WIZARD OF WASHINGTON A Scientific Delver Into the Mysteries of the Human Mind.

REV. STANLEY KREBS Writes an Interesting Letter in Reference to a Visit Paid to a Genius in the Capitol City of the United States.

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I have just returned from a day's visit to Wonderland. We hear a great deal about the marvels going on in the mystic laboratories of Edison and Tesla where the forces Nature are made to be man's playthings and servants. But I feel convinced that when the true purpose and methods as well as the results of the labors and experiments going an now in the Elmer Gates's Laboratory of Psychology and Psychurgy at Washington, D. C., are clearly known and comprehended by the people as well as by the scientific world in general, that all, regardless of party or sect will exclaim, "This is the path of true progress," as discoveries in mind are superior to discoveries in matter.

As the guest of Prof. Gates, the founder and head of the institution, the cordial hospitality of whose delightful home at Chevy Chase, Md., I so deeply enjoyed for one entire day, I had peculiarly favorable opportunities for being brought into touch with the very animus and soul of the work herein proceeding. Its origin really strikes roots back into Prof. Gates's childhood days, and as the story is a most interesting one from various standpoints, I will recite it briefly, and as nearly as possible as I heard it from the professor himself in his comfortable and capacious study, while over the wide and beautiful lawn came the hum of the machine shop where skillful mechanics were working out a new instrument for his researches. In an adjacent room two typewriters were at work on the manuscripts for a new book containing some of the results of his labors for the past 20 years, and off in several departments of the laboratory proper his assistants and specialists were at practical demonstrations of one kind or another, all of which have, mark you, now direct or indirect bearing on our knowledge and practical use of the mind—around which one point and purpose all the multiform activities going here are organized. But to the story of the genesis and development of those things.

The parents of Prof. Gates were Dunker Baptists, very strict in their religious dogmas. His early life in Ohio was secluded, away from people, but near to "Nature's heart." His governess was a Quakeress and instead of teaching him from books, took him at once and first hand to the fountain, to nature direct, and taught him to see similarities and dissimilarities in all things around him,

taught him to contrast and classify. His mathematical tutor was an agnostic, and his chemical tutor an Hegelian transcendentalist.

Being hopelessly exposed to these diverse influences, it is scarcely to be wondered at that their conflicting ideas, tenets and beliefs—which they poured into his pliant soul—puzzled him, and at last, early in life drove him to skepticism of two kinds, religious and scientific; religious because dogma and nature would not harmonize for him; scientific because of the oppositions of science itself.

All things were doubtful. He sat alone at night and pondered, and in the downright blood-earnestness of his very soul he desired and begged of the silence, which seemed to brood about him in mystery that some one, some power would illumine him and reveal something that he could not doubt. He was thus gradually led to look, instead of without, within.

He turned within and began to watch the operations of his own mind. He first carefully observed all the effects which a changing environment had upon himself. This to him became delightful labor, inspiring, uplifting. He made a systematic observation of these mental or psychic elements; quite unusual for a boy. He got them at first hand. He thus early developed experimental introspection, a practical analysis and factual classification of the mental content.

This whole process was repeated and re-demonstrated as he grew older again and again, and led directly to the formulation of certain principles of mind-use upon which his exceedingly practical, labors, inventions and discoveries—which have now mounted up into the hundreds—have been grounded and based. These inventions and discoveries were not sought chiefly or primarily for their own sake, much less for their money value; but as practical, visible, tangible material demonstrations or proofs of the genuineness force and truth of the systematic psychological processes by which alone they were obtained. To the rules and principles I will refer in my next letter.

THE WIZARD OF WASHINGTON CITY Pyramid of Thought

Second Letter From Rev. Stanley L. Krebs Relating to the Capitol City Genius.

Thus, by the force of circumstances being lead to the careful and repeated systematic observation of the inner operations of the mind and the changes wrought in or upon it by stimuli coming from external nature, Prof Gates, through original experiments upon both himself and others, children and adults, direct and indirect, aided also by delicate and ingenious instruments and devices of various kinds, arrived at the following rules, steps, scheme or method by which Nature develops mind, more mind, and better mind.

The first step of the awakening mind (child) is to acquire or experience all the sensations one object can produce. These sensations lie at the base of the great and complex pyramid of the total mental functions and their relations which the mind is eventually to construct. If the mind gets all but one of the several or many sensations which any given object is capable of producing, its knowledge of that object will, in so far be defective, and—which is far worse and more serious—all the after complex mental structures in which that object or group of sensations enters as a unit will be defective and untrue too.

Second step.—Out of two or more sensations the mind constructs "images." By "image" is meant not only a visional or visual representation of the surface of an object, but also of all its qualities conquized by sense and test. The mind or ego, by its intuitive power to all differences, classifies its sensations into groups, into an "image," and it calls these "images" or groups of sensations bird, beast, fly, stone, man, flower, star, etc. Images are true and complete only as the sensations of a given object are complete and true.

The third step consists in classifying images, in grouping two or more. This process produces "concepts," such as magnetism, heat, power, motion, etc.

The fourth step is to discover relations between concepts. This process gives us "ideas." There are 5,720 concepts of electrical science, and when we discover the relations of each one of the 5,720 to all the others, we have the "ideas" possible to electric science. For example, heat and magnetism are two concepts; heat diminishes magnetism; the word "diminishes" states one relation between two concepts, and thus gives rise to one of the many "ideas" of electrical science. Or again, odor is a "concept," but no relation has ever been discovered between magnetism and odor; hence there are no "ideas" anywhere on the subject, but may be discovered any day. Magnetism and light are concepts, and Prof. Gates had just recently discovered, tested and demonstrated a new relation between them, and thus had obtained a new "idea" on the subject.

When we get ideas, the next step is to combine them by discovering a truth common to two or more of them, which process gives us a "law," "thought" (or "generalization") of the first degree. When we discern a truth or element common to two or

more laws or thought of the first degree, that gives us thought of the second degree, or a higher generalization, and so on up. But as the scope at this point becomes immensely wide, no science has yet reached thought of the third order. To reach it would require a new method of research, something never before proposed, much less tried, in the history of civilization, namely what Prof Gates calls "cooperative mentation," that is a group of specialists in various sciences working together with this one end in view, and specially prepared for it. To effect this is a Herculean task from more standpoints than the financial; but inspired by the hope born of thorough scientific conviction, Prof. Gates has actually taken the first step to accomplish this, and is now actively at work in planning or realizing the whole. I will refer to this again.

Here then we have the remarkable pyramid of mind-molding and strength. Down at the base is the great host of sensations, and up at the top reigns thought of the second order, while between, in the structure of the pyramid, lie images, concepts, ideas and thoughts of the first order. We can never have as many images as sensations; never as many concepts as images; never as many ideas as concepts; never as many laws as ideas, and never as many thoughts of the second order as laws. A thought of the second order thus comprehends and involves an immense number of sensations, images, concepts, ideas and laws, while a thought of the third degree is practically impossible to any one unaided human mind.

CAPITOL WIZARD

Third Letter
From Rev. Stanley L. Krebs, of Greensburg.

Class of Over 600 The Marvels of Consciousness and Various Other Wonders in the Realms of Intellectual Knowledge and Mental Science.

"My mind to me a kingdom is" is a trite but tremendous truism, the profound truth of which we are just beginning to learn in these days of mental wonders, and there is no bolder knight entering this enchanted kingdom, this terra incognita of mystery, than Prof. Gates, of Washington.

This long process of introspection through which he passed, and to which I have referred in previous letters, at last revealed to the professor's mind the one thing which he could not doubt, and that was the reality of his own consciousness, a position to which every earnest, honest and fearless thinker will, we believe,

ultimately be driven. Everything else *may* be what it seems to be, but this one thing he was sure of, namely, that consciousness acts when awake, and especially that it maintains itself by changes proceeding within itself; that as soon as these changes cease, consciousness itself ceases. This, by the way, is the secret of all methods of hypnotism or artificial sleep production.

The study of the mind in all its phases thus became and still remains the one central purpose of the Laboratory at Chevy Chase, all the complex scientific instruments, devices, and inventions of which have constant and [remainder of sentence missing].

How all this is related the sciences and arts will be seen when it is remembered that the mind can have experiences only first, with itself; second, with other minds and third, with things, animate and inanimate. In this third relation arise the sciences of chemistry, biology, zoology, astronomy, mathematics, archaeology, etc.

But as mind must be the central and supreme instrument for the study and development of all sciences and arts, psychology is the queen science, the science of sciences and psychurgy, or the art of mind-building and handling, is the supreme art, or the art of arts.

To show what these principles will do when applied practically to any one science, take the science of electricity, to which Prof. Gates is now directing all his energies. First, the sum of human electrical knowledge will be accurately recorded. Secondly, these facts will be re-observed, re-demonstrated by psychologically trained observers, leading to the discovery of new facts all along the line. Then these phenomena will be classified and reduced to a minimum, and to thoughts of the first and second degree. When thus verified and classified, this matter will constitute the standard textbook on electricity, and will impart a knowledge of this science and art in one tenth the time and far more accurately than at present. Prof. Gates has over 600 applicants for this class in electricity. Of these he will select 200 and keep them under observation for six months. They must live, eat, sleep and exercise according to approved methods of health and hygiene. Of the 200 he will keep 20 of the best. These he will train, and these 20 will cooperate at the same hour of the day in re-imaging the contents of electrical science, re-conceptuating, re-ideating, and thus developing the art of making inventions and discoveries by opening up a whole series of new images, new concepts, new ideas.

To this body of trained assistants he will bequeath the department of Electrical Science.

This whole process will then be repeated in the other sciences, and thus the entire body or circle of human knowledge will be verified and re-verified, systematized and immensely developed by highly trained specialists in each department, who understand not

only the facts and laws of that department, but also the facts and laws of mental action and mind culture. The financial outlay will necessarily run up into the millions, but the real gain to humanity will be practically immeasurable, and, indeed, since I have understood his plan and purposes I have more than once wished from the bottom of my heart that some broad-minded Carnegie or Rockefeller would come along, get acquainted with the Gates educational reform and give it a worthy endowment. Such investment would bring incalculably greater and more lasting benefits to the race than establishing libraries in cities and villages where it is mainly the fictional literature that is read, and where the scientific works, so-called, contain so much that is mere hypothesis and unverifiable guess work.

Some of the practical methods and results I will state in my next and last letter

WIZARD OF WASHINGTON

Fourth Letter
From Rev. Stanley L. Krebs
on
Matters of Mind

Building of Brain

(How to Get More Brain and Better Brain—What About Phrenology?—Prof Gates's System of Mental Development)

Let us not lose sight of the fact that the basis of the Gates system of educational or scientific reconstruction is correct sensations derived, tested and re-tested by accurately trained, and hence delicately developed, senses. Our senses are underdeveloped or non-symmetrically developed, insists Prof. Gates. The child's brain is not completely, roundly and soundly exercised. Only about 10 per cent. of our brains are cultivated, thus leaving a vast range of sensations, brain areas and delicate discriminations untouched, asleep, useless.

That certain areas of the brain (cortical centers) govern certain movements of the body, has been established beyond peradventure by the physiological psychologists of Germany, Italy and France. We know the brain center of sight, hearing, smell, touch, motion, etc. Do not confound these centers with the old phrenological "bumps." I cannot enter into this phase of the subject fully, but suffice it here to say that whilst a general truth underlaid the teachings of phrenology, the detailed localization of so many special functions has never been proved, while the sense-centers as

now demonstrated by science are located at quite different spots in the brain structure from those assigned to them by phrenology. Phrenology holds about the same relation to physiological psychology as astrology to astronomy, alchemy to chemistry.

But sense-centers in the brain have been discovered and absolutely verified in more than one or two ways. It has been established, too, that by exercising a certain part of the body or one of the senses, we are actually building up brain matter. A man who cultivates his hearing builds up or creates more brain cells in the hearing part of his brain than the man who takes no training in auditory discriminations. If he cultivates sight, more brain cells have been built in that part of his brain; and so on. Now Prof. Gates asserts that development in any one sense not only makes more cells in that part of the brain, but more mind generally.

Prof. Gates has demonstrated this brain-building and mind culture not only in children and adults, but also in animals. For one year, for several hours each day, he trained dogs to distinguish between colors. He did it by placing several hundred tin pans painted different colors in the yard with the dogs, and by placing their food in pans of one color, and by sending an electric shock to the dogs if they would touch any pan but the right one; by methods such as these endlessly varied, he taught them to avoid all pans but the right one, which they would discriminate eventually from the hundreds of others of all shades, colors and tints. They could at last distinguish between seven shades of red and seven of green, and thus in many ways demonstrated more mentality than any untrained dog. Moreover, while one set of dogs being thus developed, another set was deprived of sight or sight-exercise in a dark room, and at the end of the year when both sets were killed and their brains examined, it was founded that the untrained dogs had less than the normal number of brain cells in the seeing areas. and the cells were smaller, while the trained dogs had a far greater number of larger and better-developed brain-cells in the sight areas.

Hence, Prof. Gates asserts that mental exercise creates organic structure, and that if we want more brain and better brain we must commence while young to train all the senses harmoniously and systematically.

But a brain thus scientifically developed becomes the supreme organ or instrument for accomplishing greater things, making [it] the supreme organ in any line of investigation to which it is applied. Hence psychology is the queen of science and psychurgy the queen of arts.

Prof. Gates himself has, by the simple outworking of these principles, made hundred inventions and a number of discoveries which are all duly patented and protected by the government of the United States. He has not had time to develop more than a very few of them, as his main research for the past 20 years has been purely a psychological one. I myself saw machines working in his laboratory which will certainly astonish the scientific world when they are put on the market, as a syndicate in New York is now preparing to do with three of them.

Prof. Gates has been too busy with his own research to publish much hitherto. Only a few pamphlets and an occasional article or two in the scientific magazines is all has appeared for 20 years. But it affords me much pleasure to say that he has his stenographers at work now on a book which will set forth at least some of the tested and re-tested results of his researches and discoveries. Thousands of persons who are at last acquainted with Prof. Gates's splendid personality and really brilliant achievements and comprehensive plans, will, with the grateful writer, await in high expectancy the appearance of this volume wherein he himself will tell us in his own delightful style of instruments, methods, experiment—not the half of which, not the decimal of which, has ever been told before.