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CHAPTER 5. FIRST STEPS IN THE CURRICULUM

1st S T A G E

Native mentation to get in touch with the world's achievements to where each originality-line begins to take further steps. It may be called naive because results inventoried were attained before application of systematic techniques.

NAIVE INVENTORIES

Record of original work done to determine originality-lines.

1. CARD RECORD OF VOLITIONALLY ACHIEVED RESULTS

Make a card record inventory of every item of original work that you have done. For this purpose the mind is made to roam over the whole domain of livelihood and business, invention, discovery, and creative work generally, considering briefly every field thereof. Inventory every plan or idea relative to livelihood and money making suggested while looking over a topical list of business, vocations, and occupations. Record every invention and inventional prospect that your mind has made or will make in an off-hand manner when presented with a list of topics. To determine if off-hand curiosity will yield more discoveries go over a list of topical headings of the sciences. To get further insights go over the topical headings of philosophy. To learn if the creative imagination will produce further results, go over a topical list of the subject matter of the fine arts. In the prognosis inventory should go your prospectations, impulses, improvisations, speculations, and a summary of your special problems. With reference to social lines an inventory is made of your successes in extending your periperson among other persons (not counting your immediate family, but relatives if the collaboration is other than a family one). Include teachers, school relations and successes, friends, social recognitions and doings of your own, press notices, favorable or unfavorable comments of others. Include every social achievement.

This card record should be chronologic. No special attempt should be made at this time to distinguish between inventions, discoveries, and creative work. In almost every item these three factors may be blended into a whole, and also blended with

purposes. Record Volitionally Achieved Results, and then try to identify those parts that are *new* and *original*.

Achieved results are the best indication of your strongest impulses-to-do as far as opportunity enabled. Record all accomplished in the way of getting an education and skill, or

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things made, money earned, fame acquired, articles written, pictures painted, songs composed, as character growths, as friends or enemies acquired, as persons benefited, wrongs righted, as trains of consequences started, as politenesses and kindnesses, as good entertaining, as recreation, discoveries, and inventions, as works of creative imagination — in fact anything of which you can say “I accomplished that,” “I did that,” “I enjoyed that.”

A clever bit of dress decoration or ornamentation may not involve invention or discovery in the technical sense, yet it may be creative of a degree of beauty that could not have been attained by a person without an equal degree of creative ability. A person may do a clever bit of architecture or sculpture, or landscape gardening, or pictorial representation, without technically making any patentable inventions or discoveries of new facts or laws along these lines, but the result may give pleasure that would not have resulted from a less degree of creative work. A danseuse may surpass all other dancers in giving entertainment without thereby inventing a new dance or in discovering new laws of dancing — and the same in music, oratory, poetry, fiction, or drama. A person may yield more of himself by doing it artistically and by creatively using his person. At the same time one may invent a new form of fiction or music or drama and one may discover new laws of fiction, new musical effects, and new methods of dramaturgy. One may discover new facts, invent new instruments, and then create out of them a work of art or imagination.

Special Attention to Invention. To determine if off-hand ingenuity will produce still further results in invention or prospection, look over such a list as the “Classification of Subjects of Invention of the U.S. Patent Office, Arranged by Divisions, with Classes and Sub-Classes.” If such a list is not used, one might forget some invention, or fail to try the mind on each topic. Look over the list, item by item, to determine if your mind will quickly and spontaneously make any inventions or prospectations relating to any of these topics, or if anything has been forgotten that has been

previously done. Later on you will not do your actual inventing or discovering by this Classification of Subjects of Inventions. You will use a *classification of the data of the sciences and arts*, which is quite a different thing.

This list of subjects of invention is not a theoretical outline — it is an inventory of all the actual headings under which inventors of the most prolifically inventive country have made actual inventions. It is a list under which your inventions will actually be classified if you apply for patents. The list is poorly classified, but with all its defects it has the very great advantage of having

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grown out of actual use. It evolved in such a way that it has been advantageously modified by demands of countless conditions in our individual and national life which have never been consciously recognized; that is, it is *better than we know*. Nearly three million inventions from every class of mind have given rise to this classification. To create in this list an entirely new “Subject of Invention” would be an event in the history of progress.

2. FOUR CARD RECORDS OF ORIGINALITY-LINES

Out of this first naive card record of original work done should by analysis arise four card records of originality-lines as follows:

A Card Record of Livelihood and Business Affairs

A Card Record of Inventions

A Card Record of Discoveries and Insights

A Card Record of Creative Work

In the livelihood and business record should go everything from which you have made a livelihood or money, or from which you have had a chance to make them, or from which you might now make them. In the invention record place all your patents, inventions, and prospections. In the discovery record should be recorded every discovery and insight which your mind has achieved for itself. In the creative record should go every bit of creative work you have ever done in any of the fine arts, including prospections and prognosis and your definite impulses thereto. Include instances of creative personurgy.

Distribute those items of the prognosis and social inventories among the four card records where applicable. For instance, intentional prospections should be included with the record of inventions. Some items may belong to the card record of purposes

yet to be made. Retain the remainder for later amplification.

3. A CARD RECORD OF PURPOSES

A card record of purposes must also be made. It is prepared in much the same way as the inventories of originality-lines, by making a chronological card inventory of every thing *attempted* as a purpose, and everything you have wished to attempt, or now wish to attempt.

The main originality-lines should constitute the justification for existence of purposes and “purposing”; for true and worthy and efficient purposes of the *highest kinds can arise* out of naught else than genius-capacities or abilities along originality-lines. All other purposes are more or less servile. A person may espouse any given purpose just as he may espouse a political creed, a faith, a philosophy, or a friend. It follows that one’s genius-capacities and abilities and opportunities are far from being the sole factors in determining a life career, because it is

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the purposes that determine which ones are taken up. It is only in the light of *all* purposes of a person that it can be deduced which one of his genius-capacities, abilities, and opportunities will be carried out.

The few purposes that will actually be carried out must be selected, *livelihood* first. The start must be made with those purposed capacities which are dominant at the time.

A purpose which is normal to you cannot be invented, adopted, or forced; it must be *found* in your very disposition and predilection — it should be the dominant expression of your nature. Your psychologic problem whereby you make your self *fully* efficient, and your life problem by which you may find self-expression and live *your* life, center around the highest purposes relating to your genius-capacities and abilities and made possible by your opportunities; purposes systematically selected and which may therefore be accomplished. Your purposes and originality-lines should correspond insofar as the purposes relate to genius-capacities and abilities; at least the main purposes should not conflict with the main genius-capacities. One purpose should be livelihood making, another may be invention or discovery, another may be creative work in some of the fine arts, another may be organizing persons, or parentage, or citizenship, or sport, or

religion.

Your abilities are wider in scope than are the actual opportunities furnished you by the world to exercise them, and your opportunities are wider in scope than are the actual livelihood sources which you will have time to learn and carry out. You will have to select a few purposes, learn and carry them out to the extent of actually getting a livelihood therefrom. The successive List of Groups will organize your purposes and are steps in your purposing.

It will be noted in the section on Livelihood and Business that the selection of one's natural vocation and best occupation should precede every other preparation for livelihood and business. The fundamental principle of selection is that it shall be done by a systematic study of one's "primary responses" (to the Cosmic Process) consisting of predilections and genius-capacities, and of one's "secondary responses" consisting of impulses-to-do and purposes. To this end the card record inventory is made, including Volitionally Achieved Results and Assumed Purposes. No matter how complete a development may be of genius-capacities, it is only the carried-out purposes that bring any part to intended fruition.

Those purposes which you have already carried out constitute your Achieved Results, and from them your genius-capacities and purposes may be largely determined. It is necessary to select

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and classify those purposes which you will actually carry out. A person without such a record is like a department store without a bookkeeper, a builder without a plan. This record, classified, may be considered as bookkeeping applied to one's mental debits and credits.

A man may work patiently and faithfully all his life and be a helpful assistant, rear and educate a family, be an honorable citizen, and yet be deeply unhappy all the time because he has failed to realize his meaning to the world, because his genius-capacities were suppressed, untrained, unused. Such a man will fail to get the joy of labor because he will not have labored at his predilections, his personhood will be retarded, and the world will lose the new things in knowing, feeling, and doing which he might have brought to it.

4. A CARD RECORD OF INCENTIVES

You will need to organize your appetites, feelings, emotions, and sentiments in relation to your livelihood and other purposes, for they are the incentives, the prime movers, the energy furnishers. Make an inventory of them, and classify as well as possible. Keep this list of incentives where it will be considered with the other lists, and extend and improve at every opportunity as growth occurs. This practice is a subject to itself.

The Livelihood Problem and Purposes. It should be everyone's desire to make a livelihood, not merely for the convenience, which is great, but also for one's self-respect. Not merely because everyone should be productive in some useful line of work, but the making of a livelihood is the most direct and practical step towards establishing in the heurotechnical sense a purposive relation to the world; it is the most practical first step in the art of doing.

Your total problem of self-development is bigger than your livelihood problem and is concerned with the systemization of your person, periperson, and organism in reference to *all* your purposes. Under its guidance your self builds your person anatomically and psychologically, but not a single one of these activities could exist without the direct and constant help of your total environment. The organism by which your self accomplishes its "selfing" is your person *plus* your environment. The environment as a unit comprises your person and self as one of its multi-myriad parts. Not only will your self be called upon to organize its person but also its local environment with reference to each one of your main purposes, beginning with your livelihood purpose; an organization and functioning of *all* your purposes and capacities, selfial and social, personal and environmental. It is by having all these functionings *going on* and then accentuating one of them at a time that you will attain success. That self which

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is you, uses your person and environment as its tool.

To one who already has a fortune or income some other line of competitive struggle must be taken as a first step to heurotechny; for example, his predilective fine art, or personurgy, or political career, or something of that kind.

Ordinarily a livelihood may be easily made if greater interests do not, too early in life, completely enthrall your attention and

usurp your dominancies. Dominancies arise out of your real predilections and are backed by your actual incentives — you cannot arbitrarily change them. You may inhibit them and take up the second best, but that is already failure. Nevertheless, you will always be concerned with your livelihood problem. Living expenses alone, however, are insufficient. To a person of genius it is deplorable if nothing further than a livelihood is provided, because genius will thereby be led to attempt only those of its insights which can be carried out without experimental research, without travel or recreation, without expense. The most convenient and natural way for making a living is to sell or barter products of one's genius-capacities or abilities as directed into creative work by impulses-to-do and opportunities.

Demos is a many-headed giant, having heads to the number of over two billion and four billion hands and feet and his enormous labor must be carried out each day. You are one of those heads and two of those hands and feet, and you cannot without injury to yourself, shirk your part of that work. When an organ in an organism ceases to function, it atrophies.

You must help others do their work, or you must regulate workers, or you must discover or invent or create — and the greatest creative work you can do is to make yourself of great character. Whatever you do, if you do it well, will be done well because it belongs to your originality-lines and purposes, and it will make you happier than anything else and do the world more good.

5. THE DAILY MENTATIVE RECORD

If you are not already practicing this useful method, start this daily record as described in The First Lesson of Chapter 3.

FIRST LIST OF GROUPS

World's achievements which anticipate priority.

6. INVENTORIES OF WORLD'S ACHIEVEMENTS IN ORIGINALITY-LINES

After your lines of originality have been determined with approximate accuracy, from your inventory of original results, an inventory is made of those things which most nearly or altogether anticipate your priority in any line. This inventory is called the First List of Groups. It is a tabulation of the state of the

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world's progress along each one of your creative lines insofar as they encroach upon your claims to have been the first to invent, discover, do, or feel certain things. It shows the conditions of the world's knowledge, skill, and achievement in any line just *previous to the new step* taken by your originality. It does not concern itself with any of those things in the world's previous achievements which have no direct bearing on the determination of your degree of priority.

This First List of Groups in Livelihood and Business will be an inventory of all instances in which your ideas and plans for making money were previously *put* into practice by others.

This First List of Groups in Invention will inventory previously described or patented inventions in the prior art. At first this will be a small list, but it will grow from year to year as long as you continue to invent because whenever an invention is made the Patent Office records should be searched to learn if the alleged invention is new to the race or only new to you.

The First List of Groups in Discovery will be an inventory of previously described discoveries and insights, as ascertained by a search through the general and special text books and histories of the sciences and philosophies.

The First List of Groups in Creative Work will be an inventory of previously described or exhibited works, such as works of the creative imagination in literature, in the fine arts, or in personurgy. This information must be learned from the general and special histories of literature and the fine arts, from museums, and from the "Lives and Works" of great persons.

In the Prognosis List of Groups inventory the world's accomplishments or predictions or wants or hopes or aims which tend to affirm or deny your views.

In the Social List of Groups place those affairs and organization plans and social accomplishments which most nearly fit your successes.

The World's List of Groups. The World's Lists of Groups is the world's "State of Achievement" in each line — and these inventories comprise all books in all libraries and all the creative works of humanity in all architecture and museums and in all existing social institutions. The world's inventories of inventions and scientific knowledge are relatively compactly epitomized in

patent offices and scientific libraries as compared to its records in the other lines, but there is ample room for greater epitomization in even the former. The world's knowledge is now buried in millions of volumes of printed matter that consists mostly of repetition and of obsolete and untrue statements. The modicum of truth contained in all literature and records needs to be gotten together, experimentally re-observed, re-validated,

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and psychologically classified — then we will have the world's First Complete List of Groups.

The student's List of Groups will consist of only that very small part which has anticipated his priority.

7. SPECIAL INVENTORY IN TWO MAIN LINES OF INVENTION

Having determined with approximate accuracy your originality-lines, and having obtained a preliminary glimpse of what the world has done along these lines (from your First List of Groups), you should pay especial attention to what the world has done insofar as it affects the patentability of your inventionally developing prospections.

When the mind takes up work along any given line without knowing in a general way the state of the art in that subject (branch of human activity), it is almost certain, if it have any originative ability, to waste much time and money in re-inventing what has already been invented. If it were to keep long enough at the task it would re-invent most of the steps along that line that have already been taken. It may be interesting (to a teacher or pupil) to know that a mind can invent, but there will be no money made by such efforts, and the world's progress will not thereby be advanced. It is of psychologic interest and of scientific value to make a study of what a given mind may re-invent, but attention to this matter will not help towards actual livelihood making — in fact, it is one of the most hampering of the *trammels* that confront every inventor.

It is not merely a waste of time and money to re-invent things. While re-inventing steps that belong to a bygone past the student is not being trained in the knowledge, skill, and demands of the present, which is a serious loss. It is the inventing of the next steps in human progress that is so important a training. It is an irreparable loss to spend the *formative years* of one's genius

development in re-doing what has already been done, when instead those genius-capacities might have been accustoming themselves to doing the *uniquely new* things which are the natural fruitage of a genius that has caught up with the world's progress in his own day and generation. There is not merely a *loss* in re-doing things by re-traveling the ruts and roads that led to past progress, but also *injury* to the genius-capacities if the mind is not caused to take the roads that lead to present progress. There are many other reasons of like importance, but the main one now is that these new methods of heurotechny demand that the student avoid re-doing what has already been done and accustom himself to methods of doing that which needs to be done next.

The state of the art relating to all lines of inventions is too large

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for anyone to remember, but it is practical to look up and remember that state of the art with reference to each invention or group of inventions that one has actually made, and it will not be a loss of time — it will save much time.

It is an immense advantage clearly to recognize the effective way of doing any thing that needs to be done, for until then every effort is made at random. There are many psychological reasons for each heurotechnist to know what has been done *in those special domains only* wherein he is doing “heuristic” work. When a new and original result (“Heurid”) is achieved he feels in duty bound to learn as quickly and completely as possible what the world has already done in that line, in order to avoid spending time and mistraining his mind in re-doing those things, and so he may spend his time and his mentative training in doing the things that are on their way.

Make a Chronologic Inventory of the State of the Art Relating to Each One of Your Inventively Developing Prospections and Inventions.

It will obviously be of great practical advantage if your inventions come in groups, for you can more easily learn the state of the art for a few than for many groups, and it will be less difficult to keep up with them. Many of our greatest inventors worked in only one domain, such as Edison and Tesla in electricity, and then in only one part of that domain. It will be a task to keep up with the monthly progress even in one group, although it will not be as much of a task to get at the patented state

of the art in that line.

BEWARE OF MANY GROUPS. Unless your inventions in the additional lines (from the one main line) are of strictly first-class importance, do not have more than one or two such lines, and let them be as nearly related as possible. This is one important rule to follow.

Another important rule to follow is this: by preference develop those one or two main lines which relate most nearly to your main genius-capacities and to those sciences and arts of which you have the most knowledge and skill.

A third rule is to develop those lines first for which you have the best opportunities for getting the money to handle them.

It will require an inventive genius of extraordinary ability and fertility to do first-class inventing in more than two mainlines.

For the one or two *main lines* of your inventional activity and with special reference to the inventions which you have actually made, prepare a list of data from history and from granted patents and from technical literature of that subject that cover the same or nearly the same ground as your inventions. Do this in order (a) to know just what part of your work is novel, and (b) to learn the terminology of the art as it is used in the Patent Office

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and the literature, and (c) to make a list of the state of the art in prospecting relating to these inventions. You will need this special terminology later on when you make your Word-Groups.

To learn the state of the art along any given line or relating to any given invention it will be necessary to study and accumulate an INVENTORY OF DATA relating to that line and invention. Commence with (A) the *early history* of that subject and trace it chronologically up to the era when patents begin, recording any fact which relates to your invention. Then make (B) a careful study and record of the steps in the development of the art and its devices as exhibited by the *patents* in the patent offices of the world. Next make a chronological inventory (C) of the steps in the *unpatented* progress of that art and industry as disclosed in the technical literature of the world and as published during the era of patents.

The world's Achieved Results along any line are more numerous than its patents in that line, because a larger part of the art does not reach the Patent Office, and discoveries cannot be patented. The successive steps in the state of the art in any

industry have to be learned not only from its patents but also from its technical literature and from the details of actual present practice. Often the more important steps are not patented.

8. INVENTORY OF PROSPECTIONS IN INVENTIVE LINES

Make a Chronologic Inventory of the World's Prospections
Relating to Each One of Your Inventional Originality-Lines.

Such a study of the whole history of a group of inventions as the one above outlined will disclose not only what the human race has already accomplished in that branch of activity but also what it aimed to accomplish and still hopes to accomplish (its defects and needs). The fulfillment in any instance has not measured up to the ideal; and an inventory without repetition of all that the inventors and writers of the world have hoped or intended to accomplish, including the defects and needs recognized, constitutes the state of the art of *prospections* of that invention or group. A prospection is a conscious recognition of the “demands of the opportunity” with an insight into the inventive way to accomplish it. The age may need things which no one has recognized, but until it is recognized and a method suggested for accomplishment, it is not a prospection. A prospection is an advertisement of WANTED, issued by the then actual stage of development of any art or industry, with a suggestion as to how to supply that need.

While making the inventory of inventions and of the history of the related art you should also make a careful and classified collation of the *prospections* from the early history, from its

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patent specifications, from its technical literature, from familiar interviews with those who are doing the work along that line and from your own skillful use of those devices (which requires a laboratory). Every true criticism contains a *prospection*; every prophecy is one. Technically, a *need*, a *defect*, or either one with an inventive suggestion for a solution is a *prospection*.

The recognition of a need in any inventional line indicates your probable tendency to invent along that line, but if anyone has written on that subject you will be apt to find that you were not the first to recognize that need. But if you were, it is an important datum in deciding upon your activity-lines. Whether or not you were first, if your mind gets an idea of how to supply that need by some device or process, you will have a *prospection*. As various

inventive means are thought out you are inventively improving your prospection, but it will still be a prospection until it is determined if it is patentable and if it will work. Until then, it is an *inventively developing prospection*.

A prospection may have part of its details experimentally turned into an invention and part of them may yet be inspections. A prospection is not yet a thing that can be handled or shown, but it may be capable of being made by someone skilled in the art. An inventively developed prospection is sometimes so obvious that there need be no doubt about its working, but it may be too expensive or otherwise not commercially practical. Only a small number of patentable inventions are commercially practical. Only a small number of inventions made in answer to a prospection are really the best solution. The first step is a prospection; this is the prospector's stage. The inventor is a "prospector" in the mind for inventional ideas when he is hunting for defects and ways to remedy them and testing the ways he invents. He succeeds when he gets a patentable invention that can be sold at a profit in competition.

To know if it is a prospection or not, ask this question: Can it be patented? Obviously a patent cannot be obtained for a mere defect or the mere "need" of a remedy. You cannot begin to consider its patentability until you think out a method or process or invent a device. The desirability of a remedy for a defect is not, technically, a *need*. The great highway of the air offered great opportunities for travel for a flying machine. There was no defect to be remedied, but there was a need for the airplane. In one sense it may be said that the defect was in other modes of transportation, but there are needs that do not so directly rise out of the background of a defect. We may desire another playing of a musical composition or another joy, not because the former were defective but because we want more and different experience.

Steps in Development of Prospections. Defects and needs are

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precursive of inspections. To be the first to recognize them has great heuristic value, but it is not easy to determine priority, as there is no patent office record of them. It is not profitable for a student to record the first time he recognizes the many common defects and needs which he encounters, because everybody notices them,

but to be the first to notice a defect that has hitherto been unnoticed is important, and to be the first to notice a need is important, because the next heurotechnic step will consist in an inventive way to remedy the defect or supply the need, constituting a prospection. The third step will consist in inventively developing the prospection (thinking out the method, devising the devices, looking up patentability, writing out specifications). The fourth step consists in making a working model; the fifth in finding a business opportunity; the sixth in commercially testing it; the seventh in negotiating its sale or putting it on the market.

Prospections which are *not new* should all be placed in the preface to the First List of Groups of Inventions, now or at any subsequent time.

9. INVENTORY OF BUSINESS OPPORTUNITIES IN ORIGINALITY-LINES

What Is A Business Opportunity? If you have inventively developed a prospection which you think is worth time and money to find out if it will work, and if you have the time and not the money, then you will need to find the money. You may have to hunt a long time and not find an *opportunity* to get it. You may hear of a man who is anxious to invest in something of that kind, but when you meet him he may say: "I invest only in patented inventions that I can see work." It was not a real Business Opportunity. You may then patent and make a working model and send for your friend, thinking that now will be an opportunity to transact business. Your friend, after seeing the patent and the working of the model may say: "Since last I saw you I have put all my available money into the development of a new railroad." You have not yet found a Business Opportunity. You may take it to a large company already engaged in that line and they may recognize the value of your invention but may not wish to change their machinery or methods. They may be selling all they can manufacture and may not offer you a deal. A little later, the same company fearing that you might make a deal with someone else, may offer \$10,000 for a 51 percent interest, intending to get control and "pigeon-hole" it to throttle competition. Now, although you might make a deal, this would be a spurious or fake Business Opportunity as it is designed to prevent the commercialization of your invention. Feeling in your heart that something is wrong about the offer you still wait for a real

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Business Opportunity. Finally a responsible man will make you a bona fide offer for control of the world; another may offer for United States rights; a third may offer to buy outright; another will offer to go into partnership with you. Then you will have four Business Opportunities, by means of which you can get still better offers, if your invention is worth it.

The Business Opportunity of a heurid is a very real thing, and intensely practical. It is part of the heuro-technical problem to learn how to study the world so as to find and create Inventive Business Opportunities, Discovery Business Opportunities, Creative Business Opportunities, and so on.

There are “special” and “general” Business Opportunities. A special is an actual opportunity to transact at once a bit of business with a particular party. A *general* exists when there is a constant market for a given commodity if it can be made cheaper or better or both, providing it can be gotten to actual markets without critical opposition (transportational, legislative, competitive). That is, a general needs to be turned into a special before investing in it. For any given line of invention there are certain opportunities for a deal (a) with persons engaged in that line, or (b) with persons not engaged therein; and these opportunities are limited to certain persons and places; the possible deals have a certain magnitude, have to fulfill certain kinds of competition and opposition, and all these facts are just as important as any other, and should be just as carefully inventoried and studied.

Make an inventory of your Business Opportunities in originality-lines.

Inventions Should Rise From Opportunity. This First List of Groups, with its Inventories of Inventions, Prospections, and Business Opportunities, needs to be mentated in order to make new inventions, to discover new prospections and new business opportunities. Every newly recognized world’s special business opportunity and every study of the general business opportunity will lead to a recognition of new defects and needs or to the reconsideration of well-known ones. This step will lead to the inventive development of them constituting prospections and a study of prospections will lead to inventions. This is the safest way, to let them rise out of the *opportunity*. The less safe way is to let one’s ingenuity roam at will and make an invention and then try

to find an opportunity for it; often none can be found.

Importance of Determining Originality. What is originality? What is a heurid? A study of the Naive Inventories and First List of Groups to determine from the state of the art out of which each alleged heurid emerged just to what extent it had been anticipated gives a good definition of originality. It is that which

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has not been done before and which is also new in knowledge, method, and conception. Now the very study of the state of the art produces a stimulation of the ordinary ingenuity, giving rise to further original work along originality-lines.

A *heurid* is any original discovery, invention, or bit of creative work; a new feeling or thing or purpose. It is something new and true; it is not a heurid if not true. A heurid may be new to the individual but not new to the race, indicating heuric ability and establishing the existence of an originality-line. In almost all cases it is necessary to constantly remind the beginner that a heurid is not to be found in every idea, prospection, invention, and bit of creative work that the mind thinks is new. For instance, a prospection is a much more rare occurrence than a new invention. Under any prospection may come numbers of inventions, from year to year. A really new prospection is quite an achievement.

Be careful on this point. A prospection that is believed to be true is very apt to have gotten into the mind by reading or hearing about it, and the same is true of any other heurid. An idea that is new to you is not necessarily new to the world. Only after you know all the world knows along any line will your supposedly-new ideas and feelings and doings along that line be apt to be new.

The heurotechnist cannot afford to allow his mind to get in the habit of not remembering or recording whether an idea is original or not. On this matter of originality you cannot be too cautious; otherwise you will give your time and attention to the development of an idea that is not new. In going over his diaries, the author frequently re-invented or re-discovered things and wrote down his new ideas with great enthusiasm, subsequently to find that he had done them five or ten years before. This happened nine times in twelve years, but never with an invention or discovery that had been properly classified or upon which he had experimented, only with a new idea which was momentarily in his attention. The surest safeguard against this loose habit of mind is to classify and

write out in systematic exposition the new idea. If you do, you will soon get something like an adequate appreciation of the real difficulty involved in getting a new idea; you will acquire a conscience about the matter, so you would no sooner steal your friend's bank account than to appropriate his discovery or any of his creative results.

The habit of not knowing your mental offspring and of adopting as your own those of others will not only lead into tangled relations with your friends and co-workers but will make a true study of the psychogenesis of your heurids impossible. A datum not your own will mislead; an idea that you did not originate will

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give false clues as to your originality-lines. and development tendencies and will greatly limit your original work.

The practical extent of your Inventory of Business Opportunities may be limited, but the practical value of your Inventory of Prospections and Inventions and Creative Work as a guide to heurotechny cannot be estimated. The more complete and accurate they are the more valuable they will be to your work. If you fail to record a *single* prospection or invention or bit of creative work, you will fail thereby to bring your *whole* mind to bear on your livelihood and business problem. If you fail carefully to go over the whole ground of the world's relevant state of the art you will soon find yourself spending time and money on what has been done before. The mind is prone to follow the footsteps of humanity's mind.

In absence of this exhaustive inventory of the state of the art, you should carefully read the Patent Office records and technical literature relating to your subjects. It may be said that 98 percent of your inventive ideas are almost valueless unless they arose in your mind after a study of the state of the art.

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Originality in heurotechny is the modus operandum of progress—the heurotechnist is a Bringer-to-Pass.

Resume of First Stage. The foregoing procedure puts you in

touch with all that part of the world's achievements which lead up to the point where, in each one of your originality-lines, your ontic (new to the individual) or phylic (new to the race) originality begins to take further steps. The concrete result is the First List of Groups which is an inventory of those things which most nearly anticipate, or which have entirely anticipated your heuric priority. It is a tabulation of the state of the world's progress along each line insofar as they encroach upon your claims to have been the first to invent, discover, do, or feel certain things. It shows the condition of the world's knowledge, skill, and achievement in any line *just previous to the new step* taken by your originality.

No modern speaker or writer can afford to be ignorant of what has previously been done by others in the domain about which he would teach, because it conduces to lack of confidence in the student and one-sidedness in the teacher. No student of heurotechny can afford to waste time and money in re-doing what has already been done; it is not the time lost that is so deplorable, but it is losing time out of that part of the student's life when his Originality-lines should be producing growth.

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One of the principles of this technique is that *all* of the heurid and all business opportunities need to be recorded in these inventories so that the mind's original activity (heururgy) as a whole may grow and functionate. On a farm various kinds of crops are all growing simultaneously, but ripen one by one at different times; all parts are growing at once. It is desirable, likewise, to inventory all kinds of heurids and then develop one kind at a time until the brain gets tired and interest lags, and then change to another kind, or rather the mind will change of its own accord. It will be able successfully to make such a change because *all its crops have been busy growing in the meantime* and other kinds of crops are ready to be harvested. There are important heurotechnical reasons for keeping each group of each List of Groups up to date and before the attention.

2nd S T A G E

Naive ingenuity applied to originality-lines.

SECOND LIST OF GROUPS

(FIRST STEP IN LINGUISTIC MENTATION)

Data in mind re[garding] predilections.

10. RECONSIDERATION OF FIRST LIST OF GROUPS AND PURPOSES

Before taking further steps, the First List of Groups should be reviewed and reconsidered to determine if each one of the groups is complete insofar as off-hand and spontaneous ingenuity is concerned, if it is carefully written, and if like subjects are segregated. The *purpose* of this reconsideration is to obtain all the most easily identified heurids resulting from predilective interests. Many of these may perhaps be much under-developed, and the more specialized methods of mentation required to mature them will thus be applied only to subjects falling naturally within the genius-capacities.

This enlarged list should include your original work and conceptions and feelings in every one of the six domains of heurotechny: Livelihood and Business; Invention; Discovery (and Insights); Creative Work; Prognosis; and Social. It should include all that your ordinary ingenuity and newness of individual standpoint (and inspiration of conversation if you have a teacher) will enable you during the time devoted to this period of training to contribute thereto.

Reconsider the List of Purposes and bring it up to date with your new data and feelings. The Lists of Groups themselves will begin to comprise your main purposes.

11. UNDERSTANDING OF DEVICES AND PRINCIPLES. Try to understand every mechanical device and physical principle involved while still working on the list of prospectations and

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inventions.

12. SEGREGATION OF LIKE SUBJECTS INTO GROUPS. Put all like subjects into the same groups according to their natural likenesses and differences, regardless of theoretical or linguistic reasons to the contrary.

13. NAMING OF ITEMS AND GROUPS. Give to each item and to each group a name. Most of them if not already named can

usually be given a distinctive name of one or two words. Seek a descriptive or general term for each topical group.

14. SUMMATION INTO THE SECOND LIST OF GROUPS.

Incorporate results into the old First List of Groups to enlarge it into a new or Second List of Groups. All predilections and originality-lines and all purposes will be named by the topics and sub-topics of this list.

This list should ever after be kept up to date with your own thinking. It should be neatly typed and as compact as is consistent with legibility. This Second List of Groups should be completed before further steps can be taken.

This eliciting the original mental content, naming and grouping it may be considered a FIRST STEP IN LINGUISTIC MENTATION.

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