[page 461]

PART FOUR The Three Messages of Elmer Gates

My Message! My mission! How it has risen above and overshadowed all else in my life. It is my aim and plan, my dream by night and vision by day, my Promised Land, my deepest insight and strongest impulse, my dominant desire, my main achievement, my joy and my goal. It is my mode of self-expression, my meaning to the world; my life!

My First Message is the writing of The Twelve Volumes; my Second Message is the Institutional Work with its Demonstrative Exhibit of Science Teaching; my Third Message is the Teachers and Pupils Association, for the higher steps can be imparted and carried on in no other way than by the paideutic method. This is the true way of propagandizing psychurgy.—ELMER GATES

[page 462]

0 the presumption of it: The audacity of the claim that I have a World-Message! But I would not dare assume such a responsibility on my own. In the first place I have merely been led to point out the significant meanings, the trends and tendencies, and the religious message of modern science. The intrinsic nature of that message is inevitably the paramount importance of an art of using the mental powers by which science is being created, its data are validated, and by which they are applied. The tendencies and processes which have produced science and philosophy and religion, if continued, could not fail to have produced psychurgy; and psychurgy could not fail to have produced the discovery of cognosis. It is the MIND-PROCESS that has revealed and formulated this message, and led to the discovery of an authority higher than human; and it is to this, to the cognostic mode of knowing and its indubitable criterion, that I point. Upon cognosis I lay the responsibility for the Message, insofar as I have succeeded in getting it, humbly asking that all errors of my interpretation may soon be weeded out by the methods which have been discovered. The cognistic student will not at all comprehend these statements—they will seem extravagant and mystical. But the pupil with cognostic ability will understand; to such will come a knowledge and recognition of verities beyond the Levels of cognition, and they will know beyond doubt that the cognostic message comes from the regnancy which governs all times in all worlds, from that which abides while all our temporal and local affairs pass away. I would not venture so elaborately and carefully to write an account of my researches were it not that my

methods have succeeded, for the first time, in getting Consciousness to give an account of itself. It is not the ephemeral conscious states of a human mind that is giving this message: it is the cosmic nature of Consciousness itself that is speaking.

—ELMER GATES

[page 463]

CHAPTER 21 The First Message: The Twelve Volumes

The greatest thing ever done for me, that can ever be done for any man of earnest life, you did for me. You confirmed me to myself; you showed me, that is, the indubitable truth and rightness of certain modes of thought. . . . This and much more to greater men is what you have to do for others too.

-FRANK HAMILTON CUSHING to ELMER GATES (1894)

It requires more judgment and experience with human affairs to carry a truth to the world than to discover it.

— ELMER GATES, studentship writings

"I have gotten to the point for which I yearned," wrote Gates, "where I can give my Message without colorings, and truthfully." And his Synopsis of the Twelve Volumes first appeared in his May 1910 edition of the manuscript of Volume 1. The introductory page reads: "An Outline of Psychurgic Propaedeutics and Paideutics in Twelve Volumes. An Automathic and Pedagogic System of Instructions, Trainings, Insights, and Uplifts for Freeing the Pupil from Trammels in Environment

[page 464]

and Mind for Using the Manuscripts and Other Facilities and Establishing Favorable Conditions for Learning and Practicing Psychurgy."

The volumes are dedicated simply and sincerely:

"DEDICATION"

"These volumes have been prepared for those who earnestly desire more fully and skillfully to use their minds in discovering, learning, teaching, and practically applying intellection, introspection, esthesis, and all their voluntary personal powers to their own growth and to the betterment of humanity; and who, with that end in view, are eager to get more closely and vitally in touch with Mind and Consciousness so they may utilize their more fundamental modes of knowing in discovering and validating knowledge, in testing and acquiring skill, in evaluating esthesias, and in utilizing the domains that lie under and above what is ordinarily known as the conscious mind in making a better adaptation, not only to things local and temporal but also to things universal and eternal.

"The author humbly and gratefully dedicates the Mentative Art, herein so incompletely and imperfectly imparted and expounded, to the CONSCIOUS PROCESS by which it was produced, and by which TRUTH and Happiness are becoming ever more regnant over LIFE."

The classific outline of the Synopsis of the Twelve Volumes uses many technical terms, difficult to explain to one who has not had laboratory training, so it will not be given here. Its scope may be appreciated from the following general description.

The Synopsis shows three groups corresponding to the three Degrees of Studentship: the 1st Degree or Cognistics (Volumes I to V); the 2nd Degree or Cognostics (Volumes VI to IX); and the 3rd Degree or Sophics, including Superpaideutics (Volumes X to XII). They are outlined in seven Grades, fourteen Stages, seven Great Planes

[page 465]

The capitalized word "Plane" means the characteristic and typical degree of mind-embodiment possessed by the pupil. It indicates the general degree of evolutionary development. Thus there is the degree characterized by a dominancy of the organic feelings and appetites, by simple conations for their satisfaction, and by perception (sensating, imaging, conceptuating, and ideating) as the degree of intellective attainments. This is the First Plane. Then there is a higher degree of evolution characterized by a dominancy of the emotions (affectional, esthetic, musical, or otherwise), by a higher order of voluntary activity (emotive boulation), and by thoughts of the first, second, third, or fourth degrees of generalization. This is the Second Plane. There is a higher degree characterized by the sentiments, by a still higher order of voluntary activity (sentimentic boulation) and by science, philosophy, and religion as hitherto known. This is the Third Plane. There is a still higher degree of purpose-urging (telusis), a higher order of voluntary activity (telation), and a psychurgicallyrectified synthetic science and philosophy and religion. This is the Fourth Plane. Finally there is the beginning of the New Type of

feeling, knowing, and acting that is characterized by desire for being in its fullness, by cognostically-directed activity, and by cognitively apprehended cognostology. These are the Fifth, Sixth, and Seventh Planes.

Each Plane has its "Levels," consisting in the psychotaxic degrees of integration and generalization of knowledge-attainments. Each Plane has its "Powers" of integrative degrees of the doing-abilities inherited or achieved by any person, such as predilection or genius capacity. Each Plane has its "Uplift" of the integrative degrees of inherited or acquired feelings, emotions, and sentiments.

"Stage" refers to the kind of knowledge, doing, and feeling that forms the subject matter of instruction at any time, it being understood that the pupil has mastered all previous Stages—not by passing the usual examinations but by having made those Stages an actuality in his life, with full insight into every phase.

[page 466]

There are fourteen Stages—one for each volume except for Volume XI, which comprises three Stages.

"Grade" refers to the technical skill achieved by the pupil, and to the kind of training he is prepared to receive and is receiving. There are seven Grades.

"Insights" are understandings (cognic, urgic, esthic) of a subject as a whole, but in which there are also factors contributing other than mere cognition—namely, cognitively apprehended cognocepts. There are Level-Insights, Power-Insights, and Uplift-Insights, which have to be *imparted* by the special methods of psychurgic paideutics, in which the teacher builds exclusively upon previously acquired Insights.

The First, or Propaedeutic Stage (Volume I) is an outline of Psychurgic Paideutics and prepares the pupil for a 1st Degree Studentship and initiates him into Lessons preparing for Volume II.

The Second, or Transitional Stage (Volume II) acquaints him with the Planes of human development and an understanding of cognitions. It leads him to make the *actual transition* to the psychurgic life and trains him in communicative exposition, including Symbolotechny and the Glossary.

The Third, or Cognignosturgic Stage (Volume III) deals with the psychology of sensation, intellection, and introspection (collectively called cognignosis). It gives an outline of the states, processes, and volitionally directed activities of the *intellect*, showing it is an interpretive knowledge of objective and subjective things according to the abilities and limitations of a person in a local and temporal environment. It explains the principle of

psychological classification, outlines the method of intellective validation, and points the way to intellectual normality and freedom. It shows that a psychological classification of the intellections relating to any domain of nature is at the same time a classification of the scientific data of that domain. It describes the new methods and kinds of introspection, points out the most conspicuous things in this inner world, shows there is an introspective classification of the mind's content that *must* be made

[page 467]

before it is worthwhile to apply other methods of validation, and points the way to introspective freedom and normality.

The Fourth, or Cogniturgative Stage (Volume IV) deals with voluntary activities from the simplest to the most complex acts, classifies the urgations showing that the simplest (conations) are the units of compound urgations (boulations), and that these in turn are units in telation. It introduces the pupil to the most fundamental of all trainings (askeotechnics and chreotechnics) by which psychurgy is applied, not to this or that faculty merely, but to the whole person as a unit (auturgy) and to the whole social group as a unit (sociurgy). It classifies human activities and points the way to freedom and normality in human effort. The most valuable feature of this Stage is heurotechny (the art of discovering the new) as applied to cognignosis and urgation.

The Fifth, or Eunesthesiurgic Stage (Volume V) is an application of the methods of psychotaxis to the esthesias (organic feelings, appetites, affections, emotions, sentiments) producing an esthesotaxis. It shows the effects of feelings and emotions on the excretions and secretions, and how this and their taxonomic range constitute two steps in the evolution of the esthesias; and outlines other steps toward a scientific eunesthesis. These principles are applied to the development of an art of regulating and utilizing the esthesias (esthesiurgy), with applications to the fine arts and Synthetic Esthetics. The relation of feeling and emotion to art is discussed from a new standpoint. The main idea of this volume is that the good and happy esthesias may be rendered dominant and the unpleasant ones diminished so that life will be much happier (eunesic) and more vital energy will be produced; that happiness is a means as well as an end; and that the esthesias are the motives of conduct. Therefore the evaluation of motives in order to select the highest and best ones for guidance is even more important than the validation of knowledge.

The Sixth through the Ninth Stages (Volumes VI-IX) cover the 2nd Degree Studentship in Cognostics. The 3rd Degree Studentship

[page 468]

includes the Tenth through the Fourteenth Stages. Volume X, the Tenth Stage, refers to philosophy. Volume XI comprises the Eleventh Stage—the religion of knowing and contemplation, the Twelfth Stage—the religion of action, and the Thirteenth Stage—the religion of organesis. Volume XII describes the Fourteenth Stage, Superpaideutics.

The final synthesis of cognistics and cognostics as knowledge takes place in our actual interpretation of these knowledges. The final synthesis of cognistics and cognostics as action takes place in the actual doing of our knowledge and feeling. The final synthesis of cognistics and cognostics as feeling, emotion, and sentiment takes place in our actual enjoyment of life. To these ends the psychurgic philosophy and religion have something new and important to offer. Synthetics points out the new ruler of the world, lays down the basic principles according to which all that is practical and desirable in utopian schemes and Millennial Eras may be attained—if ever. This new world ruler, to which humanity must submit in order to escape a perpetual repetition of the sufferings through which it has passed, is the whole body of (alethified) cognitive and cognostic knowledge, synthesized and used for the skillful carrying out of (askeotechnically) selected purposes for the attainment of right esthesias.

Elmer Gates believed that he would be of greater service if not hampered by selfish interests, and devoted his whole self and person to allowing his mind to bear fruit while it was naturally active. The uninterrupted lifework of forty-five years was summed up in these Twelve Volumes; not finished products, as he said, but "outlines of work to be accomplished and suggestions of work to be done, of insights to be further verified, of methods to be improved." The main work remained to be done by future students of psychurgy. "If your mind does not teach so you cannot doubt that I have pointed out the true process and method of knowledgegetting," he said, "then all I say are my own conclusions. If we can get together all the data, however, we can both experience them."

[page 469]

A more detailed aspect may be appreciated by briefly considering askeotechnics, which is the technology of mind-training and of *selecting* from an inconceivably vast number of possible states and acts those that may be available and useful for accomplishing telurgically determined purposes. It is based on refunctioning only the useful states and processes. The scientifically determined principles of this selective askeotechnics (called chreotechnics) are the sifting machine of psychurgy. A system of

marks, symbols, and diagrams is used to indicate the kind of training and its order. A psychotaxic unit or state is selected and trained, both as a state and as a process, by causing it to be refunctioned, dirigated, introspected, and used in normal ways in a certain order, the resulting seven different kinds of states being either good or bad. On any of these the six psychurgic operations (of Chapter 15) may be applied, but preferably not to the bad states. A good or bad state may be wholly false or true intellectually, wholly happy or unhappy esthesically, wholly skillful or unskillful conatively, right or wrong personally or socially; but in nearly all states its elements are both good and bad. A state organisthesically pleasant may be harmful physiologically; ideas that are false may produce temporary emotions of happy interest; or a conation that is skillful may be directed by wrong motives. In this sense a state may be both good and bad. The good elements in psychal states, even in the most evil people, are generally in the majority, but the bad states are functionally dominant. It does not take a long or difficult psychurgic training to supplant this criminal or immoral tendency with a good and wholesome one.

By an interesting computation Gates estimated that there were over 168,000 states, as a minimum, derivable from a single mental (psychal) state by these operations. But the possible number that could have arisen, through ignorance or perversity, out of the bad states—such as false intellections, unhappy esthesias, unskillful conations, painful organic feelings, anguish and worry, doubt and jealousy, hate and speculation—was practically

[page 470]

infinite. There was no greater opportunity to practice a fundamental economy, hevpointed out, than by psychurgic methods, which would save theyhuman race from wasting time with a few myriad millions of worse-than-useless states that usually made up 95 percent of the mental activity of each generation.

The number of complex states that result from psychurgic operations upon simple states is so vast that we need have no fear that the possibilities of the human mind will soon be exhausted. There is potential optimism that not 1 percent of this projected ground has ever been surveyed. If there were not an art of dealing with this stupendous number of states, the task would be hopeless. It would indeed be so if it were not for psychotaxis with its incredible characteristic for reducing the data classification of any science. Other aids are the greater system and brevity of the new methods of ideating and thinking, of symbolism, marking, and diagramming, the extraordinary increase in celerity and accuracy

and ease of the mentating processes brought about by the psychurgic training, and the elimination of bad states (including theory and hypothesis).

What are the main lessons of psychurgy? Gates listed them this way: "art of mind-using, nature of mind as interaction of organism and environment, Consciousness and knowledge as the mind builder and normalizer with data from every domain, predilections and genius-capacities as self-expression and norm and guide, subconscious as slave and tool, systematic building of mind and feeling and skills, learning based on fundamental mental processes of likenessing and differencing, percept the unit of memory, personality the result of dominancies, the normal as naturalistic Plane, psychotaxis, telurgy, utility of the anabolic, metabolism of happiness, the infantile curriculum, brain-building and mind-embodiment, mind as growth, art of discovery and invention, a Cosmos of Consciousness. Psychurgic education is based on a new psychology of intellection: it is a psychurgic, or mind-using, psychology of cognition. Psychurgy makes the impossible easy. Scientific knowledge is essentially revelation, and psychurgy is the formulation of a natural religion."

[page 471]

Gates emphasized certain points as follows: "I hope I have made it plain that when Consciousness is free to travel without being led by the halter of theory it takes the natural road of cosmic development; when the mind is unfettered it follows its immanent bent that is the cosmic tendency; when the conscious process is not misdirected by false ideas it goes by straight paths to its natural culmination. Consciousness is as much a cosmic force as gravity or motion or heat. A logical process is true because it is cosmic and in keeping with Reality, and truth is cosmic and not of our making.

"The psychurgist looks to the regulation of mind and environment by Consciousness as the cause, method, and goal of all progress, and in the cosmic nature of Consciousness he finds a justified rational trust in life and the cosmos. The religious nature of science, art, and life will not be appreciated without the insight that most of the mind of an individual is not a property of his individuality, but of that which is immanent in existence as a whole and in Consciousness in particular.

"It is often impossible to convey an insight by means of language. Descriptive and speculative expedients must be used: it is in this way I have sometimes used them and my opinions. The main teachings and methods of psychurgy are based on data that are unquestionably facts and in no way based on theory. The most important facts, however, cannot be known by usual methods but

require cognostic ability. Mere belief and faith in the old sense have naught to do with success in dirigation or regulation of the subconscious processes or mentation: knowledge and skill take their place. Mind-embodiment and brain-building are facts irrespective of any interpretation.

"False images, fairy tales, myths—however beautiful or entertaining— would be still more beautiful to a normal mind if they were true. It is better to fill the mind with fact rather than fiction, and with only actually known knowledge instead of theory—these should be the basis of conduct-guidance. Only facts must be used in the mentative synopsis: nothing we only believe or hope to be true, even if sure it will turn out to be true.

[page 472]

"My laboratories have been used mainly for my studies in psychology and psychurgy. An entirely new science has been discovered—cognostology—and out of it grows a new philosophy and a newreligious attitude and insight."

In another part of his manuscripts Gates remarked: "Purposes are the most important factors in a life, and only Self has purposes. It is not by mental activities or such, nor by bodily activities, nor by the organized purposes that the true auturgic Powers are acquired, but by the activities of the Self. Purposing is the way to get acquainted with Consciousness. Mere bulk of intellective or esthesic content makes us acquainted with things and our appreciation of them, and cognosis acquaints us with the states and processes of the content of Consciousness—all of which is wonderful enough—but it does not bring us face to face with the main and most significant reality in Consciousness. Only through pure and unmixed purposing do we finally insight the most important feature of Consciousness: its Self-Activity. Only by self-activitying (activating) do we finally get to know the selfactivating that is the most conspicuous phenomenon of cognosis AFTER ONCE RECOGNIZED; and when we know this Selfitating, we know the Self; and when we know the Self, we know the Person; and then, and not before, we know the mind as a mental *person*, which is the psychologic body and tool of Selfhood. Consciousness as a process is as mercilessly indifferent to us as heat or electricity, but as a self-activating Self as a selfed Personity, it is something quite different and more truly worth knowing than anything else whatsoever in the whole range of experience."

In the "General Preface to Psychurgy," in Volume I of his planned Nine Volumes, Gates had this to say about his Message. (Adapted.)

An actual new process or phenomenon has been pointed out that is worth studying. The mind is so wondrous a phenomenon, its possibilities are so far-reaching, Consciousness is so mysterious

[page 473]

(yet the best known of all things), its processes and states are so multitudinous, its relations to the Cosmos so intimate, that we may expect it to require a long, long course of scientific investigation (centuries and thousands of years even) to attain to an approximately complete knowledge of any of these subjects. In any of the new domains we may therefore expect to do little more than point out the domain and show how to derive benefit from it. My inventory and description of the fundamental experiences of Consciousness with itself (the cognocepts) may be incomplete or incorrect, but the important point is whether there are such absolutely known data; and if I have given enough of an insight to enable others to carry it to completion.

Out of the contrast between cognisis and cognosis, and out of alethics, has arisen a new or psychurgic epistemology—one that is no longer a metaphysical speculation but a science. And if the reader does not arrive at an insight into the local, temporal, relative, and individualistic nature of cognisis as compared with the universal, eternal, absolute, and non-individualistic nature of cognosis, he will miss the best these volumes offer; he will not understand my allusions to many things, and will not see the incomparable beauty and meaning of the psychurgic World Work.

If the content of a mind determines its attitude toward circumstances and shapes its conduct, then it behooves us to ask, *What kind of content is best?* These volumes answer that question, chiefly by disclosing the method by which it may ever be more fully answered. The answer is the crux of science, philosophy, and religion. If the mind is not furnished with an interpretation of the world based on knowledge and a scientific handling of our attitude toward the Unknown, then it will adopt and tenaciously cling to any speculation, myth, tradition, or belief that seems plausible; and plausibility will be determined by the kind and amount of true and false information and normality of feelings and emotions.

Our books, customs, religions, and habits of thought have come to us out of a past that had no scientific method, out of

[page 474]

an age filled with superstitions, myths, and mystical dreams; and we should not expect to emancipate ourselves immediately from the influence of these ancient specters, ogres, and spells. The battle of science against ignorance will be only a skirmish as compared with the battle of systematized and validated knowledge

against All-That-Is-Not-Knowledge; for the Unproved, the Not-Yet-Known, the Untrue, the Speculative, have been so long inoculating our customs and beliefs and institutions that the average human mind has become immune to the poison and does not know to what extent delusion and illusion are being followed—and this has extended to the whole social system. But true intellectual freedom is slowly dawning. Those who have the courage and integrity should manfully and womanfully enter seriously into the campaign for the establishment of the sovereignty of validated scientific knowledge. This is not an easy task, but it holds the very best prizes of the future.

Scientific Method Is the First Planetary Culture. There was a time when races and nations were comparatively unknown to each other; each isolated country had its own peculiar beliefs and customs. They were strangers to each other's mental world. But we have now for the first time entered an era of worldwide culture along certain lines, so completely representing a world belief and world-plan of action that it may be called a planetary culture. Western civilization, equipped with that incomparable instrument, scientific method, has created the modern world. This new culture has very little to learn from the past or from oriental cultures, looking instead to discoveries and inventions of gifted individuals for guidance and progress, yet in psychurgy becoming more fully conscious of its own method. It was part of the modem technique of scientific method that organization for discovery had become purposive, systematic, consciously seeking improvements; it applied to backward fields of progress the methods that had been fruitful in other fields. It applied the method of specialization and focusing on a specific problem. All this was helped by the quick communication of discoveries. The

[page 475]

special technique consisted in more or less abstract advice and helps of systems of logic, or a rapidly developing (and still largely wrong) experimental method based on testing alternate or opposing hypotheses.

Psychurgy discovered the specific kinds of mental states and processes of states and operations with these processes by which knowledge is discovered and validated; it introduced the technique of a specific kind of mind-embodiment and brain-building as the necessary education of an investigator for the mechanism of efficient and truthful mentation. Then it trained him in the art of mentating (of sensating, imaging, conceptuating, ideating, and thinking) and in the new methods of introspection; and in other technical steps.

Psychurgy is a Consciousness Cultus. It is more than these volumes; more than the several groups of already developed psychurgic arts; more than the recognition of Genius as the Revelator; more than science and its religious significance; more than all that psychurgy has yet done. It is a new and definitely unique and illuminative and exalting attitude toward Life and the Cosmos of which Life is the chief Being, constituting a definite cultus based on the indubitable knowledge and insight that looks to the Consciousness that underlies and transcends the lowest as well as the Highest, and knowing Consciousness to be the Teacher of all lives in all worlds throughout all eternity. Whosoever once sees that Consciousness is the Active Regnancy of the Existential Cosmos will ever after look to it to solve all problems of all creatures. Consciousness will most assuredly carry us to ever higher Stages of knowledge, doing, feeling, and being.

Psychurgy is a new understanding and conception of Life (and its activities and actions) as *Consciousness and its activities and acts*. It approaches everything not merely from the "inner side" and the mental side but from that which is inmost—namely, from the Consciousness side. The mind is the child of Consciousness; the ordinary life is mind in activity; Consciousness underlies life and mind and is a more fundamental kind of

[page 476]

life. Psychology as hitherto known is a science of cognitive states and processes; the psychurgic psychology is a cognosto-cognitive one—that is, it comprises also a science of the Consciousness out of which the cognitive states arise.

Psychurgy is not only the culmination and essence of the modern spirit and purpose and method but the beginning of a science-cult; or more basically, of a mind-cult; or still more fundamentally, of a Consciousness-cultus. Is it not strange that among all the cults that have arisen there has not hitherto been a mind-using and Consciousness-utilizing cultus?

The most significant thing about psychurgy is the complete abandonment of the whole cognitive self and person, and of the whole cognostic Self and Person, and of all incentives and purposes whatever, to the conviction that it is to Consciousness alone that we must ultimately look for all that is True, Useful, Beautiful, and Good; for better minds, a truer insight into religion, and for all kinds of practical guidance to everyday life—and it is Consciousness that must do the looking. To set-the-task-to Consciousness and get it to cause itself to cognose (become conscious of) Consciousness and thereby learn to know Consciousness; to learn alethified knowledge about the objective and subjective worlds and apply this knowledge to the betterment

of the local and temporal conditions, and thereby learn from Consciousness itself about things universal and eternal-that is the new Faith which is Knowledge and which at the same time is the only true and real kind of Being and Doing."

So concluded Elmer Gates. In his introductory inscription to the Twelve Volumes he quoted Whitman:

Brain of the New World, what a task is thine, To formulate the Modern-out of the peerless grandeur of the modern,

Out of thyself, comprising science, to recast poems, churches, art,

[page 477]

By vision, hand, conception, on the background of the mighty past . . .

To limn with absolute faith the mighty living present.

And thou America . . . For the scheme's culmination.

[page 478]

"Now surely there lies before the human mind a possibility greater than the discovery of a new, rich, continent—some discovery relating to mental processes vastly more important, capable of doing much more good. Yet if its announcement were made with adequate scientific proof, would it create any rush? I think not. Slowly, spreading first to a few, then to more, then to groups of people; slowly influencing this institution a little and that one a little more—so will such a new truth be received.

"During the history of the world, as far as I have studied it, all great movements and organizations, political or religious, have centered about some philosophical system or belief containing some truth and more error; and the result has been that further progress and knowledge have shown the error, and dismemberment has occurred. If such an organization were to be effected around the inductive truth of science without any admixture of theory, then all future discoveries would be congruous with the organization and it could then be perpetual.

—ELMER GATES, "Introspective Diary," 1899