore, bearing on the early knowledge of our race should be sought with interest, and its development encouraged. It has been a proud privilege of American science, that in this special department our late estimable friend, the lamented Morton, has been the first to set the example, in his *Crania Americana* and *Crania Egyptiaca*, which is about to be followed in England. While we have yet unsettled the exact origin and position of our own aborigines, their primitive remains are of great interest—of real national value, and deserve the most careful study. The collections of such relics, noticed in the writings of Eschricht, Retzius and Nilsson, in the Scandinavian Kingdoms, and by Prichard in England, have been trifling

in comparison with the great collection in the Academy of Natural Sciences in Philadelphia, by 'the great master of the science, the late Professor Morton.'

"Among the relics of our American races, the finest skull in that collection is one found in the Scioto Valley, Ohio, near Cincinnati, described and figured in the first volume of the Smithsonian Contributions to Knowledge, by Dr. Davis and Mr. Squier, characterized by Dr. Morton as the most admirably formed head of the American race in all the characteristics of the aboriginal American type.

"The work now proposed to be published, if enough subscribers can be had to prevent pecuniary loss, will consist of six decades of skulls, in imperial quarto, of ten lithographic plates each, one every three or four months, with descriptive letter press, giving a history of everything connected with each specimen. The price will be one guinea each, to be paid on delivery. No copies will be printed but for subscribers. The most eminent scientific men in England, and on the Continent, have subscribed to the work. We will be pleased to receive subscribers for it."

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#### A STRANGE RACE IN THE HEART OF CALIFORNIA.

Through the very center of the Great Basin runs the Rio Colorado Chiquito or Little Red River. It takes its rise in the mountains that skirt the right bank of the Rio Grande, flows almost due west, and empties into the Colorado at a point on the same parallel of latitude with Walker's Pass. About one hundred miles north of this, and running almost parallel with it, is the river San Juan. Each of these streams is about two hundred and fifty miles long. Between them stretches an immense tableland, broken occasionally by Sierras of no great length, which shoot up above the general elevation. About half-way between the two rivers, and midway in the wilderness between the Colorado and the Rio Grande, is the country of the Moquis. From the midst of the plain rises abruptly on all sides a Butte of considerable elevation, the top of which is as flat as if some great power had sliced off the summit. Away up here the Moquis have built three large villages, where they rest at night perfectly secure from the attacks of the fierce tribes who live to the north and east of them. The sides of this table-mountain are almost perpendicular cliffs, and the top can only be reached up a steep flight of steps cut in the solid rock. Around its base is a plain of arable land, which the Moquis cultivate with great assiduity. Here they raise all kinds of grain, melons, and vegetables. They have also a number of orchards, filled with many kinds of fruit trees. The peaches they raise, Captain Walker says, are par-

ticularly fine. They have large flocks of sheep and goats, but very few beasts of burden or cattle. They are a harmless, inoffensive race—kind and hospitable to strangers, and make very little resistance when attacked. The warlike Navajoes, who dwell in the mountains to the north-east of them, are in the habit of sweeping down upon them every two or three years, and driving off their stock. At such times they gather up all that is movable from their farms, and fly for refuge to their mountain stronghold. Here their enemies dare not follow them. When a stranger approaches, they appear on the tops of the rocks and houses, watching his movements. One of their villages, at which Captain Walker stayed for several days, is five or six hundred yards long. The houses are generally built of stone and mortar, some of adobe. They are very snug and comfortable, and many of them are two, and even three stories high. The inhabitants are considerably advanced in some of the arts, and manufacture excellent woollen clothing, blankets, leather basket-work, and pottery. Unlike most of the Indian tribes of this country, the women work within door, the men performing all the farm and out-door labor. As a race, they are lighter in color than the Digger Indians of California. Indeed, the women are tolerably fair, in consequence of not being so much exposed to the sun. Among them Captain Walker saw three perfectly white, with white hair and yellow eyes. He saw two others of the same kind at the Zani villages, nearer the Rio Grande. They were no doubt Albinos, and probably gave rise to the rumors which have prevailed of the existence of white Indians in the Basin.

The Moquis have probably assisted nature in levelling the top of the mountain as a site for their villages. They have cut down the rocks in many places, and have excavated out of the solid rock a number of large rooms, for manufacturing woollen cloths. Their only arms are bows and arrows, although they never war with any other tribe. The Navajoes carry off their stock without opposition. But unlike almost every other tribe of Indians on the continent, they are scrupulously honest. Captain Walker says the most attractive and valuable articles may be left exposed and they will not touch them.

Many of the women are beautiful, with forms of faultless symmetry. They are very neat and clean, and dress in quite a picturesque costume of their own manufacture. They wear a dark robe with a red border, gracefully draped so as to leave their right arm and shoulder bare. They have most beautiful hair, which they arrange with great care. The condition of a female may be known from her manner of dressing the hair. The virgins part their hair in the middle behind, and twist each parcel around a hoop six or eight inches in diameter. This is nicely smoothed and oiled, and fastened to each side of the head, some-

thing like a large rosette. The effect is very striking. The married women wear their hair twisted into a club behind.

The Moquis farm in the plain by day, and retire to their villages on the mountain at night. They irrigate their lands by means of the small streams running out of the mountain. Sometimes, when it fails to snow on the mountains in winter, their crops are bad. For this reason they always keep two or three years' provisions laid up, for fear of famine. Altogether they are a most extraordinary people, far in advance of any other aborigines yet discovered on this continent. They have never had intercourse with the whites, and of course their civilization originated with themselves. What a field is here for the adventurous traveler? We have rarely listened to any thing more interesting than Captain Walker's plain, unaffected story of his travels in the Great Basin.—*San Francisco Herald.*

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From the San Francisco Herald.

#### DISCOVERY OF RUINED CITIES WITHIN THE GREAT BASIN.

The Great Basin in the middle of our territory, bounded on the North by the Wahsatch Mountains and the settlement of the Mormons in Utah, on the East by the Rocky Mountains skirting the right bank of the Rio Grande, on the South by the Gila, and the West by the Sierra Nevada, is a region still almost unknown. Trappers and mountaineers have passed all around the inner side of this rim, but none have ever crossed it, with the exceptions of Mr. Beale, who traversed, on his recent trip, its northern slope, and Capt. Joe Walker, the famous mountaineer, who passed nearly through its center in the winter of 1850. But little, therefore, is known regarding it, but that little is exceedingly interesting, and fills the mind with eagerness to know more. From Capt. Walker we have gathered many particulars regarding his present trip, and the character of the mysterious land, which have never before been brought to light. There is no lack of streams within it; the Rio Colorado Chiquito, or Little Red River, runs entirely across it, about one hundred miles to the north of the Gila, and almost parallel to it, and empties into the Colorado. About one hundred and twenty miles still further north, the San Juan follows exactly the same course as the Little Red, and empties into Grand River, the most important branch of the Colorado. Grand River itself pursues a course a little south of west across the northern part of the Basin, while the Avonkaree, a large river discovered by Mr. Beale, Green River, and the Rio Virgen, are all large streams, which drain the northern mountain rim, and run in a southerly direction into the Colorado.

The Great Basin between the Colorado and the Rio Grande is an immense table land, broken towards the Gila and the Rio Grande by detached Sierras. Almost all the streams run through canons. The country is barren and desolate, and entirely uninhabited even by the lowest order of Indians. But, though now so bleak and forbidding, strewn all around may be seen the evidence that it was once peopled by a civilized and thickly-settled population. They have long since disappeared, but their handiwork still remains to attest their former greatness. Capt. Walker assures us that the country from the Colorado to the Rio Grande, between the Gila and the San Juan, is full of ruined habitations and cities, most of which are on the table land. Although he had frequently met with crumbling masses of masonry and numberless specimens of antique pottery, such as have been noticed in the immigrant trail south of the Gila, it was not until his last trip across that he ever saw a structure standing. On that occasion he had penetrated about midway from Colorado into the wilderness, and had encamped near the Little Red River, with the Sierra Blanca looming up to the south, when he noticed, at a little distance, an object that induced him to examine further.

As he approached, he found it to be a kind of citadel, around which lay the ruins of a city more than a mile in length. It was located on a gentle declivity that sloped towards Red River, and the lines of the streets could be distinctly traced, running regularly at right angles with each other. The houses had all been built of stone, but had been reduced to ruins by the action of some great heat, which had evidently passed over the whole country. It was no ordinary conflagration, but must have been some fierce, furnace-like blast of fire, similar to that issuing from a volcano, as the stones were all burnt, some of them almost cindered, others glazed as if melted. This appearance was visible in every ruin he met with. A storm of fire seemed to have swept over the whole face of the country, and the inhabitants must have fallen before it. In the center of the city we refer to rose abruptly a rock twenty or thirty feet high, upon the top of which stood a portion of the walls of what had once been an immense building. The outline of the building was still distinct, although only the northern angle, with walls fifteen or eighteen feet long, and ten feet high, was standing. These walls were constructed of stone, well quarried and well built. All the south end of the building seemed to have melted to cinders, and to have sunk to a mere pile of rubbish. Even the rock on which it was built appeared to have been partially fused by the heat. Capt. Walker spent some time examining this interesting spot—he traced many of the streets and the outlines of the houses, but could find no other wall standing; as often as he had seen ruins of this character, he had never, until this occasion, discovered any of the implements of the ancient people. Here he found a number of hand-mills, similar

to those still used by the Pueblos and the Mexicans for grinding their corn. They were made of light porous rock, and consisted of two pieces about two feet long and ten inches wide, the one hollowed out, and the other made convex, like a roller, to fit the concavity. They were the only articles that had resisted the heat. No metals of any kind were found. Strewn all around, might be seen numerous fragments of crockery, sometimes beautifully carved, at others painted. This, however, was not peculiar to this spot, as he had seen antique pottery in every part of the country, from the San Juan to the Gila.

Capt. Walker continued his journey, and noticed several more ruins a little off his route the next day, but he could not stop to examine them. On this side of the Colorado he has never yet seen any remains except of the present races. The Indians have no tradition relative to the ancient people that once thickly settled this region. They look with wonder upon these remains, but know nothing of their origin. Capt. Walker, who, we may remark, is a most intelligent and close observer, far superior to the generality of the old trappers, and with a wonderfully retentive memory, is of opinion that this Basin, now so barren, was once a charming country, sustaining millions of people, and that its present desolation has been wrought by the action of volcanic fires. The mill discovered proves that the ancient race once farmed; the country, as it now appears, never could be tilled—hence it is inferred it must have been different in early days. They must have had sheep, too, for the representation of that useful animal was found carved upon a piece of pottery.

Lieut. Beale states that on his first trip across the continent he discovered in the midst of the wilderness, north of the Gila, what appeared to be a strong fort, the walls of great thickness, built of stone. He traversed it, and found it contained forty-two rooms. In the vicinity were met with numerous balls of hard clay, from the size of a bullet to that of a grape shot. What was singular about them was the fact that frequently ten or twenty were stuck together, like a number of bullets run out of half a dozen connecting moulds, or like a whole baking of rolls. It is difficult to say what these were intended for. They were so hard, however, that the smaller ones could be discharged from a gun. And now it remains for the antiquarians to explore this interesting region in the very heart of our country, and to say who were the people that inhabited it. They may have been the ancestors of the Aztecs, whom Cortes found in Mexico, for they were known to have come from the North. Tradition relates that they sailed out from their northern homes directed by their prophets not to cease their march till they came across an eagle sitting upon a cactus, with a serpent in its claws. This they found where the city of Mexico now stands, and here they established their dominion. This legend is still preserved in the device upon the Mexican dollar.

Some remnants of the Aztecs still remained within a few years past at the ruined city of Gran Quivera, or Pecos, in the wilderness of New Mexico. Here, in deep caverns, they kept alive, with reverential care, the Sacred Fire, which was always to burn until the return of Montezuma. It only went out about ten years ago, when the last Indian of the tribe expired. It may be that the Pimos south of the Gila are an offshoot of the great Aztec nation, left behind them in their march to the South. The Pimos, it is known, are far superior to the Indians of Mexico. They raise fine cotton, and from it manufacture all their clothing.

Would that some Stephens or Layard would arise to explore the wonders that lie concealed within this Great Basin, and to bring to light the history of the strange people that once inhabited it!

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#### DISCOVERY OF NEW PLANETS—THE EARTH PROGRESSING.

At the recent meeting of the British Association, held at Hull, England, President Hopkins, in the course of his address, remarked:

“Stellar astronomy continues to manifest a vigor and activity worthy of the lofty interest which attaches to it. Bessel had made a survey of all the stars to those of the ninth magnitude, inclusive, in a zone lying between 45 deg. of north and 15 deg. of south declination. Argelander has extended this zone from 80 deg. of north to 31 of south declination. It comprises more than 100,000 stars. Notices have been brought before us, from time to time, of the nebulae observed through Lord Ross’s telescope. This noble instrument, so unrivalled for observations of this kind, continues to be applied to the same purpose, and to add yearly to our knowledge of the remotest regions of space into which the eye of man has been able to penetrate. Almost every new observation appears to confirm the fact of that curious tendency to a spiral arrangement in these nebulous masses, of which mention has so frequently been made.

“Between the 23d of June, 1852, and the 5th of May, 1853, nine new planets were discovered, of which seven were found since the last meeting of the Association. Of these nine planets, our countryman, Mr. Hind, has discovered four. The number now known, exclusive of the large planets, but including the four old asteroids, amounts to twenty-six; nor have we any reason to suppose that we have yet approximated to the whole number of these minor planetary bodies.

“The recent discovery, however, of so many planets, shows how imperfectly we may yet be acquainted with the planetary part of the system; and the continual discovery of new comets

seems to indicate that in this department still more remains to be done. These curious bodies, too, may possibly have to reveal to us facts more interesting than any which the planets may still have in reserve for us. The experience of these latter bodies, if I may so speak, is more limited, and their testimony consequently more restricted. But they have already told us a noble tale. In moving, as they do, in exact obedience to the laws of gravitation, and thus establishing that law, they have affirmed the highest generalization in physical science which has been accorded to the human mind to conceive.

“The sun can not continue for an indefinite time to emit the same quantity of heat as at present, unless his thermal energy be renovated from some extraneous source. The same conclusion may be applied to all other bodies in the universe which, like our sun, may be centers of intense heat; and hence, recognising no adequate internal supplies of heat, to renovate those existing centers of heat, Professor Thomson concludes that the dispersion of heat and consequently of physical energy from the sun and stars into surrounding space, without any recognisable means of re-concentration, is the existing order of nature. In such case the heat of the sun must ultimately be diminished, and the physical condition of the earth therefore altered, in a degree altogether inconsistent with the theory of non-progression. I would at present merely state that my own convictions entirely coincide with those of Professor Thomson. If we are to found our theories upon our knowledge, and not upon our ignorance of physical causes and phenomena, I can only recognise in the existing state of things a passing phase in the material universe. It may be calculated in all, and is demonstrably so in some respects, to endure under the action of known causes for an inconceivable period of time, but it has not, I think, received the impress of eternal duration, in characters which man is able to decipher. The external temperature and physical conditions of our own globe may not, and probably can not have changed in any considerable degree since the first introduction of organic beings on its surface, but I can still only recognise in its physical state during the intervening period a state of actual though exceeding slow progression, from an antecedent to an ultimate state, on the nature of which our limited powers will not enable us to offer even a conjecture founded on physical research.”

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### PROGRESS OF THE ANGLO-SAXON RACE.

By a favorite coincidence, the general total of the American census taken last year has just been received, and we are enabled, in conjunction with the returns made on the 31st of March for England, to measure the absolute progress of the Anglo-Saxon



race in its two grand divisions, and to compare the laws of their respective growths in relation to each other and to the rest of the world. It is estimated, including Ireland and the colonies, that there is a grand total of men sharing the same general tendencies of civilization of 56,000,000, from which is to be deducted the three millions of slaves in the United States, leaving a remainder of fifty-three millions, chiefly of Anglo-Saxon descent, and deeply impregnated with its sturdy qualities of heart and brain, as the representative of this advancing stock.

Two centuries ago there were not quite three millions of this race on the face of the earth. There are a million more persons of Magyar descent, speaking the Magyar language, at the present moment in Europe than were in Europe and America of this conquering and colonizing people in the time of Cromwell. How vain, then, for men to talk of the political necessity for absorbing small races! Sixty years ago the Anglo-Saxon race did not exceed 17,000,800 in Europe and America. At that time it was not numerically stronger than the Poles. Thirty years ago it counted only thirty-four millions and a fraction more than the population of France at that time, and considerably less than the Teutonic population of Central Europe. In 1851 it is ahead of every civilized race in the world. Of races lying within the zones of civilization, the Slaves alone are more numerous, counted by heads; but comparatively few of this plastic and submissive stock have yet escaped from the barbarism of the dark ages. In wealth, energy, and cultivation they are not to be compared with the Frank, the Teuton, and the Anglo-Saxon. Number is their only element of strength.

Of all the races which are now striving for the mastery of the world, to impress on the future of society and civilization the stamp of its own character and genius, to make its law, idiom, religion, manners, government, and opinion prevail, the Anglo-Saxon is now unquestionably the most numerous, powerful, and active. The day when it might possibly have been crushed, absorbed, or trampled out, like Hungary and Poland, by stronger hordes is gone for ever. That it was possible at one time for this people to be subdued by violence or to fall a prey to the slower agencies of decline, there can be little doubt. In 1650, the United Provinces seemed more likely to make a grand figure in the world's future history than England. Their wealth, activity, and maritime power were the most imposing in Europe. They had all the carrying trade of the West in their hands. Their language was spoken in every port. In the great Orient their empire was fixed and their influence paramount—England was then hardly known abroad. Her difficult idiom grated on foreign ears, and her stormy coasts repelled the curiosity of more cultivated travelers?

Had the thought of a day arriving when any single European

language would be spoken by millions of persons, scattered over the great continents of the earth from New Zealand to the Hebrides, and from the Cape of Storms to the Arctic Ocean, occurred to any speculative mind, Dutch, not English, would probably have been the tongue to which he would have assigned the marvellous mission. Yet, Holland has fallen nearly as much as the Saxon has risen in the scale of nations. Her idiom is now acquired by few. Her merchants conduct their correspondence and transact their business in French or in English. Even her writers have many of them clothed their genius in a foreign garb. On the other hand our literature and language have passed entirely out of this danger. Dutch, like Welsh, Flemish, Erse, Basque, and other idioms, is doomed to perish as an intellectual medium; but whatever may be the future changes of the world, the tongue of Shakspeare and of Bacon, is now too firmly rooted ever to be torn away.

No longer content with mere preservation, it aims at universal mastery. Gradually it is taking possession of all the ports and coasts of the world; isolating all rival idioms, shutting them up from intercourse with each other, making itself the channel of every communication. At a hundred points at once it plays the aggressor. It contends with Spanish on the frontiers of Mexico; drives French and Russian before it in Canada and in the Northern Archipelago; supersedes Dutch at the Cape and Natal; elbows Greek and Italian in the Ionian Islands; usurps the right of Arabia at Suez and Alexandria; maintains itself supreme at Liberia, Hongkong and Jamaica and St. Helena—fights its way against multitudinous and various dialects in the Rocky Mountains, in Central America, on the Gold Coast, in the interior of Australia, and among the countless islands in the Eastern Seas. No other language is spreading in this way. French and German find students among cultivated men; but English permanently destroys and supersedes the idioms with which it comes in contact.

The relative growth of the two great Anglo-Saxon States is noteworthy. In 1801 the population of Great Britain was 10,942,646; in 1800 that of the United States was 5,319,762, or not quite half. In 1840 the population of the United States was two millions and a third more than that of Great Britain in 1851; at this moment it probably exceeds it by three millions. The rate of decennial increase in this country is less than 13 per cent., while in America it is about 35 per cent. In the great Continental States the rate is considerably lower than in England. According to the progress of the last fifty years in France and in America, the United States will have the larger population in 1870; in 1900 they will exceed those of England, France, Spain, Portugal, Denmark, Sweden and Switzerland combined. Prudent statesmen should bear these facts in mind. Many persons now alive may see the time when America will be of more im.

portance to us, socially, commercially, and politically, than all Europe put together. Old diplomatic traditions will go for little in the face of a Transatlantic power numbering 100,000,000 of free and energetic men of our own race and blood.—*Chambers' Journal.*

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## MARRIAGE.

"Marriage is a matter of more worth  
Than to be dealt in by attorneyship."

*Shakspeare.*

"The bloom or blight of all men's happiness."

*Byron.*

"In no other civilized country in the world is marriage contracted or dissolved with such culpable levity as our own. In no civilized country, (except, perhaps, in France, just at present,) can divorce be obtained with such facility, and upon such slight grounds. And it may be the very ease with which the sacred bond may be broken that leads many people into forming it so lightly. An obligation so easily annulled may be carelessly contracted. I remember an anecdote in point:—'Take care—this contemplated marriage of yours is a hasty affair—and when consummated, it is for life, you know—'Till death do you part,' said a young man to his friend, who was about to enter into the 'holy state.' 'Oh, no! not necessarily—there are such things as divorces, recollect,' laughingly replied the prospective bridegroom—a handsome hero, of black eyes, and his white teeth gleamed, as though he had been saying the wittiest thing on earth. The youth was in love, therefore his speech could not be taken seriously. He was jesting. *Still* his words betrayed—that even then, in the hey-day of his passion, a future contingency was present to his mind. That future contingency *arrived*—would *never* have arrived, had he not known beforehand of its remedy. He married—lived with his young bride eighteen months. She became the mother of a little girl, fell into ill health, lost her beauty and attractions. He left her, to travel in Europe, he said, but years passed, and he never returned or wrote. He left her broken in heart; injured in reputation; exposed to the misconstructions of the world; to the miseries of poverty; to the temptations of youth, or isolation, and of warm affections; to the calumny of the wicked, or the thoughtless; and worse than all to bear up against, the doubts and suspicions of the good. She was destitute of mental resources; in delicate health; morbidly sensitive, and she sunk—sunk under the accumulating miseries of her position, and died in the twenty-second year of her age, and in the fourth of her wretched marriage.'"

Such is the very first paragraph, in the very best story now in

course of publication in this country, written by the very best story writer this country claims, viz: '*The Deserted Wife*,' written by Mrs. D. E. Southworth, for *The Saturday Post*, Philadelphia.

We never agreed with Mrs. S. in her divorce doctrines. In this paragraph there are two grand mistakes. First, the hero of the black eyes was not in love, else he would not have got out of it so soon. Second, it was not the ease with which divorces are obtained, which caused his unceremonious desertion, but the difficulty of obtaining one!

Then, it is not likely his loss which broke her heart so much as the *singularity* of her position. 'Injured in reputation'—that is the secret of the broken heart. Yet why should she have been injured in reputation? Was she not the innocent party; or did her falling into ill health and losing her beauty give a just reason for her desertion? It is the injury to reputation which makes the bitterness of such cases; and it is their rarity which makes them affect reputation.

Marriage, in our opinion, is a union, which would every hour be renewed, by the free will of both parties, provided the State every hour annulled it! Whenever two are really weary of each other, they are no longer married; and nobody can marry them. It is a base prostitution of the name and object of marriage, to bind two together to live contrary to the will of either. Nor can we see how society can possibly be benefitted by an arrangement which compels the semblance of marriage where the reality does not exist.

Many are of opinion that if it were not for the stringency of the civil law, nearly all families would be broken up, and society go into chaos. We have no such notion! If a proclamation were made to-day, declaring every marriage in the Union null and void, and leaving it once more to the parties whether the relation be renewed, business would be suspended, newspapers would stop, stores, factories, and workshops would close. The editors would all be at home getting married, merchants, operators and mechanics would each be awaiting their turn to have the nuptial knot tied. Cross, fretful, sickly wives that had almost been felt a burden before, would grow very dear once more from the thought of separation. Domineering, harsh husbands would be forgiven; and in all cases where a spark of conjugal love remained, it would be blown to a flame—where nothing but dead embers are, the ashes could be taken up, made into soap and society cleansed thereby.

When families are reared without the ligaments of genuine wedded love between the parents to bind the members to home and one another, they will be a curse rather than a blessing to the community. We sincerely believe, twenty divorces for every one we now have would greatly benefit the parties most concerned, and society in general. We can see no reason why a

mistake in forming a partnership should affect any one's reputation a bit more than a error in any other partnership; but whatever blame is due to *making* a union that is a libel upon truth and nature, *breaking* it must be a duty. If it be necessary to protect the public from laxity in marriage laws, let the unfortunate victim of a misalliance be condemned to imprisonment, exile or simply hanging—something less than the capital punishment of spending a life in the mockery of a marriage with an unloved, hated object.

We can not tell how any one could wish to retain a legal claim to the person or society of a companion, when all heart interest is gone! We would not live with a husband we thought would rather be free! Could not bring ourself to retain a claim upon him which his heart repudiated; but would sew the buttons on his clothes, pack his trunk, give him free papers and a blessing any day. Mutual consent forms the bond of marriage, and when that ceases the marriage is at end! No legal enactments can bind them together and make their lives any thing else than legal prostitution; and the State can not be benefitted by what is crime in the individual!—*Pitts. Visiter.*

[In the foregoing remarks Mrs. Swisshelm displays her usual shrewdness and independence of thought. There is one idea in reference to matrimony and divorce which deserves much greater prominence than is usually given it. The leading object should be *the welfare of posterity*. In the union of those who hate rather than love, children are born and reared in evil—they become fierce, selfish, contentious, ungracious, rude, and unprincipled. Each unloving union becomes the source of a moral poison to infect society through future generations. To perpetuate marriages of hatred and disgust is to establish a seminary for devils. He or she who can not live in harmony should be rather encouraged if not compelled to live in isolation and confine their moral poison to themselves. Instead of rendering *divorce* difficult it would be better to render *matrimony* itself difficult, and require some proof, of good character and good intentions before issuing a license. Divorce should be held up not as a boon for the discontented to struggle for, but rather as a penalty *in terrorem* for those who do not perform their duties and prove themselves worthy. The children might be awarded to the control of the least culpable party, but should be generally assigned to the mother if not morally or physically unfit. If both are unfit their children should be taken under the care of society to save them from ruin.—*Ed. Jour.*]

### THE AURORA BOREALIS AND THE ELECTRIC TELEGRAPH.

G. P. B., a telegraphic operator, writes to the *Boston Traveller*, the results of six years experience in determining what effect the Aurora Borealis exerts upon the telegraphic wires—

On the House, Morse, and other magnetic telegraphs, the effect produced by the Aurora is generally to increase or diminish the electric current used in working the wires; sometimes it entirely neutralizes it, so that in effect no fluid is discoverable on them. As, however, the Bain, or chemical telegraph, is much the best adapted for observing the precise effect produced by the Aurora, I shall confine myself principally to it. In this system the main, or line wire is brought into direct contact with the chemically prepared paper, which lies on a metal disc, connected with the ground; any action of the atmospheric current is therefore immediately recorded on paper.

During a thunder storm the atmospheric electricity attracted by the wires passes over them to the chemically prepared paper, it emits a bright spark, and produces a sound like the snapping of a pistol. Atmospheric electricity never remains for any length of time on the wires; it will, however, sometimes travel many miles before discharging itself; I have seen discharges of electricity from the instrument, which emanated from thunder storms forty or fifty miles distant.

The effect produced by the Aurora Borealis on the wires, and the record on the paper, is entirely different from that of the atmospheric current. Instead of discharging itself from the wires with a flash and report, and without the aid of a conductor, as is the case with the latter, it glides along the wire in a continuous stream, producing the same result on paper as that produced by the galvanic battery. It is well known that only the positive pole of the battery produces the colored mark on the paper—the negative having the contrary effect of bleaching it; the same is also true of the two currents from the Aurora. The current usually commences lightly, producing a light blue line just perceptible on the paper—and gradually increases in strength, making a dark blue, and then a black line—until finally it becomes so strong as to burn through several thicknesses of it; it then gradually disappears, and is followed by the bleaching process; which entirely neutralizes the current from the batteries.

In my diary of September 29, 1851, I find the following account of the effects of the Aurora on the evening of that day:—"All the lines leading from the city are so strongly charged with atmospheric electricity this evening as to prevent operation. The surplus current on the Chemical line is equal to one hundred and fifty Grove's cups; and the same seems to be the case on the House and Morse lines. The weather is cloudy; through the

clouds we can occasionally see the brilliant scintillations of an Aurora Borealis." The next day I ascertained that the Aurora, as seen from Providence, New Haven, and other places, was very brilliant, February 19, 1852. I find the following description of the effects of the Aurora of that date, in my journal: Toward evening a faint blue line appeared on the paper which gradually grew stronger and darker, until it at last burned it; then it gradually grew fainter until it disappeared, when it appeared again in a new form, bleaching instead of coloring the paper. This singular phenomenon continued until we closed, at a late hour in the evening. The Aurora was very brilliant in the evening."

Mr. Rowe, Superintendent of the Boston and Vermont Telegraph company, showed me specimens of paper taken from instruments on that line, at 12 o'clock at night—three hours after the batteries were taken off—which were covered with light and heavy blue lines and bleachings. They were caused by the Aurora of the 19th February.

Our troubles from the Aurora are not confined to evenings entirely, though they are more frequent then. On several occasions I have predicted an Aurora in the evening, judging by the effect on the wires at that time; and I do not recollect that I have ever been mistaken in my predictions.

Thursday, April 22, 1852, we were much troubled by an atmospheric current; sometimes preventing our working for half an hour or more, and then disappearing for about that time; the current was constantly changing during the evening. We had a very brilliant display of the Aurora.

The Aurora Borealis seems to be composed of a vast mass of electric matter, resembling in every respect that generated by the electro-galvanic battery; the currents from it change, coming on the wires, and then disappearing—as the mass of the Aurora rolls from the horizon to the zenith—sometimes so faintly as to be scarcely perceptible, and then so strongly as to emit one continuous blaze of fire—yet very different from what we commonly term atmospheric electricity, and which we can not relieve ourselves from, as in the latter case, by placing ground wire conductors in close proximity to the line wires.

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### A TOUCHING INCIDENT.

In one of the beautiful villages of Westchester county, not many months since, there resided a happy and prosperous young family, consisting of a husband, wife, and three small children. The husband was a man of thriving business, excellent habits of morality and intelligence, honest, kind, faithful, and industrious, in all his relations. The children were healthy and handsome, petted and beloved. The wife was a pattern of beauty, amiable,

moral, social and spiritual loveliness, idolized by her husband in return for her love, and fondled by her babes. Falling in feeble health, her mind became inordinately exercised on the subject of religion, and especially in reference to her own salvation. Her predisposition in this direction was encouraged by frequent attendance on a series of religious meetings being held in the village, mainly under the management of an itinerant evangelist. For some time she gradually grew worse and worse, and began to lose all interest in her family, and in society, and all hope. In vain was she prayed and labored with. Her husband used all the hopeful and endearing appeals within his power, but with little beneficial result. She lost all relish for life, and grew wan, and wept day after day over the forebodings of her mind. Her children at times seemed to recall her back to herself, but it was mournful to see how she would take them up in her arms, wrap them to her bursting bosom, kiss them, and then wet their cheeks with the burning tears she poured out in view of the awful thought that she might at last be separated from them forever. Her melancholy grew deeper and deeper, till it broke out in despair and madness. The beautiful wife and mother became a maniac, rolling her eyes with fiery glare, tearing her hair, shrieking with frantic horror, and seeking the bloody knife for the destruction of her nearest and dearest friends. With a bleeding heart, the stricken husband was compelled to abandon all hope of her recovery. During a lapse in her violence, she was taken from home and children; on her journey she sat wrapped in sad and silent melancholy, lost to all save the dark depth of her broken, despairing spirit; and now she lies a lonely wreck in the walls of Bloomingdale Asylum.—*Pennsylvania Paper*.

A GOOD MOVE.—The *Massillon News* says: "The Rev. Mr. Blood remarked on last Sunday that it was the desire of his congregation, that persons should occupy the seats which they obtained on coming in, and that it would not be considered a breach of etiquette if four or five gentlemen did not rise up and file out in the aisle for the purpose of giving some lady the seat next to the wall."

This is a good beginning, and we hope to see it followed up in all public assemblies. A lady is just as well situated in one end of the pew as the other, and there is no reason why a platoon of gentlemen should file out into the aisle, attracting the attention of the whole congregation and disturbing the services merely to allow a lady to sit next the wall. Politeness and convenience would dictate that persons on entering a pew should go as far back as possible, and then when strangers enter the church they can at once see where there are vacant seats, and obtain one without that embarrassment which many feel in looking for a seat in a strange place.—*Mansfield Herald*.